

ABSTRACT

Maria Ulfa, 14316262

The Development Project of Green Avenue LRT City Mall and Apartment

“The Implementation Method of Bored Pile and Calculation of Concrete Volume Point 208 – 211”

Civil Engineering Department, Faculty of Civil Engineering and Planning

Gunadarma University

(xiv + 69 + attachment)

The development of Green Avenue LRT City Mall and Apartment is a development project consisting of a region mall and apartment based on the principle of TOD (Transit-Oriented-Development) located at Toll Jakarta – Cikampek KM 17, Jatimulya, Tambun Selatan, Bekasi. It is built on a land area of 19.618 m² consisting of 41 floors + 1 basement. Structural strength is the most important thing that must be considered in building planning especially in substructure or foundation to prevent structure failure. The type of foundation used in this project is bored pile with casting done directly on site (cast in place pile). Specific problems covered is the method of implementation of bored pile and the calculation of concrete volume in bored pile point 208 – 211. The implementation method of bored pile begins with determining points of bored pile, tremie pipe installation, steel fabrication, drilling preparation, borehole drilling, mounting reinforcement, casting, temporary casing removal. The result in concrete volume of bored pile for 1 pile with longitudinal reinforcement of D22 and spiral reinforcement of D10 containing 0,0466 m³ for longitudinal reinforcement, 0,0146 m³ for spiral reinforcement and acquiring 7,147 m³ of concrete volume, therefore the total volume of concrete for 4 piles is 28,588 m³.

Keyword: Implementation methods of foundation, Bored pile, Casting of bored pile