

**FINAL YEAR PROJECT REPORT  
ADVANCED DIPLOMA IN CIVIL ENGINEERING  
SCHOOL OF ENGINEERING  
MARA INSTITUTE OF TECHNOLOGY**

**PROPERTIES OF LIMESTONE  
DERIVED RESIDUAL SOILS**

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### **SYPNOSIS**

This research project is aimed to study the properties of residual soil derived from the formation of limestone . Soil classification tests were performed on disturbed samples and Triaxial Undrained tests were done on undisturbed samples. All of the test were done with adherence to BS 1377:1990.

The specimens used were taken from Gopeng Kinta, Perak. These samples were given by the Institute Kerja Raya Malaysia (IKRAM), Kajang.

The experimental results indicated that the residual limestone soils has strength parameters , cohesion, C of 8.0 - 11.0 Kpa and angle of friction ,  $\phi$  of  $3.5^{\circ}$  -  $9.0^{\circ}$ , can be classified as sandy clayey silt to sandy silty clay and has intermediate plasticity.

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## **INTRODUCTION**

### **1.1 GENERAL**

Malaysia is one of the fastest developing countries in South East Asia, thus the development of infrastructure such as high level bridges, embankments and high rise structure is needed. Because of this, civil engineers that play an important role in the construction of infrastructure should know the factors that effect the product of development.

Geological settings of Ipoh and Kuala Lumpur are rather similar, these places provide good case studies on the application of geology to urban construction and development.

Limestone bedrock flanked with granitic hills, and schist, quartzite and phyllite are also found. The soils from both location are also comparable including residual soils derived from granite, limestone and other type of metasedimentary rocks.