



Best Practice in NHS Healthcare Design

Rudding Park Harrogate 24th April 2007



Programme

Best Practice in NHS Healthcare Design

09:30	Registration and coffee
10:00	Chairman's welcome Martin Brackstone Kier Health
10:10	Sustainability issues for mental health service users Dan Burningham Mental Health Strategies
10:35	Q+A
10:40	Coffee
11:00	Stakeholder involvement in preparing a sustainable brief Chris Potter P+HS Architects
11:30	Legislation and design options Neville Rye WSP, Joe O'Meara Haden Young
12:20	Q+A
12:30	Lunch
13:20	Legislation and design options Neville Rye WSP, Joe O'Meara Haden Young
13:40	Q+A
13:50	Funding grants / Lifecycle Costings Alison Berwick, David Langdon Crosher and James, Peter Cole Gleeds
14:20	Healing environments exercise P+HS Architects
14:45	Coffee
15:00	Are you ready to build?
15:15	Sharing thoughts
15:30	Close



Introduction

Martin Brackstone Regional Director fbe Yorkshire



Welcome to the fbe 'Best Practice in NHS Healthcare Design' seminar at Rudding Park, which will focus on sustainability in relation to healthcare facilities generally and to mental health facilities in particular.

The event, sponsored through the Forum for the Built Environment, is supported by the organisations that will be presenting to you throughout the day. Each speaker has wide ranging experience in the design of mental health facilities and will be giving a different perspective of what sustainability means for you as users and specifiers:

- Sustainability issues for mental health service users
- Stakeholder involvement in preparing a sustainable brief.
- Legislation and design options.
- Funding
- Gleeds topics
- Healing environments
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Legislation is now such that sustainability is no longer an option for any of us. For you, it will mean that a range of complex issues will have to be addressed early on in the business case process. To do this effectively, designers, and others, will have to be involved early on with the Trust and its users. Procurement routes such as ProCure21 enable this to happen.

There must be a whole team understanding of the trust's vision for sustainability at the outset and robust management of the sustainability objectives thereafter.

Sustainability will need to be an agenda item for all design meetings and for all progress meetings when the project is under construction. You will need to consider carefully the impact of any changes and value engineering exercises on your sustainability objectives.

Lastly, do carry out a Post Project Evaluation involving your whole team, so that valuable sustainability lessons are not lost.

A synopsis of each speaker's presentation is attached. If you would like a copy of any of the presentation slides please let me know.

Martin Brackstone
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Session 1



Is green good for you – sustainability and the patient experience?

Dan Burningham Mental Health Strategies

With the rise of consumerism in the NHS, the patient experience has frequently been placed at the heart of the model of care.

In this context, it seems appropriate to consider the sustainability agenda from the mental health service user perspective. As we shall discuss, on the one hand, sustainability is full of therapeutic potential for people with mental health problems, yet on the other hand, reducing the carbon footprint will undeniably impose a series of constraints, which may at times pose challenges to a service trying to meet service user needs.

The value of a relationship to nature

In a broad sense, sustainability can be defined as being about a closer and more responsible relationship to the natural environment. Arguably, therapeutic benefit may flow from a) being closer to nature b) having a more active responsible relationship to nature.

Closer to nature

Evidence supports the use of natural light, ventilation and views out to improve outcomes in a healthcare setting. For patients with organic mental health problems, the effect of being able to observe the daily change from light to dark and the movement of the seasons, has been found to improve a sense of orientation. To this we can add the fact that people with mental health problems frequently look to the natural environment for a sense of balance, wholeness and life to compensate for inner feelings of fragmentation and deadness.

Responsibility

Sustainability involves an element of social responsibility, which places us within a

community. It follows that playing an active part in sustainability may assist rehabilitation back into the society.

Constraints

However besides benefits sustainability also creates constraints and challenges for example:

- the control of temperature particularly for patients on medication;
- safety issues arising from natural ventilation systems;
- personal liberty issues around choice and energy consumption.

The above issues are likely to be exacerbated in secure settings, or settings with patient accommodation on more than one level.

Meeting the challenges

The value of recognising the healthcare challenges posed by sustainability, is that we can find means of addressing them. One way is through design solutions, the other is through adaptations to practice. Ideally both should come together as part of an integrated solution.

Ownership and empowerment

However meeting the challenges will also be about changes in behaviour and it is particularly important in a mental health setting to understand how a sustainability agenda is experienced psychologically particularly when a setting is ahead of people's normal living environments.

Session 2



Stakeholder involvement in preparing a sustainable brief

Chris Potter P+HS Architects

The opportunity to commission a new building is a rare treat. When that building will perform an important function, such as playing a part in healing then it is vital that those who work in it, or use it, contribute their ideas to the designers from the outset.

A good building can only be as good as the brief that communicates the requirements to the design team.

Involvement

We believe in involving all stakeholders in the process of design from the outset to ensure that as many users as possible can share their ideas, to help shape the brief and provide us with as much information as possible on which to base our design.

Equally importantly, the stakeholders need to know what our ideas are, what we think of as good design and how we go about our work so that they can comment and evaluate it to make sure it meets their needs. In the early stages, we set out to demystify the design process, build trust and respect across the whole client and design team and get the team enthused by the process of design.

Engagement

Our presentation explains how we engage with stakeholders, looking at:

- Types of workshop – large and small
- Buildings we like and inspire us
- How architects think and draw
- Differing design exercises for stakeholders
- Results from the design exercises compared with national findings
- The importance of the engagement – why it works
- Examples of recently completed projects

During the day we will run a simple space planning exercise. All materials for the exercise will be provided on the day.

It will allow delegates to plan a typical [but imaginary] mental health inpatient facility using a simple toolkit, showing functional relationships, facilities and style.

Session 3



Low carbon solutions for sustainable healthcare buildings

Neville Rye WSP
Joe O'Meara Haden Young

Legislation for Change

As Government step up their response to climate change so legislation continues to grow putting greater demands on property developers and designers to deliver even better sustainable buildings and developments - together with more accountability.

The European Energy directive which became mandatory in April 2006, is changing the way buildings are designed & constructed. Details of the European Energy Directive will be discussed & how the impact of planning guidance PPS1, PPS3 & PPS22 affect the design of sustainable community buildings.

Environmental Profiling

This topic addresses the environmental impact of healthcare buildings & how careful planning & design of buildings can help to reduce the carbon footprint. Methods of measuring sustainability will be discussed including NEAT, ENVEST & bespoke Environmental profiling using cradle to cradle assessment

Design criteria for environmental spaces
The design of spaces & their services can significantly effect both the quality of the space & the carbon footprint of the building. Factors such as daylight & natural ventilation can have a positive effect in wellbeing whilst delivering a low carbon solution. This topic will present the key design criteria for patient spaces & how these can be incorporated into the design of modern mental health care facilities.

Enhanced sustainability measures that compliment healthcare design

This topic will review the various emerging low carbon technologies & how these help deliver low carbon footprint for healthcare design. Systems such as Bio fuels & ground coupled technologies. The different systems will be evaluated against the new energy legislation & how these will affect future healthcare design.

Carbon footprint case study

Using a case study of a Mental Health care facility, these technologies will be presented & evaluated to demonstrate both economic viability & environmental benefits.

Food from waste

The concept of using local bio fuels is now being taken a stage further. Kitchen facilities generate substantial amounts of organic waste i.e. food. Most of which is being sent to landfill sites. WSP have worked with specialist suppliers to develop a technology not normally associated with commercial kitchen waste, which is the use of an anaerobic digester system normally applied to large scale farming industries. The organic waste is naturally digested by bacteria and generates a gaseous bio fuel which is used to heat the waste food. The end waste product becomes a safe, odourless matter which can be used on gardens as a fertiliser. Not only will the kitchen have the benefits of a sustainable waste strategy with no kitchen waste going to landfill sites, the fertiliser accelerates plant growth helping to absorb Carbon Dioxide, thus effectively making the whole anaerobic digestion process carbon negative!

Session 4



Introduction to funding and key considerations

**Alison Berwick Davis Langdon Crosher and James Grants
Peter Cole Gleeds**

Public sector funding is constantly evolving with new funding streams emerging as others close. There is a shift in approach from one off grants to more of a long term investment approach and as EU, government, regional and local priorities change, so does the funding.

Funders are looking for projects, which are exemplar, go beyond the requirements and stand out as being sustainable and 'fundable'. Wider opportunities through partnerships should also be explored to make the most of funding avenues available for research and development projects.

Overview of the main funders and funding options

Funding is awarded by regional and local government, Regional Development Agencies, the European Commission and the National Lottery. We will explore a range of funding options from capital funding- for costs associated with purchasing and installing renewable energy technologies to revenue funding- for research and development into innovations in energy efficiency.

The availability of grants for energy efficiency and renewable energy technologies

Since last years Stern report 'The Economics of Climate Change' and Part L planning obligations, there is a definite and unavoidable focus on reducing our harmful impact on the environment. In response, new funding programmes are emerging to encourage this behavioural change.

Maximising funding opportunities within the health sector

Funding for capital investment in renewables is highly competitive, so applicants must demonstrate a clear need for the project.

Biographies



Dan Burningham is the Director of Healthcare Planning at Mental Health Strategies and leads team of healthcare planners specialising in mental health, community healthcare and prisons. Dan has been involved in the design of numerous mental health schemes in the UK covering assessment and treatment, rehab, continuing care, forensic and community facilities for all age ranges. He comes from an NHS background having been a manager of therapy services within mental health and learning disability settings. Dan is particularly interested in the psychological impact of the built environment in mental health and also the relationship between operational practice and buildings.



Chris Potter is an architect and managing director of P+HS Architects. Chris specialises in healthcare, with expertise in acute, primary care and mental health projects, where he has acted for both Trusts and PFI bidders. His particular interest is achieving the best healing environment and he works extensively with stakeholders at early stages. He led the delivery of the new Walkergate Park neurological hospital, the St Luke's Mental Health Hospital Public Sector Comparator and is lead director on the reconfiguration of mental health services across Cumbria. Chris is a member of the RIBA health Forum and an RIBA Client Design Advisor.



Neville runs the WSP Buildings Physics & Sustainability Team. The team provides expertise in low energy design techniques, sustainable engineering solutions and detailed thermal modelling analysis. Neville has published numerous papers on sustainable low energy design techniques and is the WSP Buildings Director responsible for Sustainability.

He has particular expertise in the integration of sustainable engineering solutions in the Private & Public sector & design of sustainable solutions for health care buildings.

Neville is currently advising Devon Partnership Health care trust on the design of new £40M Mental Health care facility at Langdon Hospital in Devon.



Joe O'Meara is a Senior Design Manager with Haden Young, one of the UK's leading M&E contractors. He has been involved in a wide of projects including a number of major healthcare schemes. In recent years his main focus has been as a key member of bid teams developing major PFI and ProCure 21 healthcare projects including those at Stoke Mandeville Hospital, Addenbrookes Hospital Cambridge, Churchill Hospital Oxford and Birmingham New Hospitals. The latter project includes major mental healthcare facilities. He is currently involved in developing schemes for new healthcare facilities in Northern Ireland.



Alison is a Grants Consultant at Davis Langdon Crosher & James, the tax and funding specialist arm of Davis Langdon LLP. She leads their Grants Team who specialise in supporting clients' source and secure external funding for their projects. She has worked exclusively in the grants sector either as a funding assessor for organisations before using this knowledge working on the other side of the fence working with organisations seeking grant funding. Alison has worked with a wide range of organisations spanning both the private and the not for profit sector such as museums and art galleries, building preservations trusts, charities, local authorities and property developers. This also covers a range of industries such as historic buildings, housing, regeneration schemes, land and environment, art and leisure.



Peter Cole is a quantity surveyor who joined Gleeds following twenty one years in the NHS and is now the partner responsible for health projects. He has worked on schemes in all sectors of health, including mental health, acute and primary care.

He has worked on projects delivered through ProCure 21, PFI, LIFT and conventional procurement routes, from the earliest stages through to completion. Since joining Gleeds Peter has led the cost management on nearly £2 billion of PFI projects, including the North Staffordshire "Fit for the Future" Project, Leeds Oncology and the project to renew the Liverpool Royal Hospital.