

# Health centre design is rated as 'outstanding'



**ECO-BUILD** The new primary care development being constructed by Willmott Dixon at Houghton-le-Spring for Sunderland Teaching Primary Care Trust

**A** NEW primary care development currently being constructed by Willmott Dixon at Houghton-le-Spring for Sunderland Teaching Primary Care Trust has raised the bar in sustainable design for healthcare buildings by achieving BREEM "Outstanding" standard at the design stage.

The international BREEM standard of Outstanding is the highest award for best practice in sustainable design and environmental performance for buildings. To achieve this rating, the development in Houghton-le-Spring, near Sunderland, had to meet a challenging score of 85% against strict criteria which shaped the project from the start.

Willmott Dixon was carefully selected for their in-house expertise and understanding of BREEM, and specialist healthcare designers P+H were appointed by the PCT as architect for the project.

Andy MacIntosh, director at Willmott Dixon, said: "Willmott Dixon is delighted how the whole team have worked together to achieve BREEM Outstanding. This is the first healthcare project in the UK to achieve BREEM Outstanding, which in itself is a testament to both Willmott Dixon's and our client's aspirations with regards to achieving the highest possible levels of sustainable performance."

Another recent scheme in Blaydon, also completed by Willmott Dixon, in 2010, targeted health and well-being for the local community with the co-location of health and leisure facilities in one building. Again working with P+H, it achieved BREEM Excellent standard.

Like Blaydon, the Houghton-le-Spring scheme brings together sports, leisure and wellness facilities on one site, aiming to provide an accessible and holistic approach to health. The 7,500sqm scheme is due for completion in August 2011.

Healthcare facilities will include a minor injuries walk-in centre, physiotherapy, treatment suite, diagnostics, planned care clinical accommodation, a 24-bed rehabilitation unit and sup-

porting accommodation, as well as a community café and meeting rooms.

The building is naturally ventilated using an innovative system designed by Breathing Buildings. Tempered air is delivered from an underground high-pressure chamber via 49 chimneys to ventilate and condition the interior of the building. Ground source heat pumps are used to provide space heating, which required 103 bore holes to be drilled on the site to a depth of 120m (394ft).

Rain water harvesting will contribute to the site's water requirements and a plants-covered roof will not only encourage biodiversity but also reduce the strength of rain overflow to lower the drainage load.

Solar thermal panels are installed to preheat domestic hot water for the building and renewable energy sources such as a vertical axis wind turbine and 350sqm PV panels further contribute to the facility's energy requirements.

The two principal elements of the scheme – the Primary Care Centre and the leisure/sports facilities – are positioned either side of the main entrances. Due to the sloping site, the Sports Centre entrance is one floor level above that of the Primary Care Centre, which requires two entrances to be linked by a main stairway within a two-storey atrium. From the atrium, light penetrates the central elements of the building where the main reception points are located, together with the café, self-help area and principal reception lounges.

**INNOVATION**  
A section of the central thermal wall which reduces energy demand all year round

