



Maintenance Manual

The PaveDrain® System is a one of kind paving surface that takes all of the positive attributes of traditional paving surfaces and puts them together into one single permeable paving surface.

☐ **Flexible paving surface**

- *Our cracks are built into the surface...no costly or environmentally harmful tar sealing is required.*

☐ **Permeable paving surface**

- *Let the stormwater infiltrate like Mother Nature intended.*

☐ **Internal storage chamber for stormwater management**

- *Up to one inch of additional stormwater is held in the arch.*

☐ **Replaceable units**

- *Minimal labor, minimal equipment...quick, cheap repairs.*

☐ **Minimal Maintenance**

- *PaveDrain Vac Head; Safe, economical, effective combination sewer truck option.*
- *System Removal. Although unlikely, it is an option.*

Questions & Answers

Q: How often should the PaveDrain System be vacuumed/swept or maintained?

A: This will depend on the project. Following the initial installation, the PaveDrain system should be checked bi-monthly to assess the amount of infiltration still occurring. Ideally, the visual inspection should occur during a rain event. A residential or urban setting with a significant amount of debris may need to be checked more frequently in order to properly determine an appropriate maintenance schedule.

The BEST maintenance option of the PaveDrain system is the use of the PaveDrain VAC Head.

PaveDrain VAC Heads are available from local distribution.

<http://www.pavedrain.com/pdf/PaveDrain-Sales-Distribution-Partners.pdf>

A video of the PaveDrain VAC head in action is available on line.

<http://www.youtube.com/watch?v=l2U-4xsy3wo>

Unlike other permeable systems, even if maintenance is not regularly carried out, the PaveDrain system can be back in working order with the use of the PaveDrain VAC Head.

Although not required, it is recommended that any existing vegetation be sprayed with an appropriate vegetation killer several days prior to use of the PaveDrain VAC Head.

Combination Sanitation truck with
1,500 gallon water tank.





- o 36" diameter deck with (2) 15" wands.
- o (2) 15" wands with (8) nozzles.
- o Continuous suction up to 2,500 CFM.
- o Up to 2,000 psi water displacement.
- o 30" angled suction port.

- o Weight is under 50 lbs.
- o Swivel handle for ease of moving.
- o (2) swivel wheels at the front.
- o (2) rigid wheels at the back.
- o Hard rubber debris guard around deck.



BEFORE



AFTER



Two years of stormwater runoff from adjacent asphalt, mulched flower beds and flowering trees.

Vac Head Attachment



1. 36" diameter circular deck (maximum 2,500 cfm).
2. Green Carrying Handles.
3. Cotter Pins for attaching removable handle.
4. 30" Angled suction port located on underside of circular deck (maximum 2,500 cfm).
5. 6" diameter hose attachment (maximum 2,500 cfm).
6. Water hose connection manifold (maximum 2,000 psi).
7. (2) - Rigid pneumatic wheels.
8. Hard Rubber debris guard.
9. (2) - wands with 8 nozzles located on underside of circular deck (maximum 2,000 psi).
10. (2) - 360° Swivel pneumatic wheels.

The last resort for maintenance of the PaveDrain System is the removal of the blocks/mats and the subsequent cleaning of the aggregate layer. Once cleaned, then everything is RE-Installed as a sustainable stormwater solution.



Q: Can the PaveDrain System be snow plowed with steel snow plow blade?

A: Yes. However, it should be noted that the edges of the block may be scored or slightly damaged by a steel snow blade. (SEE BELOW).



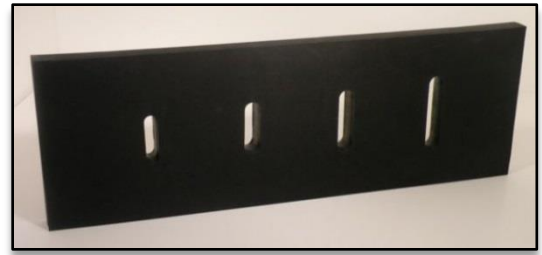
*In order to minimize any surface damage to a PaveDrain block, the recommended snow plowing method would be with a rubber tipped snow blade. The following is an excerpt from a popular rubber snow blade provider. **NOT AN ENDORSEMENT***

www.plowrubber.com

Long Lasting: Our rubber snowplow edges are made of a tough, resilient rubber compound that shows very little wear after many hours of use. They can outlast steel edges many times. No Gouging: Rubber edges easily adjust to irregular road surfaces & pavement markers-without gouging. Rubber edges save you costly repairs to submerged lighting and surfaces such as cobblestone and brick.

Fast, Clean, Quiet Snow Removal:

Our edges have a “squeegee action” to clean faster, better & much quieter than steel cutting edges.



Q: Should the PaveDrain System be sealed?

A: A sealant is not discouraged, but it is not mandatory. A sealant is an economical way to assist the PaveDrain System to resist the damage caused by salting of adjacent hardscape surfaces. Sealing of the PaveDrain System will increase its longevity. Some of the more popular brands are shown below. Both are available in 55 gallon drums.

Natural Look – iN

www.techniseal.com/web/product.php?prodID=291

Code	Size	Color	Coverage
221-318	55 gallons	-	Covers up to 6600 sq. ft.

Its distinctive feature is its ability to protect without changing the appearance of the surface. As an oil repellent, it makes cleaning easier by preventing oil, grease (barbecue) and dirt from penetrating the material. As a water-repellent, it helps prevent the appearance of mold and protects against water damage. Easy to apply, it provides maximum effectiveness and durability. It won't make surfaces more slippery and hence is ideal for protecting pool decks, patios, steps, sidewalks, etc. It resists the elements (freeze-thaw cycles, sun, rain, etc.), as well as salt.

SRW (PS-X) Penetrating PAVER

www.srwproducts.com

SSSPLUS10

55GAL

485 lbs

Used to protect and seal any clean and dry cementitious surface, above ground, vertical or horizontal. It protects the surface against damaging effects of water intrusion, acid rain, deicing chemicals, freeze/thaw exposure, airborne dirt, smog, industrial fumes, and most other atmospheric chemicals. It retains the original appearance of pavers, brick, retaining walls, stone, masonry, cultured stone and concrete surfaces with a non-yellowing UV resistant finish.

Q: Should the PaveDrain System be salted or sanded?

A: A light salting is preferred over sanding. Covering the PaveDrain surface with a heavy dose of salting is not recommended. Salting is hard on everything, sanding will help with traction, but also has the adverse effect of washing the sand between the joints and into the base material, which will decrease the performance of the base material. Of note, it will take years if not decades to show any decreased drainage

performance to the PaveDrain System's aggregate bedding layer in typical parking lot applications.

Pre-wetting salt has become common. Wetting provides moisture to make brine. Faster melting action may occur. In addition, the wet salt has less of a tendency to bounce off the surface during installation or by traffic therefore saving money.

While any liquid de-icing chemical can be used to pre-wet, liquid calcium chloride is used widely. Applications of 6-10 gallons per cubic yard of salt are recommended. Calcium chloride has the added advantage of producing extra melting due to its effectiveness.

NOTE: NO MATTER HOW MUCH CARE IS TAKEN...ICE AND SLIPPING IS ALWAYS A POSSIBILITY!

Q: Can an individual PaveDrain Block be replaced?

*A: If a PaveDrain block breaks under pressure or sudden impact, it is easy to replace the single block without having to pull out the entire mattress. **Follow one of these Two Methods to repair a single block.***

Method 1: PaveDrain Extractor

Step 1

Cut the (2) cables on each side of the PaveDrain block using a thin, rigid knife. A hand-held reciprocating saw with a thin, rigid metal blade can also be used.



*****The Polyester cables (as shown in Step 1 above) can be cut and removed. It will not affect the performance of the PaveDrain system.***

Step 2

Adjust the PaveDrain Extractor so that it will pick from the two flat sides of a PaveDrain block. Pull and move handle of extractor back and forth to remove damaged block.



Step 3

Once the damaged block is removed, debris should be cleaned out of area. Use the PaveDrain extractor to install the new block.



Method 2: Break out the Block

Step 1



Break out the broken block using a 3 lb. hammer, being careful not to damage any surrounding blocks. It is best to start in the middle of the block and work your way out. A concrete masonry chisel can help as well.

Step 3



Once the block is free, perform one final check to clear the cables and any block pieces that may have collected under adjacent blocks. Pull as much slack as possible from the cables. This will allow you to tuck the cable into the arch of the replacement block.

***The Polyester cables (as shown in Step 3 above) can be cut and removed. It will not affect the performance of the PaveDrain system.*

Step 4



Now that the damaged block is fully removed, you are ready to install the new block. Line up the replacement block to fit the hole where the old block was.

Step 5



Slide the new block down into place. You may use a rubber mallet to tamp it down securely at the edges, be sure not to damage the new block by using your 3 lb hammer with too much force.

Please go to www.pavedrain.com and review the Maintenance Video located under the "media" section or the "installation and maintenance" section of the site.