Rone Engineering

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# Report of Permeability Testing

**Client:** Pavestone
**Project:** Priora Permeable Pavers
**Project No.:** 0814343
**Report No.:** 902921
**Date of Service:** May 2, 2008

Rone Engineering Services was retained by Pavestone to perform permeability testing on 120 mm x 240 mm Priora Permeable Pavers with Grade 6 aggregate joint infill material. The purpose of this test program was to determine the rate of water flow through the paver joints.

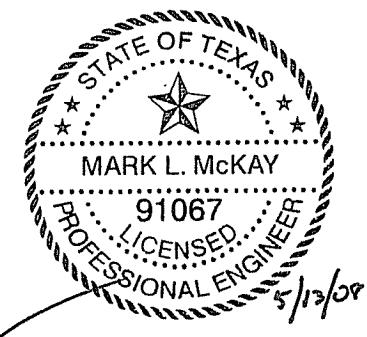
## Test Setup

A frame, measuring 36" x 36" inside, was constructed with screen material secured to the bottom of the frame. The frame was placed on expanded metal so as not to inhibit water flow. The Priora pavers were then placed inside the frame in a staggered joint pattern. The perimeter of the mockup was sealed with silicone sealant. Grade 6 (No. 9) crushed limestone aggregate (sieve analysis attached) was then placed and consolidated in the paver joints. A diffuser was placed approximately six inches above the mockup to provide even dispersion of water. A 300 gallon water tank was used to provide the water supply. While running each test, a constant supply of water was supplied to the tank to maintain constant flow.

## Test Results

Testing was conducted maintaining three levels of head water above the pavers. The level of head water was established, maintained for a minimum of 30 seconds, and the rate of flow was determined. This procedure was performed multiple times at each level to verify a consistent rate of flow. The average flow rate at each level was determined and is reported in the table below.

| Head Water (Inches) | Rate of Flow (Inches per Hour) |
|---|---|
| 0.5 | 105 |
| 1.0 | 140 |
| 2.0 | 161 |

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# Report of Sieve Analysis

**Client:** Pavestone Company
PO Box 1868
Grapevine, TX 76099

**Report No.:** 902910
**Project No.:** 0611274
**Date of Service:** 04/26/2008
**Report Date:** 04/30/2008

**Project:** Pavestone Grapevine Quality Control Testing
**Services:** Sieve Analysis Testing of permeable pavers

## Report of Analysis

Description: Grade 6 (No.9) Crushed Limestone

Source: Stockpile
Location: Grapevine Plant

| Sieve Size | Cummulative Weight Retained | Percent Retained | Percent Passing | Sieve Specifications |
|---|---|---|---|---|
| 3/8" | 0.0 | 0 | 100 | 100 |
| #4 | 54.5 | 8.3 | 91.7 | 85-100 |
| #8 | 449.1 | 68.4 | 31.6 | 10-40 |
| #16 | 610.2 | 92.9 | 7.1 | 0-10 |
| #50 | 639.8 | 97.4 | 2.6 | 0-5 |
| Pan | 656.7 | 100 | 0 | |

**Test Methods:** ASTM C 33

**Technician:** Jack Gary

**Rone Engineering**

Jack Gary
Special Testing


(JG/JG)