

# SCREW PILING INFORMATION SHEET

## SAVING MONEY? COSTS BIG!



Builders are often driven by the lowest price and try to save dollars by commissioning only the most basic geotechnical investigations and employing the cheapest piling contractor. In the following example the building settled unevenly up to 150mm due to the inadequate soil test and questionable screw pile engineering.

### Relying on Torque Only

The piling installation was based on torque alone with a very shallow geotechnical report and no test piles or static load testing. The piles had been installed to a predetermined torque, which equated the torque required to the load required as a 10 to 1 ratio. The piling contractor mistakenly believed he had achieved pile set.

### Piles not deep enough

The piles were terminated at a depth of 14m at the torque nominated. Subsequent geotechnical investigations show that the piles were terminated 4 m short of adequate founding material.

Reverse computations have demonstrated that the shaft friction contributed significantly to the total torque and that the torque contribution at the helix was minimal.

The project engineer asked us what could be done to correct the failure of the piling installation by the piling contractor. Our answer was that it was too late. The building is still standing but the settlement issues will probably mean at some point it will have to be demolished and rebuilt.

### Avoid Disaster

The project engineer should review any proposed pile design prior to onsite installation.

We often see pile designs utilising pile shaft sizes that are inadequate for the specified load and the necessary installation torque required.

Our pile designs are often justified with on site load testing and the testing benefit factor used to make the pile design as economical as possible yet compliant with AS 2159-2009 piling code.

We are also happy to recommend geotechnical investigation firms with different capabilities to match the specific project requirements or conduct these ourselves. These capabilities range from CPT, to SPT.

### 2D Diagram shows pile founded 4m before rock

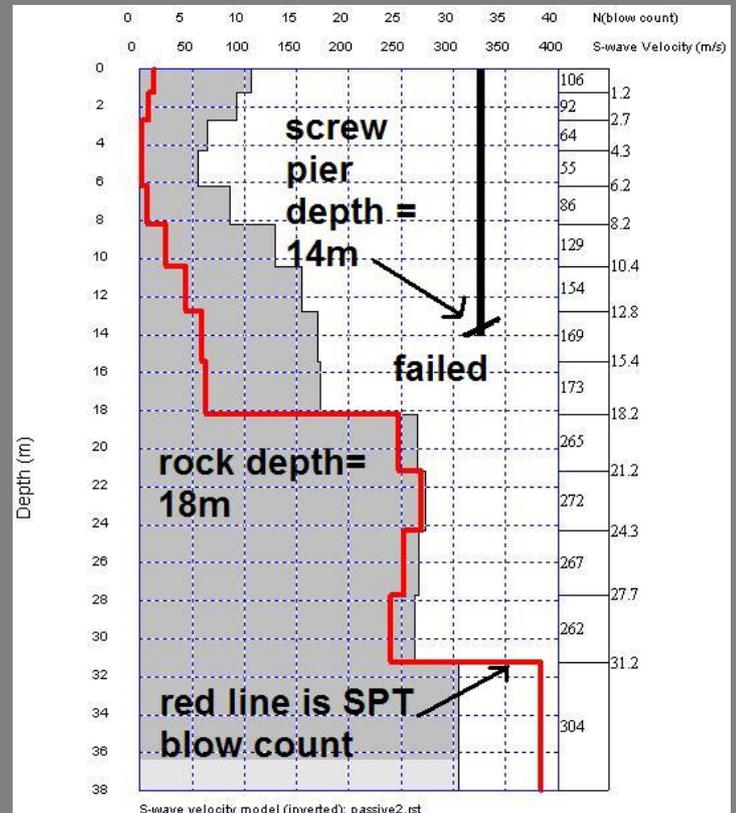


Photo of finished building with uneven settlement up to 150mm.

### We Can Help You

If your project has piles specified we are happy to provide you with a competitive price. We are confident that our price will be cost-effective when compared directly on a like for like basis.

We do not compromise the pile design by using questionable engineering practices.

We have extensive load testing experience and results have been correlated to our pile design program.

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