

Project Info



27 / 09 / 18



CC8™ Bulk Rolls



205m²



Transverse layers



Bullockstone Road,
Herne Bay, Kent, UK



Steadline for Amey



CC8™ used to provide protection to a culvert invert to prevent further degradation.



Completed installation

In September 2018, Concrete Canvas® (CC) GCCM* was specified to remediate a culvert located on Bullockstone Road in Herne Bay, Kent. The invert had begun to corrode as a result of constant water immersion and sediment flow within it, and a solution was required to protect the structure from further degradation.

CC was chosen for the project as it can line the invert without significantly reducing capacity or flow, maintaining the original shape, design and usability of the culvert. CC has excellent abrasion resistance and provides a hard wearing protection layer to prevent sediment corrosion of the culvert invert. The works were carried out by Steadline on behalf of Amey, for the client, Kent County Council.

Prior to the installation, the watercourse was dammed and over-pumped to divert water from the culvert. There was approximately 600mm of stream bed material in the culvert that required removal to expose the condition of the culvert invert. The corrugations were then filled with a repair mortar before delivery and deployment of the specified CC8™ material.

The installation started downstream, with the material laid transversely and layers overlapped in the direction of waterflow. The material was fixed to the culvert by drilling and fitting Hilti tech screws at 200mm intervals along joints, and 500mm intervals elsewhere.

*Geosynthetic Cementitious Composite Mat





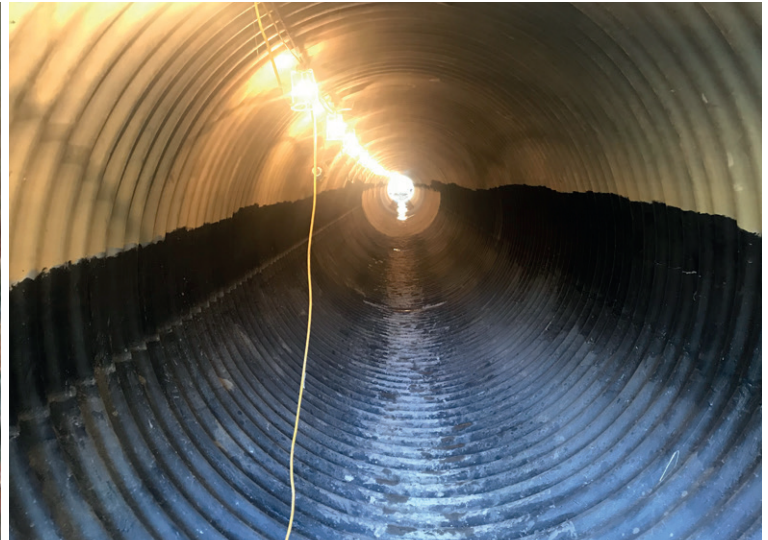
Culvert location



Culvert prior to works



Silt build up and corrosion of culvert floor



Culvert floor following cleaning



Inverts filled with concrete mortar



Fixing of first CC length to culvert and outside wall



Wood bar fitted to secure CC edges and provide cutting guide for termination



Hydration



Completed installation



Completed culvert back in use

Once installation was completed along the length of the culvert floor, the dam was carefully lowered to allow water into the culvert. The water was then brushed up the sides to allow for thorough hydration of the material.

205m² of CC8™ was installed in approximately 3 days, with an additional week required beforehand for silt removal, and 1.5 weeks for grouting. The client is pleased with the outcome of the project and is considering the use of CC to line further culverts.