

Aggregate Optimization Chart

Production Gradation Report

PLANT #: **P-32**

Sample Date: **5/3/21**

Dates Test Represents: **5/4/2021** through **5/10/2021**

Concrete Grade: **S2M**

Contractor: _____

MDOT No.: _____

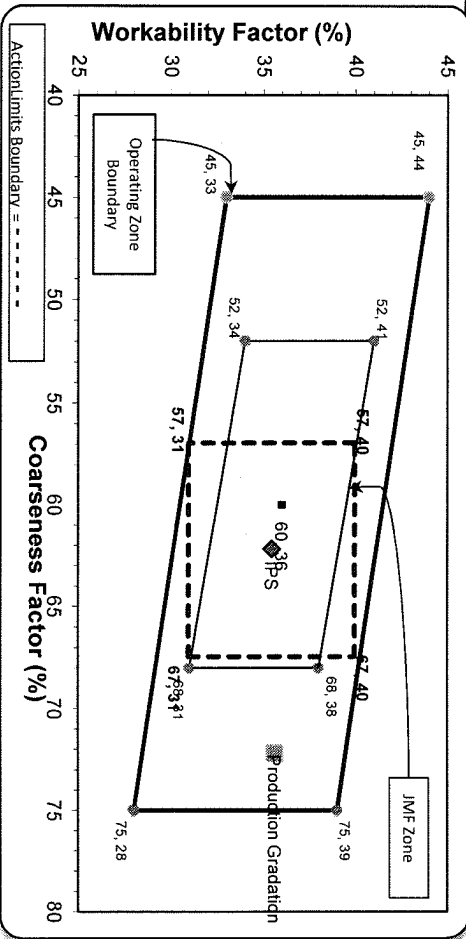
Agg. Class	Pit #	Source	Weight (ssd)	ft ³	Specific Gravity	Contribution %
6AA	71-47	Presque Isle	1500	9.17	2.62	49.2
26A	71-47	Presque Isle	320	1.96	2.62	10.5
NNS	95-013	Smeller Bay	1230	7.44	2.65	40.3
Total Wt			3050	18.57		100.0

<----- Verify this number is 100%

Sieve	6AA	26A	NNS	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"	97.2	100.0	100.0	98.6	1.4	1.4
3/4"	78.5	100.0	100.0	100.0	9.2	10.6
1/2"	45.1	97.6	100.0	97.6	16.7	27.3
3/8"	8.2	87.4	100.0	87.4	19.2	46.5
#4	2.8	24.2	96.8	84.0	10.6	57.0
#8	2.6	7.5	83.2	81.6	7.3	64.4
#16	2.5	3.6	66.6	78.5	7.2	71.5
#30	2.4	2.8	41.4	81.3	10.3	81.8
#50	2.3	2.8	19.1	84.1	9.0	90.9
#100	2.2	2.2	4.0	87.9	6.2	97.1
LBW	1.8	1.5	1.5	89.4	1.3	98.4

Production Gradation Batch Plant Gradations Aggregate Supplier Gradations

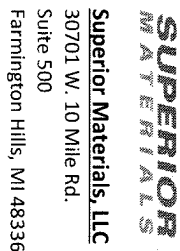
Coarseness Factor: **72** Workability Factor: **36**



Initial 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



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Farmington Hills, MI 48336

*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.

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

Name/Title Doug Storey / QC Technician

Period: 05/02/2021 - 05/08/2021

Report Date 05/08/2021

Procedure	Sieve/Test	Result	Unit	2NS GR Spec
	3/8" (9.5mm)	100.0	%	100-100
	#4 (4.75mm)	96.8	%	95-100
	#8 (2.36mm)	83.2	%	65-95
	#16 (1.18mm)	66.6	%	35-75
	#30 (.6mm)	41.4	%	20-55
	#50 (.3mm)	19.1	%	10-30
	#100 (.15mm)	4.0	%	0-10
	#200 (75µm)	1.6	%	
	FM	2.89		2.6-3
	Wash Loss (#200/75um)	1.5	%	0-3
	Total Moisture	5.0	%	

Plant 958-JMT

Product 1067-26A Mod LS

Name/Title Doug Storey / QC Technician

Period: 05/02/2021 - 05/08/2021

Report Date 05/08/2021

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)	97.6	%	95-100
	3/8" (9.5mm)	87.4	%	60-95
	#4 (4.75mm)	24.2	%	5-30
	#8 (2.36mm)	7.5	%	0-12
	#16 (1.18mm)	3.6	%	
	#30 (.6mm)	2.8	%	
	#50 (.3mm)	2.8	%	
	#100 (.15mm)	2.2	%	
	#200 (75µm)	1.8	%	
	Wash Loss (#200/75um)	1.5	%	0-3
	Total Moisture	3.9	%	

Plant 958-JMT

Product 1054-6AA LS PI

Name/Title Doug Storey / QC Technician

Period: 05/02/2021 - 05/08/2021

Report Date 05/08/2021

Procedure	Sieve/Test	Result	Unit	6AA LS PI Spec
	2" (50mm)	100.0	%	
	1 1/2" (37.5mm)	100.0	%	100-100
	1" (25mm)	97.2	%	95-100
	3/4" (19mm)	78.5	%	
	1/2" (12.5mm)	45.1	%	30-60
	3/8" (9.5mm)	8.2	%	
	#4 (4.75mm)	2.8	%	0-8
	#8 (2.36mm)	2.6	%	
	#16 (1.18mm)	2.5	%	
	#30 (.6mm)	2.4	%	
	#50 (.3mm)	2.3	%	
	#100 (.15mm)	2.2	%	
	#200 (75µm)	2.0	%	
	Wash Loss (#200/75µm)	1.8	%	0-2
	Total Moisture	2.9	%	