



6980 Sierra Center Parkway, Suite 90  
 Reno, NV 89511

September 28, 2016  
 File: 1009

Mr. Chris Benna  
**RILITE AGGREGATES**  
 3025 Mill Street  
 Reno, NV 89502

**RE: Rilite Pit – 1½ Inch Structural Fill**

Dear Mr. Benna:

Per your request, we have performed testing on the structural fill received by our laboratory on September 13<sup>th</sup>. Test results are as follows in comparison with the 2012 Standard Specifications for Public Works Construction (SSPWC), "Orange Book".

Sieve Size Analysis (ASTM C136/C117)		
U.S. Standard Sieve Size	Percent By Weight Passing	
	Structural Fill	Structural Fill
4 Inch	100	100
2 Inch	100	-
1½ Inch	95	-
1 Inch	85	-
¾ Inch	78	70 - 100
⅝ Inch	61	-
No. 4	50	-
No. 8	41	-
No. 10	39	-
No. 16	33	-
No. 30	27	15 - 65
No. 40	24	-
No. 50	21	-
No. 100	17	-
No. 200	12.4	5 - 20
Atterberg Limits (ASTM D4318)		
		Specification
Liquid Limit	29	35 Maximum
Plasticity Index	7	12 Maximum
Los Angeles Abrasion (ASTM C131)		
Percent Loss after 500 Revolutions (Grading A)		41.6%
R-Value (ASTM D2844)		
1½" Structural Fill		57

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We appreciate this opportunity to provide our laboratory testing services. If you have any questions or require further information, please do not hesitate to contact us.

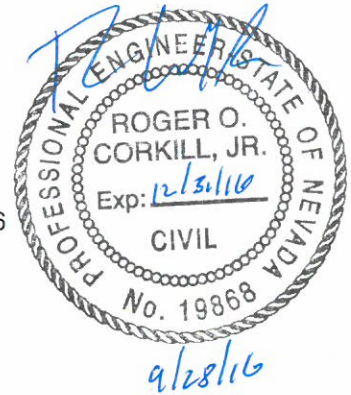
Sincerely,

**CONSTRUCTION MATERIALS ENGINEERS, INC.**



Steven L. Vineis  
Laboratory Manager  
[svineis@cmenv.com](mailto:svineis@cmenv.com)  
Direct: 775-737-7568  
Mobile: 775-772-9921

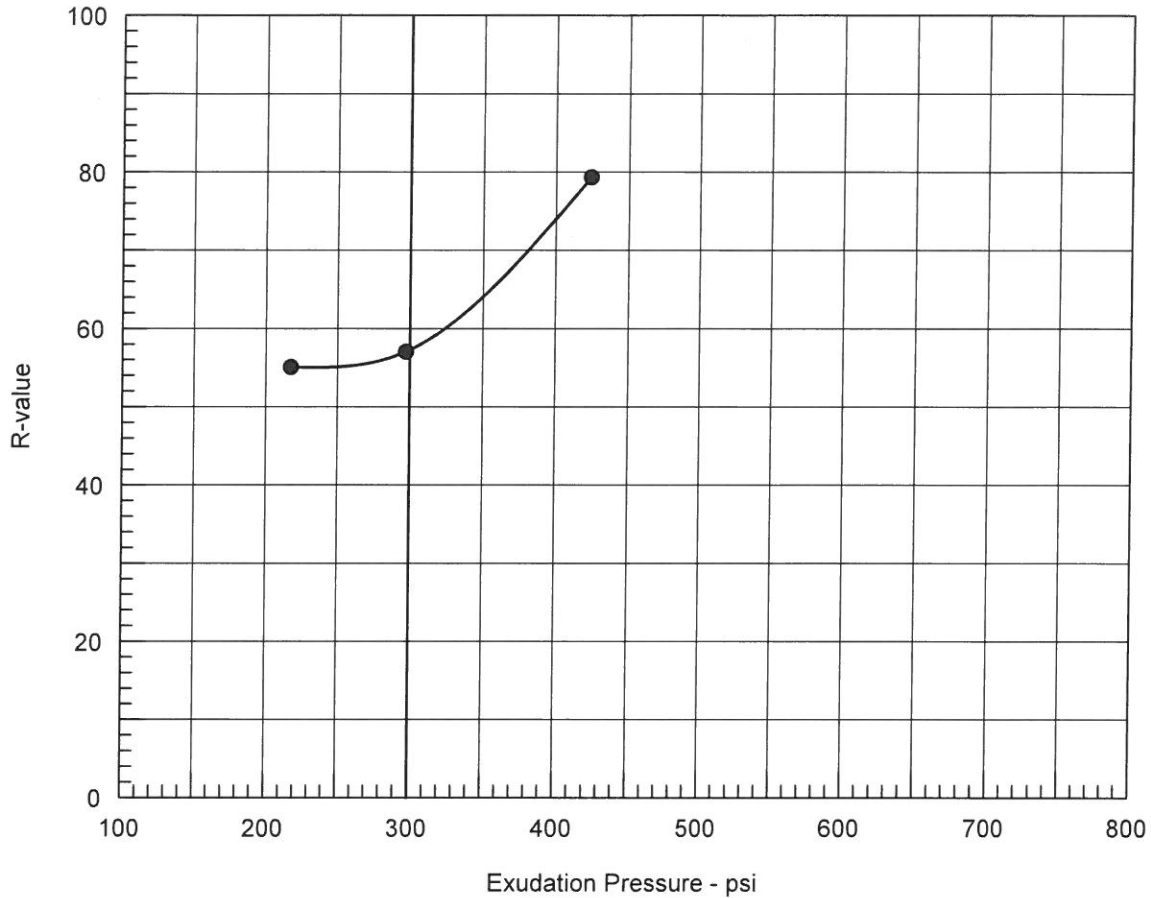
Roger O. Corkill Jr., PE  
Project Manager  
RE Number 19868  
Expiration Date 12-31-16  
[rcorkill@cmenv.com](mailto:rcorkill@cmenv.com)  
Direct: 775-737-7581  
Mobile: 775-722-5067



SLV:ROC:jy  
Enclosure

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# R-VALUE TEST REPORT



**Resistance R-Value and Expansion Pressure - ASTM D2844**

No.	Compact. Pressure psi	Density pcf	Moist. %	Expansion Pressure psi	Horizontal Press. psi @ 160 psi	Sample Height in.	Exud. Pressure psi	R Value	R Value Corr.
1	200	111.1	18.0	0.12	62	2.62	217	52	55
2	300	114.4	15.7	0.09	57	2.55	297	57	57
3	350	118.1	14.7	0.15	24	2.54	424	79	79

<b>Test Results</b>	<b>Material Description</b>
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R-value at 300 psi exudation pressure = 57

1 1/2" STRUCTURAL FILL  
RILITE PIT

**Project No.:** 1009  
**Project:** RILITE AGGREGATES-QUALITY TESTING  
**Location:** PLANT STOCKPILE  
**Sample Number:** 30775  
**Date:** 9/27/2016

**Tested by:** G. MORALES  
**Checked by:** S. VINEIS  
**Remarks:**  
 RECEIVED 9/14/2016



**Figure 1A**