

OUR PROJECTS

DODD'S CREEK CULVERT & RETAINING WALL

ST. THOMAS, ONTARIO

PROJECT HIGHLIGHTS

- Maintenance free
- Aesthetic curb appeal with functional use
- Engineered Design System
- CSA Approved Manufacturer



PROJECT SCOPE

The MTO released a contract for tender in 2012 for the replacement of the Dodd's Creek Culvert and retaining wall in St. Thomas, ON. The retaining wall portion of the project was to be an engineered RSS System meeting the MTO standards for engineering and quality. The General Contractor awarded was Facca Incorporated.

Due to the time constraints and the necessity of shutting the roadway down to facilitate the scope of work, Facca did not feel that the RSS system specified in the tender could be installed within the MTO specified timelines. They then proposed the Retain-A-Rock™ product from Design Concrete Systems Ltd. as a substitute, which was accepted by the MTO.

The work commenced with the installation of a new bridge culvert supplied and installed by the General Contractor, followed by the installation of the precast retaining wall system. Due to the time of year, winter installation practices were put in place and followed by the General Contractor that complied with OPSS and MTO standards for the installation of the wall.

Design Concrete Systems Ltd. customized the blocks for this project to be cut to fit around the precast culvert giving the wall an aesthetic, uniform appearance.

During the installation it was discovered that the road culvert had been installed approximately 1 m too far to the east. After careful review it was decided that the retaining wall that had been installed was "at risk" during the freeze-thaw cycles as it was not installed per the intended design.

Design Concrete Systems Ltd. contacted the local engineering firm, CMT Engineering, responsible for the original design to discuss and design an alternative solution to address the challenge on site.

The solution proposed and accepted was to install a style of geo grid combination retaining wall system using galvanized steel bodkin bars anchored into the face of the existing wall at their base. Geo grid was then brought up the rear of the next course and laid on top of the newly installed rock

The accepted solution was installed in February 2015 to complete the contract and scope of work. This project is currently being monitored for performance by the MTO.



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