



**Metropolitan  
St. Louis Sewer  
District**

2350 Market Street  
St. Louis, MO 63103-2555  
(314) 768-6200

October 1, 2008

Mr. Patrick J. Juelich  
Director of Marketing, Concrete Council  
8000 Maryland Ave., Suite 1320  
St. Louis, MO 63105

RE: Pervious Concrete – Proprietary BMP Application

Dear Mr. Juelich,

The Metropolitan St. Louis Sewer District (MSD) has reviewed your application of pervious concrete that is a proprietary pervious pavement type of BMP. MSD hereby grants Provisional Use Level approval for the pervious concrete with the storage bed underneath. MSD understands that the pervious concrete enhances surface permeability by the porous openings in the concrete. The open graded stone storage bed underlying the pervious concrete provides temporary storage of the runoff.

MSD has determined that pervious concrete with open graded stone storage bed system may be used under the following conditions:

1. Proposed uses and designs of the product must be in general conformance with the information and methodologies provided in the Concrete Council application dated August 4, 2008.
2. Channel Protection Volume (CPv) storage may be provided in the storage bed underneath the pavement. Storage bed shall have a minimum thickness of 6 inches.
3. With a minimum gravel storage bed of 12” underneath the pavement and an underdrain at the base of the storage bed, the post-developed curve number (CN) may be reduced. Except Type A soils, the CN number that should be used should be reflective of Open Space Good Condition areas and the soil type of the underlying native soil. For convenience, the CN numbers are provided below.

Soil	A	B	C	D
CN	61	61	74	80

4. The imperviousness used in calculating the Water Quality Volume (WQv) may be reduced. The area of pervious pavement may be considered as pervious area for the purpose of calculating Rv, and accordingly WQv.
5. Pervious concrete may be used to provide WQv treatment, when used in conjunction with a properly designed infiltration basin/trench, sand filter, or other approved BMP per the 2000 Maryland Stormwater Design Manual. Your BMP

application provides several examples of pervious concrete applications. As noted above this system is not to be used as a stand-alone WQv treatment BMP. The pervious concrete pavement must be designed in conjunction with an infiltration basin/trench, sand filter, or other supplemental BMP in order to meet MSD WQv treatment criteria. Per recommendations from the Concrete Council, it is noted that the supplemental BMP shall not be located underneath the pervious concrete/base system, but instead would have to be located downstream.

6. While pervious concrete is approved for provisional use, its application shall be limited to low traffic areas.
7. Project specific design calculations and maintenance plans must be included within the project's "Stormwater Management Facilities Report" prepared by the consulting Engineer.

The initial installation of the pervious concrete in the MSD shall include the following:

- 1) A manufacturer's or vendor's representative must be onsite during the proprietary BMP installation to ensure the product's installation requirements are met.
- 2) Three pervious pavement core samples shall be submitted to MSD to serve as representative samples of the placed pavement. The three core samples shall be a minimum of 4 inches in diameter and shall be obtained from the placed pavement installation.
- 3) The manufacturer or vendor must perform quarterly inspections of the proprietary BMP during its first year of operation, which will include visual inspections. MSD requests to be invited to these inspections to further enhance familiarity and understanding of the BMP.
- 4) Formal reports shall be submitted to MSD for each quarterly inspection. The reports shall include summaries and photographs of the pavement. The reports shall also evaluate the performance of the owner's adherence to the approved maintenance program, and offer suggestions for any areas of improvement.

The Pervious Concrete is not approved for general use at this time.

MSD reserves the ability to withdraw or modify this approval based on subsequent information, including information indicating that pervious concrete does not satisfy MSD rules, requirements, or construction specifications.

Sincerely,

*Michael T. Buechter*

Michael T. Buechter, P.E.  
Principal Engineer (BMP Committee Chairman)  
Engineering/Design  
Metropolitan St. Louis Sewer District