

Project Info



30 / 03 / 11



CC5™ Bulk Rolls



60m²



Transverse layers



Jacobsdal, Freestate,
South Africa



Oranje Riet Water
Users Association



CC was installed as
a trial to establish its
suitability as a solution
for canal remediation.



Completed installation in Jacobsdal, Freestate, South Africa

In March 2011, Concrete Canvas® GCCM* (CC) was used to line an existing canal in Jacobsdal, Freestate, South Africa. The installation was treated as a trial to establish whether CC could be used to reline existing canals that had deteriorated and needed either localised repair work or to be completely relined. The works were carried out by the Oranje Riet Water Users Association.

Prior to installation, any debris was removed from the existing concrete channel and the CC delivered to site in bulk rolls. The CC was cut to profile length and laid transversely across the canal, which measured approximately 2.9m wide. A surface-to-surface bonding technique was then used, where the CC was folded back on itself by 50mm and the Canvas to Canvas contact was used to secure the joints with the overlap in the direction of water flow.

In total, 60m² of CC5™ were laid in just 3 hours, with the result of a durable, efficient and neat section of canal relined with ease and at a good rate of implementation.

The client was very happy with the results, and the joints proved to be very strong and rigid, creating a section of the canal that was now completely waterproof. The client was keen to continue observing the installed section over time in order to determine whether or not the remainder of the canal should also be lined with CC.

*Geosynthetic Cementitious Composite Mat





Canal prior to installation



Clearing canal of water



Creating concrete key for capturing CC edge with grout



Cutting CC



Testing length of first cut length of CC



Laying CC



Fixing CC edges into anchor trench with ground pegs



Measuring 100mm overlap



Clips used to hold overlaps in place



Applying sandbags to joints



Hydration of CC



Completed installation following backfilling of anchor trenches