

CASE STUDY
OPEN SITE PILING, WAKEFIELD MBC OFFICES

Project: A contiguous piled retaining wall and bearing piles for the new Metropolitan Borough Council offices.

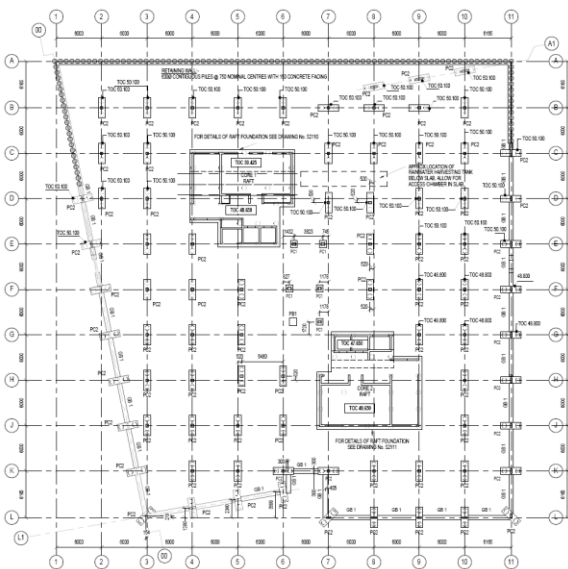
Location: Wakefield

Client: Morgan Sindall

Engineer: Buro Happold

Project Overview

Having piled the Westgate site next door for the Clegg Group in early 2009, we were able to call upon our knowledge of the ground conditions to propose the most cost effective solution for the foundations of this new scheme.



Foundation layout showing the contiguous piled wall and the bearing piles.

The site was sloping and surrounded by a busy road so the main contractor was first required to build the upper half of the structure's footprint to the same level as the highway which would be retained. This allowed us to pile the contiguous wall from that level. It comprised of 117No. 600mm diameter CFA piles to a depth of 7m, or 9m where the column loads were applied.

Once complete, the site was on 3 levels so whilst Morgan Sindall were excavating the material in front of the newly formed contig. wall, we began installing the bearing piles on the bottom level. These were all roughly 13.5m long and, because the site was originally on a hill, the underlying mudstone was between 3 and 7m down. This meant that each pile was 6.5m into the mudstone.

The remainder of the bearing piles, the half closest to the wall, were installed from the intermediate level.

Right: The rig installing bearing piles on the lower section of the site. The retaining wall just visible at the back of the site.

Below: A view of the entire site showing the Cleggs building to the right.



Right: CM70 CFA rig.



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