



Lower Colorado River Authority

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November 1, 2012

Via email: david.hasness@pavestone.com

Dave Hasness, P.E.
Regional Sales Engineer
Pavestone, LLC

Subject: Permeable Interlocking Concrete Pavers (PICP)

Dear Dave:

This letter is to inform you that LCRA will allow up to a 90 percent reduction in the calculation of effective impervious cover for driveways, sidewalks and other pavements that use permeable interlocking concrete pavers as an "Innovative Best Management Practice (BMP)" per Section 5(f) of the Highland Lakes Watershed Ordinance. This policy is based on a review of infiltration data provided by your firm, literature research¹ and recent test cases that support the ability of PICP to achieve the performance standards of the ordinance.

Proposals for use of PICP in this manner shall be subject to a technical review of submittals, including a site plan, site-specific installation details, product specifications and field infiltration testing. Field testing shall demonstrate an initial infiltration of at least 55 inches per hour immediately following installation and annual infiltration testing demonstrating a minimum of 10 inches per hour infiltration rate for a period of at least three years following installation. The three products with which we are comfortable in terms of infiltration rate testing data are the Infiltrastone, EcoVenetian and Piora pavers with open aggregate (No. 8 is preferred or No. 9) used for the joint infill and choke layer and a minimum of an 8-inch depth of open-graded No. 57 (1/2 inch to 1 1/2 inches) or No. 4 (1 1/2 inches to 2 inches) aggregate base. Slopes over 2 percent will need to incorporate lateral flow barriers and/or cut-offs in the aggregate base layer. Reduction may be limited on slopes of more than 10 percent. If an underdrain is proposed, the design will need to ensure that runoff is infiltrated through the subsoil and not discharged or short-circuited. The owner will need to maintain the pavers to maintain a long-term infiltration rate of 10 inches per hour, which will become a requirement under the BMP Maintenance Permit.

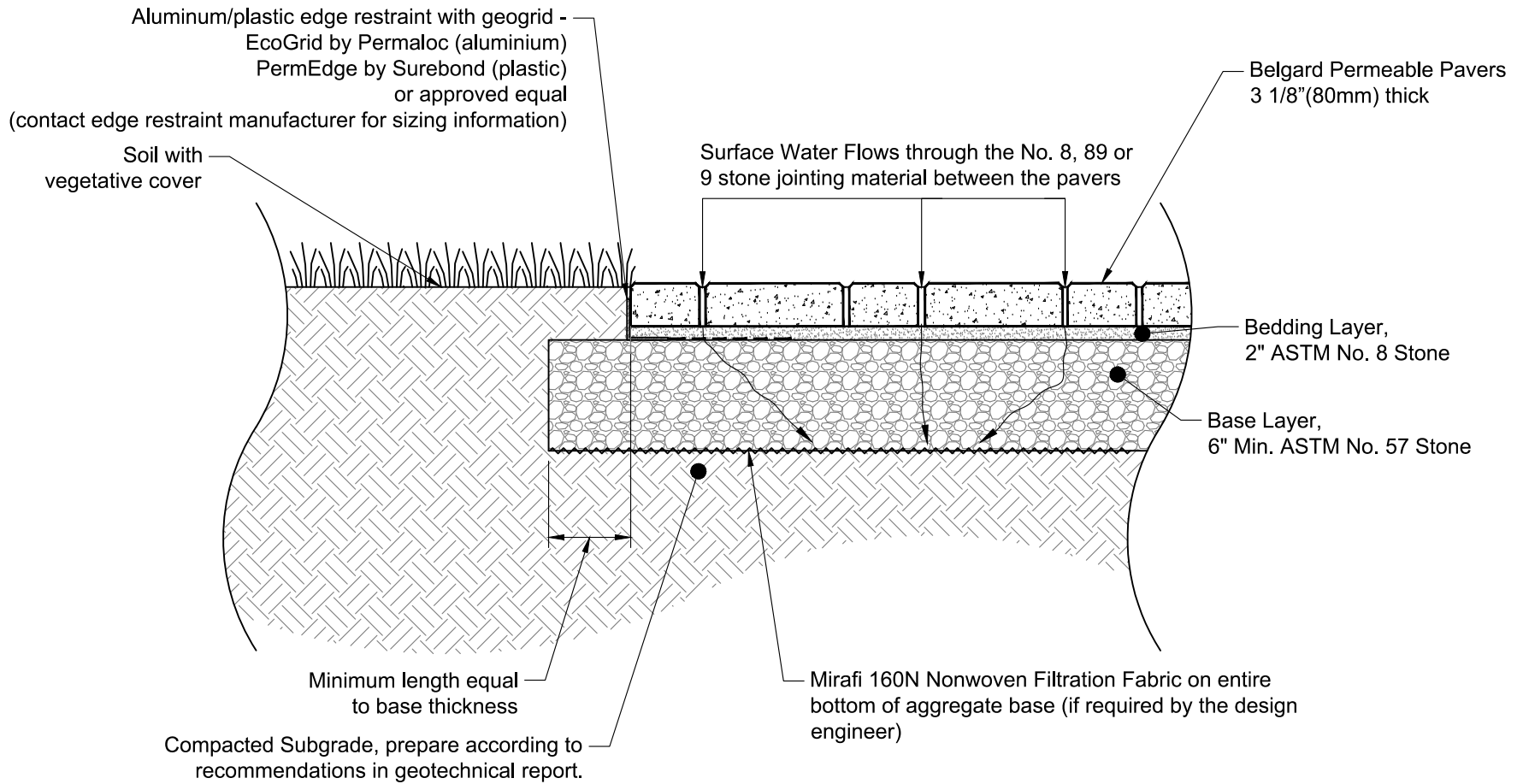
We are planning to amend our technical manual to include the above criteria in 2013. We look forward to working with you and other stakeholders to formalize the use of this stormwater quality control BMP.

Please contact me at (512) 578-2091 if you have any questions or comments.

Sincerely,

Erik Harris, P.E.
Water Quality Protection

¹ Study On The Surface Infiltration Rate of Permeable Pavements, May 26, 2004, Prepared for: Interlocking Concrete Pavement Institute by Biological and Agricultural Engineering Department, North Carolina State University D. S. Weaver Labs



Design Notes:

1. Cross section as shown is suitable for residential driveways, patios, and sidewalks.
2. Depth of aggregate base subject to site specific conditions (soil conditions, groundwater levels, climatic conditions). Contact local Belgard sales representative.
3. Drain pipes may be required within the aggregate base depending on the permeability of the subgrade soils. Verify drainage needs with the geotechnical engineer. Ensure drain pipes are able to daylight via gravity flow to surface, or connect to catch basin.



belgard.com
 877-235-4273
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This drawing is for illustrative purposes only and should not be used for construction without the signature of a registered professional engineer.

Belgard Residential PICP Paving Detail

Aggregate Set on Open-graded Base

Scale:	Drawn by:
N.T.S.	PCC
Date:	Drawing number:
7/30/2019	PICP_20