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2. Photovoltaic panels are only the most visible elements of the sustainability strategy

DEVEREUX ARCHITECTS

Devereux Architects is a leading AJ100 practice working across a number of sectors. With major projects in healthcare, education, housing and sports and leisure, Devereux is working in the UK, Europe, the Middle East and the Caribbean. The key objective of the practice is excellent client service, delivered through high-quality, sustainable architecture.

LONDON SCHOOL OF HYGIENE AND TROPICAL MEDICINE (LSHTM)

Devereux Architects has worked with LSHTM over the last 10 years on the strategy for its Grade II-listed headquarters in central London, which is arranged around two external courtyards. A seven-storey freestanding extension has been built in the north courtyard (phase 1), using existing facades on three sides as the primary enclosure. The aim was to deliver flexible, open-plan research accommodation with daylight for all levels. For the south courtyard (phase 2), Devereux has designed lecture theatres, teaching spaces, research offices and a café. The scheme includes the replacement of the existing 1920s lecture theatre with a new subdivisible 294-seat facility and a smaller 95-seat theatre within the heart of LSHTM.

ENVIRONMENTAL DESIGN

LSHTM has aimed to exceed its obligations for renewables. With building-services design from Downie Consulting Engineers, the project incorporates chilled beams using cooled water from geothermal bores; natural ventilation and heat-recovery units; and three mini wind turbines and 60kWp of photovoltaic cells on the roof. These cells also act as a 'solar screen' to areas where heat gain and glare could arise. The south courtyard building uses groundwater for cooling, from a minimum depth of 100m. Heating is to be provided through a district main from a combined heat and power plant located nearby. Ventilation incorporates heat recovery at 80 per cent efficiency, lighting is all daylight controlled and there is demand-led control on all environmental systems. This project demonstrates the possibilities for low- and zero-carbon technologies in an urban setting. The new building should generate 60 per cent of its own energy. A funding application for the proposed technologies has been submitted to the Low Carbon Buildings Programme (a Stream 2B Grant). Essential enabling works have been finalised and the main works have begun on site. The project is due for completion in March 2008.



1. Longitudinal section showing the courtyards' new buildings