PAVE® DRAIN

STORMWATER'S ARCH ENEMY

Sustainable Stormwater Solutions

Structural and Environmental Benefits

The PaveDrain® system combines modern-day functionality with a structural concrete concept used for centuries to create *the* revolutionary permeable paving solution. This system incorporates a patented arch design in the middle of an articulating concrete block to create an internal storage chamber that can be used as a reservoir for stormwater runoff, while simultaneously providing strength for heavy vehicular loads. The PaveDrain system is designed to be a critical component of Low Impact Development (LID) allowing for the infiltration of stormwater runoff.

The PaveDrain system is an aesthetically pleasing Permeable Articulating Concrete Block (P-ACB) that provides installation ease and flexibility to meet current and future stormwater management regulations. The PaveDrain system provides infiltration, storage, detention, conveyance and a concrete paving surface all in one. When combined, these features allow for a reduction or elimination in stormwater infrastructure costs while minimizing environmental impact. The PaveDrain system WORKS!

ASTM Standards & ADA Compliance

The PaveDrain system meets the requirements of ASTM D6684-04 and is recognized by the USEPA as a structural Best Management Practice (BMP) for stormwater infiltration. The Americans with Disabilities Act (ADA) Design Guidelines required that surface openings shall not exceed ½" and shall be firm, stable, and slip resistant. The PaveDrain system easily exceeds all these requirements by incorporating a ¼" gap between individual PaveDrain blocks.

Applications

- ☐ Parking Lots
- ☐ Alley Ways
- ☐ Intersections
- ☐ Low Speed Roadways
- ☐ Emergency Access Lanes
- ☐ Residential Driveways

Why the PaveDrain System?

As part of the Clean Water Act, the EPA developed the National Pollution Discharge Elimination System (NPDES) to improve water quality by regulating point sources and non-point sources that discharge pollutants into waters of the U.S. The PaveDrain system captures and infiltrates massive amounts of surface water and allows land owners to route stormwater and control peak flows.

PaveDrain blocks work with existing infrastructure and can be used as the form for small concrete pours. No small, cut pieces to become dislodged.

Infiltration Report

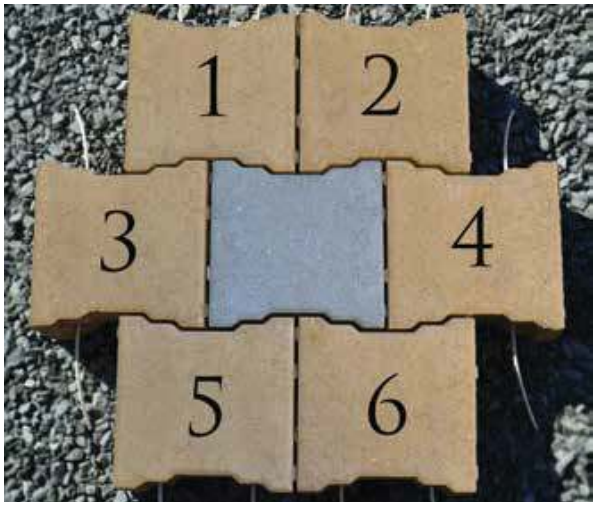
The PaveDrain® system was tested in accordance with ASTM C1701/C1701M-09 by an independent third party engineering firm. The tests were conducted on different PaveDrain installations that had not been maintained on an average of more than 2 years and still infiltrated in excess of 1,500 inches/hour per one foot diameter.

	Test #1	Test #2
Inside Dia. of infiltration Ring (in)	12.19	12.19
Elapsed time of Test (sec)	20.9	21.95
Infiltration Rate (in/hr) (I=KM/(D2*tr))	1,630	1,560
Avg. Infiltration Rate (in/hr)	**1,595**	

PaveDrain® Systems Properties

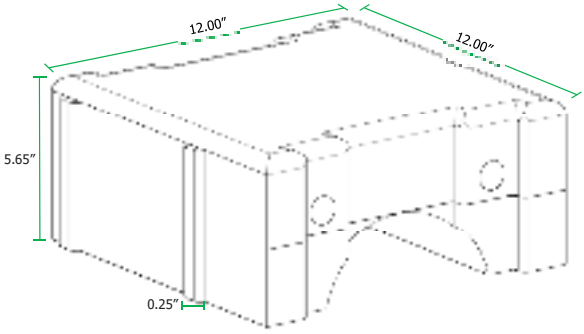
Thickness ..... 5.65" (± 1/8")
Unit Dimensions ..... 12.00" x 12.00"
Unit Weight .....45-49 lbs
Unit ..... 1 Sq. Ft. Nominal
Percentage Open Space: 7% Surface, 20% Storage Area

Each individual block is interlocked by six (6) units



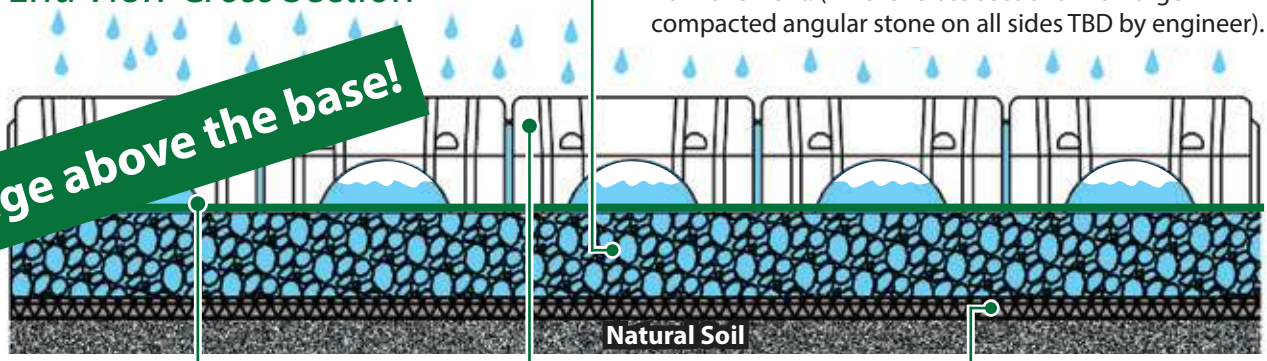
Passes AASHTO HS-25 Truck Loading

Measurements



PaveDrain® System Blocks End View Cross Section

Storage above the base!



TYP. AASHTO/ASTM#57 Stone (Clean, Angular on all sides. No fines) 4-6" Bedding layer compacted to no movement. (Thicker cross sections with larger compacted angular stone on all sides TBD by engineer).

Recommended biaxial geogrid

PaveDrain® system

Engineer approved geogrid or geotextile

Maintenance and Repair

The PaveDrain® system is designed as an open joint concept between the blocks. Existing installations have required little, if any maintenance over multiple years. If the joints become filled or obstructed, maintenance is accomplished by using a vacuum truck or a combination sewer vacuum truck and the PaveDrain Vac Head. If a significant amount of sediment accumulates in the aggregate bedding stone, part or all of the PaveDrain system can be removed allowing the subgrade to be cleaned and then the same product re-installed without affecting the surrounding blocks. Repair of individual PaveDrain blocks can be accomplished with a block puller without affecting the surrounding blocks. For more detailed information on these topics go to www.pavedrain.com and select Installation & MAINTENANCE and then click REPAIR.

PaveDrain Vac Head

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Additional Benefits

- Up to 5 LEED Credits: Sustainable Sites; Credit 6.1, 6.2, 5.1, 5.7 & Materials & Resources: Credit 5.1.
- Initial Installations show a drastic reduction in the use of deicing salts over traditional asphalt and concrete surfaces.
- Since it is a precast concrete block, it can be installed in all types of weather.
- Available in several color options.
- No seams to catch on steel snow plow blades.
- Solar Reflectance Index (SRI) range of 36 - 41 for lighter colored units.
- Unlike traditional catch basins, varmints cannot enter drainage system.
- Regional manufacturing supporting local economies.
- Adaptable to small areas (retrofits) where retention ponds are outdated or not practical.

Represented Locally By:

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The PaveDrain systems is protected by the following U.S. and Canadian Patents; U.S. No. 8,251,607, No. D609,369, No. 8,366,343 & Canadian No. 133082. Additional patents pending.