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## **DAVID LLOYD CENTRE, WEST BRIDGFORD, NOTTINGHAM**

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Employer: Design Collective Ltd. - part of Whitbread Holdings.  
Engineer: Bunyan Meyer & Partners, Nottingham.

Systems Geotechnique Ltd. have carried out a minipiling contract at Nottingham for Wm Taylor Swimming Pools Ltd., of Preston, Lancashire. The piles support a new 25m x 10m outdoor pool, which forms an extension to the existing David Lloyd Racquets & Fitness Club at West Bridgford and complements the existing indoor swimming facilities.

A total of 36 piles were designed and constructed by Systems Geotechnique to carry the load from the new structure, each pile having a working load of 290 kN. The 178mm diameter minipiles were installed within the contract period of 2 weeks using our state of the art Klemm KR803 Rotary Percussive Drill Rig [illustrated]. Ground conditions were unusual as the entire project is located over a landfill area. The strata encountered were up to 7.5 metres of refuse and waste materials overlying sand and gravel, this being underlain by marl/siltstone at around 10 metres depth. The Klemm KR803 was employed due to the high risk of substantial obstructions within the refuse layer. This machine is fitted with one of the most powerful rotary percussive drill heads currently available in the UK and, with the correct drilling tools, it can drill effectively through most obstructions likely to be encountered.

The piles were formed using a high strength cement/sand grout which was mixed on site, pumped to pile locations and placed in the pile bores by the tremie method. As well as giving maximum pile casting quality, this method solved the problem of severely limited access for normal concrete deliveries and permitted the continued full use of the centre's existing facilities.