

# D1 DUBNÁ SKALA-TURANY, SO 146-00 RELOCATION OF ACCESS ROAD

## SUČANY, ŽILINA, SLOVAKIA

### Reinforced Soil Walls and Slope Reinforcement

#### Problem

At present, is the access to the gravel pit PREFA Sučany secured by access road, which is led under a left-side of the dam of the river Váh. This road will be interrupted by planned highway D1. Because of the need to maintain access to the gravel pit this way will be relocated. Relocation of the road is divided into two sections - section no. 1 and section no. 2.

#### Solution

Construction of reinforced steep green slope is part of the object SO 146-00 section C.1. Object is holding widening embankment in the section before bridge SO 218-00 in order to minimize the area of embankment. The total length of the structure is 30.0 m. The entire structure has variable height of 5.04 - 7.28 m.

Face of the structure located underneath the bridge is filled by stones.

Modular system element Green Terramesh is designed for reinforcement of soils and for the creation of green slopes with steep inclination up to 70°. System consists of one unit, which combines a reinforcing function while ensuring the stability and greening front slope. The unit is made of double twisted hexagonal mesh, which integrally forms a reinforcing bar, forehead and top panel. The basic material of the unit is hexagonal double twisted wire mesh with the type 8x10 mesh protected with Galmac (Zn alloy-Al 5% MM) and PVC. Steel wire diameter is 2.7/3.7 mm (inside/outside). Front slope is 60°, front height is 0.58 m. Length reinforcements based on static analysis is 3.0 m. Width of the front is 3.

**Client:** NATIONAL MOTORWAY AUTHORITY

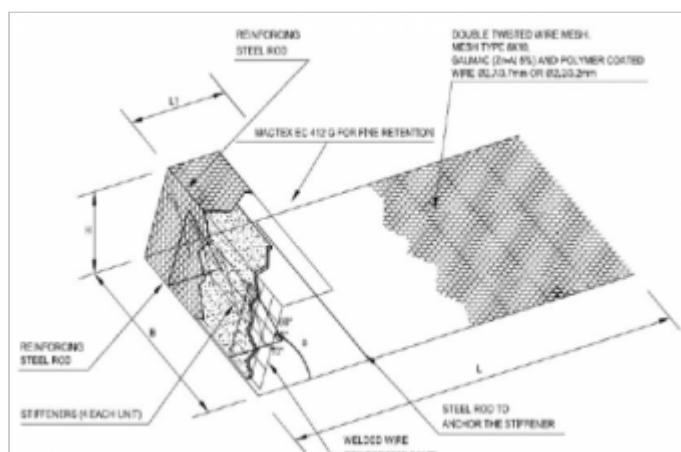
**Designer / Consultant:** DOPRAVOPROJEKT a.s.

**Contractor:** VÁHOSTAV-SK, a.s.

**Products used (Qty.)**

- Green Terramesh 400

**Date of construction:** 05/2013 - 10/2014



Scheme



Start of construction



During construction



During construction



After construction