ABSTRACT

STUDY OF BORED PILE FOUNDATION BEARING CAPACITY ON AN INTEGRATED MULTI-STOREY BUILDING IN TARAHAN SEAPORT BANDAR LAMPUNG

by

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At a civil construction, the foundation has an important role to build up and transfer the upperstructure load to the ground support. In the implementation of the Integrated Office Building Development projects of PT. Bukit Asam (Persero). Tbk Tarahan Port Unit of Bandar Lampung is used the kind of deep foundation, which type is bored pile foundation. This study concentrates on the review of the bearing capacity of bored pile foundation, determine the stability of bored pile foundation, and as a comparison between the results of the analysis manually with the Pile Driving Analyzer (PDA) Test results.

Process analysis using secondary data consist of shop drawing project, the results of the Standard Penetration Test (SPT) and the results of Pile Driving Analyzer (PDA) Test. The calculation starts from analyzing loading with SAP 2000 program, calculate the bearing capacity of the soil investigation data, make comparisons with the results of the analysis of the test results on the pitch, and to analyze foundation stability by calculating the settlement in bored pile foundation.

Foundation bearing capacity calculations using Meyerhoff method. Bored pile foundation with 60 cm diameter has the ultimate bearing capacity of 2600.9667 kN, while the outcome of ultimate bearing capacity of a PDA Test of 3792 kN. Therefore, the value obtained from the calculation of tolerance limits still qualify and secure foundation for building construction. Bored pile foundation were not causes large settlement so it is safe for the bored pile foundation stability.

Keywords : bored pile, bearing capacity, PDA