



## URBAN DRAINAGE AND FLOOD CONTROL DISTRICT

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### MEMORANDUM

FROM: Ken A. MacKenzie, PE, CFM  
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SUBJECT: UDFCD Temporary Moratorium on Pervious Concrete Pavement Now Lifted

DATE: August 21, 2009

In June 2008 I called for a temporary moratorium on pervious concrete pavement due to surface raveling problems with this BMP in and around the Denver metropolitan area.

A following investigation determined the problems were caused by a number of factors, including:

1. Settling and consolidation of the cement paste near the bottom of the concrete section, causing an impervious layer that trapped water in the pervious matrix,
2. Placement during adverse weather conditions, and
3. Weak concrete due to loss of hydration water during curing.

Working together with the University of Colorado, the Colorado Ready Mixed Concrete Association, and CTL Thompson, we have developed a guidance document which, if followed, should ensure high quality and long lasting pervious concrete pavement BMPs. This document is titled "[\*\*Specifier's Guide for Pervious Concrete Pavement Design, Version 1.2\*\*](#)" and is available on the UDFCD website at: [http://www.udfcd.org/downloads/down\\_techpapers.htm](http://www.udfcd.org/downloads/down_techpapers.htm).

Some key elements in this guidance document include:

- ✓ Pervious concrete mix must have 6% ASTM C33 sand content,
- ✓ Pervious concrete is not to be placed when temperatures are expected to be above 90 degrees or below 40 degrees (Fahrenheit) during the initial cure, and
- ✓ Pervious concrete must not be allowed to dry out during curing; it must be fogged with water and covered with plastic in semi-arid and arid climates.

With that, the moratorium on pervious concrete pavement is lifted and on behalf of UDFCD, I encourage its use in Colorado and other semi-arid and arid climates; provided the above-mentioned guidance document is closely followed.

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