



300 Sierra Manor Drive, Suite 1
Reno, NV 89511

January 20, 2021
File: 1009

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

RE: Rilite Pit – 1.5” Minus Structural Fill

Dear Mr. Benna:

Per your request, we have performed aggregate quality testing on the 1.5” minus structural fill received by our laboratory from the Rilite Pit on January 15, 2021. Test results are provided on the attached page(s) in comparison with standards outlined in the *2016 Standard Specifications for Public Works Construction* specifications.

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.

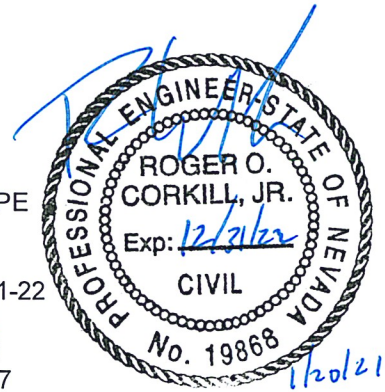
Sincerely,

CONSTRUCTION MATERIALS ENGINEERS, INC.

Katie B. Weasel
for S.V.

Steven L. Vineis
Laboratory Manager
svineis@cmenv.com
Direct: 775-737-7568
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Roger O. Corkill Jr., PE
Project Manager
RE Number 19868
Expiration Date 12-31-22
rcorkill@cmenv.com
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Mobile: 775-722-5067



SLV:ROC:cj
Attachments
v:\active\1009\2021\35031_structural fill_1-20-21.docx

1.5" MINUS STRUCTURAL FILL TEST RESULTS SUMMARY - RILITE PIT

Sieve Analysis

U.S. Standard Sieve Size	Percent Passing by Weight	
	1.5" Minus Structural Fill	2016 SSPWC Specification ¹
4 Inch	100	100
3 Inch	100	-
2 Inch	100	-
1 1/2 Inch	90	-
1 Inch	79	-
3/4 Inch	73	70-100
1/2 Inch	66	-
3/8 Inch	60	-
No. 4	50	-
No. 8	42	-
No. 10	40	-
No. 16	35	-
No. 30	29	-
No. 40	26	15-65
No. 50	23	-
No. 100	19	-
No. 200	14.4	5-20

Test Type	Test Method	Sample Result	2016 SSPWC Specifications ¹
Resistance (R) Value	ASTM D2844	73	30 Minimum
Liquid Limit	ASTM D4318	33	35 Maximum
Plasticity Index	ASTM D4318	9	12 Maximum

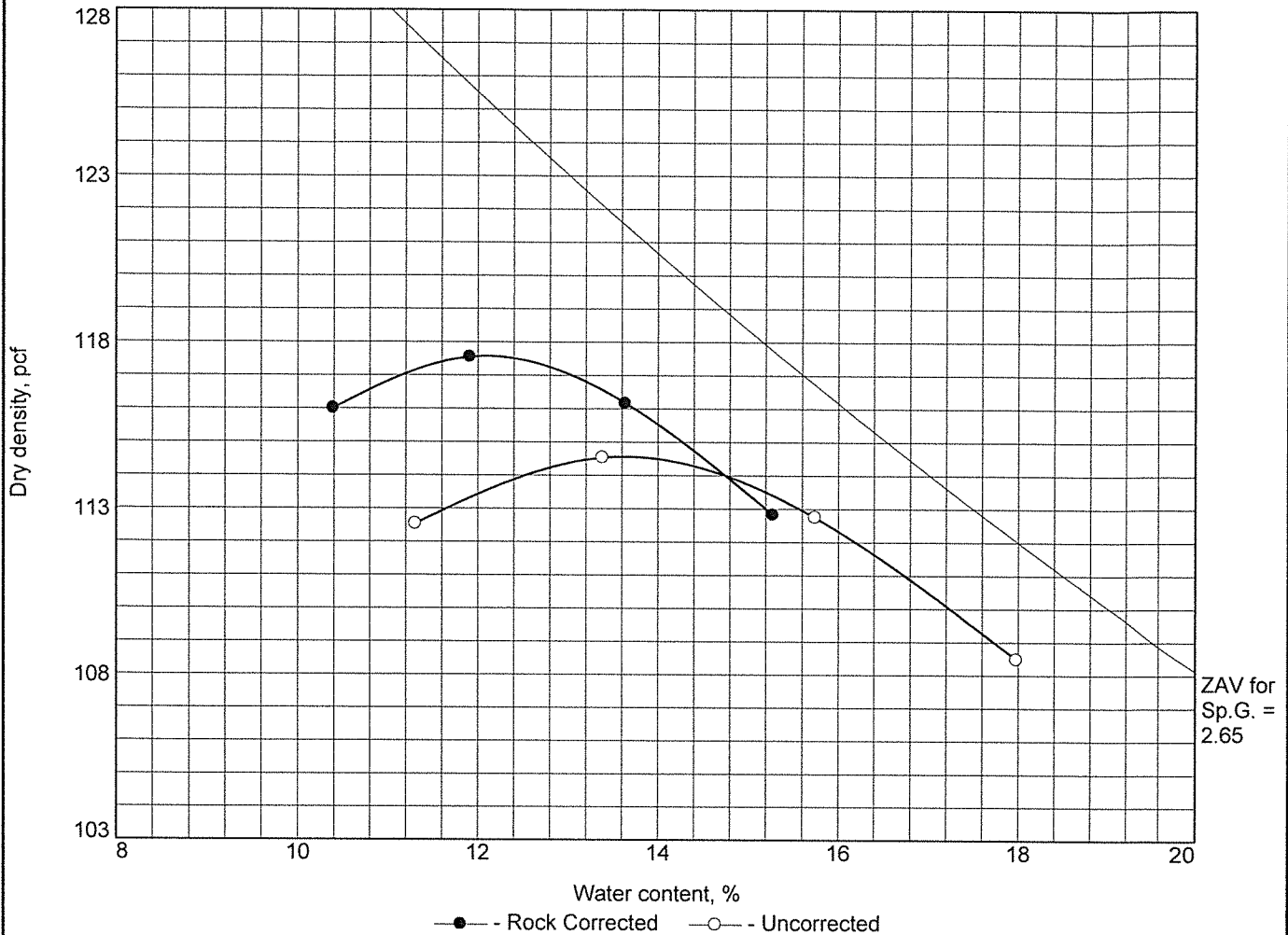
Moisture Density

Test Type	Test Method	Sample Result	2016 SSPWC Specifications ¹
Maximum Dry Density	ASTM D1557A	117.5	-
Optimum Moisture	ASTM D1557A	12.0%	-

¹ All specification requirements per the 2016 Standard Specifications for Public Works Construction.



MOISTURE DENSITY CURVE



Test specification: ASTM D 1557-12 Method C Modified
 ASTM D4718-15 Oversize Corr. Applied to Each Test Point

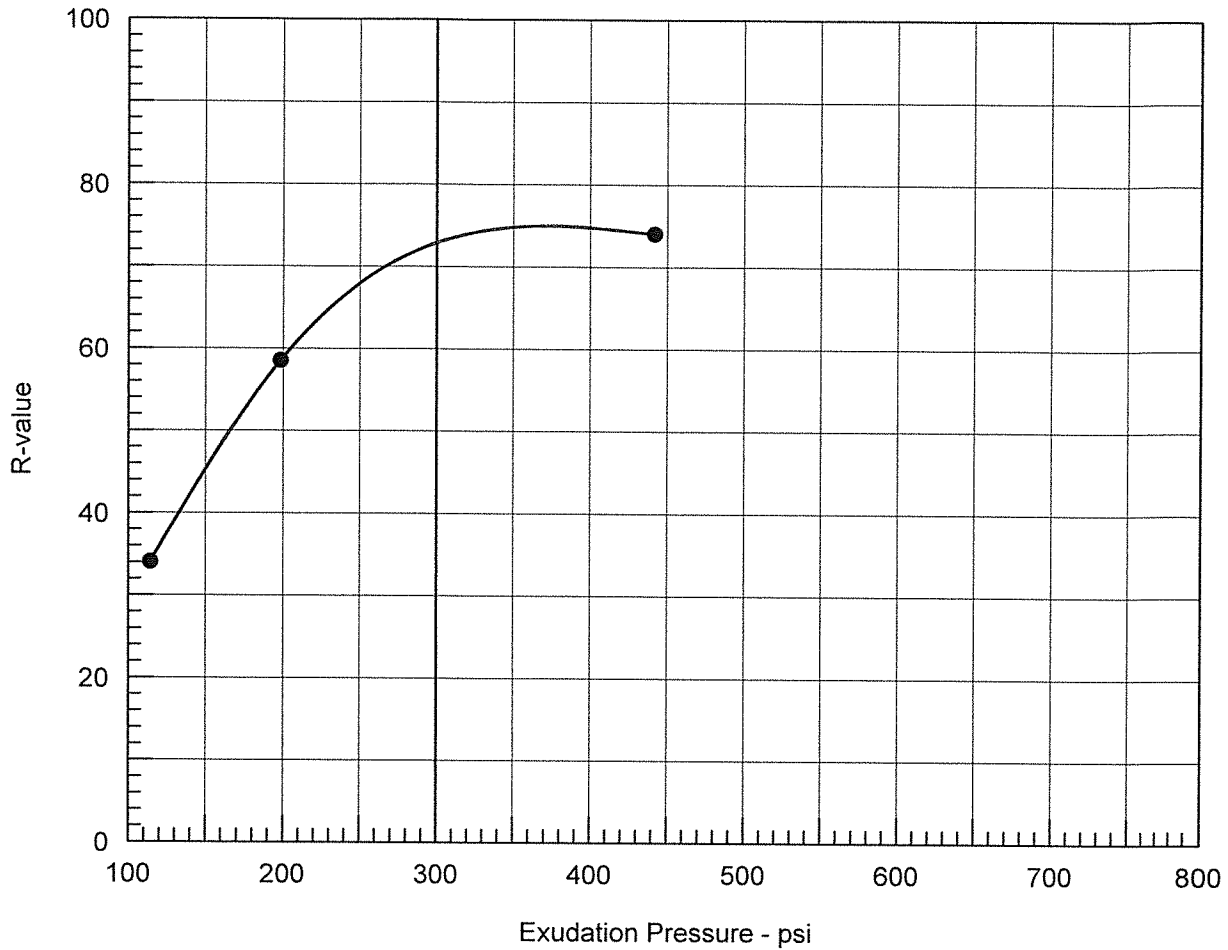
Elev/ Depth	Classification		Nat. Moist.	Sp.G.	LL	PI	% > 3/4 in.	% < No.200
	USCS	AASHTO						
	GC	A-2-4(0)	10.6		33	9	26.8	14.4

ROCK CORRECTED TEST RESULTS	UNCORRECTED	MATERIAL DESCRIPTION
Maximum dry density = 117.5 pcf	114.5 pcf	STRUCTURAL FILL RILITE PIT RILITE AGGREGATES
Optimum moisture = 12.0 %	13.5 %	

Project No. 1009 Client: RILITE AGGREGATES Project: RILITE AGGREGATES-QUALITY TESTING Location: PLANT STOCKPILE Sample Number: 35031	Remarks: RECEIVED 1/15/21
	PLATE

Tested By: V. GONZALEZ **Checked By:** C. JONES

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	250	125.0	15.8	0.00	29	2.50	442	74	74
2	250	122.3	16.5	0.00	47	2.50	198	59	59
3	200	118.9	19.0	0.00	82	2.45	114	34	34

Test Results

Material Description

R-value at 300 psi exudation pressure = 73

STRUCTURAL FILL
RILITE PIT
RILITE AGGREGATES

Project No.: 1009
Project: RILITE AGGREGATES-QUALITY TESTING
Location: PLANT STOCKPILE
Sample Number: 35031
Date: 1/20/2021

Tested by: M. PONTONI
Checked by: C. JONES
Remarks:

