

# CATCHING RAIN:

## Key Maintenance Tips for Free-Draining Pavements

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As someone concerned about the upkeep of a property's pervious pavements, you are on the front lines for protecting water in your community. This fact sheet can be provided to homeowners, property managers and maintenance staff to ensure proper care is given to these important stormwater-management pavements. Whether it's maintenance of porous asphalt, pervious concrete, permeable pavers, or grid aggregate-containment systems, all these pavement types have one thing in common: protecting local waterways by allowing stormwater to flow through the pavement and into the soils below, all the while treating the pollution from the runoff.

Look for the other helpful fact sheets in this series:

1. Low Impact Development
2. LID Stormwater Regulations
3. LID Development Process
- ✓ 4. Pavement Maintenance
5. Rain Garden Maintenance
6. Rain Garden Construction Checklist
7. Rain Garden Construction Sequencing

### General Maintenance Tips

- Always follow the maintenance regimen recommended by the manufacturer and installer. Some maintenance requirements vary depending on the material.
- Regularly inspect pavements to identify problems such as cracking, clogging, or lifting of the edges. Problems should be fixed based on the manufacturer's or installer's guidelines. Maintenance personnel should report problems to property managers or owners.
- Identify any potential sources for sediment flowing onto the pervious pavements, such as unmulched landscaping areas or conventional (impervious) pavements adjacent that contribute silty stormwater to the pervious pavements. Work with property owners and property managers to prevent the introduction of sediment from nearby sources. Often, easy remedies such as changing grades or adding appropriate landscape edging or border material can correct this.

### Preventing Clogging

- Maintaining the ability for water to flow freely requires deep cleaning one or two times per year.
- For **all pavement types**, regularly remove debris from vegetation by vacuuming, blowing, or vigorous sweeping.
- For **pervious concrete** and **porous asphalt**, pressure wash in combination with vacuuming to deep clean most effectively.
- For **permeable pavers** with aggregate in the joints, pressure washing is not recommended, but vacuuming is effective. For large sites, specialized vacuums are available; most small sites can be maintained effectively with a heavy-duty shop vacuum. Some aggregate will be removed in the course of annual vacuuming and will need to be replaced properly.
- If not regularly cleaned, weeds or moss may grow in pervious pavements, which may be a sign of clogging. Test the infiltration rate to see if it's necessary to do a deep cleaning to restore the pavements' best function.
- Weeds can be removed by hand or with the use of a weed torch. Pesticides should **not** be used on pervious pavements.

### Repairs or Patches After Utility Work

- Repair methods depend on the type of pervious pavement.
- Any broken **permeable pavers** can be removed and replaced with matching pavers. The aggregate in the pavement joints and beneath the pavers may need replenishing. If access is needed for utility work, the pavement area will typically need to be "over-excavated" a few feet beyond the repair boundary. Brace surrounding pavers to prevent movement and replace the aggregate below the pavers that have been excavated. Take care to make sure any new or replaced aggregate is clean and has the same gradation and material quality as that initially installed. Extensive repairs may be best performed by an experienced permeable paver contractor.
- For **grid aggregate-containment** systems, the top course of aggregate will need to be replaced if it becomes clogged in any sections.
- For **utility repairs**, follow the same guidance recommended for permeable pavers.
- In places where the **grid rings** are broken, the entire section can be removed and replaced. The repair should be done to match the original installation.
- For **porous asphalt** or **pervious concrete**, it is usually not cost-effective to replace small sections with permeable material. In cases where utility access requires removal of a small section of the porous asphalt or pervious concrete, conventional material can be used to repair the area.
- Typically, 5-10% of the area can be repaired using conventional pavements without impacting the pavements' stormwater management functions. Verification from professionals is required to replace more than this amount.

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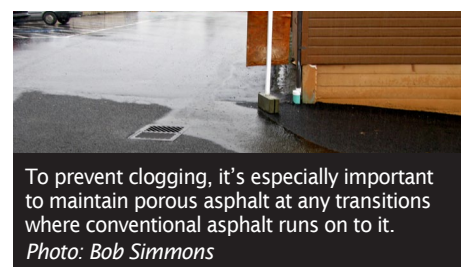
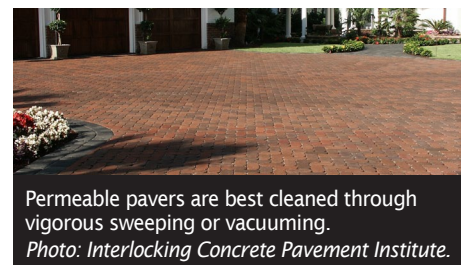
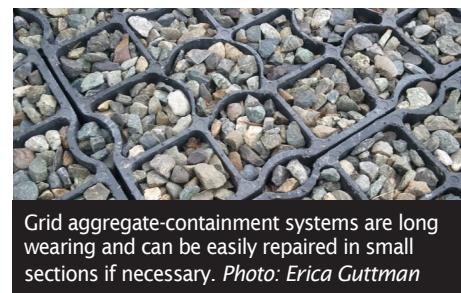


Well-maintained pervious concrete will allow water to soak right in! Photo: Erica Guttman



Permeable concrete pavers. Maintain turf edges to prevent weeds from creeping in. Photo: Interlocking Concrete Pavement Institute





## Snow Removal

- Avoid applying sand to pervious pavements! It will cause them to clog, and is generally not needed because as the snow melts it will drain, reducing the ice hazard.
- Generally, care should be taken when plowing pervious pavements. Manufacturers may recommend a plastic- or rubber-tipped snow-plow blade, or the use of skids to elevate the plow blades slightly above the gravel aggregate.

## Communication

- Pervious pavements are still a relatively new technology. Be sure that you share information about pervious pavements with anyone whose activities might affect them—construction workers on site; new owners or new property managers; and maintenance staff, including new and substitute employees.
- Good communication between property owners, managers, and maintenance staff is key to ongoing successful treatment of stormwater. Maintenance staff should report any changes they note in how pavements look or perform. If ownership changes hands, maintenance staff and property managers might be in the best position to inform new owners about the pervious pavements and how important they are in protecting local waterways.
- Watch our video: “Catching Rain: Low Impact Development—An Overview to Maintaining Pervious Pavements” at <http://county.wsu.edu/mason/nrs/water/Pages/default.aspx>



*Thanks for sharing this information and doing your part to help protect water for your whole community!*