

VARSITY RISE

Client: LINCOLNSHIRE RURAL HOUSING
Sector: AFFORDABLE HOUSING
Type: NEW BUILD CODE LEVEL 4
Method: PPC 2000
Location: MANBY MIDDLEGATE MEADOWS,
LINCOLNSHIRE
Value: £1.5 MILLION



A WINNING COMBINATION OF GREEN TECHNOLOGIES TO ACHIEVE FOUR STAR RATING

↑ RISING TO THE SUSTAINABILITY CHALLENGE AT VARSITY RISE...

As one of the first developments in the UK to achieve Code Level 4, this project needed to exemplify true sustainability, promoting

community living, reducing energy bills and working towards a lower carbon footprint.

🔍 KEY SUSTAINABLE SOLUTIONS...

Overcoming adverse weather conditions, Woodhead have completed six two bedroom houses and six three bedroom houses, constructed in pairs. Thoughtfully laid out and constructed with south facing elevations making use of solar gain. Designs are community friendly, ensuring public spaces can be supervised by watchful parents, with private space being just that.

Woodhead's specialist team headed up the project, bringing their knowledge of products

and their expertise in working to higher levels of the Code for Sustainable Homes. As such, eco-technology has been utilised throughout, starting with the fabric of the building, using K Panels' Kingspan TEK building system for walls and roofs. Energy usage will be significantly reduced in these properties, reducing fuel bills, and replacing traditional heating and cooling mechanisms with MVHR technology, solar technology, super insulation and thermal mass.

✓ GREEN TECHNOLOGIES UTILISED INCLUDE:

- Advanced Timber Frame System – TEK (Structural Insulated Panels) wall and roof solution supplied by our sister company K Panels. Super- insulated to achieve wall and roof U Values of 0.15, which means low heat loss
- Communal Biomass Boiler unit (Cedar clad "energy box") fuelled by wood pellets and linked to an underground district heating system
- Solar thermal flat plate collectors for free hot water
- Cedar cladding and cedar detailing to form rain screen
- Thermal mass introduced to 1st floor using 50mm flexible screed to store heat in the winter and assist with cooling in the summer
- Mechanical Ventilation & Heat Recovery system to use heat naturally and maintain air quality
- Nordic pine timber windows & doors to FSC standard
- Sustainable Underground Drainage System (SUDs) road – controlling discharge of water
- Environmental render system, offering a low maintenance quality finish.

✓ KEY ACHIEVEMENTS...

Winner - EMCBE Sustainability Award 2009-10

Highly Commended - Constructing Excellence National Legacy Award

Level 4 of the Code for Sustainable homes achieved

Air test results as low as 3.67m³/hm² at 50 Pa

Sound Test results of 54-60 DnT,w + Ctr (dB)

Ground breaking combination of green technologies

An environmentally sound development that works as a living space and has curb side appeal

For more information and other case studies:

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