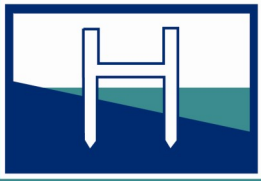


HAURAKI



PILING LTD.

SH20 Motorway Extension Manukau— Bridge 5 Construction, Plunket Avenue



Drilling the 900dia piles under water pressure and polymer



Tremie Pour for all piles up to 38m long.

Bridge 5 is one of 14 bridges piled for Leighton Works between 2007 and 2010. Piling for these bridges varied with bored cast in-situ, driven steel and precast concrete piles all adopted depending on ground conditions, with piles up to 2.4m diameter constructed for the Redoubt Rd flyover.

At Plunket Avenue very soft alluvial soils were encountered to depths of over 30m with pile lengths up to 38m, founding in competent compacted sands. For these considerable pile lengths polymer was utilized to stabilize the pile bore below the standard temporary casing lengths of 14m.

Pile diameters were 900mm throughout the bridge and were drilled using a combination of Soilmec 312 Drilling Rigs plus drill table attachments to crane for the more difficult to access pile positions. All piles were constructed in the bottom of the excavated pier caps 2.5m below ground level in order to minimize follow on pile trimming.

Project Details:

Bridge5 Piles: 68No. 900 diameter bored

Reference: Steven Knowles, Leighton Contractors 09 362 1800

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