

Project Info



16 / 02 / 15



CC8™ Bulk Rolls



1,800m²



Transverse layers



A38,
Dumbridges Roundabout,
Heathfield, Devon, UK



Balfour Beatty



CC8™ was used to line a roadside channel with a high flow rate.



Completed installation

In February 2015, Concrete Canvas® GCCM* (CC) was used to line a channel situated next to the A38 Dumbridges Roundabout in Heathfield, Devon, UK.

The channel, which was approximately 1.5m deep and 4m wide, had to be moved from its original location to allow for a dedicated left-turn lane to be added to the roundabout. The channel needed to be low maintenance and able to cope with high flow rates that occur in the area during wetter months of the year. Conventional concreting methods were considered, but would have delayed the programme of works as they cannot be installed in wet weather conditions. CC, on the other hand, has a 2 hour working period following hydration, allowing it to be installed even in torrential downpours. The works were carried out by Balfour Beatty Regional Civil Engineering for Highways England.

The channel was excavated and any vegetation or loose rocks removed, with some sections of the channel requiring the construction of sandbag walls which were later backfilled. Bulk rolls of CC8™ were supplied in called-off deliveries to minimise on-site storage. A spreader beam hung from plant was used to deploy the bulk rolls into the channel, where they were cut to specific profile length using a disc cutter. Pegs were inserted through every overlap at the shoulders of the channel before the overlaps were jointed using an auto fed screwdriver, with screws placed at 200mm centres. Pipe penetrations were easily accommodated by cutting a hole in the CC and fixing it around the pipe. Hydration was achieved using a bowser and hose combination.

*Geosynthetic Cementitious Composite Mat





Old channel (left) and new channel (right)



Sandbag retaining wall



CC deployed from spreader beam and plant



CC cut to length using disc cutter



Ground pegs used to fix material in anchor trenches



CC jointed with screws



Small pipe penetration



Large pipe penetration



Interface with existing brickwork



The completed project

In total, 1800m² of CC8™ were installed in a live water course and during inclement weather. The speed of installation allowed work to start on the new traffic lane much faster than if conventional concrete had been used. The CC will also eventually green over and provide a more natural looking finish.