

Project No.: CAMBR 22001-01

Report Date: July 13, 2022

| CONSULTI | NG ENGINEERS | | |
|----------|---------------------------|---------------|------------------------------|
| Client: | Cambridge Pavers Inc. | Project Name: | Cambridge Pavers |
| Address: | Charles H Gamarekiam Jr | | |
| | PO Box 157 | | Date Received: June 9, 2022 |
| | Lyndhurst, NJ 0701-0157 | | |
| | | Date of Compr | ession Testing: July 11, 202 |
| Unit | Specification: ASTM C1372 | | |
| | | | |

Unit Designation and

Description: Segmental Retaining Wall Unit

Matryx 6"

Summary of Test Results

ne 9, 2022

y 11, 2022

Date of Absorption Testing: July 12, 2022

Testing Technician: **S Williams / M Seibert**

Laboratory Number:10- 199212

| Physical Property | Specification Values | Test | | Physical Property | Specification Average Test Values Results | | |
|---------------------------------|-------------------------|-------|------------------|---------------------------------|--|------------------------------------|--|
| Net Compressive Strength (min.) | 3000 | 5480 | psi | Min. Faceshell Thickness (FST) | | in. | |
| Gross Compressive Strength | | 5430 | psi | Min. Web Thickness (WT) | | in. | |
| Density | | 130.3 | pcf | Equivalent Web Thickness | | in. | |
| Absorption (max.) | 13 | 6.4 | pcf | Equivalent Thickness | | in. | |
| Percent Solid | [coupon] | 99.2 | % | Normalized Web Area | | in. ² /ft. ² | |
| Net Cross-Sectional Area | [coupon] | 8.98 | in. ² | Max. Var. From Spec. Dimensions | | in. | |
| Gross Cross-Sectional Area | [coupon] | 9.05 | in. ² | Moisture Content | | % | |

Individual Unit Test Results

Tests conducted on reduced size units.

| | C | Received Wt, W _R | Cross-Se | ectional Area | Max Load | Compressive Strength | | |
|-------------------|-----------------|-----------------------------|------------------|------------------|-----------|----------------------|------|--|
| | Specimen No. | | Gross | Net [*] | Max. Load | Gross | Net | |
| | | lb. | in. ² | in. ² | lb | psi | psi | |
| Compression Units | 4 | | 8.98 | 8.97 | 48741 | 5420 | 5430 | |
| compression onits | 5 | | 9.02 | 8.93 | 49126 | 5440 | 5500 | |
| | 6 | | 9.17 | 9.03 | 49959 | 5450 | 5530 | |
| | Average | | 9.05 | 8.98 | 49280 | 5430 | 5480 | |

* Net area determined from absorption specimens unless solid units are used.

| | Specimen No. | Average Width | Average Height | Average Length | Average Min. FST | Average Min. WT | Normalized Web Area |
|------------------|-----------------|---------------|-------------------|----------------|---------------------|--------------------|-----------------------------------|
| | | in. | in. | in. | in. | in. | In. ² /ft ² |
| Absorption Units | 1 | 1.53 | 3.04 | 6.01 | | | |
| Absorption onits | 2 | 1.48 | 3.04 | 6.02 | | | |
| | 3 | 1.53 | 3.04 | 5.98 | | | |
| | Average | 1.51 | 3.04 | 6.00 | | | |

| Specimen No. | Received Wt, W _R ** | Immersed Wt,W _I | Saturated Wt, W _s | Oven-Dry Wt, W _D | Absorption | | Density | Net Volume | Net Area | Percent Solid | Moisture Content** % of total |
|-----------------|-----------------------------------|-------------------------------|---------------------------------|--------------------------------|------------|-----|---------|-----------------|-----------------|---------------|-------------------------------------|
| | lb | lb | lb | lb | pcf | % | pcf | ft ³ | in ² | % | absorption |
| 1 | | 1.19 | 2.18 | 2.08 | 6.3 | 4.8 | 131.1 | 0.0159 | 8.93 | | |
| 2 | | 1.13 | 2.09 | 1.99 | 6.5 | 5.0 | 129.4 | 0.0154 | 8.93 | | |
| 3 | | 1.18 | 2.17 | 2.07 | 6.3 | 4.8 | 130.5 | 0.0159 | 8.93 | | |
| Average | | 1.17 | 2.15 | 2.05 | 6.4 | 4.9 | 130.3 | 0.0157 | 8.93 | | |

**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. This set meets the absorption and compressive strength requirements of ASTM C1372.

This report shall not be reproduced, except in full, without prior written approval from Pennoni. The above results relate only to the items tested. Samples were obtained and delivered to the lab by the client.

Bayder

Chas M. Snyder, PE Laboratory Manager

