

Project Info



12 / 09 / 16



CC13™ Bulk Rolls



350sqm



Transverse layers



Dawes Lane, Scunthorpe.



GALLAGHER



To provide a rapid method of offering a protective cover to National Grid's key gas mains.



The objective was to provide a rapid method of protective cover to a National Grid key gas main

In September 2016, Concrete Canvas® GCCM* (CC) was used to line a channel at Dawes Lane Scunthorpe. The objective was to provide a rapid method of offering a protective cover to a National Grid key gas main that had been identified to have a shallow cover, therefore falling outside of the required specifications.

The ditch was very overgrown on the initial inspection carried out by GALLAGHER in conjunction with National Grid. On the date of inspection and the days of install the weather was calm and dry. Prior to the installation of CC13™ an old flume and any vegetation was removed, including a large tree that had to be cut back substantially. The ground was graded with a digger bucket to give a smoother surface ready for installation of the material.

CC is a cement impregnated geotextile that hardens on hydration to form a durable, fibre reinforced, impermeable concrete layer. The material can be deployed either by hand from man portable batched rolls or from large bulk rolls mounted on spreader beam equipment for larger projects and where plant is available. In this instance Bulk rolls were the chosen solution. Bulk rolls of CC can be cut to the exact section of any given channel, eliminating waste and accommodating variations in profile. CC's main advantages over conventional concrete are speed and ease of install, cost savings, durability and environmental friendliness.

*Geosynthetic Cementitious Composite Mat





CC13™ Bulk Rolls



An old flume and any vegetation was removed



The ground was graded with a digger bucket



The Concrete Canvas was unrolled into the channel



The CC was cut using a petrol disc cutter



The CC was drilled and then anchored with plastic ground pegs



Hydration taking place

Anchor trenches were cut into the shoulders of the channels. The channels were then cleared, the old flume and any vegetation was removed including the large tree being cut back. The CC was unrolled into the channel and cut using a petrol disc cutter, to specific profile lengths in situ, with subsequent layers overlapping the previous by 100mm. The CC was firstly drilled, then fixed to the ground using plastic ground pegs inserted through every overlap within the anchor trenches. The overlaps were jointed using stainless steel screws at 200mm centres. Hydration was achieved using 2 1000ltr bowsers and hose combination, after which the anchor trenches were backfilled.

CC provides excellent resistance to UV degradation, puncture and freeze-thaw action, whilst being resistant to acids, alkalis and sulphates. It has a minimum design life of 50 years for the most arduous of applications and will significantly prolong the life and serviceability of any drainage channels for decades to come.

This scheme was part of ongoing work by National Grid (East Midlands region) on the protection of key strategic gas pipelines which have been identified to have shallow cover.