

GROUND

ENGINEERING

April 10, 2026

Subject: Laboratory Testing Services,
Allied Recycled Aggregates, Concrete
Aggregate Base

Job No. 25-1032

Mr. Jason Vincent
Allied Recycled Aggregates
7901 Hwy 85
P.O. Box 566
Commerce City, Colorado 80037

Dear Mr. Vincent,

A representative of Allied Recycled Aggregates delivered two buckets of recycled concrete materials to GROUND's Commerce City laboratory on February 26, 2026. As requested, the following tests were performed on the submitted sample. All tests were completed in general accordance with the listed standards:

- Atterberg Limits (AASHTO T89 and T90)
- Modified Proctor AASHTO T180, Method D)
- Sieve Analysis (ASTM C136 / AASHTO T27)
- R-Value (AASHTO T190 / CP-L 3101)
- Los Angeles Abrasion – Small Size (ASTM C131 / AASHTO T96)
- Coarse Aggregate specific gravity and absorption (ASTM C127 / AASHTO T85)

A summary of the test results is provided herein. The individual test results are attached. Based on these test results, the sample meets the specifications for CDOT Class 6 and Aurora Type 2 Aggregate Base Courses.

If you have any questions regarding this data, please do not hesitate to contact GROUND's Commerce City office.

GROUND Engineering Consultants, Inc.

Sincerely,



Evan Kuhn
Laboratory Supervisor



Brian H. Reck, P.G., C.E.G., P.E.

Sieve Analysis Summary:

Sieve	Sample Data	Material Specifications	
	Cumulative Passing (%)	CDOT Class 6	Aurora Type 2
1 in	100	100	100
3/4 in	100	95-100	--
1/2 in	87	--	--
3/8 in	74	--	50-85
No.4	53	30-65	35-65
No. 8	39	25-55	--
No. 10	36	--	25-50
No. 16	28	--	--
No. 30	20	--	--
No. 40	17	--	15-30
No. 50	14	--	--
No. 100	9	--	--
No. 200	5.8	3-12	3-15

Summary of Atterberg Limits (Liquid Limit and Plasticity Index), Modified Proctor (Maximum Dry Density and Optimum Moisture), LA Abrasion (Loss by Abrasion), and R-Value Tests:

Test	Sample Data	Material Specifications	
	Result	CDOT Class 6	Aurora Type 2
Liquid Limit	No Value	30 max.	25 max.
Plasticity Index	Non-plastic	6 max.	15 max.
Max. Dry Density (pcf)	120.7	--	--
Opt. Moisture (%)	12.5	--	--
Loss by Abrasion (%)	34	50 max.	45 max.
R-Value	80	--	78 min.

Allied Recycled Aggregates

Report Date: Mar 6, 2026
Work Order Date: Feb 26, 2026

Work Order No.: 25-1032.SoilSampling.0007; ver: 2
Reviewed by: Patrick Pravorne

Soil/Aggregate Laboratory Summary

General Location: Allied Recycling, proposed CDOT Class 6 crushed concrete aggregate base

Logged-in by: Evan Kuhn

Photos



Allied Recycled Aggregates

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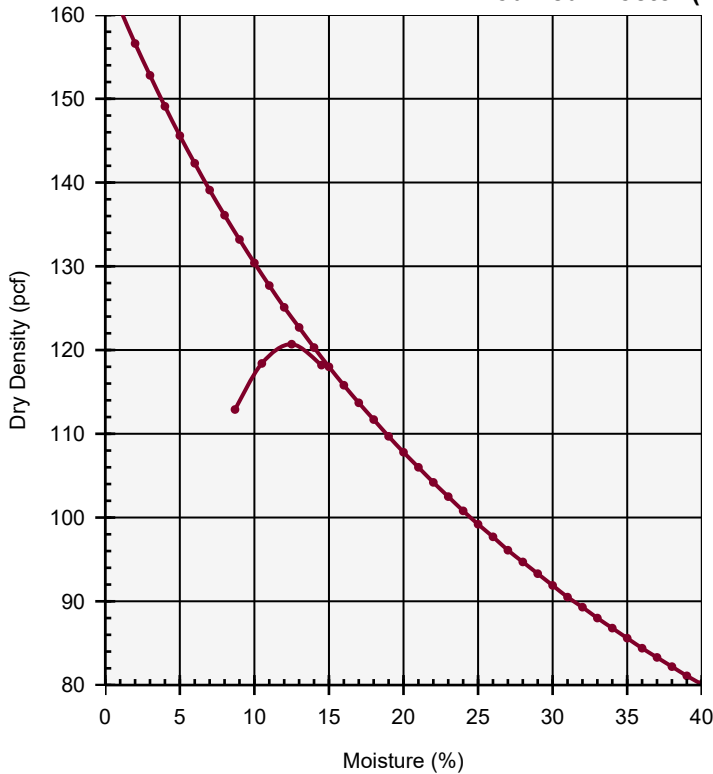
Soil/Aggregate Laboratory Summary

Sample No.: 7
Dropped Off By: Client *Sampling may not be in accordance with reported method.
Sampling Method: ASTM D75 / AASHTO T2 / CDOT CP30
Sample Location: Allied Recycling, proposed CDOT Class 6 crushed concrete aggregate base
Lab ID: Soil24206

Atterberg Limits (AASHTO T89 & T90) and Classification (ASTM D2487 & AASHTO M145)

Method	Liquid Limit		Plastic Limit		Plasticity Index		Classification	
	Value	Spec.	Value	Spec.	Value	Spec.	USCS	AASHTO
Single Point	-	-	NP	-	NP	-	(SP-SM)g	A-1-a (0)

Modified Proctor (AASHTO T180)



Method	Preparation	Hammer
Method D	Moist Preparation	Manual

Maximum Dry Density (pcf)	Optimum Moisture (%)	Oversize Corrected	
		Maximum Dry Density (pcf)	Optimum Moisture (%)
120.7	12.5	-	-

Oversize Sieve: 3/4 in
Coarse Fraction (%): -
Fine Fraction (%): -
Coarse Specific Gravity: -
Coarse Absorption (%): -
Fine Specific Gravity: Estimated 2.65

No. 200 Wash (ASTM C117 / AASHTO T11)

Method	Passing No. 200 (%)	
	Value	Specified
Procedure A - Plain Water	5.1	3 - 15

Specific Gravity and Absorption of Coarse Aggregate (ASTM C127 / AASHTO T85)

Specific Gravity (Oven Dried)		Specific Gravity (SSD)		Specific Gravity (Apparent)		Absorption (%)	
Value	Specified	Value	Specified	Value	Specified	Value	Specified
2.207	-	2.363	-	2.613	-	7.0	-

Results apply only to the specific items and locations referenced and at the time of testing, observations or special inspections. Unless noted otherwise, samples were received in adequate condition. This report should not be reproduced, except in full, without the written permission of GROUND Engineering Consultants, Inc.

Allied Recycled Aggregates

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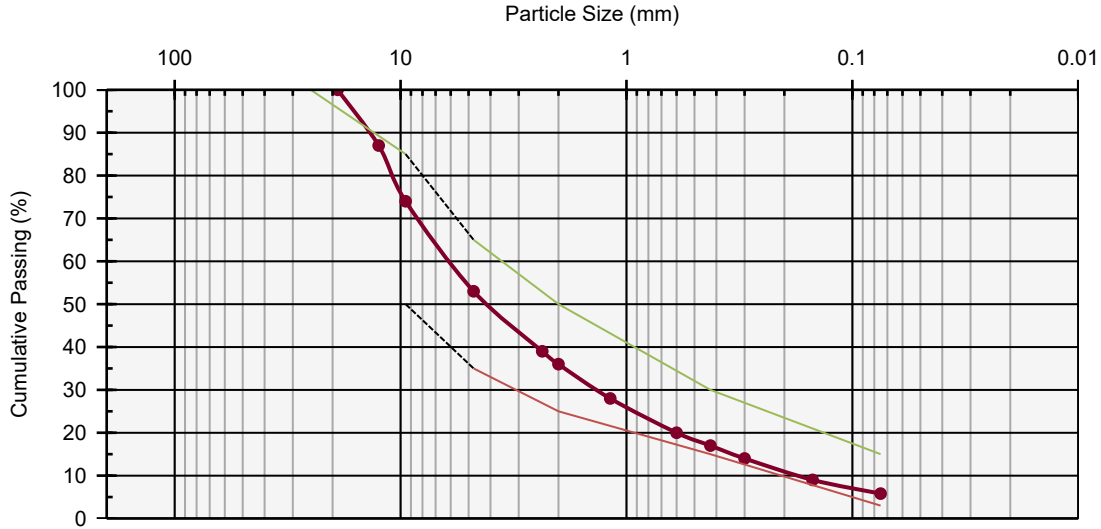
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Soil/Aggregate Laboratory Summary

Aggregate Gradation (ASTM C136 / AASHTO T27)



Coarse Gradation				Fine Gradation			
Sieve Size	Particle Size (mm)	Cumulative Passing (%)	Specified (%)	Sieve Size	Particle Size (mm)	Cumulative Passing (%)	Specified (%)
6 in	150	-	-	No. 4	4.75	53	35 - 65
5 in	125	-	-	No. 8	2.36	39	-
4 in	100	-	-	No. 10	2.00	36	25 - 50
3.5 in	90	-	-	No. 16	1.18	28	-
3 in	75	-	-	No. 20	0.85	-	-
2.5 in	63	-	-	No. 30	0.60	20	-
2 in	50	-	-	No. 40	0.425	17	15 - 30
1.5 in	37.5	-	-	No. 50	0.300	14	-
1 in	25.0	-	100 max.	No. 60	0.250	-	-
3/4 in	19.0	100	-	No. 80	0.180	-	-
1/2 in	12.5	87	-	No. 100	0.150	9	-
3/8 in	9.5	74	50 - 85	No. 140	0.090	-	-
No. 4	4.75	53	35 - 65	No. 200	0.075	5.8	3 - 15

Remarks: Aurora Type 2 Aggregate specifications shown.

Deviations: _

Allied Recycled Aggregates

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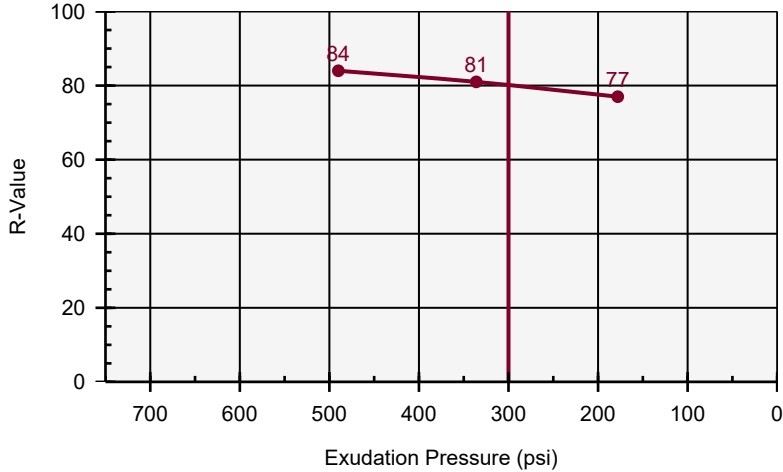
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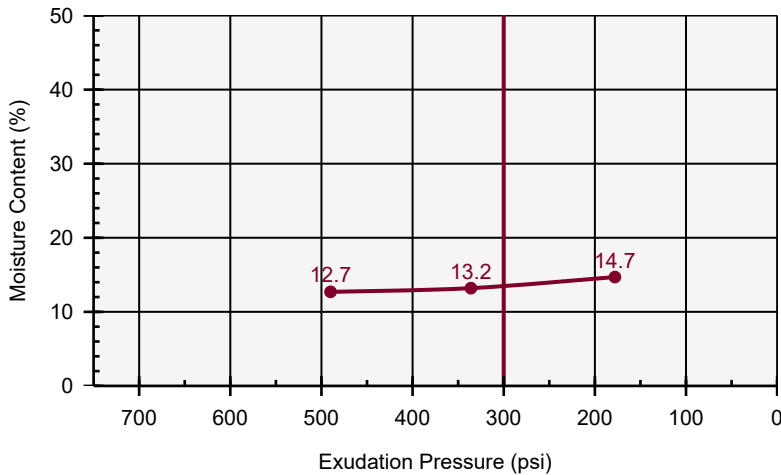
Soil/Aggregate Laboratory Summary

R-Value (CDOT CP-L 3101 / AASHTO T-190)



Test Point	Moisture (%)	Exudation Pressure (psi)	R-Value
1	13.2	336	81
2	14.7	178	77
3	12.7	490	84

R- Value at 300 psi Exudation Pressure
80



L.A. Abrasion - Small Size (ASTM C131 / AASHTO T96)

Nominal Maximum Size	Grading Used	Loss by Abrasion and Impact (%)	Specified Loss (%)
3/4 in	B	34	-

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