

Geotechnical characterization in hilly area of Kundasang, Sabah, Malaysia.

Abstract

Geotechnical Characterization is an approach that derives from the soil investigation report. Often, the soil investigation report would provide the information regarding the proposed development area, or the area which involved in the remedial work. And in the soil investigation reports, the most important values were arranged in the separated sections. With geotechnical characterization, all the important data will be summarized and compiled in the convenient way to describe the soil condition of the area. This paper provides an overview of the geotechnical characterization in this particular area which could be utilized to solve existing issues in the construction industry. The scope of this study is confined to several aspects, namely soil types in the boreholes according to the USCS, liquid limit, plasticity index, soil cohesion, angle of internal frictions, and soil plasticity. Among the many applications of this approach includes slope stability, soil shear strength and foundation design. As a result of this study, it was found that the geotechnical characterization application could provide different view of soil condition, despite of the early assumption based on the borehole report. With this approach, the determination of the soil condition could provide the information and insight, which related to the prevention of landslide and soil mass movement.