

4SITE ENGINEERING, PLLC

58 JANET STREET
PORT JEFFERSON STATION, NY 11776

VOICE: (631) 828-6123
FAX: (631) 791-5655

www.4SiteLI.com

April 4, 2011

Mr. Kevin Earley, LEED Green Associate
Director of Commercial Sales
Nicolock Paving Stones & Retaining Walls
640 Muncy Street, Lindenhurst, NY 11757

Re: Post Construction Surface Infiltration Testing of the Nicolock SF-Rima
Permeable Interlocking Concrete Paver Installation (PICP) at the
Lindenhurst Public Library
Village of Lindenhurst, Town of Babylon, Suffolk County, New York

Dear Mr. Earley:

This letter summarizes the results of the post construction infiltration testing performed at the above referenced site on April 4, 2011 (which was approximately twenty months (20) months after the installation was completed). Three testing locations were performed within the +/-6,000+ SF PICP area, which consisted of Nicolock SF-Rima Concrete Pavers (8" X 8" X 3 1/8" thick, with 1/2" joint filled with No. 8 Stone), over 1 1/2" No. 8 Stone, over 4" No. 57 Bedding Stone, over 6" of No. 3 stone. This installation of PICP was constructed in lieu of a drywell drainage system. The design storm as required by the local municipality is equivalent to a storage volume of 0.12 feet (approximately 1.5 inches) in a 24-hour period (a 90% rainfall event as defined by the NYS Stormwater Management Design Manual for this area is 1.2 inches). It should be noted that this design criteria is based on a storage volume only.

The testing was performed in accordance with *ASTM C 1701/C 1701M -09 Standard Test Method for Infiltration Rate of In Place Pervious Concrete*. The purpose of the testing was to measure the post-construction infiltration rate of the PICP in accordance with the ASTM standard previously referenced. The constant head infiltration test was performed with a single infiltrometer ring, where a known quantity of water was poured in to the single ring infiltrometer; the level was maintained within a specified depth range until all of the test water had been poured. Time was kept from the first moment of contact between the surface and the water, until no visible water remained. The results were averaged and the average infiltration rates were determined to be 537.32 in/hr. (See attached table for additional information).

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If you should have any questions about the information contained herein please contact our office.

Sincerely,



Justin M. Lia, PE, LEED AP
President
4Site Engineering PLLC

Attachment

Post-Construction Infiltration Testing

PICP Lindenhurst Library

Test 1AP-Prewetting		
M (lb)	t (sec)	Test Mass of Water lb
8.00	20.7	40.0 lb +/-0.1 lb

Test 2AP-Prewetting		
M (lb)	t (sec)	Test Mass of Water lb
8.00	17.9	40.0 lb +/-0.1 lb

Test 3AP-Prewetting		
M (lb)	t (sec)	Test Mass of Water lb
8.00	14.1	40.0 lb +/-0.1 lb

Test 1AP				
M (lb)	t (sec)	D (in)	K (in-lb)	I (in/hr)
40.00	74.8	11.875	126,870	481.12

Test 2AP				
M (lb)	t (sec)	D (in)	K (in-lb)	I (in/hr)
40.00	73.2	11.875	126,870	491.63

Test 3AP				
M (lb)	t (sec)	D (in)	K (in-lb)	I (in/hr)
40.00	54.9	11.875	126,870	655.51

Test 1BP				
M (lb)	t (sec)	D (in)	K (in-lb)	I (in/hr)
40.00	73.9	11.875	126,870	486.98

Test 2BP				
M (lb)	t (sec)	D (in)	K (in-lb)	I (in/hr)
40.00	85.3	11.875	126,870	421.89

Test 3BP				
M (lb)	t (sec)	D (in)	K (in-lb)	I (in/hr)
40.00	52.4	11.875	126,870	686.78

AVERAGE (Test 1AP + Test 1BP) =	484.05	(in/hr)
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AVERAGE (Test 2AP + Test 2BP) =	456.76	(in/hr)
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AVERAGE (Test 3AP + Test 3BP) =	671.15	(in/hr)
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Site Avg. Infiltration Rate =	537.32	(in/hr)
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NOTE: All tests performed on April 4, 2011 by 4Site Engineering, PLLC.