

# Aggregate Optimization Chart

## Production Gradation Report

**PLANT #:** P-36

Sample Date: 1/20/20

Dates Test Represents: 1/21/2020 through 1/27/2020

Concrete Grade: S2M

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

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

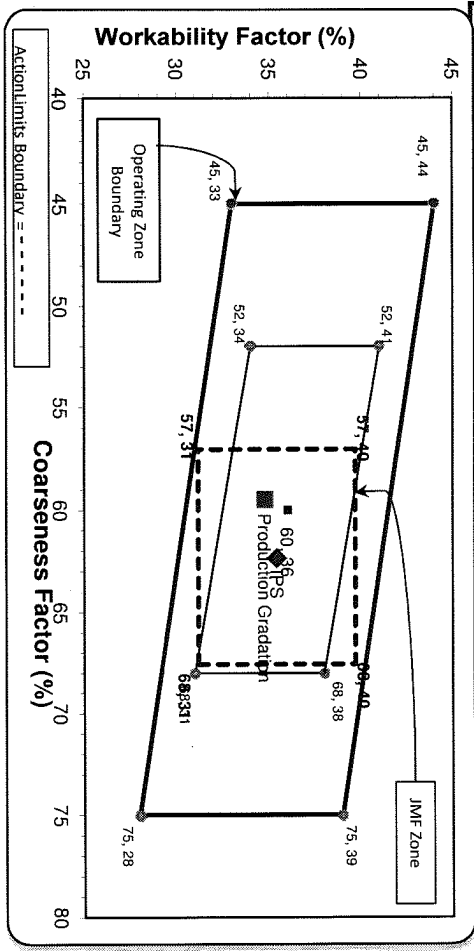
Agg. Class	Pit #	Source	Weight (ssd)	ft <sup>3</sup>	Specific Gravity	% Contribution
6AA	71-47	Presque Isle	1500	9.17	2.62	49.2
26A	71-47	Presque Isle	350	2.14	2.62	11.5
2NS	63-92	Grange Hall	1200	7.26	2.65	39.3
<b>Total Wt</b>			<b>3050</b>	<b>18.57</b>		<b>100.0</b>

<----- 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"	96.4	100.0	100.0	98.2	1.8	1.8
3/4"	86.0	100.0	100.0	93.1	5.1	6.9
1/2"	48.7	95.1	100.0	74.2	18.9	25.8
3/8"	25.9	79.4	100.0	61.2	13.0	38.8
#4	4.2	21.8	97.0	42.7	18.5	57.3
#8	2.9	8.1	82.4	34.8	8.0	65.2
#16	2.5	4.7	67.3	28.2	6.5	71.8
#30	2.4	3.8	49.1	20.9	7.3	79.1
#50	2.3	3.4	24.0	11.0	10.0	89.0
#100	2.1	3.1	3.6	2.8	8.2	97.2
LBW	1.9	2.7	0.3	1.4	1.4	98.6

Production Gradation  Batch Plant Gradations  Aggregate Supplier Gradations

Coarseness Factor: 59 Workability Factor: 35



Initial Production Sample (IPS)

Sieve	Coarseness Factor:	Workability Factor:	% Cumulative Passing	% Retained	% Cumulative Retained
2"	62	35	100.0	0.0	0.0
1.5"			100.0	0.0	0.0
1"			99.1	0.9	0.9
3/4"			90.5	8.6	9.5
1/2"			69.8	20.7	30.2
3/8"			59.8	10.0	40.2
#4			42.2	17.6	57.8
#8			35.4	6.7	64.6
#16			28.8	6.7	71.2
#30			21.4	7.4	78.6
#50			8.8	12.6	91.2
#100			1.8	7.0	98.2
LBW			0.7	1.0	99.3



\*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: \_\_\_\_\_



Superior Auburn Hills  
 2470 Auburn Road  
 Auburn Hills, MI 48432

Plant S36-Superior Auburn Hills

Product 1051-6AA LS

Name/Title Doug Storey / QC Technician

Period: 01/19/2020 - 01/25/2020

Report Date 01/24/2020

Procedure	Sieve/Test	Result	Unit	6AA LS
	2" (50mm)	100.0	%	
	1 1/2" (37.5mm)	100.0	%	100-100
	1" (25mm)	96.4	%	95-100
	3/4" (19mm)	86.0	%	
	1/2" (12.5mm)	48.7	%	30-60
	3/8" (9.5mm)	25.9	%	
	#4 (4.75mm)	4.2	%	0-8
	#8 (2.36mm)	2.9	%	
	#16 (1.18mm)	2.5	%	
	#30 (0.6mm)	2.4	%	
	#50 (0.3mm)	2.3	%	
	#100 (0.15mm)	2.1	%	
	#200 (75µm)	1.99	%	
	Wash Loss (#200/75um)	1.9	%	0-2
	Total Moisture	3.18	%	



Superior Auburn Hills  
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 Auburn Hills, MI 48432

Plant S36-Superior Auburn Hills  
 Product 1067-26A Mod LS  
 Period: 01/19/2020 - 01/25/2020

Name/Title Doug Storey / QC Technician  
 Report Date 01/24/2020

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)	95.1	%	95-100
	3/8" (9.5mm)	79.4	%	60-95
	#4 (4.75mm)	21.8	%	5-30
	#8 (2.36mm)	8.1	%	0-12
	#16 (1.18mm)	4.7	%	
	#30 (0.6mm)	3.8	%	
	#50 (0.3mm)	3.4	%	
	#100 (0.15mm)	3.1	%	
	#200 (75µm)	2.8	%	
	Wash Loss (#200/75um)	2.7	%	0-3
	Total Moisture	3.75	%	



Superior Auburn Hills  
2470 Auburn Road  
Auburn Hills, MI 48432

**Plant** S36-Superior Auburn Hills  
**Product** 1022-2NS GR  
**Period:** 01/19/2020 - 01/25/2020

**Name/Title** Doug Storey / QC Technician  
**Report Date** 01/24/2020

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)	82.4	%	65-95
	#16 (1.18mm)	67.3	%	35-75
	#30 (0.6mm)	49.1	%	20-55
	#50 (0.3mm)	24.0	%	10-30
	#100 (0.15mm)	3.6	%	0-10
	#200 (75µm)	0.5	%	
	FM	2.77		2.6-3
	Wash Loss (#200/75um)	0.3	%	0-3
	Total Moisture	2.43	%	