

Aggregate Optimization Chart

Production Gradation Report

PLANT #: **P-103**

Sample Date: 10/13/25

Concrete Grade: **S2M, 3500HP**

Dates Test Represents: 10/14/2025 through 10/20/2025

Contractor: _____

MDOT No.: _____

Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution
6AA	58-003	Stoneco	1600	9.53	2.69	51.6
26A	58-003	Stoneco	300	1.79	2.69	9.7
2NS	63-114	Highland	1200	7.26	2.65	38.7
Total Wt			3100	18.58		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"	83.4	100.0	100.0	91.4	8.6	8.6
1/2"	43.8	99.6	100.0	71.0	20.5	29.0
3/8"	25.1	85.6	100.0	59.9	11.0	40.1
#4	3.6	10.7	98.8	41.1	18.8	58.9
#8	1.6	3.0	83.5	33.4	7.7	66.6
#16	1.4	2.3	65.3	26.2	7.2	73.8
#30	1.2	2.0	47.4	19.2	7.1	80.8
#50	1.2	1.6	23.0	9.7	9.5	90.3
#100	1.1	1.5	4.3	2.4	7.3	97.6
LBW	0.9	1.1	0.8	0.9	1.5	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 4% for the 3/4" sieve when a 1.5" max. size (nom. Max. 1.0") aggregate is used.



Superior Materials, LLC

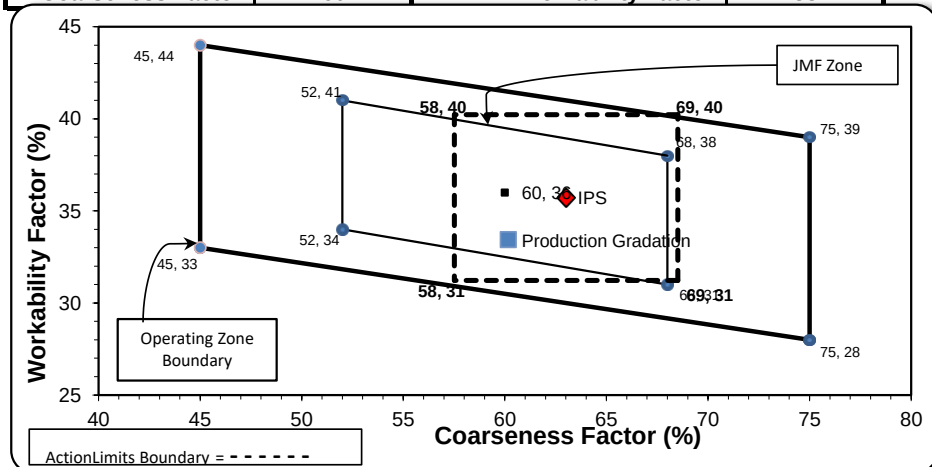
30701 W. 10 Mile Rd.

Suite 500

Farmington Hills, MI 48336

Production Gradation ☐ Batch Plant Gradations ☒ Aggregate Supplier Gradations

Coarseness Factor:	60	Workability Factor:	33
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Initial Production Sample (IPS)

Coarseness Factor:		63	
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"	99.2	0.8	0.8
3/4"	90.9	8.3	9.1
1/2"	71.3	19.6	28.7
3/8"	59.5	11.8	40.5
#4	43.8	15.7	56.2
#8	35.7	8.1	64.3
#16	27.0	8.7	73.0
#30	18.6	8.4	81.4
#50	6.8	11.8	93.2
#100	1.4	5.4	98.6
LBW	0.6	0.8	99.4

PREPARED BY:
SM, LLC Technical Service

Approved BY:

Aggregate Optimization Chart

Production Gradation Report

PLANT #: **p11**

Sample Date: 10/13/25

Concrete Grade: **S2M, 3500HP**

Dates Test Represents: 10/14/2025 through 10/20/2025

Contractor: _____

MDOT No.: _____

Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution
6AA	71-47	Presque Isle	1520	9.30	2.62	49.8
26A	71-47	Presque Isle	300	1.83	2.62	9.8
2NS	63-115	Ray Rd	1230	7.44	2.65	40.3
Total Wt			3050	18.57		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"	99.3	100.0	100.0	99.7	0.3	0.3
3/4"	87.1	100.0	100.0	93.6	6.1	6.4
1/2"	43.4	98.9	100.0	71.7	21.9	28.3
3/8"	23.2	83.3	100.0	60.1	11.6	39.9
#4	3.6	14.8	97.4	42.5	17.6	57.5
#8	2.0	5.5	81.6	34.4	8.1	65.6
#16	1.7	3.2	62.3	26.3	8.2	73.7
#30	1.6	2.6	44.6	19.0	7.2	81.0
#50	1.6	2.3	21.9	9.9	9.2	90.1
#100	1.5	2.1	5.3	3.1	6.8	96.9
LBW	1.3	1.8	0.8	1.1	1.9	98.9

*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.



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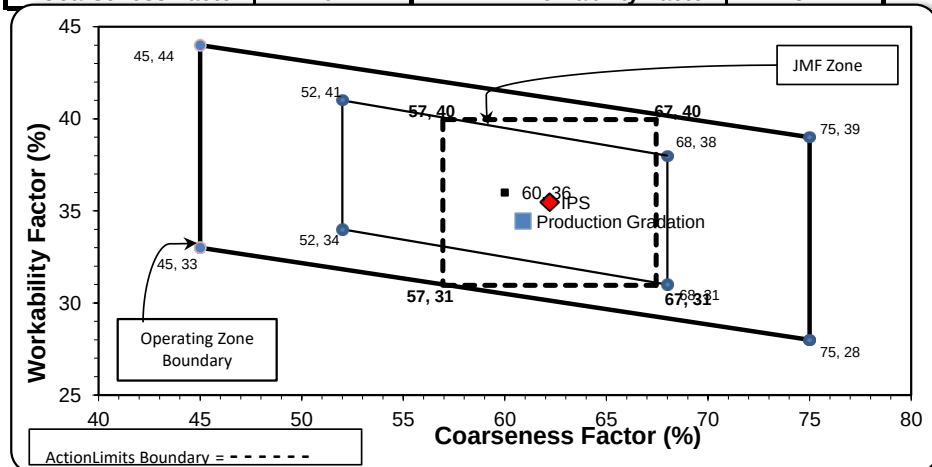
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Coarseness Factor:	61	Workability Factor:	34
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Initial Production Sample (IPS)

Coarseness Factor:		62	
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"	100.0	0.0	0.0
3/4"	94.0	6.0	6.0
1/2"	70.2	23.7	29.8
3/8"	59.9	10.4	40.1
#4	42.7	17.2	57.3
#8	35.5	7.2	64.5
#16	28.4	7.0	71.6
#30	19.2	9.2	80.8
#50	8.9	10.3	91.1
#100	3.1	5.9	96.9
LBW	1.4	1.7	98.6

PREPARED BY:
SM, LLC Technical Service

Approved By:

Aggregate Optimization Chart

Production Gradation Report

PLANT #: **P-O2**

Sample Date: 10/13/25

Concrete Grade: **S2M, 3500HP**

Dates Test Represents: 10/14/2025 through 10/20/2025

Contractor: _____

MDOT No.: _____

Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution
6AA	71-47	Presque Isle	1520	9.30	2.62	49.8
26A	71-47	Presque Isle	300	1.83	2.62	9.8
2NS	63-115	Ray Rd	1230	7.44	2.65	40.3
Total Wt			3050	18.57		100.0

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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"	99.3	100.0	100.0	99.7	0.3	0.3
3/4"	87.1	100.0	100.0	93.6	6.1	6.4
1/2"	43.4	98.9	100.0	71.7	21.9	28.3
3/8"	23.2	83.3	100.0	60.1	11.6	39.9
#4	3.6	14.8	97.4	42.5	17.6	57.5
#8	2.0	5.5	81.6	34.4	8.1	65.6
#16	1.7	3.2	62.3	26.3	8.2	73.7
#30	1.6	2.6	44.6	19.0	7.2	81.0
#50	1.6	2.3	21.9	9.9	9.2	90.1
#100	1.5	2.1	5.3	3.1	6.8	96.9
LBW	1.3	1.8	0.8	1.1	1.9	98.9

*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.

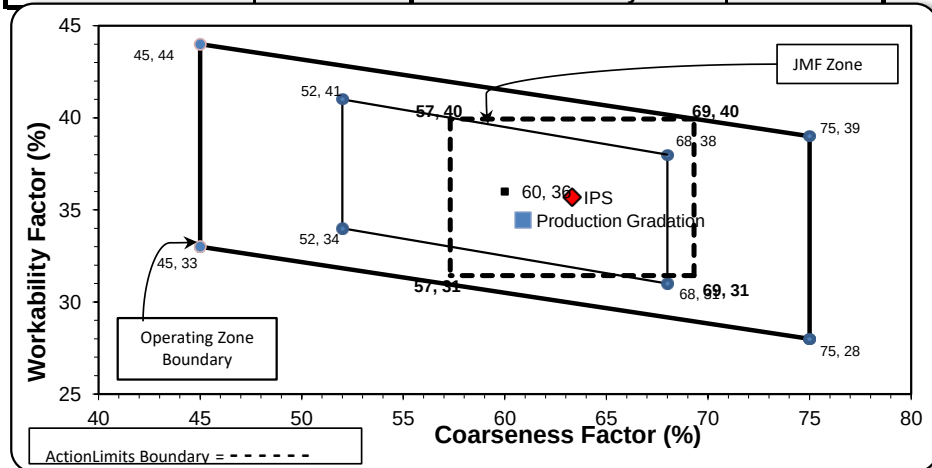


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Sieve	Cumulative % Passing	% Retained	Cumulative % Retained
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1.5"	100.0	0.0	0.0
1"	100.0	0.0	0.0
3/4"	95.6	4.4	4.4
1/2"	73.1	22.6	26.9
3/8"	59.3	13.8	40.7
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#16	28.9	6.8	71.1
#30	20.7	8.2	79.3
#50	9.9	10.8	90.1
#100	2.1	7.8	97.9
LBW	0.9	1.2	99.1

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