

DEPARTMENT OF BUILDING UNIVERSITI TEKNOLOGI MARA (PERAK)

CONSTRUCTION OF SUPERSTRUCTURE

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ABSTRACT

The project is about a government construction project of a health clinic type 7 which is located at Kuala Tekal near Temerloh in Pahang. The construction period began from 30 January 2019 and the completion date is on 1 December 2020. The aim of the study is to discover the construction of superstructure construction which mainly focus of the construction method. The importance of superstructure construction also was identified and the problems occurred have been determined and solutions have been taken to solve it. The method overall started from the reinforcement work of installing the main bar and linked with the stirrups for column and beam or other secondary main bar for the slab. Next, the formwork with spacer bar was installed to keep the reinforcement bar in place during concreting work. Concreting work was cast in place using crane with bucket to place the ready-mixed concrete that was delivered using mixer truck from the batching plant. The two problems that encountered during the study had been taken solutions to solve the problems. Overall, the superstructure was important in an aspect to construct the building as the superstructure carried the load and it define the building strength, look and feel.

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CHAPTER 1.0

INTRODUCTION

1.1 Background and Scope of Study

Construction of superstructure is one of the important process for every construction building. Superstructure is the part of a building or construction entirely above the ground which it is building parts that located above the ground level with its basic components such columns, beams, slab and wall and it is supported by the underlying substructure. These components safely transfer the dead and live loads down to the ground of substructure and distributes evenly in the underlying earth.

Superstructure is important in defining on how the building looks and the components can be constructed with a wide variety of design which remark the building architecture. In the beginning of the building construction, the building constructed from stone or timber due to the limited materials available. Time elapsed and the technological advancement of materials have been deemed possible for the construction material to be varied depends on the strength and the suitability to use it on a building such as concrete, timber and steel.

The column can be in any shape and size depending on the load of the structure above, but round and square is the most commonly built if it made of concrete. Beam is limited to rectangular shape only due to bending mode of deflection. Slab thickness can be differed according to the load to be bear. Staircase functioned as a connections from one floor to another floor. Overall, the aim of this study is to discover the construction of these 4 basic superstructure.

The study is carried out at a construction site of a health clinic type 7which is located at Kuala Tekal, Temerloh, Pahang. The study is focused on identifying the important of superstructure construction. The study also mentioned the methods involved in superstructure construction. Last but not least, the study identified every problem occurred and the solution taken to solve the problem was presented.