

CASE STUDY

Sustainable Housing

Level 5 of the Code for Sustainable Homes

Location: Midstreet, Nutfield, Surrey

Unit Type & Mix: 2 x two bed flats

Cost: £1,850m²

Completion Date: March 2008

Design Team: Raven Housing Trust, Osborne, Harrington Design plus Bloomfield



Key Eco Features:

- SIPS panels (Structural Insulated Panel System) for external walls with a u value of 0.14W/m²K.
- The ground floors have enhanced insulation (U Value of 0.14 W/m²/k).
- The roof space was fitted with insulation to achieve a U Value of 0.13.
- Air sealing throughout to achieve 4m³/m²/hr or less.
- MVHR system in each flat.
- Low E Argon filled UPVC triple glazed windows.
- Wood pellet boiler to provide space heating through under floor heating and hot water. 28KW output using wood pellets and has a separate hopper to receive wood pellets.
- The scheme has integrated PVs which generates approximately 900kW/h of electricity a year. Every kWh generated saves over half a kg of CO₂ emissions.
- Low dual flush toilets, low flow rate showers and taps, shallow bath.
- Rainwater harvesting system which collects rainwater which is filtered in an underground storage tank and pumped to cylinders in the roof space where it is used to flush the toilets and supply the garden tap.
- Energy saving Trust monitoring programme for 2 years on the energy consumption.
- Upgraded hot water cylinder.
- ACIS data system linked to public transport information.