

## Project information



March, 2016



CC8 Batched



5sq m CC8



Pipe Wrapping



Langley, BC



2 Persons



Installation took  
45 minutes



In March of 2016, Concrete Canvas (CC) 8mm batched was used by the Township of Langley in Langley, BC, Canada to repair municipal drain pipes. This case study showcases the initial pipe wrapping trial and two separate CC pipe wrapping installations thus far completed by the township of Langley, using just under 5 sq. meters of material.

The municipality reported that they typically use Fernco Flexible Couplings (large diameter) for repairs, however, these couplings are expensive and can be ineffective when connecting pipes of the different sizes or configurations.

CC was chosen as it is more adaptive and can be molded to the required shapes and sizes. The current pipe diameter ranges between 300mm-450mm, but this solution could be used for larger sizes up to 600mm in diameter.

Page 2 of this document showcases the initial trial and page 3 features two separate pipe wrapping installations.

## Concrete Canvas Pipe wrapping- Initial trial



Old concrete pipe used as demo



Various securing methods tested



CC hydrated and set with decisions made on final installation techniques

### Customer Comments:

"To use Concrete Canvas is a more effective and efficient alternative to our typical concrete-to-concrete pipe couplings (i.e. Fernco couplings) for drainage replacement or rehabilitation projects".

For installation preparation, the earth was excavated around the pipes so that the area where the pipe are connected could be exposed. The CC was wrapped around the pipe and secured using Detlec Cable Strap Support. These strap supports act as larg "zap straps" and are very easy to position and tighten. In the initial trial installation, crews used metal hose clamps to secure the material to the pipe, however they found the screw tightening system to be ineffective and time consuming. No sealant was required. The CC was then hydrated. In one instance crews had to use water filled jerrycans to perform hydration.

The first installation took 2 Township of Langley staff members approximately 45 minutes to complete ( excluding CC curing time).



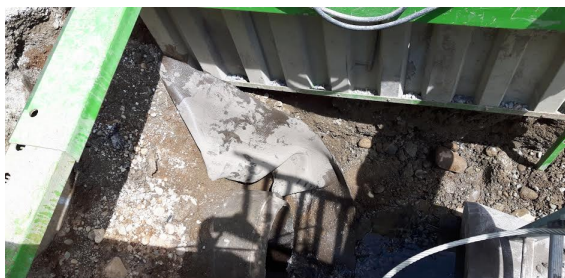
Deltec Cable Strap support used



Hydration using a water filled jerrycan



Completed CC pipe wrap



Storm main replacement



CC hydrated and set in place



completed project