

Press Release

URBED's retrofit project in Rotherham has been named winner of the 'Property and the Built Environment' category in the 2011 Sustain Awards.

The ceremony, held as part of the recent Ecobuild conference in London, was attended by representatives from across the construction and sustainability sector and showcased the industry's best housing and design schemes.

The six homes in Brampton, Rotherham, beat off competition in the refurbishment section of the category from organisations including the Building and Research Establishment (BRE) with their Victorian terrace refurbishment project, PRP with their Priestman Point project and Octavia Housing with their Princedale scheme.

The scheme in Rotherham was constructed by Brammall, with URBED providing design and sustainability consultancy. This, and another scheme of four houses in Wakefield, were completed as part of the Technology Strategy Board's (TSB) £17m 'Retrofit for the Future' programme. This funded 86 exemplar schemes across the country with the aim of piloting approaches to whole house retrofit, testing the replicability of different approaches across the wider housing stock.

The homes have been designed to meet an 80% carbon reduction target, and so should meet the UK target for reduction of carbon dioxide emissions 40 years early. Rotherham was unique for tackling six houses with most other projects retrofitting one or two houses with the same funding of £150,000.

All the houses are super-insulated and air-tight, dramatically improving the thermal performance of the existing building fabric, reducing heating energy demand and carbon dioxide emissions. The external wall insulation on eight of the houses is an innovative woodfibre board, flexible enough to cope with the poor state of the existing wall finish. New triple glazed windows and high performance doors were also installed.

Each house has then been fitted with a different heating and ventilation system. These were chosen following interviews with the existing residents, but also allow the different technologies to be tested alongside each other 'in the field'. Technologies used include solar thermal panels, solar photovoltaic panels, wood burning stoves, high efficiency gas boilers, passive stack ventilation and mechanical ventilation with heat recovery (MVHR). URBED developed the design proposals for each house in consultation with the existing tenants, taking into account their tolerance for different levels of disruption and lifestyles.

Several of the tenants are also involved in continued monitoring, which looks at the user's experience of living in a low carbon refurbishment through written and video diaries and in depth interviews. The environmental performance of the houses will be also monitored for the next two years and compared with design stage predictions.

URBED's involvement in this project, at the design, construction and 'aftercare' stages, helped to inform our recent report for the Sustainable Housing Action Partnership (SHAP) and Homes and Communities Agency (HCA). This presents a model for community-scale delivery of whole house retrofit – the 'Community Green Deal'.

URBED lead Designer, Charlie Baker said: "This team was able to prove that achieving 80% reductions in energy use is possible for the buildings and the people in them as well as pointing the way to making it financially viable ."

The scheme was completed by contractor Bramall Construction, in partnership with arm's length management organisation 2010 Rotherham and engineers Aecom as part of the Technology Strategy Board's £17m 'Retrofit for the Future' programme.

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