PLANT #: P-102

Concrete Grade: DM, 4500HP 10/6/25 Sample Date: 10/7/2025

Dates Test F	Represents:	10/7/2025	through	10/13/2025		
Agg. Class	Pit #	Source	Weight (SSD)	ft ³	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

MDOT No.:

Contractor:

Verify this number is 100%

SUPERIOR	

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	rotal TT	2000 11100		100.0	< voing and in	difficor 10 10070
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"	84.0	100.0	100.0	91.6	8.4	8.4
1/2"	45.0	99.1	100.0	71.0	20.6	29.0
3/8"	25.0	85.5	100.0	59.4	11.7	40.6
#4	4.0	8.3	98.7	41.3	18.1	58.7
#8	2.0	2.4	83.8	33.9	7.4	66.1
#16	1.0	1.6	64.8	25.9	8.0	74.1
#30	1.0	1.4	44.9	18.1	7.8	81.9
#50	1.0	1.3	21.9	9.2	9.0	90.8
#100	1.0	1.2	4.9	2.5	6.6	97.5
LBW	0.9	1.4	0.5	0.8	1.8	99.2

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

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

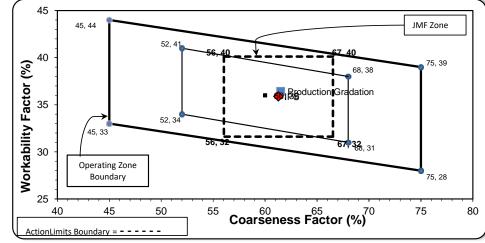
nom. max., #100 and #200 sieves.

*% Retained must be at least 4% for each sieve except max., nom. max., #100 and #200 sieves.

*% Retained must be at least 4% for the 3/4" sieve when

a 1.5" max. size (nom. Max. 1.0") aggregate is used.

Production Gradation	Batch Plant Gra	dations 🔘 A	Aggregate Supplier Grad	dations	Adjusted WF	Intial Production Sample (IPS))
Coarseness Factor:	61	Wo	orkability Factor:	34	36.4	Coarseness Factor:	61
						Workability 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 Approved By:

PLANT #: P-103

6AA

100.0

100.0

Sieve

2"

1.5'

10/6/25 Concrete Grade: DM, 4500HP Sample Date: 10/7/2025

Contractor:

MDOT No.:

Dates Test Represents:		10/7/2025	through	10/13/2025		
Agg. Class	Pit #	Source	Weight (SSD)	ft ³	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	2050	17.60		100.0

Agg. Class	Pit #	Source	Weight (SSD)	ft ³	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

26A

100.0

100.0

8.5			
39.0			
100.0	< Verify this no	_	
Cumulative % Passing	% Retained	Cumulative % Retained	
100.0	0.0	0.0	
100.0	0.0	0.0	
100.0	0.0	0.0	
91.6	8.4	8.4	
71.0	20.6	29.0	
59.4	11.7	40.6	*Maximum
41.3	18.1	58.7	*Any two ac



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

djacent 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.

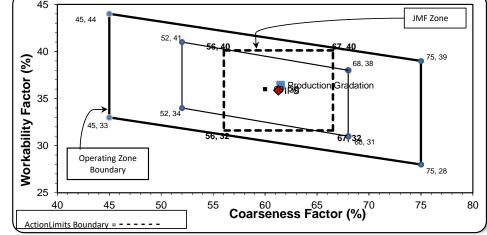
0	- Fastani C4	Marilia I. III (c. Faratan	•	00.4	0	F 1
Production Gra	adation O Batch Plant Gra	dations Aggregate Supplier Grad	dations	Adjusted WF	Intial Production	on Sample (IP
LBW	0.9	1.4	0.5	0.8	1.8	99.2
#100	1.0	1.2	4.9	2.5	6.6	97.5
#50	1.0	1.3	21.9	9.2	9.0	90.8
#30	1.0	1.4	44.9	18.1	7.8	81.9
#16	1.0	1.6	64.8	25.9	8.0	74.1
#8	2.0	2.4	83.8	33.9	7.4	66.1
#4	4.0	8.3	98.7	41.3	18.1	58.7
3/8"	25.0	85.5	100.0	59.4	11.7	40.6
1/2"	45.0	99.1	100.0	71.0	20.6	29.0
3/4"	84.0	100.0	100.0	91.6	8.4	8.4
1"	100.0	100.0	100.0	100.0	0.0	0.0
					0.0	

Production Gradation	Batch Plant Grad	dations	 Aggregate Supplier Grada 	tions	Adjusted WF	Intial Production Sample (IPS))
Coarseness Factor:	61		Workability Factor:	34	36.4	Coarseness Factor:	61
45 -						Workability Factor:	36
45				IN45 7000	¬	Cumulative	%

2NS

100.0

100.0



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 Approved BY:

Aggregate Optimization Chart

Batch Plant Gradations

PLANT #: **12**

Sample Date:

Production Gradation

Concrete Grade: DM, 4500HP 10/6/25

Dates Test Represents:		10/7/2025	through	10/13/2025		
Agg. Class	Pit #	Source	Weight (SSD)	ft ³	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

Contractor:

MDOT No.:

Adjusted WF Intial Production Sample (IPS)

Coarseness Factor:



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Suite 500
Farmington Hills MI 4833

2NS	63-115	Ray Rd	1150	6.95	2.65	39.6		
	Total Wt		2905	17.69		100.0	< Verify this n	umber is 100%
Sieve	Sieve 6AA		26	6A	2NS	Cumulative % Passing	% Retained	Cumulative % Retained
2"	1	100.0	10	0.0	100.0	100.0	0.0	0.0
1.5"	1	100.0	10	0.0	100.0	100.0	0.0	0.0
1"		98.7	10	0.0	100.0	99.3	0.7	0.7
3/4"		85.8	10	0.0	100.0	92.6	6.7	7.4
1/2"		47.4	98	3.9	100.0	72.7	20.0	27.3
3/8"		25.8	83	3.3	100.0	60.1	12.5	39.9
#4		3.6	14	l.8	97.1	41.6	18.5	58.4
#8		2.0	5	.5	80.9	33.5	8.0	66.5
#16		1.6	3	.2	62.5	25.8	7.7	74.2
#30		1.5	2	.6	46.1	19.3	6.6	80.7
#50		1.4	2	.3	24.5	10.6	8.6	89.4
#100		1.4	2	.1	6.5	3.5	7.1	96.5
LBW		1.2	1	.8	1.0	1.2	2.3	98.8

Aggregate Supplier Gradations

*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.

Coars	eness Factor:	60	Workability Factor:	34	36.0
Workability Factor (%) 08 09 09 09	45, 44	52, 41	57, 40 68, 40 68, 38 • Roy • BRPS Gradation 68, 32	75, 39	
25 +	Operating Zone Boundary 45 mits Boundary =	50 55	Coarseness Factor (%) ⁷⁰	75, 28	80

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"	99.3	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

PREPARED BY: SM, LLC Technical Service Approved By:

Aggregate Optimization Chart

PLANT #: p11 Contractor:

Concrete Grade: DM, 4500HP Sample Date: 10/6/25 Dates Test Represents: 10/7/2025 10/13/2025 through

Agg. Class	Pit #	Source	Weight (SSD)	ft ³	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 60		100.0

MDOT No.:



Superior Materials, LLC
30701 W. 10 Mile Rd.
Suite 500
Farmington Hills, MI 4833

Total Wt		2905	17.69		100.0	100.0 < Verify this numb		
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"	98.7	10	0.0	100.0	99.3	0.7	0.7	
3/4"	85.8	10	0.0	100.0	92.6	6.7	7.4	
1/2"	47.4	98	3.9	100.0	72.7	20.0	27.3	
3/8"	25.8	83	3.3	100.0	60.1	12.5	39.9	
#4	3.6	14	l.8	97.1	41.6	18.5	58.4	
#8	2.0	5	.5	80.9	33.5	8.0	66.5	
#16	1.6	3	.2	62.5	25.8	7.7	74.2	
#30	1.5	2	.6	46.1	19.3	6.6	80.7	
#50	1.4	2	.3	24.5	10.6	8.6	89.4	
#100	1.4	2	.1	6.5	3.5	7.1	96.5	
LBW	1.2	1	.8	1.0	1.2	2.3	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.

Production Gradation	O Batch Plant Grada	ations Aggregate Supplier Gradatio	ns	Adjusted WF	Intial Producti	on Sample (IPS)
Coarseness Factor:	60	Workability Factor:	34	36.0	Coars	seness Factor:
45				$\neg \top$	Work	ability Factor:
45, 44	52, 41		JMF Zone		Sieve	Cumulative % Passing
40	56.	4067, 40			2"	100.0
(%)		68, 38	75, 39	- 11	1.5"	100.0
"		!		- 11	1"	100.0
₽		■ ® oods ®Sion Gradation		- 11	3/4"	95.0
Factor 35		i			1/2"	72.3
	52, 34	<u>!</u>			3/8"	60.4
A5, 33 Operating Zone Boundary	30 .	27 32			#4	42.6
5 30		67 , 32 , 68, 31			#8	36.0
Operating Zone	p				#16	29.5
Boundary			75, 28		#30	20.3
S 25 L					#50	9.5
40 45	50 55	60 65 70	75	80	#100	3.4
		Coarseness Factor (%) ⁷⁰			LBW	1.3
ActionLimits Boundary = -						

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"	95.0	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

62

PREPARED BY: SM, LLC Technical Service Approved By:

Total Wt

Batch Plant Gradations

PLANT #: **P-02**

Sample Date:

Production Gradation

25

45

ActionLimits Boundary = - - - - -

Concrete Grade: DM, 4500HP 10/6/25

17.69

Contractor:

80

75

Dates Test Represents:		10/7/2025	through	10/13/2025			
	Agg. Class	Pit #	Source	Weight (SSD)	ft ³	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

2905

MDOT No.:

Verify this number is 100%

Adjusted WF Intial Production Sample (IPS)

Coarseness Factor:

Workability Factor:

SUPERIOR MATERIALS	

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

	Total Wt	2303		100.0	C Verily this number is 10070		
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"	98.7	100.0	100.0	99.3	0.7	0.7	
3/4"	85.8	100.0	100.0	92.6	6.7	7.4	
1/2"	47.4	98.9	100.0	72.7	20.0	27.3	
3/8"	25.8	83.3	100.0	60.1	12.5	39.9	
#4	3.6	14.8	97.1	41.6	18.5	58.4	
#8	2.0	5.5	80.9	33.5	8.0	66.5	
#16	1.6	3.2	62.5	25.8	7.7	74.2	
#30	1.5	2.6	46.1	19.3	6.6	80.7	
#50	1.4	2.3	24.5	10.6	8.6	89.4	
#100	1.4	2.1	6.5	3.5	7.1	96.5	
LBW	1.2	1.8	1.0	1.2	2.3	98.8	

Aggregate SupplierGradations

*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.

Coarseness Factor: 60 Workability Factor: 34 36.0
45 45, 44 JMF Zone 45, 44 52, 41 57, 39 68, 39 68, 38 75, 39 68, 38 75, 39 68, 38 75, 39 68, 38 75, 31 68, 31 75, 28

Coarseness Factor (%) 70

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"	95.1	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

63

35

PREPARED BY: SM, LLC Technical Service

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