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(INSTALLATION OF PRECAST WALL PANEL ON SITE)

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ABSTRACT

Industrialised Building System (IBS) and is one of construction system used by Malaysia. This system is a product manufactured from the factory for installation on site. The aim of this study is to explore the installation method of precast wall panel installation on site at Masai, Johor. Besides, to determine the problem occurred during the construction. Data was collected during the observation and document review. In addition, Interview with site supervisor on wall panel system construction techniques. Moreover, conventional method also has been used for this building. this can conclude Industrialised Building System are new industry transformation for Malaysia .

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CHAPTER 1.0 : INTRODUCTION

Building System (IBS) is a construction method whereby the components are prefabricated or cast or customized in a controlled environment. Transported and assembled with minimum labour usage. IBS can be categorised into two which are open system and close system. Open system can be used by any IBS provider meanwhile close system is a proprietary which the components are only from one IBS provide (Abdul Latif and Tengku Mamat, 2019). The difference with conventional is a traditional method of construction using raw material such as cement, sand, crusher, clay brick and timber formwork on site.

Advantages of using IBS, first is reduction of labour. Malaysian construction industry has been heavily dependent on the unskilled foreign worker. Implementation of IBS can reduce the number of foreign workers and therefore the money transfer by the foreign workers to abroad can be minimised and this will benefit the local ecomomy (Abdul Latif, et.al, 2019). Second, reduce wastages. The conventional construction methods normally generate about 20% of wastage. The usage of IBS elements eliminates or greatly reduces conventional timber formwork and props. Minimize use of timber and the forest can be saved from destruction (Ibrahim, 2014). Besides, cost saving. The repetitive use of system formwork made up steel and scaffolding provides considerable cost saving with less labour involved in the IBS construction, overall construction time is shorter and saves (Ibrahim, 2014).

There are six IBS categories in Malaysia, which are precast concrete, blockwork system, steel framing, timber framing, reusable formwork and innovative system. Precast concrete is a construction component produced by casting concrete in a reusable mould or formwork which is then cured in a controlled environment, transported to the construction site and lifted into place (Ibrahim, 2014). Blockwork system, bricks and blocks are components of durable masonry construction in which uniformly shaped individual units are laid in courses with mortar as the bed and binding material. There are two types