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What is Storm Water?

Stormwater is rainwater and melted snow that runs off streets, lawns, and other sites. When stormwater is absorbed into the ground, it is filtered and ultimately replenishes aquifers or flows into streams and rivers. In developed areas, however, impervious surfaces such as concrete pavement and roofs prevent precipitation from naturally soaking into the ground. Instead, the water runs rapidly into storm drains, sewer systems, and drainage ditches and can cause:

- Downstream flooding
- Stream bank erosion
- Increased turbidity (muddiness created by stirred up sediment) from erosion
- Habitat destruction
- Changes in the stream flow hydrograph (a graph that displays the flow rate of a stream over a period of time)
- Combined sewer overflows
- Infrastructure damage
- Contaminated streams, rivers, and coastal water

Why Manage Stormwater?

Traditional stormwater management design has been focused on collecting stormwater in piped networks and transporting it off site as quickly as possible, either directly to a stream or river, to a large stormwater management facility (basin), or to a combined sewer system flowing to a wastewater treatment plant.

Low impact development (LID) and wet weather green infrastructure address these concerns through a variety of techniques, including strategic site design, measures to control the sources of runoff, and thoughtful landscape planning.

Site-specific practices such as green roofs, downspout disconnections, rain harvesting/gardens, planter boxes, and permeable pavement are designed to mimic natural hydrologic functions and decrease the amount of impervious area and stormwater runoff from individual sites.

Rubbersidewalks, Inc. offers permeable pavement systems which provide and also are intended to be used in conjunction with broader range stormwater management landscape solutions.



Defining Permeable Pavement

Permeable means the water goes through it. Pervious or porous mean the same thing. There are two types of perviousness—through the surface itself, or through the seams.

Pervious pavement materials include:

- Rubbersidewalks™
- TERREWALKS®
- EZ Bricks
- Interlocking concrete bricks
- Stone pavers
- Pervious concrete

Pervious concrete has a permeable surface. All others are 'open grid'; the water goes through the seams.

TERREWALKS®, Rubbersidewalks™, and EZ Bricks are all modular open grid systems that provide maximum permeability:

- Cost competitive
- Ease of installation
- Immediately user-ready, no curing or waiting
- Stringent permeable base material requirements provided
- Unbreakable
- Guaranteed porosity without cleaning or maintenance; no clogging
- Low vibration surface in compliance with ADA requirement
- Open grid captures more storm water
- Slightly crowned TERREWALKS® feature directs water to seams

Problems with Pervious Concrete:

The concrete industry has invested heavily in promoting pervious concrete. *Pervious concrete* contains a network of holes or voids, to allow air or water to move through the concrete. It is formed by leaving out all or some fine aggregate (fines). The remaining large aggregate then is bound by a relatively small amount of Portland Cement. Problems include:

- Costly
- Difficult to install. Appropriate construction techniques are necessary to ensure the performance of pervious concrete.
- Curing with plastic sheeting must start immediately after placement and continue for at least seven days. Careful engineering is required.
- Rough and bumpy ('like popcorn' or 'Rice Krispies', not vibration free as stipulated by ADA)
- Brittle, durability questionable. Both the low mortar content and high porosity reduce strength compared to conventional concrete mixtures.
- Requires periodic vacuuming to keep voids clear, or doesn't perform.
- Not modular or maintainable; cracks or uplift require demo and replacement