

STANDARD JKR PRACTICE IN RC BRIDGE ABUTMENT DESIGN

BY

MOHD SOFIYAN BIN SULAIMAN

Report is submitted as
the requirement for the degree of
Bachelor Engineering (Hons) (Civil)

**FACULTY OF CIVIL ENGINEERING
UNIVERSITI TEKNOLOGI MARA
PULAU PINANG
APRIL 2006**

DECLARATION BY THE CANDIDATE

I am Mohd Sofiyah bin Sulaiman, UiTM no.2002611696 confirms that the work is my own and that appropriate credit has been given where reference has been made to the works of others.

Signed:
Date : 15/5/2006

PERPUSTAKAAN
UNIVERSITI TEKNOLOGI MARA
PULAU PINANG

ACKNOWLEDGEMENT

I, from the depth of my heart, praise Allah the Almighty who is the most praise worthy. Nothing may take place without His leave. I express my heartiest indebtedness to my family for their tender care and affection.

I would like to take this opportunity to express of my greatest gratitude and appreciation to my supervisor, Mr. Ng Wen Kuan for advices, guidance, patience, encouragement, cooperation and enthusiastic support in the duration of thesis preparation until completed.

I am also would like to dedicate my special compliments to Professor Madya Ir. Damanhuri Jamaluddin for his guidance and teaching the subject Research Methodology.

I would like to take this opportunity to deliver my thanks to individual persons, organizations, and to all my friends which contribute directly or indirectly in giving their cooperation, encouragement and moral support to make the completion of this project possible.

I also thank my beloved father and mother, En Sulaiman b. Embong and Pn Rohani bt. Mamat in their never ending support, great understanding and encouragement throughout the years has contributed to success of my studies. May The Almighty One Shower His blessing upon all of us and make this small effort useful and beneficial for others for future reference.

ABSTRACT

In Malaysia, Public Work Department (JKR) had release a standard of RC Bridge Design where it had considered some factors for the bridge designing works. The parameters are including local topography, transportation behavior vehicle load, bridge components and so on. Unfortunately, most of the software are not fulfilling the JKR requirement when deal with the bridge designing jobs. This final year project is proposed to study the JKR standard in RC Bridge Abutment Design and compile it into a simple worksheet. With this simplification, we can save the time and cost to learn and familiar with the bridge requirement. Some limitations are found in this area of study. The bridge type is only limited to simply supported bridge and the bridge beam which produce by HUME Industries Bhd is referred. Finally, the worksheet will help to calculate the loads on bridge abutment & determine the number of pile that required for the abutment as well.

TABLE OF CONTENTS

Declaration by Candidate	i
Acknowledgement	ii
Abstract	iii
Table of Content	iv
List of Figures	viii
List of Tables	x
List of Appendixes	xi

CHAPTER	PAGE
----------------	-------------

1. INTRODUCTION

1.1 Introduction	1
1.2 Objectives	1
1.3 Scope of Project	1
1.4 Problem Statement	2
1.5 Significant of Project	2

2. LITERATURE REVIEW

2.1 Bridge History	3
2.2 Function of Bridge	6
2.2.1 Route Over Bridge	6
2.2.2 Continuity of Roadway	7
2.2.3 Landmark of Humility	7
2.3 The Famous Bridge in the World	8