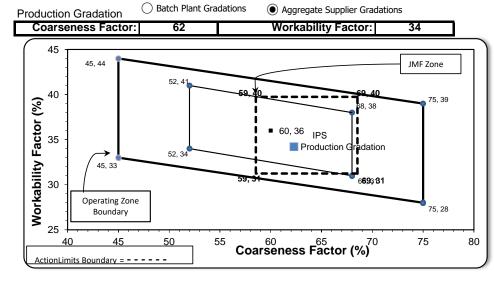
PLANT #	#:	P-101					Contractor:		
Sample Date	:	9/4/23			Concrete Grade:	S2M, 3500HP			
Dates Test R	epresents:	9/5/2023	through	9/11/2023			MDOT No.:		
Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution			
6AA	71-47	Presque Isle	1625	9.94	2.62	53.2			
26A	71-47	Presque Isle	200	1.22	2.62	6.5			
2NS	75-051	Mid Michigan	1230	7.41	2.66	40.3			
		Total Wt	3055	18.57		100.0	< Verify this n	umber is 100%	
Sieve		6AA	26	A	2NS	Cumulative % Passing	% Retained	Cumulative % Retained	
2"	1	100.0	100	0.0	100.0	100.0	0.0	0.0	
1.5"	1	100.0	100	0.0	100.0	100.0	0.0	0.0	1
1"	1	96.8	100	0.0	100.0	98.3	1.7	1.7	1
3/4"		80.0	100	0.0	100.0	89.4	8.9	10.6	
1/2"		40.3	96	.3	100.0	68.0	21.4	32.0	
3/8"	:	24.8	85	.2	100.0	59.0	9.0	41.0	*
#4		4.5	22	1	95.9	42.5	16.6	57.5	*/
#8		2.3	5.	2	81.1	34.2	8.2	65.8	no
#16		2.0	2.	5	67.1	28.2	6.0	71.8	*(
#30		1.9	2.	0	53.1	22.5	5.7	77.5	no
#50		1.8	1.	8	26.7	11.8	10.7	88.2	*0
#100		1.8	1.		6.2	3.6	8.3	96.4	a 1
LBW		1.5	1.	5	1.0	1.3	2.3	98.7	1



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., om. max., #100 and #200 sieves. % Retained must be at least 4% for each sieve except max., om. max., #100 and #200 sieves. % Retained must be at least 4% for the 3/4" sieve when 1.5" max. size (nom. Max. 1.0") aggregate is used.



Initial Product	tion Sample (IPS	S)	_
Coars	seness Factor:	64	
Worl	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"	93.9	6.1	6.1
1/2"	71.4	22.5	28.6
3/8"	59.0	12.4	41.0
#4	45.1	13.9	54.9
#8	35.5	9.6	64.5
#16	28.3	7.2	71.7
#30	21.3	6.9	78.7
#50	11.0	10.3	89.0
#100	3.4	7.6	96.6
LBW	1.1	2.3	98.9
#100	3.4	7.6	96.6

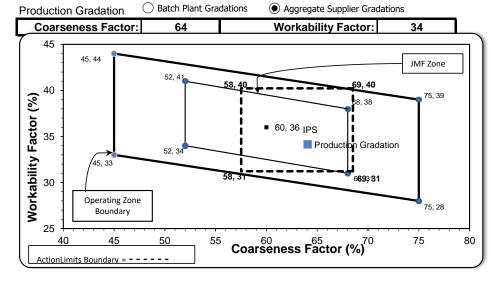
Approved By: Mart P. Ball

PLANT #: P-102						Contractor:					
Sample Date):	9/4/23			Concrete Grade:	S2M, 3500HP					
Dates Test R		9/5/2023	through	9/11/2023			MDOT No.:				
Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution					
6AA	58-003	Stoneco	1650	9.83	2.69	53.2					
26A	58-003	Stoneco	250	1.49	2.69	8.1					
2NS	81-019	Pleasant Lake	1200	7.26	2.65	38.7					
		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		
1.5"	1	100.0	100	0.0	100.0	100.0	0.0	0.0			
1"	1	100.0	100	0.0	100.0	100.0	0.0	0.0			
3/4"		86.8	<u> 100.0 100.0 </u> 99.6 100.0		100	0.0	100.0	93.0	7.0	7.0	1
1/2"		43.5		69.9	23.1	30.1					
3/8"		22.3	89	.7	100.0	57.8	12.1	42.2	*		
#4		4.9	23	.6	97.9	42.4	15.4	57.6	*.		
#8		2.9	5.	8	83.0	34.1	8.3	65.9	no		
#16		2.5	3.	4	66.4	27.3	6.8	72.7	*		
#30		2.3	2.	8	47.2	19.7	7.6	80.3	no		
#50		2.2	2.	6	23.2	10.4	9.4	89.6	*		
#100		2.0	2.		4.4	3.0	7.4	97.0	a [.]		
LBW		1.6	2.	1	0.4	1.2	1.8	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., om. max., #100 and #200 sieves.
*% Retained must be at least 4% for each sieve except max., om. max., #100 and #200 sieves.
*% Retained must be at least 4% for the 3/4" sieve when 1.5" max. size (nom. Max. 1.0") aggregate is used.



Intial Production	on Sample (IPS)	-
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"	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	±100 1.4		98.6
LBW	0.6	0.8	99.4

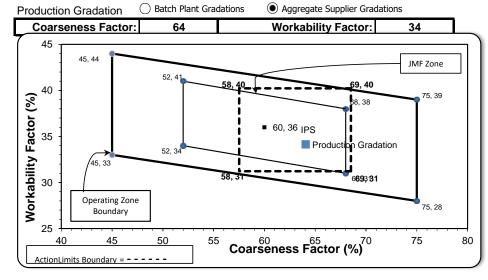
Approved By: Mart 1. Ball

PLANT	#:	P-103					Contractor:		
Sample Date	e:	9/4/23			Concrete Grade:	S2M, 3500HP			
Dates Test F	Represents:	9/5/2023	through	9/11/2023			MDOT No.:		
Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution			
6AA	58-003	Stoneco	1650	9.83	2.69	53.2			
26A	58-003	Stoneco	250	1.49	2.69	8.1			
2NS	81-019	Pleasant Lake	1200	7.26	2.65	38.7			
		Total Wt	3100	18.58		100.0	< Verify this n	umber is 100%	_
Sieve		6AA	26	A	2NS	Cumulative % Passing	% Retained	Cumulative % Retained	
2"	1	100.0	100).0	100.0	100.0	0.0	0.0	-
1.5"	1	100.0	100).0	100.0	100.0	0.0	0.0	
1"	1	100.0	100).0	100.0	100.0	0.0	0.0	1
3/4"		86.8	100).0	100.0	93.0	7.0	7.0	1
1/2"		43.5	99	.6	100.0	69.9	23.1	30.1	
3/8"	22.3		89	.7	100.0	57.8	12.1	42.2	*M
#4		4.9	23	.6	97.9	42.4	15.4	57.6	*Aı
#8		2.9	5.	8	83.0	34.1	8.3	65.9	nom
#16		2.5	3.	3.4		27.3	6.8	72.7	*%
#30		2.3	2.	8	47.2	19.7	7.6	80.3	nom
#50		2.2	2.	6	23.2	10.4	9.4	89.6	*%
#100		2.0	2.		4.4	3.0	7.4	97.0	a 1.8
LBW		1.6	2.	1	0.4	1.2	1.8	98.8	1



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., om. max., #100 and #200 sieves. % Retained must be at least 4% for each sieve except max., om. max., #100 and #200 sieves. % Retained must be at least 4% for the 3/4" sieve when 1.5" max. size (nom. Max. 1.0") aggregate is used.



)	_
Coarse	eness Factor:	63	
Worka	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

Approved BY: May 1. Ball

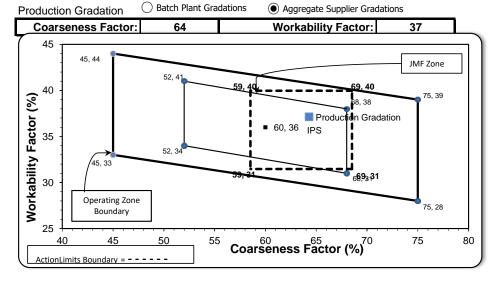
PLANT :	#:	14					Contractor:		
Sample Date	•: •:	9/4/23			Concrete Grade:	S2M, 3500HP			
Dates Test R	Represents:	9/5/2023	through	9/11/2023			MDOT No.:		
Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution			
6AA	58-003	Stoneco	1575	9.38	2.69	50.6			
26A	58-003	Stoneco	325	1.94	2.69	10.5			
2NS	19-04	Schlegel	1210	7.26	2.67	38.9			
		Total Wt	3110	18.58		100.0	< Verify this n	umber is 100%	-
Sieve	e	6AA	26	A	2NS	Cumulative % Passing	% Retained	Cumulative % Retained	
2"	1	00.0	10	0.0	100.0	100.0	0.0	0.0	
1.5"	1	00.0	10	0.0	100.0	100.0	0.0	0.0	
1"	1	00.0	100	0.0	100.0	100.0	0.0	0.0	
3/4"	8	86.8	100	0.0	100.0	93.3	6.7	6.7	
1/2"	2	43.5	99	.6	100.0	71.3	22.0	28.7	
3/8"	2	22.3	89	.7	100.0	59.6	11.8	40.4	*Maximum %
#4		4.9	23	.6	99.9	43.8	15.8	56.2	*Any two adja
#8		2.9	5.	8	90.1	37.1	6.7	62.9	nom. max., #10
#16		2.5	3.	4	69.4	28.6	8.5	71.4	*% Retained n
#30		2.3	2.	8	44.5	18.8	9.9	81.2	nom. max., #10
#50		2.2	2.	6	14.3	6.9	11.8	93.1	*% Retained n
#100		2.0	2.		2.7	2.3	4.6	97.7	a 1.5" max. size
LBW		1.6	2.	1	0.2	1.1	1.2	98.9	



Builders Redi-Mix

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., om. max., #100 and #200 sieves.
*% Retained must be at least 4% for each sieve except max., om. max., #100 and #200 sieves.
*% Retained must be at least 4% for the 3/4" sieve when 1.5" max. size (nom. Max. 1.0") aggregate is used.



Intial Production	on Sample (IPS)	_
Coars	eness 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
	•		•

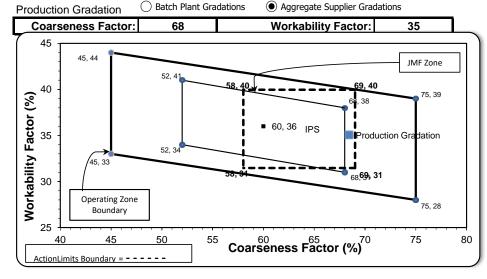
Approved By: Mart P. Ball

PLANT #	#:	12					Contractor:		
Sample Date	:	9/4/23			Concrete Grade:	S2M, 3500HP			
Dates Test R	epresents:	9/5/2023	through	9/11/2023			MDOT No.:		
Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific	%			
Agg. Class	-	Source	Weight (SSD)	п	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 n	umber is 100%	_
Sieve		6AA	26	A	2NS	Cumulative % Passing	% Retained	Cumulative % Retained	
2"	1	00.0	100	0.0	100.0	100.0	0.0	0.0	
1.5"	1	00.0	100	0.0	100.0	100.0	0.0	0.0	
1"	1	96.6	100	0.0	100.0	98.3	1.7	1.7	1
3/4"		75.0	100	0.0	100.0	87.3	11.0	12.7	
1/2"	-	30.8	96	.5	100.0	64.5	22.8	35.5	-
3/8"		14.8	87	.2	100.0	55.6	9.0	44.4	*Ma
#4		3.8	25	.7	96.5	43.1	12.4	56.9	*Ar
#8		2.2	6.	3	82.8	35.1	8.1	64.9	nom
#16		1.8	2.	8	68.0	28.6	6.5	71.4	*%
#30		1.6	2.	1	50.8	21.5	7.1	78.5	nom
#50		1.6	1.	9	25.7	11.3	10.1	88.7	*%
#100		1.4	1.	8	5.3	3.0	8.3	97.0	a 1.5
LBW		1.2	1.	6	0.6	1.0	2.0	99.0	1



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., om. max., #100 and #200 sieves. % Retained must be at least 4% for each sieve except max., om. max., #100 and #200 sieves. % Retained must be at least 4% for the 3/4" sieve when 1.5" max. size (nom. Max. 1.0") aggregate is used.



Intial Production	on Sample (IPS)	_
Coars	eness 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

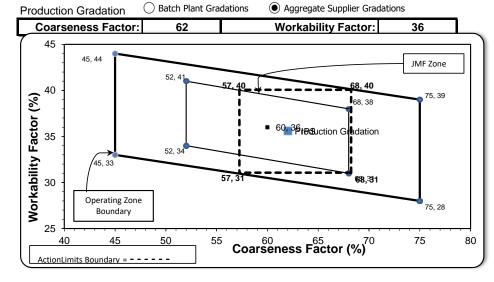
Approved By: n mit I. Ball

PLANT #	#:	20					Contractor:		
Sample Date	:	9/4/23			Concrete Grade:	S2M, 3500HP			
Dates Test R	epresents:	9/5/2023	through	9/11/2023			MDOT No.:		
Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution			
6AA	71-47	Presque Isle	1700	10.40	2.62	55.7			
26A	71-47	Presque Isle	100	0.61	2.62	3.3			
2NS	63-92	Grange Hall	1250	7.56	2.65	41.0			
		Total Wt	3050	18.57		100.0	< Verify this n	umber is 100%	_
Sieve		6AA	26	Α	2NS	Cumulative % Passing	% Retained	Cumulative % Retained	
2"	1	100.0	100	0.0	100.0	100.0	0.0	0.0	
1.5"	1	100.0	100	0.0	100.0	100.0	0.0	0.0	
1"		97.8	100	0.0	100.0	98.8	1.2	1.2	
3/4"		87.7	100	0.0	100.0	93.1	5.6	6.9	1
1/2"		47.6	96	.9	100.0	70.7	22.5	29.3	
3/8"	:	29.0	88	.8	100.0	60.1	10.6	39.9	*N
#4		4.6	29	.0	97.1	43.3	16.7	56.7	*A
#8		2.2	7.	3	83.3	35.6	7.7	64.4	nor
#16		1.9	2.	2.9		29.5	6.1	70.5	*9
#30		1.9	2.	0	50.3	21.7	7.8	78.3	nor
#50		1.8	1.	8	20.0	9.3	12.5	90.7	*9
#100		1.8	1.		2.8	2.2	7.1	97.8	a 1.
LBW		1.5	1.	5	0.3	1.0	1.2	99.0	1



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., om. max., #100 and #200 sieves. % Retained must be at least 4% for each sieve except max., om. max., #100 and #200 sieves. % Retained must be at least 4% for the 3/4" sieve when 1.5" max. size (nom. Max. 1.0") aggregate is used.



Intial Product	ion Sample (IPS	5)	_
Coars	seness Factor:	63	
Worl	kability Factor:	36	
Sieve	Cumulative	%	Cumulative
Sleve	% 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"	93.3	6.7	6.7
1/2"	70.6	22.6	29.4
3/8"	59.6	11.0	40.4
#4	43.9	15.7	56.1
#8	35.6	8.4	64.4
#16	28.4	7.2	71.6
#30	19.4	9.0	80.6
#50	7.5	11.9	92.5
#100	0.9	6.6	99.1
LBW	0.9	0.1	99.1

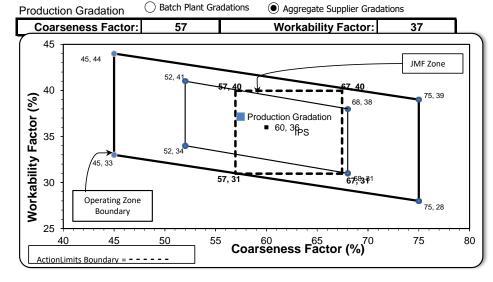
Approved By: Mart 1. Ball

PLANT #:		p11					Contractor:		
Sample Date	:	9/4/23			Concrete Grade:	S2M, 3500HP			
Dates Test Represents:		9/5/2023	through	9/11/2023			MDOT No.:		
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			
				< Verify this n	umber is 100%	_			
Sieve		6AA	26	A	2NS	Cumulative % Passing	% Retained	Cumulative % Retained	
2"	1	100.0	100	0.0	100.0	100.0	0.0	0.0	1
1.5"	1	100.0	100).0	100.0	100.0	0.0	0.0	
1"	1	97.0	100	0.0	100.0	98.5	1.5	1.5	1
3/4"		85.9	100).0	100.0	93.1	5.5	6.9	
1/2"		46.5	96	.5	100.0	73.3	19.7	26.7	
3/8"	:	29.3	87	.2	100.0	63.9	9.4	36.1	*M
#4		6.8	25	.7	96.9	45.1	18.8	54.9	*Ar
#8		3.5	6.	3	86.2	37.1	8.0	62.9	nom
#16		3.0	2.	8	71.4	30.6	6.6	69.4	*%
#30		2.7	2.	1	51.2	22.2	8.4	77.8	nom
#50		2.6	1.	9	24.3	11.3	10.9	88.7	*%
#100		2.4	1.		7.5	4.4	6.9	95.6	a 1.5
LBW		1.8	1.	6	1.5	1.7	2.7	98.3	1



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., om. max., #100 and #200 sieves. % Retained must be at least 4% for each sieve except max., om. max., #100 and #200 sieves. % Retained must be at least 4% for the 3/4" sieve when 1.5" max. size (nom. Max. 1.0") aggregate is used.



Intial Product	ion Sample (IPS	5)	_
Coars	seness Factor:	62	
Worl	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

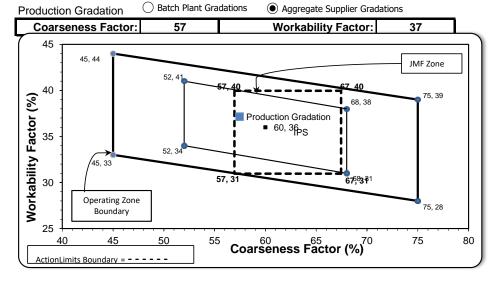
Approved By: Mart 1. Ball

PLANT #:		P-32					Contractor:		
Sample Date	:	9/4/23			Concrete Grade:	S2M, 3500HP			
Dates Test Represents:		9/5/2023	through	9/11/2023			MDOT No.:		
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	< Verify this number is 100%		
Sieve		6AA	26	A	2NS	Cumulative % Passing	% Retained	Cumulative % Retained	
2"	1	100.0	100	0.0	100.0	100.0	0.0	0.0	1
1.5"	1	100.0	100	0.0	100.0	100.0	0.0	0.0	
1"	1	97.0	100	0.0	100.0	98.5	1.5	1.5	1
3/4"		85.9	100	0.0	100.0	93.1	5.5	6.9	1
1/2"		46.5	96	5.5	100.0	73.3	19.7	26.7	
3/8"	:	29.3	87	.2	100.0	63.9	9.4	36.1	*
#4		6.8	25	5.7	96.9	45.1	18.8	54.9	*
#8		3.5	6.	.3	86.2	37.1	8.0	62.9	nc
#16		3.0	2.	.8	71.4	30.6	6.6	69.4	*
#30		2.7	2.	1	51.2	22.2	8.4	77.8	nc
#50		2.6	1.	9	24.3	11.3	10.9	88.7	*
#100		2.4	1.		7.5	4.4	6.9	95.6	a ′
LBW		1.8	1.	6	1.5	1.7	2.7	98.3	



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., om. max., #100 and #200 sieves. % Retained must be at least 4% for each sieve except max., om. max., #100 and #200 sieves. % Retained must be at least 4% for the 3/4" sieve when 1.5" max. size (nom. Max. 1.0") aggregate is used.



ness Factor:	62	
	02	
bility Factor:	35	
Cumulative	%	Cumulative
% Passing	Retained	% Retained
100.0	0.0	0.0
100.0	0.0	0.0
100.0	0.0	0.0
94.0	6.0	6.0
70.2	23.7	29.8
59.9	10.4	40.1
42.7	17.2	57.3
35.5	7.2	64.5
28.4	7.0	71.6
19.2	9.2	80.8
8.9	10.3	91.1
3.1	5.9	96.9
1.4	1.7	98.6
	Cumulative % Passing 100.0 100.0 100.0 94.0 70.2 59.9 42.7 35.5 28.4 19.2 8.9 3.1	Cumulative % % Passing Retained 100.0 0.0 100.0 0.0 100.0 0.0 100.0 0.0 100.0 0.0 100.0 0.0 100.0 0.0 94.0 6.0 70.2 23.7 59.9 10.4 42.7 17.2 35.5 7.2 28.4 7.0 19.2 9.2 8.9 10.3 3.1 5.9

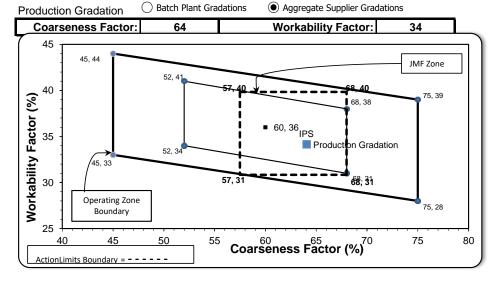
Approved By: Mart 1. Ball

PLANT #:		P-35					Contractor:		
Sample Date	:	9/4/23			Concrete Grade:	S2M, 3500HP			
Dates Test Represents:		9/5/2023	through	9/11/2023			MDOT No.:		
Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution			
6AA	58-003	Stoneco	1650	9.83	2.69	53.2			
26A	58-003	Stoneco	250	1.49	2.69	8.1			
2NS	81-019	Pleasant Lake	1200	7.26	2.65	38.7			
		Total Wt	3100	18.58		100.0	< Verify this n	umber is 100%	
Sieve		6AA	26	Α	2NS	Cumulative % Passing	% Retained	Cumulative % Retained	
2"	1	100.0	100	0.0	100.0	100.0	0.0	0.0	1
1.5"	1	100.0	100	0.0	100.0	100.0	0.0	0.0	
1"	1	100.0	100	0.0	100.0	100.0	0.0	0.0	
3/4"		86.8	100	0.0	100.0	93.0	7.0	7.0	
1/2"		43.5	99	.6	100.0	69.9	23.1	30.1	
3/8"		22.3	89	.7	100.0	57.8	12.1	42.2	*
#4		4.9	23	.6	97.9	42.4	15.4	57.6	*,
#8		2.9	5.	8	83.0	34.1	8.3	65.9	no
#16		2.5	3.	4	66.4	27.3	6.8	72.7	*(
#30		2.3	2.	8	47.2	19.7	7.6	80.3	no
#50		2.2	2.	6	23.2	10.4	9.4	89.6	*(
#100		2.0	2.		4.4	3.0	7.4	97.0	a 1
LBW		1.6	2.	1	0.4	1.2	1.8	98.8	1



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., om. max., #100 and #200 sieves. % Retained must be at least 4% for each sieve except max., om. max., #100 and #200 sieves. % Retained must be at least 4% for the 3/4" sieve when 1.5" max. size (nom. Max. 1.0") aggregate is used.



Intial Product	ion Sample (IPS	5)	_
Coar	seness Factor:	63	
Wor	kability Factor:	35	
Sieve	Cumulative	%	Cumulative
Sleve	% 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

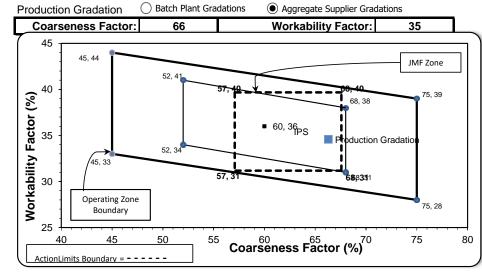
Approved By: Mart P. Ball

PLANT #: P-		P-36					Contractor:		
Sample Date	:	9/4/23			Concrete Grade:	S2M, 3500HP			
Dates Test Represents:		9/5/2023	through	9/11/2023			MDOT No.:		
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						39.3			
		Total Wt	3050	18.57		100.0	< Verify this number is 100%		
Sieve		6AA	26	A	2NS	Cumulative % Passing	% Retained	Cumulative % Retained	
2"	1	00.0	100	0.0	100.0	100.0	0.0	0.0	
1.5"	1	00.0	100	0.0	100.0	100.0	0.0	0.0	
1"		96.6	100	0.0	100.0	98.3	1.7	1.7	
3/4"		75.0	100	0.0	100.0	87.7	10.6	12.3	1
1/2"		30.8	96	5.5	100.0	65.6	22.1	34.4	
3/8"		14.8	87	.2	100.0	56.6	8.9	43.4	
#4		3.8	25	.7	97.1	43.0	13.6	57.0	
#8		2.2	6.	3	83.3	34.6	8.4	65.4	n
#16		1.8	2.	8	69.2	28.4	6.1	71.6	
#30		1.6	2.	1	50.3	20.8	7.6	79.2	n
#50		1.6	1.	9	20.0	8.9	11.9	91.1	
#100		1.4	1.		2.8	2.0	6.9	98.0	а
LBW		1.2	1.	6	0.3	0.9	1.1	99.1	1



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., om. max., #100 and #200 sieves. % Retained must be at least 4% for each sieve except max., om. max., #100 and #200 sieves. % Retained must be at least 4% for the 3/4" sieve when 1.5" max. size (nom. Max. 1.0") aggregate is used.



Intial Production	on Sample (IPS	5)	_
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	#100 1.8		98.2
LBW	0.7	1.0	99.3

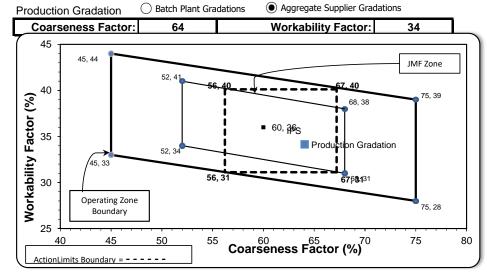
Approved By: Mart 1. Ball

PLANT #:		P-38					Contractor:		
Sample Date):	9/4/23			Concrete Grade:	S2M, 3500HP			
Dates Test Represents:		9/5/2023	through	9/11/2023			MDOT No.:		
Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution			
6AA	58-003	Stoneco	1650	9.83	2.69	53.2			
26A	58-003	Stoneco	250	1.49	2.69	8.1			
2NS	81-019	Pleasant Lake							
		Total Wt	3100	18.58		100.0	< Verify this n	umber is 100%	
Sieve		6AA	26	Α	2NS	Cumulative % Passing	% Retained	Cumulative % Retained	
2"	1	100.0	100	0.0	100.0	100.0	0.0	0.0	1
1.5"	1	100.0	100	0.0	100.0	100.0	0.0	0.0	
1"	1	100.0	100	0.0	100.0	100.0	0.0	0.0	1
3/4"		86.8	100	0.0	100.0	93.0	7.0	7.0	1
1/2"		43.5	99	.6	100.0	69.9	23.1	30.1	
3/8"		22.3	89	.7	100.0	57.8	12.1	42.2	1
#4		4.9	23	.6	97.9	42.4	15.4	57.6	
#8		2.9	5.	8	83.0	34.1	8.3	65.9	r
#16		2.5	3.	4	66.4	27.3	6.8	72.7	1
#30		2.3	2.	8	47.2	19.7	7.6	80.3	r
#50		2.2	2.	6	23.2	10.4	9.4	89.6	
#100		2.0	2.	4	4.4	3.0	7.4	97.0	a
LBW		1.6	2.	1	0.4	1.2	1.8	98.8	1



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., om. max., #100 and #200 sieves.
*% Retained must be at least 4% for each sieve except max., om. max., #100 and #200 sieves.
*% Retained must be at least 4% for the 3/4" sieve when 1.5" max. size (nom. Max. 1.0") aggregate is used.



Intial Production Sample (IPS)									
Coars	eness Factor:	62							
Work	ability Factor:	36							
Sieve	Cumulative	%	Cumulative						
Sleve	% 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"	91.1	8.1	8.9						
1/2"	72.0	19.1	28.0						
3/8"	60.3	11.7	39.7						
#4	43.4	16.9	56.6						
#8	35.6	7.8	64.4						
#16	28.4	7.2	71.6						
#30	21.8	6.7	78.2						
#50	9.1	12.6	90.9						
#100	1.7	7.4	98.3						
LBW	1.1	0.6	98.9						

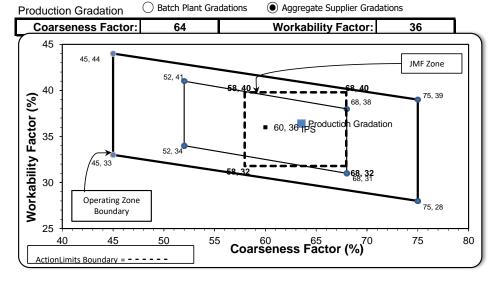
Approved By: Mart 1. Ball

PLANT #	#:	P-39					Contractor:		
Sample Date	:	9/4/23			Concrete Grade:	S2M, 3500HP			
Dates Test Represents:		9/5/2023	through	9/11/2023			MDOT No.:		
Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution			
6AA	71-47	Presque Isle	1600	9.79	2.62	52.5			
26A	71-47	Presque Isle	200	1.22	2.62	6.6			
2NS	44-051	Krake Willis Rd	1250	7.56	2.65	41.0			
		Total Wt	3050	18.57		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
1.5"		100.0	100	0.0	100.0	100.0	0.0	0.0	
1"		96.8	100	0.0	100.0	98.3	1.7	1.7	
3/4"		80.0	100).0	100.0	89.5	8.8	10.5	
1/2"		40.3	96	.3	100.0	68.4	21.1	31.6	
3/8"		24.8	85	.2	100.0	59.6	8.9	40.4	*N
#4		4.5	22	.1	99.0	44.4	15.2	55.6	*A
#8		2.3	5.	2	85.0	36.4	8.0	63.6	non
#16		2.0	2.	5	67.9	29.0	7.3	71.0	*%
#30		1.9	2.	0	50.6	21.9	7.2	78.1	non
#50		1.8	1.	8	23.1	10.5	11.3	89.5	*%
#100		1.8	1.	7	5.8	3.4	7.1	96.6	a 1.
LBW		1.5	1.	5	1.0	1.3	2.1	98.7	1



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., om. max., #100 and #200 sieves. % Retained must be at least 4% for each sieve except max., om. max., #100 and #200 sieves. % Retained must be at least 4% for the 3/4" sieve when 1.5" max. size (nom. Max. 1.0") aggregate is used.



Coarseness Factor: 63 Workability Factor: 36 Sieve Cumulative % Passing % Retained 2" 100.0 0.0 0.0 1.5" 100.0 0.0 0.0 1.5" 100.0 0.0 0.0 1/2" 70.7 19.1 29.3 3/4" 89.8 10.2 10.2 1/2" 70.7 19.1 29.3 3/8" 59.6 11.1 40.4 #4 43.2 16.4 56.8 #8 35.8 7.4 64.2 #16 29.2 6.6 70.8 #30 21.4 7.8 78.6 #50 9.8 11.6 90.2 #100 3.7 6.1 96.3 LBW 12 2.5 98.8	Intial Production	on Sample (IPS	5)	_
Sieve Cumulative % Passing % Retained Cumulative % Retained 2" 100.0 0.0 0.0 1.5" 100.0 0.0 0.0 1" 100.0 0.0 0.0 1" 100.0 0.0 0.0 3/4" 89.8 10.2 10.2 1/2" 70.7 19.1 29.3 3/8" 59.6 11.1 40.4 #4 43.2 16.4 56.8 #8 35.8 7.4 64.2 #16 29.2 6.6 70.8 #30 21.4 7.8 78.6 #50 9.8 11.6 90.2 #100 3.7 6.1 96.3	Coars	eness Factor:	63	
Sieve % Passing Retained % Retained 2" 100.0 0.0 0.0 1.5" 100.0 0.0 0.0 1.5" 100.0 0.0 0.0 1" 100.0 0.0 0.0 3/4" 89.8 10.2 10.2 1/2" 70.7 19.1 29.3 3/8" 59.6 11.1 40.4 #4 43.2 16.4 56.8 #8 35.8 7.4 64.2 #16 29.2 6.6 70.8 #30 21.4 7.8 78.6 #50 9.8 11.6 90.2 #100 3.7 6.1 96.3	Work	ability Factor:	36	
% 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 1" 100.0 0.0 0.0 3/4" 89.8 10.2 10.2 1/2" 70.7 19.1 29.3 3/8" 59.6 11.1 40.4 #4 43.2 16.4 56.8 #8 35.8 7.4 64.2 #16 29.2 6.6 70.8 #30 21.4 7.8 78.6 #50 9.8 11.6 90.2 #100 3.7 6.1 96.3	Siovo	Cumulative	%	Cumulative
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	Sieve	% Passing	Retained	% Retained
1" 100.0 0.0 0.0 3/4" 89.8 10.2 10.2 1/2" 70.7 19.1 29.3 3/8" 59.6 11.1 40.4 #4 43.2 16.4 56.8 #8 35.8 7.4 64.2 #16 29.2 6.6 70.8 #30 21.4 7.8 78.6 #50 9.8 11.6 90.2 #100 3.7 6.1 96.3	2"	100.0	0.0	0.0
3/4" 89.8 10.2 10.2 1/2" 70.7 19.1 29.3 3/8" 59.6 11.1 40.4 #4 43.2 16.4 56.8 #8 35.8 7.4 64.2 #16 29.2 6.6 70.8 #30 21.4 7.8 78.6 #50 9.8 11.6 90.2 #100 3.7 6.1 96.3	1.5"	100.0	0.0	0.0
1/2" 70.7 19.1 29.3 3/8" 59.6 11.1 40.4 #4 43.2 16.4 56.8 #8 35.8 7.4 64.2 #16 29.2 6.6 70.8 #30 21.4 7.8 78.6 #50 9.8 11.6 90.2 #100 3.7 6.1 96.3	1"	100.0	0.0	0.0
3/8" 59.6 11.1 40.4 #4 43.2 16.4 56.8 #8 35.8 7.4 64.2 #16 29.2 6.6 70.8 #30 21.4 7.8 78.6 #50 9.8 11.6 90.2 #100 3.7 6.1 96.3	3/4"	89.8	10.2	10.2
#4 43.2 16.4 56.8 #8 35.8 7.4 64.2 #16 29.2 6.6 70.8 #30 21.4 7.8 78.6 #50 9.8 11.6 90.2 #100 3.7 6.1 96.3	1/2"	70.7	19.1	29.3
#8 35.8 7.4 64.2 #16 29.2 6.6 70.8 #30 21.4 7.8 78.6 #50 9.8 11.6 90.2 #100 3.7 6.1 96.3	3/8"	59.6	11.1	40.4
#16 29.2 6.6 70.8 #30 21.4 7.8 78.6 #50 9.8 11.6 90.2 #100 3.7 6.1 96.3	#4	43.2	16.4	56.8
#30 21.4 7.8 78.6 #50 9.8 11.6 90.2 #100 3.7 6.1 96.3	#8	35.8	7.4	64.2
#50 9.8 11.6 90.2 #100 3.7 6.1 96.3	#16	29.2	6.6	70.8
#100 3.7 6.1 96.3	#30	21.4	7.8	78.6
	#50	9.8	11.6	90.2
IBW 12 25 98.8	#100	3.7	6.1	96.3
1.2 2.0 00.0	LBW	1.2	2.5	98.8

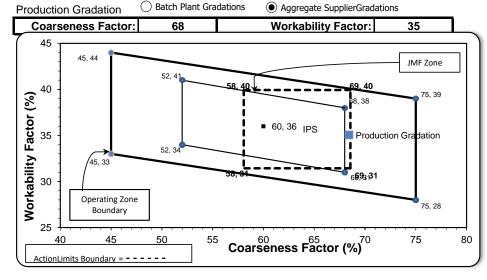
Approved By: Mart 1. Ball

PLANT #: Sample Date: Dates Test Represents:		P-O2		9/11/2023	Concrete Grade:		Contractor:		
		9/4/23				S2M, 3500HP			
		9/5/2023	through				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 n	umber 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
1.5"	100.0		100.0		100.0	100.0	0.0	0.0	
1"	96.6		100.0		100.0	98.3	1.7	1.7	
3/4"	75.0		100.0		100.0	87.3	11.0	12.7	1
1/2"	30.8		96.5		100.0	64.5	22.8	35.5	
3/8"	14.8		87.2		100.0	55.6	9.0	44.4	,
#4	3.8		25.7		96.5	43.1	12.4	56.9	*
#8	2.2		6.3		82.8	35.1	8.1	64.9	nc
#16	1.8		2.8		68.0	28.6	6.5	71.4	*
#30	1.6		2.1		50.8	21.5	7.1	78.5	nc
#50	450 1.6		1.9		25.7	11.3	10.1	88.7	*
#100			1.8		5.3	3.0	8.3	97.0	a
LBW	V 1.2		1.6		0.6	1.0	2.0	99.0	1



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., om. max., #100 and #200 sieves. % Retained must be at least 4% for each sieve except max., om. max., #100 and #200 sieves. % Retained must be at least 4% for the 3/4" sieve when 1.5" max. size (nom. Max. 1.0") aggregate is used.



Intial Production	on Sample (IPS	5)	_	
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	#50 9.9		90.1	
#100	#100 2.1		97.9	
LBW	0.9	1.2	99.1	

Approved By: North Ball