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CASE HISTORY

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D1 JÁNOVCE - JABLONOV, II. LOT, MOTORWAY CUT STABILISATION IN KM 14,500 - 15,200

LEVOČA, SLOVAKIA

CLADDING WALLS
Product: Gabion cladding

Stabilisation of motorway cut in KM 14,523—15,200 formed by poor graded claystone at sandstone.
The upper part of the cut is shaped to inclination 1:2 with no stabilising elements. The rest of the cut is stabilised by system of reinforced concrete vertical and horizontal beams, shotcrete, steel nails and rope anchors. The structure is vertically split in 4 stages which are 6,0 m high and divided by 1,05 m wide berms. At the location of vertical beams are positioned steel nails Ø 32 mm, 6,0 m long, at the location of horizontal beams 12 - 18,0 m long steel rope anchors. Area between vertical beams is secured by shotcrete with thickness ranging from 100
– 200 mm combined with steel nails Ø25mm, 4,0 m long spaced 1,5 x 1,5 m. Distance between vertical beams is 4,0 m.

Shotcrete between vertical beams is protected with **gabion cladding** formed by gabion baskets with dimensions 2 x 0,5 x 0,5 m. **Gabions** are placed directly on the horizontal beams, secured with anchoring system to the shotcrete. The solution was selected due to several factors including very positive cost benefit analysis in comparison with traditional claddings made of concrete or stones, fast speed of construction, permeability of the structure and also aestheticism of the solution.

Gabion cladding is formed by steel welded panels type 10x10, wire diameter 4,0 mm protected with 350 g/m^2 GalmacPlus (Zn+10%Al) coating according to EN 10223-8 and EN 10244-2, Class A due to client's requirement for durability of the structure.

Length of cuts is 677 m with maximum height of 24 m.

Client:

National Road Authority

Main contractor:

Združenie Eurovia - SMS - D1 Jánovce-Jablonov,

Designer:

VALBEK spol. s r.o.

Used product:

Gabion cladding - face area 13 000 m^2

Construction info:

Start of construction:	Marec 2015
End of construction:	November 2016

During construction — Date: May 2015

During construction — Date: May 2015

During construction — Date: May 2015

Dokumentet presenteres uten ansvar for eventuelle feil.
Innhold kan endres uten forutgående beskjed.

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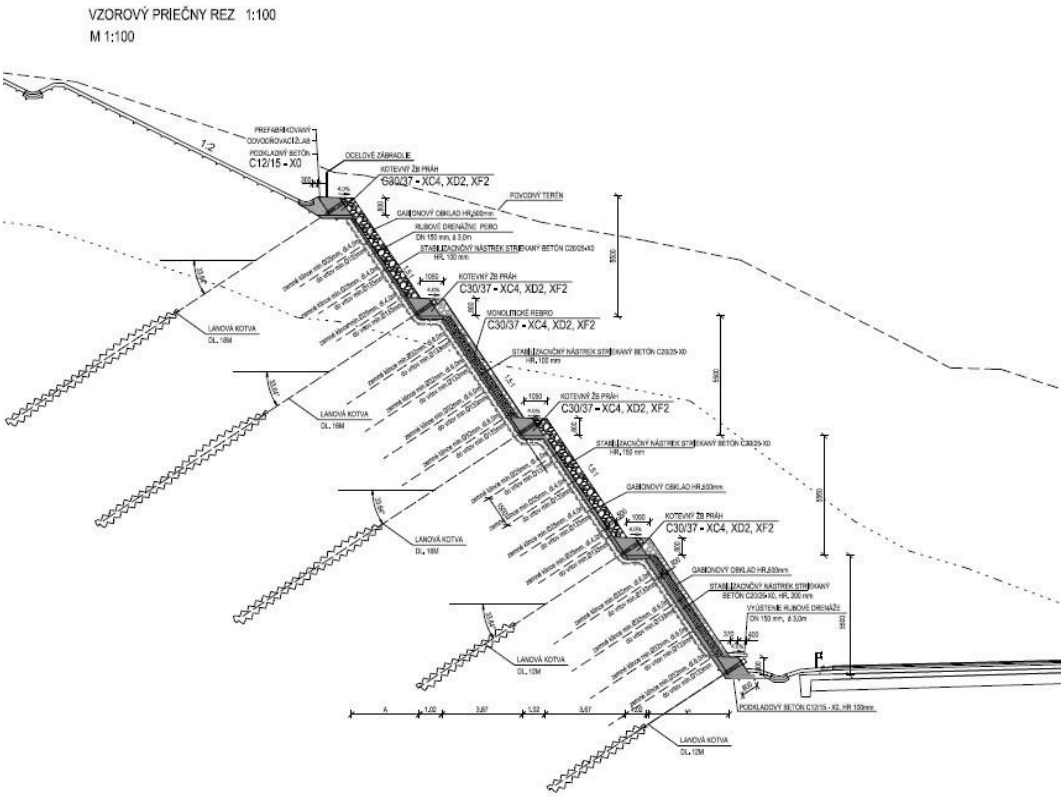

Typical cross section

MACCAFERRI CENTRAL EUROPE s.r.o.
Kaplinské pole 2859/24, 905 01 Senica
E: info@sk.maccaferri.com
www.maccaferri.com/sk

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