Approved By:

PLANT #: P-102

Sample Date:

11/13/23 Concrete Grade: S2M, 3500HP

Dates Test F	Represents:	11/14/2023	through	11/20/2023		
Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution
6AA	58-003	Stoneco	1500	8.94	2.69	48.4
26A	58-003	Stoneco	400	2.38	2.69	12.9
2NS	81-019	Pleasant Lake	1200	7.26	2.65	38.7

Contractor:

MDOT No.:



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

	Total Wt	3100	18.58		100.0	< Verify this n	umber is 100%
Sieve	6AA	26	A	2NS	Cumulative % Passing	% Retained	Cumulative % Retained
2"	100.0	100	0.0	100.0	100.0	0.0	0.0
1.5"	100.0	100	0.0	100.0	100.0	0.0	0.0
1"	100.0	100	0.0	100.0	100.0	0.0	0.0
3/4"	80.6	100	0.0	100.0	90.6	9.4	9.4
1/2"	37.2	97	.8	100.0	69.3	21.3	30.7
3/8"	12.8	84	.2	100.0	55.8	13.6	44.2
#4	2.2	12	.5	98.2	40.7	15.1	59.3
#8	1.6	3.	9	83.9	33.8	6.9	66.2
#16	1.5	2.	4	67.4	27.1	6.6	72.9
#30	1.4	2.	0	49.1	19.9	7.2	80.1
#50	1.4	1.	8	25.3	10.7	9.2	89.3
#100	1.2	1.	6	7.3	3.6	7.1	96.4
LBW	0.8	1.	6	1.5	1.2	2.4	98.8

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

*Any two adjacent sieves must equal 10% except max.,

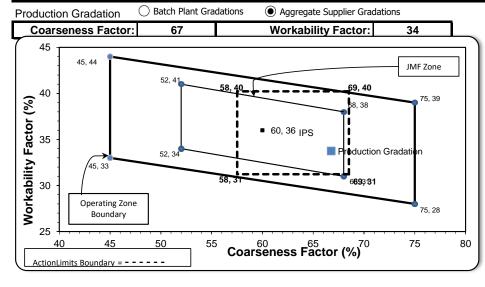
nom. max., #100 and #200 sieves.

*% 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.



Intial Production Sample (IPS)

Coarseness Factor:		63	
Work	Workability Factor:		
Sieve	Cumulative	%	Cumulative
Sieve	% Passing	Retained	% Retained
2"	100.0	0.0	0.0
1.5"	100.0	0.0	0.0
1"	99.2	0.8	0.8
3/4"	90.9	8.3	9.1
1/2"	71.3	19.6	28.7
3/8"	59.5	11.8	40.5
#4	43.8	15.7	56.2
#8	35.7	8.1	64.3
#16	27.0	8.7	73.0
#30	18.6	8.4	81.4
#50	6.8	11.8	93.2
#100	1.4	5.4	98.6
LBW	0.6	0.8	99.4

11/13/23

PLANT #: 12

Sample Date:

Concrete Grade: S2M, 3500HP

Contractor:

Dates Test F	Represents:	11/14/2023	through	11/20/2023		
Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution
6AA	71-47	Presque Isle	1550	9.48	2.62	50.8
26A	71-47	Presque Isle	270	1.65	2.62	8.9
2NS	63-115	Ray Rd	1230	7.44	2.65	40.3
		Total Wt	3050	18.57		100.0

MDOT No.:

---- Verify this number is 100%

SUPERIOR	

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	ĺ
1.5"	100.0	100.0	100.0	100.0	0.0	0.0	ĺ
1"	98.8	100.0	100.0	99.4	0.6	0.6	ĺ
3/4"	75.2	100.0	100.0	87.4	12.0	12.6	ĺ
1/2"	36.0	95.5	100.0	67.1	20.3	32.9	ĺ
3/8"	20.1	88.5	100.0	58.4	8.7	41.6	ĺ
#4	4.0	20.6	96.2	42.7	15.7	57.3	ĺ
#8	2.2	4.8	80.3	33.9	8.7	66.1	n
#16	2.0	2.6	65.1	27.5	6.4	72.5	ı
#30	1.9	2.0	49.5	21.1	6.4	78.9	n
#50	1.8	1.8	26.5	11.8	9.3	88.2	ĺ
#100	1.8	1.8	6.3	3.6	8.1	96.4	а
LBW	1.2	1.5	0.8	1.1	2.5	98.9	ĺ

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

*Any two adjacent sieves must equal 10% except max.,

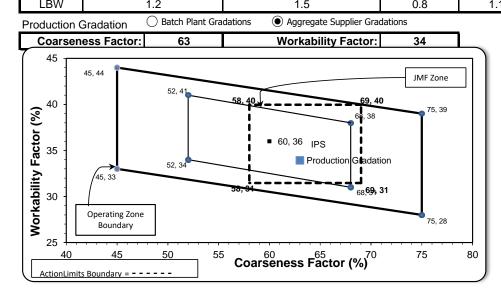
nom. max., #100 and #200 sieves.

*% 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.



Intial Production Sample (IPS)

Coars	eness Factor:	64	
Work	Workability Factor:		
Sieve	Cumulative	%	Cumulative
Sieve	% Passing	Retained	% Retained
2"	100.0	0.0	0.0
1.5"	100.0	0.0	0.0
1"	99.2	0.8	0.8
3/4"	90.9	8.3	9.1
1/2"	71.3	19.6	28.7
3/8"	59.2	12.1	40.8
#4	41.5	17.7	58.5
#8	35.7	5.8	64.3
#16	27.9	7.9	72.1
#30	18.3	9.5	81.7
#50	7.3	11.0	92.7
#100	2.0	5.3	98.0
LBW	0.9	1.1	99.1

Total Wt

PLANT #: p11

Sample Date:

1/13/23 Concrete Grade: **S2M**, **3500HP**

18.57

ates Test F	Represents:	11/14/2023	through	11/20/2023		
\gg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution
6AA	71-47	Presque Isle	1500	9.17	2.62	49.2
26A	71-47	Presque Isle	320	1.96	2.62	10.5
2NS	95-013	Smelter Bay	1230	7.44	2.65	40.3

3050

Contractor:

MDOT No.:



----- Verify this number is 100%

Cumulative % Retained	
0.0	Suite 500
0.0	Farmington Hills, MI 48336

Cumulative 6AA 26A % Retained Sieve 2NS % Passing 2" 100.0 100.0 100.0 100.0 0.0 1.5" 100.0 100.0 100.0 100.0 0.0 97.6 100.0 100.0 98.8 1.2 1.2 3/4" 75.5 100.0 100.0 0.88 10.9 12.0 1/2' 34.6 95.5 100.0 67.4 20.6 32.6 3/8' 88.5 100.0 60.5 39.5 22.1 6.9 #4 4.8 20.6 95.9 43.2 17.3 56.8 #8 2.8 4.8 85.0 36.2 7.0 63.8 #16 2.6 2.6 70.9 30.1 6.0 69.9 #30 2.5 51.7 22.3 7.9 77.7 2.0 #50 2.4 1.8 25.6 11.7 10.6 88.3 #100 2.3 1.8 7.7 4.4 7.3 95.6

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

*Any two adjacent sieves must equal 10% except max.,

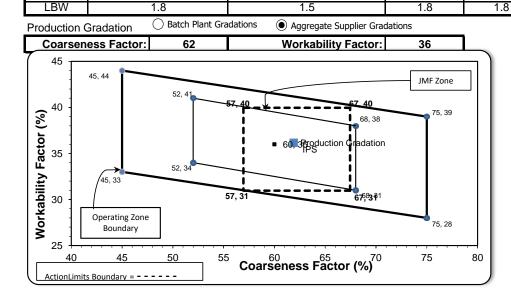
nom. max., #100 and #200 sieves.

*% 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.



Intial Production Sample (IPS)

2.7

Coars	eness Factor:	62	
Work	ability Factor:	35	
Sieve	Cumulative	%	Cumulative
Sieve	% Passing	Retained	% 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"	94.0	6.0	6.0
1/2"	70.2	23.7	29.8
3/8"	59.9	10.4	40.1
#4	42.7	17.2	57.3
#8	35.5	7.2	64.5
#16	28.4	7.0	71.6
#30	19.2	9.2	80.8
#50	8.9	10.3	91.1
#100	3.1	5.9	96.9
LBW	1.4	1.7	98.6

PREPARED BY: SM, LLC Technical Service Approved By:

PLANT #: P-32

6AA

2.3

Sample Date:

Sieve

#100

LBW

11/13/23 Concrete Grade: S2M, 3500HP

Dates Test Represents:		11/14/2023	through	11/20/2023		
Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution
6AA	71-47	Presque Isle	1500	9.17	2.62	49.2
26A	71-47	Presque Isle	320	1.96	2.62	10.5
2NS	95-013	Smelter Bay	1230	7.44	2.65	40.3
		Total Wt	3050	18.57		100.0

26A

1.8

Contractor:

Cumulative

95.6

98.2

MDOT No.:

% Retained

7.3

Cumulative

4.4

1.8

2NS

7.7



---- Verify this number is 100%

Superior Materials, LLC
30701 W. 10 Mile Rd.
Suite 500
F

Farmington Hills, MI 48336

				% Passing		% 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"	97.6	100.0	100.0	98.8	1.2	1.2
3/4"	75.5	100.0	100.0	88.0	10.9	12.0
1/2"	34.6	95.5	100.0	67.4	20.6	32.6
3/8"	22.1	88.5	100.0	60.5	6.9	39.5
#4	4.8	20.6	95.9	43.2	17.3	56.8
#8	2.8	4.8	85.0	36.2	7.0	63.8
#16	2.6	2.6	70.9	30.1	6.0	69.9
#30	2.5	2.0	51.7	22.3	7.9	77.7
#50	2.4	1.8	25.6	11 7	10.6	88.3

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

*Any two adjacent sieves must equal 10% except max.,

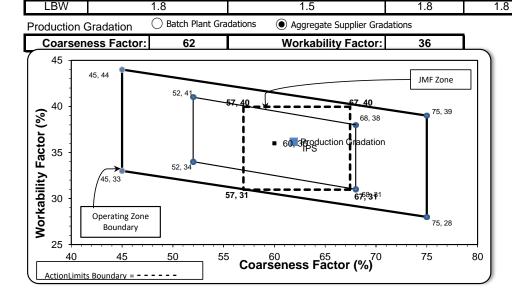
nom. max., #100 and #200 sieves.

*% 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.



Intial Production Sample (IPS)

Coars	eness Factor:	62	
Work	ability Factor:	35	
Sieve	Cumulative	%	Cumulative
Sieve	% Passing	Retained	% 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"	94.0	6.0	6.0
1/2"	70.2	23.7	29.8
3/8"	59.9	10.4	40.1
#4	42.7	17.2	57.3
#8	35.5	7.2	64.5
#16	28.4	7.0	71.6
#30	19.2	9.2	80.8
#50	8.9	10.3	91.1
#100	3.1	5.9	96.9
LBW	1.4	1.7	98.6

PLANT #: P-35

Sample Date:

11/13/23 Concrete Grade: S2M, 3500HP 11/20/2023

Dates Test Represents:		11/14/2023	through	11/20/2023		
Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution
6AA	58-003	Stoneco	1500	8.94	2.69	48.4
26A	58-003	Stoneco	400	2.38	2.69	12.9
2NS	81-019	Pleasant Lake	1200	7.26	2.65	38.7

Contractor:

MDOT No.:



---- Verify this number is 100%

ative iined	
)	Suite 500
)	Farmington Hills, MI 48336

Total Wt 3100 18.58 Cumulative Cumula 6AA 26A % Retained Sieve 2NS % Passing % Reta 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 0.0 100.0 100.0 100.0 100.0 0.0 0.0 3/4" 80.6 100.0 100.0 90.6 9.4 9.4 1/2' 37.2 97.8 100.0 69.3 21.3 30.7 3/8' 84.2 100.0 44.2 12.8 55.8 13.6 #4 2.2 12.5 98.2 40.7 15.1 59.3 #8 1.6 3.9 83.9 33.8 6.9 66.2 #16 1.5 2.4 67.4 27.1 6.6 72.9 #30 49.1 19.9 80.1 1.4 2.0 7.2 #50 1.4 1.8 25.3 10.7 9.2 89.3 #100 1.2 1.6 7.3 3.6 7.1 96.4 LBW 1.6 98.8

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

*Any two adjacent sieves must equal 10% except max.,

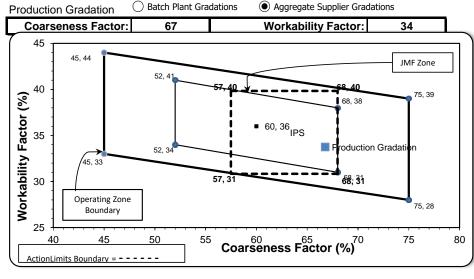
nom. max., #100 and #200 sieves.

*% 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.



Intial Production Sample (IPS)

Coars	eness Factor:	63	
Work	ability Factor:	35	
Sieve	Cumulative	%	Cumulative
Sieve	% Passing	Retained	% Retained
2"	100.0	0.0	0.0
1.5"	100.0	0.0	0.0
1"	99.2	0.8	0.8
3/4"	90.9	8.3	9.1
1/2"	71.3	19.6	28.7
3/8"	59.4	11.9	40.6
#4	43.0	16.5	57.0
#8	35.3	7.6	64.7
#16	28.2	7.1	71.8
#30	21.6	6.6	78.4
#50	9.1	12.5	90.9
#100	1.7	7.4	98.3
LBW	1.1	0.6	98.9

PLANT #: P-36

Sample Date:

11/13/23 Concrete Grade: **S2M**, **3500HP**

Dates Test Represents:		11/14/2023	through	11/20/2023		
Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution
6AA	71-47	Presque Isle	1500	9.17	2.62	49.2
26A	71-47	Presque Isle	350	2.14	2.62	11.5
2NS	63-92	Grange Hall	1200	7.26	2.65	39.3
		Total Wt	3050	18.57		100.0

Contractor:

MDOT No.:



---- Verify this number is 100%

d	Cumulative % Retained	<u>Superior Materials, LLC</u> 30701 W. 10 Mile Rd.
	0.0	Suite 500
	0.0	Farmington Hills, MI 48336

Cumulative 6AA 26A % Retained Sieve 2NS % Passing 2" 100.0 100.0 100.0 100.0 0.0 1.5" 100.0 100.0 100.0 100.0 0.0 0.0 98.8 100.0 100.0 99.4 0.6 0.6 3/4" 75.2 100.0 100.0 87.8 11.6 12.2 1/2' 36.0 95.5 100.0 68.0 19.8 32.0 3/8' 88.5 100.0 59.4 40.6 20.1 8.6 #4 4.0 20.6 96.0 42.1 17.3 57.9 #8 2.2 4.8 81.5 33.7 8.4 66.3 #16 2.0 2.6 66.6 27.5 6.2 72.5 #30 19.8 80.2 1.9 2.0 47.4 7.7 #50 1.8 1.8 20.8 9.3 10.5 90.7 #100 2.5 1.8 1.8 3.6 6.8 97.5 LBW 1.5 1.0 1.5

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

*Any two adjacent sieves must equal 10% except max.,

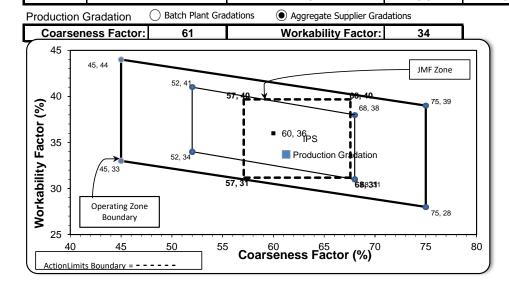
nom. max., #100 and #200 sieves.

*% 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.



Intial Production Sample (IPS)

Coars	eness Factor:	62	
Work	ability Factor:	35	
Sieve	Cumulative	%	Cumulative
Sieve	% Passing	Retained	% Retained
2"	100.0	0.0	0.0
1.5"	100.0	0.0	0.0
1"	99.1	0.9	0.9
3/4"	90.5	8.6	9.5
1/2"	69.8	20.7	30.2
3/8"	59.8	10.0	40.2
#4	42.2	17.6	57.8
#8	35.4	6.7	64.6
#16	28.8	6.7	71.2
#30	21.4	7.4	78.6
#50	8.8	12.6	91.2
#100	1.8	7.0	98.2
LBW	0.7	1.0	99.3

PREPARED BY: SM, LLC Technical Service Approved By:

PLANT #: P-02

Sample Date:

Concrete Grade: S2M, 3500HP 11/13/23

Dates Test F	Represents:	11/14/2023	through	11/20/2023		
Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution
6AA	71-47	Presque Isle	1550	9.48	2.62	50.8
26A	71-47	Presque Isle	270	1.65	2.62	8.9

Contractor:

MDOT No.:

Agg. Class	Pit#	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution
6AA	71-47	Presque Isle	1550	9.48	2.62	50.8
26A	71-47	Presque Isle	270	1.65	2.62	8.9
2NS	63-115	Ray Rd	1230	7.44	2.65	40.3
		Total Wt	3050	18.57		100.0

Verify this number is 100%

SUPERIOR MATERIALS

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

	TOTAL VVI	3030 16.37		100.0	< verify this n	uniber 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"	98.8	100.0	100.0	99.4	0.6	0.6
3/4"	75.2	100.0	100.0	87.4	12.0	12.6
1/2"	36.0	95.5	100.0	67.1	20.3	32.9
3/8"	20.1	88.5	100.0	58.4	8.7	41.6
#4	4.0	20.6	96.2	42.7	15.7	57.3
#8	2.2	4.8	80.3	33.9	8.7	66.1
#16	2.0	2.6	65.1	27.5	6.4	72.5
#30	1.9	2.0	49.5	21.1	6.4	78.9
#50	1.8	1.8	26.5	11.8	9.3	88.2
#100	1.8	1.8	6.3	3.6	8.1	96.4
LBW	1.2	1.5	0.8	1.1	2.5	98.9

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

*Any two adjacent sieves must equal 10% except max.,

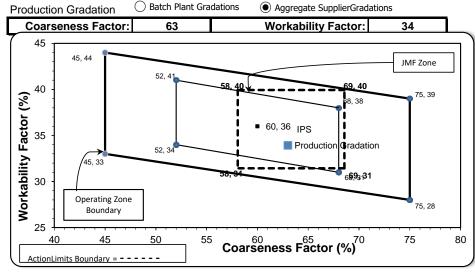
nom. max., #100 and #200 sieves.

*% 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.



Intial Production Sample (IPS)

Coars	eness Factor:	63	
Work	ability Factor:	36	
Sieve	Cumulative	%	Cumulative
	% Passing	Retained	% 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"	95.6	4.4	4.4
1/2"	73.1	22.6	26.9
3/8"	59.3	13.8	40.7
#4	42.8	16.5	57.2
#8	35.7	7.1	64.3
#16	28.9	6.8	71.1
#30	20.7	8.2	79.3
#50	9.9	10.8	90.1
#100	2.1	7.8	97.9
LBW	0.9	1.2	99.1