

ABSTRACT

Muhammad Alfian Nugroho, 14316695

The Revitalization Project of Cik's Mansion Residential Buildings

"Implementation Method and Calculation of Beam Reinforcement Material Requirement on 8th Floor Zone 1 As E-G 1-7"

Civil Engineering Department, Faculty of Civil Engineering and Planning

Gunadarma University

(xiii + 85 + attachment)

The Cik's Mansion Residential Building Revitalization Project is a revitalization project for Cik's Mansion rental housing which was previously established and located at Jalan Pegangsaan Barat No. 2, Cikini, Jakarta Pusat. This project was built on a land area of 1246 m² with a total of 8 floors and 1 basement. In the construction of high rise buildings with reinforced concrete material as the main material of the building structure, it is inseparable with steel reinforcement material that serves to add strength to the concrete structure. Specific problems taken are the implementation method and calculation of the reinforcement beam material requirements. The method of implementing beam work starts from elevation marking, scaffolding installation, beam formwork installation, reinforcement installation, concrete decking installation, quality control check, casting, formwork demolition, and curing. Based on calculations obtained the total amount of reinforcement material needs for all beams for various types on the 8th floor of Zone 1 is 2148,358 kg.

Keywords: Implementation Method, Beams, Reinforcement Material Requirements