CASE STUDY

Project: 338 Ohiwa Harbour Rd Slip
Date: June - July 2010
Client: Private Owner
Location: Opotiki

Green Terramesh

A large Pohutukawa tree on the slope below a private residence fell during a heavy storm event. The extensive root structure of the tree pulled away a large block of soil undermining the deck of the house above and leaving a portion of this deck overhanging and not fit for use. In addition, the safety of the house above was threatened if the slope was not protected from further deterioration. The total height of the slip area varied from 12m to 15m.

The original proposal considered large timber poles to form a tiered wall structure. This was ruled out from both cost and from an aesthetic point of view. Geofabrics were contacted to provide an alternative solution that offered a more aesthetic and ‘softer’ look.

The solution proposed and accepted by the engineers was a 70 degree slope having Green Terramesh facing units, designed to provide permanent stability to the face and at the same time offer construction advantages through the simple installation methodology of this system. Geogrid was laid between the Green Terramesh units to provide long term internal and external stability to the new structure. The construction of this new slope created a sufficiently wide platform for the construction of a 1:1 geogrid reinforced slope above. Enkadrain was used up the cut face to intercept groundwater and channel it down to Megaflo® collector drains which in turn discharge the water away from the slip area.

The MacStars software was used for the stability analysis as it has the ability to model the soil profile and reinforced block incorporating the Green Terramesh units and geogrid. The analysis included internal stability of the reinforced soil block, global and sliding stability.

The information contained herein is general in nature. In particular, the content herein does not take account of specific conditions that may be present at your site. Site conditions may alter the performance and longevity of the product. Actual dimensions and performance may vary. This document should not be used for construction purposes and in all cases, we recommend that advice be obtained from a suitably qualified consulting engineer or industry specialist before proceeding with installation. © Copyright held by Geofabrics New Zealand Ltd. All rights are reserved and no part of this publication may be copied without prior permission.