CASE STUDY

Geocomposite Drains

Project: SH2 Greytown to Featherston Passing Lane
Date: September - October 2007
Client: Transit NZ
Location: Greytown

Megaflo®

This particular flat section of SH2 is prone to frequent flooding due to a very high water table and low hydraulic gradient. Due to the deposits of alluvial silts and gravels, the water ponds take a long time to drain away. A new passing lane was required along this section, and drainage had to be installed on both sides of the road for a length of 900m.

Initially 26 open rock filled soakage pits were specified, however with a redesign, this was reduced to 24 large soakage pits with 3m concrete chambers, incorporating the use of Megaflo® 450. The high profile of Megaflo® ensures that effective drainage can be achieved even at such low hydraulic gradients. The high compressive strength of Megaflo® allows it to be installed to within 150mm from the surface, thus making it an ideal solution for the high water table areas.

Approximately 1800m of drainage was installed on both sides of the passing lane. Megaflo® is supplied wrapped with a bidim® drainage geotextile that meets TNZ F/7 requirements for geotextiles and the use of standard Megaflo fittings enabled easy connections to other drainage components.

The Geofabrics supplied Megaflo® spinning Jenny frame enabled quick installation of the product once the trench had been excavated using a 500mm wide digger bucket. With less excavation required than for standard round pipe installation the contractor was able to achieve installation rates of up to 200m per day including placement and backfilling. The 500mm bucket was required due to large rocks encountered. The contractor was very pleased with the ease of installation, and would be more than happy to use this system again.

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