Woodland Court Environmental and Sustainability Measures

Woodland Court is currently one of very few student residence buildings in the UK that has achieved an Excellent rating from the Building Research Establishment Assessment or BREEAM. The building is inherently sustainable, not a building which relies upon green additions to make it work and can be summarised as follows:

1.0 Management: overall management & maintenance policies and procedures:

- Efficiently heating and ventilation plants with reduced life cycle costs and maintenance requirements;
- Robust detailing using materials with long life cycles and with a reduced maintenance requirement;
- Efficient design of services providing individual room servicing rather than the shutting down of the entire accommodation block;
- Pre-application consultation with neighbours such as the National Trust whose land neighbours the site
- Endorsement of the University's waste management policy both for refuse and recycling

2.0 Health and well-being: air quality, lighting levels, removal of background pollutants:

- Natural ventilation in all rooms with higher levels than building control requirements being provided by both openable windows and adjustable trickle ventilation
- Day lighting provision adjacent to working/study areas together with views out
- Solar Low "E" glazing and increased thermal mass from the concrete frame including partitions and cladding to improve thermal comfort
- Brise soleil and room blinds to achieve additional solar shading
- Provision of an attractive outdoor space

3.0 Energy use: Use of fossil fuels, CO2 emissions, renewable sources of energy:

- Energy efficient fittings in both services plant and lighting installations
- Roof-mounted solar panel heat gain system to pre-warm hot water
- Heat reclaim from waste heat emissions to pre-heat circulation spaces, reducing the need for corridor radiators
- Use of high U-value materials and insulation to prevent solar gain and thermal loss to exceed building regulations requirements
- Reducing levels of air permeability to a target which is 50 % better than building regulations
- Use of PIRs to prevent energy waste on lighting
- Use of Eco-labelled and energy saving appliances

4.0 Transport: use of fossil fuels, connections to public transport, transportation of materials:

- Easy connections to University's bus service
- Increased bike storage to encourage use of alternative forms of transport
- Easy pedestrian access and good proximity to key amenities on campus
- Limited increase in existing car parking provision
- Implementation and support of University's Transport Strategy & Green Travel Plan

5.0 Water: consumption and water efficiency:

- Use of water efficient WC fittings that can be supplied off mains
- Use of dual/low flush WC with instructions for correct operation
- Use of water efficient showerheads

6.0 Materials & Waste: life cycles, environmental impact, recycling and reuse of materials:

- 85% of flooring achieves a grade A in the Green Guide to Specification
- 75% of timber is from sustainable sources
- Concrete frame is durable, low maintenance and facilitates easy strip out/refit
- Stud partitions specified as sever duty to prolong design life
- Frame, bathroom pod and some services designed as pre fabricated to reduce individual transportation of materials

7.0 Land use & Ecology:

- The site whilst not previously built upon was not a virgin green field having undergone some relative levelling
- The proposed cut and fill exercise completed for the ground slab attempted to re-use all soil on the site and prevent any from being removed or placed elsewhere. This has resulted in a split level building and in turn has influenced the landscape proposals
- An ecological survey has been carried out and the recommendations implemented
- As part of the ecology survey, a specific Bat survey has been undertaken and strategies put in place to prevent disturbance

8.0 Pollution: air, water & noise:

- Reduced CO2 emissions and the use of (renewable) energy sources with zero emissions with a target of exceeding building regulations
- Sound insulation above building control requirements in individual rooms and vertical circulation
- Careful design of external lighting to reduce light pollution especially in landscaping and communal areas and especially at the gable elevations
- Use of ODP free insulations and the use of refrigerator units with GWP less than 5