



NOVEL APPROACH

BUILDING SERVICES JOURNAL, MARCH 2005

With its Termodeck construction and wind-assisted ventilation, Brighton's Jubilee Library represents a radical departure from the oak-paneled reading room of old.

By Stephen Kennett

Lean best describes the servicing strategy behind the Jubilee Library, the focal point of a £45m development near the centre of Brighton. The three floors of offices, reading areas and computer rooms surrounding the two-storey library hall use Termodeck construction and act as the perimeter heating and cooling system for the main library.

The environmental strategy of this Bennetts Associates-designed building makes the most of its thermal mass. During summer months fresh air is supplied through the Termodeck planks and is drawn into the main library hall and exhausted through the rooftop wind towers (see diagram). Night-time cooling pre-cools the slabs and exposed structure.

In the winter, heating and ventilation relies on the building being well insulated - U-values for the walls are typically 0.2 W/m²K. Air-handling units fitted with gas-fired heater batteries supply warm air through the floors to maintain the perimeter rooms at 21°C. The air is then mechanically extracted at high level in the main library, before undergoing heat recovery.

Because this is a PFI scheme, caution couldn't be thrown to the

wind altogether. A chiller is installed to cap summer temperatures at 25°C, while a number of split systems are installed in the dedicated computer rooms. The client demanded a BREEAM Excellent rating and overall the design team predicts energy useage of 35 kWh/m²/y. This, it hopes, will set a new benchmark for library buildings.

Client Brighton and Hove Council

Developer Mill Group

Services consultant Fulcrum Consulting

Architect Bennetts Associates

Structural engineers Anthony Hunt Associates

Main contractor Llewellyn (now part of Rok)

Project manager Mace

**DO YOU NEED MORE INFORMATION ABOUT
THE TERMODECK[®] SYSTEM?**

CONTACT US