

Sterndale Road Low-Carbon Refurbishment Project



Client:	Notting Hill Housing (working with Baily Garner)
Contract Duration:	July - November 2009
Contract Value:	TBA
Contract Form:	TBA
Contract location:	Sterndale Road, Hammersmith, London, W14 0HT

Description

Sterndale Road was an exemplar project created to research and demonstrate robust ways of improving the overall sustainability of Notting Hill Housing’s older street properties and to reduce energy usage.

Subsequent to the exemplar project, a pilot programme was established to trial individual low-carbon measures in a further 14 flats. The overriding aim was to inform the client’s asset management strategy, and to enable early implementation across wider general housing stock.

The property is a four-storey six-bed mid-terrace Victorian dwelling of typical hard-to-treat solid-wall construction.

Challenges

A wide variety of energy and CO₂ reduction measures were selected based upon their ‘Value Carbon’ rating:

- Improved air tightness from 17.4 to 5.9 m³/(h.m²)

- Innovative draft proofing
- Voltage regulation to reduce energy used by electrical appliances
- High-performance insulation
- High performance timber glazing
- Solar thermal and PV
- Aerated ball clay insulated hardcore
- Intermediate floors filled with insulating quilt.

Green and recycled materials were selected based on:

- Performance (energy reduction)
- Availability
- Whole life cost
- Ease of installation
- Desirability/operability
- Environmental impact.

Water conservation was a key aspect, with dual flush sanitary ware, aerated showers and taps, and rainwater harvesting for WC cisterns.

United House is committed to the WRAP Halve Waste to Landfill initiative and 78% of construction waste was recycled from the exemplar project.

The Results

The project has proved that it is possible to meet the Government’s target of cutting emissions by 80% - 40 years early. A CO₂ reduction of 84% was achieved in the exemplar project (12,317 kg/yr before vs. 1,958 kg/yr after). A 70% reduction in annual running costs was achieved (£3,810 vs. £1,152). The EPC Band Rating improved from G/13 to B/90.

The main conclusion to be drawn was that the most effective and practical approach from a value for money perspective, and maximising the impact on lowering energy use, is to optimise your budget and spend less per unit, and plan for future retrofit once technologies have been developed and come down in price.

For more information on Sterndale Road, please visit:

www.sterndale.nottinghillhousing.org.uk

Working with



www.unitedhouse.net

For more information, call 01322 665522 or email info@unitedhouse.net.

CONTRACT FEATURES:

- Solar Panel ✓ Photo Voltaics ✓ Aerated Flow Taps ✓ Energy Monitoring ✓ Double Glazing ✓ Low VOC Paints ✓
Roof/Wall/Floor Insulation ✓ Dual Flush WC ✓ Condensing Boiler ✓ Underfloor Heating ✓ Water/Waste Recycling ✓*