

AECB Kent Group Visit to Augustine House, 30 March 2011

Many thanks to Sue Rumbelow and Rob Thrower of Canterbury Christchurch College Facilities Management (FM) department for showing us around Augustine House and amiably answering the barrage of questions from members.

On entering the building we were confused by the brass compass inlaid in the floor, which points south-east due to a design error, adding to Canterbury's existing problem that the West Station is in the north and the East Station is in the south!

The library and resource centre cost £35.3 million to build, covers 14,000m², which is £2521/sqm (exceeding Passivhaus costs) and serves 17,000 students in total, is open between 7.00 am and 01.00 am, generally caters for between 900 and 3,000 students per day. Designed by ADP Architects, Atkins Structural Engineers, Mott MacDonald Services Engineers, Wates Main Contractor.

It has a concrete frame which is exposed in many areas for thermal mass, supported on 250 RC piles, 4 of which are used by the ground source heat pump. Aluminium and glass curtain walling clad the exterior, but without any solar shading other than internal blinds. Thermally the building just met Part L. Internally the atrium is stunning, 4 storeys high, with spacious stairs, walkways, relaxed seating, good views, a lovely environment for the students. However, as with many open plan offices, staff complain of noise and lack of privacy.

Heating and cooling is provided by 4 Waterfurnace GSHP units, totalling 220 kW of heating, 128kW in cooling, backed up by a separate chiller and 2 No. 300 kW gas boilers. The ground loops are run down 4 of the 258 piles. Having been in operation less than a full year, the FM's are still in the process of optimising the system for maximum efficiency. MVHR provides air handling with 20% fresh air and 80% recirculation, with the atrium as the main plenum. FM are exploring the use of the atrium for natural ventilation by adapting the smoke vent system. This will be the first full summer of occupation, there are concerns about overheating, or how much energy will be used to prevent it.



During the planning process the building was lauded as a highly sustainable building, it would not fit my definition of sustainable, being a concrete, glass, aluminium and plastic box, but it is relatively energy compared to similar buildings. It was refreshing to find the FM department are very switched on about optimising and refining its performance. There seemed a lot of scope to have used much more thermal insulation, airtightness and mixed mode ventilation, but if I was a student using the building, I would have no reason to complain whatsoever!

Paul Mallion

