



The logo for the BuildingFutures Awards 2011. It features a stylized city skyline at the top. Below it, the text 'BuildingFutures' is in a dark grey font, 'AWARDS' is in a large, bold, green font, and '2011' is in a large, bold, grey font.

Award Category: Most Sustainable Construction

Project: University of Hertfordshire Law Court, Hatfield

Client: University of Hertfordshire

Project Team: RMJM



The development of the University of Hertfordshire's Law Court building considered sustainability as a key priority from the outset - resulting in a BREEAM Excellent building, with an 'A' rated Energy performance certificate, which is both commercially and environmentally efficient. The project was completed on time and in budget, and has exceeded the expectations of its initial objectives.

The University of Hertfordshire has a carbon management plan which commits to reducing carbon emissions by 43% by 2020. The construction of the Law Court was included in this plan, and a total carbon reduction of 25.6% of regulated emissions was achieved through the use of low and zero carbon technologies. Now complete, it is predicted that the Law Court will consume less than 50% of the carbon previously consumed by the Law School it replaced. It benefits from a Combined Heat and Power Plant that reduces primary energy use by 30% compared to heat-only boilers, and a roof-mounted photovoltaic panel array which is predicted to generate 4,420 kWh of electricity, saving approximately 2.6 tonnes of carbon dioxide per annum.

The building's environmental credentials are such that it was awarded an EPC rating above that required for a BREEAM Excellent rating. In addition, the water section of the building's

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BREEAM assessment scored 100% through measures including reduced WC flushing capacity and a rainwater harvesting system which collects roof run for WC flushing.

One of the most impressive aspects of the building was the incorporation of a highly innovative E Stack system for ventilating and cooling the building. The E Stack system requires very little energy and when compared with conventional methods of ventilating and cooling buildings delivers very substantial carbon savings at reduced the capital cost and with a much smaller plant space requirement.

In addition to the above, other design and best practice measures contributed to the BREEAM Excellent rating these include the use of a green concrete specification in the concrete mix, saving 35% on embodied energy when compared to standard concrete (the equivalent saving of around 150 tonnes of carbon dioxide), and a site wide Sustainable Urban Drainage System to reduce peak flows to green field run off rates.

Judges comments:

“One of the most impressive things about this project is that sustainability was evidently at the core of all decisions. The design process was client-led and highly integrated. This led to significant cost savings, whilst ensuring appropriate specification of construction method and the materials used. The incorporation of ultra-low energy consuming plant and equipment, such as the “free” ventilation and cooling system, was very innovative. These measures will all contribute long-term to reducing carbon emissions and water wastage. The ongoing monitoring and display (on an LCD screen in the entrance foyer) of energy production and consumption (together with water usage and savings) information is also exemplary. The environmental credentials of this building are truly outstanding.”

“All design aspects of this building have been carefully considered. From the internal acoustics, right down to the choice of external lighting, this new development has been designed not only to support the needs of students, but also to take into consideration those of the local community.”