

Project Info



15 / 07 / 2013



CC5 Bulk Rolls



1000sqm



Vertical layers



Zipaquirá-Bogotá
Highway, Colombia



CC5 used as an erosion control measure in order to protect Zipaquirá-Bogotá highways from a washout of fines and other debris



Completed slope

In July 2013, Concrete Canvas (CC) was used as an erosion control measure on a slope adjacent to a section of the Zipaquirá-Bogotá Highway in Chinchilla, Colombia. The slope had suffered from slip and the erosion of fines due to adverse weather in the region, a situation exacerbated by leakage from a water pipe that had been installed across a significant section of the slope. There was potential for falling debris to cause an accident on the highway, or block the cycle path that ran alongside it. Shotcrete had been considered for the project. However, there was a concern that the associated rebound may cause damage to the highway and surrounding infrastructure.

Prior to installation the area affected was cleared of vegetation, loose soil and rock and other debris. Bulk rolls of CC5 were then delivered to site and cut to length, ensuring that the CC could cater for the slope's varying profile whilst eliminating material wastage. Each length of CC was fixed to the top of the slope using 400mm steel ground pegs before being unrolled down the slope using a spreader beam and climbing equipment. Adjacent lengths of CC were overlapped by 100mm and screwed together at 200mm. Anchor bolts were used to fix the material to the foot of the slope and to the drainage outlet at one end of the slope. The installed CC was then hydrated.

The 1000sqm installation was completed in 13 days in inclement weather by an installation team of 6. The client and installation team were **impressed with the ease and speed at which CC was installed**, as well as the material's "consistency and functionality". Feedback provided by the project's head engineer in November 2013 stated that, after two weeks of very heavy rain, the CC was still stable and the slope had not shown any movement or further loss of fines.





The slope prior to installation of CC, displaying signs of slip and erosion



A spreader beam and climbing equipment was used to lay lengths of CC5



CC was fixed to the top of the slope using steel ground pegs



Adjacent layers of CC were overlapped by 100mm and screwed together



CC was hydrated using a hose and climbing equipment



Completed section showing CC tailored around existing infrastructure