

Aggregate Optimization Chart

PLANT #: **P-2**

Sample Date: 6/13/26

Concrete Grade: **DM, 4500HP**

Contractor: _____

Dates Test Represents: 6/14/2026 through 6/21/2026

5 inch slump

MDOT No.: _____

Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution
6AA	71-47	Preque Isle	1250	7.79	2.57	43.4
26A	71-47	Preque Isle	450	2.81	2.57	15.6
2NS	63-115	Ray Rd	1180	7.08	2.67	41.0
Total Wt			2880	17.68		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"	100.0	100.0	100.0	100.0	0.0	0.0
1"	97.4	100.0	100.0	98.9	1.1	1.1
3/4"	75.7	100.0	100.0	89.5	9.4	10.5
1/2"	35.3	98.7	100.0	71.7	17.7	28.3
3/8"	13.7	82.4	100.0	59.8	11.9	40.2
#4	2.2	17.8	95.3	42.8	17.0	57.2
#8	1.6	5.7	80.4	34.5	8.3	65.5
#16	1.4	2.7	65.7	27.9	6.6	72.1
#30	1.3	2.0	49.4	21.1	6.8	78.9
#50	1.3	1.8	25.2	11.2	9.9	88.8
#100	1.2	1.7	5.8	3.2	8.0	96.8
LBW	1.0	1.5	0.6	0.9	2.2	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.

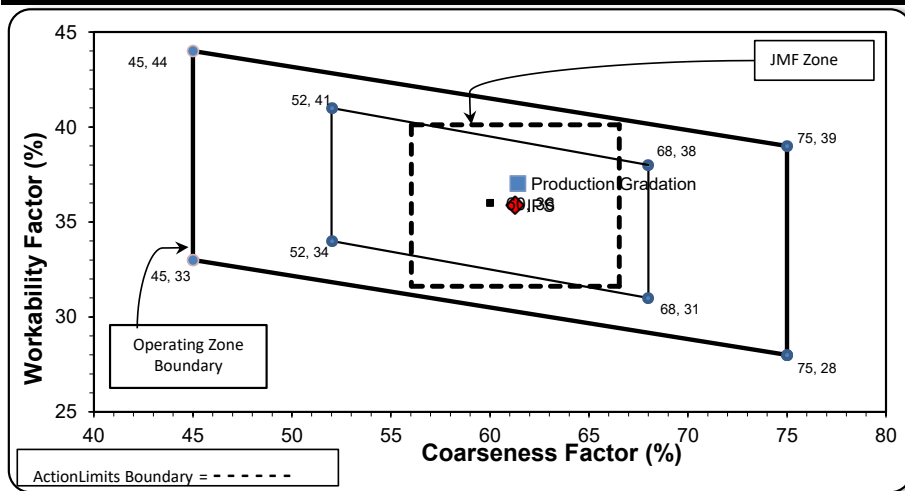
Production Gradation Batch Plant Gradations Aggregate Supplier Gradations

Adjusted WF Initial Production Sample (IPS)

Coarseness Factor:	61	Workability Factor:	35	37.0
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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-102**

Sample Date: 6/13/26

Concrete Grade: **DM, 4500HP**

Contractor: _____

Dates Test Represents: 6/14/2026 through 6/21/2026 5 inch slump

MDOT No.: _____

Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution
6AA	58-003	StoneCo	1500	8.94	2.69	50.7
IA	58-003	StoneCo	280	1.67	2.69	9.5
2NS	63-114	Highland	1180	7.11	2.66	39.9
Total Wt			2960	17.71		100.0

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



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Sieve	6AA	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"	99.9	100.0	100.0	99.9	0.1	0.1
3/4"	87.3	100.0	100.0	93.6	6.4	6.4
1/2"	48.4	87.1	100.0	72.6	20.9	27.4
3/8"	30.8	69.8	100.0	62.1	10.6	37.9
#4	4.1	15.9	98.7	42.9	19.1	57.1
#8	1.6	2.3	84.8	34.8	8.1	65.2
#16	1.1	1.7	67.4	27.6	7.2	72.4
#30	1.0	1.5	47.8	19.7	7.9	80.3
#50	1.0	1.5	23.9	10.2	9.5	89.8
#100	0.9	1.1	5.1	2.6	7.6	97.4
LBW	0.9	0.9	0.6	0.8	1.8	99.2

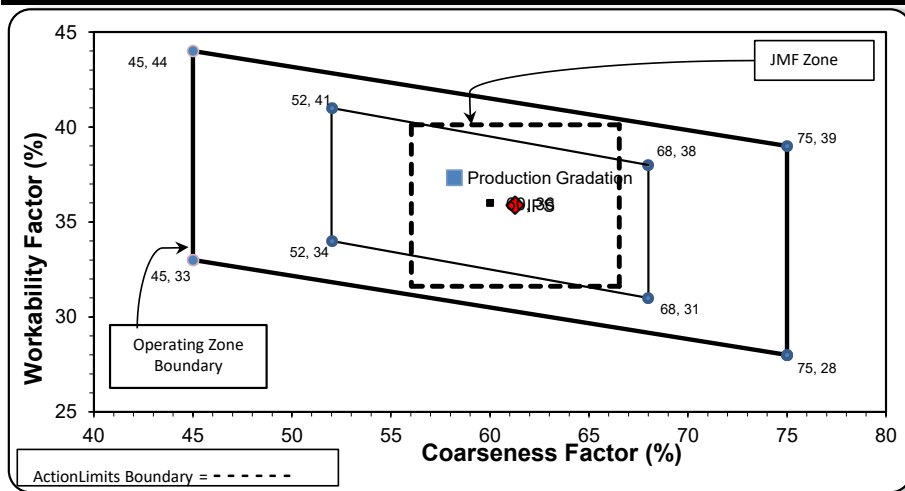
*Maximum % Retained must be above the 3/8" sieve.
 *Any two adjacent sieves must equal 10% except max., nom. max., #100 and #200 sieves.
 **% Retained must be at least 4% for each sieve except max., nom. max., #100 and #200 sieves.
 ***% Retained must be at least 4% for the 3/4" sieve when a 1.5" max. size (nom. Max. 1.0") aggregate is used.

Production Gradation Batch Plant Gradations Aggregate Supplier Gradations Adjusted WF Initial Production Sample (IPS)

Coarseness Factor:	58	Workability Factor:	35	37.3
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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
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#4	44.4	16.3	55.6
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#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:
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Approved By:
 Nancy Donahue

Aggregate Optimization Chart

PLANT #: **P-103**

Sample Date: 6/13/26

Concrete Grade: **DM, 4500HP**

Contractor: _____

Dates Test Represents: 6/14/2026 through 6/21/2026 5 inch slump

MDOT No.: _____

Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution
6AA	58-003	StoneCo	1500	8.94	2.69	50.7
IA	58-003	StoneCo	280	1.67	2.69	9.5
2NS	63-114	Highland	1180	7.11	2.66	39.9
Total Wt			2960	17.71		100.0

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1"	99.9	100.0	100.0	99.9	0.1	0.1
3/4"	87.3	100.0	100.0	93.6	6.4	6.4
1/2"	48.4	87.1	100.0	72.6	20.9	27.4
3/8"	30.8	69.8	100.0	62.1	10.6	37.9
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#16	1.1	1.7	67.4	27.6	7.2	72.4
#30	1.0	1.5	47.8	19.7	7.9	80.3
#50	1.0	1.5	23.9	10.2	9.5	89.8
#100	0.9	1.1	5.1	2.6	7.6	97.4
LBW	0.9	0.9	0.6	0.8	1.8	99.2

*Maximum % Retained must be above the 3/8" sieve.
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*% 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.

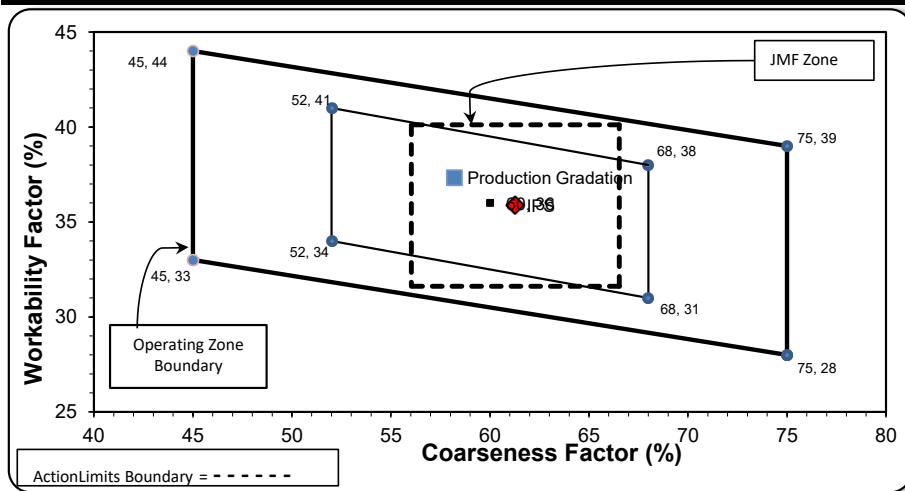
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#50	7.4	11.7	92.6
#100	1.9	5.6	98.1
LBW	0.7	1.2	99.3

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