

APPLICATION OF PRESTRESSED CONCRETE PILES IN COMPARISON WITH THE OTHER TYPES OF PILES

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ABSTRACT

Prestressed concrete piles are mainly for use for general foundation piles for buildings, bridges, marine structures, harbors and other engineering and infrastructural works. Because of the saving in reinforcement (given by the use of high tensile steel wires), and lighter weights for handling (given by a smaller cross-section), prestressed concrete piles have been widely used in the last 30 years.

I had chosen 3 types of piles which all are driven displacement piles for my comparison with the Prestressed concrete piles. They are timber piles, steel piles and precast concrete piles. I choose these 4 types of piles to do the comparison because they are all having the same characteristics where they are using the same method during the installation, driving, and also consider displacement piles because they displace most of the soil to the side during the installation.

In this project I will compare their typical characteristic, i.e. optimum length, maximum length, optimum carrying capacity and maximum carrying capacity. I will also list out all the advantages and disadvantages of all these four types of piles.

After reading my project, the readers will know how to select the best piles for the best construction.