

**LU-A13 DUDELANGE-BURANGE**  
**DUDELANGE, LUXEMBOURG, LUXEMBOURG****Reinforced Soil Walls and Slope Reinforcement****Problem**

Redevelopment of the Dudelange-Burange interchange, located at the intersection of the A13 motorway and the N31 national road, is part of the development of the local road network relating to the extension of business parks and urbanization areas along the "Collectrice du Sud".

The construction of activity zones in the North (Eurohub + CFL Multimodal Platform) and in the South (National Health Laboratory) leads to an increase in traffic that no longer allows the interchange, due to its geometric configuration, to meet safety and capacity requirements.

The redevelopment of the existing interchange has two main objectives.

On the one hand, it is intended to provide easy and direct access to the motorway for the planned business and urban development zones in the vicinity. On the other hand, it aims to increase the capacity and safety of this heavily loaded road junction.

The designers chose a solution with reinforced soil structure due to the environmental friendliness and due to the most cost-saving solution. The support provided by Maccaferri together with the partner Texion was very well appreciated by the designers and the construction company during the pre-design and construction phase.

**Solution**

The loads applied varied from 26 kN/sqm up to 44 kN/m<sup>2</sup> in correspondence of the traffic lanes and 5 kN/sqm for the pedestrian and bicycle path.

4,000 m<sup>3</sup> of gabions, including 1,700 m<sup>3</sup> of gabions combined with the reinforced earth system over a height of 12 m.

Only DT steel reinforcements were used for the Terramesh System tails up to 7 meters length and PVC coated gabions for cladding.

Where the wall decreased its height there was also the interference of a pipeline, which was also taken into account for the stability checks.

**Client:** FELIX GIORGETTI s.à.r.l.

**Designer / Consultant:** Schroeder & Associés ingénieurs-conseils

**Contractor:** Ministry of Public Works, Luxembourg

**Products used (Qty.)**

- Gabion	4.000 cm
- Terramesh	3.700 sqm of facing

**Date of construction:** 04/2015 - 12/2019

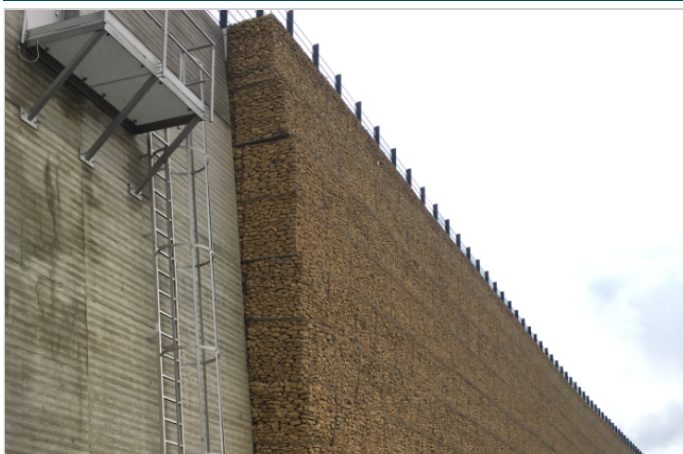


Construction phase: side view detail



During the installation of Terramesh System units





During the installation: detail of the bridge abutment



End of the construction: drone aerial view



End of the construction: drone aerial side view



Detail of the Terramesh System front gabion wall



Drone aerial view

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