

Repair of road embankment failure using reinforced soil wall

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Nehemiah Reinforced Soil

An old road embankment slip failure at KM 25.5, Jalan Kota Kinabalu – Tambunan after heavy downpour. A site investigation was carried out to determine the subsoil condition and the possible cause of failure. The likely cause of failure is due to the saturation of interparticular pores of the residual soil as a result of the infiltration of the rain water. The failed road embankment was repaired using Nehemiah Wall. Nehemiah Wall is a type of soil wall whereby it consists of precast concrete panels as facing and reinforcing bars and anchor blocks as reinforcement. The mode of stress transfer from the backfill to the reinforcement is by passive resistance in addition to friction. This proposal was eventually constructed and found to be cost effective, practical and durable.