Factory Gate 1 Beta

Stabilisation of Industrial Drainage

Penang, Malaysia

CLIENT'S CHALLENGE

The Factory Gate 1 Beta project was located on very soft ground with an undrained shear strength of approximately 15 kPa. Conventional piling was not considered suitable because of existing underground facilities beneath the proposed structure. An alternative foundation solution was therefore required to provide the necessary bearing capacity while avoiding interference with existing services.

TENSAR SOLUTION

To overcome the site constraints, a Tensar Mechanically Stabilised Layer (MSL) incorporating Tensar H-Series geogrids was designed and constructed. The stabilised aggregate platform distributed loads over the soft foundation soils, providing a practical alternative to deep foundations while accommodating the presence of existing underground infrastructure.

BENEFITS

- **Eliminated deep foundation** avoiding risks to existing underground facilities
- **Reduced foundation costs** through an efficient Tensar Mechanically Stabilised Layer (MSL) design
- **Minimise construction time** using conventional earthworks and aggregate placement

PROJECT DETAILS

Application
Foundation Support | No. 575

Constructed in
2026

Contractor
Exyte Malaysia Sdn. Bhd.

Consultant
M.E.I Consultants Sdn. Bhd.

Project Owner
Intel Electronics (Malaysia) Sdn Bhd

Product
Tensar H-Series

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