

## Project Info



18 / 09 / 13



CC5™ Bulk Rolls



200m²



Vertical layers



Taupiri, New Zealand



Fletcher Construction,  
Brian Perry Civil,  
PC Environmental



CC used as an capping  
layer over a geogrid to  
prevent erosion of a  
bridge abutment.



*Completed section of slope lined with CC5*

In September 2013, Concrete Canvas (CC) was used as an erosion control solution on a section of bridge abutment in Taupiri, New Zealand. The CC was being installed as a capping layer to an existing geogrid system. Shotcrete was initially considered for the project, but would require specialist equipment and labour, as well as extending the installation time.

Bulk rolls of CC5 were delivered to site and cut to lengths of between 1m and 7m to match the varying height of the slope. This ensured that there was no wastage as each length was tailored to match the slope face exactly. Using a rough terrain cherry picker and spreader beam, each length was then lifted to the top of the slope and fixed in place using 300mm steel ground pegs at the crest and toe. This became more difficult on the sections of abutment directly under the bridge, an issue that was solved by reversing the process and fixing the CC to the toe of the slope first. Subsequent layers of CC were then positioned with an overlap of 100mm to the adjacent layer and screwed together with 30mm screws at 200mm intervals using an auto-fed screwdriver. Once the CC had been secured, it was then hydrated using on-site equipment and a water truck.

Fletcher Construction were very impressed with the ease with which CC was installed. Project time was also considerably reduced; the 200sqm installation was completed by a team of 3 in just over 5 hours, whereas shotcreting the slope was estimated to take 1-2 days.

\*Geosynthetic Cementitious Composite Mat







*The abutment had been prepared with a geogrid prior to installation of CC*



*CC5 was cut to length on site to match the varying height of the abutment*



*Completed CC slope three years after installation*