

KEMALPAŞA LOGISTICS CENTER REINFORCED EARTH RETAINING STRUCTURE

İZMİR, EGE, TURKEY

Vertical Walls with Concrete Facing Panels

Problem

It was necessary to create a railway platform with retaining walls varying between 3.75 m and 10.5 m in a line of approximately 2 km in Kemalpaşa, İzmir Logistics Center. In the meantime, the retaining walls were designed as a reinforced earth system, as the production was desired to be completed very quickly.

Solution

Due to the very high clay content of the natural ground in the project area, the settlement problems to be experienced on the ground were well tolerated with the earth retaining walls, which are flexible retaining wall systems.

On the other hand, earthquake concern has been minimized in this project in the first degree earthquake zone with the earthquake walls, a system that has proven its success under seismic loads with the Kobe Earthquake since the 1990s.

Since it is known that the region receives heavy rainfall in winters, polymer strips were preferred as reinforced earth strips in order to eliminate the risk of corrosion that may occur both on the strips themselves and at the connection points. Similarly, in this application, since the connection element is also polymer-based, it is prevented that the drain line allowed with crushed stone at the front and therefore the water affects the life of the strip or fastener material. Thanks to a rebar placed at the back during the application, a wider filling mass was reinforced with polymer strips laid crosswise.

Client: AKKOL MADENCİLİK VE ELRON İNŞAAT

Designer / Consultant: MACCAFERRI TURKEY

Contractor: AKKOL MADENCİLİK VE ELRON İNŞAAT

Products used (Qty.)

- MacRes	17.600 m ²
- ParaWeb	17.600 m ²

Date of construction: 07/2017 - 07/2018



Figure



Figure



Figure

