THE ANALYSIS OF BEARING CAPACITY OF BORED PILE ON THE STRUCTURE OF SOLTERRA PEJATEN APARTMENTS

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ABSTRACT

The foundation of bored pile is a foundation that is built by drilling soil first, and then filled with reinforcement and cast. The construction of Solterra Apartments uses deep foundations (drill poles) located on Condet Pejaten No.2, RT.7 / RW.7, Pejaten Barat, Pasar Minggu, South Jakarta. Based on the results of the Standard Penetration Test (SPT) the hard soil depth is far from the land surface and the Solterra Apartment building consists of 31 Floors, for that it is very important to calculate a safe foundation according to the condition of the soil type in the field and calculate the upper structural load. Calculation of single pole carrying capacity with the Reese and Wright method, Reese and O'Neill method and Meyerhof method on the Solterra Pejaten Apartment construction project at each testing point in the field, was used by Qizin at the DB02 testing point of 113,995 tons, 255,731 and 542,590 tons. The capacity of pole group permit carrying capacity using the Converse Labbare method that is efficient and works optimally is in the pile cap no. 2 which is based on the Converse-Labbare method is 1,000 with the carrying capacity of group poles for one pole, namely 113,995 tons, 255,731 tons and 542,590 tons. The magnitude of the reduction on a single pile foundation uses the calculation of the Reese and Wright, Reese and O'Neill methods and the Meyerhof method with respectively 4,044 mm, 21,571 mm and 63,258 mm. While the value of decrease in pile cap No. 2 by using the Vesic method is 5,115 mm, 27,285 mm, 80,016 mm.

Keywords: Bored pile foundation, Bearing Capacity, Standard Penetration Test (SPT), Settlement, Pilecap