Aggregate Optimization Chart

Production Gradation Report

PLANT #: **P-102**

Contractor: _____

Sample Date: 3/12/26

Concrete Grade: **DM, 4500HP**

Dates Test Represents: 3/13/2026 through 3/19/2026

MDOT No.: _____

Agg. Class	Pit #	Source	Weight (SSD)	ft³	Specific Gravity	% Contribution
6AA	58-003	Stoneco	1400	8.34	2.69	46.7
26A	58-003	Stoneco	420	2.50	2.69	14.0
2NS	63-092	Grange Hall	1180	7.06	2.68	39.3
		Total Wt	**3000**	**17.90**		100.0

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

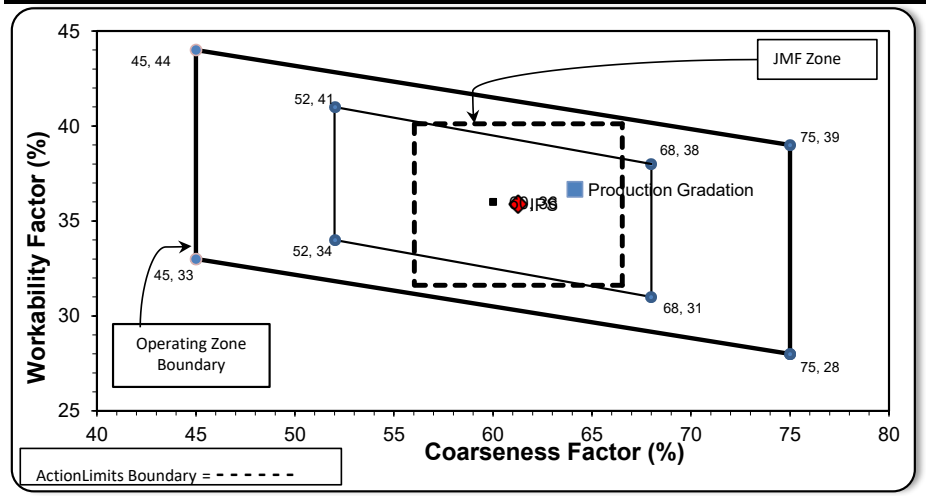
Sieve	6AA	26A	2NS	Cumulative % Passing	% Retained	Cumulative % Retained
2"	100.0	100.0	100.0	100.0	0.0	0.0
1.5"	100.0	100.0	100.0	100.0	0.0	0.0
1"	100.0	100.0	100.0	100.0	0.0	0.0
3/4"	75.3	100.0	100.0	88.5	11.5	11.5
1/2"	35.2	98.7	100.0	69.6	18.9	30.4
3/8"	13.9	85.4	100.0	57.8	11.8	42.2
#4	3.4	10.3	97.4	41.3	16.4	58.7
#8	2.7	3.6	82.4	34.2	7.2	65.8
#16	2.4	2.3	68.2	28.3	5.9	71.7
#30	2.1	1.9	49.0	20.5	7.7	79.5
#50	2.0	1.7	20.9	9.4	11.1	90.6
#100	1.9	1.4	3.7	2.5	6.9	97.5
LBW	1.6	1.0	0.9	1.2	1.3	98.8

Superior Materials, LLC
30701 W. 10 Mile Rd.
Suite 500
Farmington Hills, MI 48336

*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 4% for the 3/4" sieve when a 1.5" max. size (nom. Max. 1.0") aggregate is used.

Production Gradation ◉ Batch Plant Gradations ○ Aggregate Supplier Gradations

Coarseness Factor:	64	Workability Factor:	34	Adjusted WF: 36.7



Intial Production Sample (IPS)

Coarseness Factor:	61
Workability Factor:	36

Sieve	Cumulative % Passing	% Retained	Cumulative % Retained
2"	100.0	0.0	0.0
1.5"	100.0	0.0	0.0
1"	99.3	0.7	0.7
3/4"	89.2	10.1	10.8
1/2"	70.7	18.5	29.3
3/8"	60.7	10.0	39.3
#4	44.4	16.3	55.6
#8	35.9	8.5	64.1
#16	27.3	8.6	72.7
#30	19.1	8.2	80.9
#50	7.4	11.7	92.6
#100	1.9	5.6	98.1
LBW	0.7	1.2	99.3

PREPARED BY:
SM, LLC Technical Service

Approved By:
Nancy Donahue

Daily Summary Report

Date Thursday, March 12, 2026

Sample Id	-1989642328	-1989642333	-1989642329	-674967012	-1989642330
Plant	S102 Superior Novi	S102 Superior Novi	S102 Superior Novi	S102 Superior Novi	S102 Superior Novi
Product	1022 2NS GR	1051 6AA LS	1067 26A Mod LS	7919 COARSE AGG P1M LS	7920 INTERMED AGG P1M LS
Specification	2NS GR Spec	6AA LS	26A Mod LS Spec	Coarse Agg P1M LS Target	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)		100.0	100.0	79.3	100.0
3/4" (19mm)		75.3	100.0	55.3	100.0
1/2" (12.5mm)		35.2	98.7	42.1	84.3
3/8" (9.5mm)	100.0	13.9	85.4	30.4	60.5
#4 (4.75mm)	97.4	3.4	10.3	7.6	12.3
#8 (2.36mm)	82.4	2.7	3.6	3.5	2.4
#16 (1.18mm)	68.2	2.4	2.3	2.8	1.6
#30 (.6mm)	49.0	2.1	1.9	2.4	1.4
#50 (.3mm)	20.9	2.0	1.7	2.1	1.3
#100 (.15mm)	3.7	1.9	1.4	1.9	1.2
#200 (75µm)	1.1	1.72	1.2	1.7	1.1
Pan	0.0	0.00	0.0	0.0	0.0
FM	2.78				
Wash Loss (#200/75um)	0.9	1.6	1.0	1.6	1.1
Total Moisture	2.59	1.49	1.96	1.90	2.10

Aggregate Optimization Chart

Production Gradation Report

PLANT #: **P-103**

Contractor: _____

Sample Date: 3/12/26

Concrete Grade: **DM, 4500HP**

Dates Test Represents: 3/13/2026 through 3/19/2026

MDOT No.: _____

Agg. Class	Pit #	Source	Weight (SSD)	ft³	Specific Gravity	% Contribution
6AA	58-003	Stoneco	1400	8.34	2.69	46.7
26A	58-003	Stoneco	420	2.50	2.69	14.0
2NS	63-092	Grange Hall	1180	7.06	2.68	39.3
		Total Wt	**3000**	**17.90**		100.0

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

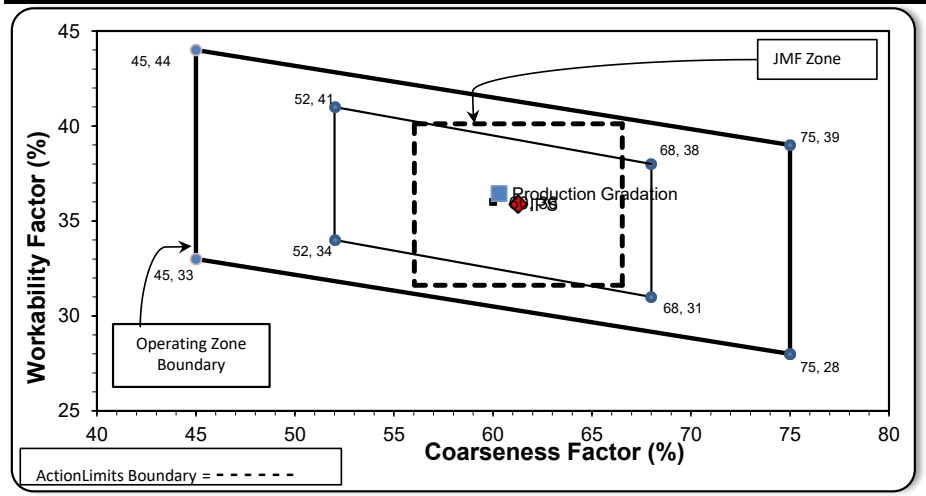
Sieve	6AA	26A	2NS	Cumulative % Passing	% Retained	Cumulative % Retained
2"	100.0	100.0	100.0	100.0	0.0	0.0
1.5"	100.0	100.0	100.0	100.0	0.0	0.0
1"	100.0	100.0	100.0	100.0	0.0	0.0
3/4"	78.2	100.0	100.0	89.8	10.2	10.2
1/2"	32.1	99.5	100.0	68.2	21.6	31.8
3/8"	19.3	84.5	100.0	60.2	8.1	39.8
#4	3.2	11.3	97.3	41.3	18.8	58.7
#8	2.7	2.3	82.3	34.0	7.4	66.0
#16	2.1	1.5	66.1	27.2	6.8	72.8
#30	1.8	1.2	47.7	19.8	7.4	80.2
#50	1.7	1.0	19.7	8.7	11.1	91.3
#100	1.6	1.0	3.2	2.1	6.5	97.9
LBW	1.4	0.8	1.0	1.2	1.0	98.8

*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 4% for the 3/4" sieve when a 1.5" max. size (nom. Max. 1.0") 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:	60	Workability Factor:	34	Adjusted WF 36.5



Intial Production Sample (IPS)

Coarseness Factor:	61
Workability Factor:	36

Sieve	Cumulative % Passing	% Retained	Cumulative % Retained
2"	100.0	0.0	0.0
1.5"	100.0	0.0	0.0
1"	99.3	0.7	0.7
3/4"	89.2	10.1	10.8
1/2"	70.7	18.5	29.3
3/8"	60.7	10.0	39.3
#4	44.4	16.3	55.6
#8	35.9	8.5	64.1
#16	27.3	8.6	72.7
#30	19.1	8.2	80.9
#50	7.4	11.7	92.6
#100	1.9	5.6	98.1
LBW	0.7	1.2	99.3

PREPARED BY:
SM, LLC Technical Service

Approved By:
Nancy Donahue

Daily Summary Report

Date Wednesday, March 11, 2026

Sample Id	-1989642359	-1989642366	-1989642360	-1989642369	-1989642361
Plant	S103 Superior Brighton	S103 Superior Brighton	S103 Superior Brighton	S103 Superior Brighton	S103 Superior Brighton
Product	1022 2NS GR	1051 6AA LS	1067 26A Mod LS	7919 COARSE AGG P1M LS	7920 INTERMED AGG P1M LS
Specification	2NS GR Spec	6AA LS	26A Mod LS Spec	Coarse Agg P1M LS Target	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)		100.0	100.0	66.2	100.0
3/4" (19mm)		78.2	100.0	40.1	100.0
1/2" (12.5mm)		32.1	99.5	33.1	90.1
3/8" (9.5mm)	100.0	19.3	84.5	22.0	73.3
#4 (4.75mm)	97.3	3.2	11.3	3.3	16.8
#8 (2.36mm)	82.3	2.7	2.3	1.9	3.4
#16 (1.18mm)	66.1	2.1	1.5	1.8	2.3
#30 (.6mm)	47.7	1.8	1.2	1.6	1.6
#50 (.3mm)	19.7	1.7	1.0	1.4	1.4
#100 (.15mm)	3.2	1.6	1.0	1.3	1.3
#200 (75µm)	1.2	1.59	0.9	1.2	1.2
Pan	0.0	0.00	0.0	0.0	0.0
FM	2.84	2.80	2.80	2.80	2.80
Wash Loss (#200/75um)	1.0	1.4	0.8	1.1	1.1
Total Moisture	3.04	1.81	2.12	1.91	1.82