Oak Meadow

Award Winning Affordable Low Energy 2 - 4 Bedroom Homes in Devon

Oak Meadow is a low environmental impact development of 35 affordable dwellings in the rural setting of South Molton, Devon. The project was designed to high design, health and environmental standards. Since its completion in 2004 it has been used as a benchmark for sustainable design at a national level. The development has received numerous national and local awards both for its environmental credentials and its creation of uplifting places for people to live. The development has also been featured in the recent RIBA book entitled ‘Sustainable Architecture’ which also features other Gale & Snowden designed projects. The occupants are the developments greatest proponents – they have comfortable and healthy homes and very low fuel bills.

Key Features

Site layout – dwellings are orientated towards the south and southwest maximising passive solar gains for both buildings and gardens and arranged in terraces to reduce surface heat loss. The inclusion of private, semi-private and public spaces to create a sense of place, security and community.

Construction – timber ‘Twin Frame’® System developed by Gale & Snowden Architects to enable super-insulated air tight walls and roof panels which eliminate thermal bridging and use readily available low embodied energy, local materials. Thermal mass introduced internally to stabilise internal temperature fluctuations and help reduce summertime overheating.

Low energy design including:
- Super insulation; U-values of construction: floor 0.14 W/m²K (200 mm EPS insulation); walls 0.13 W/m²K (300 mm cellulose insulation); roof 0.13 W/m²K (350 mm cellulose insulation; windows & doors 1.00 W/m²K (triple glazed, double low-e, argon and insulated glazing spacer bars)
- Air tightness; fan pressurisation test to 3ach@50 PA
- Natural daylight design for all habitable rooms
- Natural ventilation with pre-heating from solar spaces
- Inclusion of thermal mass to provide stable internal temperature fluctuations and help to reduce summertime overheating

Low energy lighting throughout

These energy efficiency measures have resulted in the homes being very comfortable to live in with little variation in internal temperature and very low fuel bills ensuring that all tenants can achieve affordable warmth.

Low environmental impact natural materials used throughout and avoidance of PVC

Healthy building design – use of non VOC materials; avoidance of dust mite habitats; radial wiring to avoid low level EMFs in bedrooms; thermal comfort & daylight design

Water efficiency – low water use appliances; pressure reduction gauges, rain water collection system to WCs

External landscaping – wild life corridor and wind shelter belt design into the site layout to reduce wind chill onto buildings and gardens, south facing productive (food) gardens with access direct from lounges, minimisation of hard surfaces, SUDS design with attenuation meadow and porous surfaces, low maintenance design

Accessibility for people with disabilities – the housing development includes accommodation for People with Disabilities

Awards Include:
- Civic Trust Awards 2009
- The Architects Journal / Mail on Sunday National HomeBuilder Design Awards 2005, Best Social Housing Development
- Building Magazine Sustainability Awards 2005, Winner
- West County Publications New Living New Homes Awards 2005, Best Sustainable Construction and Best 2 Bedroom Home
- Arnold Sayers Housing Design Awards 2005, Commendation
- DEBI Sustainable Construction Awards 2004, Winner

Performance:
- Space energy heating: 259Wh/m²/yr
- Air tightness: 3m³/m²/hr
- Building costs: £1,280/m²

‘…as the seasons change, watching the light in the house move around and change is wonderful. Thanks for such a wonderful home …’ Occupant Feedback