

Camden Low-Carbon Refurbishment Project



Client:	London Borough of Camden
Contract Duration:	June - September 2010
Contract Value:	TBA
Contract Form:	JCT
Contract location:	Camden, London N19

Description

United House is carrying out a low-carbon retrofitting of this three-storey Victorian terraced house in Camden using a revolutionary new laser technology for the first time while the residents of the house continue to live in the property.

The refurbishment will use a new technique developed by the Sustainable Energy Academy with United House as part of the Technology Strategy Board's (TSB) 'Retrofit for the Future' competition. The new process utilises laser scanning, off-site cutting of internal wall insulation and fitting with residents in situ.

Challenges

The project is the first full-scale test of the new process and the retrofit is expected to deliver up to 70% carbon savings. The aim of the exemplar is to achieve a large scale solution for volume eco-retrofitting of social housing on a nationwide scale and

this has never been done before.

A partnership between United House, the Sustainable Energy Academy, Parity Projects and the London Borough of Camden secured £150k of funding from the TSB to develop an automated process for designing and cutting internal wall insulation. Parity Projects is providing the energy modelling for the project to ensure that the highest standards will be met and will then be installing a whole-house monitoring system to assess the in-situ carbon reduction performance of the property.

The aim is to develop a standard production process to deliver a 24-hour turnaround from survey to fit. The process uses laser scanning to capture data points in three dimensions and to produce accurate drawings, machine cut off-site and fit the next day with the resident in occupation.

The Camden home will also be undergoing refurbishment works which will be funded by Camden

Council, while the £90K cost of the carbon reduction works will be funded by the partnership through the TSB grant. The refurbishment works include kitchen, bathroom and separate WC renewal and remedial works.

United House's vision is to deliver a truly low carbon solution over and above these standard refurbishment measures at the property, by installing a solar thermal hot water system, Polyfoam™ insulation to the walls, a low volume bath and low flow shower mixer and heat recovery ventilation units to the kitchen and bathroom. The project will also include an insulated loft hatch, replacement glazing in the existing sash windows and insulating mineral wool in the loft space. The project team has also identified a number of lifestyle habits for the residents to adopt in order to contribute to the overall low energy performance of the house, which will help Camden Council to pass on valuable lessons in energy-efficiency to its residents.

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For more information, please contact **Anthony Broome, Business Development Manager** on 07545 930201 or email abroome@unitedhouse.net.

CONTRACT FEATURES:

Wall Insulation ✓ PV and Solar Panels and Solar Cylinder ✓ Heat Recovery Ventilation Unit ✓
Draft-proof Sash Glazing ✓ Roof Insulation ✓ Low Volume Bath/Low Flow Shower ✓ Insulated Loft Hatch and Doors ✓