

Aggregate Optimization Chart

Production Gradation Report

PLANT #: **P11**

Sample Date: **6/30/25**

Dates Test Represents: **7/1/2025** through **7/7/2025**

Concrete Grade: **P1M, 3500HP, 4000HP**

Contractor: _____

MDOT No.: _____

Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution
CA	71-47	Presque Isle	970	5.93	2.62	31.6
IA	71-47	Presque Isle	900	5.50	2.62	29.3
2NS	63-115	Ray Rd	1200	7.26	2.65	39.1
Total Wt			3070	18.70		100.0

<----- Verify this number is 100%

Sieve	CA	IA	2NS	Cumulative % Passing	% Retained	Cumulative % Retained
2"	100.0	100.0	100.0	100.0	0.0	0.0
1.5"	94.4	100.0	100.0	98.2	1.8	1.8
1"	46.9	100.0	100.0	83.2	15.0	16.8
3/4"	10.4	97.2	100.0	70.9	12.4	29.1
1/2"	4.6	76.4	100.0	62.9	7.9	37.1
3/8"	3.7	48.9	100.0	54.6	8.3	45.4
#4	2.8	8.3	97.2	41.3	13.3	58.7
#8	2.4	3.8	79.2	32.8	8.5	67.2
#16	2.3	3.1	61.3	25.6	7.2	74.4
#30	2.2	3.0	44.6	19.0	6.6	81.0
#50	2.1	2.8	22.3	10.2	8.8	89.8
#100	1.9	2.8	5.2	3.5	6.7	96.5
LBW	1.7	2.6	0.6	1.5	1.9	98.5

*Maximum % Retained must be above the 3/8" sieve.

*Any two adjacent sieves must equal 10% except max., nom. max., #100 and #200 sieves.

*% Retained must be at least 4% for each sieve except max., nom. max., #100 and #200 sieves.

*% Retained must be at least 8% for the 1" sieve when a 2" max. size (nom. Max. 1.5") aggregate is used.

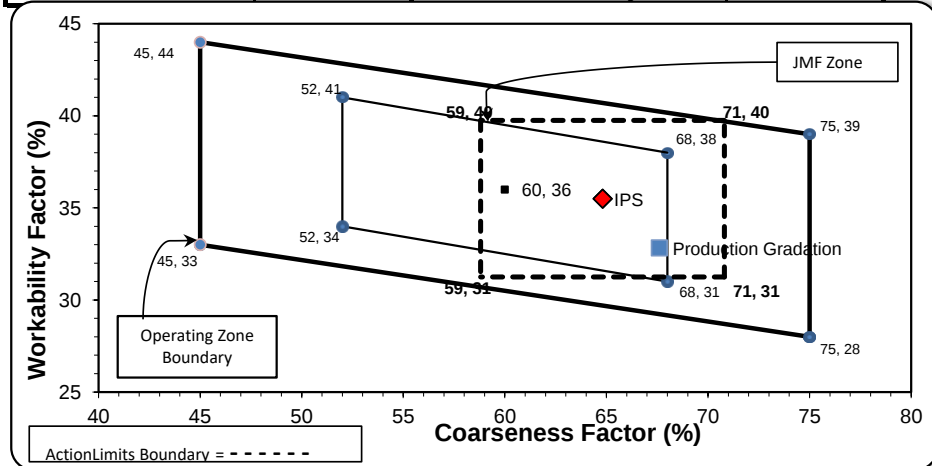


Superior Materials, LLC

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Production Gradation ☒ Batch Plant Gradations ☐ Aggregate Supplier Gradations

Coarseness Factor:	68	Workability Factor:	33
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Initial Production Sample (IPS)

Coarseness Factor:		65	
Workability Factor:		36	
Sieve	Cumulative % Passing	% Retained	Cumulative % Retained
2"	100.0	0.0	0.0
1.5"	99.0	0.6	0.6
1"	84.0	15.3	16.0
3/4"	73.5	10.5	26.5
1/2"	65.2	8.2	34.8
3/8"	58.2	7.1	41.8
#4	44.1	14.1	55.9
#8	35.5	8.6	64.5
#16	29.1	6.4	70.9
#30	21.9	7.3	78.1
#50	9.6	12.2	90.4
#100	2.6	7.1	97.4
LBW	1.0	1.6	99.0

PREPARED BY:
SM, LLC Technical Service

Approved By:

Daily Summary Report

Date Friday, July 4, 2025

Sample Id	-674964375	-1989638955	-674897732
Plant	S000 Superior Onsite	S000 Superior Onsite	S000 Superior Onsite
Product	7919 COARSE AGG P1M LS	7920 INTERMED AGG P1M LS	1022 2NS GR
Specification	Coarse Agg P1M LS Target	Intermed Agg P1M LS Target	2NS GR Spec
Sample Type	QA	QA	QA

2" (50mm)	100.0	100.0	
1 1/2" (37.5mm)	94.4	100.0	
1" (25mm)	46.9	100.0	
3/4" (19mm)	10.4	97.2	
1/2" (12.5mm)	4.6	76.4	
3/8" (9.5mm)	3.7	48.9	100.0
#4 (4.75mm)	2.8	8.3	97.2
#8 (2.36mm)	2.4	3.8	79.2
#16 (1.18mm)	2.3	3.1	61.3
#30 (.6mm)	2.2	3.0	44.6
#50 (.3mm)	2.1	2.8	22.3
#100 (.15mm)	1.9	2.8	5.2
#200 (75µm)	1.8	2.7	0.9
Pan	0.0	0.0	0.0
FM			2.90
-#200 (75um)			0.9
Wash Loss (#200/75um)	1.7	2.6	0.6
Total Moisture	1.4	2.7	3.3