

# Aggregate Optimization Chart

# Production Gradation Report

**PLANT #:** P-32

Sample Date: 12/7/20

Dates Test Represents: 12/8/2020 through 12/14/2020

Concrete Grade: DM

Contractor: \_\_\_\_\_

MDOT No.: \_\_\_\_\_



**Superior Materials, LLC**  
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Suite 500  
Farmington Hills, MI 48336

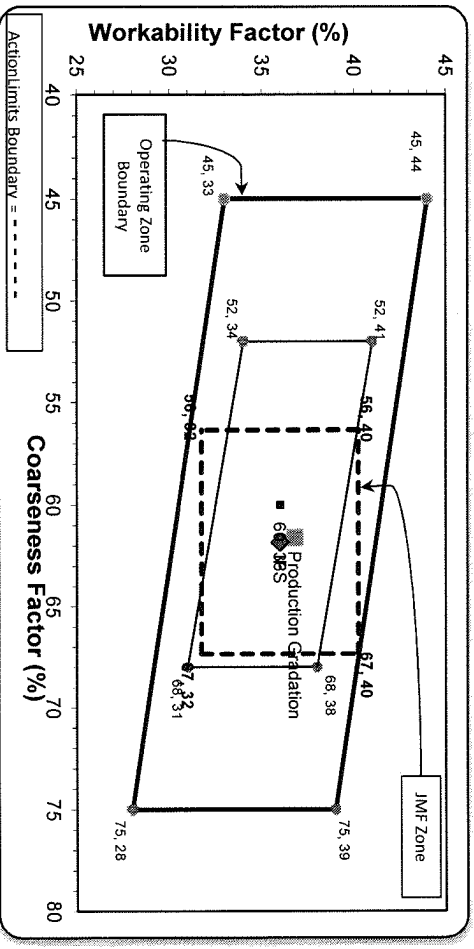
Agg. Class	Pit #	Source	Weight (SSD)	ft <sup>3</sup>	Specific Gravity	Contribution %	
6AA	71-47	Presque Isle	1555	9.51	2.62	53.5	
26A	71-47	Presque Isle	200	1.22	2.62	6.9	
2NS	95-013	Smelter Bay	1150	6.95	2.65	39.6	
<b>Total Wt</b>						<b>2905</b>	<b>100.0</b>

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"	99.5	100.0	100.0	99.7	0.3	0.3
3/4"	82.7	100.0	100.0	90.7	9.0	9.3
1/2"	43.6	99.0	100.0	69.7	21.0	30.3
3/8"	25.8	89.1	100.0	59.5	10.2	40.5
#4	4.5	16.8	95.8	41.5	18.0	58.5
#8	2.2	4.5	82.9	34.3	7.2	65.7
#16	1.9	2.6	66.8	27.6	6.7	72.4
#30	1.8	2.3	46.6	19.6	8.1	80.4
#50	1.6	2.3	27.4	11.9	7.7	88.1
#100	1.6	2.3	9.5	4.8	7.1	95.2
LBW	1.2	1.4	1.2	1.2	3.6	98.8

Production Gradation  Batch Plant Gradations  Aggregate Supplier Gradations

Coarseness Factor: 62 Workability Factor: 34 Adjusted WF: 36.8



Initial Production Sample (IPS)

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"	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

Coarseness Factor: 62 Workability Factor: 36

\*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. 1.5") aggregate is used.

PREPARED BY:  
SM, LLC Technical Service

Approved By: \_\_\_\_\_

Edw. C. Levy Co.

Plant 958-JMT

Product 1054-6AA LS PI

Name/Title Doug Storey / QC Technician

Period: 12/06/2020 - 12/12/2020

Report Date 12/11/2020

Procedure	Sieve/Test	Result	Unit	6AA LS PI Spec
	2" (50mm)	100.0	%	
	1 1/2" (37.5mm)	100.0	%	100-100
	1" (25mm)	99.5	%	95-100
	3/4" (19mm)	82.7	%	
	1/2" (12.5mm)	43.6	%	30-60
	3/8" (9.5mm)	25.8	%	
	#4 (4.75mm)	4.5	%	0-8
	#8 (2.36mm)	2.2	%	
	#16 (1.18mm)	1.9	%	
	#30 (.6mm)	1.8	%	
	#50 (.3mm)	1.6	%	
	#100 (.15mm)	1.6	%	
	#200 (75µm)	1.3	%	
	Wash Loss (#200/75µm)	1.2	%	0-2
	Total Moisture	2.8	%	

# Edw. C. Levy Co.

Plant 958-JMT

Product 1067-26A Mod LS

Name/Title Doug Storey / QC Technician

Period: 12/06/2020 - 12/12/2020

Report Date 12/11/2020

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)	99.0	%	95-100
	3/8" (9.5mm)	89.1	%	60-95
	#4 (4.75mm)	16.8	%	5-30
	#8 (2.36mm)	4.5	%	0-12
	#16 (1.18mm)	2.6	%	
	#30 (.6mm)	2.3	%	
	#50 (.3mm)	2.3	%	
	#100 (.15mm)	2.3	%	
	#200 (75µm)	1.8	%	
	Wash Loss (#200/75um)	1.4	%	0-3
	Total Moisture	3.7	%	

# Edw. C. Levy Co.

**Plant** 958-JMT

**Product** 1022-2NS GR - Smelter Bay

**Name/Title** Doug Storey / QC Technician

**Period:** 12/06/2020 - 12/12/2020

**Report Date** 12/11/2020

Procedure	Sieve/Test	Result	Unit	2NS GR Spec
	3/8" (9.5mm)	100.0	%	100-100
	#4 (4.75mm)	95.8	%	95-100
	#8 (2.36mm)	82.9	%	65-95
	#16 (1.18mm)	66.8	%	35-75
	#30 (.6mm)	46.6	%	20-55
	#50 (.3mm)	27.4	%	10-30
	#100 (.15mm)	9.5	%	0-10
	#200 (75µm)	1.4	%	
	FM	2.71		2.6-3
	Wash Loss (#200/75um)	1.2	%	0-3
	Total Moisture	4.7	%	