Sustainable Construction and Refurbishment Policy – approved Oct 2017

Introduction

The University of Worcester aims to develop its Estate and procure new and refurbished buildings in a manner that will promote sustainability, conserve and enhance natural resources and prevent environmental pollution

- 22% of UK carbon emissions come from the operational and embodied carbon of the built environment
- 10% of UK carbon emissions come from heating buildings alone
- 3.2 million homes are in areas at risk of flooding from surface water
- Waste from construction, demolition and excavation represents 59% of the total UK waste
- Since 1970 56% of monitored species in the UK have declined *

All stages and processes in the design and refurbishment/construction and operation of buildings can contribute towards excellence in sustainability.

This policy seeks to support the University's Sustainability Policy and the University's Strategic Plan.

Application of the principles set out in this Policy will be subject to resource availability.

The University will embed good practice in all aspects of the development process from design through to beyond handover. This will include but not be limited to:

Passive Design

The design of all new developments and refurbishment of existing facilities should aim to minimise energy use through passive design. The design process should take account of factors such as location, orientation, thermal mass, glazing and natural ventilation and daylight. Early consideration and incorporation of such influences will maximise the energy efficiency of the building and reduce the cost of operating the building over its life time.

Optimising Building Performance

Project teams will ensure that all development and refurbishment projects increase the efficiency of resources used whilst seeking to reduce the building's impacts on human health and the environment. System controls will be set to ensure buildings are fully optimised and, where practicable, real-time energy monitoring and analytics will be used to monitor performance. These principles will be embedded into projects to allow building users to occupy and control buildings simply and effectively.

Design Criteria

Design Teams are required to adhere to the following principles when designing schemes for the University:

- Design to minimise waste. Any waste arising from the construction phase should be minimised and where possible be re-used or re-cycled

- All design teams and contractors employed by the University shall be made aware of the University's list of prohibited materials – see Appendix 1

- A Low or Zero Carbon (LZC) approach to building design and refurbishment will be adopted

- Flexibility will be designed into spaces to allow future changing needs to be met

- Design for increased water efficiency and conservation

*Source UK Green Building Council, published 29 September 2017

- Standard specifications for key components will be used to ensure consistency of approach across the Estate
- Comfort cooling will not be provided as standard in University developments/refurbishment schemes
- All wood used in maintenance, development or refurbishment projects is to be from sustainable sources (e.g. FSC or PEFC)
- Paints and other wall coverings should be low or free from VOCs
- The use of SUDS shall be encouraged when designing external drainage to mitigate run-off which may otherwise cause flooding
- Financial assessment of all projects will take account of Whole Life Costs throughout the design development process, including in operation and maintenance costs
- A target of 15% of energy produced from renewable or LZC technologies will be sought for capital projects and major refurbishments OR equivalent fabric improvements made to the design to reduce demand by the same 15%.

BREEAM and SKA Assessments

The University seeks to embed sustainable practices into all aspects of the design and construction or refurbishment of buildings.

Where it is deemed the process will provide clear and measurable benefits over the lifecycle of the building, and where it is economically advantageous, a BREEAM Assessment will be carried out on all new builds over 1,000m2 with a target to achieve an 'Excellent' rating. A minimum rating of 'Very Good' will be targeted in cases where there are valid and explicit reasons why an 'Excellent' rating cannot be achieved.

Similarly, where it is deemed the process will provide clear and measurable benefits over the lifecycle of the building, and where it is economically advantageous, a SKA Assessment will be carried out on all refurbishments over 1,000m^2 with a target to achieve a 'Silver' rating and a minimum rating of 'Bronze' where there are valid and explicit reasons why a 'Silver' rating cannot be achieved.

Display Energy Certificates

Where the measures to be enacted provide a clear and definable lifecycle benefit the University will seek to achieve a DEC rating of B as a minimum on all new builds over 1,000m^2 – the aspiration shall always be a rating of A.

Impact on local communities and the local environment

The University, its Project Teams and Contractors will aim to be consultative and responsive to the internal and external communities. Where it is deemed appropriate, projects will be registered under the Considerate Contractor Scheme and will aspire to a Gold Award.

The University will also encourage the Contractor and its supply chain to bring added social impact (Social Values Act) through the project this may include providing apprentice opportunities, use of local suppliers and labour force, undertaking works for local charitable organisations or providing education opportunities for local groups.

During the design and the delivery stage of a project the University, the wider Project Team and the Contractor (and its supply chain) will look for opportunities to provide and protect habitats. The University of Worcester

*Source UK Green Building Council, published 29 September 2017

has a legal obligation to conserve biodiversity and has made policy commitments accordingly. The Natural England and Rural Communities Act (2006) requires all UK public bodies to have regard for the conservation of biodiversity. Biodiversity is a key part of the University's Sustainability Policy and Environment Management System. Where appropriate, biodiversity advice from the Strategic Biodiversity Management Group can be sought (as set out in the University's Biodiversity Strategy and Biodiversity Action Plan) to set out how the scheme will both protect existing habitats and species and give details of mitigation, enhancement or compensation plans.

Handover and beyond

The University will ensure training is provided to end users and Estates/Facilities staff to ensure they are suitably trained to operate the systems and controls within the facility. Guidance on the use of buildings (e.g. building manuals, behaviour change projects) will be produced to ensure continued carbon savings once buildings are in use.

Soft Landings will be used on schemes of 1,000m^2 to facilitate both smooth handover and operation of the building.

Education and CPD opportunities will be constantly sought to maintain the Estates team's knowledge of sustainable construction issues.

Approved May 2011, reviewed and updated Sustainability Committee October 2017

*Source UK Green Building Council, published 29 September 2017