



GEOFABRICS CASE STUDY



BIAXIAL GEOGRID DELIVERS COST-EFFECTIVE GROUND STABILISATION

PRODUCT USED

Biaxial Geogrid

- Made from polypropylene and engineered to provide load support in both longitudinal and transverse directions, it is ideal for stabilising subgrades and pavements
- Reduces aggregate layer thickness by up to 50% without compromising performance
- Enhances layer stiffness to allow the use of lower-quality or recycled fill materials, reducing material costs
- Speeds up installation, offering a fast, cost-effective stabilisation solution for roads, working platforms and heavy-vehicle pavements

Similar Product

Geofabrics® Geogrid™ Biaxial

PROJECT DESCRIPTION

In 2017, the new 11-storey building on South Esplanade, Glenelg Foreshore, presented a unique engineering challenge. The building, which included a two-level basement car park, was constructed on extremely soft ground consisting of loose dune sand with an assumed CBR of 2%.

To enable piling for the project, a working platform capable of supporting the maximum proposed piling loads of 340 kPa was required. A cost-effective and structurally reliable solution was needed to stabilise the soft ground and support the piling loads.

OUR SOLUTION

The project team utilised a biaxial geogrid to reduce the required platform depth without compromising performance or strength. The final design featured a 400-millimetre-deep pavement over the biaxial geogrid, laid directly on the existing dune sand. The biaxial geogrid layer stabilised the platform effectively, providing the required support that would otherwise have only been achieved with a deeper pavement. This approach delivered significant cost savings while maintaining the structural integrity of the working platform.



Durable
Load Support

Savings
without
compromising
performance



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