



PENNONI ASSOCIATES INC.
CONSULTING ENGINEERS

Project No.: NCLK-0901

Report Date: June 26, 2015

Client: Mr. Steve Isaack
Address: Nicolock Paving Stones & Retaining Walls
640 Muncy Avenue
Lindenhurst, NY 11757

Project Name: Nicolock Paving Stones and Retaining Walls

Date Received: June 8, 2015

Unit Specification: ASTM C1491

Unit Designation and
Description: Concrete Roof Paver
24x24 Plaza Paver

Laboratory Number: 10- 130607

Summary of Test Results

Physical Property	Specification Values	Average Test Results	Physical Property	Specification Values	Average Test Results
Net Compressive Strength	3000 min.	6100 psi	Surface Area (as received)		561 in ²
Gross Compressive Strength		6030 psi	Surface Area (as received)		0.36 m ²
Density		140.9 pcf	Aspect Ratio (L/H)		12.2
Absorption	10 max.	5.7 pcf	Height (Thickness)		50 mm
Flexural Strength		1289 psi	Length		0.6 m
Flexural Strength		8.9 MPa	Flexural Load	350 min.	1903 lb.
			Ballast Weight		22.7 psf

Individual Unit Test Results

Specimen No.	Received Wt, W _R	Cross-Sectional Area		Max. Load	Compressive Strength		Average Width	Average Height	Average Length
	lb.	Gross	Net		Gross	Net			
	in.	in. ²	in. ²	lb	psi	psi	in.	in.	in.
<i>Compression Tests</i>									
<i>Reduced Size Units</i>									
4	94.16	32.62	32.32	199365	6110	6160	2.0	2.0	16.2
5	87.44	33.47	33.16	203490	6080	6130	2.1	2.0	16.1
6	91.38	33.17	32.71	196585	5920	6010	2.1	2.0	16.1
Average	88.13	33.09	32.73	199813	6030	6100	2.1	2.0	16.1

Specimen No.	Average Width	Average Height	Average Length	Immersed Wt, W _I	Saturated Wt, W _S	Oven-Dry Wt, W _D	Absorption	Density	Ballast Wt
	in.	in.	in.	lb	lb	lb	pcf	pcf	psf
<i>Absorption Tests</i>									
<i>Reduced Size Units</i>									
1	2.1	2.0	16.1	3.21	5.51	5.36	4.1	145.4	23.2
2	2.0	2.0	16.3	3.19	5.50	5.33	4.6	144.0	23.1
3	2.1	2.0	16.1	2.98	5.32	5.00	8.5	133.3	21.7
Average	2.1	2.0	16.2	3.13	5.44	5.23	5.7	140.9	22.7

Specimen No.	Received Wt, W _R **	Average Width	Average Height	Average Length	Gross Area	Flexural Strength	Percent Solid	Moisture Content**
	lb	in.	in.	in.	in ²	psi	%	% of total absorption
<i>Flexural Tests</i>								
<i>Reduced Size Units</i>								
1	90.36	12.0	2.0	23.7	283.22	1326	98.3	N/A
2	86.45	11.9	2.0	23.7	282.98	1214	98.8	N/A
3	87.57	11.9	2.0	23.7	282.74	1328	99.6	N/A
Average	88.13	11.9	2.0	23.7	282.98	1289	98.9	N/A

**Received weight determined at the time of unit delivery to the job site or from units sampled at that time and delivered to the laboratory in sealed containers for moisture content determination.

Remarks: The units were tested according to ASTM C140 and CSA A231. The above samples meet the requirements of ASTM C1491 for the requested tests. Listed specification values are from ASTM C1491.

Chas M. Snyder, P.E.
Laboratory Manager

