Design and Maintenance of Pervious Concrete

Properly designed and installed Pervious Concrete pavement is a durable stormwater system that requires little maintenance.

- Use concrete header curbs and proper slope when pervious concrete meets asphalt.
- In winter weather, avoid deicing salt since precipitation moves rapidly through voids.
- Avoid placing mulch piles on the pervious pavement surface.
- If voids become clogged, a parking lot sweeper-vac can be used to remove fine material.

Pervious Concrete Parking at Food Lion Grocery Store

Pervious Concrete at Williamsburg Premium Outlets

VIRGINIA READY-MIXED CONCRETE ASSOCIATION

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www.vrmca.com
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Benefits:

- Reduced Stormwater Runoff
- Improved Water Quality
- Reduced Heat Island Effect
- Cost Savings
- Maximized Land Used Efficiency
- Durability
- Sustainable Development
- LEED Credits
- Virginia Stormwater BMP
- Parking on a Retention Pond

Virginia Ready-Mixed Concrete Association

For more information, please contact:

(434) 977-3716

Frequently Asked Questions About

Pervious Concrete

The best choice for stormwater management!

VIRGINIA READY-MIXED CONCRETE ASSOCIATION

FAQ about Pervious Concrete Pavement

VIRGINIA READY-MIXED CONCRETE ASSOCIATION

Pervious Concrete Pavement

Why Pervious Concrete?

The unique ability of Pervious Concrete to capture stormwater runoff and recharge groundwater can help owners comply with stormwater best management practices, while offering developers significant advantages in maximizing land use.

What is Pervious Concrete?

Pervious Concrete is a performance engineered mix of aggregate, cement, and water. On the surface it looks like small stones stuck together with cement paste. Also known as “no-fines” concrete, this mixture creates an open-cell structure allowing water to percolate to the underlying soil. The industry recommends a 15-25% void structure for optimal drainage.

Where can Pervious Concrete be used?

Pervious Concrete is primarily used in parking lots and driveways. It has also been used for greenhouses, fire stations, schools, golf cart paths, roads, and walking trails.

How does Pervious Concrete work?

The permeable pavement surface allows water to pass through the surface and into a stone reservoir, where it is held until it infiltrates into the subsoil.

Maximized Land Used Efficiency

Since Pervious Concrete acts as the stormwater management system, other runoff containment devices such as retention ponds, swales, and piping can often be eliminated.

By eliminating a detention pond, land ordinarily devoted to costly stormwater management practices can be developed or preserved. Owners are pleased when they are able to add more leasable space or parking on top of the detention pond.

Stormwater Runoff Reduction

Pervious Concrete captures first flush pollutants in the void structure, minimizing nutrient runoff, including nitrogen, phosphorus and total suspended solids.

Stormwater BMP

The U.S. EPA and the Virginia Stormwater Clearinghouse recommend Pervious Concrete as an approved Stormwater Best Management Practice (BMP).

Reduced Heat Island Effect

Due to its light color, Pervious Concrete pavement can reduce ambient air temperatures 7-10 degrees, resulting in up to a 30% reduction in ground level ozone production.

LEED Credits

Pervious concrete can contribute to many LEED categories including: Sustainable Sites, Water Efficiency, Materials and Resources, and Innovation in Design. Use of the material alone does not automatically qualify for the LEED credits; the application and functionality are also important.

- SS-C6.1 & SS-C6.2

Stormwater Design Quantity & Quality Control

- SS-C7.1 Heat Island Effect Non-Roof
- WE-C1.1 Water Efficient Landscaping
- MR-C4.1 & MR-C4.2

Recycled Content

- MR-C5.1 & MR-C5.2

Regional Materials

NRMCA Pervious Concrete Certification

The National Ready-Mixed Concrete Association offers certification to Level 1 technicians and Level 2 installers. NRMCA Level 3 Certified Craftsmen have achieved the highest level of expertise in placing pervious pavement.

Virginia Ready-Mixed Concrete Association

More information about pervious concrete, concrete design assistance, permitting, or identification of local example projects is available through VRMCA (434) 977-3716 • www.vrmca.com • @VAReadyMix