

Drainfield for Bowmanville Athletic Field

Fast Facts

Product & Quantity

EZflow Gravel Free French Drain 5,200 LF

Owner

Clarington Tiger-Cats Football Club

Address

79 Bonnycastle Drive, Bowmanville Ontario

Design Firm

TSH Engineers, Architects & Planners

Application

Drainfield for a football field (heavy use)

Contractor

Edwin Wile of DoITurf, Inc.

Project Information

When landscape architect John Collver of TSH Engineers, Architects & Planners began researching methods and materials to address drainage issues for the construction of an athletic field for the Clarington Tiger-Cats in Ontario, Canada, he became unsure whether or not a conventional tile drain would be the best solution for draining a heavily used athletic field. The Tiger-Cats are members of the Central Ontario Minor Football League, so the field was definitely going to take a beating from serious and continuous use.

Typically, a tile drain would be specified for this job, but Collver's research showed some inherent challenges with this method. In order to install this type of drain, gravel must be delivered, stockpiled and moved around the construction site. Not only does this process involve high labor and heavy equipment costs, it is not ideal for the playing surface itself due to extensive sub-grade compaction.

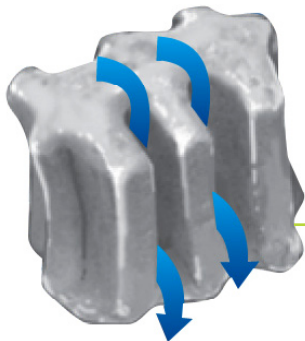
Another consideration was the use of a vertical strip drain system. This system requires sand backfill. Future maintenance costs were a concern due to differential settlement issues.



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Collver discovered the EZflow Drainage System, and he recognized the benefits of using this alternative method.

EZflow is a lightweight, all-in-one drainage solution requiring no gravel at all. The product is constructed with polystyrene aggregate completely surrounding the outside of a drainage pipe. This provides a consistent infiltrative area for absorption and removal of water. The polystyrene aggregate is uniform in size and shape, for optimal permeability.



EZflow poly-rock aggregate are engineered with “flow channels” to increase void space

Unlike other engineered products, EZflow can be covered with native soil instead of sand. Native soil will recuperate faster than sand, and it can take more of a beating from players. Also, the slope around the field can be reduced using EZflow making it easier to view the action on the field. Collver estimates the overall cost savings to be 25% when using EZflow over traditional gravel and pipe.

When EZflow was specified for the job, installer Edwin Wile of DoITurf Inc. had a few questions and concerns, as he was used to constructing athletic fields with traditional gravel and pipe. He found the installation process to be incredibly simple.

First, the subgrade was leveled at 1°. Then trenches were excavated 12 inches deep and 16 inches wide in a herringbone pattern. The lightweight EZflow pipe was placed in the trench, covered with Kraft paper (provided by EZflow), and then topped with screened native topsoil. EZflow has recently released a drainage system that includes a self-contained geotextile cover eliminating the step of covering the pipe with Kraft paper. Approximately 5,200 linear feet of EZflow was installed for this job.

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According to Edwin Wile,

“This product could very well revolutionize the way we address drainage. It lowers labor and equipment costs, and it takes approximately half the time to install.”

Wile measures the success of a drainage system on how well it handles the freeze/thaw cycle in Canada. The product has performed well over the last cycle, and there has been no settlement. He will definitely recommend EZflow to his future clients.

