

Additional Tensar structures for enlarged interchange



Improvement of Al-Qudra - Jabal Ali Lehabab Road Interchange Bridge Contract R1046 Dubai, United Arab Emirates

PROJECT BACKGROUND

Ramps in the existing interchange were built with Tensar walls in 2005. The first upgrade in 2014 also incorporated Tensar structures. A further enlargement of the interchange to improve access to the local area required realignment of some existing Tensar structures, plus new structures to accommodate additional access ramps. In all the upgrades, the new structure had to be connected to the existing structure seamlessly. Tensar accommodated the existing underground utilities that ran across the area whilst designing the upgrades.

TENSAR SOLUTION

TensarTech TW1 ME system is a reinforced soil wall system which incorporates Tensar uniaxial geogrid reinforcement and modular block facing. Tensar designed the tiered reinforced soil walls with grey colour textured concrete blocks for the non-load bearing bridge abutment and for the new entrance and exit ramps. The TensarTech TW1 ME system was adopted to match the existing structures measuring a total face area of 3,300 sq.m.

BENEFITS

- **30 - 40% Reduction in time**
compared to reinforced concrete wall alternative
- **30 - 40% Savings in material cost**
compared to using reinforced concrete retaining walls
- **Design adaptability**
- continuity of aesthetics, durability and reliability through three upgrades

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PROJECT DETAILS

Constructed in
2019

Client
Roads & Transport Authority (RTA)

Consultant
Parsons Overseas Ltd.

Main Contractor
Dutco Balfour Beatty Ltd.

Tensar Distributor
Pioneers of the Middle East Bridges and Tunnels Maintenance L.L.C – O.P.C



Tiered Tensar reinforced soil walls with modular block facing

Walls & Slopes | No. 499

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