Aggregate Optimization Chart

Production Gradation Report

PLANT #: P-32

Sample Date: 7/12/21

Concrete Grade: **S2M**

Dates Test Represents: 7/13/2021 through 7/19/2021

Contractor: _____

MDOT No.: _____

Agg. Class	Pit #	Source	Weight (SSD)	ft³	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%

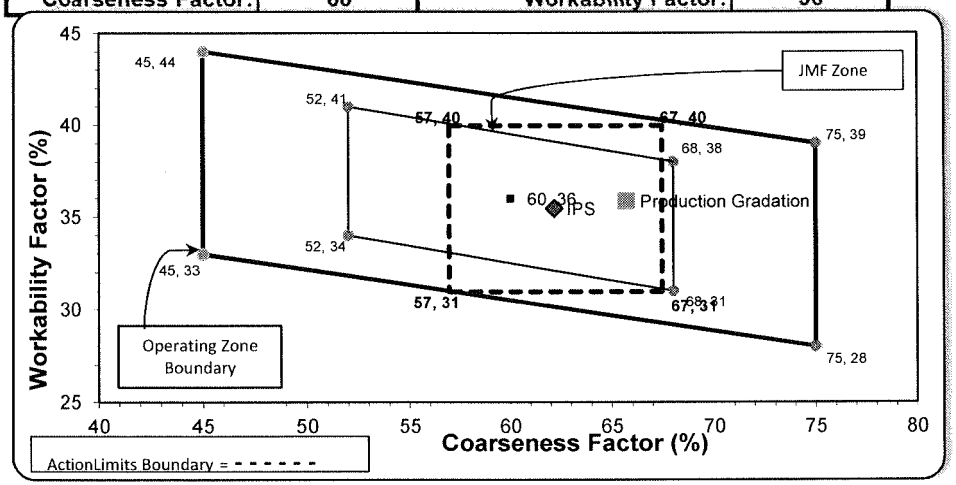
Sieve	6AA	26A	2NS	Cumulative % Passing	% Retained	Cumulative % Retained
2"	100.0	100.0	100.0	100.0	0.0	0.0
1.5"	100.0	100.0	100.0	100.0	0.0	0.0
1"	98.2	100.0	100.0	99.1	0.9	0.9
3/4"	78.4	100.0	100.0	89.4	9.7	10.6
1/2"	38.0	97.0	100.0	69.2	20.2	30.8
3/8"	17.1	86.9	100.0	57.9	11.3	42.1
#4	3.8	24.9	96.2	43.3	14.6	56.7
#8	2.6	7.2	83.9	35.9	7.4	64.1
#16	2.2	3.7	71.2	30.2	5.7	69.8
#30	2.0	3.1	47.9	20.6	9.6	79.4
#50	1.9	2.6	21.0	9.7	10.9	90.3
#100	1.8	2.4	5.2	3.2	6.4	96.8
LBW	1.5	1.8	1.7	1.6	1.6	98.4

*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.

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

Production Gradation ◉ Batch Plant Gradations ○ Aggregate Supplier Gradations

Coarseness Factor:	66	Workability Factor:	36



Intial Production Sample (IPS)

Coarseness Factor:	62
Workability Factor:	35

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
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:

Edw. C. Levy Co.

JMT
8911 W. Jefferson
Detroit, 48209
(313) 429-2429

Plant 958-JMT

Product 1022-2NS GR - Smelter Bay

Period: 07/11/2021 - 07/17/2021

Name/Title Doug Storey / QC Technician

Report Date 07/17/2021

Procedure	Sieve/Test	Result	Unit	2NS GR Spec
	3/8" (9.5mm)	100.0	%	100-100
	#4 (4.75mm)	96.2	%	95-100
	#8 (2.36mm)	83.9	%	65-95
	#16 (1.18mm)	71.2	%	35-75
	#30 (.6mm)	47.9	%	20-55
	#50 (.3mm)	21.0	%	10-30
	#100 (.15mm)	5.2	%	0-10
	#200 (75µm)	1.8	%	
	FM	2.75		2.6-3
	Wash Loss (#200/75um)	1.7	%	0-3
	Total Moisture	8.5	%	

Edw. C. Levy Co.

JMT
8911 W. Jefferson
Detroit, 48209
(313) 429-2429

Plant 958-JMT

Product 1067-26A Mod LS

Period: 07/11/2021 - 07/17/2021

Name/Title Doug Storey / QC Technician

Report Date 07/17/2021

Procedure	Sieve/Test	Result	Unit	26A Mod LS Spec
	2" (50mm)	100.0	%	
	1 1/2" (37.5mm)	100.0	%	
	1" (25mm)	100.0	%	
	3/4" (19mm)	100.0	%	100-100
	1/2" (12.5mm)	97.0	%	95-100
	3/8" (9.5mm)	86.9	%	60-95
	#4 (4.75mm)	24.9	%	5-30
	#8 (2.36mm)	7.2	%	0-12
	#16 (1.18mm)	3.7	%	
	#30 (.6mm)	3.1	%	
	#50 (.3mm)	2.6	%	
	#100 (.15mm)	2.4	%	
	#200 (75µm)	2.0	%	
	Wash Loss (#200/75um)	1.8	%	0-3
	Total Moisture	4.2	%	

Edw. C. Levy Co.

JMT
8911 W. Jefferson
Detroit, 48209
(313) 429-2429

Plant 958-JMT

Product 1054-6AA LS Pl

Period: 07/11/2021 - 07/17/2021

Name/Title Doug Storey / QC Technician

Report Date 07/17/2021

Procedure	Sieve/Test	Result	Unit	6AA LS Pl Spec
	2" (50mm)	100.0	%	
	1 1/2" (37.5mm)	100.0	%	100-100
	1" (25mm)	98.2	%	95-100
	3/4" (19mm)	78.4	%	
	1/2" (12.5mm)	38.0	%	30-60
	3/8" (9.5mm)	17.1	%	
	#4 (4.75mm)	3.8	%	0-8
	#8 (2.36mm)	2.6	%	
	#16 (1.18mm)	2.2	%	
	#30 (.6mm)	2.0	%	
	#50 (.3mm)	1.9	%	
	#100 (.15mm)	1.8	%	
	#200 (75µm)	1.6	%	
	Wash Loss (#200/75um)	1.5	%	0-2
	Total Moisture	5.1	%	