

İSTANBUL TORUNKENT 5. LEVENT PROJECT

İSTANBUL, MARMARA, TURKEY

Reinforced Soil Walls and Slope Reinforcement

Problem

Reinforcement of Various Fill Slopes on the Temporary Structure Surfaces with Mechanically Stabilized Walls in the 5. Levent Project Within the scope of Kagithane Torunkent 5. Levent Project, whose construction works are continuing under the commitment of Torunlar GYO, filling slopes of about 60-70 degrees will be made on the upper parts of the sections located at the rear of the existing housing constructions and where the piles and passive system anchors are used as temporary structures for deep excavations stability.

As a result of on-site inspections by our technical team and meetings with the Project Team by the client, it has been agreed that free fill constructions reaching a height of approximately 15 - 16 m will not remain stable on slopes and will be exposed to surface erosions over time and depending on weather conditions and eventually cause global slope stability problems in medium term. Due to the fact that the vehicle access road will pass over the embankment construction, it was agreed that the current state cannot support these dynamic loads.

Solution

Green Terramesh Retaining Wall Application with Geosynthetic Reinforcement After the meetings with the client and the engineering studies, it was decided to stabilize the free fill slopes in the region gradually with Geogrid reinforcements. In addition, it has been decided that the front face of the geogrid reinforced mechanically stabilized infill wall to be built in line with the client's request for landscaping purposes will be manufactured as Green Terramesh Systems, which can be greened with germination works. Paragrid type reinforcements with self-drainage fibers were selected as the type of geogrid used in the project, so there was no need for an additional drainage line in the wall for the evacuation of groundwater in the fill.

Within the scope of the application, a total of 405.84 m² of Geogrid Reinforced Green Terramesh System Retaining Wall has been manufactured. The application was started on 15.12.2015 and completed on 19.04.2016.

Client: TORUNLAR GAYRIMENKUL YATIRIM ORTAKLIĞI

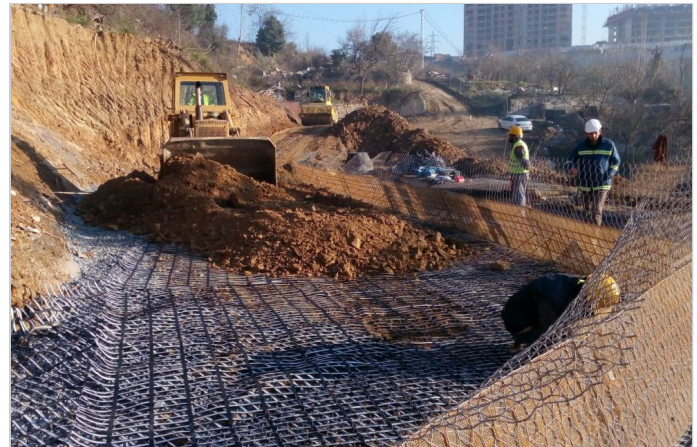
Designer / Consultant: MACCAFERRI TURKEY

Contractor: NYS PROJE DANIŞMANLIK İNŞ.SAN.VE TİC. LTD.

Products used (Qty.)

- Green Terramesh	406 m ²
- ParaDrain	406 m ²

Date of construction: 11/2015 - 12/2015



Torunkent 5. Levent Project GTML Application



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Green Terramesh