REINFORCED SOIL STRUCTURES

Product: MacRes®

Problem
Bridge structure 207-00 is part of the junction at Martin town, located in the rural area. Bridge structure overspans the motorway D1. In the vicinity of the bridge is located railway line Bratislava - Košice.

Bridge structure 209-00 is located in the rural area of Martin, near existing roads III/018254 near Martin. The terrain is flat and is currently being used for agricultural purposes. In the future, it is possible that construction of industrial zones will be in this area. From the financial and time optimization reasons the original reinforced concrete bridge abutments were replaced with the MacRes system.

Solution
The reinforced soil wall is formed by precast concrete facing panels of standard size 1,5x1,5 m and a polymer reinforcement—high adhesion polymeric geo strips (GST). Walls are simple with an inclination of 90°, without the embankment on top. The bridge beamseat is founded on concrete piles, the wall was built after the piles were built. The wings are in variable height, the maximum height is 7.5 m.

Length of walls:
- Object 207-00: at abutment 1 is 58.5 m, at abutment 2 is 52.6 m.
- Object 209-00: at abutment 1 is 37.5 m, at abutment 2 is 37.5 m.

Client:
NATIONAL MOTORWAY AUTHORITY

Main contractor:
VÁHOSTAV-SK, a.s.

Consultant:
DOPRAVOPROJEKT a.s.

Used product:
MacRes® - face area 1 100m²

Construction info:
Construction start date: August 2012
Construction end date: June 2014
MACCAFERRI CENTRAL EUROPE s.r.o. has implemented and applies a quality management system pursuant to the standard EN ISO 9001:2008 certified by TSÚS CERTICOM.

Typical cross-section - SO 207-00, abutment 1

After construction, SO 207-00

Date: June 2014