



TTT UGLIE POLES

TTT Uglie Poles were used to provide Ground Improvement under a 30,000 sqm retail store and warehouse. The site was located in Henderson, Auckland.

Project background:

- A new 30,000 sqm retail store and warehouse was to be constructed.
- The project was completed by the contractor in 2018.

Why use TTT Poles:

- The ground conditions were exceptionally soft and peaty.
- The warehouse required foundations to support a high live load of 75 kPa so that product could be stacked up to 20m high. This was a particularly high loading as commercial buildings usually only require a live load of 15 kPa.
- A nearby adjacent building could not be affected by construction so the method of installation needed to be as low impact as possible.
- TTT Poles were identified by the contractor as being the best, most cost effective solution that would achieve the high live load required without compromising the adjacent building.

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 1200 pieces, 11.5m x 225mm SED Uglie Poles.
- The poles were installed at 1.5m centres.
- The contractor installed the poles using high frequency vibration and pile driving methods.
- The contractor installed all the poles in only 20 days.
- PDA (Pile Driver Analyzer) testing was carried out on 5% of the poles. The results showed geotechnical loads in excess of 1000 kN were achieved.
- Vibration monitoring was carried out on the adjacent building during pile installation. All results were well under the allowable limits set by Auckland City Council.



Photos courtesy of Markovina Pile Driving