

In July of 2016, 50 sq. m of Concrete Canvas 8mm (CC8) was used to line 8 outfalls on the side slope of a roadway in Saskatoon, SK, Canada. Each outfall was approximately 1m wide and 6 m long.

Originally the client was considering using a concrete articulated mat or gabion mat and attaching a geomembrane/ impermeable layer on the back. However due to the steepness of the slope, these would be difficult to install and would add significant time and increased costs.

CC offered an impermeable layer with hard armour protection and the durability of concrete. It also provided a simple, rapid, and reliable solution and decreased the installation time by only needing to be anchored to the slope.

A pipe was installed at the top of the slope to drain water from the roadway and redirect it into a channel below. The CC was placed on a newly constructed slope which consisted of a Geo-Cell product which was used to stabilize the embankment. The Geo-Cell directly underneath the pipe was cut in order to make a channel for the CC material.

The channel, along with the Geo-Cell on either side of the channel, was filled with sand and compacted to prevent any voids underneath the CC. Plywood was also utilized along the sides of the channel to provide a smooth transition from the channel to the Geo-Cell.

One layer of CC8 was installed longitudinally down the channel beginning directly underneath the outfall pipe. It was fixed to the substrate every meter along each side of the channel using earth percussion anchors. Hydration was achieved using a 275 gallon tote with a 2" pump.

Each outfall took 2 hours to install with a crew of 4 and the complete installation took 2 days for all 8 outfalls. Onsite temperature during the installation averaged around 22 degrees Celsius. The client was impressed with the speed and ease of installation and deemed the project a great success.

