

Stormwater Infiltration Swales



Improvements to the local storm water drainage include the installation of low impact design features called “Stormwater Infiltration Swales” located alongside roads in the road right-of-way.

What are they?

Stormwater Infiltration Swales are low depression areas designed to capture stormwater runoff and allow the water to soak into the ground and into a collection pipe system more quickly than into the surrounding ground. It then drains out of the neighborhood.

How are they constructed?

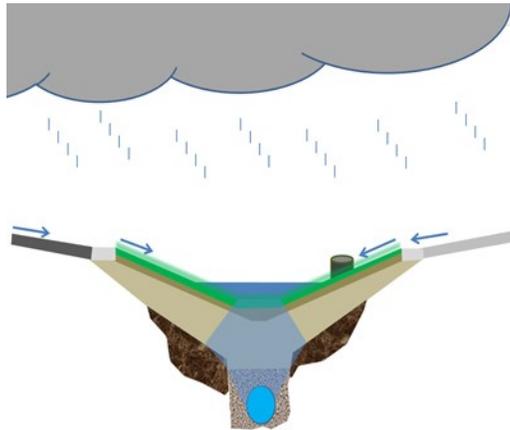
The swales are constructed similarly to an athletic field. A perforated underdrain is covered with sand that is very clean and allows water to percolate quickly. The topsoil is a combination of compost, topsoil, and sand. The swales are seeded with Turf-Type Tall Fescue Blend, which helps with infiltration and provides an aesthetically pleasing and hardy turf.

How do they work?

When it rains, runoff from roofs, driveways, yards, and roads flows into the swales and seeps into the ground. In the event that the swales start filling up, there is an overflow catch basin that ties directly into the new storm sewer drainage system. Temporary ponding of water in the swales is normal and standing water should be gone within 24 hours.

Why Stormwater Infiltration Swales?

Using Stormwater Infiltration Swales to soak water into the ground improves the quality of stormwater runoff by filtering out sediment and other pollutants. Low impact design also reduces overall construction and maintenance costs by using a smaller pipe collection system.



Cross-section of a Stormwater Infiltration Swale

For proper functioning of the Stormwater Infiltration Swales:

Do not deposit any leaves, litter or debris in the swales. These items can interfere with the swales, causing water to pond and collect on the catch basin grate.

Mow the swale. Although the swales are seeded with a special turf grass, they should be mowed like the rest of your lawn. Keep the mower blades at 3-4 inches height. Frequent mowing will help this bunch-type grass to establish a fuller cover.

Don't park in the swale. Parking will cause compaction of the soils and rutting within the swale, reducing how fast water can move through the structure and could prohibit infiltration altogether.

Watering and fertilizing: Due to how quickly the soils drain, grass within the swales will tend to go dormant before the rest of your lawn. This can be prevented by watering and fertilizing the swales more frequently than the rest of your lawn.

If you encounter any problems with the Stormwater Infiltration Swales, please contact the Ingham County Drain Commissioner's Office at 517-676-8395.

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