

Aggregate Optimization Chart

PLANT #: P-35

Sample Date: 2/27/23

Dates Test Represents: 2/28/2023 through 3/6/2023

Concrete Grade: S2M, 3500HP

Contractor: _____

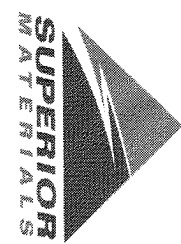
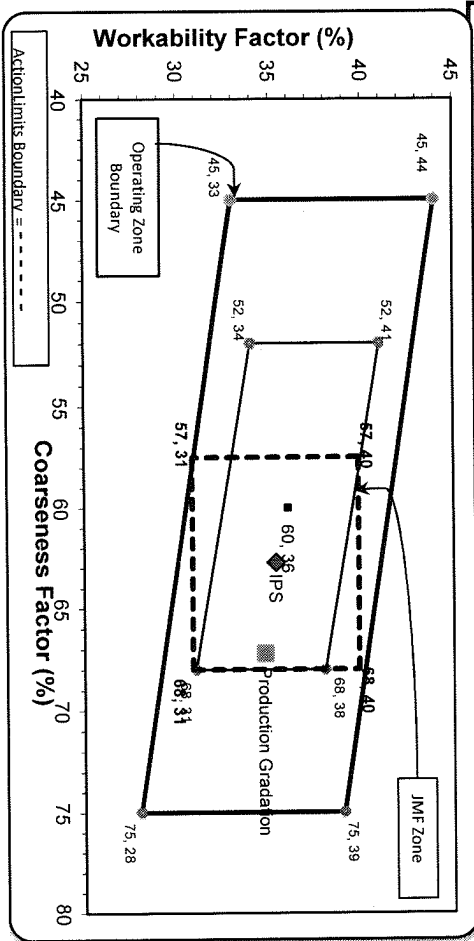
MDOT No.: _____

Agg. Class	Pit #	Source	Weight (ssd)	ft ³	Specific Gravity	Contribution %
6AA	58-003	Stonoco	1570	9.35	2.69	50.6
26A	58-003	Stonoco	330	1.97	2.69	10.6
2NS	81-019	Pleasant Lake	1200	7.26	2.65	38.7
Total Wt						18.58
						100.0

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"	82.8	100.0	100.0	91.3	8.5	8.7
1/2"	35.7	97.4	100.0	67.2	24.1	32.8
3/8"	16.4	85.6	100.0	56.1	11.0	43.9
#4	5.0	21.3	98.2	42.8	13.3	57.2
#8	3.3	5.4	83.9	34.7	8.1	65.3
#16	2.7	2.5	67.2	27.6	7.1	72.4
#30	2.5	2.0	49.8	20.8	6.9	79.2
#50	2.3	1.9	24.6	10.9	9.9	89.1
#100	2.1	1.8	7.0	4.0	6.9	96.0
LBW	1.9	1.6	1.7	1.8	2.2	98.2

Production Gradation Batch Plant Gradations Aggregate Supplier Gradations

Coarseness Factor: 67 Workability Factor: 35



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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 8% for the 1" sieve when a 2" max. size (nom. Max. 1.5") aggregate is used.

Sieve	Cumulative % Passing	% Retained	Cumulative % Retained
2"	100.0	0.0	0.0
1.5"	100.0	0.0	0.0
1"	99.2	0.8	0.8
3/4"	90.9	8.3	9.1
1/2"	71.3	19.6	28.7
3/8"	59.4	11.9	40.6
#4	43.0	16.5	57.0
#8	35.3	7.6	64.7
#16	28.2	7.1	71.8
#30	21.6	6.6	78.4
#50	9.1	12.5	90.9
#100	1.7	7.4	98.3
LBW	1.1	0.6	98.9

Initial Production Sample (IPS)

Coarseness Factor: 63 Workability Factor: 35

PREPARED BY:
SM, LLC Technical Service

Approved By: _____



Plant S35-Superior Romulus
Product 1051-6AA LS
Period: 03/01/2023 - 03/04/2023

Name/Title Doug Storey / QC Technician
Report Date 03/04/2023

Procedure	Sieve/Test	Result	Unit	6AA LS
	2" (50mm)	100.0	%	
	1 1/2" (37.5mm)	100.0	%	100-100
	1" (25mm)	99.5	%	95-100
	3/4" (19mm)	82.8	%	
	1/2" (12.5mm)	35.7	%	30-60
	3/8" (9.5mm)	16.4	%	
	#4 (4.75mm)	5.0	%	0-8
	#8 (2.36mm)	3.3	%	
	#16 (1.18mm)	2.7	%	
	#30 (.6mm)	2.5	%	
	#50 (.3mm)	2.3	%	
	#100 (.15mm)	2.1	%	
	#200 (75µm)	1.94	%	
AASHTO T11	-#200 (75um)	1.94	%	
	Wash Loss (#200/75um)	1.9	%	0-2
ASTM C566	Total Moisture	3.47	%	



Plant S35-Superior Romulus
 Product 1067-26A Mod LS
 Period: 03/01/2023 - 03/04/2023

Name/Title Doug Storey / QC Technician
 Report Date 03/04/2023

Procedure	Sieve/Test	Result	Unit	26A 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)	97.4	%	95-100
	3/8" (9.5mm)	85.6	%	60-95
	#4 (4.75mm)	21.3	%	5-30
	#8 (2.36mm)	5.4	%	0-12
	#16 (1.18mm)	2.5	%	
	#30 (.6mm)	2.0	%	
	#50 (.3mm)	1.9	%	
	#100 (.15mm)	1.8	%	
	#200 (75µm)	1.7	%	
	Wash Loss (#200/75um)	1.6	%	0-3
ASTM C566	Total Moisture	3.20	%	



Plant S35-Superior Romulus
 Product 1022-2NS GR
 Period: 03/01/2023 - 03/04/2023

Name/Title Doug Storey / QC Technician
 Report Date 03/04/2023

Procedure	Sieve/Test	Result	Unit	2NS GR Spec
	3/8" (9.5mm)	100.0	%	100-100
	#4 (4.75mm)	98.2	%	95-100
	#8 (2.36mm)	83.9	%	65-95
	#16 (1.18mm)	67.2	%	35-75
	#30 (.6mm)	49.8	%	20-55
	#50 (.3mm)	24.6	%	10-30
	#100 (.15mm)	7.0	%	0-10
	#200 (75µm)	2.0	%	
	FM	2.69		2.6-3
AASHTO T11	-#200 (75µm)	2.00	%	
	Wash Loss (#200/75µm)	1.7	%	0-3
ASTM C566	Total Moisture	4.33	%	