

Rebuild or Refurbish the NHS

Ensuring Sustainability
plays its part

SHINE, March 2010

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Sustainability from day 1



Key project decisions:

- What are you trying to achieve?
 - Service reconfiguration
 - Service expansion
 - Rationalisation
 - Improvement
- Why
 - Ageing and tired space
 - Not enough or too much space
 - Need to release or maximise space
 - Need to gain more space

Delivering Sustainability



Key project decisions:

- Assemble the appropriate team
 - Management
 - Board level directors
 - Healthcare
 - Finance
 - Stakeholders
 - Commissioners
 - Other NHS bodies
 - External Influences
 - Planners, LAs, etc.

Develop a vision

Establish a clear vision for the project that:

- Includes results from stakeholder engagement
- Is bold and aspirational
- Reflects your core values
- Is broad enough to include community-scale requirements
- Captures your sustainability objectives



Legislation

Present and Future imperatives – Are You Ready?

LEGISLATION

- Climate Change and Sustainable Energy Act 2006
- Building Regulations 2006
 - Whole building approach to energy/carbon efficiency
- October 2006 Natural Environment & Rural Communities Act 2006
 - Biodiversity Action Plans

LEGISLATION – new & forthcoming

- Building Regs - Revisions due – 2010; 2013; 2016; 2020
- **Energy Performance of Buildings Regulations 2008**
 - **Energy Performance Certificates + Display Energy Certificates**
- Site Waste Management Plans Regulations 2008
- Energy End Use Efficiency & Energy Services Directive –
 - 1% pa saving 2008 to 2017 – **public sector exemplar bodies**
- Climate Change Act 2008
- Carbon Reduction Commitment 2010
 - Cap and trade 6,000 Mwh ½ hour metered sites

The Chancellor's ambition for all buildings to be zero carbon by 2019 with the public sector aspiring to zero carbon by 2018



Climate Change Agenda



Energy White Paper = Climate Change Bill

- **80% carbon dioxide reduction by 2050 (1990 base year)**
 - **Accelerated programme by 2030!***

NHS mandatory energy/carbon efficiency targets:

reduce the level of primary energy consumption by **15% or 0.15 million tonnes**

carbon from March 2000 to March 2010

- achieve a target of **35-55 GJ/100 cu.m.** energy efficiency performance for all new capital developments and major redevelopments or refurbishments;
- existing facilities achieve a target of **55-65 GJ/100 cu.m.**
- **BREEAM Healthcare (B4H) [replaced NEAT July 2008]**
 - Mandatory under OGC Common Minimum Standards
- **HTM 07-07 Sustainable Healthcare & Social Care Buildings**
 - Provides guidance on holistic sustainable buildings
 - **Aligned to B4H approach**
- **NHS Carbon Reduction Strategy**



Key Issues



There are 14 key sustainability issues (most in HTM 07-07)

1. Community
2. Local environment
3. Design quality & fitness for purpose
4. Future proofing
5. Flood risk & SUDS

Issues 6-13 - covered in BREEAM Healthcare:

6. Health & well-being
7. Energy & CO₂ emissions
8. Transport
9. Water use
10. Materials
11. Waste
12. Land use & ecology
13. Pollution

Plus one further SHINE item:

14. Whole life costs & value

Techniques for achieving the BREEAM Healthcare rating in new builds/refurbishments



- “A genuinely sustainable building is one that is sufficiently adaptable that it remains operationally useful throughout its structural life”
- Includes guidance for all scales of project
- Can be used as a checklist for new buildings, refurbishment and maintenance



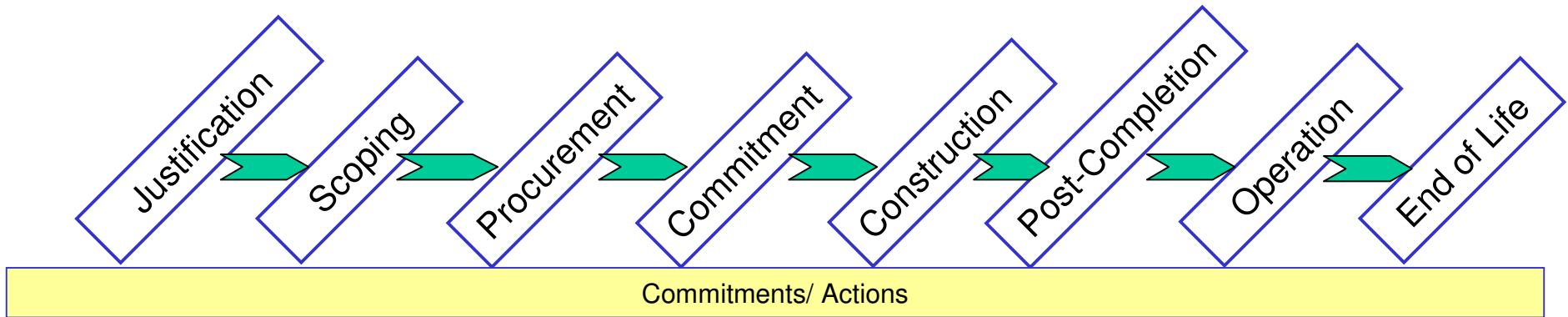
Environment and sustainability
Health Technical Memorandum
07-07: Sustainable health and
social care buildings

Planning, design, construction and refurbishment



DH HTM 07-07: Procurement Actions

Sustainable Health and Social Care Buildings



SOC	OBC	OBC/ CFBC	Sign offs and start on site	Hand over of facilities	Building user manual	Hard facilities management	Disposal of site
SSDP	Stage 1 bus. case	Stage 2 bus. case					

Set SD targets and KPIs	<ul style="list-style-type: none"> •Commission key expertise, •WLC Feasibility study, •BREEAM Pre-assessment, •Verify KPIs and targets, •Sustainability statements 	<ul style="list-style-type: none"> •Clarify sustainability objectives, •Commission expert team, •BREEAM (D&P), •Focus on sustainability targets 	<ul style="list-style-type: none"> •Sign off design & procurement sustainability objectives, •Commitments for sustainable site activity 	<ul style="list-style-type: none"> •Considerate Constructors Scheme (CCS), •Construction Environment Management Plan (CEMP), •Appoint Site Manager 	<ul style="list-style-type: none"> •Commissioning, •Building User Manual, •Appoint estate/facilities manager 	<ul style="list-style-type: none"> •User Awareness •Management •Monitoring, Good Corporate Citizen test, •BREEAM (PCR & M&O), •Seasonal Commissioning 	<ul style="list-style-type: none"> •Estate evaluation, •Opportunities for reuse, •Sustainable disposal, •Environmental Management plan for demolition
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Embedding Sustainability in healthcare buildings



WHAT IS A SUSTAINABLE LZC HEALTHCARE BUILDING?

“A building with give and not just take. A leadership with standards that matter. A health - care organisation with the needs of the community in mind”

Services and Facilities that address:

- Low carbon ↪ carbon neutral ↪ zero carbon
- Maximises on renewable energy sources
- Waste a RESOURCE – reduce; reuse; recover; recycle
- Transport friendly – location; accessibility; alternatives
- Water efficient – conservation
- Promotes good land use for healthcare – biodiversity; ecology etc – Biodiversity Action Plans
 - Health promotion ie window, natural light/sight & ventilation
- Sustainable Communities - impact and healthcare benefits



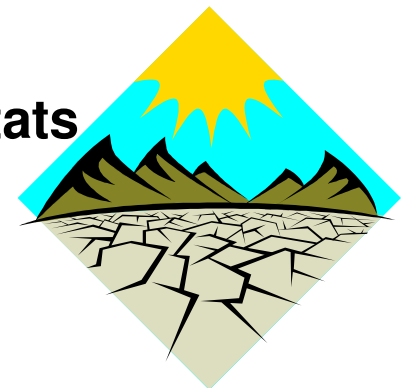
Embedding Sustainability in Healthcare Buildings



SUSTAINABLE Health & Social Care Estate :

Climate Change **Adaptation** to impacts already happening:

- Guiding **strategic development** to locations offering greater protection from impacts such as flooding, erosion, storms, water shortages, subsidence
- Ensuring new and existing building stock are more **resilient to climate change** impacts
- Incorporating **sustainable drainage** measures and high standards of **water efficiency** in new and existing building stock
- Increasing **flood storage** capacity and developing sustainable **new water resources**
- Ensuring that opportunities and options are planned for **sustainable flood management** and **migration of habitats and species**



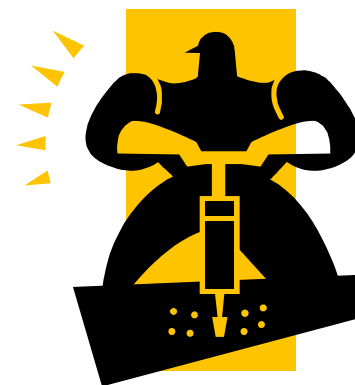
Embedding Sustainability in Healthcare Buildings



WHAT YOU CAN DO?

Take sustainability and partnership opportunities seriously

- Senior level buy in & good design + briefs
- Project team – skill mix & expertise is crucial
- Contracts and procurement – supply chain management
- Partnership with private sector, other sectors & healthcare providers
- Understand impact of sustainable development & climate change
 - Environmental; social; economic = healthcare delivery
- Benefits of Best Value approach
 - Lowest initial price is not always cheapest end cost
 - Whole Life Costing is key
- Flexibility in buildings & healthcare:
 - Healthcare developing standards; reform requirements;
 - Legislation and regulation
 - Climate change – changing weather scenarios ie floods – health impact differing healthcare needs
 - Sustainable communities
- Undertake BREEAM Healthcare assessments both capital and operational



Developing Sustainable Healthcare Buildings



USEFUL WEB SITES:

Department for Communities and Local Government

www.communities.gov.uk

Department for Business, Enterprise & Regulatory Reform

www.berr.gov.uk

Dept for Energy & Climate Change

Department of the Environment, Food & Rural Affairs

www.defra.gov.uk

Department of Health

www.dh.gov.uk

Carbon Trust

www.thecarbontrust.co.uk

Waste & Resources Action Programme

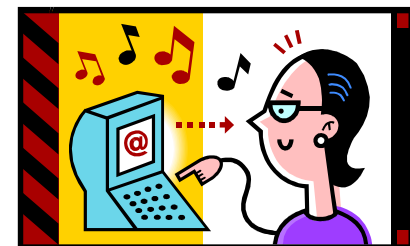
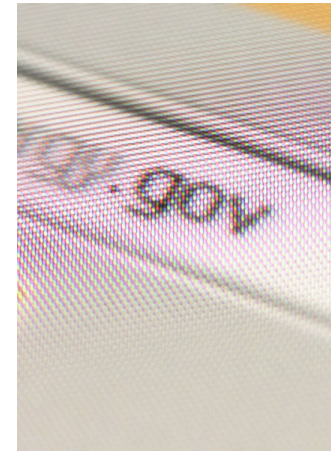
www.wrap.org.uk

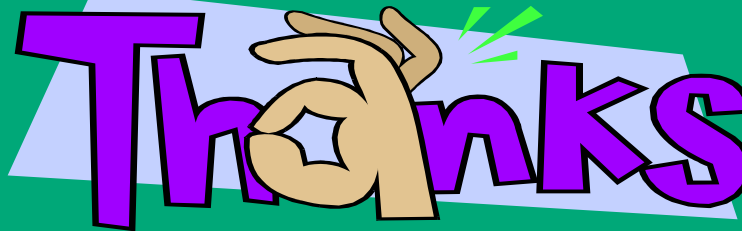
Alliance for sustainable Buildings

www.shine-network.org.uk

NHS Sustainable Development Unit

www.sdu.nhs.uk





Thanks

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