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February 12, 2007

618-01

Mr. Kim Busl
Majestic Stone
6219 Ogden Rd.
Dayton, TN 37321

Dear Mr. Busl:

This letter provides a summary of the recent dimension stone testing performed by Agapito Associates, Inc. (AAI), on behalf of Majestic Stone. The specimens were cut into blocks by Majestic Stone. Five tests each were performed on five types of sandstone namely: Castle Rock, Laurel Brook Brown, Field Stone, Whitwell Gray, and Deer Creek. The specimens were delivered in the form of irregular blocks and prepared by AAI.

The following test types were performed by AAI according to the American Society for Testing and Materials (ASTM) specifications:

- Compressive strength test: C170-06¹
- Absorption and Bulk Specific Gravity test: C97-02²

Test results are summarized in Tables 1 through 4. The summary statistics for the compressive strength and the absorption and bulk specific gravity tests are summarized in Tables 1 and 2, respectively. The laboratory test data sheets for the compressive strength and the absorption and bulk specific gravity tests are presented in Tables 3 and 4, respectively.

Per your direction, the compressive strength tests were loaded at the natural surfaces (perpendicular to the bedding planes) in wet condition (after soaking in water for 48 hours). Some of the specimens received had heights less than the minimum 2 inches required by the ASTM standard. Those samples have height-to-width (average of width and length) ratio of less than 1 as indicated in Table 3. The attached CD contains an electronic version of the Microsoft Excel test sheets.

¹American Society for Testing and Materials (ASTM), "Standard Test Method for Compressive Strength of Dimension Stone," Designation C170-06.

²American Society for Testing and Materials (ASTM), "Standard Test Method for Absorption and Specific Gravity of Dimension Stone," Designation C97-02.

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Transmittal of these test results completes our scope of work. Please contact me if you have any questions regarding this letter, the test results, or any aspect of the testing program.

Sincerely yours,

A handwritten signature in black ink, appearing to read 'Albert Adu-Acheampong', written in a cursive style.

Albert Adu-Acheampong
Project Engineer

AAA/smvf

Attachments(5): Tables 1-4
CD

Table 1. Summary Statistics for Compressive Strength Test Results
 (After 48 hours soaking in water)

Specimen No.	Compressive Strength (psi)
Castle Rock	
CR-CSDS-01	8,638
CR-CSDS-02	6,046
CR-CSDS-03	4,577
CR-CSDS-04	3,071
CR-CSDS-05	5,044
<i>Mean</i>	<i>5,475</i>
<i>Standard Dev.</i>	<i>2,067</i>
<i>Minimum</i>	<i>3,071</i>
<i>Maximum</i>	<i>8,638</i>
<i>Count</i>	<i>5</i>
Laurel Brook Brown	
LBB-CSDS-01	4,876
LBB-CSDS-02	7,907
LBB-CSDS-03	6,595
LBB-CSDS-04	5,556
LBB-CSDS-05	6,172
<i>Mean</i>	<i>6,221</i>
<i>Standard Dev.</i>	<i>1,144</i>
<i>Minimum</i>	<i>4,876</i>
<i>Maximum</i>	<i>7,907</i>
<i>Count</i>	<i>5</i>
Field Stone	
FS-CSDS-01	5,966
FS-CSDS-02	4,689
FS-CSDS-03	9,153
FS-CSDS-04	4,600
FS-CSDS-05	6,856
<i>Mean</i>	<i>6,253</i>
<i>Standard Dev.</i>	<i>1,873</i>
<i>Minimum</i>	<i>4,600</i>
<i>Maximum</i>	<i>9,153</i>
<i>Count</i>	<i>5</i>
Whitwell Gray	
WG-CSDS-01	8,368
WG-CSDS-02	14,876
WG-CSDS-03	17,139
WG-CSDS-04	10,392
WG-CSDS-05	15,080
<i>Mean</i>	<i>13,171</i>
<i>Standard Dev.</i>	<i>3,643</i>
<i>Minimum</i>	<i>8,368</i>
<i>Maximum</i>	<i>17,139</i>
<i>Count</i>	<i>5</i>
Deer Creek	
DC-CSDS-01	5,585
DC-CSDS-02	7,199
DC-CSDS-03	8,560
DC-CSDS-04	4,505
DC-CSDS-05	7,366
<i>Mean</i>	<i>6,643</i>
<i>Standard Dev.</i>	<i>1,596</i>
<i>Minimum</i>	<i>4,505</i>
<i>Maximum</i>	<i>8,560</i>
<i>Count</i>	<i>5</i>

Table 2. Summary Statistics for Absorption and Bulk Specific Gravity Test Results

Specimen No.	Absorption		Bulk Specific Gravity	Unit Weight (pcf)
	(% Weight)	(% Volume)		
Castle Rock				
CR-ABSG-01	1.86	4.66	2.50	155.9
CR-ABSG-02	1.84	4.59	2.49	155.4
CR-ABSG-03	1.82	4.54	2.50	156.1
CR-ABSG-04	1.74	4.35	2.50	155.9
CR-ABSG-05	1.80	4.52	2.52	157.1
<i>Mean</i>	<i>1.81</i>	<i>4.53</i>	<i>2.50</i>	<i>156.1</i>
<i>Standard Dev.</i>	<i>0.05</i>	<i>0.12</i>	<i>0.01</i>	<i>0.6</i>
<i>Minimum</i>	<i>1.74</i>	<i>4.35</i>	<i>2.49</i>	<i>155.4</i>
<i>Maximum</i>	<i>1.86</i>	<i>4.66</i>	<i>2.52</i>	<i>157.1</i>
<i>Count</i>	<i>5</i>	<i>5</i>	<i>5</i>	<i>5</i>
Laurel Brook Brown				
LBB-ABSG-01	1.18	3.02	2.55	159.2
LBB-ABSG-02	1.18	3.01	2.55	159.4
LBB-ABSG-03	1.24	3.13	2.53	157.7
LBB-ABSG-04	1.21	3.10	2.55	159.2
LBB-ABSG-05	1.21	3.06	2.52	157.1
<i>Mean</i>	<i>1.21</i>	<i>3.06</i>	<i>2.54</i>	<i>158.5</i>
<i>Standard Dev.</i>	<i>0.02</i>	<i>0.05</i>	<i>0.02</i>	<i>1.0</i>
<i>Minimum</i>	<i>1.18</i>	<i>3.01</i>	<i>2.52</i>	<i>157.1</i>
<i>Maximum</i>	<i>1.24</i>	<i>3.13</i>	<i>2.55</i>	<i>159.4</i>
<i>Count</i>	<i>5</i>	<i>5</i>	<i>5</i>	<i>5</i>
Field Stone				
FS-ABSG-01	1.86	4.59	2.46	153.7
FS-ABSG-02	1.77	4.39	2.48	154.6
FS-ABSG-03	1.76	4.37	2.47	154.4
FS-ABSG-04	1.74	4.32	2.48	154.7
FS-ABSG-05	1.71	4.22	2.47	154.2
<i>Mean</i>	<i>1.77</i>	<i>4.38</i>	<i>2.47</i>	<i>154.3</i>
<i>Standard Dev.</i>	<i>0.06</i>	<i>0.14</i>	<i>0.01</i>	<i>0.4</i>
<i>Minimum</i>	<i>1.71</i>	<i>4.22</i>	<i>2.46</i>	<i>153.7</i>
<i>Maximum</i>	<i>1.86</i>	<i>4.59</i>	<i>2.48</i>	<i>154.7</i>
<i>Count</i>	<i>5</i>	<i>5</i>	<i>5</i>	<i>5</i>
Whitwell Gray				
WG-ABSG-01	1.41	3.56	2.53	157.6
WG-ABSG-02	1.50	3.79	2.52	157.1
WG-ABSG-03	1.37	3.41	2.49	155.1
WG-ABSG-04	1.30	3.27	2.52	157.3
WG-ABSG-05	1.36	3.41	2.50	156.1
<i>Mean</i>	<i>1.39</i>	<i>3.49</i>	<i>2.51</i>	<i>156.6</i>
<i>Standard Dev.</i>	<i>0.08</i>	<i>0.20</i>	<i>0.02</i>	<i>1.0</i>
<i>Minimum</i>	<i>1.30</i>	<i>3.27</i>	<i>2.49</i>	<i>155.1</i>
<i>Maximum</i>	<i>1.50</i>	<i>3.79</i>	<i>2.53</i>	<i>157.6</i>
<i>Count</i>	<i>5</i>	<i>5</i>	<i>5</i>	<i>5</i>
Deer Creek				
DC-ABSG-01	4.29	9.30	2.17	135.5
DC-ABSG-02	4.00	8.63	2.16	134.6
DC-ABSG-03	4.09	8.94	2.19	136.4
DC-ABSG-04	4.03	8.75	2.17	135.5
DC-ABSG-05	4.07	8.86	2.17	135.7
<i>Mean</i>	<i>4.10</i>	<i>8.90</i>	<i>2.17</i>	<i>135.5</i>
<i>Standard Dev.</i>	<i>0.11</i>	<i>0.26</i>	<i>0.01</i>	<i>0.7</i>
<i>Minimum</i>	<i>4.00</i>	<i>8.63</i>	<i>2.16</i>	<i>134.6</i>
<i>Maximum</i>	<i>4.29</i>	<i>9.30</i>	<i>2.19</i>	<i>136.4</i>
<i>Count</i>	<i>5</i>	<i>5</i>	<i>5</i>	<i>5</i>

Table 3. Compressive Strength of Dimension Stone Test Results (After 48 hours soaking in water)

Specimen No.	Name	A ¹ (in)	B ² (in)	C ³ (in)	Failure Load (lbf)	Height to Diameter = Ratio	Load Bearing Surface Area (in ²)	Compressive Strength (psi)
CR-CSDS-01	Castle Rock	2.068	2.073	2.012	35,940	0.97	4.161	8,638
CR-CSDS-02	Castle Rock	2.104	2.119	2.154	27,400	1.02	4.532	6,046
CR-CSDS-03	Castle Rock	2.136	2.145	2.102	20,550	0.98	4.490	4,577
CR-CSDS-04	Castle Rock	2.131	2.165	2.113	13,830	0.98	4.503	3,071
CR-CSDS-05	Castle Rock	2.038	2.175	2.140	22,000	1.02	4.361	5,044
LBB-CSDS-01	Laurel Brook Brown	2.072	2.142	2.013	20,340	0.96	4.172	4,876
LBB-CSDS-02	Laurel Brook Brown	2.069	2.171	1.950	31,900	0.92	4.035	7,907
LBB-CSDS-03	Laurel Brook Brown	2.106	2.131	2.003	27,820	0.95	4.218	6,595
LBB-CSDS-04	Laurel Brook Brown	2.043	2.069	2.057	23,350	1.00	4.202	5,556
LBB-CSDS-05	Laurel Brook Brown	2.065	2.157	1.974	25,160	0.94	4.076	6,172
FS-CSDS-01	Field Stone	2.115	2.146	2.135	26,940	1.00	4.516	5,966
FS-CSDS-02	Field Stone	2.079	2.079	2.187	21,320	1.05	4.547	4,689
FS-CSDS-03	Field Stone	2.092	2.136	2.181	41,760	1.03	4.563	9,153
FS-CSDS-04	Field Stone	2.121	2.136	2.142	20,900	1.01	4.543	4,600
FS-CSDS-05	Field Stone	2.071	2.113	2.158	30,640	1.03	4.469	6,856
WG-CSDS-01	Whitwell Gray	2.099	2.130	2.041	35,850	0.97	4.284	8,368
WG-CSDS-02	Whitwell Gray	2.174	2.221	2.039	65,940	0.93	4.433	14,876
WG-CSDS-03	Whitwell Gray	2.117	2.165	2.023	73,400	0.94	4.283	17,139
WG-CSDS-04	Whitwell Gray	2.057	2.149	2.021	43,200	0.96	4.157	10,392
WG-CSDS-05	Whitwell Gray	2.152	2.194	2.006	65,100	0.92	4.317	15,080
DC-CSDS-01	Deer Creek	2.023	2.107	1.932	21,830	0.94	3.908	5,585
DC-CSDS-02	Deer Creek	1.932	2.073	1.868	25,980	0.93	3.609	7,199
DC-CSDS-03	Deer Creek	1.987	2.044	1.795	30,530	0.89	3.567	8,560
DC-CSDS-04	Deer Creek	1.876	2.024	1.950	16,480	1.00	3.658	4,505
DC-CSDS-05	Deer Creek	2.125	2.133	1.948	30,490	0.91	4.140	7,366

¹Width of specimen (lateral dimension or diameter)

²Length of specimen

³Height of specimen (distance between load bearing faces)

Table 4. Absorption and Bulk Specific Gravity of Dimension Stone Test Results

Specimen No.	Name	Sample Width (in)	Sample Height (in)	Sample Length (in)	A ¹ (oz)	B ² (oz)	C ³ (oz)	Volume to Surface Area Ratio	Absorption (% Weight) (% Volume)	Bulk Specific Gravity	Unit Weight (pcf)
CR-ABSG-01	Castle Rock	2.09	2.17	2.15	12.83	13.07	7.94	0.36	1.86	4.66	2.50
CR-ABSG-02	Castle Rock	2.16	2.21	2.16	14.01	14.27	8.64	0.36	1.84	4.59	2.49
CR-ABSG-03	Castle Rock	2.02	2.21	2.12	12.73	12.96	7.87	0.35	1.82	4.54	2.50
CR-ABSG-04	Castle Rock	2.12	2.47	2.29	15.90	16.17	9.81	0.38	1.74	4.35	2.50
CR-ABSG-05	Castle Rock	2.05	2.42	2.19	14.89	15.16	9.24	0.37	1.80	4.52	2.52
LBB-ABSG-01	Laurel Brook Brown	1.93	2.90	2.65	20.09	20.33	12.45	0.40	1.18	3.02	2.55
LBB-ABSG-02	Laurel Brook Brown	1.94	2.61	2.42	16.31	16.50	10.12	0.38	1.18	3.01	2.55
LBB-ABSG-03	Laurel Brook Brown	2.12	2.70	2.48	19.24	19.47	11.86	0.40	1.24	3.13	2.53
LBB-ABSG-04	Laurel Brook Brown	1.85	2.68	2.54	16.93	17.13	10.50	0.38	1.21	3.10	2.55
LBB-ABSG-05	Laurel Brook Brown	2.13	2.56	2.49	18.36	18.59	11.30	0.40	1.21	3.06	2.52
FS-ABSG-01	Field Stone	2.27	2.36	2.35	16.72	17.03	10.24	0.39	1.86	4.59	2.46
FS-ABSG-02	Field Stone	2.21	2.35	2.24	15.71	15.99	9.65	0.38	1.77	4.39	2.48
FS-ABSG-03	Field Stone	2.25	2.51	2.31	17.45	17.76	10.71	0.39	1.76	4.37	2.47
FS-ABSG-04	Field Stone	2.19	2.34	2.32	15.96	16.24	9.80	0.38	1.74	4.32	2.48
FS-ABSG-05	Field Stone	2.17	2.20	2.19	14.07	14.31	8.62	0.36	1.71	4.22	2.47
WG-ABSG-01	Whitwell Gray	1.89	2.28	2.06	12.27	12.44	7.58	0.34	1.41	3.56	2.53
WG-ABSG-02	Whitwell Gray	2.02	2.15	2.06	12.24	12.42	7.56	0.35	1.50	3.79	2.52
WG-ABSG-03	Whitwell Gray	2.05	2.09	2.07	12.25	12.42	7.49	0.35	1.37	3.41	2.49
WG-ABSG-04	Whitwell Gray	2.03	2.08	2.07	11.92	12.08	7.35	0.34	1.30	3.27	2.52
WG-ABSG-05	Whitwell Gray	2.06	2.10	2.07	12.14	12.31	7.45	0.35	1.36	3.41	2.50
DC-ABSG-01	Deer Creek	1.99	2.32	2.11	11.11	11.59	6.47	0.35	4.29	9.30	2.17
DC-ABSG-02	Deer Creek	1.95	2.33	2.03	10.66	11.08	6.14	0.35	4.00	8.63	2.16
DC-ABSG-03	Deer Creek	2.00	2.18	2.08	10.16	10.57	5.93	0.35	4.09	8.94	2.19
DC-ABSG-04	Deer Creek	1.95	2.07	2.05	9.98	10.38	5.79	0.34	4.03	8.75	2.17
DC-ABSG-05	Deer Creek	1.95	2.15	2.07	10.39	10.81	6.03	0.34	4.07	8.86	2.17

¹Weight of dried specimen

²Weight of specimen after immersion for 48 hours

³Weight of soaked specimen in water