

WESSEX HOTEL

Client: Inland Homes

Value: £404,000

Duration: 7 weeks

Project Detail

This project was to develop a new hotel and two blocks of flats, with a basement car park, in Bournemouth.

In order to enable the construction of the underground structures, a retaining wall was required to support the ground around the site and Suttle Piling were contracted to design, construct and install an extensive contiguous pile wall.

This involved using cast in situ concrete piles and utilising our Casagrande B125 and Klemm 709 piling rigs. Piles were cast at 450mm and 600mm diameter, to varying depths across site, but typically to 8m depth.

Generally, pile positions were marked out and augers were lined up centrally over the pile locations, however, in certain areas of the site because of various restrictions, exact positions of piling were absolutely critical. Very tight construction tolerances were needed beyond that recommended in the Specification for Piling and Earth Retaining Walls industry standard. In these sections of wall, a guide wall was created that ensured the near exact design position of the piles. For this purpose, a linear trench at 1200mm width was made. Once the trench was ready, sacrificial guide wall formers were placed to accurately form an in situ concrete guide wall. The whole process was set out and monitored by a Suttle engineer.



Figure 1: Guide wall formers are placed and tied

Whilst throughout the scheme a high degree of construction accuracy was maintained, the guide wall made for a particular level of precision in the finished retaining structure.

Extra care was required where some of the piles were close to a tree protection area, and the works affected by a party wall agreement were subject to additional cleaning measures to the augers, to ensure they were clear of any loose debris that might have been thrown out onto adjacent property during piling.



Figure 2: Guide wall ready for concrete



Figure 3: Casagrande B125 piling rig



Figure 4: Piles completed and prepared for capping beam



Figure 5: Completed and excavated retaining structure

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