PLANT #: P-102

Sample Date:

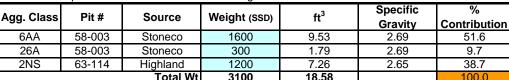
Dates Test Represents:

11/4/24 Concrete Grade: S2M, 3500HP

11/5/2024 11/11/2024 through Specific % ft³ Source Weight (SSD) Gravity Stoneco 1600 9.53 2.69 51.6

MDOT No.:

Contractor:



--- Verify this number is 100%

SUPERIOR MATERIALS	

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

	TOTAL WI	3100	10.30		100.0	< venly 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	i
1.5"	100.0	100	0.0	100.0	100.0	0.0	0.0	ı
1"	99.4	100	0.0	100.0	99.7	0.3	0.3	ı
3/4"	81.9	100	0.0	100.0	90.7	9.0	9.3	ı
1/2"	43.2	99	.2	100.0	70.6	20.1	29.4	i
3/8"	19.1	86	.0	100.0	56.9	13.7	43.1	ı
#4	2.9	9.	4	99.1	40.8	16.1	59.2	ı
#8	1.7	3.	2	85.8	34.4	6.4	65.6	n
#16	1.1	1.	7	67.9	27.0	7.4	73.0	ı
#30	1.0	1.	5	47.8	19.2	7.9	80.8	n
#50	1.0	1.	4	22.3	9.3	9.9	90.7	i
#100	1.0	1.	4	4.8	2.5	6.8	97.5	а
LBW	0.9	1.	4	0.5	0.8	1.7	99.2	ĺ

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

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

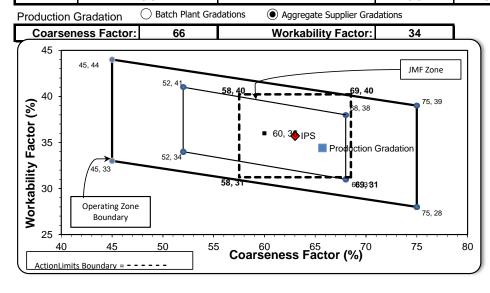
nom. max., #100 and #200 sieves.

*% 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)

Coarseness Factor:		63	
Work	ability Factor:	36	
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

PREPARED BY: SM, LLC Technical Service

PLANT #: P-103

Sample Date:

11/4/24 Concrete Grade: S2M, 3500HP

Dates Test Represents: 11/5/2024 11/11/2024 through

MDOT No.:

Contractor:

Agg. Class	Pit#	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution
6AA	58-003	Stoneco	1600	9.53	2.69	51.6
26A	58-003	Stoneco	300	1.79	2.69	9.7
2NS	63-114	Highland	1200	7.26	2.65	38.7
		Total Wt	3100	18.58		100.0

---- Verify this number is 100%

SUPER	IOR
Superior Mater	rials, LLC

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

6AA	26A	2NS	Cumulative % Passing	% Retained	Cumulative % Retained
100.0	100.0	100.0	100.0	0.0	0.0
100.0	100.0	100.0	100.0	0.0	0.0
99.4	100.0	100.0	99.7	0.3	0.3
81.9	100.0	100.0	90.7	9.0	9.3
43.2	99.2	100.0	70.6	20.1	29.4
19.1	86.0	100.0	56.9	13.7	43.1
2.9	9.4	99.1	40.8	16.1	59.2
1.7	3.2	85.8	34.4	6.4	65.6
1.1	1.7	67.9	27.0	7.4	73.0
1.0	1.5	47.8	19.2	7.9	80.8
1.0	1.4	22.3	9.3	9.9	90.7
1.0	1.4	4.8	2.5	6.8	97.5
	100.0 100.0 99.4 81.9 43.2 19.1 2.9 1.7 1.1	100.0 100.0 100.0 100.0 99.4 100.0 81.9 100.0 43.2 99.2 19.1 86.0 2.9 9.4 1.7 3.2 1.1 1.7 1.0 1.5 1.0 1.4	100.0 100.0 100.0 100.0 100.0 100.0 99.4 100.0 100.0 81.9 100.0 100.0 43.2 99.2 100.0 19.1 86.0 100.0 2.9 9.4 99.1 1.7 3.2 85.8 1.1 1.7 67.9 1.0 1.5 47.8 1.0 1.4 22.3	6AA 26A 2NS % Passing 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 99.4 100.0 100.0 99.7 81.9 100.0 100.0 90.7 43.2 99.2 100.0 70.6 19.1 86.0 100.0 56.9 2.9 9.4 99.1 40.8 1.7 3.2 85.8 34.4 1.1 1.7 67.9 27.0 1.0 1.5 47.8 19.2 1.0 1.4 22.3 9.3	6AA 26A 2NS % Passing % Retained 100.0 100.0 100.0 100.0 0.0 100.0 100.0 100.0 100.0 0.0 99.4 100.0 100.0 99.7 0.3 81.9 100.0 100.0 90.7 9.0 43.2 99.2 100.0 70.6 20.1 19.1 86.0 100.0 56.9 13.7 2.9 9.4 99.1 40.8 16.1 1.7 3.2 85.8 34.4 6.4 1.1 1.7 67.9 27.0 7.4 1.0 1.5 47.8 19.2 7.9 1.0 1.4 22.3 9.3 9.9

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

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

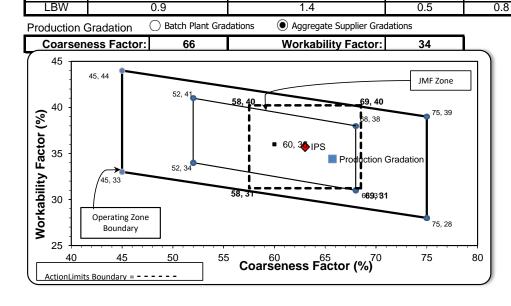
nom. max., #100 and #200 sieves.

*% 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)

Coarseness Factor:		63	
Work	ability Factor:	36	
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

PREPARED BY: SM, LLC Technical Service Approved BY:

PLANT #: 12

Sample Date:

11/4/24

Concrete Grade: S2M, 3500HP

Dates Test F	Represents:	11/5/2024	through	11/11/2024		
Agg. Class	Pit#	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution
6AA	71-47	Presque Isle	1570	9.60	2.62	51.5
26A	71-47	Presque Isle	250	1.53	2.62	8.2
2NS	63-115	Ray Rd	1230	7.44	2.65	40.3
		Total Wt	3050	18.57		100.0

MDOT No.:

Contractor:

SUPERIOR MATERIALS

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

	Ťotal Wt	3050	18.57		100.0	< Verify this n	umber is 100%
Sieve	6AA	26	6 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"	100.0	10	0.0	100.0	100.0	0.0	0.0
3/4"	81.0	10	0.0	100.0	90.2	9.8	9.8
1/2"	44.8	95	5.4	100.0	71.2	19.0	28.8
3/8"	26.9	83	3.4	100.0	61.0	10.2	39.0
#4	4.8	18	3.9	98.0	43.5	17.5	56.5
#8	2.1	5	.0	81.2	34.2	9.3	65.8
#16	1.8	2	.9	65.5	27.6	6.7	72.4
#30	1.6	2	.5	50.1	21.2	6.3	78.8
#50	1.6	2	.3	26.2	11.6	9.7	88.4
#100	1.5	2	.2	5.9	3.3	8.2	96.7
LBW	1.3	2	.1	1.3	1.4	2.0	98.6

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

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

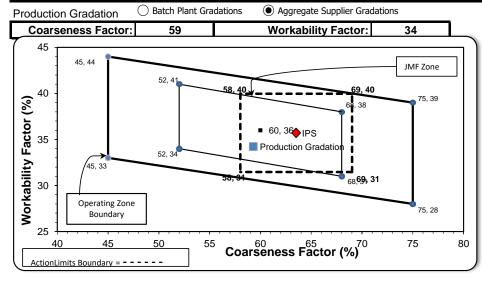
nom. max., #100 and #200 sieves.

*% 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)

Coarseness Factor:		64	
Work	ability Factor:	36	
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

PREPARED BY: SM, LLC Technical Service

PLANT #: p11

Sample Date:

Concrete Grade: S2M, 3500HP 11/4/24

Dates Test F	Represents:	11/5/2024	through	11/11/2024		
Agg. Class	Pit#	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution
6AA	71-47	Presque Isle	1570	9.60	2.62	51.5
26A	71-47	Presque Isle	250	1.53	2.62	8.2

Contractor:

MDOT No.:

Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution
6AA	71-47	Presque Isle	1570	9.60	2.62	51.5
26A	71-47	Presque Isle	250	1.53	2.62	8.2
2NS	63-115	Ray Rd	1230	7.44	2.65	40.3
		Total Wt	3050	18.57		100.0

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

	Total Wt	3050	18.57		100.0	< Verify this n	umber is 100%
Sieve	6AA	26	6A	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"	100.0	10	0.0	100.0	100.0	0.0	0.0
3/4"	81.0	10	0.0	100.0	90.2	9.8	9.8
1/2"	44.8	95	5.4	100.0	71.2	19.0	28.8
3/8"	26.9	83	3.4	100.0	61.0	10.2	39.0
#4	4.8	18	3.9	98.0	43.5	17.5	56.5
#8	2.1	5	.0	81.2	34.2	9.3	65.8
#16	1.8	2	.9	65.5	27.6	6.7	72.4
#30	1.6	2	.5	50.1	21.2	6.3	78.8
#50	1.6	2	.3	26.2	11.6	9.7	88.4
#100	1.5	2	.2	5.9	3.3	8.2	96.7
LBW	1.3	2	.1	1.3	1.4	2.0	98.6

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

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

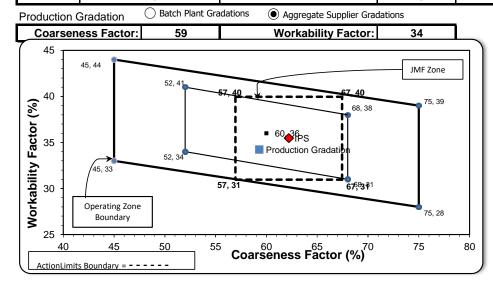
nom. max., #100 and #200 sieves.

*% 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)

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-02

Sample Date:

Concrete Grade: S2M, 3500HP 11/4/24

Dates Test Represents: 11/5/2024 11/11/2024 through

Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution
6AA	71-47	Presque Isle	1570	9.60	2.62	51.5
26A	71-47	Presque Isle	250	1.53	2.62	8.2
2NS	63-115	Ray Rd	1230	7.44	2.65	40.3
		Total Wt	3050	18.57		100.0

Contractor:

MDOT No.:



ve	Superior Materials, LLC
ed	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.

	Total Wt	3050	18.57		100.0	< Verify this n	umber is 100%
Sieve	6AA	26	6 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"	100.0	10	0.0	100.0	100.0	0.0	0.0
3/4"	81.0	10	0.0	100.0	90.2	9.8	9.8
1/2"	44.8	95	5.4	100.0	71.2	19.0	28.8
3/8"	26.9	83	3.4	100.0	61.0	10.2	39.0
#4	4.8	18	3.9	98.0	43.5	17.5	56.5
#8	2.1	5.	.0	81.2	34.2	9.3	65.8
#16	1.8	2	.9	65.5	27.6	6.7	72.4
#30	1.6	2	.5	50.1	21.2	6.3	78.8
#50	1.6	2	.3	26.2	11.6	9.7	88.4
#100	1.5	2	.2	5.9	3.3	8.2	96.7
LBW	1.3	2.	.1	1.3	1.4	2.0	98.6
•	0		•				

 Batch Plant Gradations **Production Gradation**

Aggregate SupplierGradations



Coars	seness Factor:	59	Workability Factor:	34
45				
40	45, 44	52, 41	58, 40 69, 40	JMF Zone
Workability Factor (%)			■ 60, 3 IPS ■ Production Gradation	75, 39
kability F	45, 33 Operating Zone	52, 34	58,94	
S 25	Boundary	<u></u>	· · · · · · · · · · · · · · · · · · ·	75, 28
	10 45 Limits Boundary =	50 55	Coarseness Factor (%) ⁷⁰	75 80

Coars	eness Factor:	63	
Work	ability Factor:	36	
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"	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

PREPARED BY: SM, LLC Technical Service