

ABI Equipment Limited

Piling Equipment Specialists

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Keltbray Piling selected ABI Equipment Ltd to provide a Delmag RH28 rotary bored piling rig for their engineering project at 80 Charlotte Street in London.

The piling work was carried out over a 24 week period between mid-February to mid-October 2017.

80 Charlotte Street

Main Contractor: Multiplex

Client: Derwent London

Piling Sub contractor: Keltbray Piling

Piling Equipment supplier: ABI Equipment Limited

General Information

80 Charlotte Street is a £180m 36,000 square metre campus development designed by Make Architects that is due for completion by the end of 2019. The site comprises three buildings - 80 Charlotte Street, the largest at 30,000 square metres, and two smaller buildings totalling 1,200,000 square metres of offices and 4,400 square metres of residential space.

The Project

The project required Keltbray to install 536No rotary bored piles across the site. Rotary piles were used to ensure that the stability and integrity of the pile could be maintained along the full length, and also to contend with the unstable nature of the ground.

The Piling

The piles used on the site are a combination of Ø600mm, Ø900mm, Ø1200mm up to a depth of 30m. The piles were formed using a C32/40 concrete mix and full length rebar cages.



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Piling Procedure

- Pre bore the hole to 2-3 meters – prior to reaching the water level.
- Place 9m casing and twist in with the Delmag RH 28 rig until sealed into the clay
- The pile location is then drilled to depth using standard tools and a 33m locking Kelly bar.
- Once the correct depth is achieved the base of the pile is cleaned with a clean-out bucket and inspected by an engineer prior to concreting.
- Each of the piles on this project were checked using a camera to confirm depth, verticality and base condition.

The soil conditions on the site were a mix of made ground over river terrace deposits and sandy gravels to 7-8 meters below ground level, then into London Clay. The water table was found 3-4 m below platform level.

Tomas Harding, Contracts Engineer for Keltbray commented, “We were extremely satisfied with the way that the Delmag RH28 performed. It suffered no major breakdowns which meant that the project was able to progress without any delays. This enabled us to complete the piling part of the project within the allotted time frame.”



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