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MARA INSTITUTE OF TECHNOLOGY**

**FUNDAMENTALS PROPERTIES
OF SOFT CLAY**

BY:

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ABSTRACT

This research project is aimed at studying the properties of soft clay. Soil Classification test was performed on disturbed samples and Triaxial Undrained test on undisturbed samples. All laboratory test were conducted in accordance to BS 1377:1990.

The specimens of soft clay used were taken from different boreholes at the same site and the range of depth between 2.5 - 9.5 meter. The samples of soft clay were given by Jabatan Pengairan dan Saliran, Jalan Ampang, in connection with soil investigation at Sungai Besar, Sabak Bernam.

The experimental results indicated that the parameters and properties of the soft clay varies from place to place and the moisture content are mostly over 100% for undisturbed samples. In addition, this soft clay can be classified to be of very high plasticity and high compressibility.

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CHAPTER ONE

INTRODUCTION

1.1 General

The definition of soft clay has been made significantly through a systematic research and geotechnical experience over the years. It enabled engineers to use this soils economically and to predict their performance under field conditions with a fairly good degree of accuracy.

By definition, soft clay are low strength and high compressibility, and very sensitive. Their strength is reduced by disturbance. (after Edward W. B.)

Soft clay is an especially interesting and rewarding material with which to work. It possesses abundant engineering challenges whereby the designer must often use very high safety factors, and about which the decision he takes can have large economic consequences for a project.

Much of the early work on soft clay was done in Sweden during the first decades of this century. The investigation of the Swedish chemist Albert Atterberg on the consistency and classification of clays are called Atterberg Limit Tests. The existing geotechnical and engineering work on soft clays is connected with the Karl Terzaghi.

The geotechnical characteristics and field performance of most clays are influenced considerably by