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Studies and Full Scale Tests for the Development of a Ravine Filling with a Depth of about 12.00m

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Abstract : In compaction works, the most often used codes and standards are those for road embankments and refer to a maximum filling height of 3.00m. When filling a height greater than 3.00m, such codes are no longer valid and thus their application may lead to technical difficulties in the process of compaction and to the achievement of a sufficient degree of compaction. For this reason, in the case of controlled fillings with heights greater than 3.00m it is necessary to formulate and apply a number of special techniques, which can be determined by performing a full scale test. This paper presents the results of the studies and full scale tests conducted for the stabilization of a ravine with vertical banks and a depth of about 12.00m. The fillings will support a heavy traffic road connecting the two parts of a village in Vaslui County, Romania. After analyzing two comparative intervention solutions, the variant of a controlled filling bordered by a monolith concrete retaining wall was chosen. The results obtained by the authors highlighted the need to insert a geogrid reinforcement at every 2.00m for creating a 12.00m thick compacted fill.

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