

Detection and treatment of cavities in Kuala Lumpur limestone at Ampang Jaya District, Selangor

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Kuala Lumpur limestone in the Klang Valley generally show two geomorphologic expressions, one above the ground and the other buried beneath alluvium. The buried limestone shows highly irregular karst topography. These features have caused a variety of geotechnical problems in both the design and construction stage of substructures or foundations. This paper presents a case study on the detection and treatment of cavities in limestone at the new government hospital project in the district of Ampang Jaya, Selangor Darul Ehsan. A combination of microgravity survey and rock probing drilling to scrutinise potential geohazards related to the occurrence of cavities were utilised successfully. This exercise shows that cavity treatment using consolidation grouting method has been successfully implemented. It also shows that cooperation, understanding and teamwork from various parties are essential in solving problems in a cost effective manner.