

Aggregate Optimization Chart

Production Gradation Report

PLANT #: P-02

Sample Date: 11/20/23

Dates Test Represents: 11/21/2023 through 11/27/2023

Concrete Grade: DM, 4500HP

Contractor: _____

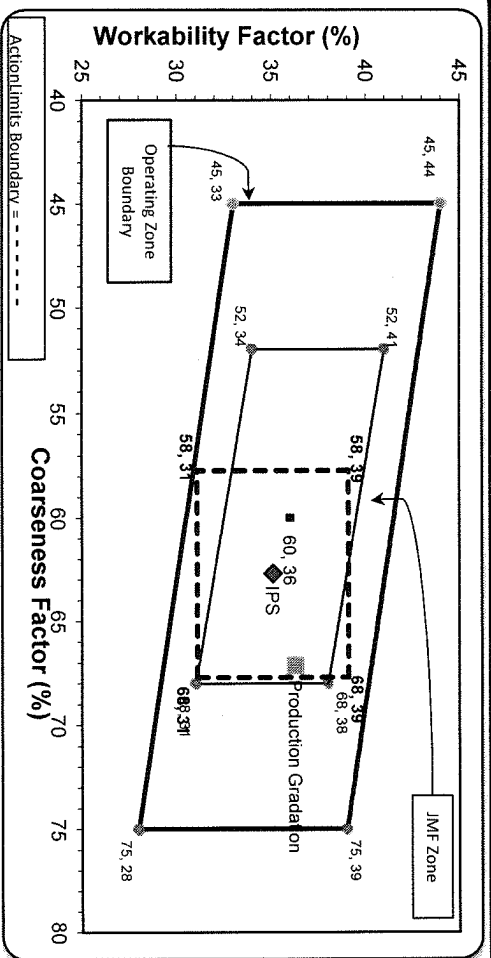
MDOT No.: _____

Aggr. Class	Pit #	Source	Weight (ssd)	ft ³	Specific Gravity	Contribution %
6AA	71-47	Presque Isle	1450	8.87	2.62	49.9
26A	71-47	Presque Isle	305	1.87	2.62	10.5
2NS	63-115	Ray Rd	1150	6.95	2.65	39.6
Total Wt			2905	17.69		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"	99.2	100.0	100.0	99.6	0.4	0.4
3/4"	76.0	100.0	100.0	88.0	11.6	12.0
1/2"	30.4	94.7	100.0	64.7	23.3	35.3
3/8"	14.5	82.9	100.0	55.5	9.2	44.5
#4	3.4	17.7	97.0	42.0	13.6	58.0
#8	2.4	4.1	81.2	33.8	8.2	66.2
#16	2.1	2.5	65.0	27.0	6.7	73.0
#30	2.0	2.1	50.3	21.1	5.9	78.9
#50	1.8	1.9	25.0	11.0	10.1	89.0
#100	1.6	1.7	5.3	3.1	7.9	96.9
LBW	1.3	1.5	0.7	1.1	2.0	98.9

Production Gradation Batch Plant Gradations Aggregate Supplier Gradations

Coarseness Factor: **67** Workability Factor: **34** Adjusted WF: **36.3**



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"	95.1	4.9	4.9
1/2"	74.6	20.5	25.4
3/8"	59.3	15.3	40.7
#4	42.1	17.2	57.9
#8	35.1	7.1	64.9
#16	29.2	5.9	70.8
#30	21.9	7.3	78.1
#50	9.6	12.4	90.4
#100	2.4	7.2	97.6
LBW	0.9	1.5	99.1

Initial Production Sample (IPS)

Coarseness Factor: **63** 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 4% for the 3/4" sieve when a 1.5" max. size (nom. Max. 1.0") aggregate is used.

PREPARED BY:
SM, LLC Technical Service

Approved By: _____



Plant S02-Superior Hoover

Product 1051-6AA LS

Period: 11/19/2023 - 11/25/2023

Name/Title Doug Storey / QC Technician

Report Date 11/18/2023

Procedure	Sieve/Test	Result	Unit	6AA LS
	2" (50mm)	100.0	%	
	1 1/2" (37.5mm)	100.0	%	100-100
	1" (25mm)	99.2	%	95-100
	3/4" (19mm)	76.0	%	
	1/2" (12.5mm)	30.4	%	30-60
	3/8" (9.5mm)	14.5	%	
	#4 (4.75mm)	3.4	%	0-8
	#8 (2.36mm)	2.4	%	
	#16 (1.18mm)	2.1	%	
	#30 (.6mm)	2.0	%	
	#50 (.3mm)	1.8	%	
	#100 (.15mm)	1.6	%	
	#200 (75µm)	1.39	%	
	Wash Loss (#200/75µm)	1.3	%	0-2
	Total Moisture	2.50	%	



Plant S02-Superior Hoover

Product 1067-26A Mod LS

Name/Title Doug Storey / QC Technician

Period: 11/19/2023 - 11/25/2023

Report Date 11/18/2023

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)	94.7	%	95-100
	3/8" (9.5mm)	82.9	%	60-95
	#4 (4.75mm)	17.7	%	5-30
	#8 (2.36mm)	4.1	%	0-12
	#16 (1.18mm)	2.5	%	
	#30 (.6mm)	2.1	%	
	#50 (.3mm)	1.9	%	
	#100 (.15mm)	1.7	%	
	#200 (75µm)	1.6	%	
	Wash Loss (#200/75um)	1.5	%	0-3
	Total Moisture	2.84	%	



Plant S02-Superior Hoover

Product 1022-2NS GR

Name/Title Doug Storey / QC Technician

Period: 11/19/2023 - 11/25/2023

Report Date 11/18/2023

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)	81.2	%	65-95
	#16 (1.18mm)	65.0	%	35-75
	#30 (.6mm)	50.3	%	20-55
	#50 (.3mm)	25.0	%	10-30
	#100 (.15mm)	5.3	%	0-10
	#200 (75µm)	0.9	%	
	FM	2.76		2.6-3
	Wash Loss (#200/75um)	0.7	%	0-3
	Total Moisture	4.44	%	