

CERAMAH TEKNIK TECHNICAL TALKS

3. Geological Input in Site Investigation and Foundation

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Abstract 3: Site investigation is the process of collecting information and evaluating the geological conditions of the construction site. The information can be used for the purpose of designing and constructing the structures foundation of building, plant and bridge. Foundation on rock formation requires a geological inputs data such as types of rock, rock quality designation, discontinuities parameters and accurate subsurface profiles that can be obtained by followed proper procedure in site investigation works. In Malaysia, the site investigation works are conducted following the guidance and standardized procedures of Malaysian Standard MS 2038:2006: Site Investigation-Code of Practice, Malaysian Standard MS 1056: 2005: Soils for Civil Engineering Purposes-Test Method, Preambles to Schedule of Rates Revision: January 1997 and JKR Specification for Site Investigation Works: Carried out under Contract (Revision: January 1980). The usual method of determining allowable bearing pressures is to use published tables or building codes relating allowable values to rock type. However, in a circumstance where the rock conditions do not match description on the building code, it is more appropriate to semi-empirical methods incorporating appropriate geological inputs parameters. The qualitative data on geological condition obtained from site investigation were used for semi-empirical equations (quantitative) in calculating bearing capacity allowable on rock formation of the site.