

Aggregate Optimization Chart

Production Gradation Report

PLANT #: **P-103**

Contractor: _____

Sample Date: 5/26/25

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

Dates Test Represents: 5/27/2025 through 6/2/2025

MDOT No.: _____

Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution
CA	58-003	Stoneco	1520	9.06	2.69	48.7
IA	58-003	Stoneco	400	2.38	2.69	12.8
2NS	63-114	Highland	1200	7.26	2.65	38.5
Total Wt			3120	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"	100.0	100.0	100.0	100.0	0.0	0.0
1"	50.5	100.0	100.0	75.9	24.1	24.1
3/4"	21.2	100.0	100.0	61.6	14.3	38.4
1/2"	6.1	92.5	100.0	53.3	8.3	46.7
3/8"	2.4	66.9	100.0	48.2	5.1	51.8
#4	1.6	10.6	99.0	40.2	8.0	59.8
#8	1.5	3.8	86.0	34.3	5.9	65.7
#16	1.4	2.3	69.7	27.8	6.5	72.2
#30	1.3	1.9	50.6	20.3	7.4	79.7
#50	1.3	1.6	21.0	8.9	11.4	91.1
#100	1.2	1.5	3.1	2.0	6.9	98.0
LBW	1.1	1.3	0.4	0.9	1.1	99.1

*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

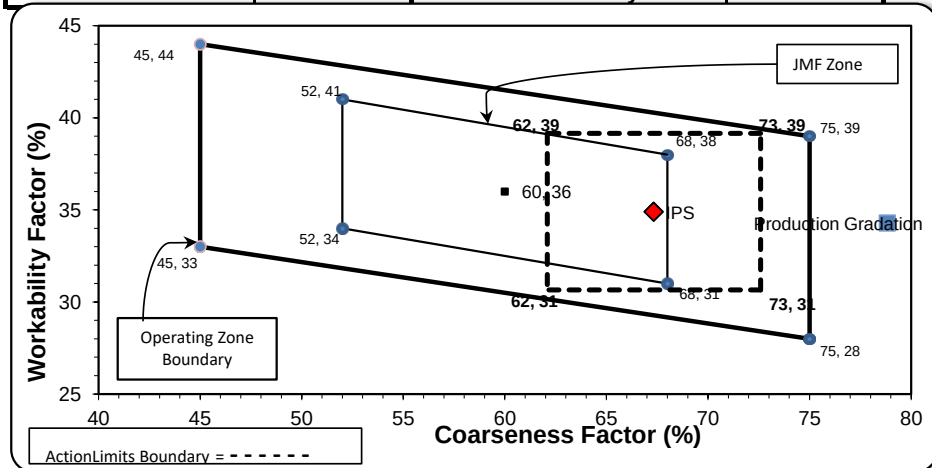
30701 W. 10 Mile Rd.

Suite 500

Farmington Hills, MI 48336

Production Gradation ☒ Batch Plant Gradations ☐ Aggregate Supplier Gradations

Coarseness Factor:	79	Workability Factor:	34
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Initial Production Sample (IPS)

Coarseness Factor:		67	
Workability Factor:		35	
Sieve	Cumulative % Passing	% Retained	Cumulative % Retained
2"	100.0	0.0	0.0
1.5"	100.0	0.0	0.0
1"	85.5	14.5	14.5
3/4"	73.4	12.1	26.6
1/2"	61.0	12.4	39.0
3/8"	56.2	4.8	43.8
#4	43.1	13.1	56.9
#8	34.9	8.2	65.1
#16	29.4	5.5	70.6
#30	21.6	7.8	78.4
#50	8.1	13.4	91.9
#100	2.2	5.9	97.8
LBW	1.4	0.8	98.6

PREPARED BY:
SM, LLC Technical Service

Approved BY:



Daily Summary Report

Date Wednesday, May 28, 2025

Sample Id	-1989617233	-674939641	-674961273	-1989620477	-1989640622
Plant	S103 Superior Brighton	S103 Superior Brighton	S103 Superior Brighton	S103 Superior Brighton	S103 Superior Brighton
Product	7919 COARSE AGG P1M LS	1051 6AA LS	1067 26A Mod LS	1022 2NS GR	7920 INTERMED AGG P1M LS
Specification	Coarse Agg P1M LS Target	6AA LS	26A Mod LS Spec	2NS GR Spec	Intermed Agg P1M LS Target
Sample Type	QA	QA	QA	QA	QA
2" (50mm)	100.0	100.0	100.0		100.0
1 1/2" (37.5mm)	100.0	100.0	100.0		100.0
1" (25mm)	50.5	99.3	100.0		100.0
3/4" (19mm)	21.2	84.5	100.0		100.0
1/2" (12.5mm)	6.1	46.1	97.9		92.5
3/8" (9.5mm)	2.4	25.1	85.3	100.0	66.9
#4 (4.75mm)	1.6	4.5	12.4	99.0	10.6
#8 (2.36mm)	1.5	2.5	2.7	86.0	3.8
#16 (1.18mm)	1.4	2.0	1.3	69.7	2.3
#30 (.6mm)	1.3	1.7	1.0	50.6	1.9
#50 (.3mm)	1.3	1.5	0.9	21.0	1.6
#100 (.15mm)	1.2	1.4	0.9	3.1	1.5
#200 (75µm)	1.1	1.35	0.8	0.4	1.4
Pan	0.0	0.00	0.0	0.0	0.0
FM				2.71	
Wash Loss (#200/75um)	1.1	1.2	0.8	0.4	1.3
Total Moisture	0.33	2.08	1.83	4.03	3.12

Aggregate Optimization Chart

Production Gradation Report

PLANT #: **P-39**

Contractor: _____

Sample Date: **5/26/25**

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

Dates Test Represents: **5/27/2025** through **6/2/2025**

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	63-009	Koenig Oxford	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"	98.5	100.0	100.0	99.5	0.5	0.5
1"	48.3	100.0	100.0	83.7	15.9	16.3
3/4"	10.9	100.0	100.0	71.8	11.8	28.2
1/2"	3.6	79.3	100.0	63.5	8.4	36.5
3/8"	3.1	50.2	100.0	54.8	8.7	45.2
#4	2.7	9.5	97.1	41.6	13.2	58.4
#8	2.6	3.7	83.0	34.3	7.2	65.7
#16	2.5	2.8	68.5	28.4	6.0	71.6
#30	2.4	2.5	51.7	21.7	6.7	78.3
#50	2.3	2.2	24.8	11.1	10.6	88.9
#100	2.1	2.0	4.8	3.1	7.9	96.9
LBW	1.7	1.6	0.7	1.3	1.8	98.7

*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

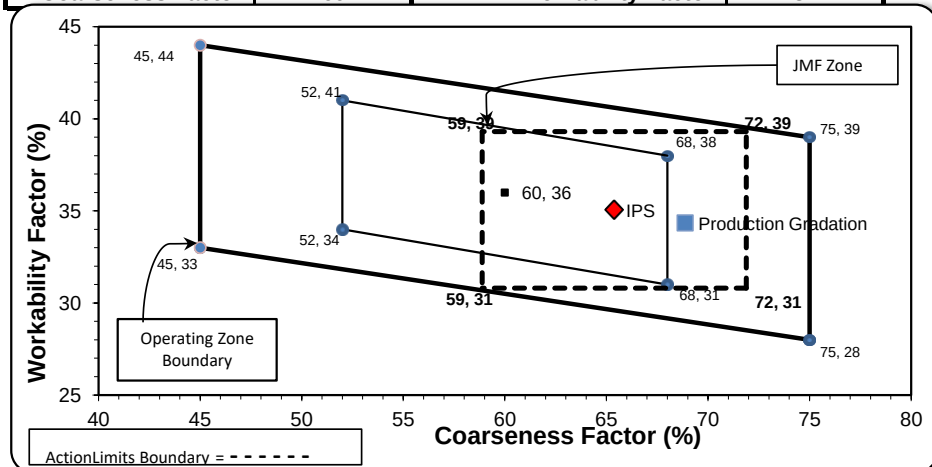
30701 W. 10 Mile Rd.

Suite 500

Farmington Hills, MI 48336

Production Gradation ☒ Batch Plant Gradations ☐ Aggregate Supplier Gradations

Coarseness Factor:	69	Workability Factor:	34
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Initial Production Sample (IPS)

Coarseness Factor:		65	
Workability Factor:		35	
Sieve	Cumulative % Passing	% Retained	Cumulative % Retained
2"	100.0	0.0	0.0
1.5"	99.6	0.4	0.4
1"	83.9	15.7	16.1
3/4"	74.1	9.8	25.9
1/2"	64.3	9.7	35.7
3/8"	57.5	6.8	42.5
#4	44.5	13.1	55.5
#8	35.1	9.4	64.9
#16	27.9	7.2	72.1
#30	21.7	6.2	78.3
#50	12.6	9.1	87.4
#100	3.5	9.1	96.5
LBW	1.2	2.4	98.8

PREPARED BY:
SM, LLC Technical Service

Approved By:



Daily Summary Report

Date Friday, May 30, 2025

Sample Id	-674981588	-674952625	-674990018
Plant	S39	S39	S39
Product	Superior Sterling Heights 7919 COARSE AGG P1M LS	Superior Sterling Heights 1022 2NS GR	Superior Sterling Heights 7920 INTERMED AGG P1M LS
Specification	Coarse Agg P1M LS Target	2NS GR Spec	Intermed Agg P1M LS Target
Sample Type	QA	QA	QA
2" (50mm)	100.0		100.0
1 1/2" (37.5mm)	98.5		100.0
1" (25mm)	48.3		100.0
3/4" (19mm)	10.9		100.0
1/2" (12.5mm)	3.6		79.3
3/8" (9.5mm)	3.1	100.0	50.2
#4 (4.75mm)	2.7	97.1	9.5
#8 (2.36mm)	2.6	83.0	3.7
#16 (1.18mm)	2.5	68.5	2.8
#30 (.6mm)	2.4	51.7	2.5
#50 (.3mm)	2.3	24.8	2.2
#100 (.15mm)	2.1	4.8	2.0
#200 (75µm)	1.9	0.9	1.7
Pan	0.0	0.0	0.0
FM		2.70	
Wash Loss (#200/75um)	1.7	0.7	1.6
Total Moisture	1.09	3.77	2.16