Aggregate Optimization Chart

Production Gradation Report

PLANT #: **P-O2**

Sample Date: 2/12/24

Concrete Grade: **S2M, 3500HP**

Dates Test Represents: 2/13/2024 through 2/19/2024

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
2NS	63-115	Ray Rd	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"	98.3	100.0	100.0	99.2	0.8	0.8
3/4"	74.5	100.0	100.0	87.5	11.7	12.5
1/2"	29.7	93.7	100.0	64.8	22.7	35.2
3/8"	14.8	79.0	100.0	55.9	8.9	44.1
#4	2.4	15.9	97.0	42.0	13.9	58.0
#8	1.6	4.5	80.2	33.6	8.4	66.4
#16	1.4	2.7	64.9	27.1	6.5	72.9
#30	1.4	2.4	49.0	20.7	6.4	79.3
#50	1.3	2.2	24.6	10.8	9.9	89.2
#100	1.3	2.0	4.6	2.7	8.1	97.3
LBW	1.1	1.9	1.3	1.3	1.4	98.7

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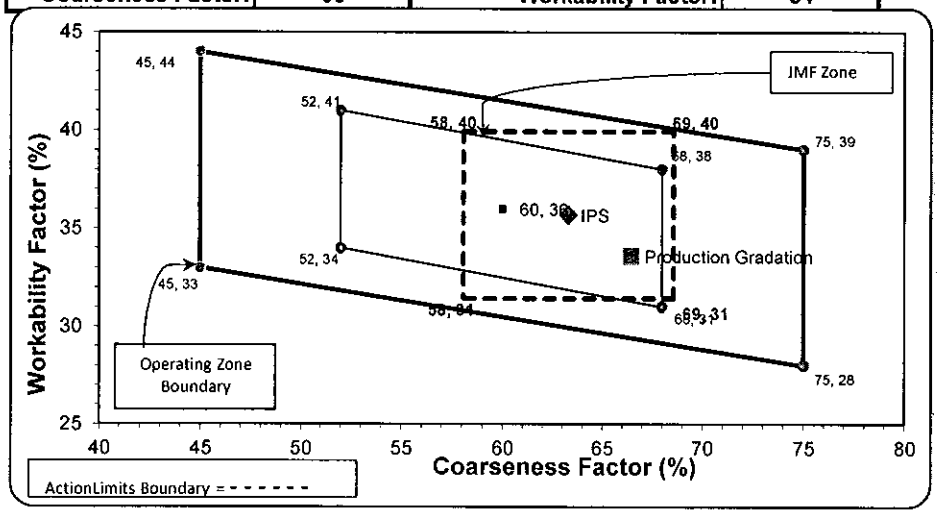
*Maximum % Retained must be above the 3/8" sieve.
*Any two adjacent sieves must equal 10% except max., nom. max., #100 and #200 sieves.
*% Retained must be at least 4% for each sieve except max., nom. max., #100 and #200 sieves.
*% Retained must be at least 4% for the 3/4" sieve when a 1.5" max. size (nom. Max. 1.0") aggregate is used.

Production Gradation ◉ Batch Plant Gradations ○ Aggregate SupplierGradations

Coarseness Factor:	66	Workability Factor:	34



Intial Production Sample (IPS)

Coarseness Factor:	63
Workability Factor:	36

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"	95.6	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	9.9	10.8	90.1
#100	2.1	7.8	97.9
LBW	0.9	1.2	99.1

PREPARED BY:
SM, LLC Technical Service

Approved By:

SUPERIOR MATERIALS

Plant S02-Superior Hoover

Product 1051-6AA LS

Period: 02/11/2024 - 02/17/2024

Name/Title Doug Storey / QC Technician

Report Date 02/17/2024

Procedure	Sieve/Test	Result	Unit	6AA LS
	2" (50mm)	100.0	%	
	1 1/2" (37.5mm)	100.0	%	100-100
	1" (25mm)	98.3	%	95-100
	3/4" (19mm)	74.5	%	
	1/2" (12.5mm)	29.7	%	30-60
	3/8" (9.5mm)	14.8	%	
	#4 (4.75mm)	2.4	%	0-8
	#8 (2.36mm)	1.6	%	
	#16 (1.18mm)	1.4	%	
	#30 (.6mm)	1.4	%	
	#50 (.3mm)	1.3	%	
	#100 (.15mm)	1.3	%	
	#200 (75µm)	1.18	%	
	Wash Loss (#200/75um)	1.1	%	0-2
	Total Moisture	2.79	%	

SUPERIOR MATERIALS

Plant S02-Superior Hoover

Product 1067-26A Mod LS

Period: 02/11/2024 - 02/17/2024

Name/Title Doug Storey / QC Technician

Report Date 02/17/2024

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)	93.7	%	95-100
	3/8" (9.5mm)	79.0	%	60-95
	#4 (4.75mm)	15.9	%	5-30
	#8 (2.36mm)	4.5	%	0-12
	#16 (1.18mm)	2.7	%	
	#30 (.6mm)	2.4	%	
	#50 (.3mm)	2.2	%	
	#100 (.15mm)	2.0	%	
	#200 (75µm)	1.9	%	
	Wash Loss (#200/75um)	1.9	%	0-3
	Total Moisture	2.19	%	

Plant S02-Superior Hoover

Product 1022-2NS GR

Period: 02/11/2024 - 02/17/2024

Name/Title Doug Storey / QC Technician

Report Date 02/17/2024

Procedure	Sieve/Test	Result	Unit	2NS GR Spec
	3/8" (9.5mm)	100.0	%	100-100
	#4 (4.75mm)	97.0	%	95-100
	#8 (2.36mm)	80.2	%	65-95
	#16 (1.18mm)	64.9	%	35-75
	#30 (.6mm)	49.0	%	20-55
	#50 (.3mm)	24.6	%	10-30
	#100 (.15mm)	4.6	%	0-10
	#200 (75µm)	1.4	%	
	FM	2.80		2.6-3
	Wash Loss (#200/75um)	1.3	%	0-3
	Total Moisture	2.88	%	