



## TTT UGLIE POLES

TTT Uglie Poles were used to provide a Ground Improvement solution under a new commercial warehouse development. The site was located in Otahuhu, Auckland.

## Project background:

- A new commercial warehouse development was to be constructed.
- The project was completed by the contractor in 2018.

## Why use TTT Poles:

- The ground conditions were exceptionally soft.
- The warehouse required foundations to support a high live load of 75 kPa. This was a particularly high loading as commercial buildings usually only require a live load of 15 kPa.
- The project needed to be completed on time and on budget – there was no tolerance for overruns.
- Due to the soft ground conditions lightweight installation equipment and materials were required. Poles, when compared with steel and concrete alternatives, are lightweight, easily handled, and installed using equipment with a lightweight footprint.
- TTT Poles were identified by the contractor as being the best, most cost effective solution that would achieve the high live load required with rapid installation.

## How TTT Poles were used:

- TTT Uglie Poles were ordered by the contractor.
- TTT Uglie Poles are similar to SED poles but are debarked rather than peeled. They offer greater skin friction when used as piles and are stronger than SED poles.
- TTT supplied in excess of 1400 pieces, 14.0m x 250mm Uglie Poles.
- The poles were installed at 2.5m centres.
- The contractor installed the poles using pile driving. A gravel layer of 150mm was placed to enable easy site access for equipment establishment. The site remained very tidy during and after installation.
- The contractor installed all the poles in only 20 days.
- PDA (Pile Driver Analyzer) testing was carried out on approximately 30 poles. The results showed geotechnical loads in excess of 700 kN were achieved.



Photos courtesy of Markovina Pile Driving