

Permeable Pavement

Overview

Permeable pavement is a sustainable system intended to control storm water and partially alleviate the demand on wastewater treatment plants by allowing natural infiltration. Permeable pavements consist of a surface course, base course and sub-base (soil). Different types of permeable pavement surfaces include porous asphalt or concrete, interlocking unit pavers or plastic grid systems. Concrete and asphalt are made similarly to their conventional non-porous counterparts; however, both porous pavement types remove all of the fine aggregates to achieve 15% - 20% void spaces. Porous unit pavers suitable for high-traffic areas, are similar to traditional pavers, but allow for drainage through voids between the pavers that can be filled with grass or coarse sand. Plastic grid systems, better suited for overflow parking and fire lanes, consist of a shallow mat with a grid of hollow rings that are either filled with sand or gravel, or with soil and planted with grass. For additional water storage, deep plastic tubes can be used in lieu of shallow rings.

Advantages

- More natural groundwater recharge
- Reduced storm water infrastructure
- Easier replacement (single pavers vs. re-paving)
- Waterborne pollutants picked up in the atmosphere by rain and deposited by vehicles are treated on-site by micro-organisms living in porous pavements and underlying soils

Savings

Estimated costs savings are largely based on reduced storm water infrastructure but information is not readily available. Once complete, the Toronto Region & Conservation Authority (TRCA) study aims to quantify the benefits of permeable pavements.



Green Development Program

Creating solid partnerships with the development community is part of the natural course of business.

The Town of Caledon's **Green Development Program** strengthens that link. By providing development charge discounts for new green commercial and industrial buildings, the Town of Caledon enables developers to create more sustainable projects in our community.

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To learn more about our Green Development Program, contact the Economic Development & Communications Department

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Suppliers | Contacts

Paversearch | www.paversearch.com/index.htm

Building Green Product Listing | www.buildinggreen.com/menus/

Case Study | Examples of Technology in Use

Seneca College, King, ON

The TRCA has undertaken a study at a new parking at Seneca College to evaluate the long-term performance of permeable pavements and bioretention swales. Observations and results from soil and water quality testing revealed that there were significant stormwater management benefits. Water level monitoring indicated that the reservoir was rarely filled with more than two-thirds of its capacity. Winter data showed that permeable pavements were not significantly altered during conditions below 0°C.

Government Incentives

No known government incentives.

