

# Pervious Pavement Factsheet

## 1.0 GENERAL DESCRIPTION



Potential Treatment Mechanisms								
I	ET	FA	B	RH	S	F	P	T
✓	✓	✓						
Legend: I = Infiltration					S = Sedimentation			
ET = Evapotranspiration					F = Flootation			
FA = Filtration and/or Adsorption					P = Plant Uptake			
B = Biochemical Transformation					T = Trash Capture			
RH = Rainfall and Runoff Harvest								

Figure 1. Pervious pavement (EPA)

Pervious pavement refers to trafficked or parking surfaces in which the top layer is comprised either entirely of a permeable material (e.g., gravel or porous concrete) or impermeable material broken up with permeable seams, spaces, or joints (e.g., pavers). Underneath the top layer is a layer (or layers) of porous material that holds water while it infiltrates into surrounding soils. An example schematic of a porous pavement is shown in Figure 2.

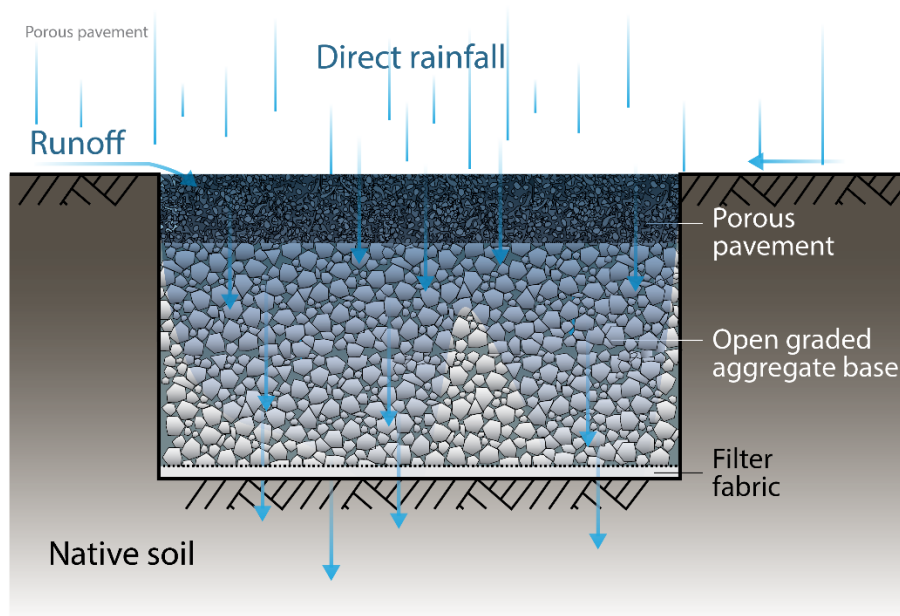


Figure 2. Basic schematic of pervious pavement

### 1.1 Variations and Alternative Names

- Permeable pavers
- Porous pavers/pavement
- Porous/permeable asphalt
- Porous/permeable concrete

## 2.0 ADVANTAGES & LIMITATIONS

### 2.1 Advantages

- ✓ Does not require any additional land/space and can be a more aesthetically appealing option than the pavement it replaces
- ✓ Can enhance driving safety by reducing the amount of water pooling on the pavement surface

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## 2.2 Limitations

- ✘ If not properly installed or regularly maintained/cleaned, the pavement/pavers can become clogged with sediment and debris
- ✘ Not suitable for areas with:
  - heavy traffic
  - high speeds
  - unstable slopes
  - possibility of spills
  - heavy vegetation debris

## 3.0 SITING

The area should be flat or only have a slight slope and be set back from buildings.

The site should not have heavy traffic, heavy debris loading, or the possibility of spills (e.g., industrial sites).

## 4.0 DESIGN CONSIDERATIONS

When planning to install an area of pervious pavement, the following design parameters should be considered:

- Contributing drainage area
- Potential traffic load, speed, and volume
- Location/setback from buildings
- Existing soil type
- Existing slope
- Pavement type
- Underdrain (optional)

## 5.0 CONSTRUCTION CONSIDERATIONS

- Care must be taken to lay the storage layer as level as possible and terrace or berm it to keep water from flowing out through the top of downstream pavement section
- If pavers are used, sufficient space must be left so that the joints do not clog easily

## 6.0 MAINTENANCE

- No storage of equipment on the pavement.
- Many types of porous pavement require cleaning in some way to avoid becoming clogged with sediment and debris

## 7.0 REFERENCES

California Stormwater Quality Association (CASQA 2003). *Stormwater Best Management Practice Handbook: New Development and Redevelopment*. January 2003.

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