



**DEPARTMENT OF BUILDING
UNIVERSITI TEKNOLOGI MARA
(PERAK)**

**THE CONSTRUCTION OF TRANSFER SLAB WITH POST
TENSION SYSTEM**

**Prepared by:
INTAN IZZATI BINTI ABDUL JALIL
2017213542**

ABSTRACT

The construction of transfer slab is different compare to the traditional slab. The transfer slab is an essential part used for most of high rise building as the vertical support and sustain loads from upper floors. Therefore, this report will highlight about construction of transfer slab with post tension system. This report was conducted for the building construction of Small-office Home-office (So-Ho) and duplex unit development called Union Suites in Bandar Sunway, Selangor. The main objectives of the report is to identify the construction method of transfer slab with post tension system and plant and machineries used for it. This will highlight for the steps on how to construct the transfer slab with post tension system with the thickness is 1.7 meter. The concreting works has been done by starting from the first layer which is 0.7 meter to the second layer, which is 1.0 meter of the remaining thickness of the slab. This report will focus at the transfer slab structure methodology based on the site construction project by following the sequences wisely and the problems which can be resolved that can gives the best progress for the site project.

ACKNOWLEDGEMENT

Alhamdulillah, praise to Allah, the Most Merciful, the Most Grateful.

I would like to extend my heartfelt gratitude for the guidance, advice and help rendered throughout the period of training by the following group of amazing individuals. First and foremost, I would like to thank Encik Mohd Shaifuddin Izam bin Zuhairi and Encik Mohd Hafeez bin Amran as my Supervisors at Symphony Unite Suites construction project at Bandar Sunway, Selangor for the opportunity given, to conduct my training in their esteem company. Their team of professionals comprising Teck Leong June and Encik Mohd Noor bin Tumiran have enable me to learn and develop my understanding, knowledge and feel of real time projects, and the theory involved in analysis the structures, building and civil works. They are also responsible towards streamlining and assessing my training. Also to all the personnel officers who have extended their cooperation and help to further enhance my ability in understanding the procedures in construction and site administration, tests procedures, site safety and best practices in the industry. It is an honor for me to be given the opportunity to 'work' with all of you.

I would also like to thank all the UiTM lecturers that have taught and nurtured me in becoming a better student and person. I would also like to expend my deepest appreciation to the lecturers who are directly involved during my training stint. To Puan Normila binti Ahmad, Supervising Lecturer, Encik Muhammad Naim bin Mahyuddin and Cik Nor Azizah binti Talkis, Practical Training Coordinator and Dr. Dzulkarnaen bin Ismail, Programme Coordinator, I value the time, effort, encouragement and ideas that they have contributed towards the successful completion of my training, this report and the valuable knowledge that have been shared over the last few semesters.

Last but not least, my special thanks to my beloved parents for their sacrifices over the years.

Thank you so much.

CONTENTS	PAGE NO
Acknowledgements	i
Abstract	ii
Contents	iii
List of Tables	iv
List of Figures	v
List of Appendixes	vii
 CHAPTER 1.0 INTRODUCTION	
1.1 Background	1
1.2 Scope of Study	3
1.3 Objectives	4
1.4 Research Methods	5
CHAPTER 2.0 COMPANY BACKGROUND	
2.1 Introduction of Company	6
2.2 Company Profile	6
2.3 Organization Chart	8
2.4 List of Project	
2.4.1 Completed Projects	10
2.4.2 Project in Progress	11
CHAPTER 3.0 CASE STUDY	
3.1 Introduction to Case Study	16
3.2 Method of the Construction	18
3.3 Plant and Machineries	38
3.4 Problems in Constructing Transfer Slab	42
CHAPTER 4.0 CONCLUSION	
4.1 Conclusion	45
 REFERENCES	47
APPENDIXES	48

CHAPTER 1.0

INTRODUCTION

1.1 Background

Transfer structures are often times used in high rise buildings. Mostly, it is used for transferring high forces and loads to other structures that can resist them from upper floors (Bontempi (Ph.D), 2003). In this way, a more economic structure with smaller column or wall spacing's can be describes as the upper floors. The loads also can be adopted in the lower levels, in particular at the ground level and bigger inter-column distances (Ultracon Structural System Pvt Ltd, 2016). This is often the case at office buildings or hotels where lobbies and other facilities require more open space. There are types of transfer structure which are transfer plates or slabs, transfer beams and steel transfer truss.

In general, for the construction of transfer slabs, it does not have no continuity to the foundations in order to transmit the high concentrated forces from the columns or wall. It is required considerable rigidity and strength. The design of the transfer system is dependant not only on the flexural behaviour which is resistance and defects but, it is considerably influenced by shear or punching resistance (Sturdy Structural, 2018).

The transition structure usually requires large depths and great amounts of reinforcement due to the considerably high forces involved. Mostly, post-tensioning method is a very effective way to reduce both depth and reinforcement content. This method is commonly used in constructing transfer slab (Design Building Ltd, 2019). The arrangement is simplified by making it possible to have top, bottom and face reinforcements kept nearly as any standard case. The tendon is vital to strengthen the concrete slab to sustain vertical loads from upper floors. The tendon layout may be based on draped tendons or on top and bottom layers of horizontal tendons.