

Aggregate Optimization Chart

PLANT #: **P-36**

Sample Date: 6/20/26

Concrete Grade: **S2M, 3500HP**

Contractor: _____

Dates Test Represents: 6/21/2026 through 6/28/2026

MDOT No.: _____

Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution
6AA	71-47	Presque Isle	880	5.49	2.57	28.4
26A	71-47	Presque Isle	980	6.11	2.57	31.6
2NS	63-115	Ray Rd	1240	7.44	2.67	40.0
Total Wt			3100	19.04		100.0

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



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

Sieve	6AA	26A	2NS	Cumulative % Passing	% Retained	Cumulative % Retained
2"	100.0	100.0	100.0	100.0	0.0	0.0
1.5"	96.9	100.0	100.0	99.1	0.9	0.9
1"	26.9	100.0	100.0	79.2	19.9	20.8
3/4"	5.5	96.0	100.0	71.9	7.3	28.1
1/2"	2.4	79.8	100.0	65.9	6.0	34.1
3/8"	2.3	58.1	100.0	59.0	6.9	41.0
#4	1.8	15.5	95.5	43.6	15.4	56.4
#8	1.7	6.6	79.1	34.2	9.4	65.8
#16	1.6	4.6	63.7	27.4	6.8	72.6
#30	1.5	4.0	47.5	20.7	6.7	79.3
#50	1.3	3.6	24.1	11.1	9.5	88.9
#100	1.3	3.2	5.9	3.7	7.4	96.3
LBW	0.9	2.8	1.1	1.6	2.2	98.4

*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.

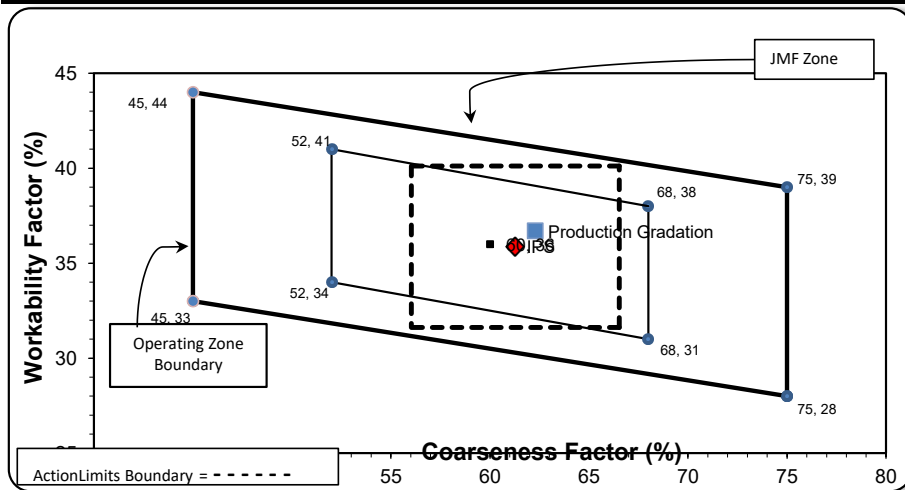
Production Gradation Batch Plant Gradations Aggregate Supplier Gradations

Adjusted WF Initial Production Sample (IPS)

Coarseness Factor:	62	Workability Factor:	34	36.7
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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

PLANT #: **P-38**

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Concrete Grade: **S2M, 3500HP**

Contractor: _____

Dates Test Represents: 6/21/2026 through 6/28/2026

MDOT No.: _____

Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution
6AA	58-003	Stone Co	1620	9.65	2.69	51.4
26A	58-003	Stone Co	350	2.09	2.69	11.1
2NS	81-019	Pleasant Lk	1180	7.14	2.65	37.5
Total Wt			3150	18.87		100.0

----- Verify this number is 100%



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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"	87.1	100.0	100.0	93.4	6.6	6.6
1/2"	46.0	98.9	100.0	72.1	21.3	27.9
3/8"	26.3	82.3	100.0	60.1	12.0	39.9
#4	4.0	9.9	98.5	40.1	20.1	59.9
#8	1.4	2.1	87.6	33.8	6.3	66.2
#16	1.1	1.4	71.1	27.4	6.4	72.6
#30	1.0	1.2	51.4	19.9	7.5	80.1
#50	0.9	1.1	18.0	7.3	12.6	92.7
#100	0.9	1.1	2.4	1.5	5.8	98.5
LBW	0.9	1.0	0.7	0.8	0.6	99.2

*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.

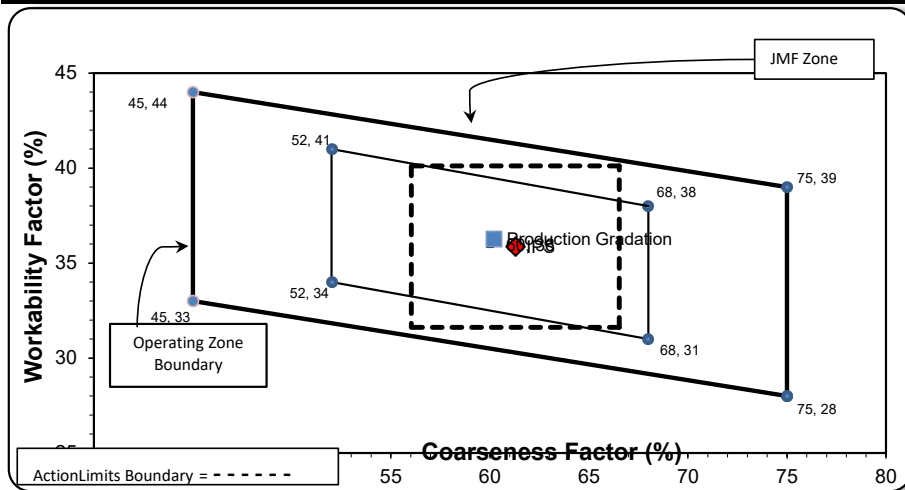
Production Gradation Batch Plant Gradations Aggregate Supplier Gradations

Adjusted WF Initial Production Sample (IPS)

Coarseness Factor:	60	Workability Factor:	34	36.3
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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

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Aggregate Optimization Chart

PLANT #: **P-39**

Contractor: _____

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Concrete Grade: **S2M, 3500HP**

Dates Test Represents: 6/21/2026 through 6/28/2026

MDOT No.: _____

Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution
6AA	71-47	Presque Isle	880	5.49	2.57	28.7
26A	71-47	Presque Isle	980	6.11	2.57	32.0
2NS	63-0009	Koenig	1205	7.29	2.65	39.3
Total Wt			3065	18.89		100.0

----- Verify this number is 100%



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Sieve	6AA	26A	2NS	Cumulative % Passing	% Retained	Cumulative % Retained
2"	100.0	100.0	100.0	100.0	0.0	0.0
1.5"	96.9	100.0	100.0	99.1	0.9	0.9
1"	26.9	100.0	100.0	79.0	20.1	21.0
3/4"	5.5	96.0	100.0	71.6	7.4	28.4
1/2"	2.4	79.8	100.0	65.5	6.1	34.5
3/8"	2.3	58.1	100.0	58.6	7.0	41.4
#4	1.8	15.5	97.0	43.6	14.9	56.4
#8	1.7	6.6	83.1	35.3	8.3	64.7
#16	1.6	4.6	67.8	28.6	6.7	71.4
#30	1.5	4.0	49.7	21.2	7.3	78.8
#50	1.3	3.6	24.7	11.2	10.0	88.8
#100	1.3	3.2	2.6	2.4	8.8	97.6
LBW	0.9	2.8	0.6	1.4	1.0	98.6

*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.

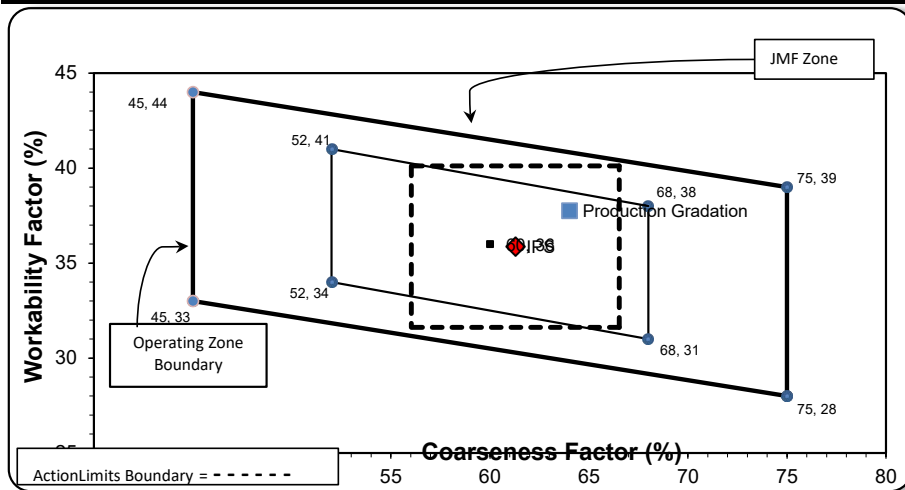
Production Gradation Batch Plant Gradations Aggregate Supplier Gradations

Adjusted WF Initial Production Sample (IPS)

Coarseness Factor:	64	Workability Factor:	35	37.8
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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

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