

New Library University of Roehampton

Roehampton, London, SW15



Engineer:	BDP
Main Contractor:	Osborne
Sub-contractor:	Harringtons Builders Plc
Architect:	Feilden Clegg Bradley Studios
Market Sector:	Ground Heave Solutions
Product:	Cellcore HX Plus, Cellcore HX B, Cellcore HG

The new purpose-built library, designed by award winning architects Feilden Clegg Bradley Studios, forms part of an £80 million masterplan to modernise amenities across the University. The visually impressive structure will house state-of-the-art teaching and research facilities and provide a focal point to the University. Cordek were called upon to deliver a ground heave solution which would also provide the necessary level of ground floor insulation.

Project Scope

Based on soil analysis assessments of the site, it was evident that the potential for ground heave was high with an anticipated movement of up to 150mm. A high level of insulation was also required to achieve the desired U-Value and to meet the University's ongoing commitment to environmental sustainability.

The Solution

Cellcore HX Plus is designed for use beneath reinforced concrete floor slabs to protect against the potential effects of ground heave whilst also providing the additional benefit of insulation; it therefore proved to be the most suitable solution for the project. To accommodate the predicted 150mm of heave under the 300mm thick ground floor slab, and to achieve the target U-Value of 0.15

W/m²k the Cordek regional Technical Sales Executive recommended the 265mm deep Cellcore HX Plus 9/13 grade product. The piled ground beams and pile caps on this site also required protection from heave and additional specifications of Cellcore HX B and HG were recommended for these areas. Protection from lateral ground heave was achieved using 75mm Claymaster placed vertically down the sides of the ground beams.

The Process

For the ground floor slab, which represented the largest area of the site, the Cellcore HX Plus was supplied in 2400mm x 1200mm sheets for the contractor to cut and fit on site. To minimise wastage and to reduce the installation time the Cellcore HX B under the piled ground beams, was manufactured specifically to the width of

the beams. Due to the volume of material required, Cordek agreed a phased delivery programme with the contractor.

Summary

The new library is set to be the centrepiece of the scheme, providing a modern and adaptable learning environment whilst complementing the University's traditional heritage. Construction started on the five storey building in January 2016 and is due for completion in time for the 2017 academic year.

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