THE RELATIONSHIP BETWEEN THE MOISTURE CONTENT, THE DRY DENSITY AND THE STRENGTH OF SOILS

by

Chistodoulou Chr., Kouma Eleni

Project Report

Submitted to

the Department of Civil Engineering

of the Higher Technical Institute

Nicosia-Cyprus

in partial fulfilment of the requirements

for the Diploma of

TECHNICIAN ENGINEER

IN

CIVIL ENGINEERING

June 1995

C.B.R TEST FOR COHESIVE SOILS

Chr. Christodoulou, E. Kouma

Project Number C/737

SUMMARY

This project was undertaken, in order to determine the relationship between the moisture content, the dry density and the strength of soils.

To achieve that the California Bearing Ratio (CBR) test was carried out.

For the experimental study a cohesionless soil was used.

The project is divided into four chapters:

The first Chapter gives an account on the mechanical stabilization of soils and deals with flexible pavements, materials used in construction and properties.

The second includes test methods by which the bearing capacity or strength of soils is determined.

The third chapter deals mainly with the CBR test and gives its relation to other tests.

Finally, the last one is an experimental study in order to examine the influence of dry density and moisture content of a soil on its strength.

The conclusions are that when the water content is increased, the CBR is decreased and when the dry density is increased the CBR is increased too.

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