PLANT #: P-102

6/11/18 Sample Date: TM Concrete Grade: Dates Test Represents: 6/12/2018 6/18/2018

Contractor:

MDOT No.:

Dates Test F	Represents:	6/12/2018	through	6/18/2018		
Agg. Class	Pit#	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution
6AA	58-003	Stoneco	1545	9.20	2.69	50.7
26A	58-003	Stoneco	300	1.79	2.69	9.9
2NS	38-046	Chelsea	1200	7.26	2.65	39.4
		Total Wt	3045	18.25		100.0

#	Source	Weight (SSD)	ft ³	Gravity	Contribution
03	Stoneco	1545	9.20	2.69	50.7
03	Stoneco	300	1.79	2.69	9.9
46	Chelsea	1200	7.26	2.65	39.4
	Total Wt	3045	18.25		100.0

 Verify	this	number	is	100%	

SUPERIOR MATERIALS

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

6AA	26					
	20	SA .	2NS	Cumulative % Passing	% Retained	Cumulative % Retained
100.0	10	0.0	100.0	100.0	0.0	0.0
100.0	10	0.0	100.0	100.0	0.0	0.0
99.9	10	0.0	100.0	99.9	0.1	0.1
84.3	10	0.0	100.0	92.0	7.9	8.0
47.2	99	9.6	100.0	73.2	18.9	26.8
25.1	82	2.7	100.0	60.3	12.9	39.7
3.8	20).8	100.0	43.4	16.9	56.6
1.2	7.	.0	87.0	35.6	7.8	64.4
0.8	3.	.2	64.0	25.9	9.6	74.1
0.7	2.	.0	40.0	16.3	9.6	83.7
0.6	1.	.8	19.0	8.0	8.3	92.0
0.6	1.	.6	3.0	1.6	6.3	98.4
0.5	1.	.4	0.9	0.7	0.9	99.3
	100.0 99.9 84.3 47.2 25.1 3.8 1.2 0.8 0.7 0.6 0.6 0.5	100.0 10 99.9 10 84.3 10 47.2 99 25.1 82 3.8 20 1.2 7 0.8 3 0.7 2 0.6 1 0.5 1	100.0 100.0 99.9 100.0 84.3 100.0 47.2 99.6 25.1 82.7 3.8 20.8 1.2 7.0 0.8 3.2 0.7 2.0 0.6 1.8 0.5 1.4	100.0 100.0 100.0 99.9 100.0 100.0 84.3 100.0 100.0 47.2 99.6 100.0 25.1 82.7 100.0 3.8 20.8 100.0 1.2 7.0 87.0 0.8 3.2 64.0 0.7 2.0 40.0 0.6 1.8 19.0 0.6 1.6 3.0 0.5 1.4 0.9	100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 99.9 100.0 100.0 99.9 84.3 100.0 100.0 92.0 47.2 99.6 100.0 73.2 25.1 82.7 100.0 60.3 3.8 20.8 100.0 43.4 1.2 7.0 87.0 35.6 0.8 3.2 64.0 25.9 0.7 2.0 40.0 16.3 0.6 1.8 19.0 8.0 0.6 1.6 3.0 1.6 0.5 1.4 0.9 0.7	100.0 100.0 100.0 100.0 0.0 100.0 100.0 100.0 100.0 0.0 99.9 100.0 100.0 99.9 0.1 84.3 100.0 100.0 92.0 7.9 47.2 99.6 100.0 73.2 18.9 25.1 82.7 100.0 60.3 12.9 3.8 20.8 100.0 43.4 16.9 1.2 7.0 87.0 35.6 7.8 0.8 3.2 64.0 25.9 9.6 0.7 2.0 40.0 16.3 9.6 0.6 1.8 19.0 8.0 8.3 0.6 1.6 3.0 1.6 6.3 0.5 1.4 0.9 0.7 0.9

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

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

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

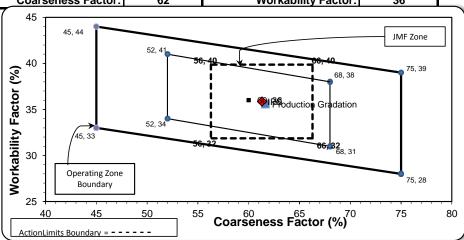
*% Retained must be at least 4% for each sieve except max.,

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

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

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

Batch Plant Gradations Aggregate Supplier Gradations **Production Gradation Coarseness Factor:** 62 **Workability Factor:** 36



Intial Production Sample (IPS)

Coar	seness Factor:	61	
Wor	kability 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"	99.3	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

Total Wt

6AA

100.0

100.0

100.0

92.1

51.2

27.2

4.8

2.6

2.2

2.1

2.0

2.0

Sieve

2"

1.5"

3/4"

1/2

3/8

#4

#8

#16

#30

#50

#100

LBW

100.0

Cumulative

% Passing

100.0

100.0

100.0

95.7

73.4

59.9

43.5

36.0

29.2

21.6

10.4

2.4

2NS

100.0

100.0

100.0

100.0

100.0

100.0

97.1

83.5

68.0

49.6

22.5

2.9

PLANT #: P-36

6/11/18 TM Sample Date: Concrete Grade: 6/18/2019 Dates Test Represents: 6/12/2018 through

Jaies Test I	лергезепіз.	0/12/2010	unougn	0/10/2010		
Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution
6AA	71-47	Presque Isle	1620	9.91	2.62	54.1
26A	71-47	Presque Isle	150	0.92	2.62	5.0
2NS	63-92	AA Grange Hall	1225	7.41	2.65	40.9

26A

100.0

100.0

100.0

100.0

96.5

85.6

24.6

8.4

4.7

3.7

3.3

3.1

2.5

18.23

2995

Contractor:

Cumulative

% Retained

0.0

0.0

4.3

26.6

40.1

56.5

64.0

70.8

78.4

89.6

97.6

MDOT No.:

% Retained

0.0

0.0

0.0

4.3

22.3

13.5

16.4

7.6

6.7

7.6

11.2

8.0

---- 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.

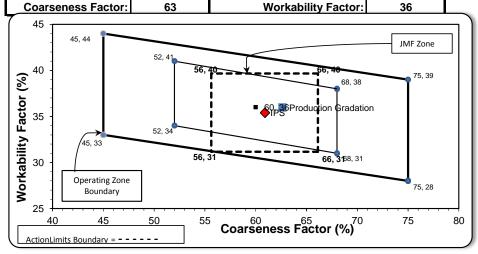
*% Retained must be at least 4% for each sieve except max.,

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.

 Batch Plant Gradations **Production Gradation** Aggregate Supplier Gradations



Intial Production Sample (IPS)

Coars	eness Factor:	61	
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"	95.9	4.1	4.1
1/2"	74.3	21.5	25.7
3/8"	60.7	13.6	39.3
#4	42.6	18.1	57.4
#8	35.4	7.2	64.6
#16	28.7	6.7	71.3
#30	20.5	8.2	79.5
#50	9.8	10.7	90.2
#100	2.1	7.7	97.9
LBW	0.9	1.2	99.1

PREPARED BY: SM, LLC Technical Service