CASE STUDY
MOUNT COTTON EMBANKMENT PROJECT
MOUNT COTTON, QLD

PLATIPUS® B4 AND B6 ANCHOR SYSTEMS

CONTRACTOR	Doval Constructions Pty Ltd
ENGINEER	Cardno
CLIENT	Redland City Council & Queensland Main Roads
LOCATION	Mount Cotton, South East Queensland

ADVANCED GEOSYNTHETIC SOLUTIONS™

The Project

Platipus anchoring systems were chosen as the preferred solution to provide permanent stability to an embankment slope supporting the Mount Cotton Road in South East Queensland.

Design

Cardno designed and detailed embankment stability measures for approximately 130m length of cut slopes, up to 4m in height with maximum slope batters of up to 50 degrees. The final embankment slope facing to provide stability and erosion control consisted of shotcrete (at the higher level) and geosynthetic matting (at the lower level) to encourage vegetation establishment over time. Stringent onsite Australian Standard testing was carried out in accordance with MRTS03. Design life of the embankment stabilisation project is approximately 60 plus years

Installation

Doval Constructions installed and tested nearly 200no. Platipus B4 and B6 Anchor Systems were driven to a maximum depth of 8m into the embankment slope in a short time frame period of nine working days. Each anchoring system was load locked and verified with Proof Loads of between 20-33kN (3.3 tons). The final 'lock off' or 'active' Working (Design) Load was 50% of the Proof Loads. Doval Constructions implemented a 'smart' reinforcement spacing option for the shotcrete face using small cost-effective concrete paving slabs.

The Platipus anchoring systems were chosen and deployed for the following main features & benefits:

- A major driving force for implementing the Platipus Anchor solution was its speed and ease of installation
- Very short time frame achieved to complete the anchor installation works
- Instant load verification and no time delay in having to wait for a grouted option to harden and cure
- Relatively low total (Supply & Install) cost anchor solution in comparison to other systems and solutions

PLATIPUS EARTH ANCHORING SYSTEMS

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