

## Assessment of Adequacy of Pile Load Determination Formulas

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**Abstract :** Many formulas are set to estimate the pile load capacity based on the in-situ pile load tests. However, discrepancy is obvious between the results of these applications. Some formulas are more adequate than others with respect to soil formation and its characteristics. In this research, attempts were undertaken to evaluate the adequacy of the most well-known formulas based on a series of pile load tests carried out in Port Said city in the northeast of Egypt for major residential projects. Comparisons were undertaken between the different formulas supported by the results of in-situ Cone Penetration Tests (CPT). Based on this study, a guide for engineers for using the proper formula can be adopted with consideration of soil type and characteristics. The Egyptian Code which relies on the results of some formulas is involved in the study as a guiding aspect in the pile design.

**Keywords :** pile load formula, load test of piles, CPT, Egyptian code

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