

Burlington, ON - Access Storage

INSTALLATION DATE

Summer 2013

PROJECT ENGINEER

Setchell & McKinnon Ltd.

CONTRACTOR

Sierra Excavating

CHALLENGE

An underground stormwater storage system with a storage capacity of 450 m³ was required underneath a future parking lot.

SOLUTION

Collaborating with Setchell & McKinnon Ltd., terrafix[®] offered a design layout and eventually supplied the Triton™ Stormwater System.

PROJECT OVERVIEW

After reviewing the site servicing plans and stormwater storage requirements with Setchell & McKinnon, terrafix[®] provided a subsurface storage solution: Triton™ Stormwater System. The Triton™ system consists of open-bottom, corrugated, arch shaped units placed both in series and parallel, connected by header row chambers and encapsulated in clear crushed stone.

The header rows, sitting on a plastic floor liner, provide filtration of the stormwater before it enters the distribution chambers. The main header row is one of many beneficial features of the system, as it permits the conveyance of pre-treated stormwater runoff and sediments to filter out in the sump basin at the end of the row for removal later on. Inspection and maintenance is easily performed via the 300mm dia. ports. Sediments can be easily flushed and sediments can be removed by a standard vacuum truck for easy disposal.

Each chamber has dimensions of 1.499m width, 0.914m height, 0.847m lay length and weighs only 14.5kg.

Due to the open-bottom feature of the chambers, stormwater is gradually released into the subsoils. An orifice pipe downstream of the system controls flows leaving the site.

From excavation to backfill, including installing 331 chambers, Sierra's crew completed the installation in approximately 1 week.





Delivery of chambers



Excavation of trench, followed by lining the trench walls with non-woven geotextile and placing clear stone bedding at the bottom of the trench



Plastic floor liner below the main header row and geogrid below the first two chambers of each distribution row



View inside distribution row



Surrounding the chambers with clear angular stone



Inspection & maintenance ports above the main header row

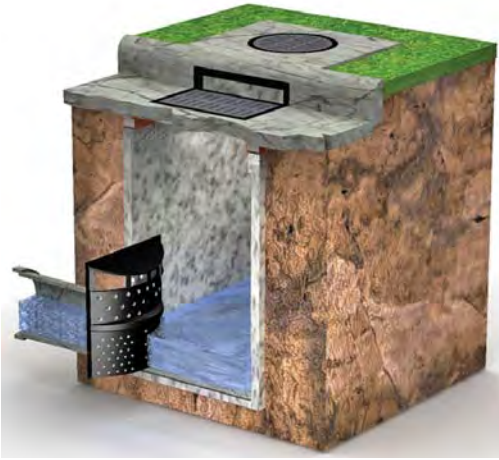


Minimum 150mm clear stone cover followed by geotextile to prevent fines of backfill material from entering the system



Gravel parking lot

What's new at terrafix® Geosynthetics?



TrashGuard® is a patented stormwater pretreatment device that captures debris, sediment and floatables. TrashGuard® is easy to install and maintain and costs a fraction of other pretreatment devices currently available. TrashGuard® has extensive testing and an available calculator to assist design professionals in selecting the correct screen size for their particular project.

Lunch and Learn



terrafix® offers a project specific approach to solving your erosion & sediment and stormwater management solutions.

We offer detailed assistance from the design stage to onsite support. With a professional staff of experienced engineers and specialists, we are available to assist designers and clients in selecting cost effective solutions.

If you are interested in an office Lunch & Learn, please contact our office at 416-674-0363 (x241).

Additional Information

For stormwater and erosion control challenges, please call us at 416-674-0363 (x241) or e-mail jjbreede@terrafixgeo.com



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