



AGGREGATE SUBMITTAL

Report of Physical Properties and Aggregate Target Submittal

GRP Material Description: 3/4 APWA

Report Date: January 24, 2024

GRP Material Code: GRAC

Reviewed by: Dan McDaniel

Source Location/Code: Hansen Pit North / 527

Report No. 527GRAC00124

TEST RESULTS				
Standard	PHYSICAL PROPERTIES		Result	Test Spec.
ASTM C 29 AASHTO T19	Unit Weight	Unit Weight, lbs./cu.ft. =	112.0	
		Voids, % =	30	
		<input type="checkbox"/> Jigged <input type="checkbox"/> Loose <input checked="" type="checkbox"/> Rodded		
ASTM D1557 AASHTO T180	Modified Proctor	Max. density, lbs./cu.ft. =	131.3	
		Optimum Moisture, % =	7.4	
ASTM D698 AASHTO T99	Standard Proctor	Max. density, lbs./cu.ft. =	128.2	
		Optimum Moisture, % =	8.7	
ASTM D4318 AASHTO T89/90	Liquid Limit Plastic Limit Plasticity Index	Liquid Limit=	0	
		Plastic Limit=	0	
		Plasticity Index=	NP	
ASTM C131 AASHTO T96	L.A. Abrasion	Small Coarse Loss, % =	25	
		Grading/Revolutions, =	B/500	
ASTM C535	L.A. Abrasion	Large Coarse Loss, % =		
		Grading/Revolutions, =		
ASTM C 128/127 AASHTO T84/85	Combined Specific Gravity & Absorption	Bulk Specific Gravity (dry) =	2.534	
		Bulk Specific Gravity, SSD =	2.564	
		Apparent Specific Gravity =	2.615	
		Absorption, % =	1.2	
ASTM C 127 AASHTO T85	Coarse Specific Gravity & Absorption	Bulk Specific Gravity (dry) =		
		Bulk Specific Gravity, SSD =		
		Apparent Specific Gravity =		
		Absorption, % =		
ASTM D2419 AASHTO T176	Sand Equivalent	Sand Equivalent, % =	35	
ASTM C 88 AASHTO T104	Soundness	Coarse Soundness Loss, % =		
		Sodium No. of Cycles =		
	Soundness	Fine Soundness Loss, % =	1.0	
		Sodium No. of Cycles =	5	
ASTM C 1252 AASHTO T304	Fine Aggregate Angularity	Uncompacted Voids, % =		
		Method C (as received material)		
ASTM C40 AASHTO T21	Organic Impurities	Coarse Aggregate, % =		
		Fine Aggregate, % =		
ASTM C142 AASHTO T112	Clay / Friable Particles	Coarse Aggregate, % =		
		Fine Aggregate, % =		
ASTM C123 AASHTO T113	Lightweight Pieces	Coarse Aggregate, % =		
		Fine Aggregate, % =		
ASTM D1883 AASHTO T193	CBR	Surcharge = 10 lbs CBR @ 0.1"=	60	
		Swell% = 0.0% CBR @ 0.2"=	115	
AASHTO 335	Fractured Face	1 or 2 Faces =	1	2
		Fractured Face, % =	99	95
ASTM D2487	Soil Classification	Group Symbol =		
		Group Name =		
ASTM D2488	Soil Description & Identification	Group Symbol =		
		Group Name =		

SIEVE ANALYSIS		
ASTM C136	AASHTO T27	
Sieve Size	Target % Passing	Spec.
300 mm (12")		
250 mm (10")		
225 mm (9")		
200 mm (8")		
150 mm (6")		
125 mm (5")		
100 mm (4")		
75.0 mm (3")		
63.0 mm (2-1/2")		
50.0 mm (2")		
37.5 mm (1-1/2")		
25.0 mm (1")		
19.0 mm (3/4")	100	
12.5 mm (1/2")	90	
9.5 mm (3/8")	81	
6.3 mm (1/4")		
4.75 mm (No.4)	59	
2.36 mm (No.8)	40	
2.00 mm (No.10)	32	
1.18 mm (No.16)	29	
0.600 mm (No.30)		
0.425 mm (No.40)	21	
0.300 mm (No.50)	19	
0.180 mm (No.80)		
0.150 mm (No.100)	16	
0.075 mm (No.200)	10.8	
ASTM D422		
Hydrometer =		
ASTM C566 AASHTO T255		
Moisture Content, % =		
ASTM C136 AASHTO T27		
Fineness Modulus (FM) =		
AASHTO M145		
Classification of Soils =	A1A	
ASTM D4791 Ratio =	5:1	
Flat & Elongated, % =	0	