

- Research shows that green design features which add 0-2% to capex can save at least 10 times more on lifetime energy and other operating costs
- Tougher Building Regulations and other measures to drastically reduce CO2 emissions are inevitable
- Best practice 'green' buildings proclaim a university's ambition and future orientation

Highly Commended:

University of Hertfordshire - A Strategic Approach To A High Flying Campus

The £120 million de Havilland campus has consolidated the activities of two older campuses onto a single brown-field site (the former British Aerospace Aerodrome and factory) in Hatfield. This now hosts the Business School and Schools of Humanities and Education, a 460 seat conference and events centre, a sports village and 1600 residences. The academic buildings were a Private Finance Initiative project, whilst the sports village and residences were privately funded. The lead contractor, Carillion, was partly selected because of its willingness to support the University's environmental aims (as evidenced by recycling 65% of construction waste). Notable features of the campus include:

- Buildings with high thermal mass, natural ventilation, solar control and shading, and sustainably produced timber
- Residences which are 60% more energy efficient than typical examples
- 50% of electricity sourced from alternative energy
- Planting of 250 native trees and almost 30,000 other plants to maximise biodiversity
- Community involvement, e.g. through sports coaching for schools and student volunteer programmes.

The energy efficient design of the new campus will save approximately £3 million on energy bills over 25 years. This involved £109,000 of additional capital expenditure which should be paid back in under three years.

Nicola Corrigan, the University's Environmental Coordinator, believes that the outcomes are due to a strategic approach which "used the 'Natural Step' framework for general guidance, and a BREEAM 'excellent' target and whole life costing calculations for design details. To ensure operational as well as design sustainability, we have also set up a campus Environmental Management System."

Judges' Comments on Sustainable Construction

"Sustainable buildings can reduce operating costs and anticipate tightening environmental regulation. They can also improve functionality – as with the well researched connection between natural cooling and ventilation and better staff morale and performance – and enhance an organisation's reputation. Achieving these benefits requires a holistic approach to design, which is demonstrated by both the University of Newcastle's Devonshire Building and the University of Hertfordshire's de Havilland campus. The Devonshire Building scored highly for its collaborative design process which carried the initial expectations through to the final result; its striking design; and its use of multiple energy efficiency and other environmental technologies. Most of these technologies are proven and cost-effective and therefore have widespread scope for replication.

The de Havilland campus also embraces sustainability in its widest context. It is a brownfield site which supports biodiversity, makes use of recycled materials, is energy and water efficient, and is available to the community. There has also been a strategy of maximising access by public transport and cycles. As with the Devonshire Building, BREEAM provided a mechanism to steer improvement, whilst the use of Natural Step and whole life costing provided additional impetus for improvement."