Sample Date:

8/7/23 Concrete Grade: P1M, 3500HP

Dates Test F	Represents:	8/8/2023	through	8/14/2023		
Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution
CA	71-47	Presque Isle	1070	6.54	2.62	34.9
IA	71-47	Presque Isle	800	4.89	2.62	26.1
2NS	75-051	Mid Michigan	1200	7.23	2.66	39.1
		Total W/s	2070	19.67		100.0

Contractor:

MDOT No.:

SUPERIO	R

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

Farmington Hills, MI 48336

	Total Wt		18.67		100.0	< Verify this n	umber is 100%
Sieve	CA	L	A	2NS	Cumulative % Passing	% Retained	Cumulative % Retained
2"	100.0	10	0.0	100.0	100.0	0.0	0.0
1.5"	100.0	10	0.0	100.0	100.0	0.0	0.0
1"	40.8	10	0.0	100.0	79.4	20.6	20.6
3/4"	13.4	98.5		100.0	69.4	9.9	30.6
1/2"	3.5	83	3.2	100.0	62.0	7.4	38.0
3/8"	2.6	63	3.7	100.0	56.6	5.4	43.4
#4	2.1	17	7.3	96.9	43.1	13.5	56.9
#8	2.1	4	.5	82.2	34.0	9.1	66.0 n
#16	2.1	2.7		67.9	28.0	6.1	72.0
#30	2.0	2.3		52.0	21.6	6.4	78.4 n
#50	2.0	2.1		23.8	10.5	11.1	89.5
#100	1.8	1.9		6.3	3.6	7.0	96.4 a
LBW	1.5	1	.7	0.9	1.3	2.3	98.7

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

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

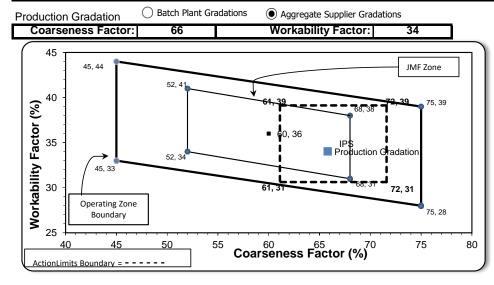
nom. max., #100 and #200 sieves.

 $^{*}\%$ Retained must be at least 4% for each sieve except max.,

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

*% Retained must be at least 8% for the 1" sieve when

a 2" max. size (nom. Max. 1.5") aggregate is used.



Initial Production Sample (IPS)

Coars	Coarseness Factor:		
Work	Workability Factor:		
Sieve	Cumulative	%	Cumulative
Sieve	% Passing	Retained	% Retained
2"	100.0	0.0	0.0
1.5"	99.6	0.4	0.4
1"	84.3	15.3	15.7
3/4"	74.8	9.6	25.2
1/2"	64.3	10.4	35.7
3/8"	56.8	7.5	43.2
#4	43.0	13.8	57.0
#8	34.9	8.1	65.1
#16	26.4	8.5	73.6
#30	19.9	6.5	80.1
#50	10.4	9.5	89.6
#100	3.4	7.0	96.6
LBW	1.2	2.2	98.8

PREPARED BY: SM, LLC Technical Service

CA

100.0

100.0

61.8

31.1

14.0

6.8

2.0

1.4

1.2

1.2

1.0

Sample Date:

Sieve

2"

1.5"

3/4"

1/2'

3/8'

#4

#8

#16

#30

#50

8/7/23 Concrete Grade: P1M, 3500HP

Dates Test F	Represents:	8/8/2023	through	8/14/2023		
Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution
CA	58-003	Stoneco	1370	8.16	2.69	43.9
IA	58-003	Stoneco	550	3.28	2.69	17.6
2NS	81-019	Pleasant Lake	1200	7.26	2.65	38.5
		Total Wt	3120	18.70		100.0

IΑ

100.0

100.0

100.0

100.0

92.3

71.1

16.0

5.6

3.6

2.8

2.3

Contractor:

Cumulative

% Retained

0.0

0.0

16.8

30.3

39.1

46.0

58.6

66.4

73.5

80.9

90.4

96.9

99.2

MDOT No.:

---- Verify this number is 100%

% Retained

0.0

0.0

16.8

13.5

8.9

6.9

12.6

7.9

7.1

7.4

9.5

6.5

Cumulative

% Passing

100.0

100.0

83.2

69.7

60.9

54.0

41.4

33.6

26.5

19.1

9.6

2NS

100.0

100.0

100.0

100.0

100.0

100.0

98.1

83.1

65.9

46.9

22.7

SUPE	RIOR

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.,

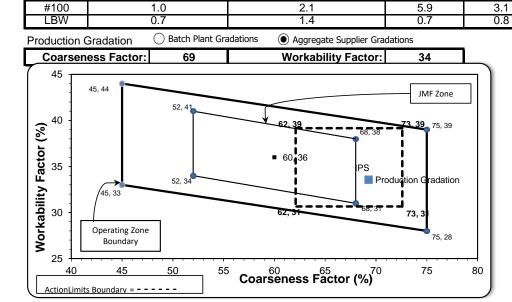
nom. max., #100 and #200 sieves.

*% Retained must be at least 4% for each sieve except max.,

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

*% Retained must be at least 8% for the 1" sieve when

a 2" max. size (nom. Max. 1.5") aggregate is used



Intial Production Sample (IPS)

Coars	Coarseness Factor:		
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"	85.5	14.5	14.5
3/4"	73.4	12.1	26.6
1/2"	61.0	12.4	39.0
3/8"	56.2	4.8	43.8
#4	43.1	13.1	56.9
#8	34.9	8.2	65.1
#16	29.4	5.5	70.6
#30	21.6	7.8	78.4
#50	8.1	13.4	91.9
#100	2.2	5.9	97.8
LBW	1.4	0.8	98.6

PREPARED BY: SM, LLC Technical Service

CA

100.0

100.0

61.8

31.1

14.0

6.8

2.0

1.4

1.2

1.2

1.0

1.0

Sample Date:

Sieve

2"

1.5"

3/4"

1/2'

3/8'

#4

#8

#16

#30

#50

#100

8/7/23 Concrete Grade: P1M, 3500HP

Dates Test I	Represents:	0/0/2023	through	8/14/2023		
Agg. Class	Pit#	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution
CA	58-003	Stoneco	1370	8.16	2.69	43.9
IA	58-003	Stoneco	550	3.28	2.69	17.6
2NS	81-019	Pleasant Lake	1200	7.26	2.65	38.5
		Total Wt	3120	18.70		100.0

IΑ

100.0

100.0

100.0

100.0

92.3

71.1

16.0

5.6

3.6

2.8

2.3

2.1

Contractor:

Cumulative

% Retained

0.0

0.0

16.8

30.3

39.1

46.0

58.6

66.4

73.5

80.9

90.4

96.9

MDOT No.:

% Retained

0.0

0.0

16.8

13.5

8.9

6.9

12.6

7.9

7.1

7.4

9.5

6.5

Cumulative

% Passing

100.0

100.0

83.2

69.7

60.9

54.0

41.4

33.6

26.5

19.1

9.6

3.1

2NS

100.0

100.0

100.0

100.0

100.0

100.0

98.1

83.1

65.9

46.9

22.7

5.9

<---- Verify this number is 100%

SUPERIOR MATERIALS

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.,

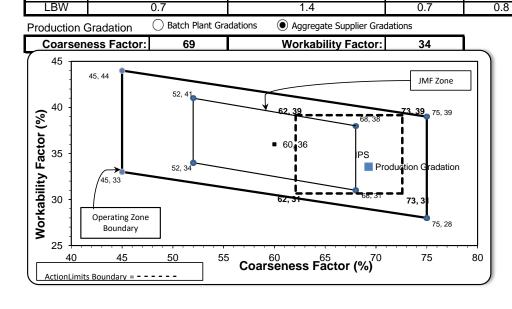
nom. max., #100 and #200 sieves.

*% Retained must be at least 4% for each sieve except max.,

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

*% Retained must be at least 8% for the 1" sieve when

a 2" max. size (nom. Max. 1.5") aggregate is used.



Intial Production Sample (IPS)

Coars	Coarseness Factor:		
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"	85.5	14.5	14.5
3/4"	73.4	12.1	26.6
1/2"	61.0	12.4	39.0
3/8"	56.2	4.8	43.8
#4	43.1	13.1	56.9
#8	34.9	8.2	65.1
#16	29.4	5.5	70.6
#30	21.6	7.8	78.4
#50	8.1	13.4	91.9
#100	2.2	5.9	97.8
LBW	1.4	8.0	98.6

PREPARED BY: SM, LLC Technical Service

PLANT #: Contractor: Sample Date: 8/7/23 Concrete Grade: P1M, 3500HP

Dates Test Represents: 8/8/2023 8/14/2023 through

Agg. Class	Pit#	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution
CA	58-003	Stoneco	1370	8.16	2.69	43.9
IA	58-003	Stoneco	550	3.28	2.69	17.6
2NS	19-04	Schlegel	1200	7.20	2.67	38.5
		Total Wt	3120	18.64		100.0

MDOT No.:

Builders Redi-Mix 30701 W. 10 Mile Rd. Suite 500

Farmington Hills, MI 48336

	I otal Wt	3120	18.64		100.0	< Verify this n	umber is 100%	
Sieve	CA	IA	1	2NS	Cumulative % Passing	% Retained	Cumulative % Retained	
2"	100.0	100	0.0	100.0	100.0	0.0	0.0	l
1.5"	100.0	100	0.0	100.0	100.0	0.0	0.0	l
1"	61.8	100	0.0	100.0	83.2	16.8	16.8	l
3/4"	31.1	100	0.0	100.0	69.7	13.5	30.3	
1/2"	14.0	92.3		100.0	60.9	8.9	39.1	
3/8"	6.8	71.	.1	100.0	54.0	6.9	46.0	
#4	2.0	16.	.0	99.9	42.1	11.9	57.9	
#8	1.4	5.0	6	90.1	36.3	5.9	63.7	n
#16	1.2	3.0	6	69.4	27.9	8.4	72.1	
#30	1.2	2.8	8	44.5	18.1	9.7	81.9	n
#50	1.0	2.3	3	14.3	6.3	11.8	93.7	
#100	1.0	2.	1	2.7	1.8	4.5	98.2	а
LBW	0.7	1.4	4	0.2	0.6	1.2	99.4	l
·	0	0			·	·	· ·	*

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

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

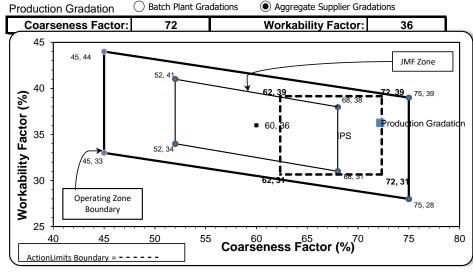
nom. max., #100 and #200 sieves.

*% Retained must be at least 4% for each sieve except max.,

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

*% Retained must be at least 8% for the 1" sieve when

a 2" max. size (nom. Max. 1.5") aggregate is used.



Intial Production Sample (IPS)

Coars	eness Factor:	67	
Workability Factor:		35	
Sieve	Cumulative	%	Cumulative
	% Passing	Retained	% Retained
2"	100.0	0.0	0.0
1.5"	100.0	0.0	0.0
1"	85.5	14.5	14.5
3/4"	73.4	12.1	26.6
1/2"	61.0	12.4	39.0
3/8"	56.2	4.8	43.8
#4	43.1	13.1	56.9
#8	34.9	8.2	65.1
#16	29.4	5.5	70.6
#30	21.6	7.8	78.4
#50	8.1	13.4	91.9
#100	2.2	5.9	97.8
LBW	1.4	0.8	98.6

PREPARED BY: SM, LLC Technical Service

8/7/23

PLANT #: 12

Concrete Grade: P1M, 3500HP

Contractor:

Sample Date: **Dates Test Represents:**

8/8/2023 8/14/2023 through

MDO	ΓNo.
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Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution
CA	71-47	Presque Isle	1020	6.24	2.62	33.2
IA	71-47	Presque Isle	850	5.20	2.62	27.7
2NS	63-115	Ray Rd	1200	7.26	2.65	39.1
		Total Wt	3070	18.70		100.0

SUPERIOR MATERIALS

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

	l otal Wt	3070	18.70		100.0	< Verify this n	umber is 100%
Sieve	CA	1/	4	2NS	Cumulative % Passing	% Retained	Cumulative % Retained
2"	100.0	100	0.0	100.0	100.0	0.0	0.0
1.5"	97.4	100	0.0	100.0	99.1	0.9	0.9
1"	35.8	100	0.0	100.0	78.7	20.5	21.3
3/4"	9.8	99).2	100.0	69.8	8.9	30.2
1/2"	2.8	77	⁷ .8	100.0	61.6	8.3	38.4
3/8"	2.1	51	.3	100.0	54.0	7.6	46.0
#4	2.0	10	0.0	96.0	41.0	13.0	59.0
#8	1.9	3.	3	80.8	33.1	7.8	66.9
#16	1.8	2.	3	65.5	26.8	6.3	73.2
#30	1.8	2.	.1	49.2	20.4	6.4	79.6
#50	1.8	2.	.0	24.6	10.8	9.6	89.2
#100	1.6	1.	.8	5.0	3.0	7.8	97.0
LBW	1.3	1.	.4	1.0	1.2	1.8	98.8

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

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

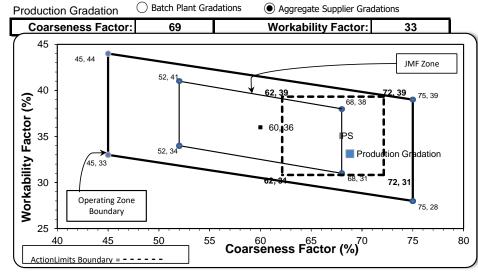
nom. max., #100 and #200 sieves.

*% Retained must be at least 4% for each sieve except max.,

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

*% Retained must be at least 8% for the 1" sieve when

a 2" max. size (nom. Max. 1.5") aggregate is used.



Intial Production Sample (IPS)

Coars	Coarseness Factor:		
Workability Factor:		35	
Sieve	Cumulative	%	Cumulative
Sieve	% Passing	Retained	% Retained
2"	100.0	0.0	0.0
1.5"	99.6	0.4	0.4
1"	83.9	15.7	16.1
3/4"	74.0	9.8	26.0
1/2"	63.7	10.3	36.3
3/8"	56.4	7.3	43.6
#4	43.0	13.4	57.0
#8	35.1	7.9	64.9
#16	29.0	6.1	71.0
#30	20.9	8.0	79.1
#50	8.1	12.8	91.9
#100	1.6	6.5	98.4
LBW	0.9	0.8	99.1

PREPARED BY: SM, LLC Technical Service

Total Wt

PLANT #: 20

Sample Date:

8/7/23 Concrete Grade: **P1M**, **3500HP**

18.70

Dates Test F	represents:	8/8/2023	tnrougn	8/14/2023		
Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution
CA	71-47	Presque Isle	970	5.93	2.62	31.6
IA	71-47	Presque Isle	900	5.50	2.62	29.3
2NS	63-92	Grange Hall	1200	7.26	2.65	39.1

3070

MDOT No.:

Contractor:

100.0

<---- Verify this number is 100%

SUPER	IOR

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"	98.5	100.0	100.0	99.5	0.5	0.5
1"	42.7	100.0	100.0	81.9	17.6	18.1
3/4"	11.5	99.2	100.0	71.8	10.1	28.2
1/2"	2.7	72.8	100.0	61.3	10.5	38.7
3/8"	2.1	50.9	100.0	54.7	6.6	45.3
#4	1.7	10.5	97.4	41.7	13.0	58.3
#8	1.7	3.7	83.8	34.4	7.3	65.6
#16	1.7	2.7	70.2	28.8	5.6	71.2
#30	1.6	2.4	51.6	21.4	7.4	78.6
#50	1.6	2.3	21.3	9.5	11.9	90.5
#100	1.5	2.1	3.3	2.4	7.1	97.6
LBW	1.1	1.8	1.0	1.3	1.1	98.7

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

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

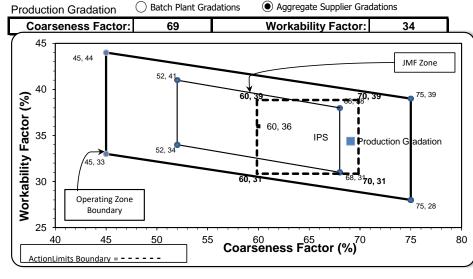
nom. max., #100 and #200 sieves.

 $^{*}\%$ Retained must be at least 4% for each sieve except max.,

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

*% Retained must be at least 8% for the 1" sieve when

a 2" max. size (nom. Max. 1.5") aggregate is used.



Intial Production Sample (IPS)

Coars	Coarseness Factor:		
Workability Factor:		35	
Sieve	Cumulative	%	Cumulative
Sieve	% Passing	Retained	% Retained
2"	100.0	0.0	0.0
1.5"	99.1	0.9	0.9
1"	80.8	18.2	19.2
3/4"	71.3	9.6	28.7
1/2"	64.0	7.3	36.0
3/8"	57.7	6.2	42.3
#4	42.8	15.0	57.2
#8	34.8	7.9	65.2
#16	28.4	6.4	71.6
#30	20.2	8.2	79.8
#50	7.6	12.6	92.4
#100	1.6	6.0	98.4
LBW	1.0	0.6	99.0

PREPARED BY: SM, LLC Technical Service

Sample Date:

8/7/23 Concrete Grade: P1M, 3500HP 8/1//2023

Dates Test F	Represents:	8/8/2023	through	8/14/2023		
Agg. Class	Pit#	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution
CA	71-47	Presque Isle	970	5.93	2.62	31.6
IA	71-47	Presque Isle	900	5.50	2.62	29.3
2NS	95-013	Smelter Bay	1200	7.26	2.65	39.1

Contractor:

MDOT No.:



Retained	Cumulative % Retained	
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30701 W. 10 Mile Rd. Suite 500

Farmington Hills, MI 48336

Superior Materials, LLC

Total Wt		3070	18.70		100.0	< Verify this n	umber is 100%
Sieve	CA	IA		2NS	Cumulative % Passing	% Retained	Cumulative % Retained
2"	100.0	10	0.0	100.0	100.0	0.0	0.0
1.5"	97.4	10	0.0	100.0	99.2	0.8	0.8
1"	35.8	10	0.0	100.0	79.7	19.5	20.3
3/4"	9.8	99.2		100.0	71.3	8.4	28.7
1/2"	2.8	77	7.8	100.0	62.8	8.5	37.2
3/8"	2.1	51	.3	100.0	54.8	8.0	45.2
#4	2.0	10	0.0	97.0	41.5	13.3	58.5
#8	1.9	3	.3	86.1	35.2	6.3	64.8
#16	1.8	2	.3	71.4	29.2	6.1	70.8
#30	1.8	2.1		51.2	21.2	8.0	78.8
#50	1.8	2.0		23.9	10.5	10.7	89.5
#100	1.6	1.	.8	6.8	3.7	6.8	96.3
LBW	1.3	1.	.4	1.0	1.2	2.5	98.8

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

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

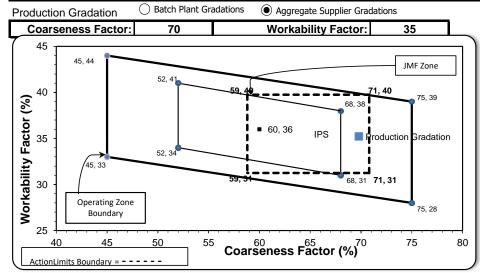
nom. max., #100 and #200 sieves.

*% Retained must be at least 4% for each sieve except max.,

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

*% Retained must be at least 8% for the 1" sieve when

a 2" max. size (nom. Max. 1.5") aggregate is used.



Intial Production Sample (IPS)

Coarseness Factor:		65	
Work	Workability Factor:		
Sieve	Cumulative	%	Cumulative
Sieve	% Passing	Retained	% Retained
2"	100.0	0.0	0.0
1.5"	99.0	0.6	0.6
1"	84.0	15.3	16.0
3/4"	73.5	10.5	26.5
1/2"	65.2	8.2	34.8
3/8"	58.2	7.1	41.8
#4	44.1	14.1	55.9
#8	35.5	8.6	64.5
#16	29.1	6.4	70.9
#30	21.9	7.3	78.1
#50	9.6	12.2	90.4
#100	2.6	7.1	97.4
LBW	1.0	1.6	99.0

PREPARED BY: SM, LLC Technical Service

Sample Date:

8/7/23 Concrete Grade: P1M, 3500HP

restr	represents:	0/0/2023	through	8/14/2023		
Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution
A	71-47	Presque Isle	970	5.93	2.62	31.6
4	71-47	Presque Isle	900	5.50	2.62	29.3
IS	95-013	Smelter Bay	1200	7.26	2.65	39.1

Contractor:

MDOT No.:

Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution
CA	71-47	Presque Isle	970	5.93	2.62	31.6
IA	71-47	Presque Isle	900	5.50	2.62	29.3
2NS	95-013	Smelter Bay	1200	7.26	2.65	39.1
		Total Wt	3070	18.70		100.0

Verify this number is 100%

	i Olai Wi	3070	10.70		100.0	< venly this n	umber is 100%
Sieve	CA	L	4	2NS	Cumulative % Passing	% Retained	Cumulative % Retained
2"	100.0	10	0.0	100.0	100.0	0.0	0.0
1.5"	97.4	10	0.0	100.0	99.2	0.8	0.8
1"	35.8	10	0.0	100.0	79.7	19.5	20.3
3/4"	9.8	99).2	100.0	71.3	8.4	28.7
1/2"	2.8	77	' .8	100.0	62.8	8.5	37.2
3/8"	2.1	51	.3	100.0	54.8	8.0	45.2
#4	2.0	10	0.0	97.0	41.5	13.3	58.5
#8	1.9	3	.3	86.1	35.2	6.3	64.8
#16	1.8	2	.3	71.4	29.2	6.1	70.8
#30	1.8	2	.1	51.2	21.2	8.0	78.8
#50	1.8	2	.0	23.9	10.5	10.7	89.5
#100	1.6	1	.8	6.8	3.7	6.8	96.3
LBW	1.3	1	.4	1.0	1.2	2.5	98.8

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.,

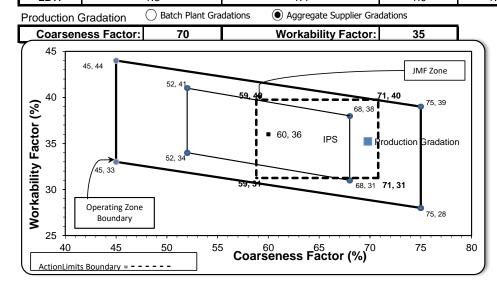
nom. max., #100 and #200 sieves.

*% Retained must be at least 4% for each sieve except max.,

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

*% Retained must be at least 8% for the 1" sieve when

a 2" max. size (nom. Max. 1.5") aggregate is used.



Intial Production Sample (IPS)

Coarseness Factor:		65	
Work	Workability Factor:		
Sieve	Cumulative	%	Cumulative
Sieve	% Passing	Retained	% Retained
2"	100.0	0.0	0.0
1.5"	99.0	0.6	0.6
1"	84.0	15.3	16.0
3/4"	73.5	10.5	26.5
1/2"	65.2	8.2	34.8
3/8"	58.2	7.1	41.8
#4	44.1	14.1	55.9
#8	35.5	8.6	64.5
#16	29.1	6.4	70.9
#30	21.9	7.3	78.1
#50	9.6	12.2	90.4
#100	2.6	7.1	97.4
LBW	1.0	1.6	99.0

PREPARED BY: SM, LLC Technical Service

Sample Date:

Concrete Grade: P1M, 3500HP 8/7/23

Dates Test F	Represents:	0/0/2023	through	8/14/2023		
Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution
CA	58-003	Stoneco	1370	8.16	2.69	43.9
IA	58-003	Stoneco	550	3.28	2.69	17.6
2NS	81-019	Pleasant Lake	1200	7.26	2.65	38.5

MDOT No.:

Contractor:

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

Total Wt		3120	18.70		100.0	< Verify this n	Verify this number is 100%	
Sieve	CA	IA		2NS	Cumulative % Passing	% Retained	Cumulative % Retained	
2"	100.0	10	0.0	100.0	100.0	0.0	0.0	
1.5"	100.0	10	0.0	100.0	100.0	0.0	0.0	
1"	61.8	10	0.0	100.0	83.2	16.8	16.8	
3/4"	31.1	100.0		100.0	69.7	13.5	30.3	
1/2"	14.0	92.3		100.0	60.9	8.9	39.1	
3/8"	6.8	71	.1	100.0	54.0	6.9	46.0	
#4	2.0	16	5.0	98.1	41.4	12.6	58.6	
#8	1.4	5	.6	83.1	33.6	7.9	66.4	
#16	1.2	3	.6	65.9	26.5	7.1	73.5	
#30	1.2	2.8		46.9	19.1	7.4	80.9	
#50	1.0	2.3		22.7	9.6	9.5	90.4	
#100	1.0	2	1	5.9	3.1	6.5	96.9	
LBW	0.7	1.	.4	0.7	0.8	2.3	99.2	

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

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

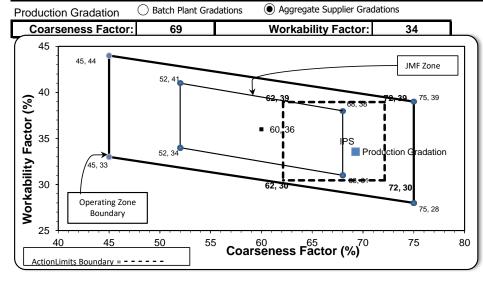
nom. max., #100 and #200 sieves.

*% Retained must be at least 4% for each sieve except max.,

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

*% Retained must be at least 8% for the 1" sieve when

a 2" max. size (nom. Max. 1.5") aggregate is used.



Intial Production Sample (IPS)

Coarseness Factor:		67	
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"	86.9	13.1	13.1
3/4"	76.1	10.8	23.9
1/2"	63.7	12.4	36.3
3/8"	56.2	7.5	43.8
#4	43.2	13.0	56.8
#8	34.7	8.5	65.3
#16	27.5	7.2	72.5
#30	20.6	7.0	79.4
#50	9.0	11.6	91.0
#100	2.1	6.9	97.9
LBW	1.0	1.1	99.0

PREPARED BY: SM, LLC Technical Service

Sample Date:

8/7/23 Concrete Grade: P1M, 3500HP 8/1//2023

Dates Test F	Represents:	8/8/2023	through	8/14/2023		
Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution
CA	71-47	Presque Isle	1020	6.24	2.62	33.2
IA	71-47	Presque Isle	850	5.20	2.62	27.7
2NS	63-92	Grange Hall	1200	7.26	2.65	39.1
		Total Wt	3070	18.70		100.0

MDOT No.:

Contractor:



---- Verify this number is 100%

ined	Cumulative % Retained	<u>Superior Materials, LLC</u> 30701 W. 10 Mile Rd.
1	0.0	Suite 500
	0.9	Farmington Hills, MI 48336

Cumulative CA IΑ % Retail Sieve 2NS % Passing 2" 100.0 100.0 100.0 100.0 0.0 1.5" 97.4 100.0 100.0 99.1 0.9 35.8 100.0 100.0 78.7 20.5 21.3 3/4" 9.8 99.2 100.0 69.8 8.9 30.2 1/2' 2.8 77.8 100.0 61.6 8.3 38.4 3/8' 51.3 100.0 54.0 46.0 2.1 7.6 #4 2.0 10.0 97.4 41.5 12.5 58.5 #8 1.9 3.3 83.8 34.3 7.2 65.7 #16 1.8 2.3 70.2 28.7 5.6 71.3 #30 78.7 1.8 2.1 51.6 21.3 7.3 #50 1.8 2.0 21.3 9.5 11.9 90.5 #100 1.6 1.8 3.3 2.3 7.2 97.7 LBW 98.8

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

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

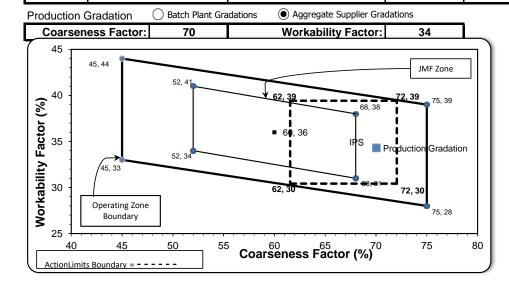
nom. max., #100 and #200 sieves.

*% Retained must be at least 4% for each sieve except max.,

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

*% Retained must be at least 8% for the 1" sieve when

a 2" max. size (nom. Max. 1.5") aggregate is used.



Intial Production Sample (IPS)

Coars	eness Factor:	67	
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"	85.0	15.0	15.0
3/4"	72.1	12.9	27.9
1/2"	64.5	7.6	35.5
3/8"	56.5	8.0	43.5
#4	42.7	13.8	57.3
#8	34.9	7.8	65.1
#16	29.0	5.9	71.0
#30	21.0	8.0	79.0
#50	8.2	12.8	91.8
#100	1.6	6.5	98.4
LBW	0.7	0.9	99.3

PREPARED BY: SM, LLC Technical Service

Total Wt

PLANT #: P-39

Sample Date:

/7/23 Concrete Grade: P1M, 3500HP

Dates Test Represents:		8/8/2023	through	8/14/2023		
Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution
CA	71-47	Presque Isle	1020	6.24	2.62	33.2
IA	71-47	Presque Isle	800	4.89	2.62	26.1
2NS	44-051	Krake Willis Rd	1250	7.56	2.65	40.7

Contractor:

MDOT No.:



---- Verify this number is 100%

ed	Cumulative % Retained	<u>Superior Materials, LLC</u> 30701 W. 10 Mile Rd.
	0.0	Suite 500
	0.0	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"	40.8	100.0	100.0	80.3	19.7	19.7
3/4"	13.4	98.5	100.0	70.8	9.5	29.2
1/2"	3.5	83.2	100.0	63.6	7.3	36.4
3/8"	2.6	63.7	100.0	58.2	5.4	41.8
#4	2.1	17.3	97.7	45.0	13.2	55.0
#8	2.1	4.5	83.2	35.7	9.2	64.3
#16	2.1	2.7	67.2	28.8	7.0	71.2
#30	2.0	2.3	49.3	21.3	7.4	78.7
#50	2.0	2.1	22.5	10.4	11.0	89.6
#100	1.8	1.9	6.3	3.7	6.7	96.3
LBW	1.5	1.7	1.3	1.5	2.2	98.5

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

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

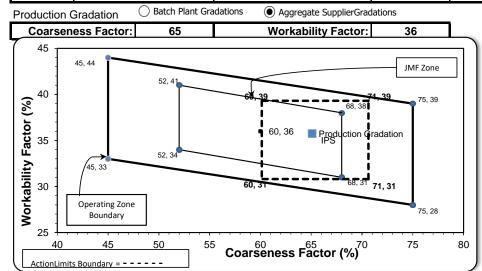
nom. max., #100 and #200 sieves.

*% Retained must be at least 4% for each sieve except max.,

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

*% Retained must be at least 8% for the 1" sieve when

a 2" max. size (nom. Max. 1.5") aggregate is used.



Intial Production Sample (IPS)

Coars	eness Factor:	65	
Work	ability Factor:	35	
Sieve	Cumulative	%	Cumulative
Sieve	% Passing	Retained	% Retained
2"	100.0	0.0	0.0
1.5"	99.6	0.4	0.4
1"	83.9	15.7	16.1
3/4"	74.1	9.8	25.9
1/2"	64.3	9.7	35.7
3/8"	57.5	6.8	42.5
#4	44.5	13.1	55.5
#8	35.1	9.4	64.9
#16	27.9	7.2	72.1
#30	21.7	6.2	78.3
#50	12.6	9.1	87.4
#100	3.5	9.1	96.5
LBW	1.2	2.4	98.8

PREPARED BY: SM, LLC Technical Service

Ray Rd

PLANT #: P-02

63-115

Sample Date:

2NS

8/7/23 Concrete Grade: P1M, 3500HP

7.26

2.65

39.1

Dates Test Represents:		8/8/2023	through	8/14/2023			
	Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution
	CA	71-47	Presque Isle	1020	6.24	2.62	33.2
	IΔ	71-47	Presque Isle	850	5.20	2 62	27.7

1200

Contractor:

MDOT No.:



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

Total Wt		3070	18.70		100.0	< Verify this n	umber is 100%
Sieve	CA	IA		2NS	Cumulative % Passing	% Retained	Cumulative % Retained
2"	100.0	10	0.0	100.0	100.0	0.0	0.0
1.5"	97.4	10	0.0	100.0	99.1	0.9	0.9
1"	35.8	10	0.0	100.0	78.7	20.5	21.3
3/4"	9.8	99.2		100.0	69.8	8.9	30.2
1/2"	2.8	77.8		100.0	61.6	8.3	38.4
3/8"	2.1	51.3		100.0	54.0	7.6	46.0
#4	2.0	10.0		96.0	41.0	13.0	59.0
#8	1.9	3	.3	80.8	33.1	7.8	66.9
#16	1.8	2	.3	65.5	26.8	6.3	73.2
#30	1.8	2	.1	49.2	20.4	6.4	79.6
#50	1.8	2.0		24.6	10.8	9.6	89.2
#100	1.6	1.8		5.0	3.0	7.8	97.0
LBW	1.3	1	.4	1.0	1.2	1.8	98.8

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

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

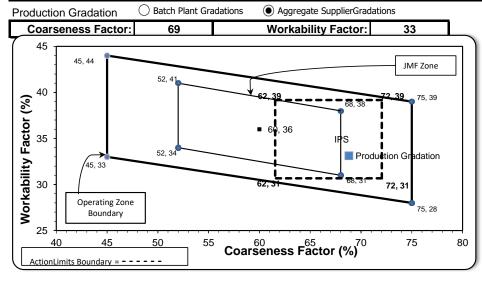
nom. max., #100 and #200 sieves.

*% Retained must be at least 4% for each sieve except max.,

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

*% Retained must be at least 8% for the 1" sieve when

a 2" max. size (nom. Max. 1.5") aggregate is used.



Intial Production Sample (IPS)

Coars	eness Factor:	67	
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"	85.0	15.0	15.0
3/4"	72.3	12.7	27.7
1/2"	64.5	7.8	35.5
3/8"	56.5	8.0	43.5
#4	42.7	13.8	57.3
#8	34.9	7.8	65.1
#16	29.0	5.9	71.0
#30	21.0	8.0	79.0
#50	8.2	12.8	91.8
#100	1.6	6.5	98.4
LBW	0.7	0.9	99.3

PREPARED BY: SM, LLC Technical Service