Thesis Title	Settlement of Pile Foundation by Computer Program
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Abstract

The objective of this study is to develop the computer program capable of settlement prediction for pile foundation. The program includes the following methods ,

1 Conventional Method

1.1 Terzaghi theory

1.2 Tomlinson theory

2 Modified theory of Elasticity Method

2.1 Bowles theory

2.2 Randolph theory

2.3 Poulos theory

In predicting the settlement of pile foundation , the program considers only static load. Monitored data of settlement of pile foundation at Bangkok Bank building were compared with the results from program. It can be concluded as follow : settlements predicted by Terzaghi method are about 30.49% to 56.74% that more than the observed ones , while those from Tomlinson method are about 23.14% to 31.49% that less than measured settlements , results of Bowles method are about 0.40% to 10.76% of those measured. Settlement predictions by Poulos method and Randolph method are about 2.69% to 14.95% and 2.75% to 8.22% of the observed values respectively. For the case study , settlement analysis by modified theory of elasticity is

different from the measured settlements less than 7%. However, results from conventional method are different from those measured more than 10%. It can be concluded that the modified theory of elasticity is suitable to predict settlement of pile foundation.

Keywords : Soft Clay / Settlement Analysis / Pile Foundation / Compressibility / Computer Analysis