



300 Sierra Manor Drive, Suite 1
Reno, NV 89511

July 15, 2024
File: 1009

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

RE: Rilite Pit – Type 2 Crushed Aggregate Base

Dear Mr. Benna:

Per your request, we have performed testing on the Type 2 Crushed Aggregate Base sample you delivered to our laboratory on July 3rd, 2024. Test results are provided on the attached page(s) in comparison with the 2016 Standard Specifications for Public Works Construction (SSPWC) - "Orange Book", current ASTM specification requirements.

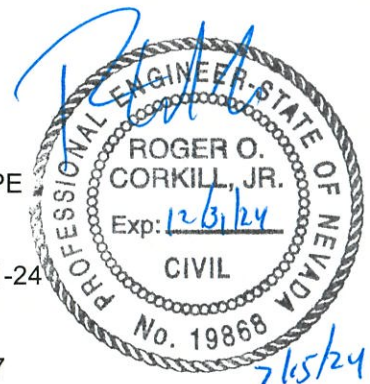
We appreciate this opportunity to provide our laboratory testing services. If you have any questions or require further information, please do not hesitate to contact us.

Sincerely,

CONSTRUCTION MATERIALS ENGINEERS, INC.

Spencer Schweitzer
Laboratory Manager
sschweitzer@cmenv.com
Direct: 775-851-8205
Mobile: 208-559-7665

Roger O. Corkill Jr., PE
Project Manager
RE Number 19868
Expiration Date 12-31-24
rcorkill@cmenv.com
Direct: 775-737-7581
Mobile: 775-722-5067



ROC:srs

Attachments

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TYPE 2, CLASS B AGGREGATE BASE TEST RESULTS SUMMARY - RILITE PIT

Sieve Analysis

U.S. Standard Sieve Size	Percent Passing by Weight		
	Type 2, Class B Aggregate Base	2012 SSPWC Specification ¹	2016 SSPWC & NDOT Specification ¹
1 Inch	100	100	100
3/4 Inch	98	90 - 100	90 - 100
1/2 Inch	82	-	-
3/8 Inch	71	-	-
No. 4	48	35 - 65	35 - 65
No. 8	28	-	-
No. 10	26	25 - 53	-
No. 16	20	15 - 40	15 - 40
No. 30	15	-	-
No. 40	12	12 - 28	-
No. 50	11	-	-
No. 100	8	-	-
No. 200	5.3	2 - 10	2 - 10

Test Type	Test Method	Sample Result	SSPWC/NDOT Specifications ¹
Fractured Faces Resistance (R) Value	ASTM D5821/Nev. T230	97.2%	35% Minimum
Resistance to Wear (Grading B)	ASTM D2844/Nev. T115	76	70 Minimum
	ASTM C131/AASHTO T96	29.7%	45% Maximum

Atterberg Limits

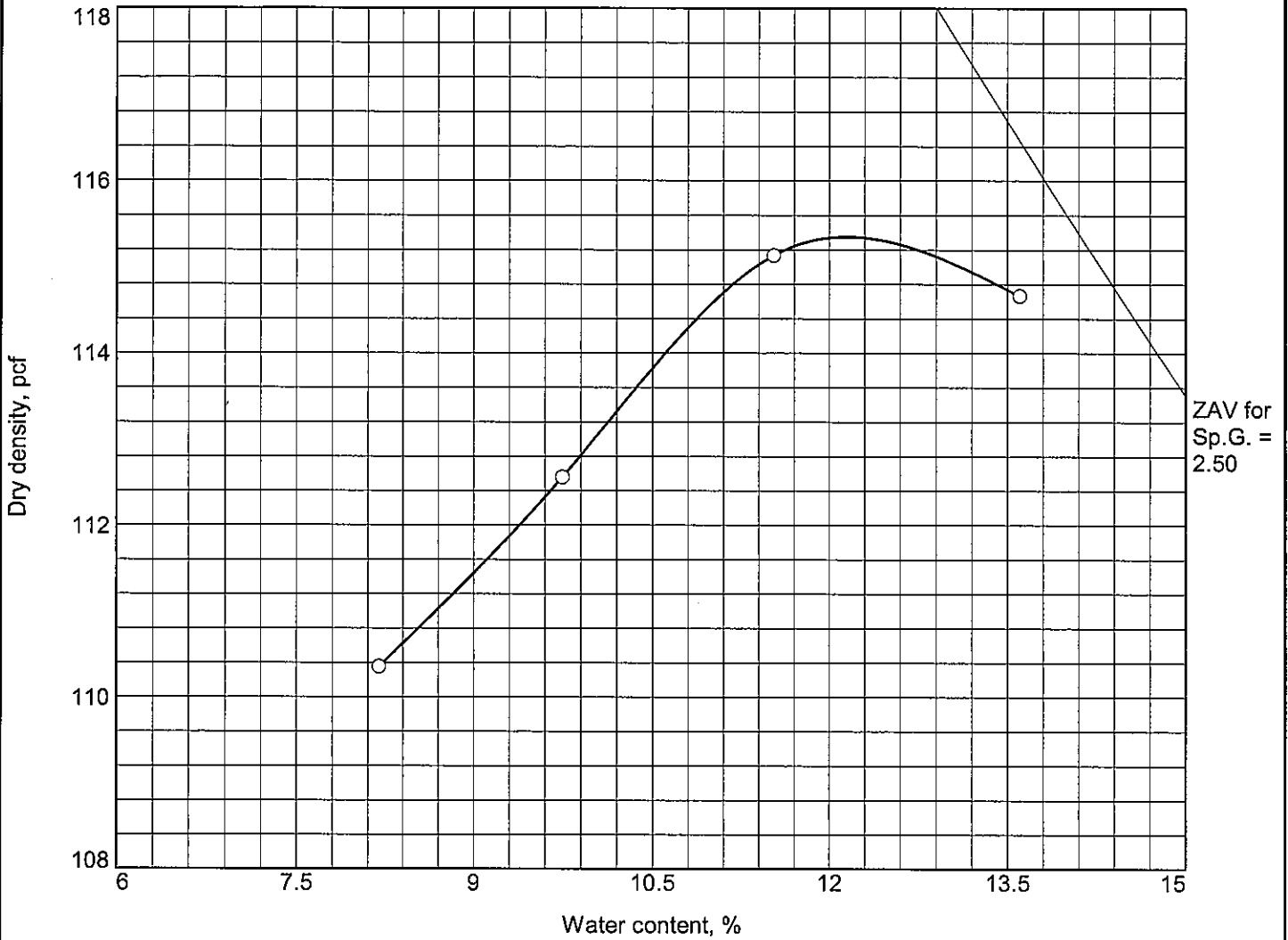
Test Type	Specification Type	Test Method	Sample Result	Specifications ¹
Liquid Limit	2012 SSPWC/NDOT	ASTM D4318/Nev. T210	NV	35 Maximum
Plasticity Index	2012 SSPWC/NDOT	ASTM D4318/Nev. T212	NP	6 Maximum
Plasticity Index	2016 SSPWC	ASTM D4318	NP	8 Maximum

Moisture Density

Test Type	Test Method	Sample Result	SSPWC/NDOT Specifications ¹
Maximum Dry Density	ASTM D1557A	115.5	-
Optimum Moisture	ASTM D1557A	12.0%	-

¹ All specification requirements per the 2012 & 2016 Standard Specifications for Public Works Construction and 2014 NDOT Standard Specifications for Road and Bridge Construction unless otherwise noted.

MOISTURE DENSITY CURVE



Test specification: ASTM D 1557-12 Method C Modified

Elev/ Depth	Classification		Nat. Moist.	Sp.G.	LL	PI	% > 3/4 in.	% < No.200
	USCS	AASHTO						
							1.7	

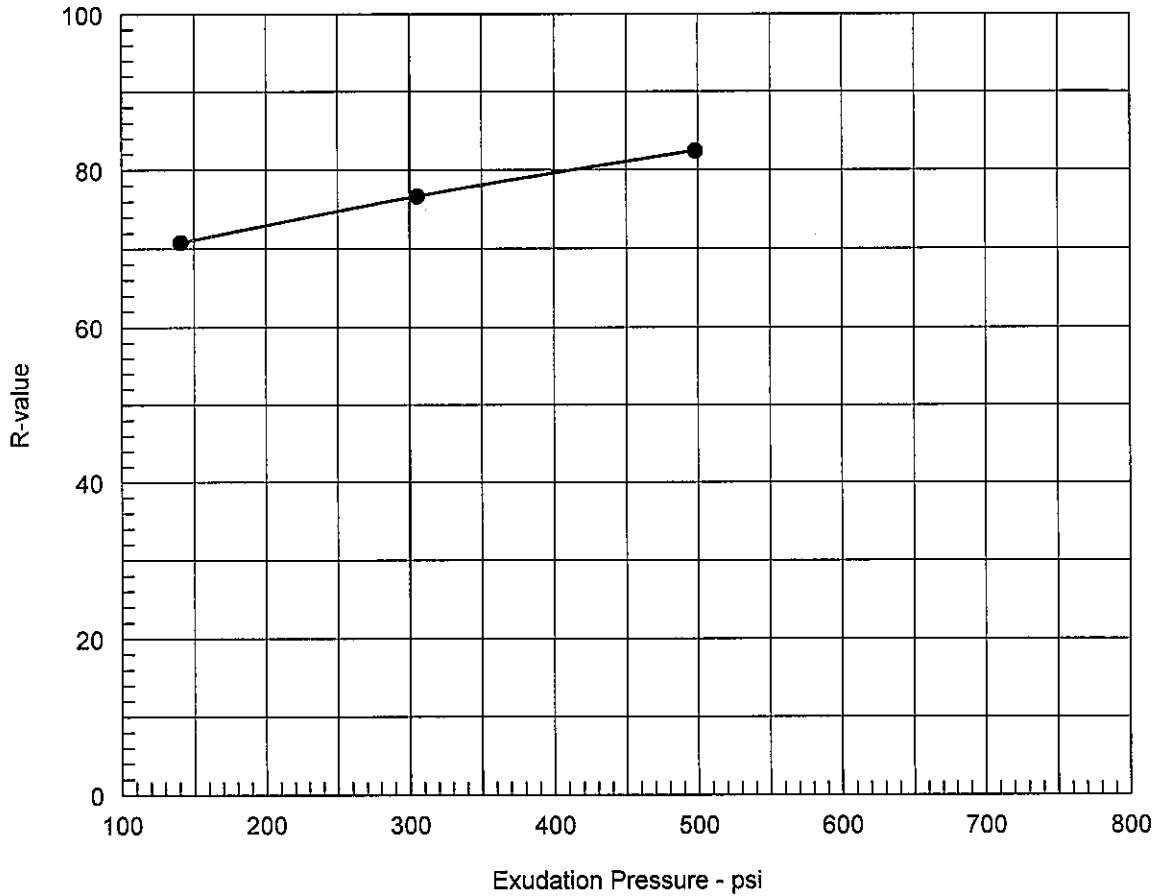
TEST RESULTS	MATERIAL DESCRIPTION
Maximum dry density = 115.5 pcf Optimum moisture = 12.0 %	TYPE 2 CRUSHED AGGREGATE BASE RILITE PIT TAN SILTY SAND W/ GRAVEL
Project No. 1009 Client: RILITE AGGREGATES Project: RILITE AGGREGATES-QUALITY TESTING ○ Location: STOCKPILE Sample Number: 38925	Remarks: RECEIVED ON 7/3/2024

Figure

Tested By: A. DIXON

Checked By: A. DIXON

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	350	105.4	14.4	0.00	25	2.45	141	71	71
2	350	107.3	13.7	0.00	15	2.50	498	82	82
3	350	105.5	14.1	0.00	20	2.50	305	77	77

Test Results	Material Description
R-value at 300 psi exudation pressure = 76	TYPE 2 CRUSHED AGGREGATE BASE RILITE PIT
Project No.: 1009 Project: RILITE AGGREGATES-QUALITY TESTING Location: STOCKPILE Sample Number: 38925 Date: 7/15/2024	Tested by: M. PONTONI Checked by: S. SCHWEITZER Remarks: RECEIVED ON 7/3/2024
