

# Permeable Pavers

## For Your Home

### Cement Patio Cracking?

These porous concrete blocks allow water to pass through them and into the soil. Permeable pavers can be used instead of concrete or asphalt for driveways, patios, and walkways.



photo: <http://fc03.deviantart.com>

---

These porous concrete blocks allow water to pass through them and into the soil. Permeable pavers can be used instead of concrete or asphalt for driveways, patios, and walkways, or in place of some concrete/asphalt.

## Cold Climate Considerations:

We only recommend composite pavers. Permeable concrete pavers will not last very long in our environment due to the effects of freeze thaw cycles. Call your local nursery or hardware store for availability of pavers.

## Materials:

- Coarse gravel
- Geotextile fabric
- Bedding sand and / -or pea gravel
- Permeable pavers
- Edge restraints
- Water

## Tools:

- Hand tamp or mechanical compactor
- Shovel
- Excavator (optional)
- Hose
- Push broom

## Steps:

1. Evaluate your chosen area of installation with the following guidelines:
  - a. Do not place permeable pavers on permafrost.
  - b. Only roof runoff should be redirected onto permeable pavers.
  - c. Location should not be on or near septic tanks or wellheads.
  - d. Before you dig, be aware of underground service lines or utilities on your property. Call 1-800-478-3121 or go on-line at [www.akonecall.com](http://www.akonecall.com) to have the underground lines marked for you.
2. Prepare area. If there is an existing surface already remove old pavers. If in a new area remove sod, if needed, and excavate down one foot deep.
3. Compact the soil with either a hand tamp or a mechanical compactor. Using a hand tamp is not recommended for large areas.
4. Deposit a six inch (minimum) layer of compacted aggregate base.
5. Lay down a layer of geotextile fabric to keep the sand in place and to prevent weeds from growing.
6. Deposit a one inch layer of bedding sand.
7. Install the edge restraints. Place the restraints along the perimeter of the project. These can be plastic, aluminum, or steel and are available at most hardware stores. Install the permeable pavers following the manufacturer instructions.
8. Fill the joints by sweeping coarse sand or pea gravel over the pavers. Or plant moss or grass between the pavers.
9. Compact the pavers with a hand tamp for small areas and a mechanical compactor for large areas.
10. Spray the paved area with water to help compact the sand.

## Maintenance:

- Over several years some of the joint sand may erode away. If it does, just spread more joint sand over the pavers and sweep it in.
  - Weeding may be necessary throughout the summer to prevent weeds from colonizing the cracks between the pavers.
  - If the pavers become uneven you can remove the pavers in the affected area, re-level the aggregate base (you may need to add more sand) and reinstall the pavers.
  - Sweep the pavers at least every spring to remove dirt and sand, which will prevent the loss of porosity of the pavers.
-

### Cost Estimate:

- about \$10 per square foot

### Time Estimate:

- one to four days depending on the size of the area

### Pros:

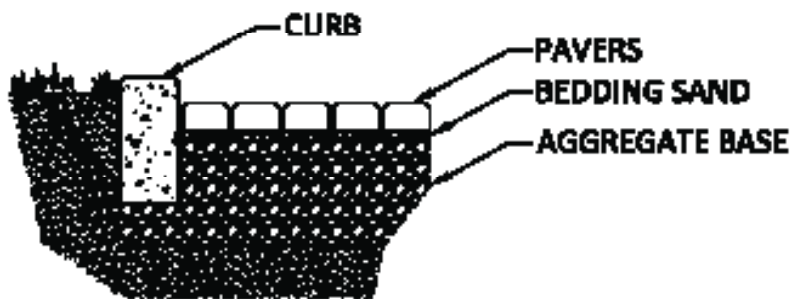
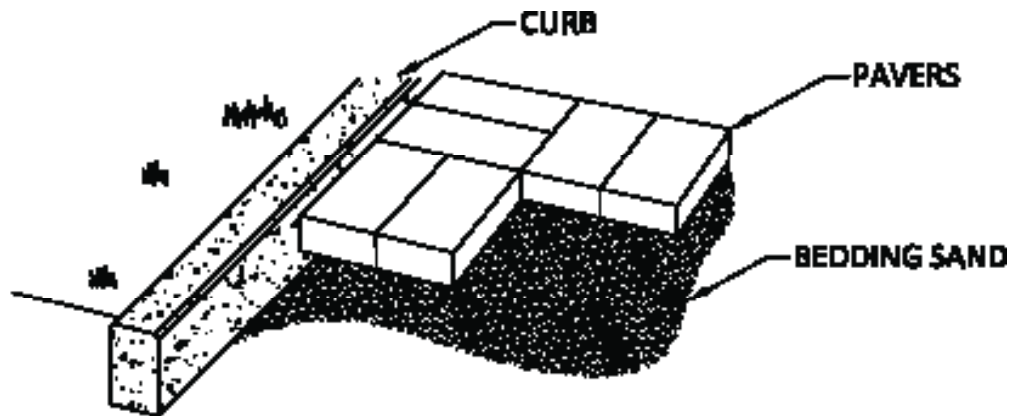
- Reduces water runoff.
- Increases groundwater infiltration.

### Cons:

- Using sand for traction on or near the pavers can reduce the porosity of the pavers.



These are porous pavers produced by VAST Enterprises. They have permeability that is comparable to traditional porous pavers, but they are made from recycled rubber and plastic so they are much more resistant to cracking. For more information please visit the VAST website at [www.vastpavers.com](http://www.vastpavers.com)



---

For more information about the Green Infrastructure Project please visit: [www.cchrc.org/green-infrastructure](http://www.cchrc.org/green-infrastructure)

**Sources:**

Interlocking Concrete Pavement Institute  
<http://www.icpi.org/>

Low Impact Development Center, Inc., Permeable Pavers  
[http://www.lid-stormwater.net/permpavers\\_benefits.htm](http://www.lid-stormwater.net/permpavers_benefits.htm)

VAST Enterprises  
<http://vastpavers.com>



COLD CLIMATE HOUSING RESEARCH CENTER  
**CCHRC**



***GW Scientific***