

Small Footprint, Big Storage The Triton SWS Double-Stack Solution

The Situation

When the city of St. Cloud, Minnesota, needed a comprehensive underground stormwater management solution to support the expansion of its Civic Center, project engineers looked for a system able to accommodate the large volume of water associated with the new development that could also fit the restrictive footprint dictated by the site – while meeting the state's stringent B-3 quidelines for stormwater management.

The Solution

It was a tall order – considering that more than 3 acres of impervious surface would drain into a retention area of just 36' x 140'.

Fortunately, there is one system that can "stack" up against such a task.

With its unique combination of storage volume and strength, Triton Stormwater Solutions gave the development team the tool they needed. Unlike competitive systems, which require large drainage fields to satisfy their design limitations, Triton chambers are strong enough to be stacked in a two-tier configuration – essentially doubling the storage volume without expanding the size of the drain-field!

The Installation

After the initial establishment of the drainage field, the first tier of Triton Chambers was installed. Lightweight, easy to handle, and requiring no special machinery, all the Triton Chambers were installed in less than 6 hours.

The next step is the one that sets Triton apart.

A one-foot layer of stone is added to top the under tier of chambers.





Only Triton has the installation history and engineering data to support a stacked configuration
— tight footprints are no problem when you have the unrivaled strength of Triton behind you!



Again, the crew quickly places the chambers – including the innovative Main Header Row that allows for a host of pretreatment options.

Another 9.5" of fill is placed over the stacked chambers, and the site was ready for paving.

In total, 598 chambers were placed in less than a day – with the entire stormwater management project being completed in just one week!

And while the Triton system left a small footprint – it made a big impression:

"The installation went quite well, despite it being our first experience with the Triton chambers. I would recommend the Triton system to anyone!"

Paul Molitor, Site Supervisor
 Molitor Construction



Triton Stormwater Solution Advantages

Built with green technology soy resin, Triton's stormwater solutions' chambers are completely modular to allow maximum flexibility in design and application. In addition, using a Triton stormwater solution system can contribute to 18 LEED credits and meet Zero Discharge goals. Triton stormwater solution is also registered as a federally certified green carbon neutral product and approved for use in all government owned or leased buildings and properties.

Key Points

- Replicates pre-development hydrology.
- Achieves higher pollutant removal rates through soil filtration and accelerated microbial actions (bio-remediation). In soils that do not perk well, the benefits of microbial actions still occur.
- Helps counter drought conditions by maintaining ground base flow to streams.
- Eliminates thermal discharge loadings.
- Provides a lower cost alternative to drainage pipes for conveyance, with added benefits of groundwater recharge and water quality enhancement.
- Eliminates the need for costly pre-treatment devices.
- Eco-friendly soy-oil based and carbon-neutral product.
- Eliminates need for restrictive holding ponds and creates new opportunities for green space with unique underground capacity.
- Achieves up to 18 LEED credits and Zero Discharge goals.



www.tritonsws.com/video

To view the video of the installation please visit the video page on our website or type the link above into your browser.

