

eauc case study

CLASSIFICATION:
Sustainable Construction
SUB CLASSIFICATION:
Operational

TITLE:

RE:LOCATE Development of new campus for Queen Margaret University

DATE:

October 2007



INSTITUTION PROFILE

HE

4000 FTE students

500 staff

City – soon to be City/Rural

Buildings across 3 sites

SUMMARY

When Queen Margaret University's Corstorphine Campus in Edinburgh was deemed unfit for purpose and the decision to relocate was made it embraced the challenge to deliver the most sustainable campus in the UK. The University has achieved the highest BREEAM Excellent score for a Higher Education Institution in the UK and plans to maintain and improve upon its good start.

EAUC COMMENT

This case study is a snapshot of an amazing process involving the 'sustainable' relocation of Queen Margaret University. It shows how essential it is to have and retain a holistic approach and vision for such a project and the importance of having specialist advice and support.

PROJECT PARTNERS

Dyer Associates - Architects; Buro Happold - Civil and Structural Engineers; KJ Tait -Services Engineers; Cyrill Sweet – Cost Consultant ; Iain White Associates – Landscape Architects; Heery International – Project Managers ; Gaia Research – Sustainability Adviser

THE PROBLEM

When the then Queen Margaret College moved to its current campus at Corstorphine in Edinburgh subsequent growth in student numbers was accommodated by acquiring two additional satellite sites. Since then no significant capital funding was made available from central sources for the Institution's estate, the estate was subsequently deemed unfit for purpose and the decision was made to relocate.

THE APPROACH

The recommendation to relocate to a new, modern campus was supported by a detailed Estates Option Appraisal which was part-funded by SHEFC. An outline design brief was developed based on extensive consultation with funding bodies, staff, students and the community. Environmental and sustainability considerations were a core part of the brief with the Brundtland Commission's definition of sustainable development being used. A holistic approach was taken and the sustainability elements of the brief included:

- Biodiversity
- Water management
- IT Strategy
- U-values
- Materials
- SUDS
- Biomass
- Ventilation
- BREEAM
- Passive design
- Envest
- Daylighting

GOALS

The vision for the project was to create a campus that was the most sustainable in the UK and was welcoming and inspiring to staff, students, visitors and the local community. The following six areas were identified as priorities:

- Using resources effectively
- Promoting biodiversity
- Supporting communities
- Creating healthy environments
- Managing the process
- Minimising pollution

By focussing on the delivery of each of these, every aspect of the design, construction and future operation could be considered from the perspective of sustainability.

OBSTACLES AND SOLUTIONS

- Defining sustainable development in parameters of the project
- Specialist knowledge and experience
- Economic argument
- Measuring performance
- Research visits and stakeholder consultation
- Design team selection and appointment of specialist consultant (champion)
- Holistic approach
- Set targets and use assessment tools

PERFORMANCE AND RESULTS

Benefits will be achieved through their green travel plans and promotion of biodiversity, more specifically they have:

- The highest BREEAM Excellent score for HE (77%) and the 4th highest bespoke BREEAM in the UK;
- 21 eco points in ENVEST, better than BRE target;
- 77% savings in carbon emissions through the use of biomass;
- 80% of floor finishes and internal wall specifications that are A rated;
- 5% enhancement of U-values; and
- 25% improvement on air leakage standards.

They are also on course for an excellent CEEQUAL rating and exemplar performance in energy consumption.

LESSONS LEARNT

For a project of this nature it is essential that you:

- Establish your vision;
- Emphasise sustainability through all stages of the project;
- Emphasise during selection process the need for consultants to have experience of sustainability;
- Consider appointing specialist sustainability consultant;
- Make sure everyone on the team has a clear and shared vision;
- Engage stakeholders early in process; and
- Adopt holistic approach, integrating sustainability within the project, particularly important for those with a financial viewpoint

FURTHER INFORMATION

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