ABSTRACT

Construction activities in Indonesia currently are still progressing rapidly. Construction of commercial buildings, office buildings, and mixed used development are in progress in major cities like Jakarta, Bandung, and Surabaya. All these projects cost a lot of money and take a long time to construct. Thus two factors play important aspects for the success of the projects, the cost and time needed.

Because of that, it needs a method in all construction process that can reduce cost and time. This paper discusses one of the stages in construction, that is the reinforcement or rebar of the slab, using Engineeering Wire-Mesh compared to the Conventional method of slab reinforcement.

The study starts by analyzing the design of the rebar for the slab using both methods which later show differences in the amount of rebar needed rebar ratio, followed by differences in supporting rebars requirements for both methods, then the analysis of the time of construction required, and of differences in manpower / workers required for both methods. The analysis is also carried out for different live loads applied to the slab. In the end, it is shown that using Engineeering Wire-Mesh method will result in a lower total cost and time of construction compared to Conventional method.

Key words: Engineering Wire-Mesh, assembly of iron, plate or slab