

10 points for a Successful Hospital Masterplan

1. A shared vision
A vision that the community, clinicians, patients, managers and staff all agree to support through the delivery of the masterplan. The vision will develop naturally through consultation. The chief will need to provide strong leadership to establish both the vision and a consensus around it.
2. Realist but flexible
Strong simple concepts and organisational structures that allow a series of robust decisions and priorities. A strategy that can evolve over long term, sustainable development of the site.
3. Three dimensional
A 3D framework that enables the development of the site, buildings and spaces that will be delivered.

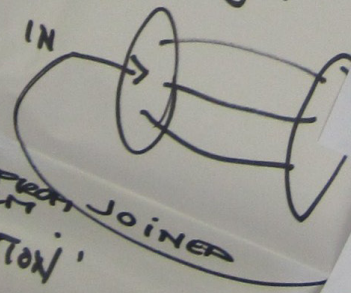
Commissioning Healthcare Developments

a brief guide for Project Board / Steering Group members

improvement
 shared spaces
 To promote community
 shared streets usable by multiple process.
 weighting

DAYLIGHT EVERYWHERE
 LIGHT OPEN FEEL
 VIEW OF 'GREEN'
 VISUAL CONNECTIVITY FOR 'OBSERVATION'
 LOOKING LIKE A TAXI
 PROFILE - SCIENCE

efficiencies → e. greater knowledge to
 (learning/recreation) → knowledge to
 for life transfer/training.



2. NON-NEGOTIABLES FOR STAFF

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Commissioning Healthcare Developments

a brief guide for Project Board /Steering Group Members



A development project, whether resulting in a new building or a significant alteration to an existing one, is the process of imagining a better future and then making it real.

Many people who are asked to be on a Project Board or Steering Group for a development project (for a new or substantially changed healthcare facility) will not have been clients for a building project before and can feel bewildered by the process and how best to engage in it. However, effective leadership from the service is crucial if the project is to realise benefits to the service.

To play your part in leading this process you do not need to be an expert on buildings or procurement and finance. However you will need to have an understanding of the context in which you are working and the crucial points that are likely to make a difference to the success of the project, and gather around you a team with expertise in delivering exemplary healthcare environments.

This leaflet is a short reference guide for those new to this role. There is also a brief guide for people who are members of stakeholder groups, but who are not taking a leadership role in the project.

(left) The West Centre, Drumchapel Family and Child Centre
NHS Greater Glasgow and Clyde

1.0 The role of healthcare professionals in leading development projects.

Often the impetus for a project is when an existing facility becomes no longer tolerable either due to its physical condition or the way the service has changed since it was built. However, a project that is simply asking for 'what we have at the moment minus the problems' is unlikely to be prioritised for funding. New modes of healthcare, an increased focus on the patient's experience, and the drive to joined up services across providers mean that the way we structured services and therefore designed buildings previously are no longer suitable – we cannot simply repeat the design of something that was done before, even if we could find a site so similar that it would accommodate it. A project to replace or reconfigure a building, or build new for a new service, is the result of a process of change management; of refining and shifting the way that care is provided and removing obstacles, both in service structures and building fabric, engendering an atmosphere of progress that can be carried into the developed facility.

In this, the design of the facility is not a luxury add-on or a nice thing to do if there's time and money – the design of the facility fundamentally impacts the operation of the service, the health and wellbeing of the people within the building, the impression of the service within the community and the financial and environmental cost of the service. It can even make a difference to the overall impression and regeneration of a community. Talking about the design of a building, therefore, is not merely about what the building will look like, or what it is made of; design is the way that the building is put together and arranged to enable it to deliver the services it needs to efficiently and sustainably both now and into the future. The way that the building is organised and laid out has a critical impact on the way



that it is used, and the environment in which its staff and patients interact.

Ultimately design impacts the cost of providing services as simple aspects of the building design (such as positive initial impression, daylight, views, ease of navigation, links to nature) have been linked to improved patient outcomes such as:

- lowering stress and anxiety, increasing likelihood of seeking help and accepting treatment,
- lowering perception of pain and use of analgesia post-operatively and increasing discharge rates,
- reducing incontinence episodes in patients with dementia, affecting both mood and nursing workloads,
- reducing aggressive episodes in mental health settings, decreasing nursing workloads.

And of course redevelopment can offer other opportunities such as rationalising space use, streamlining services and increasing the building efficiency in terms of energy usage reducing both financial and environmental costs.

As part of the project board or steering group it is your responsibility to ensure the project makes the most of these opportunities.

The process of realising these benefits can feel both lengthy and time consuming, however without the investment of time and expertise by key people on the project board/steering groups and the wider stakeholders, the resulting facility could fail: either fail to support the service or even fail to happen. Your role, therefore, is important – it is to provide both leadership and direction to team building that better future, and ensure that the process you undertake keeps its focus clearly on the outcomes of the project within the myriad of procedural and audit demands that exist within the public sector.

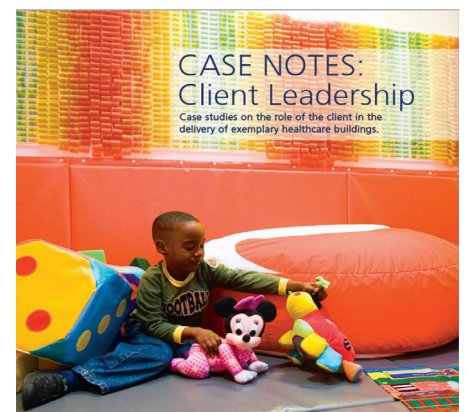
It will require both your professional expertise and your authority and commitment to making time for the project both in your own diary and in others. Space must be given in the project process to allow expertise that other stakeholders have of their own disciplines, or the expertise that comes from being a service user, to help inform and test the developing project, and sufficient time for the design to creatively synthesise these perspectives. Importantly it will require a willingness and ability to see things from others' perspectives and to develop a shared vision.

...further reading on clientship and the context for development...

Case Notes : Client Leadership – Case studies on the role of the client in the delivery of exemplary healthcare buildings
<http://www.ads.org.uk/resources/4163-case-notes>

A Vision of Health : NHSScotland's agenda for realising value in the developing healthcare estate
<http://www.ads.org.uk/resources/4164-a-vision-of-health-2>

Commissioning Excellent Buildings – online guide – Principles of Being a Good Client
<http://webarchive.nationalarchives.gov.uk/20110118095356/http://www.cabe.org.uk/buildings/client-principles>



2.0 The Business Case



The business case process is the way in which the project team develops and presents the argument for the building works. For most significant projects to happen this argument must be convincing to both the Health Board and the Government, demonstrating that the project is led by service change and will use the design of the facility to improve efficiency, patient and staff wellbeing, and sustainability.

It is developed in three stages:

- **An Initial Agreement (IA)**, which establishes the principle that change could be beneficial and is worth exploring. It describes how the project fits strategically into the Health Board's service delivery plans and a broad scope of the options to be considered in the next stage.
- **An Outline Business Case (OBC)**, through which the options are investigated in terms of benefits to the service, deliverability and affordability. At the end of the Outline Business Case stage there should be a clear route forward, a sketch design of the physical alterations or new facility to show the feasibility of that option and some reasonably reliable costs. The benefits criteria and the way these will be tested post occupation will be well established.
- **A Full Business Case (FBC)**– this develops the information at OBC further and, once the process of approval is completed, results in a commitment to carry out the works. At FBC stage the design of the facility should be well established and the costs - both in terms of building and operating the development - well fixed.

Each business case is presented in the form of a written document which, depending on the stage, scale and complexity of the project can be a few pages or a few hundred. A business case is most likely to succeed where there is a clear need for change and the change that is proposed is likely to result in improved services, efficiency and outcomes both within the commissioning health board and, increasingly, in relation to partner organisations. The improved outcomes should also consider the broader impact of the investment being made in the community.

The written document must go through approvals processes both within the board and, for larger developments, also the Scottish Government's Capital Investment Group (CIG). This is primarily a financial approvals process, but in order to make the case for that finance the project must show the service improvements it will achieve, and how the physical development will support those.

There is one final stage, **evaluation** – both **Post Project Evaluation (PPE)**, learning the lesson of how the project was delivered, and **Post Occupancy Evaluation (POE)**, learning the lessons of how the building is performing in supporting the service, the extent to which the expected benefits are being realised, any additional or unexpected benefits and any transferable knowledge. These must be carried out and the results circulated both within the board and to the Health Directorates to help inform subsequent development projects.

*...further reading and sources of information on the **Business Case Process**.....*

Scottish Capital Investment Manual (SCIM) website

<http://www.scim.scot.nhs.uk/>

3.0 Developing the Brief

The brief is the most important element that you will contribute to as, ultimately, it describes exactly what you will be asking the design team and builder to deliver. It is likely to be developed in a number of phases, each time only to the level of detail needed for the stage the project is at. Initially discussions are likely to be quite strategic and broad brush just looking to get a feel for the scale of change and the nature of the facility that might support that. It is important at this stage to not fixate on any one ‘solution’, but to stay open to possibilities. As the project progresses some of this work may be revisited to check that it is still relevant (for example the assumed size of the development is likely to be refined through the course of a project) and to refine requirements as each part of the brief is tested against a number of other factors including the site options (particularly as options of extension/reconfiguration are tested against new build possibilities). Inevitably this refinement will require some creative thinking or re-examination of how the core intent of the project might be realised; for example until you start to draw the spaces needed onto the site it is not possible to know if all the desired adjacencies can truly be achieved.

The areas of briefing should become more detailed over time, moving from what is it for and where might it need to be to where might the basin need to be. You will be supported in this by a range of people, from your own estates department, through specialist consultants such as healthcare planners to the architects and other design and construction professionals who will take on the basic brief and mould it into a development proposal.

Once the basic service intent is established, and it looks likely that this will require a change in the buildings needed to house the service, you should develop a Design Statement for the facility. These are part of the NHSScotland Design Assessment Process (NDAP), carried out by Health Facilities Scotland and Architecture + Design Scotland and are required for all projects over the delegated value as described in the Scottish Capital Investment Manual, and recommended for all projects below that level. A Design Statement is a crucial part of the briefing process. It sets out the basic objectives for how the design will support the people affected by the development - patients, staff and visitors - and how the board will realise wider benefits through the investment in the community. The Design Statement is a means of setting out the Health Board’s objectives for the project in a series of agreed statements of intent and then defining benchmarks for how the physical result of the project will help deliver those objectives. It then describes a plan of action for how the objectives and benchmarks established will inform key decisions throughout the project. This document will then form the basis of how the developing design will be assessed at the business case points, acting as a means of checking if the developing design is meeting its original intentions and aims towards its users. This Design Statement is assessed prior to the conclusion of the IA stage by the NDAP to establish it is in line with policy expectations, and advice is given to the Health Board to inform their consideration of the IA. This advice is also copied to the Capital Investment Group (CIG) within the Scottish Government to inform their consideration and prioritisation of the project.

At later stages the emerging design is then assessed against the requirements and standards in the Design Statement and related healthcare specific guidance primarily as part of the Board’s own self assessment, but also by the NDAP in order to provide advice to decision makers within the board, and the CIG, regarding the extent to which the



(below) A Design Statement

EXAMPLE DESIGN STATEMENT
 Introduction: The facility will provide a platform for integrated service delivery between health, local authority, and community care, both between service delivery bodies and the community they serve.

THE NON-NEGOTIABLES FOR SERVICE USERS
 The facility must encourage free and easy use by local people to promote anticipatory care, user focus predicated on the following:

Agreed Non-Negotiable Performance Criteria (Investment Objective / Customer Quality Expectation)	Benchmarks (The standard to be met and for)
1.1 Site: the facility must be in north-west Cityburgh – within the community of Nethyway. To encourage use it must be in a prominent position where local residents come across it as part of their normal journeys around the community.	The facility should be visible from High Street. If this is not possible, the facility should be visible from the community of the community shopping centre.
1.2 Perception and approachability: The facility both in its external appearance and contribution to the public realm, and its general form and feel, must be welcoming and engaging. <ul style="list-style-type: none"> It must embody and convey the ethos of a friendly, co-ordinated, competent and integrated resource - not an alienating or austere institution. It must be a positive addition to the neighbourhood – an affirmation of the value the commissioning public bodies place on the people of the area – and be designed to reflect both the service and the constituency it serves. 	
1.3 The facility will – by incorporation or close proximity with other existing or planned facilities - realise the benefit of complimentary services to: <ul style="list-style-type: none"> increase the number of people aware of or visiting the facility beyond those currently accessing services, increase the perceived accessibility of the facility increase the amenity available for service users. 	
1.4 User access: Most service users will come from the local area (within a 1km radius). Many will be able to walk to the facility but others, due to the transport condition or the nature of the treatment will require transport from home. Many will be accompanied either by cars and/or dependents.	Public transport: bus stop within 75m Disabled parking, drop-off and taxi Parking for patients and those accompanying them Secure buggy parking will be needed
1.5 Main entrance: the entrance must be clearly identifiable and designed to be welcoming and to lower stress. If (due to site conditions or other factors) there requires to be	
1.6 Wayfinding: the user journey within the building should be unambiguous with clear and legible wayfinding. Key considerations are: <ul style="list-style-type: none"> A welcoming and reassuring appearance Good use of daylight and links to nature There should be a single reception point visible from all public entrances, and any necessary sub-reception areas should be visible from the main reception point. Distinctive – the places and spaces on the route must have identity through the form of the building, the links to outside views and the use of art to aid orientation Inclusive Design – both from physical disability and dementia friendly perspectives 	
1.7 Users' human needs. Key considerations are: <ul style="list-style-type: none"> Reception areas should allow discussion whilst maintaining a level of privacy and dignity. Waiting areas must be pleasant, with access to daylight and views, and must provide for children's play. 	

2 THE NON-NEGOTIABLES FOR STAFF
 The facility will be the venue for consultations and treatment, but also the base for peripatetic staff working in their provider's own facility as to provide seamless care by multi-disciplinary teams. Therefore the efficient running

Agreed Non-Negotiable Performance Criteria (Investment Objective / Customer Quality Expectation)	Benchmarks (The standards to be met and for)
2.1 Accessibility: the facility must be accessible for staff. The transport strategy and provision must be built around need and to encourage the majority of staff who are on standardised hours to contribute to achievement of the green travel plan.	Two minutes max walking distance peak working hours Essential users parking: 50m max General staff parking: five minutes



RECEPTION

project is on track to deliver on the standards established. http://www.scim.scot.nhs.uk/Support/DA_BC_Guide.htm

The briefing stage is often developed through workshops to help stakeholders jointly identify priorities, and by consultations with each specialist areas. It is important that the right people make the time to attend these and input their expertise early in the process rather than be faced with the consequences of briefing and design decisions after they're made. Your leadership will be important in making space in people's schedules for this and setting the tone for their engagement. In all these discussions there are a few issues to bear in mind:

Research :

What has been done elsewhere and what can we learn from that? Over recent years there have been a number of great facilities delivered in Scotland and across the UK that are responding to the changing healthcare agenda. Try and visit a few that have similar functional needs to your own project and a few (perhaps not just health buildings) that have something of the feel you're aiming for. As an initial view of what's out there look at Pulse.

Function :

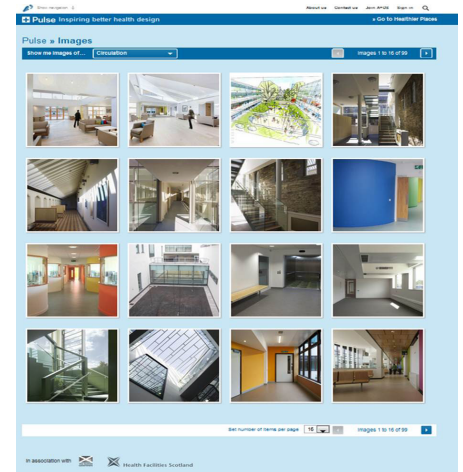
Within the NHS there are numerous guides and tools to help specify the size and layout of the individual rooms. In addition to checking that what they describe will work for your needs (see also flexibility below) you should also help describe the necessary relationships between these spaces and the amenities needed to support the human interactions taking place within the space, such as daylight/sunlight/a view outside/privacy etc. Describe also what needs to be close to that area, not solely from the perspective of clinical efficiency but considering the human needs of the people in the space.

Brief by capturing what activities the space, or group of spaces, needs to accommodate - the performance specification - rather than presupposing how that might be achieved. For example:

- saying that "day rooms must have easy access to a safe garden area" is a performance specification as it describes what must be achieved; whereas saying that "all day rooms must be on the ground floor" dictates a particular way in which that might be done and in doing so may limit other aspects such as the space left for such gardens.
- Similarly, saying that "all dayrooms must be designed and oriented to allow sunlight in" is a performance specification that could result from examining the evidence base linking sunlight and mental wellbeing; but saying "all dayrooms must face south" could lead to many other rooms facing north, therefore having no sun, and potential problems with overheating from the sun.

Feel :

In the main we design healthcare facilities to accommodate human activity and therefore the feel of the place is very important in influencing mood, stress, and even the behaviours of the patients and staff. How a place feels gives an impression of the values of the service, and the value it places on patients, staff and the wider community. There is a growing evidence base that the design of the environment measurably affects both patient outcomes and staff performance and therefore the quality of the environment is a key part of the briefing. It is therefore not only OK to aspire for something good, something humane, it is – in most cases -



Pulse:

A+DS database of recent healthcare projects, searchable by project type or area of building.

<http://ads.org.uk/healthierplaces/pulse>

(left and below) Dumfries Dental Centre
NHS Dumfries and Galloway





entirely necessary. Therefore describe what you are looking for in human terms: if you brief only by describing space standards and the equipment needed, it is likely to lead to a place that feels quite cold and impersonal. To avoid this try and describe the ‘feel’ of the place you’re after by referring to other types of environment places that are a more recognisable part of most people’s daily life and which have more positive associations:

- think about other more familiar buildings of a similar scale and try to describe it in those terms. Statements like “the main circulation space might feel a bit like a smart shopping centre” or “the campus might feel like a village, with a square or green at its centre” etc...
- however, for all but the smallest facility beware of describing it as ‘domestic’. There are very few people who live in 80 bedroom ‘homes’ and seeking to design an over-scaled house is a common route to an institutional feel. In such an instance try to think of other residential types of a similar scale, either a cluster of buildings, a hotel... whatever model best suits the scale and nature of what you’re looking to create to support the service.
- think also about how the facility fits and knits into the community, about the initial impression of people coming to, or passing, the facility. The patient journey starts well before they reach the front door and therefore the impression they gain either on arrival, or from passing the facility as part of their general life, presents opportunities to promote the service.



Sustainability :

Stakeholder’s briefing has a key influence on the sustainability of the development. You may, or may not, become involved in the materials chosen for the building, or the strategy for heating and ventilation, but you will undoubtedly influence the development’s longevity. The one thing we know about healthcare is that things change and therefore fitting the development too closely to one service methodology or one person’s preference makes the development’s usable lifespan shorter. As the briefing develops the stakeholder team should be considering both flexibility in use and future flexibility.

Flexibility in use can be achieved through things like:

- Having as much commonality in the specification of rooms and/or wards as possible, to allow different people, disciplines or services to readily use that space.
- Arranging rooms so that they can be accessed by more than one service so that spaces can be used by different services as the demands on each change (<http://www.ads.org.uk/healthierplaces/features/circulation-in-multi-service-facilities-quick-reference-guide>). Look always to think of space as a resource for all, rather than a territory for one service only.
- Considering the ‘handing’ of rooms to allow for different preferences, such as having rooms that are the mirror opposite of each other to accommodate right or left handed strength or (as with the dental facility in Dumfries) designing each room to be able to be set up for both left and right handed operation.

Future flexibility is leaving room for both the known (such as replacement of major diagnostic equipment, or a well forecast increase in service demand that is not worth fully accommodating yet) and the unknown. Objectives around ease of adaptation and expansion have real benefits but need to be considered as part of the initial arrangement of spaces. Think also about what might happen once all or part of the building is no

longer needed – can you withdraw in phases or convert it to other uses?

...further reading and other source of information and help on **brief development**

Healthier Places - This website holds a database of recent healthcare projects (known as Pulse) to allow you to learn from recent development projects, together with features on good practice and design studies on frequently occurring issues.

It also includes information on Design Statements and how to get support in developing these. The site sits within a broader family of sites (www.ads.org.uk) which includes information on other types of development such as schools, on planning and sustainability.

www.healthierplaces.org

Scottish Government Health Directorates - Capital Planning and Facilities Policy and guidance issued by the Health Directorates by CEL regarding asset management and development; includes interim guidance, notes of developing issues and summaries of post project evaluations.

<http://www.pcpd.scot.nhs.uk/>

Health Facilities Scotland: guidance advice and training on all matters related to healthcare facilities.

<http://www.hfs.scot.nhs.uk/>

Space for Health: houses published guidance on physical design of premises across the NHS in the UK. Includes the Activity Database (see below).

<http://www.spaceforhealth.nhs.uk/>

Activity Database - ADB is the Department of Health's briefing and design software tool used to develop healthcare environments.

https://publications.spaceforhealth.nhs.uk/index.php?option=com_content&view=article&id=57&Itemid=9

BREEAM Health: BREEAM for healthcare buildings was commissioned by the Department of Health and Welsh Health Estates, replacing NEAT (NHS Environmental Assessment Tool) as the preferred environmental assessment method and certification scheme for healthcare buildings in the UK

<http://www.breeam.org/page.jsp?id=105>

Dementia Services Centre – design advice and best practice information on designing facilities (both those intended specifically for people with dementia and others for the general populous, considering co-morbidity) to be dementia friendly, including toolkits for assessing existing facilities and design guides for new ones.

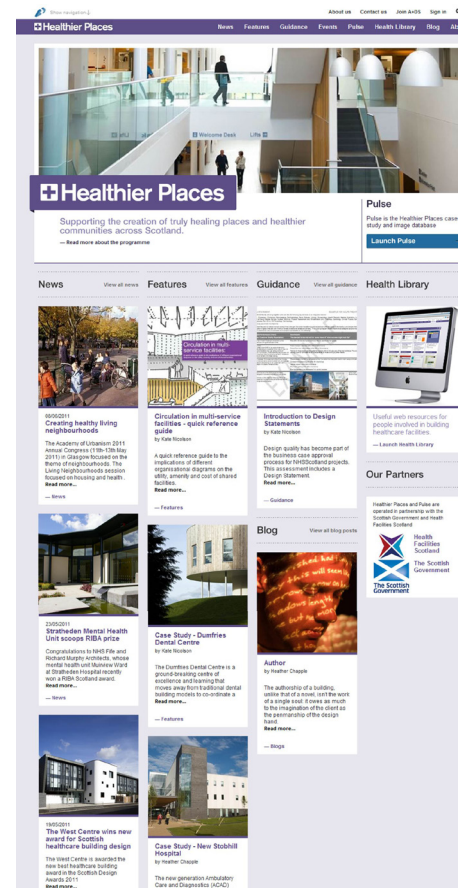
<http://dementia.stir.ac.uk/>

Setting group priorities – produced for teachers and children participating in school briefing, but still a useful and engaging film on workshop formats for brief development.

<http://www.ads.org.uk/smarterplaces/features/setting-priorities-with-a-group>

Commissioning Excellent Buildings – online Guide – PREPARE stage

<http://webarchive.nationalarchives.gov.uk/20110118095356/http://www.cabe.org.uk/buildings/prepare>





Seminar Rooms

Welcome Desk Lifts

Cashier
Information Point

4.0 Selecting a Design and Delivery Team

There are many different ways to bring a team on board to design and deliver your project, and your project manager can take you through the options available and what that means for your project. However, the people you gather around the table are more important than the nature of the contract that binds the relationship. Therefore your role is to help ensure you attract good people to bid and then to select the best people for your project. The intelligence and sensitivity applied to the design will make a difference to the operation of the service for many years – and the cost of their work is only a fraction of the cost of running the service - therefore it's worthwhile investing the time in getting this right. Some general principles hold true irrespective of how the team is formed.



The call for bidders is important: It costs consultants and contractors a significant amount of time and money to bid for projects; money they only recoup if they win the project and deliver it with a profit. Therefore their decision whether to bid and who to get in the team, is determined by how you present your project. Demonstrating that you're a well prepared, well organised client that is looking for the skills to do the job properly, not solely the cheapest bid, will give prospective bidders the confidence to build a good team; hopefully leaving you spoilt for choice rather than with Hobson's choice. You demonstrate this in the quality of the information you put out and the way you state you will evaluate the bidders. If you are getting your team through a central agency and you're not impressed with the option(s) presented, do not be afraid to ask them to look again.

The interview: who should be on the interview panel is always a tricky decision, but it is helpful to have someone who understands the discipline(s) you are interviewing for and who will have the confidence to distinguish between a good sales pitch and a good team. Increasingly clients bring in an external designer to help in that selection as some project teams can feel less than confident in distinguishing between the skills on offer and scoring accordingly. Much as in interviewing for a staff post, you are looking to get the best person you can with the money you've got; someone who understands and shares your vision, will work well with your team and bring complimentary skills. Take the time to get to know them and find out how they would approach your project, both in the way of working and an initial (verbal or sketch) response to the brief embodied in your Design Statement. Visit some projects they've completed (think of it as visiting the showroom rather than just buying the car unseen from what the sales rep says about it). They should be able to take you to a building they developed that has something of the qualities you have described in the Design Statement and let you talk to a client that feels they were listened to, understood, and got a place that really supports them.



The assessment methodology: the scoring mechanism you set up and the weightings applied to each area (both cost:quality ratios and the areas scored under 'quality' headings) needs to allow you to value the attributes and skills considered above in the decision for them to be a material influence on the selection. Consider making areas of competency and suitability (such as scale of organisation, financial status etc) as matters for a compliant bid and establishing the 'quality' criteria on the basis of the things that will distinguish between competent teams in terms of the suitability of their skills.

As with all things the team you pick should be horses for courses: look for

(left) New Stobhill Hospital
NHS Greater Glasgow and Clyde

a team who have previously delivered something that demonstrates the sensitivities you're looking for, worked with a similarly complex brief and in a the manner you wish to work in (working with a broad stakeholder group in a partnership manner is a different skill set to working with a single private client). This need not mean that they've done exactly the same building type before. For more complex projects all the design skills needed may not be in one firm and therefore you may be looking at a group who, between them, offer technical knowhow and the design flare or sensitivity needed to create the place you have described in your brief. For new and innovative projects, the best fit of skills might come from a team that have worked on complimentary types of developments, such as other public services (for a joint project) or residential (for a small inpatient facility). In all cases look to appoint a team for whom this project will be as important to them as it is to you.

*....further reading and other sources of information and help...on **team selection***

Commissioning Excellent Buildings – online guide – Effective Selection

<http://webarchive.nationalarchives.gov.uk/20110118095356/http://www.cabe.org.uk/buildings/procurement/selection>

Plean Street Centre for Health
NHS Greater Glasgow and Clyde



5.0 Developing the Design

The design development process is how the brief is tested and refined and how the 'new world' is imagined and starts to become real. Testing the brief is not saying that it is wrong, it is just the process by which architects develop options that help refine the project's priorities; as discussed above it is not until you start to draw spaces on a site that you can truly determine if everything that is written in a brief is achievable. The design development process is therefore one of developing options, testing those options to see their potential to support the core intent of the brief and then bringing that learning into the next stage. This cycle will take place a number of times, starting at the large scale then becoming more detailed. When an architect is drawing options they work from a number of perspectives considering;

- the brief you have developed,
- the way the development might fit into the local context (how it will appear to people passing by and arriving)
- and how it can use the natural features of the site such as daylight, views, any slope etc, to make the best place both for people within the development but also the best impact on the local community and least impact on the environment.

Synthesising these different perspectives is a particular skill, and it can take a bit of thinking time to get something that works from all sides. You may hear them talking about designing from the inside-out (meaning getting all the spaces in the development in the right relationship with one another) and from the outside-in (meaning that the human experience of arriving at the site and moving into the building and then occupying the spaces is a pleasant one). As a client your role is to examine and feedback on the proposals from both these perspectives.

Your feedback on the options developed is important and therefore it is crucial that you fully understand what is being described. Architects tend to draw buildings – a three dimensional proposal - in two dimensions. They can forget that these representations are difficult for many people to read; some also can slip into speaking in design jargon. If you are having difficulties understanding what is being suggested you are probably not the only one and you should certainly not feel embarrassed in asking the design team to do their job of explaining what is being proposed better. They should be able to produce 3D sketches (either using computers or freehand) to describe spaces and places to help you understand what it might be like to be there. For larger developments it may be beneficial to mock-up a room that is to be repeated many times (say a bedroom or consulting room) to allow it to be tested so that the fine details can be ironed out before it's built many hundred times over. Do not feel that 'architect knows best' and understands the detail of your business – you are the expert in your area and designers rely on that. What a good architect brings to the discussion is ideas about how you may achieving what you are after, the broader view of how these requirements could mesh into a place, and a way of working this positively with the site context. For the project to achieve a good resulting environment it is important that the different perspectives are respected and the design is developed to synthesise each rather than with one aspect overly dominant.

....further reading and other sources of information and help...on design development

Commissioning Excellent Buildings – online guide – DESIGN STAGE
<http://webarchive.nationalarchives.gov.uk/20110118095356/http://www.cabe.org.uk/buildings/design>



6.0 Assessing and Approving the Design



The different stages of design development will have a 'sign-off' points where the design team will ask you to confirm you are happy with what has been described to date. Once that work stage has been signed-off any revisions are likely to cause both delays and significant additional cost. It is therefore important to take the time needed to fully understand what you have been asked to sign-off, and get the right people to consider and agree the design at that stage.

Therefore it is important that you use your position to ensure that the right stakeholders are consulted and that the time is taken at the right time to properly consider the proposals in development. This will be time consuming particularly at detail design stage when the location of service points, mirrors, furniture and equipment in each room must be considered and agreed; though this time is less costly than either altering works on site or dealing with a facility that doesn't work. Remember that the cost of designing, and even building, a healthcare facility is only a fraction of the cost of running the service in that facility and therefore your role is crucial in getting something that will support patients, staff and the wider community from the time the development is opened and for many years to come.



The NHSScotland Design Assessment Process acts as a verifier supporting the Board's consideration of the design at key business case stages; taking a high level look at the developing project against the requirements and standards in the agreed Design Statement and related healthcare specific guidance. The NDAP look both at evidence that the project team have carried out the self assessment process detailed in the Design Statement, but also provide independent advice to decision makers within the board, and the CIG, regarding the extent to which the project is on track to deliver on the standards established.

Design Assessment in the Business Case :

http://www.scim.scot.nhs.uk/Support/DA_BC_Guide.htm

The project team are expected to submit the developing scheme to the NDAP during the development of the business case stages so that advice can be provided timeously to help inform the development of the scheme (rather than after all decisions are made) and prior to the consideration of the project by the Board

As a member of the Project Board or Steering Group, it is your responsibility to ensure that the assessment of the scheme both within the Board and by the NPAD is fully considered by decision makers and informs the decisions made. It should be noted that the Capital Investment Group do not anticipate approving any business case that is unsupported by the NDAP.

... further reading and sources of help ... on **assessing the design...**

'how to read a drawing' (video - part of the schools suite, being developed)

Achieving Excellence in Design Evaluation Toolkit – AEDET Evolution

- a useful format for promoting a collaborative discussion around design between the parties involved.

http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_082089

ASPECT – A Staff and Patient Environment Calibration Tool is based on a database of over 600 pieces of research. That research deals with the way the healthcare environment can impact on the levels of satisfaction shown by staff and patients and on the health outcomes of patients and the performance of staff

http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_082087

Partick Community Centre for Health
NHS Greater Glasgow and Clyde



7.0 You're not on your own

Most members of project boards will be a client only once, and this can feel both daunting and intrusive into your day job. Talking to people who've been through this before and learning from their experience can help. The Features section of the Healthier Places website contains case studies of recent buildings from the client's perspective and Pulse contains details of projects across NHSScotland with contact details to allow you to get in touch with people who are currently tackling similar issues, or who have recently been through the development process.



Glossary of Terms

The people who are leading the project from the health board and the consultants and contractors brought in to help deliver the project should be explaining the process to you without using jargon. If they are not, you should not worry about asking them to speak plainly, however below are some common terms, roles, acronyms and issues that occur through the development process.

BUSINESS CASE

SCIM - Scottish Capital Investment Manual

Initial Agreement (IA) - establishes the principle that change could be beneficial and is worth exploring. It describes how the project fits strategically into the Health Board's service delivery plans and a broad scope of the options to be considered in the next stage.

Outline Business Case (OBC) - investigates options in terms of benefits to the service, deliverability and affordability. At the end of the Outline Business Case stage there should be a clear route forward, a sketch design of the physical alterations or new facility to show the feasibility of that option and some reasonably reliable costs. The benefits criteria and the way these will be tested post occupation will be well established.

Full Business Case (FBC) - develops the information at OBC further and, once the process of approval is completed, results in a commitment to carry out the works. At FBC stage the design of the facility should be well established and the costs - both in terms of building and operating the development - well fixed.

Post Project Evaluation (PPE) - learning lessons from how the project was delivered

Post Occupancy Evaluation (POE) - learning lessons from what was delivered : i.e. how the building is performing in supporting the service, the extent to which the expected benefits are being realised, any additional or unexpected benefits and any transferable knowledge.

PROJECT INFORMATION

Written information

Brief - This sets out the aims and objectives of the development and the agreed requirements for the physical building must achieve to the level of information that is understood at that time. For larger/more complex buildings it will be developed to include the healthcare planners brief. Starting from little more than a **Design Statement** (below) it develops over time to include items such as a schedule of accommodation, and to record the instructions given to the design team as requirements are refined and developed.

Design Statement - this document is, in essence, a strategic brief with benchmarks for how the eventual physical development needs to support the people affected by the project (patients, staff etc). It should form the genus of the brief. It is crucial element of the **NHSScotland Design Assessment Process** (see consents below) and would inform the '**Design and Access Statement**' required during the application for Planning (see consents below).

Schedule of Accommodation – the list of rooms required, the sizes of rooms and an allowance for circulation and service areas to give an anticipated build area for the building. Ideally external spaces used for therapy and/or respite should be included in this. This document is likely to evolve as the project develops and opportunities for shared resources are tested and refined.

Schedule of Key Adjacencies – often a table setting out which rooms or areas need to be near or immediately next to each other – it should also state which should not be adjacent and ideally what other amenities or characteristics (such as external space, private views, active views) should be available near or in that area.

Room data sheets – often generated through the use of the **Activity Database (ADB)** these specify the number and location of fixtures/fittings and services within each room type.

Specification – usually developed using the NBS (National Building Specification) system this document is developed by the design team to describe the materials to be used in the building.

Bill Of Quantities – this document describes how much of each specified item is needed and the extent of works to be carried out – once priced it records the sum which should be paid for that work.

Drawn information

Plan - the drawing that shows the site or the building as if seen from above. A building plan is drawn as though someone has sliced through the walls horizontally, then you are hovering overhead in a low flying helicopter.

Section - here the proposed building is sliced from top to bottom and the front section taken away so that you can see inside from the side.

Elevation - this is what the walls on the outside of the building look like. Make sure you're seeing these drawn with neighbouring developments too so you can start to see how it might look in context.

Architects sometimes draw these 2D representations which include details of how the built elements will be made, but little information on the spaces that will be important, which can make them tricky to read. Ask them to render (colour/shade) the drawing so it shows what's important to you like room use, where light comes from and what would be near to the spaces that would form or affect the views.

Isometric (Iso) or Axonometric (Axo) – a three dimensional drawing that looks to show the building, or part of the building, in a more realistic and easily read way but as if you're hovering over the space.

Perspective – a drawing that tries to show what it might look like if you were standing there. Ask that these are drawn from a human height rather than a bird's viewpoint.

CONSENTS/APPROVALS/CERTIFICATION

Capital Investment Group (CIG) - this is the group within the Health Directorates that is responsible for considering and signing off the business case stages for all projects which will require investment of a greater sum than the Health Board has delegated authority for in order to allow prioritisation and effective management of national budget expenditure. The delegated authority limit varies by Health Board and also over time as financial processes change. Your project manager will be able to advise if the project is likely to need to go to CIG for approval (see also Business Case and SCIM above).

NHSScotland Design Assessment Process (NDAP) - this is part of the business case process (see also Business Case and SCIM above) and is administered by representatives from **Health Facilities Scotland (HFS)** and **Architecture and Design Scotland (A+DS)** who advise the Health Board and the Capital Investment Group at key stages in the Business Case process on the design of the facility. **Scottish Capital Investment Manual (SCIM) website** http://www.scim.scot.nhs.uk/support/DA_BC_Guide.htm

BREEAM Healthcare - the system of measuring the environmental impact of the development. Accredited BREEAM Health assessors advise on the measures that should be taken to achieve the required standards ("Excellent" for new buildings and "very good" for refurbished buildings) and certify that the development is on track to achieve these. **BREEAM Health** – <http://www.breeam.org/page.jsp?id=105> :

Planning – this is when the Local Council is asked to agree that a building of the type, scale and nature proposed can go ahead. Planning consent looks at things like the roads layout, the impact of any additional traffic, and how the development fits into the local development plan that they have worked out for the whole community and which sets out a view of how the area will develop over time. It also considers the impact on neighbouring properties and the relationship to national planning policies and guidance. When considering an application the Council must take into account the views of the local community and also **Statutory consultees**. Statutory Consultees such as the Scottish Environmental Protection Agency (SEPA) and Historic Scotland look at the proposals solely in terms of their remit from Government and can, if they object to the impact of the proposals, stop the development going ahead. There are a variety of types of planning consent.

Planning Permission in Principle (PPP) – previously known as outline consent, this approval considers the broad principle of the development without requiring the building to be designed to any great level of detail, though for large developments it may require significant work in carrying out **Traffic Impact Assessments (TIA)** and/or **Environmental Impact Assessments (EIA)**. Once granted, the details of the proposals can (depending on the local authority) be considered as an application for approval of **Matters Specified in Conditions (MSC)** or by application for full **Planning Permission**. An application for PPP can be used to establish, in the planning system, a framework for a number of projects across a campus allowing each subsequent development to be progressed within an approved framework reducing risk and, potentially, aiding programme.

Detailed Planning Consent – this process looks at both the principle of the development (as above) and the detail of the design. Planning Authorities look for the rationale for the design to be captured in a "Design and Access Statement" explaining how the proposed development is to be a positive addition to the local built environment.

Listed Building Consent – this is an additional consent (applied for in parallel to the above) to alter or demolish a building that has been listed as worth preserving for its architectural and/or cultural significance. There are 3 levels of listing, Grade A being the most onerous and C the least. Depending on the grade of listing and the extent of alteration this application may be considered by the local authority alone or in consultation with Historic Scotland. **A Guide to Listed Building Consent in Scotland** <http://www.historic-scotland.gov.uk/index/heritage/historicandlistedbuildings/listing-guidance-for-owners/listed-building-consent.htm>

Conservation Area Consent – this is an additional consent (applied for in parallel to the above) for developments which are within a Conservation Area, a part of the community that has been designated by the Local Authority as being of a particularly valuable nature and in which they would expect any development proposals to be particularly sensitive to the local built form and character. This is not to say that they should require them to be imitated, just that particular skill and sensitivity must be applied. **A Guide to Conservation Areas in Scotland** <http://www.scotland.gov.uk/Publications/2005/03/29141519/15200Publications/2005/03/29141519/15200>

Building Warrant – this is a technical consent also issued by the local council. It considers the way the building is designed to be accessible, safe, and energy efficient. It is assessed against the Building Standards Regulations for Scotland, and in order to do this they want to know the sizes of spaces and routes for access and escape; details of materials and construction; how it will stand up and resist fire; how the drainage works and how the building will be kept warm, lit and ventilated, and the weather kept out. **A Guide to the Building Warrant Process** <http://www.scotland.gov.uk/Topics/Built-Environment/Building/Building-standards/homeinfo/homebw>

BUILT ENVIRONMENT PROFESSIONALS AND CONSULTANTS

Listed below are the main roles you'll meet on projects (some consultancy firms have a number of these disciplines), though only the largest and most complex project will engage all of these people. They're ordered roughly the sequence you are likely to come across them:

Surveyor(s) – a profession with a range of skills from business case development, building maintenance and management, project management, quantity surveying (working out how much building works should/did cost). Generally these are employed by Health Boards early in the process to help develop the business case if the resources are not available in the Board, and throughout to keep an eye on costs.

Healthcare Planner – generally working on more acute scale developments and/or where new models of care are envisaged, the healthcare planner can help you work out the likely demand on the service, patient pathways and throughput, and develop the service brief for the building including bed modelling etc.

Architect – the person/people who should bring the expertise to listen to what you're looking to achieve and creatively synthesise both the spatial requirements and the site opportunities into a place that enhances the experience of all those around and within it. They bring technical expertise in forming the building fabric and liaising with other built environment professionals to co-ordinate the different aspects of the design and contribute to other areas of design (i.e. on some projects the architect may take on all or part of the M&E, landscape and/or interior design).

Structural Engineer – responsible for ensuring the building stays up, and often underground drainage and roads work.

CDM Co-ordinator – required under the Construction (Design and Management) Act, the CDM Co-ordinator is responsible for managing elements of health and safety; drawing together information on how the development can be safely constructed, operated and maintained. Increasingly this can include design for deconstruction so that at the end of the building's life it can be dismantled safely and, ideally, with the greatest possible re-use of materials.

M&E Engineer – in medium to large developments, responsible for designing the heating and ventilation strategies and the electrical/ ICT distribution. Sometime a specialist **lighting designer** is involved in artificial lighting.

Landscape Architect – the person who should be able to work with the external environment in a complimentary manner to the built form being developed by the architect. Working with both hard landscaping (roads/paths/parking, drainage systems) and soft (lawns and planting), these aspects should be developed hand in glove with the building design so that the use of external spaces enhances rather than compromises internal ones.

Interior Designer – not used on all projects, but on larger developments or particularly sensitive schemes they can bring an interesting take on colours/materials/furniture selection.

Arts Consultant/Co-ordinator – responsible for developing a theme for artworks to be incorporated into the development and commissioning those works.

Transport / Civil Engineer – in large and/or complex developments, responsible for designing major roads infrastructure and elements such as bridges, large earth retaining structures, flood defences etc.

BREEAM Assessor – the person who advises on sustainability aspects of the project. This service is available from Health Facilities Scotland free of charge to all NHSScotland Boards.

Planner / Planning Consultant – in large or complex developments, can help design and co-ordinate requirements on a site-wide 'masterplanning' level (considering more than one building on a campus) and/or help in negotiations with the local authority planning department from the basis of a sound understanding of planning process and law. In certain circumstances **Planning Lawyers** may be needed to assist in negotiations.

Masterplanner – someone from the disciplines of planning/landscape architecture/architecture/urban design who works on a campus wide approach – see "Masterplanning Health". **Masterplanning Health** <http://ads.org.uk/healthierplaces/features/masterplanning-health-3>

Project Manager – responsible for co-ordinating the flow of information between the different design disciplines, liaising with the client team and obtaining approvals for the design.

Design Manager – a relatively new role, generally aimed at co-ordinating information between the different design disciplines, liaising with the client team and obtaining approvals for the design.

Developer – an organisation that brings the finance to develop a building project – the developers often include contracting expertise as the largest costs in building are those paid to the contractor.

Contractor – the firm being paid to build the building - larger firms often contain some of the above professionals in addition to the building trades needed to build the building. The trades that the contractor does not have in-house and employs are called sub-contractors.

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