A STUDY OF COMMON DEFECT ON PRECAST CONCRETE BUILDING

MOHD ASYRAF BIN MOHAMMAD SAMSURI
(2011103705)

Academic Project submitted in partial fulfillment of the requirements for the degree of Bachelor of Building Surveying (Hons) Centre of Studies for Building Surveying Faculty of Architecture, Planning & Surveying

December 2014
AUTHOR’S DECLARATION

I declare that the work in this dissertation was carried out in accordance with the regulations of University Teknologi MARA. It is original and is the result of my own work, unless otherwise indicated or acknowledged as referenced work. This dissertation has not been submitted to any other academic institution or nonacademic institution for any other degree or qualification.

In the event that my dissertation is found to violate the conditions mentioned above, I voluntarily waive the right of conferment of my degree and agree to be subjected to the disciplinary rules and regulations of University Teknologi MARA.

Name of author : Mohd Asyraf Bin Mohammad Samsuri
Authors I.D : 2011103705
Programme code : AP229
Faculty : Faculty of Architecture, Planning and Surveying
Dissertation title : A Study of Common Defect on Precast Concrete Building

Signature of candidate : .........................................................
Date : .................................................................
ABSTRACT

Industrialised Building System (IBS) has been introduced in Malaysia since early 1960s when Ministry of Housing and Local Government of Malaysia visited several European countries and evaluate their housing development program (Thanoon et al, 2003). In the 1960s, precast concrete system was often misinterpreted with negative meaning. The lack of design such as the need for wet toilets and bathrooms lead to problem of leakage. Besides that, the most common problems were the connection between the beam to column and column to base (Rahman and Omar, 2006). In this study, the first objective is to identify the defects on precast concrete building. Then, the second objective is to determine the factors contributing towards the defects occurred. Lastly, the third objective of this study is to recommend the approach that should be taken to prevent the defects occurred. From the research, the defects occurred only minor defects and no major defects. The researcher found that mostly the defects occur is hairline crack, either at wall, column and jointing between the column and beam on both case study area. Besides that, the other defects occur is peeling paint, spalling, dampness, fungi and others. It is very important to the stakeholder such as easy to the stakeholder identify the defects occurred on that building. Besides that, the stakeholder easily to classify the factors that contribute the defects to ensure and prevent the defects may occur in future.
ACKNOWLEDGEMENT

Assalamualaikum and very much prosperity I wished. I would like to wish and say thank to Allah S.W.T which is helping me to complete this study and report of Academic Project, BSS 658.

Ultimately, I would like to take this opportunity to wish a very much thank you to my Supervisor of Academic Project, Pn. Hasnizan Binti Aksah also as my consultant which is very much helpful, giving some idea, consult the advices, and her guide during this study implemented. Without her, this study will not complete as well.

Not forget to wish thank you that I aimed to the other parties which is involved directly or indirectly to implement this study. Especially to my parents who has supported, encourages and guides me start from my born day until present and also my friends which is also giving moral support to complete this study.

Besides that, not forget to all lecturers of Building Surveying, UITM Shah Alam which is have teach me during in part 1 until present with giving some moral support to me. Last but not least, the highest acknowledgement and thank you are given to department of development and maintenance in Universiti Pertahanan Nasional Malaysia, (UPNM) and Akademi Audit Negara, (AAN) which is helped me and gave me cooperation in giving the information that I need in completing this study.

Thank You,
CHAPTER 1

INTRODUCTION

1.1 STUDY BACKGROUND

The developments of economies that have been reported is competing in improving the quality of construction products and afford to increase the productivity of the sector by using a greater mechanisation, prefabrication technology and to upgrade the skill of workers. In Europe and US, the precast concrete was created in the early 1970s by construction companies due to demand of housing. The prefabrication of building was the best method that has been created after the world war II. In order to fulfil the demand of housing, the US government has explored several prefabrication system in the early 1970s