Aggregate Optimization Chart

Production Gradation Report

PLANT #: **P-102**

Contractor: _____

Sample Date: 10/13/25

Concrete Grade: **DM, 4500HP**

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

MDOT No.: _____

Agg. Class	Pit #	Source	Weight (SSD)	ft³	Specific Gravity	% Contribution
6AA	58-003	Stoneco	1550	9.23	2.69	52.5
26A	58-003	Stoneco	250	1.49	2.69	8.5
2NS	63-114	Highland	1150	6.95	2.65	39.0
		Total Wt	**2950**	**17.68**		100.0

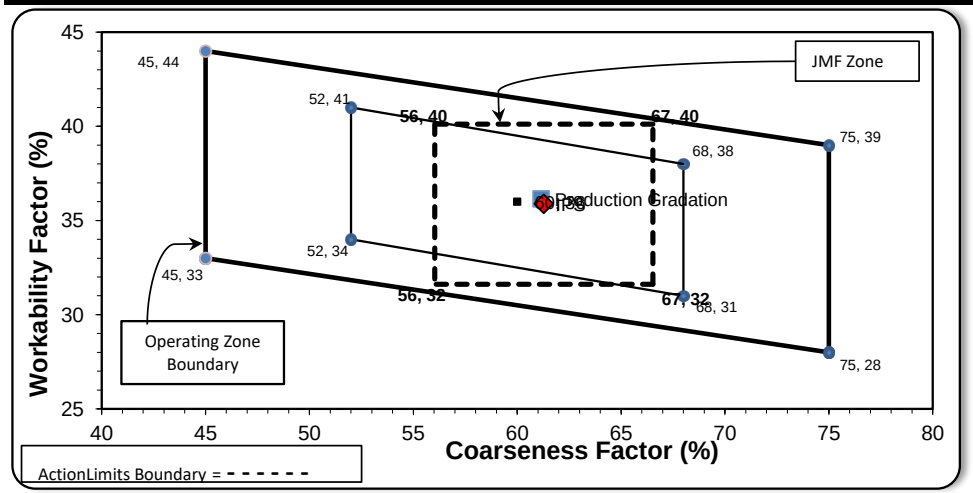
<----- Verify this number is 100%

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	91.3	8.7	8.7
1/2"	43.8	99.6	100.0	70.4	20.8	29.6
3/8"	25.1	85.6	100.0	59.4	11.0	40.6
#4	3.6	10.7	98.8	41.3	18.1	58.7
#8	1.6	3.0	83.5	33.6	7.7	66.4
#16	1.4	2.3	65.3	26.4	7.3	73.6
#30	1.2	2.0	47.4	19.3	7.1	80.7
#50	1.2	1.6	23.0	9.7	9.5	90.3
#100	1.1	1.5	4.3	2.4	7.4	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.

Production Gradation ○ Batch Plant Gradations ◉ Aggregate Supplier Gradations

Coarseness Factor:	61	Workability Factor:	34	Adjusted WF 36.1



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

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

PREPARED BY:
SM, LLC Technical Service

Approved By:

Aggregate Optimization Chart

Production Gradation Report

PLANT #: **P-103**

Contractor: _____

Sample Date: 10/13/25

Concrete Grade: **DM, 4500HP**

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

MDOT No.: _____

Agg. Class	Pit #	Source	Weight (SSD)	ft³	Specific Gravity	% Contribution
6AA	58-003	Stoneco	1550	9.23	2.69	52.5
26A	58-003	Stoneco	250	1.49	2.69	8.5
2NS	63-114	Highland	1150	6.95	2.65	39.0
		Total Wt	**2950**	**17.68**		100.0

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

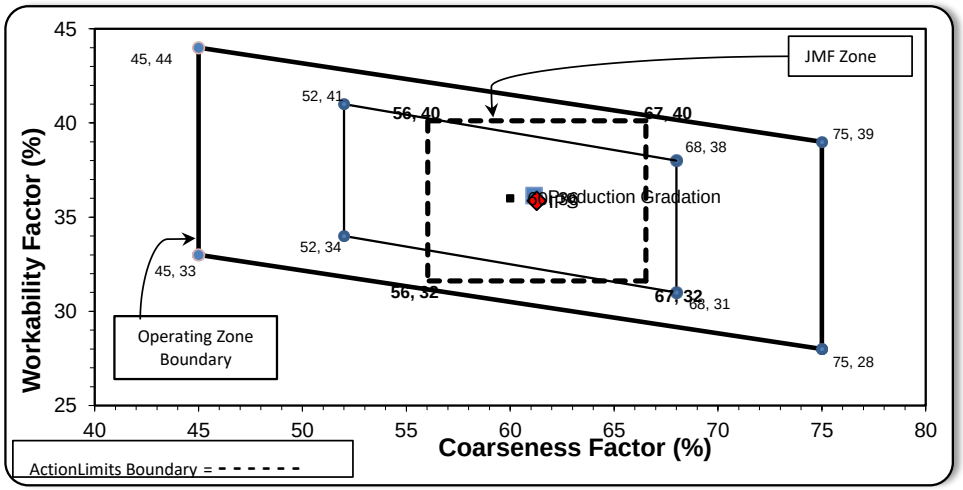
Sieve	6AA	26A	2NS	Cumulative % Passing	% Retained	Cumulative % Retained
2"	100.0	100.0	100.0	100.0	0.0	0.0
1.5"	100.0	100.0	100.0	100.0	0.0	0.0
1"	100.0	100.0	100.0	100.0	0.0	0.0
3/4"	83.4	100.0	100.0	91.3	8.7	8.7
1/2"	43.8	99.6	100.0	70.4	20.8	29.6
3/8"	25.1	85.6	100.0	59.4	11.0	40.6
#4	3.6	10.7	98.8	41.3	18.1	58.7
#8	1.6	3.0	83.5	33.6	7.7	66.4
#16	1.4	2.3	65.3	26.4	7.3	73.6
#30	1.2	2.0	47.4	19.3	7.1	80.7
#50	1.2	1.6	23.0	9.7	9.5	90.3
#100	1.1	1.5	4.3	2.4	7.4	97.6
LBW	0.9	1.1	0.8	0.9	1.5	99.1

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:	61	Workability Factor:	34	Adjusted WF 36.1



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

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SM, LLC Technical Service

Approved BY:

Aggregate Optimization Chart

Production Gradation Report

PLANT #: 12

Contractor: _____

Sample Date: 10/13/25

Concrete Grade: **DM, 4500HP**

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

MDOT No.: _____

Agg. Class	Pit #	Source	Weight (SSD)	ft³	Specific Gravity	% Contribution
6AA	71-47	Presque Isle	1505	9.21	2.62	51.8
26A	71-47	Presque Isle	250	1.53	2.62	8.6
2NS	63-115	Ray Rd	1150	6.95	2.65	39.6
		Total Wt	**2905**	**17.69**		100.0

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

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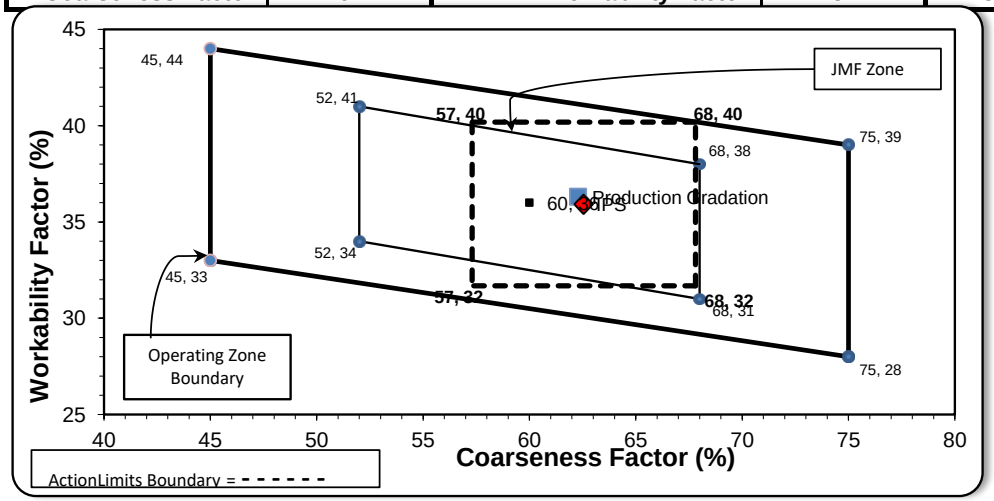
Sieve	6AA	26A	2NS	Cumulative % Passing	% Retained	Cumulative % Retained
2"	100.0	100.0	100.0	100.0	0.0	0.0
1.5"	100.0	100.0	100.0	100.0	0.0	0.0
1"	99.3	100.0	100.0	99.6	0.4	0.4
3/4"	87.1	100.0	100.0	93.3	6.3	6.7
1/2"	43.4	98.9	100.0	70.6	22.7	29.4
3/8"	23.2	83.3	100.0	58.8	11.8	41.2
#4	3.6	14.8	97.4	41.7	17.1	58.3
#8	2.0	5.5	81.6	33.8	7.9	66.2
#16	1.7	3.2	62.3	25.8	8.0	74.2
#30	1.6	2.6	44.6	18.7	7.1	81.3
#50	1.6	2.3	21.9	9.7	9.0	90.3
#100	1.5	2.1	5.3	3.1	6.6	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.

Production Gradation ○ Batch Plant Gradations ◉ Aggregate Supplier Gradations

Coarseness Factor:	62	Workability Factor:	34	Adjusted WF 36.3



Intial 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"	99.3	0.7	0.7
3/4"	89.0	10.3	11.0
1/2"	70.3	18.7	29.7
3/8"	59.9	10.4	40.1
#4	41.9	18.0	58.1
#8	35.9	6.0	64.1
#16	27.8	8.2	72.2
#30	18.9	8.8	81.1
#50	6.3	12.6	93.7
#100	1.7	4.6	98.3
LBW	1.0	0.7	99.0

Approved By:

PREPARED BY:
SM, LLC Technical Service

Aggregate Optimization Chart

Production Gradation Report

PLANT #: **p11**

Contractor: _____

Sample Date: 10/13/25

Concrete Grade: **DM, 4500HP**

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

MDOT No.: _____

Agg. Class	Pit #	Source	Weight (SSD)	ft³	Specific Gravity	% Contribution
6AA	71-47	Presque Isle	1505	9.21	2.62	51.8
26A	71-47	Presque Isle	250	1.53	2.62	8.6
2NS	63-115	Ray Rd	1150	6.95	2.65	39.6
		Total Wt	**2905**	**17.69**		100.0

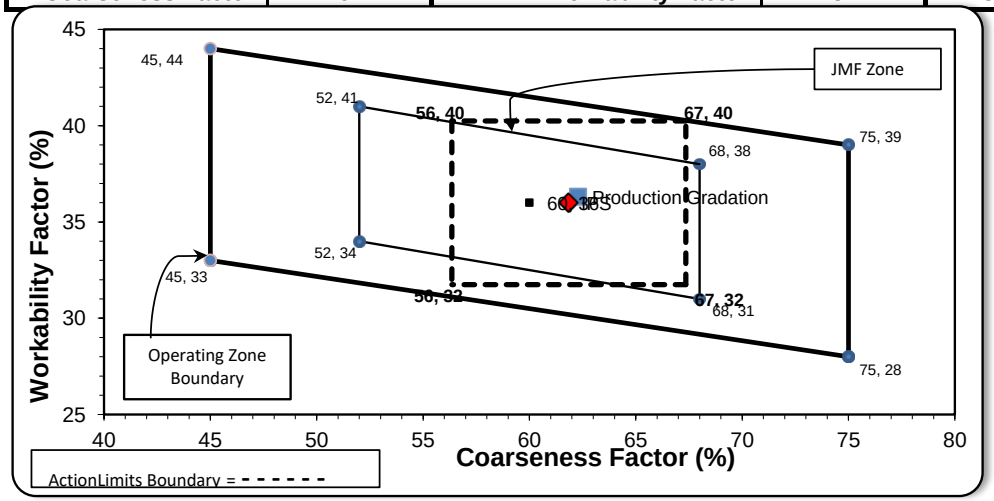
<----- Verify this number is 100%

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	99.6	0.4	0.4
3/4"	87.1	100.0	100.0	93.3	6.3	6.7
1/2"	43.4	98.9	100.0	70.6	22.7	29.4
3/8"	23.2	83.3	100.0	58.8	11.8	41.2
#4	3.6	14.8	97.4	41.7	17.1	58.3
#8	2.0	5.5	81.6	33.8	7.9	66.2
#16	1.7	3.2	62.3	25.8	8.0	74.2
#30	1.6	2.6	44.6	18.7	7.1	81.3
#50	1.6	2.3	21.9	9.7	9.0	90.3
#100	1.5	2.1	5.3	3.1	6.6	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.

Production Gradation ○ Batch Plant Gradations ◉ Aggregate Supplier Gradations

Coarseness Factor:	62	Workability Factor:	34	Adjusted WF 36.3



Intial Production Sample (IPS)

Coarseness Factor:	62
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"	100.0	0.0	0.0
3/4"	95.0	5.0	5.0
1/2"	72.3	22.8	27.7
3/8"	60.4	11.8	39.6
#4	42.6	17.8	57.4
#8	36.0	6.6	64.0
#16	29.5	6.5	70.5
#30	20.3	9.2	79.7
#50	9.5	10.8	90.5
#100	3.4	6.1	96.6
LBW	1.3	2.1	98.7

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PREPARED BY:
SM, LLC Technical Service

Approved By:

Aggregate Optimization Chart

Production Gradation Report

PLANT #: **P-O2**

Contractor: _____

Sample Date: 10/13/25

Concrete Grade: **DM, 4500HP**

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

MDOT No.: _____

Agg. Class	Pit #	Source	Weight (SSD)	ft³	Specific Gravity	% Contribution
6AA	71-47	Presque Isle	1505	9.21	2.62	51.8
26A	71-47	Presque Isle	250	1.53	2.62	8.6
2NS	63-115	Ray Rd	1150	6.95	2.65	39.6
		Total Wt	**2905**	**17.69**		100.0

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

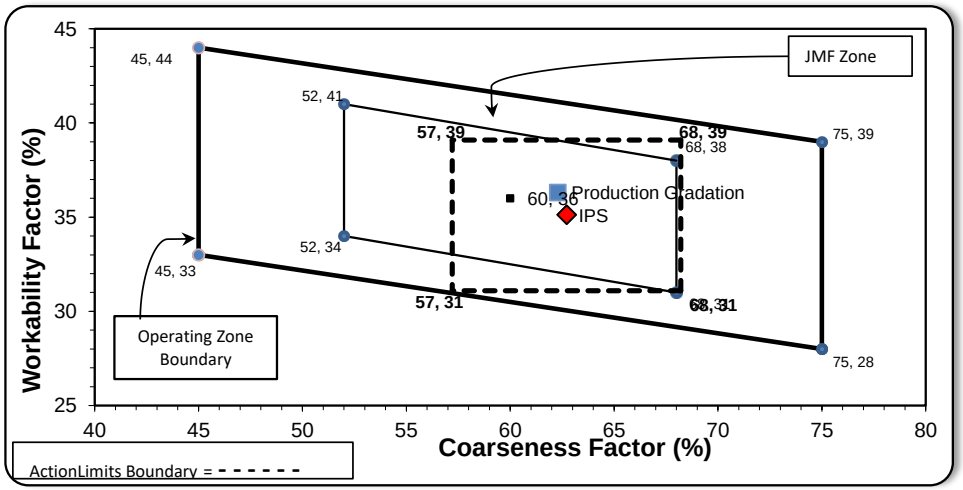
Sieve	6AA	26A	2NS	Cumulative % Passing	% Retained	Cumulative % Retained
2"	100.0	100.0	100.0	100.0	0.0	0.0
1.5"	100.0	100.0	100.0	100.0	0.0	0.0
1"	99.3	100.0	100.0	99.6	0.4	0.4
3/4"	87.1	100.0	100.0	93.3	6.3	6.7
1/2"	43.4	98.9	100.0	70.6	22.7	29.4
3/8"	23.2	83.3	100.0	58.8	11.8	41.2
#4	3.6	14.8	97.4	41.7	17.1	58.3
#8	2.0	5.5	81.6	33.8	7.9	66.2
#16	1.7	3.2	62.3	25.8	8.0	74.2
#30	1.6	2.6	44.6	18.7	7.1	81.3
#50	1.6	2.3	21.9	9.7	9.0	90.3
#100	1.5	2.1	5.3	3.1	6.6	96.9
LBW	1.3	1.8	0.8	1.1	1.9	98.9

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 SupplierGradations

Coarseness Factor:	62	Workability Factor:	34	Adjusted WF 36.3



Intial Production Sample (IPS)

Coarseness Factor:	63
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"	95.1	4.9	4.9
1/2"	74.6	20.5	25.4
3/8"	59.3	15.3	40.7
#4	42.1	17.2	57.9
#8	35.1	7.1	64.9
#16	29.2	5.9	70.8
#30	21.9	7.3	78.1
#50	9.6	12.4	90.4
#100	2.4	7.2	97.6
LBW	0.9	1.5	99.1

PREPARED BY:
SM, LLC Technical Service

Approved By: