PLANT		P-102					Contractor:					
Sample Date		11/13/23			Concrete Grade	UN, 4500HP	MAGE					
Dates Test F	Represents:	11/14/2023	through	11/20/2023	Specific	%	MDOT No.:			·		
Agg. Class	Pit #	Source	Weight (SSD)	ft <sup>3</sup>	Gravity	% Contribution						
6AA	58-003	Stoneco	1375	8.19	2.69	46.6						
26A	58-003	Stoneco	425	2.53	2.69	14.4						
2NS	81-019	Pleasant Lake	1150	6.95	2.65	39.0				SUP	ERIOR	
		Total Wt	2950	17.68		100.0	< Verify this n	umber is 100%	1		RIALS	
Sieve		6AA	26	•	2NS	Cumulative	% Retained	Cumulative		Superior	Materials, LLC	
Sleve		JAA	20		2113	% Passing	% Retained	% Retained			10 Mile Rd.	
2"		100.0	10	0.0	100.0	100.0	0.0	0.0		Suite 500		
1.5"		100.0	-	0.0	100.0	100.0	0.0	0.0	1	Farmingto	n Hills, MI 48336	
1"	1	100.0	10	0.0	100.0	100.0	0.0	0.0	1			
3/4"		80.6		0.0	100.0	91.0	9.0	9.0				
1/2"		37.2	97	.8	100.0	70.4	20.5	29.6				
3/8"		12.8	84		100.0	57.1	13.3	42.9	*Maximum % Retained must be above the 3/8" sieve.			
#4	2.2			2.5	98.2	41.1	16.0	58.9			equal 10% except max.,	
#8		1.6	-	.9	83.9	34.0	7.1	66.0	· · · · ·	00 and #200 sieves		
#16 #30		1.5	2	4	67.4 49.1	27.3 20.1	6.7 7.2	72.7 79.9		ained must be at least 4% for each sieve excep x., #100 and #200 sieves.		
#30 #50		<u>1.4</u> 1.4		.0	25.3	10.8	9.3	79.9 89.2	,		s. 6 for the 3/4" sieve wher	
#30		1.2		.6	7.3	3.6	7.1	96.4			aggregate is used.	
LBW		0.8		.6	1.5	1.2	2.4	98.8	a 1.5 max. siz		aggregate is used.	
Production G	Gradation	O Batch Plant Gra	idations () Ago	regate Supplier Gra	dations	Adjusted WF	Intial Production	on Sample (IPS	• S)			
	ess Factor:	65	Worl	ability Factor:	34	36.5		eness Factor:	61			
				,,				ability Factor:	36			
45	AE AA .				JMF Zone			Cumulative	%	Cumulative		
	45, 44				JIVIF ZOIIE		Sieve	% Passing	Retained	% Retained		
		52, 41 <b></b>	40	67 40			2"	100.0	0.0	0.0		
40									0.0			
ج <sup>40</sup>				68 38	75, 39		1.5"	100.0		0.0		
<b>(%)</b>				68, 38			1"	99.3	0.7	0.7		
tor (%)			■ 60JP3€				1" 3/4"	99.3 89.2	0.7 10.1	0.7 10.8		
actor (%)			■ 60 <b>) </b> 3€				1" 3/4" 1/2"	99.3 89.2 70.7	0.7 10.1 18.5	0.7 10.8 29.3		
Factor (%)		52, 34	■ 60)  <b>3</b> (				1" 3/4" 1/2" 3/8"	99.3 89.2 70.7 60.7	0.7 10.1 18.5 10.0	0.7 10.8 29.3 39.3		
<b>Factor (%)</b>	45, 33	52, 34	■ 601R8	Production G	adation		1" 3/4" 1/2" 3/8" #4	99.3 89.2 70.7 60.7 44.4	0.7 10.1 18.5 10.0 16.3	0.7 10.8 29.3 39.3 55.6		
<b>Factor (%)</b>		56,	• 601R8		adation		1" 3/4" 1/2" 3/8" #4 #8	99.3 89.2 70.7 60.7 44.4 35.9	0.7 10.1 18.5 10.0 16.3 8.5	0.7 10.8 29.3 39.3 55.6 64.1		
Factor (%)	Operating Zone	56,	• 601 <b>R</b>	Production G	iradation		1" 3/4" 1/2" 3/8" #4 #8 #16	99.3 89.2 70.7 60.7 44.4 35.9 27.3	0.7 10.1 18.5 10.0 16.3 8.5 8.6	0.7 10.8 29.3 39.3 55.6 64.1 72.7		
ility Factor (%)		56,	• 60188	Production G	adation		1" 3/4" 1/2" 3/8" #4 #8 #16 #30	99.3 89.2 70.7 60.7 44.4 35.9 27.3 19.1	0.7 10.1 18.5 10.0 16.3 8.5 8.6 8.2	0.7 10.8 29.3 39.3 55.6 64.1 72.7 80.9		
Factor (%)	Operating Zone	56,	32	Production G	Fradation 75, 28		1" 3/4" 1/2" 3/8" #4 #8 #16	99.3 89.2 70.7 60.7 44.4 35.9 27.3	0.7 10.1 18.5 10.0 16.3 8.5 8.6	0.7 10.8 29.3 39.3 55.6 64.1 72.7		

Approved By:

PLANT #	<b>#:</b>	12					Contractor:			_	
Sample Date	:	11/13/23		(	Concrete Grade:	DM, 4500HP				-	
Dates Test R	epresents:	11/14/2023	through	11/20/2023			MDOT No.:				
Agg. Class	Pit #	Pit # Source	Weight (SSD)	ft <sup>3</sup>	Specific Gravity	% Contribution					
6AA	71-47	Presque Isle	1450	8.87	2.62	49.9					
26A	71-47	Presque Isle	305	1.87	2.62	10.5					
2NS	63-115	Ray Rd <b>Total Wt</b>	1150	6.95	2.65	39.6				SUD	ERIOR
			2905	17.69		100.0	< Verify this number is 100%				RIALS
Sieve 6AA		6AA	26	A	2NS	Cumulative % Passing	% Retained	Cumulative % Retained		<u>Superior I</u> 30701 W. 1	<b>Materials, LLC</b> 10 Mile Rd.
2"	1	00.0	100	0.0	100.0	100.0	0.0	0.0	Suite 500		
1.5"	1	00.0	100	0.0	100.0	100.0	0.0	0.0	Farmingtor		n Hills, MI 48336
1"	ç	98.8	100	0.0	100.0	99.4	0.6	0.6			
3/4"		75.2	100		100.0	87.6	11.8	12.4			
1/2"		36.0	95	.5	100.0	67.6	20.0	32.4			
3/8"		20.1	88	.5	100.0	58.9	8.7	41.1	*Maximum %	Retained must be	above the 3/8" sieve.
#4		4.0	20		96.2	42.2	16.7	57.8	*Any two adjacent sieves must equ		equal 10% except max.,
#8		2.2	4.		80.3	33.4	8.9	66.6	nom. max., #10	00 and #200 sieves	S.
#16		2.0	2.		65.1	27.0	6.3	73.0	*% Retained	must be at least 4%	% for each sieve except
#30		1.9	2.		49.5	20.8	6.3	79.2	nom. max., #10	00 and #200 sieves	S.
#50		1.8	1.	-	26.5	11.6	9.2	88.4	*% Retained	must be at least 4%	% for the 3/4" sieve whe
#100		1.8	1.8		6.3	3.6	8.0	96.4	a 1.5" max. siz	e (nom. Max. 1.0")	aggregate is used.
LBW		1.2	1.	.5	0.8	1.1	2.5	98.9	J		
Production G	radation	O Batch Plant Gra	dations 💿 Agg	regate Supplier Gra	adations	Adjusted WF	Intial Production	on Sample (IPS	6)		
Coarsene	ess Factor:	62	Work	ability Factor:	33	35.9	Coars	eness Factor:	63		
45							Work	ability Factor:	36		
4	15, 44				JMF Zone		Sieve	Cumulative % Passing	% Retained	Cumulative % Retained	
		52, 41	57, 40	68, 40			2"	100.0	0.0	0.0	1
ত <sup>40</sup> ।				68, 38	75, 39		1.5"	100.0	0.0	0.0	1
tor (%)			i				1"	99.3	0.7	0.7	1
<u>o</u>			I 60 ₿9	Concernation Gradation			3/4"	89.0	10.3	11.0	1

Workability Facto RECEDENCE 52, 34 45, 33 68, 32 Operating Zone 75, 28 Boundary 25 55  $\mathbf{Coarseness} \ \mathbf{Factor} \ \mathbf{(\%)}^{70}$ 50 75 80 40 45 ActionLimits Boundary = - - - - -

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"	99.3	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

Approved By: Mary P. Ball

PLANT :	#:	p11					Contractor:				
Sample Date	e:	11/13/23		C	oncrete Grade:	DM, 4500HP					
Dates Test F	Represents:	11/14/2023	through	11/20/2023			MDOT No.:				
Agg. Class	Pit #	Source	Weight (SSD)	ft <sup>3</sup>	Specific Gravity	% Contribution					
6AA	71-47	Presque Isle	1455	8.90	2.62	50.1					
26A	71-47	Presque Isle	300	1.83	2.62	10.3					
2NS	95-013	Smelter Bay	1150	6.95	2.65	39.6				SUP	FRIOR
		Total Wt	2905	17.69		100.0	< Verify this no	umber is 100%	MATERIALS		
Sieve 6AA		6AA	26A		2NS	Cumulative % Passing	% Retained Cumulative % Retained		SUDELIUL IVIALELIAIS, LLC		
2"	1	00.0	100	).0	100.0	100.0	0.0	0.0	1	Suite 500	
1.5"	1	00.0	100	0.0	100.0	100.0	0.0	0.0	]	Farmingto	n Hills, MI 48336
1"	97.6		100	).0	100.0	98.8	1.2	1.2	]		
3/4"		75.5	100		100.0	87.7	11.1	12.3	l		
1/2"		34.6	95		100.0	66.8	20.9	33.2			
3/8"	22.1		88		100.0	59.8	7.0	40.2	*Maximum %	Retained must be	above the 3/8" sieve.
#4	4.8		20		95.9	42.5	17.3	57.5	· · ·		qual 10% except max.,
#8	2.8		4.		85.0	35.5	6.9	64.5	· · · · ·	00 and #200 sieves	
#16		2.6	2.6		70.9	29.6	5.9	70.4			for each sieve except
#30		2.5	2.0 1.8		51.7	21.9	7.7	78.1		00 and #200 sieves	
#50		2.4			25.6	11.5	10.4	88.5			6 for the 3/4" sieve whe
#100 LBW		2.3 1.8	1. 1.		7.7 1.8	4.4 1.8	7.1 2.6	95.6 98.2	a 1.5" max. siz	e (nom. Max. 1.0")	aggregate is used.
Production G	Jadation	O Batch Plant Gra	0 55	egate Supplier Grad		-	Intial Production	• •			
Coarsene	ess Factor:	62	Work	ability Factor:	36	38.0		eness Factor:	62		
45 T	-					$\neg$ )	Work	ability Factor:	36		
	45, 44				JMF Zone		Sieve	Cumulative	%	Cumulative	
-		52, 41						% Passing	Retained	% Retained	
<b>~</b> <sup>40</sup>		56		67, 40	75, 39		2"	100.0	0.0	0.0	
%)				Production Gradatio	n 70,09		1.5"	100.0	0.0	0.0	
2			i				1" 3/4"	100.0 95.0	0.0 5.0	0.0 5.0	
<b>to</b> 35			■ 60, <b>31</b> 8				3/4	95.0 72.3	22.8	5.0 27.7	
L T	$\rightarrow$	52, 34	-	<b>!</b>			3/8"	60.4	11.8	39.6	
	45, 33		!	i			#4	42.6	17.8	57.4	
E E	1	50	,	67, 32 68, 31			#8	36.0	6.6	64.0	
iliti 30	1										
kapility		-									
Workability Factor (%)	Operating Zone Boundary	7			75, 28		#16 #30	29.5 20.3	6.5 9.2	70.5 79.7	

75

80

#100

LBW

3.4

1.3

Approved By:

96.6

98.7

6.1

2.1

PREPARED BY: SM, LLC Technical Service

50

55

 $\mathbf{Coarseness} \ \mathbf{Factor} \ \mathbf{(\%)}^{70}$ 

45

ActionLimits Boundary = - - - - -

25

40

Mart 1. Ball

PLANT #		P-32					Contractor:					
Sample Date		11/13/23	<u>.</u>		concrete Grade	DM, 4500HP						
Dates Test R	epresents:	11/14/2023	through	11/20/2023		~	MDOT No.:					
Agg. Class	Pit #	Source	Weight (SSD)	ft <sup>3</sup>	Specific	%						
6AA	71-47	Presque Isle	1455	8.90	Gravity 2.62	Contribution 50.1						
26A	71-47	Presque Isle	300	1.83	2.62	10.3						
2NS	95-013	Smelter Bay	1150			39.6						
		Total Wt	2905	17.69		100.0	< Verify this n	Verify this number is 100%		MATE	ERIALS	
Sieve	(	6AA	26	A	2NS	Cumulative	% Retained	Cumulative		Superior	Materials, LLC	
						% Passing	% Retained			30701 W. 1	10 Mile Rd.	
2"		00.0	100		100.0	100.0	0.0	0.0		Suite 500		
1.5"		00.0	100		100.0	100.0	0.0	0.0	Farmington Hills, MI 48		n Hills, MI 48336	
1"		97.6	100		100.0	98.8	1.2	1.2				
3/4" 1/2"		75.5	100		100.0 100.0	87.7 66.8	11.1 20.9	12.3 33.2				
3/8"		34.6 22.1	95 88		100.0	59.8	7.0	33.2 40.2	*Maximum % Retained must be above the 3/8		- h	
	#4 4.8		20		95.9	42.5	17.3	40.2 57.5			qual 10% except max.,	
#4	_		4.	-	85.0	35.5	6.9	64.5		00 and #200 sieves		
#16		2.6	2.6		70.9	29.6	5.9	70.4		*% Retained must be at least 4%		
#30		2.5	2.		51.7	21.9	7.7	78.1		<ul> <li>*% Retained must be at least 4% for the 3/4" sieve</li> </ul>		
#50		2.4	1.	8	25.6	11.5	10.4	88.5	,			
#100		2.3	1.	8	7.7	4.4	7.1	95.6	a 1.5" max. size (nom. Max. 1.0") aggregate is used.			
LBW		1.8	1.	5	1.8	1.8	2.6	98.2				
Production G	radation	O Batch Plant Gra	dations 💿 Agg	regate Supplier Gra	dations	Adjusted WF	Intial Production	on Sample (IPS	5)			
Coarsene	ess Factor:	62	Work	ability Factor:	36	38.0		eness Factor:	62			
				-			Work	ability Factor:	36			
45					JMF Zone		Cierre	Cumulative	%	Cumulative		
4	15, 44				Jivii 2011e		Sieve	% Passing	Retained	% Retained		
		52, 41	6, 40	67,40			2"	100.0	0.0	0.0		
<b>२</b> <sup>40</sup>					75, 39		1.5"	100.0	0.0	0.0		
ల్ -			📕 📕 F	Production Gradatio	n		1"	100.0	0.0	0.0		
<u>ā</u>			■ 60,38B	s !			3/4"	95.0	5.0	5.0		
U 25			i	<b>i</b>			1/2" 3/8"	72.3 60.4	22.8 11.8	27.7 39.6		
<b>B</b> 35		52, 34	+	<u>i</u>			3/8" #4	60.4 42.6	11.8	39.6 57.4		
й I			, 32	<b>67,32</b> 67,32			#4	42.6 36.0	6.6	64.0		
ility Fa	45, 33			68, 31			#16	29.5	6.5	70.5		
ability Fac								-0.0	0.0			
orkability Fac	Operating Zone	7					#30	20.3	9.2			
ability					75, 28		#30 #50	20.3 9.5	9.2 10.8	79.7 90.5		
Norkability Fac	Operating Zone	50 55		<b>Factor (%)</b>	75, 28	80				79.7		

Approved By: Mart 1. Ball

PLANT		P-35		-			Contractor:				
Sample Date		11/13/23	<u>.</u>		Concrete Grade	<u>DM, 4500HP</u>	MOOTH				
Dates Test F	(epresents:	11/14/2023	through	11/20/2023	Specific	%	MDOT No.:				
Agg. Class	Pit #	Source	Weight (SSD)	ft <sup>3</sup>	Gravity	70 Contribution					
6AA	58-003	Stoneco	1375	8.19	2.69	46.6					
26A	58-003	Stoneco	425	2.53	2.69	14.4					
2NS	81-019	Pleasant Lake	1150	6.95	2.65	39.0				SIID	FRIOR
		Total Wt	2950	17.68		100.0	< Verify this n	umber is 100%		MATE	RIALS
Sieve		6AA	26	Α	2NS	Cumulative % Passing	% Retained	Cumulative % Retained			<b>Materials, LLC</b> 10 Mile Rd.
2"	1	100.0	100	0.0	100.0	100.0	0.0	0.0		Suite 500	
1.5"		100.0	100		100.0	100.0	0.0	0.0		Farmingto	n Hills, MI 48336
1"		100.0	100		100.0	100.0	0.0	0.0			
3/4"		80.6	100		100.0	91.0	9.0	9.0			
1/2"		37.2	97		100.0	70.4	20.5	29.6	*Maximum % Retained must be above the 3/8" sieve		
3/8" #4		12.8 2.2	84 12		100.0 98.2	57.1 41.1	13.3 16.0	42.9 58.9			
#4 #8			3.		83.9	34.0	7.1	66.0			qual 10% except max.,
#0 #16		1.5	3.	-	67.4	27.3	6.7	72.7	-	00 and #200 sieves	
#30		1.4	2.		49.1	20.1	7.2	79.9	*% Retained must be at least 4% for each sieve exc nom. max., #100 and #200 sieves. *% Retained must be at least 4% for the 3/4" sieve v		
#50		1.4	1.		25.3	10.8	9.3	89.2			
#100		1.2	1.		7.3	3.6	7.1	96.4		e (nom. Max. 1.0")	
LBW		0.8	1.	6	1.5	1.2	2.4	98.8		. ,	
Production G	Fradation	O Batch Plant Gra	adations 💿 Aggr	regate Supplier Gra	dations	Adjusted WF	Intial Production	on Sample (IPS			
	ess Factor:	65	Work	ability Factor:	34	36.5		eness Factor:	, 61		
					_			ability Factor:	36		
45	•				JMF Zone			Cumulative	%	Cumulative	
	45, 44				JIVIF ZONE		Sieve	% Passing	Retained	% Retained	
		52, 41					2"	100.0	0.0	0.0	
ू <sup>40</sup> ]		50,		68, 38	75, 39		1.5"	100.0	0.0	0.0	
<u>ې</u>					1		1"	99.3	0.7	0.7	
			■ 60,j <u></u> ĝ6	Production G	iradation		3/4"	89.1	10.2	10.9	
<b>8</b> 35 -				· • •			1/2"	70.5	18.6	29.5	
	45, 33	52, 34	<u>†</u>	<b>i</b>			3/8" #4	60.5 44.1	10.0 16.4	39.5 55.9	
ш́і > 1	40, 33	56,	31	<b>67, 88</b> , 31			#4 #8	35.6	8.5	55.9 64.4	
ility F		<i>`</i>		<b>07, 68</b> , 31			#16	27.7	7.9	72.3	
					75, 28		#30	20.6	7.1	72.3	
orkability F	Operating Zone	ž									
Workability Factor (%)	Operating Zone Boundary				75, 28		#50	8.7	11.8		
Morkability F		50 55		65 Factor (%)	75, 28	80	#50 #100	8.7 1.6	11.8 7.1	91.3 98.4	

Approved By:

PLANT #	•	P-36		-			Contractor:						
Sample Date	-	11/13/23			oncrete Grade	DIVI, 4500HP	MDOTN						
Dates Test R	epresents:	11/14/2023	through	11/20/2023	Specific	%	MDOT No.:						
Agg. Class	Pit #	Source	Weight (SSD)	ft <sup>3</sup>	Gravity	<sup>70</sup> Contribution							
6AA	71-47	Presque Isle	1450	8.87	2.62	49.9							
26A	71-47	Presque Isle	305	1.87	2.62	10.5							
2NS	63-92	Grange Hall	1150	6.95	2.65	39.6				SUP	FRIOR		
		Total Wt	2905	17.69		100.0	< Verify this n	< Verify this number is 100%		SUPERIOR MATERIALS			
Sieve	(	5AA	26	A	2NS	Cumulative % Passing	% Retained	Cumulative % Retained			Materials, LLC		
			ļ			-				30701 W. 1	10 Mile Rd.		
2"		00.0	100		100.0	100.0	0.0	0.0		Suite 500			
1.5"		00.0	100		100.0	100.0	0.0	0.0	Farmington Hills, MI 483		n milis, ivii 48330		
1" 3/4"		98.8 75.2	100		100.0 100.0	99.4 87.6	0.6 11.8	0.6 12.4					
3/4 1/2"		36.0	95		100.0	67.6	20.0	32.4					
3/8"		20.1	88	-	100.0	58.9	8.7	41.1	*Maximum % Retained must be above the 3/8" sieve.				
#4		4.0	20	-	96.0	42.2	16.7	57.8			qual 10% except max.,		
#8	8 2.2		4.	8	81.5	33.9	8.3	66.1	nom. max., #10	00 and #200 sieves			
#16		2.0	2.		66.6	27.6	6.2	72.4	*% Retained	*% Retained must be at least 4% for each sieve	for each sieve except		
#30		1.9	2.		47.4	19.9	7.7	80.1	nom. max., #100 and #200 sieves.				
#50		1.8	1.	-	20.8	9.3	10.6	90.7		*% Retained must be at least 4%			
#100 LBW		1.8 1.2	1. 1.	-	3.6 0.6	2.5 1.0	<u>6.8</u> 1.5	97.5 99.0	a 1.5" max. size (nom. Max. 1.0") aggregate is used.				
		Batch Plant Gra		o regate Supplier Gra									
Production G	nauation	0						on Sample (IPS		I			
Coarsene	ess Factor:	62	Work	ability Factor:	34	36.4		eness Factor:	63				
45							Work	ability Factor:	35				
	45, 44				JMF Zone		Sieve	Cumulative	%	Cumulative			
-		52, 41					2"	% Passing 100.0	Retained 0.0	% Retained 0.0			
40			58.39	30			 1.5"	100.0	0.0	0.0			
8			· · · · · · · · · · · · · · · · · · ·	68, 38	75, 39		1.0	99.1	0.0	0.9			
2			i 🔤 r	roduction Gradatior			3/4"	90.3	8.8	9.7			
<b>5</b> 35			∎ 60 <mark>, 3</mark> 6	IPS	' I		1/2"	69.2	21.1	30.8			
La la	$\rightarrow$	52, 34	i				3/8"	59.1	10.1	40.9			
	45, 33						#4	41.8	17.3	58.2			
i t			58, 31	68. <sup>3</sup> 31			#8	35.1	6.6	64.9			
<sup>30</sup>				50, 0			#16	28.5	6.6	71.5			
kability	Operating Zone				75, 28		#30	21.2	7.3	78.8			
orkability	Operating Zone Boundary				-, -					04.0			
Worka					-, -		#50	8.7	12.5	91.3			
Norkability <sup>30</sup> <sup>25</sup> <sup>40</sup>		 50 55		<b>Factor (%)</b>	75	80	#50 #100 LBW	8.7 1.8 0.7	12.5 7.0 1.0	91.3 98.2 99.3			

Approved By: Mart P. Ball

PLANT		P-02		_			Contractor:					
Sample Date		11/13/23			oncrete Grade	: DM, 4500HP						
Dates Test F	Represents:	11/14/2023	through	11/20/2023	<b>A</b> 14	<b>^</b>	MDOT No.:					
Agg. Class	Pit #	Source	Weight (SSD)	ft <sup>3</sup>	Specific	%						
6AA	71-47	Presque Isle	1450	8.87	Gravity 2.62	Contribution 49.9						
26A	71-47	Presque Isle	305	1.87	2.62	10.5						
20/1 2NS	63-115	Ray Rd	1150	6.95	2.65	39.6						
		Total Wt		17.69	2.00	100.0	< Verify this n	umber is 100%	SUPERIOR MATERIALS			
Sieve		6AA	26	A	2NS	Cumulative % Passing	% Retained	Cumulative % Retained			Materials, LLC 10 Mile Rd.	
2"	1	00.0	10	0.0	100.0	100.0	0.0	0.0		Suite 500		
1.5"		00.0	10		100.0	100.0	0.0	0.0		Farmingto	n Hills, MI 48336	
1"		98.8	10		100.0	99.4	0.6	0.6				
3/4"		75.2	10	0.0	100.0	87.6	11.8	12.4				
1/2"		36.0	95	.5	100.0	67.6	20.0	32.4				
3/8"		20.1		88.5		58.9	8.7	41.1	*Maximum % Retained must be above the 3/8" siev			
#4		4.0	20		96.2	42.2	16.7	57.8	*Any two adja	cent sieves must e	qual 10% except max.	
#8		2.2	4		80.3	33.4	8.9	66.6		00 and #200 sieves		
#16		2.0	2		65.1	27.0	6.3	73.0	<ul> <li>*% Retained must be at least 4% for each sieve excep nom. max., #100 and #200 sieves.</li> <li>*% Retained must be at least 4% for the 3/4" sieve wh a 1.5" max. size (nom. Max. 1.0") aggregate is used.</li> </ul>			
#30		1.9	2	-	49.5	20.8	6.3	79.2				
#50 #100		1.8 1.8	1.	-	26.5 6.3	11.6 3.6	9.2 8.0	88.4 96.4				
LBW		1.2	1	-	0.8	3.0	2.5	96.4 98.9	a 1.5° max. siz	e (nom. Max. 1.0")	aggregate is used.	
		Batch Plant Gra		regate SupplierGrad					•			
Production C		Ŭ						on Sample (IPS		l		
Coarsene	ess Factor:	62	WOR	ability Factor:	33	35.9		eness Factor:	63			
45						)	work	ability Factor:	35 %	Cumulativa		
	45, 44				JMF Zone		Sieve	Cumulative		Cumulative		
:		52, 41		_			2"	% Passing 100.0	Retained 0.0	% Retained 0.0		
<b>4</b> 0			58.39	68, 39	75, 39		1.5"	100.0	0.0	0.0		
8				68, 38	10,00		1"	100.0	0.0	0.0		
2				i i			3/4"	95.1	4.9	4.9		
<b>5</b> 35				oduction Gadation			1/2"	74.6	20.5	25.4		
ц,	$\rightarrow$	52, 34		i			3/8"	59.3	15.3	40.7		
i Ś	45, 33						#4	42.1	17.2	57.9		
<b>ig</b> 30		_	58, 31	6 <b>8</b> 8,331			#8	35.1	7.1	64.9		
	Operating Zone						#16	29.2	5.9	70.8		
¥	Boundary				75, 28		#30	21.9	7.3	78.1		
Vork		_					#50	9.6	12.4	90.4		
No.												
25 40	45	50 55	5 60	Factor (%)	75	80	#100 LBW	2.4 0.9	7.2 1.5	97.6 99.1		

Approved By: Mart 1. Ball