

Tensar value engineered perimeter road reduced construction costs



Axis Mega Distribution Centre

Telok Panglima Garang, Selangor, Malaysia

CLIENT'S CHALLENGE

A pile foundation with slab was initially considered for the entire warehouse area to address the thick soft clay formation. However, the piling operation posed a risk of damaging the existing electrical cables around the perimeter road. These cables could not be relocated and required access for future maintenance. The client also saw potential difficulties with the pile foundation proposals for their warehouse perimeter road due to existing underground utilities. Therefore, the client needed an alternative solution.

TENSAR SOLUTION

A base layer mechanically stabilised with two layers of Tensar InterAx geogrid was proposed as a road foundation to meet the bearing capacity requirements and mitigate differential settlement. Additionally, a Tensar mechanically stabilised layer (MSL) was able to further support the road and reduce settlement caused by the soft clay subgrade. The MSLs provided an even surface to support the rigid pavement, ensuring the road's longevity while allowing future maintenance of the utilities.

B E N E F I T S

- **Mitigate differential settlement** and provides a stable base for the concrete slab
- **Achieved 30% cost savings** compared to pile foundations
- **Easy reinstatement** after servicing existing utilities

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PROJECT DETAILS

Constructed in
2024

Client
Axis REIT

Contractor
SQA Builders Sdn Bhd

Consultant
WK & Partners Consult Sdn Bhd

Product
Tensar InterAx geogrid



Waterlogged soil with poor drainage and exposed pipes. Thick soft clay subgrade issue before construction

**Road, Pavement,
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