

Reference Project

Geotechnical Slope Stabilisation

Whaka Tce Emergency Road Support

Location	Whaka Terrace, Christchurch
Date	September 2021
Client	Higgins / Christchurch City Council
Consultant	Abseil Access & RDA Consulting



Abseil Access was approached to assist with the emergency support works for the Whaka Terrace roadway above the endangered house below at Enticott Place. The slip under the roadway was created by the saturation of the ground from a water feed under the roadway. We partnered with RDA consulting for the design of the temporary support works which are designed to be incorporated into the permanent solution. The works were deemed essential and conducted under Covid L3 restrictions.

The work included:

- Scala Penetrometer tests
- Design and installation of the vertical support micropiles and sub-horizontal soil nails consisting of Ischebeck Titan 30/11 SDA anchors into 110mm diameter anchor holes
- Geofabrics MacMat R retaining mesh
- Vertical Acrow prop supports under the undermined roadway gabion wall
- Removal of loose concrete panels from under the roadway

Abseil Access drilled off a 13 ton excavator from either side of the site, so that the installed anchors could support the roadway before we moved the excavator further over the undermined roadway. The roadway was continually monitored to ensure that it was not subsiding under the pressure of the works.

Mesh was installed onto the anchors and slip face to provide additional protection from erosion. Acrow props were installed to support the overhanging roadway, with their bases supported by the vertical micropiles.

