A PROJECT REPORT SUBMITTED TO SCHOOL OF ENGINEERING IN PARTIAL FULFILMENT OF REQUIREMENTS FOR THE AWARD OF AN ADVANCED DIPLOMA IN CIVIL ENGINEERING

AN INVESTIGATION ON THE PUNCHING SHEAR CAPACITY OF PLASTERED BRICKWALL.

BY :

AZHAR BIN ABDULLAH 92054292 MAY 1996

ACKNOWLEDGEMENT

In the name of ALLAH the Almighty, the Most Beneficent and the Most Merciful, the author would like to express his deepest sence of gratitude to Him that he has managed to finish this report and if not of His Help and Guidance the report would not have been completed as it is today.

In the preparation this report, the author wish to express his sincere gratitude and appreciation to his project supervisor, Ir. Mohd Ali bin Jelani.

The author would like to thanks to all technicians in the Structural and Concrete Laboratory, especially to Encik Razman, Encik Kamaruddin and others were always willing to help him in laboratory testing.

Last but not least the author would like to deliver sincere gratitude to all of his friends and family members for their help and comments in connection with completion this project.

TABLE OF CONTENT

			Page
Acknowledge	ement		i
Table of Content			ü
List of Figures			vii
List of Plates			xi
Abstract			xii
CHAPTER (ONE : INTROI	DUCTION	
1.1	Introduction		1
1.2	Objective		2
CHAPTER ?	rwo : gene	RAL	
2.1	Introduction		3
2.2	Brick As A Material In Brickwork		4
	2.2.1	Strength of Bricks	4
	2.2.2	Water Absorption of Bricks	5
	2.2.3	Moisture Expansion	6
2.3	Mortar As A	Material In Brickworks	7
	2.3.1	Function of Mortar	7
	2.3.2	Materials In Mortar	8
		2.3.2.1 Cement	8
		2.3.2.2 Lime	9

ABSTRACT

Proper design concept developed in many code of practice are suitable to a particular foreign experience. Bricks are local material which varies in properties from country to country. This project try to investigate the punching shear capacity of plastered brickwall.

1.1 INTRODUCTION

Brick is one of the oldest building material. For hundreds of years, the word "brick" was exclusively acssociated with building unit made of burn clay. However in the modern usage, the words tends to be descriptive because bricks are now made from a variety of materials.

First they were bricks made from mud, dried in the sun, then at least 5,000 years ago, man discovered the strength and durability of bricks fired in a kiln. Through the nineteenth century, bricks were widely used in every kind of building and for a wide range of engineering structure.

From the turn of the century to the present day, and despite the challenge from other materials, brickwork has maintained its position as the leading structural medium. Although bricks is one of the oldest building materials, it is only in the past few decades that scientific principles have been successfully applied in the study on the strength behaviour of bricks, leading to the new concept of the brickwork design and construction.

1