GEOTECHNIC CONSIDERATIONS IN THE METHODS OF CONSTRUCTION AND DESIGN FOR CAISSONS

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ABSTRACT

This project paper consists of more than 33 pages although it may not be complete studies of geotechnics considerations in the methods of construction for caisson. But I strongly believe that it is a useful source for project student who intend to explore deeper towards implication of caisson for today Civil Engineering. In this text the study of caisson is based on the understanding of a few basic concepts and on the use of simplified illustrations. This approach makes it possible to develop all the necessary formulas in rational and logical manner, and to clearly indicate the conditions under actual foundation engineering and soil mechanics.

It is undeniable that a lot of formulas are included during calculation but all these formulas have been taught since students taking up Soil Mechanics. Thus, semester four students are encouraged to make reference from this text. This is because it enables student to relate their study to real life-, which is not stated in textbooks. The first three chapters of the text are devoted to the analysis of the stresses and forces induced and of the corresponding settlement in various caissons, considering soil bearing capacity for different soil, factor of safety most of all skin friction. The study of these three subtopics is briefing for next procedures in the design of drilled caisson. It gives an overall picture of true dimensions used in normal practice.