ABSTRACT

Muhammad Adli Alhaq, 17319035

Jakarta Coast Guard Development Project Phase 4 Package 2 (Method of Implementing Spun Pile Works and Calculating Concrete Volume Requirements for Spun Pile Works STA 1 + 450 to STA 1 + 500).

Civil Engineering Department. Faculty of civil engineering and planning. gunadarma University

(xiv + 55 + Attachment)

Kamal Muara Village, Penjaringan Subdistrict, North Jakarta City is one of the areas in North Jakarta that is often affected by rob floods every year. Because the area is a lowland and most of the area is in the coastal area of the city of Jakarta. In overcoming this problem, PTPIN (Coastal Integrated Development of the State Capital) from the Directorate General of Natural Resources. Ministry of PUPR through the NVT Satker plans to build coastal safety dikes along the coast of Jakarta and Banten. In the Coast Guard Development Project Phase 4 Package 2, the PTPIN NVT Satker chose PT. Waskita Karya (Persero) TBK as the implementing contractor and PT. Yodya Virama Hasfarm - KSO as a supervising consultant. The Jakarta Coast Guard Development Project Phase 4 Package 2 has a length of \pm 813 m. The implementation time of the Jakarta Coast Guard Development Project Phase 4 Package 2 is 28 months (850 calendar days) with a maintenance time of 12 months (365 calendar days). With a contract value of Rp. 341,175,817,522.00. The specific problem taken is the method of implementing the spun pile work and calculating the volume requirement for spun pile concrete work STA 1 + 450 to STA 1 + 500. The method of implementing the spun pile work begins with stake out (determining the pile point), mobilizing equipment via sea, installing guide beams, lifting the spun pile segment to the guide beam, checking verticality, drilling via sea, cutting the rest of the spun pile head. The quality used in the K225 spun pile filled concrete with the K600 spun pile quality. Calculation of the volume requirement for spun pile concrete work STA 1 + 450 to STA 1 + 500 starts from the calculation of the volume of iron and the volume of the void spun pile with the calculation result that is 1.045 m³.

Keywords: Implementation Method, Spun Pile, Concrete Volume.