

REFERENCE PROJECT

Geotechnical (Rockfall Protection)

Location: Tunnel 3 portal, Johnsonville line Wellington
Date: 2012
Client: Kiwirail
Consultant: Opus International, Wellington Office

The Johnsonville line runs through a series of cuttings and tunnels between Wellington and Johnsonville. An upgrade of the line included rock fall protection measures around the tunnel 3 portal. The design was by Opus, Wellington.

The greywacke rock is predominantly sandstone with some mudstone beds, highly to moderately weathered, closely fractured, dilated and loose. The work had to be completed without impeding the use of the track. This required working on block of lines, at night, weekends and during weekdays between travelling trains.

The project involved removal of vegetation and loose rock, 55 rock anchors were installed 6m deep, 9 anchors were acceptance tested to 150kN.

The netting is Geobrugg Tecco covering an area of 800sqm. Additional 13mm galvanised mid face cables provide extra strength.

