

CASE STUDY



E'GRID 3030 - Rigid Biaxial Geogrid

Amaroo Estate, Narrawallee NSW

Project Overview

Amaroo Estate is a new master-planned community near Ulladulla on NSW's South Coast. With a variety of residential blocks selling quickly off the plan, the builders were under pressure to ensure stages 7 and 8 of the subdivision were ready for handover on time.

This meant building local roads through this greenfield area in challenging soil conditions - a project that required a creative geosynthetic solution.

The Challenge

The planned road alignment contained soft subgrade spots that required intensive work to make them suitable for traffic. Choosing to go down the standard path of excavation, removal of the spoil from the site, importation of large volumes of select fill and additional sub-base would hamper construction and send the project substantially over its due date which would mean delaying the sale of residential blocks and potentially causing cash flow issues for the Developers.

A smart solution was required that would ensure the civil contractors could get on with the road construction without delay.

The Solution

The Polyfabrics team attended a site meeting with the contractors project manager together with their geotechnical engineer to discuss solutions to speed up construction and save money. Potential solutions included High Strength Woven Geotextile and rigid Geogrids, both of which would reinforce the proposed pavement to achieve the specified design life.

Polyfabrics E'GRID 3030, a rigid biaxial geogrid was selected and installed under the first layer to stabilise the roadbase and distribute loads over a greater subgrade surface. By using E'GRID, the costs of additional spoil removal, importation

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and placement of additional materials was eliminated and the construction timetable was kept on track.

E'GRID is made from punched and stretched polypropylene with thicker ribs to reduce installation damage. With square aperture E'GRID interlocks with efficiently roadbase to maximise performance.

For specialist advice, trust Polyfabrics!

Polyfabrics can digitally model E'GRID reinforced pavements to determine the sub-base thickness and geogrid strength needed for specified traffic loads and subgrade CBR's.

E'Grid Technical Data Sheets are published with tensile strength values that allows E'Grid reinforced pavements to be independently modelled with most commercially available design software packages.

For further information or advice on the best geotextile solutions for your project, contact Polyfabrics on 1300 287 484 or take a look at the specifications for our E'GRID product here.

