

Aggregate Optimization Chart

Production Gradation Report

PLANT #: **P-35**

Sample Date: 8/13/26

Concrete Grade: **S2M-3500HP**

Contractor: _____

Dates Test Represents: 8/14/2026 through 8/20/2026

MDOT No.: _____

Agg. Class	Pit #	Source	Weight (SSD)	ft³	Specific Gravity	% Contribution
6AA	58-003	Stoneco	1630	9.71	2.69	51.9
26A	58-003	Stoneco	230	1.37	2.69	7.3
2NS	81-019	Pleasant Lk	1280	7.74	2.65	40.8
Total Wt			3140	18.82		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"	88.0	100.0	100.0	93.8	6.2	6.2
1/2"	48.9	97.8	100.0	73.3	20.5	26.7
3/8"	32.6	75.2	100.0	63.2	10.1	36.8
#4	5.3	9.6	98.2	43.5	19.7	56.5
#8	1.8	2.0	86.2	36.2	7.3	63.8
#16	1.3	1.4	66.2	27.8	8.5	72.2
#30	1.2	1.4	45.3	19.2	8.6	80.8
#50	1.1	1.3	16.8	7.5	11.7	92.5
#100	1.0	1.2	4.1	2.3	5.2	97.7
LBW	1.0	1.1	1.1	1.0	1.2	99.0



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.

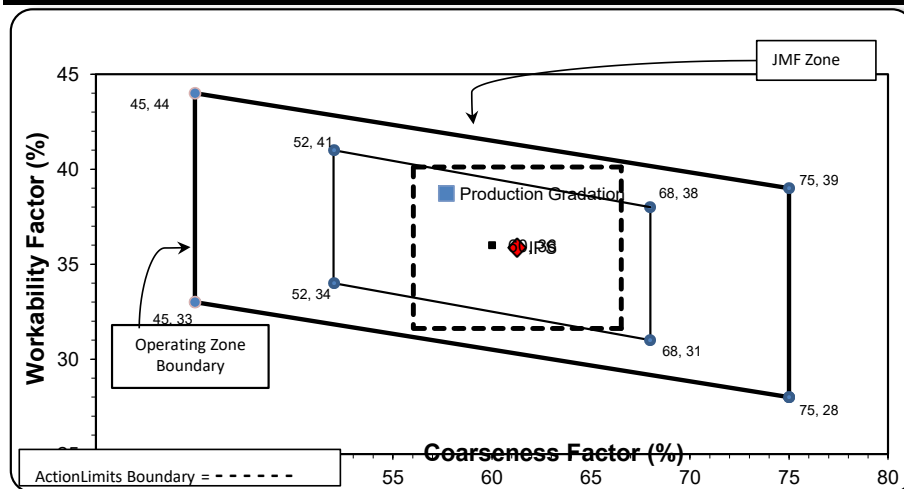
Production Gradation ☐ Batch Plant Gradations ☒ Aggregate Supplier Gradations

Adjusted WF Initial Production Sample (IPS)

Coarseness Factor:	58	Workability Factor:	36	38.7
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Coarseness Factor:	61
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Workability Factor:	36
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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

Aggregate Optimization Chart

Production Gradation Report

PLANT #: **P-36**

Sample Date: 8/13/26

Concrete Grade: **S2M-3500HP**

Contractor: _____

Dates Test Represents: 8/14/2026 through 8/20/2026

MDOT No.: _____

Agg. Class	Pit #	Source	Weight (SSD)	ft³	Specific Gravity	% Contribution
6AA	71-47	Presque Isle	1680	10.48	2.57	54.9
26A	71-47	Presque Isle	200	1.25	2.57	6.5
2NS	63-115	Ray Rd	1180	7.08	2.67	38.6
Total Wt			3060	18.81		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"	86.0	100.0	100.0	92.3	7.7	7.7
1/2"	50.8	98.0	100.0	72.9	19.5	27.1
3/8"	28.4	84.2	100.0	59.7	13.2	40.3
#4	3.7	20.8	95.7	40.3	19.4	59.7
#8	2.1	6.2	82.9	33.5	6.8	66.5
#16	1.7	3.1	64.0	25.8	7.7	74.2
#30	1.6	2.5	48.6	19.8	6.0	80.2
#50	1.6	2.3	26.1	11.1	8.7	88.9
#100	1.5	2.1	7.5	3.9	7.2	96.1
LBW	1.3	1.9	0.9	1.2	2.7	98.8



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*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

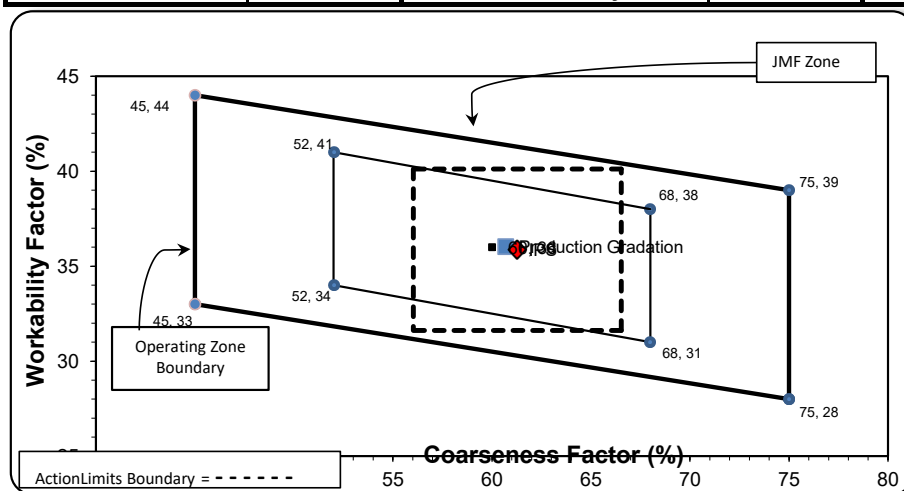
a 1.5" max. size (nom. Max. 1.0") aggregate is used.

Production Gradation ☐ Batch Plant Gradations ☒ Aggregate Supplier Gradations

Adjusted WF Initial Production Sample (IPS)

Coarseness Factor:	61	Workability Factor:	34	36.0
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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



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Aggregate Optimization Chart

Production Gradation Report

PLANT #: **P-39**

Sample Date: 8/13/26

Concrete Grade: **S2M-3500HP**

Contractor: _____

Dates Test Represents: 8/14/2026 through 8/20/2026

MDOT No.: _____

Agg. Class	Pit #	Source	Weight (SSD)	ft³	Specific Gravity	% Contribution
6AA	71-47	Presque Isle	1680	10.48	2.57	54.9
26A	71-47	Presque Isle	200	1.25	2.57	6.5
2NS	63-0009	Koenig	1180	7.14	2.65	38.6
Total Wt			3060	18.86		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"	86.0	100.0	100.0	92.3	7.7	7.7
1/2"	50.8	98.0	100.0	72.9	19.5	27.1
3/8"	28.4	84.2	100.0	59.7	13.2	40.3
#4	3.7	20.8	97.5	41.0	18.7	59.0
#8	2.1	6.2	84.5	34.1	6.8	65.9
#16	1.7	3.1	69.6	28.0	6.2	72.0
#30	1.6	2.5	50.7	20.6	7.4	79.4
#50	1.6	2.3	25.2	10.7	9.8	89.3
#100	1.5	2.1	2.5	1.9	8.8	98.1
LBW	1.3	1.9	1.0	1.2	0.7	98.8



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*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

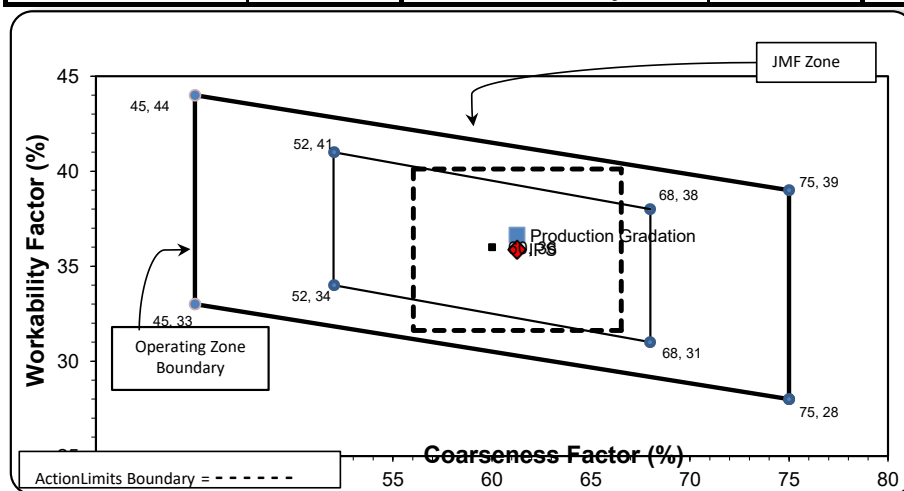
a 1.5" max. size (nom. Max. 1.0") aggregate is used.

Production Gradation ☐ Batch Plant Gradations ☒ Aggregate Supplier Gradations

Adjusted WF Initial Production Sample (IPS)

Coarseness Factor:	61	Workability Factor:	34	36.6
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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



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