

## KAYAPARK PROJECT BASAL REINFORCEMENT İSTANBUL, MARMARA, TURKEY

### Basal Reinforcement

#### Problem

The Turkish Housing Authority wanted to convert an abandoned mining site into a 300,000 m<sup>2</sup> housing complex comprising residential housing and park area with pedestrian walkways. Architects envisioned filling the mine's "open pit" area to support the project's general design plan requiring a solution for the management of differential settlement of the fill material that would occur.

#### Solution

To manage the differential settlement, Maccaferri offered Paralink™ as a basal reinforcement solution. Paralink™ geogrids are unique planar structures consisting of a monoaxial array of composite geosynthetic strips. Maccaferri TURKEY worked with the housing authority's chosen design company to create a customized solution utilizing Maccaferri's proprietary software to evaluate geotechnical parameters and meet design life requirements whilst being economically acceptable. The solution chosen was Paralink™ 200 installed in perpendicular and bidirectional planes providing 200kN in both x and y directions. Differential settlement was managed with a 2% material strain.

A total of 682,600 m<sup>2</sup> of Paralink™ 200 was supplied, along with 102,000 m<sup>2</sup> clay liner.

**Client:** EMLAK KONUT

**Designer / Consultant:** MACCAFERRI TURKEY

**Contractor:** YAPI VE YAPI İNŞAAT TAAH. SAN. VE TİC.

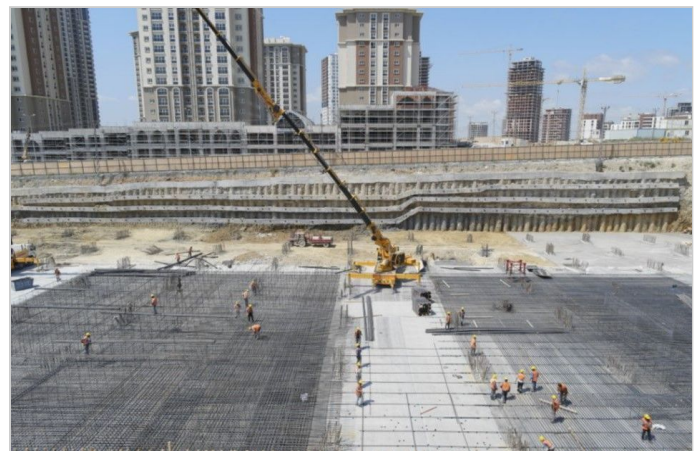
**Products used (Qty.)**

- ParaLink 682,600 m<sup>2</sup>

**Date of construction:** 03/2017 - 08/2017



Placement of Paralink



During construction



Placement of Paralink

