Best Sustainability Project

Winners

Devon Building Control and Rok (Exeter) – Okehampton Business Centre (Opportunity Okehampton)

This newly completed development delivers huge environmental benefits, and is expected to shortly be awarded a BREEAM and CEEQUAL "excellent" rating.

Its green credentials includes a construction waste plan that meant only 16% of waste went to landfill, two large drainage ponds, timber from a certified source, low-use cisterns, showers and taps with leakage detection to save water.

The building's structure and fabric is designed to cut low-energy consumption thanks to air-tight construction, levels of insulation over and above those required by Building Regulations, high-performance glazing, minimal thermal bridging and natural ventilation.

The development was described by the judges as a "well-documented submission showing that an ambitious commercial project can achieve high levels of sustainability". They added: "The use of certified timber and local materials was commended."

Runners-up

CNC Building Consultancy and LSI Architects LLP – Cley Marshes Reserve Visitors Centre

Situated on the north Norfolk coast, the new centre provides Cley with a community resource, and visitors with an inspiring ground-hugging building from which they can learn about the environment around them.

It is located on a site of special scientific interest, in an area of outstanding natural beauty, and the centre's design is inspired by its immediate landscape. It is also based on the use of natural sustainable materials.

The structure is marked by its green roof which attracts butterflies and other insects, helps to attenuate rain water and eases discharge into the drainage system. The structural grid of the roof was also developed to reflect standard plywood sheet sizes, thereby minimising waste in its construction.

Gwynedd Council and Pochin Contractors – The Environment Centre – University of Wales

This four-storey, boat-shaped building was constructed to show how modern buildings can be built in a sustainable manner with local materials. It is uses a concrete frame, Welsh oak cladding, Welsh random slate and slate slab panelling. Rain water is recovered to supply all the sanitary needs of the building.

One of the most challenging aspects of the project was the underground heating system, which uses 125m-deep wells to extract geothermal energy.

Rushcliffe Borough Council and GF Tomlinson Building – Candleby Land (Cotgrave) Primary School

Children formed an integral part of this project, as they were extensively consulted through inset days, open evenings, interviews and class work. As a result, they have influenced the detail and layout through a comprehensive, education-led brief.

Sustainable features include double insulation and rainwater harvesting. The ventilation is natural, and is controlled by a building management system that has sensors in every alternate classroom.

The development also includes the provision of ponds and allotments for curriculum use and good levels of natural daylight.

Manchester City Council and Walker Simpson Architects – St. Brigid's RC Primary School

Walker Simpson Architects was given the unassuming brief of a store room extension, but saw the opportunity to enhance the main elevation. The aim of the project was to show how a contemporary appearance could be generated through the use of salvaged materials as part of a low-embodied energy solution. Research was carried out into how shipping containers could be re-used in order to provide a structurally efficient solution. Defective aluminium road planks were also used to create striking cladding.

Wear Valley District Council and Arran Construction – Tindale Towers

This art deco-style project put the emphasis on minimising energy, water and waste while maximising thermal performance and biodiversity. The development was fitted with the latest green technology, including heat exchangers that ensure that the fresh air coming into the building is warmed by the stale air being expelled from the rooms.

In addition, rainwater from the roof is collected and stored in an underground tank before being filtered and pumped up and to flush toilets. The house is warmed throughout by an underfloor heating system that is pumped through pipes set in a screed on top of insulation board.