Reinforced Soil Structures

Produkt: MacRes®

Problem
Retaining wall 243-00 is located in the Martin town district. The motorway is situated in the crest slope of the foothill with steep terrain in the cross section. There is a cut on the right side of the motorway and embankment on the left side. The purpose of the proposed reinforced wall is to form and retain the high embankment.

Solution
Retaining wall 243-00 is formed by system MacRes—reinforced soil structure with precast concrete facing panels reinforced with polymer geostrips. The wall has 3-stages (2 berms), inclination of wall is 90°, with the embankment on top. The maximum wall height is 18.00 m. In the top of the wall is system precast coping and noise barrier.

The reinforced soil wall is formed by precast concrete facing panels of standard size 1,5 x 1,5 m and a polymer reinforcement—high adhesion polymeric geo strips (GST). Panel aspect ratio, combined with compressible bearing devices gives good system articulation. Hence, significant tolerance to longitudinal differential settlement, especially when panel aspect ratio is near unity.

Client:
NATIONAL MOTORWAY AUTHORITY

Main contractor:
VÁHOSTAV-SK, a.s.

Consultant:
DOPRAVOPROJEKT a.s.

Used product:
MacRes® - face area: 4 000m²

Construction start date: March 2013
Construction end date: October 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.