

A STUDY OF THE VARIOUS METHODS OF TESTING LARGE DIAMETER PILES

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ABSTRACT

In this project, I will conduct a study of the various methods in testing large diameter piles. To be more specific in the definition of large diameter pile, the pile shall carry a minimum load of 500 tones. As we know, most of the large diameter piles are bored piles. Other than different methods of pile testing, the limitations, advantages and disadvantages as well as costing of each method will be investigated in this project. Pile testing is necessary to be conducted for large structures and buildings such as bridges and high rise buildings. In fact, it is a must to conduct pile testing to ensure the safety and strength of pile to be used as foundation to carry loads from superstructures.

There are few common ways for testing piles, such as static pile load testing, dynamic pile testing and so on. The very reason to conduct these tests is to determine the load capacity of piles, determine the ultimate failure load of a foundation pile and to determine the pile's capability of supporting a load without excessive or continuous settlement. The purpose of such tests is to verify that the allowable loads used for the design of a pile are appropriate and that the installation procedure is satisfactory. Defects in concrete piles caused either during or after construction may seriously affect their performance in service.