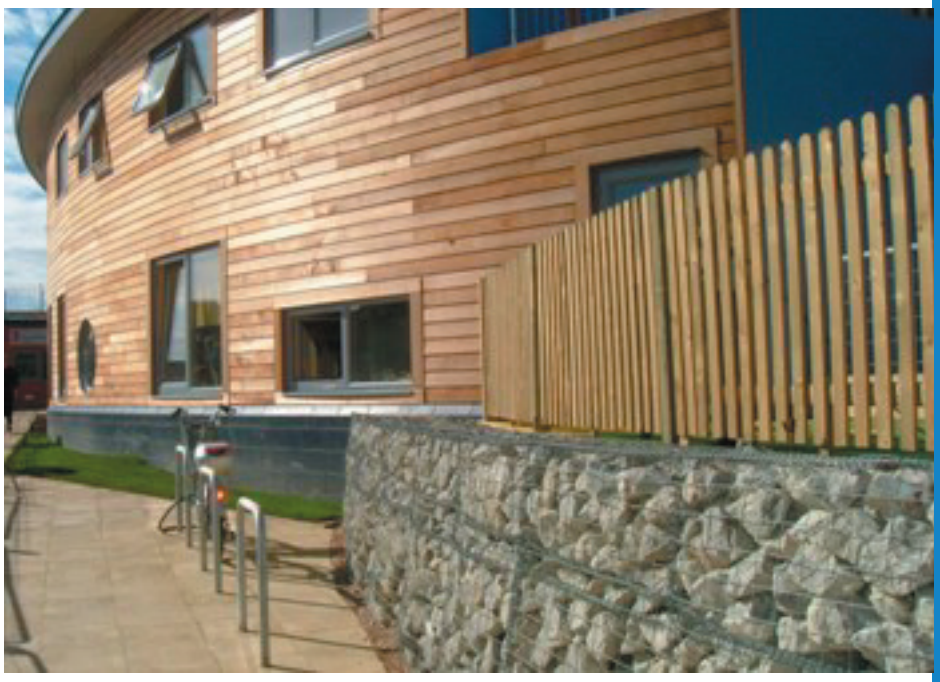
Corporate Sustainable Buildings Policy

East Sussex County Council



The Policy Document

SUSTAINABLE BUILDINGS POLICY

Amendment History Sheet

Issue Number	Changes Made	Issue Date

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Front Cover Photograph -
Hastings and St. Leonards Children's Centre

Contents

Please see Appendix 1 The Guidance Document for further information and guidance checklists

PROCESS GUIDANCE

1 Foreword - Policy Steer and Statement of Policy

East Sussex County Council (ESCC) has for some years adopted a policy stance regarding energy management.

Policy Steer: Effective property management

Maximise the efficiency of the property portfolio on behalf of the council through:

- Effective asset management covering utilisation, maintenance, accessibility and disposals;
- Effective county-wide capital planning linked to the property, necessary to deliver service priorities;
- Provision of office accommodation better suited to service delivery including modern ways of working and new HQ possibilities; and
- **Effective energy management as a contribution to addressing climate change.**

It is now extending the same principles to secure a more sustainable approach to construction and maintenance.

Statement of Policy

ESCC recognises that the design, construction maintenance and occupation of buildings, necessary to support the delivery of its services, have the potential to impact on the global and local environment, society and economy in a range of positive and negative ways.

ESCC aims to secure the positive benefits of its building portfolio for stakeholders and service users and minimise and mitigate the potential and actual negative impacts. This will be achieved by considering impacts that arise in the following distinct stages of a facility's lifecycle:

Prepare → Design → Construct → Use → Re-use/Decommission

The ESCC has already made a tremendous contribution to society's need to respond to climate change through our Carbon Management Plan. Through this we substantially reduced the ESCC's Carbon Footprint from a base year of 2001/02 as set out in the Plan, achieving a 19.7% reduction by April 2008.

In 2007 we won the 2007 South East Low Carbon Award in the category "Public Sector Commitment to Carbon Reduction".

I am delighted that we are now building upon this strong foundation by adopting this policy and guidance which will ensure that we embed the principles and practices of sustainability in the way we construct and maintain our buildings.

Councillor Tony Reid
Lead Member for Corporate Resources

2 Introduction to the Policy and Guidance Document

This Corporate Sustainable Buildings Policy sets out how ESCC intends to deliver our commitment to a sustainable approach to construction and maintenance.

The policy will need to respond to change and the guidance document creates a sustainable framework for the progressive review and auditing of objectives and priorities.

In developing this Policy and the associated Guidance Document, we have worked with colleagues in all ESCC departments, and the consultants who provide design and maintenance services. We are grateful for the enthusiastic assistance of White Design, a sustainable design and consultancy practice who we commissioned to help create the policy.

The Policy is underpinned by the following Key Principles

Principle 1 – effective use of public money

To look to secure "no cost" and "low cost" benefits first, before other more costly project aspects are considered.

Principle 2 – a lifecycle approach

To ensure that whole life costs and the benefits of a sustainable approach are considered at each life cycle stage, with particular emphasis on securing adequate information at project inception to set realistic budgets and briefs and to integrate this with the ESCC's Capital And Property Strategy (CAPS) process.

Furthermore, through consultation workshops we have targetted four Key Target Areas:

- Target 1: Energy supply and use (including embodied energy)
- Target 2: Material specification
- Target 3: Transport
- Target 4: Quality of Internal Environment

This Policy and Guidance Document will constitute part of the brief to our design and maintenance service providers and inform project teams and project boards/sponsors of the ESCC's expectations and requirements regarding a sustainable approach to construction and maintenance.

John Morris
Assistant Director - Property

Sean Nolan
Deputy Chief Executive and
Director of Corporate Resources

PROCESS GUIDANCE

3 The current Key Target Areas explained

Target 1: Energy supply and use (including embodied energy)

- To look for opportunities to secure the emission reductions possible in designing energy supply and infrastructure solutions to support larger developments or projects on linked or adjacent sites. As an example, ESCC's Biomass Fuel Strategy (2004) states that the first choice fuel for heating its buildings will be biomass, subject to further detailed analysis.

- To secure the free benefits and reductions in energy demand and emissions obtainable through passive design, e.g. by considering site and solar orientation, prevailing winds, the use of natural ventilation and daylight and controlled use of solar gain.

Target 2: Material specification

To reduce the environmental impact of materials used in building design and maintenance through a "green" approach to specification that takes account of raw and recycled material sourcing, product manufacture and life-time use and re-use, integrated through the supply chain in order to:-

- reduce the embodied energy of materials used e.g. by using locally sourced materials to help maintain local character and reduce transport impacts;

- promote social and economic sustainability by specifying appropriate local labour and materials and stimulating local markets through Council purchasing power; and

- establish standardised materials across different projects to maximise the potential for reducing environmental impact and delivering economies.

Target 3: Transport

- To integrate green travel planning and local procurement into all schemes to encourage building users to minimise their personal carbon emissions, reduce embodied energy from suppliers and support the local economy.

- To ensure that scheme appraisal and design supports green methods of travel, e.g. by site selection and design of facilities to encourage walking and cycling.

Target 4: Quality of Internal Environment

- To ensure that the highest design standards are achieved for the internal environment, recognising the benefits this brings in terms of occupant satisfaction, productivity, attainment and health.

- To accord a high priority to natural ventilation and daylight and use mechanical ventilation only where necessary.

- To avoid the use of toxic materials and potential sources of indoor air pollution such as PVC and vinyl flooring.

4 Setting and monitoring Sustainable Design Standards (SDSs)

The purpose of the policy is to reduce the impact of ESCC buildings on the wider environment. To achieve this, ESCC intends through this Policy and Guidance Document to set a clear framework within which early actions can show demonstrable progress and to set the tone for progressive increases in performance targets. SDSs indicate ESCC's standards - these need to be clear and consistent if they are going to work. There should be minimum standards for all building types that are achieveable in the short term, with increasing targets being implemented at future review stages.

The sustainable buildings policy sets out four target areas for the current period:-

- Target 1: Energy supply and use (including embodied energy)
- Target 2: Material specification
- Target 3: Transport
- Target 4: Quality of Internal Environment

SDSs have been set for these four Target Areas. These are set out in tables on pages 6 and 7. The benchmarks for each SDS will be reviewed and updated regularly to ensure continuous improvement.

The ESCC has adopted the national industry benchmark standard Building Research Establishment Environmental Assessment Method (BREEAM). The majority of the SDSs relate directly to BREEAM requirements.

The SDS requirements establish specific mandatory credits that have to be achieved when completing a BREEAM assessment.

For example, SDS M1 requires 80% of all material specification to achieve an 'A' rating as specified in the Green Guide to Specification. A building designed to achieve BREEAM "Good" will still have to achieve SDS M1, regardless of whether the project needs the associated BREEAM credits to achieve this BREEAM rating.

The Monitoring process

ESCC has chosen to set a suite of realistic SDSs in the first instance while the new policy and process guidance is bedding in. Over time, as more experience is gained in how to make the process as systematic as possible, SDSs can be made progressively more demanding.

It is the intention that reporting on relevant SDSs will be undertaken by the contractor/ consultant appointed by ESCC, indicating how they have achieved the SDS to the Project Officer.

ESCC's Project Officer responsibility can be aided by the use of the Lifecycle Checklist of key sustainability issues contained in Appendix 1 The Guidance Document. This is defined by RACI project stages (Responsible, Accountable, Consulted and Informed) and the Commission for Architecture and the Built Environment (CABE) stages.

The Sustainable Design Standards (SDSs)

Sustainable Design Standards apply to all new buildings, extensions and refurbishments, even if the project is subject to BREEAM accreditation scheme.

5 ESCC's approach to BREEAM

BREEAM is a tool used to classify the enironmental credentials of buildings and developments and awards one of the following ratings, subsequent to an evaluation by an accredited assessor:

Pass → Good → Very Good → Excellent

These standards only apply to the current BREEAM schemes i.e.:

- BREEAM Offices;
- EcoHomes and the Code For Sustainable Homes 2007;
- BREEAM Industrial;
- BREEAM Retail;
- BREEAM Schools;
- BREEAM Multi-Residential; and
- Other schemes subsequently added by BRE are deemed to be included in this policy.

Where a project or building type falls outside the current BREEAM schemes definition, Project Teams will need to determine if the project will utilise BREEAM "Bespoke" standard.

For all new buildings, extensions and refurbishment projects and for maintenance elements, the Council will achieve the following BREEAM rating:

- Minimum of 'Good';

- or -

- The higher standard of 'Very Good' or 'Excellent' for suitable projects on a cost neutral basis or where required by the funding agency; and
- It is planned, through consultation to raise the minimum standard from 'Good' to 'Very Good' or 'Excellent' rating for all projects where there is budget alignment.

This step change to higher BREEAM ratings will be incrementally improved over a five year timeframe to allow adequate resources and training to be in place. For example:

Step 1 -	BREEAM rating: 'Good' overall but with 'Very Good' for all energy and water credits;
Step 2 -	BREEAM rating: 'Very Good' overall;
Step 3 -	BREEAM rating: 'Very Good' overall but with 'Excellent' for all energy and water credits; and
Step 4 -	BREEAM rating: 'Excellent' overall.

The ESCC has set up a limited amount of funding against which projects can bid, should a reasonable additional investment secure an improved BREEAM rating. For more information, contact your CRD Property representative or the Project Team.

Project Type	Policy Target	SDS Ref	What ESCC requires to be addressed	Minimum Standard	Comment	Standard Achieved
Capital projects	Energy supply and use	E1	Percentage of new buildings and extensions to achieve “Good Practice” as described in CIBSE Guide F: energy efficiency in buildings Part C Energy Benchmarks.	100%		
Capital projects	Material specification	M1	Material specification should follow guidelines as set out in The BRE Green Guide to Specification. All new buildings and extensions should ensure that at least a minimum percentage of the building elements achieve a summary ‘A’ rating.	80%		
Capital projects	Material specification	M2	Use WRAP ‘Quick Wins’ toolkit to ensure at least a minimum percentage of the materials value of a construction project derive from recycled content.	10%	10% is identified by WRAP as being achievable at no extra cost. Up to 25% is achievable depending on construction method.	
Capital projects	Quality of internal environment	IE1	Natural day lighting strategies to be adopted in all new ESCC buildings and extensions. Buildings and extensions to achieve a percentage of floor area as adequately day lit - as defined by BREEAM requirements.	80%		
Capital projects	Quality of internal environment	IE2	Natural ventilation strategies to be adopted in all new ESCC buildings and extensions.	100% new buildings and extensions to adopt natural ventilation approach at feasibility stage. 100% new school buildings and extensions to achieve natural ventilation approach to all classrooms and teaching spaces.	Mixed mode hybrid systems to be agreed with ESCC where a whole building natural ventilation approach is not achievable.	

Project type	Policy Target	SDS Ref	What ESCC requires to be addressed	Minimum Standard	Comment	Standard Ahieved
Capital projects	Quality of internal environment	IE3	1. Reduce the use of toxic and polluting materials and their overall environmental impact in all types of building works i.e. new, extensions and refurbishments etc.			
			2. All insulation specifications to avoid the use of ozone depleting substances and substances with global warming potential of 5 or more as defined by BREEAM ODP = Ozone Depletion Potential GWP = Global Warming Potential	Zero ODP & GWP<5		
			3. Percentage of paints, primers, sealants and varnishes specified to be low Volatile Organic Compounds (VOCs).	80%		
			4. Percentage of all floor finishes to achieve an 'A' rating in 'The Green Guide to Specification'. Percentage of all internal wall specifications to achieve an 'A' rating.	min 50%	aim for 80%	
Capital and revenue projects	Transport	T1	Minimise impact of transport to and from site during the construction period by using local suppliers.	100% of building contracts exceeding £100,000 requires the Principal Contractor to monitor and report transport to and from site to enable CO_2 emissions arising from transport to be calculated.	A future "good practice" bench mark will be set by ESCC for all building contracts exceeding £100,000.	

6 ESCC's approach to the Lifecycle

ESCC's Corporate Sustainable Buildings Policy aims to ensure that whole life costs and the benefits of a sustainable approach are considered at each life cycle stage, with particular emphasis on securing adequate information at project inception to set realistic budgets and briefs and to integrate this with the ESCC's Corporate Asset Management Plan (CAMP). It also looks to secure "no cost" and "low cost" benefits first, before other more costly project aspects are considered.

Using the cost benefit tool in the 'Design Approaches' section of the the Guidance Document, contractors and consultants must follow all solutions that have a neutral cost attached. All solutions which are cost positive must be agreed with ESCC.

Whole Life Costing (WLC) is a tool used to assist in making decisions between options with different cash flows over a period of time. In this respect it is a form of investment analysis. WLC is relevant when considering whole estates, whole facilities, individual buildings or structures and when comparing alternative investment scenarios such as:

- retain and refurbish or sell;
- alternative designs (such as between framed and load-bearing structures); and
- alternative specifications (such as between timber and metal windows).

WLC is particularly useful when assessing whether an alternative with a higher capital cost is justified.

WLC should be carried out at all important decision stages in procurement, construction and use of the property, e.g. initial investment appraisal, feasibility study of alternatives, outline and detailed design, tender appraisal, assessment of variations, handover and post-occupancy evaluation.

Costs to be considered include site costs, design, construction, fit-out and fees, as well as in-use costs such as management and maintenance charges and, finally, costs of disposal and deconstruction.

ESCC considers the lifecycle of a building to be 60 years.

PROCESS GUIDANCE

7 ESCC's approach to Maintenance Requirements

A sustainable approach to maintenance contracts should focus on the objectives established within the ESCC's Sustainable Buildings Policy. It is understood that there are specific requirements for maintenance works that will exclude some of the requirements more applicable to new build and refurbishment projects.

- The checklist for maintenance contracts contained in Appendix 1 The Guidance Document has been established to provide a straightforward set of requirements and a reporting mechanism explicitly for use by ESCC officers managing maintenance contracts.
- Please see 'Sustainability checklist for Maintenance Contracts' contained in Appendix 1 The Guidance Document.