Subtle use of colour creates impressive appearance for sub-station retaining wall

Emirates Road Extension (Second Phase) Sharjah, UAE

CLIENT'S CHALLENGE

The Al tay 220kV sub-station is located adjacent to Emirates Road, Khorfakkan junction. Construction of a new slip road necessitated a retaining wall to support the sub-station compound at a higher level. The wall would be visible from two major highways, making aesthetics important to the design.

TENSAR SOLUTION

The Tensar solution was for a two-tier TensarTech TW1-ME retaining wall to improve visual impact. This system could perfectly accommodate the curved and variable height geometry. Two shades of grey colour were adopted for the modular block facing, creating an impressive granite-like appearance with subtle light and dark banding. The design utilised site-won fill consisting of well graded sand to reduce construction cost and minimise haulage.

BENEFITS

- **Visually attractive solution**
  - using blocks with 2 colour shades
- **Lower construction costs**
  by enabling use of site-won materials as structural fill
- **Shorter construction time**
  compared to alternative solutions considered

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PROJECT DETAILS

Constructed in
2023

Client
Ministry of Energy & Infrastructure (MOEI), United Arab Emirates

Design Consultant
Jacobs

Supervision Consultant
CDM Smith Inc

Contractor
Bin Hafeez Gen. Cont. LLC.

Tensar Distributor
Pioneers of the Middle East Bridges and Tunnels Maintenance LLC-OPC

The TensarTech TW1-ME wall system easily accomodates curved and variable height structures

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