

Lincoln University Student Accommodation

Driving of precast piles for new student accommodation.



AARSLEFF

With an increasing student population Lincoln University invested approximately £70million in its campus through both refurbishments and new developments, in order to adequately accommodate the growing numbers Nottingham-based property developer Bournston constructed two new purposebuilt pre-let, fully managed blocks of student apartments and studios.

The new development houses some 569 students, as well as providing a ground floor retail complex. Developed by Bournston with main design and build contractor North Midland Building Ltd, the 'JunXion' as it is known, is nine stories in height and such was demand it was fully let in its first academic year. Aarsleff, working for North Midland Building installed over 340 precast concrete foundation piles for the construction.

A second development known as the Pavilions Village began shortly afterwards, with the first phase being the construction of a nine story building of 28 apartments with 4 and 6 en-suite study bedrooms and an further 36 studio apartments. Following the successful work on the 'JunXion' North Midland negotiated directly with Aarsleff the £150,000 supply, handle, pitch and drive service for the Pavilions Village.

Using its own Banut 500 self-erecting hydraulic drop hammer piling rig, Aarsleff installed over 1000no, 250mm square section piles in lengths of 6-13m, which were supplied and manufactured by Centrum Pile Ltd, Aarsleff's wholly owned subsidiary. The continuously reinforced piles were in clusters of two, three, four,

six and eight, which are directly under the building's columns providing individual pile loads of 440 kN.

Piling was not without its complexity, as this was a brownfield site, piles were driven through sand and gravel, overlying clay, overlying mudstone with most of the piles founded in sand, although some of the longer piles, where the sand and gravel was not thick enough to achieve the working load were driven to toe into the underlying clay. The piles were later independently dynamically tested by precision monitoring and control.

Mike Caitlin, Managing Director of North Midland said: "Of course being a brownfield site there were the inevitable problems caused by obstructions. But Aarsleff demonstrated a refreshing approach to these and simply relocated to an area where they could work whilst the matter was being dealt with. The result was that by working together the works were completed on programme and within budget. As a result of their performance on the JunXion, and also their specialist knowledge and experience of working in the Lincoln area, we contacted Aarsleff in the first instance with a mind to continue the good working relationship that had been built up previously.



Scope of Works

>1000 No. 250mm x 250mm precast concrete reinforced piles; L 6-13m

Equipment

Banut 500 Self-erecting hydraulic drop hammer piling rig

Client

North Midland Building Ltd

Construction period

July 2005

Aarsleff Ground Engineering Ltd, is the UK trading arm of Danish contracting giant Per Aarsleff A/S, and is one of the UK's leading piling and geotechnical design and installation specialist contractors; actively promoting early consultation to ensure each scheme can be Value Engineered to give clients the best service, quality design, safety and value. Aarsleff's strategy and philosophy of investment into the future has resulted in its wholly owned subsidiary Centrum Pile Ltd having the most advanced precast pile production facilities in the UK, producing segmentally jointed precast concrete piles to BS En12794 to Class 1A.

Contact

Aarsleff Ground Engineering
 info@arsleff.co.uk
 Tel 01636 611140