

Project Info



16 / 01 / 14



CC5™ Bulk Rolls



160m²



Longitudinal layers



Cunningham's Gap,
Queensland, Australia



McIlwain Civil/
Hydrovac Excavations/
Burdens Australia



CC5 used to provide an
erosion-control solution
to a slope adjacent to the
Cunningham Highway in
Queensland, Australia



Section of slope immediately following hydration

In January 2014, Concrete Canvas® GCCM* (CC) was used to remediate a section of slope adjacent to Cunningham Highway in Aratula, Queensland. The slope had suffered erosion caused by insufficient drainage. A solution was needed to protect the slope from further damage, as it threatened to destabilise the adjacent road. Shotcrete had been considered to line the slope, but roadside barriers created issues with site access. The equipment and rebound associated with shotcrete could also cause delays and damage to the vehicular traffic using the road, as well as existing road infrastructure.

Prior to installation, the site was cleared of vegetation, before bulk rolls of CC5™ were delivered to site, deployed using a crane truck and spreader beam and cut to length. Each length of CC was then fixed to the substrate using ground anchors and concrete screws. Adjacent lengths of CC were jointed using stainless steel screws and Sika Pro adhesive. The interface between the CC and an existing spoon drain at the head of the slope was sealed with a non-ferrous, non-shrink grout, with the CC pinned in place. A water truck and hose equipment was then used to hydrate the CC after the grout had set.

The 160m² installation was completed in a single day by an installation team of 5, much quicker than would have been the case with shotcrete or other traditional solutions. The installation was very successful, allowing a durable erosion prevention solution to be installed in average temperatures of 28°C, with very low impact on the vehicular traffic utilising the highway.

*Geosynthetic Cementitious Composite Mat





The site was cleared of vegetation and debris before installation



Bulk rolls of CC8 were dispensed using a spreader beam and crane truck



CC was fixed to the slope substrate using concrete anchors



Bulk rolls of CC8 were dispensed using a spreader beam and crane truck