

# CASE STUDY

Geogrid

Project: Fairline Road  
Date: May 2011  
Client: Cartor Holt Harvey  
Location: Whakamaru



## Tensar TriAx®

A haul road was required as an extension to Fairlane Road for the extraction of timber. As is generally anticipated the ground conditions were variable and there was an expectation that the normal method of constructing access roads would not be sufficient to support the heavy traffic loading experienced with the tree felling and extraction process. As well as loaded trucks, the access road would also need to support the mobile log processing equipment. It was therefore essential that this plant would not become stuck on the haul road which could lead to costs for recovery along with the associated production down time costs.

Forestry roads are often a difficult problem to solve. This particular road was required for 3 weeks and it would be another 30 years before it was required again. During the weeks it is in service it is expected to support in the region of 100 truck movements with a gross weight in some instances of up to 50 tonnes in addition to the loads from the timber processing and extraction equipment and plant. Generally the solution is to increase the depth of metal however, with this particular road, the contractor identified that geogrid stabilisation of the fill over the soft ground on a site with a difficult access would be more beneficial. The additional cost of the **Tensar TriAx® 160** is relatively insignificant when compared to the cost in down time that could be experienced from plant or trucks not being able to access the loading site.

Tensar have carried out extensive research on the use of geogrids in pavements. This independent research has shown that the positive interlock offered by **Tensar TriAx®** geogrids with aggregate increases the ability of the aggregate to support a higher number of vehicle loads when compared to un-stabilised road sections. This research provided the contractor with the confidence that **Tensar TriAx®** geogrid would be a cost effective solution over installing additional metal for this section of the road. The geogrid was successfully installed and the road performed well and without incident throughout the timber extraction process.



TriAx installed under this forestry access road



Following several weeks of intense use



The access road after completion of the timber extraction

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