DEPARTMENT OF BUILDING SURVEYING FACULTY OF ARCHITECTURE, PLANNING AND SURVEYING MARA UNIVERSITY OF TECHNOLOGY

THE DESIGN AND CONSTRUCTION OF TIMBER TRUSS

JUNE 2003 - NOVEMBER 2003 SESSION

This practical training report is a fulfilment of the practical training course.

PREPARED BY : WAN ROSLINA BINTI WAN KADIR SUPERVISING LECTURER: ENCIK MD NADZARI BIN MOHD. JALIL

TABLE OF CONTENT

<u>TITLE</u>			PAGE
DEDICATION			
ACKNOWLEDGI	EMENT		
PREFACE			in
LIST OF FIGURES AND TABLES			
CHAPTER 1	INTRODUCTION ON PRACTICAL TRAININ		ING
	1.0	OBJECTIVES	1
	1.1	SCOPE OF WORK	3
CHAPTER 2	СОМ	PANY BACKGROUND	
	2.0	INTRODUCTION	5
	2.1	ORGANISATION CHART	6
	2.2	CORPORATE PROFILE	7
	2.3	COMPANY INFO	9
	2.4	CORPORATE PHILOSOPHY	12
	2.5	PROJECTS OF INTEREST	13
	2.6	INTERNATIONAL INVOLVEMENT	17
	2.7	STRATEGIC ALLIANCES	18

- 2.8AREAS OF COMMON INTEREST20
- 2.9 CONCLUDING REMARKS 20



DIPLOMA IN BUILDING ' 1! DEPARTMENT OF BUILDING SURVEYING FACULTY OF ARC111! ill i'LANMNG AND SURVEYING MARA I'NIVERSITV OFICCHNOLOIty

CHAPTER 3	ROC	ROOF TRUSS			
	3.0	INTRODUCTION TO PROJECT	21		
	3.1	MEMBERS OF TRUSS	23		
	3.2	TYPES OF TRUSSES	24		
CHAPTER 4	DES	DESIGN CONSIDERATIONS			
	4.0	INTRODUCTION	26		
	4.1	CRITERIA	27		
	4.2	SHAPES AND SPECIFICATIONS	29		
	4.3	DESIGN PROCEDURE	36		
	4.4	APPLIED FORMULA AND			
		CALCULATION	37		

CHAPTER 5	CONSTRUCTION			
	5.0	INTRODUCTION	46	
	5.1	METHODS	46	
	5.2	JOINTS	50	

CHAPTER 6	PROBLEMS AND SOLUTIONS			
	6.0	INTRODUCTION	58	
	6.1	DESIGN	58	

6.2 CONSTRUCTION 59

DIPLOMA IN BUILDING SURVEYING DEPARTMENT OF BUILDING SURVEYING FACULTY OF ARCHITECTURE, PLA " VEVING MARA UNIVERSITY OF TECHNOLOGY

ACKNOWLEDGEMENT

Alhamdulillah...with HIS permission I have completed the practical training within 4 Vz month without much difficulties and finished this report on time. All this only happened with the help and cooperation that I get from people involved in making this report a reality.

A big thank you to Encik Md. Nadzari Bin Mohd. Jalil as my supervisor and visiting lecturer, who helped a lot in guiding me throughout the process of producing this report and to Encik Mazlan Bin Abu Bakar and En. Ellemy Iskandar Bin Khalid as the practical training coordinators.

To all the staff of Iktisas Ingenieurs Sdn. Bhd. especially at the Civil and Structure Department, thank you so much. Thank you too, to my supervisor, Ir. Shahriman Ibrahim, all the engineers especially Mr. Khalil Hashim Hassan and Puan Anita Ibrahim, all the draughtspersons especially M. Roslan Md. Isa and to the administration staff for all the guidance and help throughout my practical training period.

Not forgetting, thank you also to all the dedicated lecturers in Department of Building Surveying for all the hard work in supervising this practical training and the support you had given me to make me a better person.

Last but not least, to all those who had helped me along the way as the list would be too long to mention, thank you for everything.



V DIPLOMA IN BUILDING SI DEPARTMENT OF BUILDING SURVEYING FACULTY OF ARCHITECTURE, PLANNING AND SURVEYING MARA UNIVERSITY OF TECHNOLOGY

PREFACE

Practical training report is a compulsory task for students who undergo a practical training in a period of 5-6 months. The choice of the title for the report is based on the experience the students gain while doing their practical training. Besides that, it is also chosen after a discussion with the lecturer involved.

Generally, this report on 'The Design and Construction of Timber Truss' is about designing by the engineer and constructing a timber truss structure. The design is based on the roof type chosen by the client. The construction process takes place either at site or at the factory.

Besides that, this report also outlines the problems occurred during the designing and constructing stages and steps taken to solve them.



DIPLOMA IN BUILDING SURVEYING DEPARTMENT OF BUILDING SURVEYING FACULTY OF ARCHI r URE.F1 sNGANDSURVEI ' MAKA UNIVERSITY OF TECHNOLOGY