Aggregate Optimization Chart

Production Gradation Report

PLANT #: **P-35**

Contractor: _____

Sample Date: 8/26/26

Concrete Grade: **P1M-3500HP**

Dates Test Represents: 8/27/2026 through 9/2/2026

MDOT No.: _____

Agg. Class	Pit #	Source	Weight (SSD)	ft³	Specific Gravity	% Contribution
CA	58-003	StoneCo	1220	7.27	2.69	38.7
IA	58-003	StoneCo	740	4.41	2.69	23.5
2NS	81-019	Pleasant Lk	1190	7.20	2.65	37.8
		Total Wt	**3150**	**18.87**		100.0

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

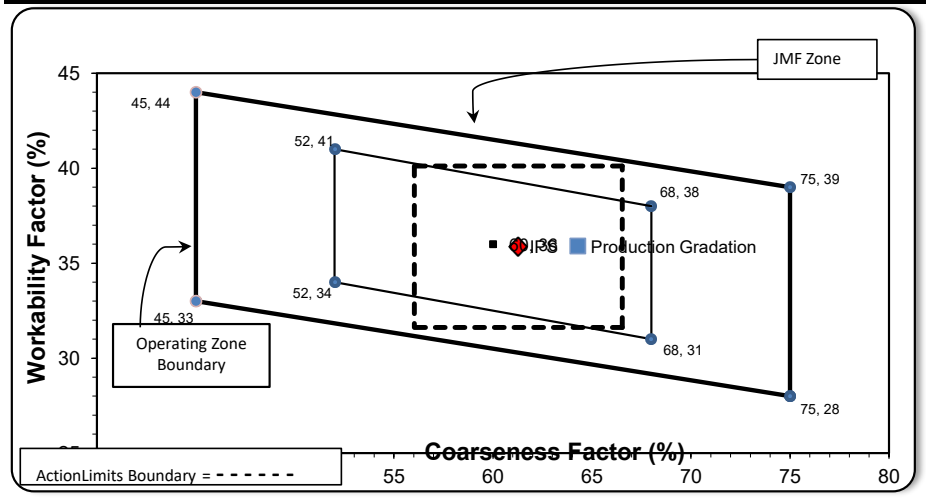
Superior Materials, LLC
30701 W. 10 Mile Rd.
Suite 500
Farmington Hills, MI 48336

Sieve	CA	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"	60.5	100.0	100.0	84.7	15.3	15.3
3/4"	32.5	99.9	100.0	73.8	10.9	26.2
1/2"	11.6	88.4	100.0	63.0	10.8	37.0
3/8"	6.7	71.6	100.0	57.2	5.8	42.8
#4	2.1	19.5	97.9	42.4	14.8	57.6
#8	1.4	2.9	85.2	33.4	9.0	66.6
#16	1.1	1.8	64.5	25.2	8.2	74.8
#30	0.9	1.5	42.5	16.8	8.5	83.2
#50	0.9	1.4	14.9	6.3	10.5	93.7
#100	0.8	1.3	3.4	1.9	4.4	98.1
LBW	0.9	1.1	1.3	1.1	0.8	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.

Production Gradation ○ Batch Plant Gradations ◉ Aggregate Supplier Gradations

Coarseness Factor:	64	Workability Factor:	33	Adjusted WF 35.9



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

Aggregate Optimization Chart

Production Gradation Report

PLANT #: **P-36**

Contractor: _____

Sample Date: 8/26/26

Concrete Grade: **P1M-3500HP**

Dates Test Represents: 8/27/2026 through 9/2/2026

MDOT No.: _____

Agg. Class	Pit #	Source	Weight (SSD)	ft³	Specific Gravity	% Contribution
CA	71-47	Presque Isle	890	5.55	2.57	29.1
IA	71-47	Presque Isle	990	6.17	2.57	32.4
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	CA	IA	2NS	Cumulative % Passing	% Retained	Cumulative % Retained
2"	100.0	100.0	100.0	100.0	0.0	0.0
1.5"	96.2	100.0	100.0	98.9	1.1	1.1
1"	37.4	100.0	100.0	81.8	17.1	18.2
3/4"	8.1	100.0	100.0	73.3	8.5	26.7
1/2"	3.0	80.6	100.0	65.5	7.8	34.5
3/8"	2.7	56.3	100.0	57.6	7.9	42.4
#4	2.3	14.2	96.3	42.4	15.2	57.6
#8	2.2	4.6	82.3	33.9	8.5	66.1
#16	2.1	2.8	61.4	25.2	8.7	74.8
#30	2.0	2.5	45.4	18.9	6.3	81.1
#50	1.9	2.4	23.7	10.5	8.4	89.5
#100	1.8	2.2	6.5	3.7	6.7	96.3
LBW	1.5	1.9	1.1	1.5	2.3	98.5

Superior Materials, LLC
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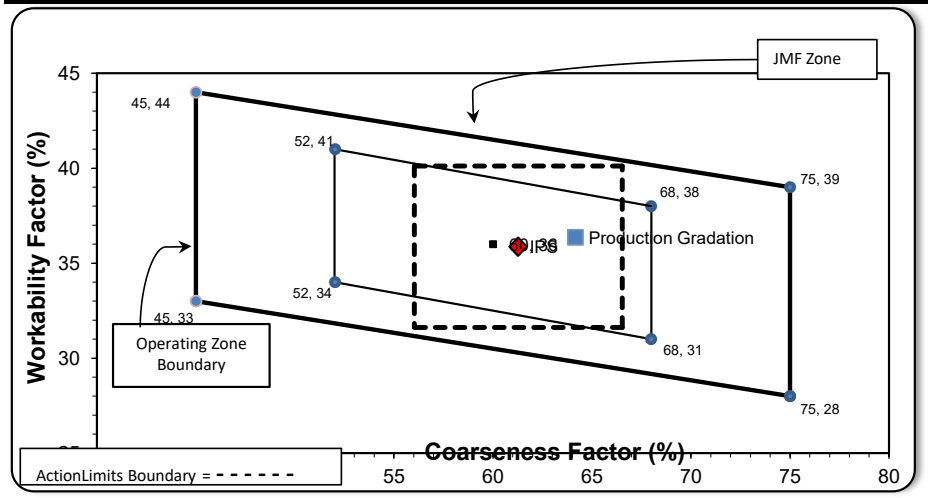
Suite 500
Farmington Hills, MI 48336

*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 36.4



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

Aggregate Optimization Chart

Production Gradation Report

PLANT #: **P-38**

Contractor: _____

Sample Date: 8/26/26

Concrete Grade: **P1M-3500HP**

Dates Test Represents: 8/27/2026 through 9/2/2026

MDOT No.: _____

Agg. Class	Pit #	Source	Weight (SSD)	ft³	Specific Gravity	% Contribution
CA	58-003	StoneCo	1220	7.27	2.69	38.7
IA	58-003	StoneCo	740	4.41	2.69	23.5
2NS	81-019	Pleasant Lk	1190	7.20	2.65	37.8
		Total Wt	**3150**	**18.87**		100.0

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

Superior Materials, LLC
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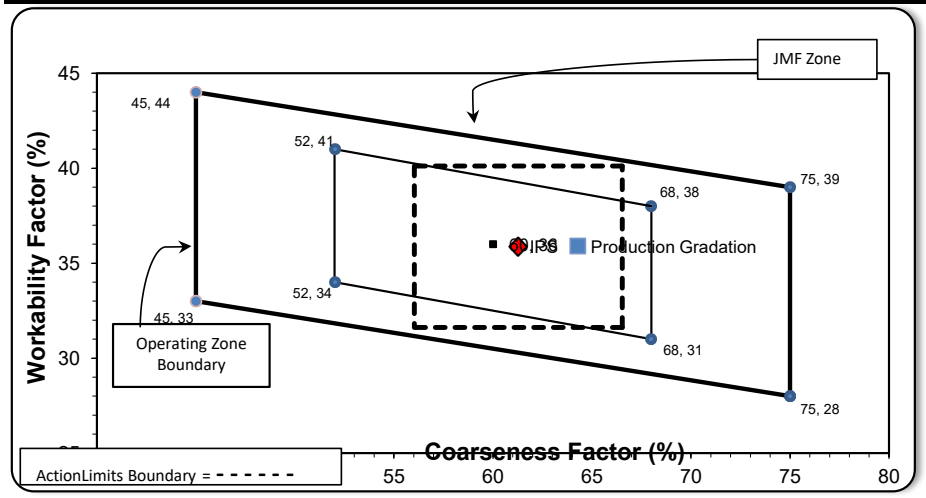
Suite 500
Farmington Hills, MI 48336

Sieve	CA	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"	60.5	100.0	100.0	84.7	15.3	15.3
3/4"	32.5	99.9	100.0	73.8	10.9	26.2
1/2"	11.6	88.4	100.0	63.0	10.8	37.0
3/8"	6.7	71.6	100.0	57.2	5.8	42.8
#4	2.1	19.5	97.9	42.4	14.8	57.6
#8	1.4	2.9	85.2	33.4	9.0	66.6
#16	1.1	1.8	64.5	25.2	8.2	74.8
#30	0.9	1.5	42.5	16.8	8.5	83.2
#50	0.9	1.4	14.9	6.3	10.5	93.7
#100	0.8	1.3	3.4	1.9	4.4	98.1
LBW	0.9	1.1	1.3	1.1	0.8	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.

Production Gradation ○ Batch Plant Gradations ◉ Aggregate Supplier Gradations

Coarseness Factor:	64	Workability Factor:	33	Adjusted WF 35.9



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

Aggregate Optimization Chart

Production Gradation Report

PLANT #: **P-39**

Contractor: _____

Sample Date: 8/26/26

Concrete Grade: **P1M-3500HP**

Dates Test Represents: 8/27/2026 through 9/2/2026

MDOT No.: _____

Agg. Class	Pit #	Source	Weight (SSD)	ft³	Specific Gravity	% Contribution
CA	71-47	Presque Isle	850	5.30	2.57	27.9
IA	71-47	Presque Isle	1050	6.55	2.57	34.4
2NS	63-0009	Koenig	1150	6.95	2.65	37.7
		Total Wt	**3050**	**18.80**		100.0

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

Sieve	CA	IA	2NS	Cumulative % Passing	% Retained	Cumulative % Retained
2"	100.0	100.0	100.0	100.0	0.0	0.0
1.5"	96.2	100.0	100.0	98.9	1.1	1.1
1"	37.4	100.0	100.0	82.6	16.4	17.4
3/4"	8.1	100.0	100.0	74.4	8.2	25.6
1/2"	3.0	80.6	100.0	66.3	8.1	33.7
3/8"	2.7	56.3	100.0	57.8	8.4	42.2
#4	2.3	14.2	97.5	42.3	15.5	57.7
#8	2.2	4.6	84.1	33.9	8.4	66.1
#16	2.1	2.8	69.4	27.7	6.2	72.3
#30	2.0	2.5	50.6	20.5	7.2	79.5
#50	1.9	2.4	24.8	10.7	9.8	89.3
#100	1.8	2.2	2.5	2.2	8.5	97.8
LBW	1.5	1.9	0.2	1.1	1.1	98.9

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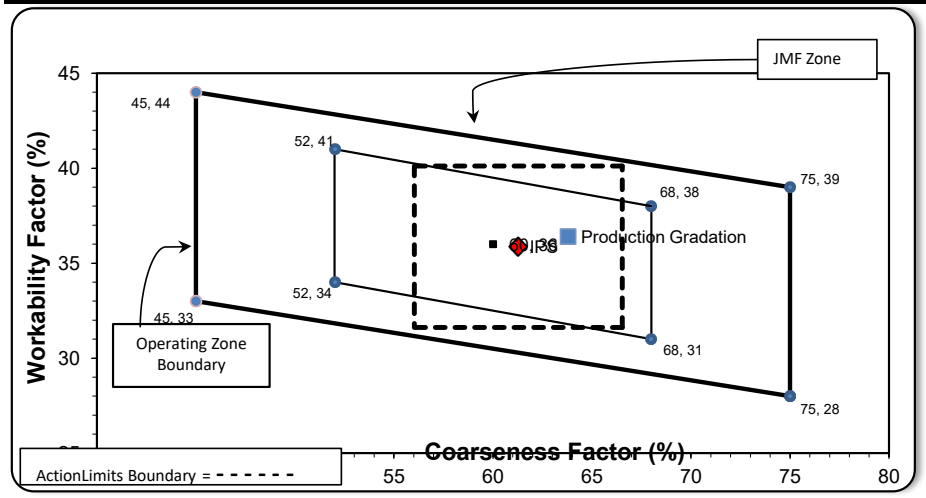
Suite 500
Farmington Hills, MI 48336

*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: 36.4



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

Aggregate Optimization Chart

Production Gradation Report

PLANT #: **P-102**

Contractor: _____

Sample Date: 8/26/26

Concrete Grade: **P1M-3500HP**

Dates Test Represents: 8/27/2026 through 9/2/2026

MDOT No.: _____

Agg. Class	Pit #	Source	Weight (SSD)	ft³	Specific Gravity	% Contribution
CA	58-003	StoneCo	1180	7.03	2.69	38.1
IA	58-003	StoneCo	730	4.35	2.69	23.5
2NS	63-114	Highland	1190	7.17	2.66	38.4
		Total Wt	**3100**	**18.55**		100.0

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

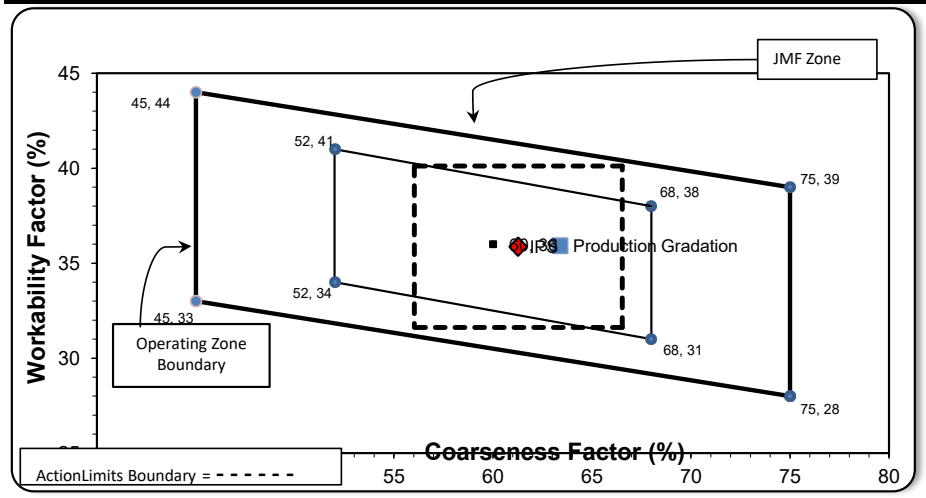
Sieve	CA	IA	2NS	Cumulative % Passing	% Retained	Cumulative % Retained
2"	100.0	100.0	100.0	100.0	0.0	0.0
1.5"	100.0	100.0	100.0	100.0	0.0	0.0
1"	60.5	100.0	100.0	85.0	15.0	15.0
3/4"	32.5	99.9	100.0	74.3	10.7	25.7
1/2"	11.6	88.4	100.0	63.6	10.7	36.4
3/8"	6.7	71.6	100.0	57.8	5.8	42.2
#4	2.1	19.5	98.5	43.2	14.6	56.8
#8	1.4	2.9	83.9	33.4	9.8	66.6
#16	1.1	1.8	66.1	26.2	7.2	73.8
#30	0.9	1.5	46.3	18.5	7.7	81.5
#50	0.9	1.4	21.8	9.0	9.4	91.0
#100	0.8	1.3	4.3	2.3	6.8	97.7
LBW	0.9	1.1	0.4	0.8	1.5	99.2

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:	63	Workability Factor:	33	Adjusted WF 35.9



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

Aggregate Optimization Chart

Production Gradation Report

PLANT #: **P-103**

Contractor: _____

Sample Date: 8/26/26

Concrete Grade: **P1M-3500HP**

Dates Test Represents: 8/27/2026 through 9/2/2026

MDOT No.: _____

Agg. Class	Pit #	Source	Weight (SSD)	ft³	Specific Gravity	% Contribution
CA	58-003	StoneCo	1180	7.03	2.69	38.1
IA	58-003	StoneCo	730	4.35	2.69	23.5
2NS	63-114	Highland	1190	7.17	2.66	38.4
		Total Wt	**3100**	**18.55**		100.0

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

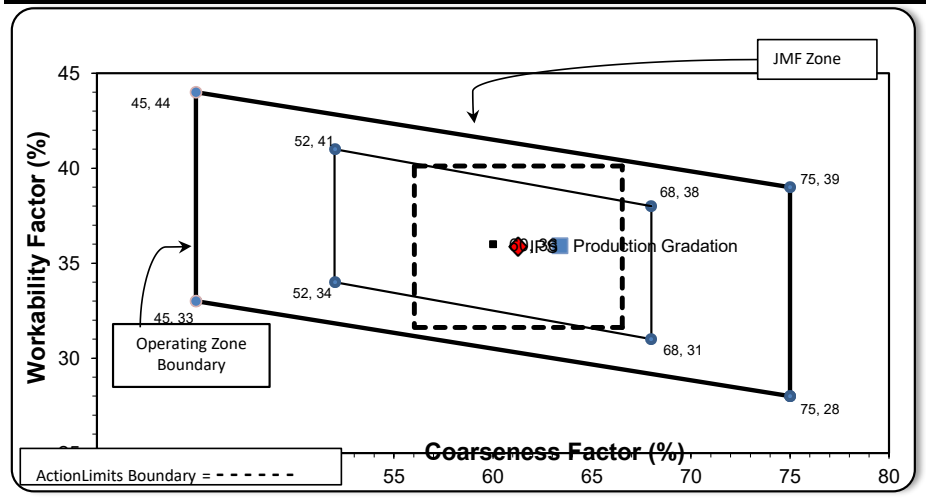
Superior Materials, LLC
30701 W. 10 Mile Rd.
Suite 500
Farmington Hills, MI 48336

Sieve	CA	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"	60.5	100.0	100.0	85.0	15.0	15.0
3/4"	32.5	99.9	100.0	74.3	10.7	25.7
1/2"	11.6	88.4	100.0	63.6	10.7	36.4
3/8"	6.7	71.6	100.0	57.8	5.8	42.2
#4	2.1	19.5	98.5	43.2	14.6	56.8
#8	1.4	2.9	83.9	33.4	9.8	66.6
#16	1.1	1.8	66.1	26.2	7.2	73.8
#30	0.9	1.5	46.3	18.5	7.7	81.5
#50	0.9	1.4	21.8	9.0	9.4	91.0
#100	0.8	1.3	4.3	2.3	6.8	97.7
LBW	0.9	1.1	0.4	0.8	1.5	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

Coarseness Factor:	63	Workability Factor:	33	Adjusted WF 35.9



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