

Aggregate Optimization Chart

PLANT #: **P-32**

Sample Date: 2/27/23

Concrete Grade: **DM, 4500HP**

Contractor: _____

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

MDOT No.: _____

Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution
6AA	71-47	Presque Isle	1405	8.59	2.62	48.4
26A	71-47	Presque Isle	350	2.14	2.62	12.0
2NS	95-013	Smelter Bay	1150	6.95	2.65	39.6
Total Wt			2905	17.69		100.0

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



Superior Materials, LLC
 30701 W. 10 Mile Rd.
 Suite 500
 Farmington Hills, MI 48336

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"	98.6	100.0	100.0	99.3	0.7	0.7
3/4"	72.8	100.0	100.0	86.8	12.5	13.2
1/2"	35.7	97.6	100.0	68.6	18.2	31.4
3/8"	18.1	86.7	100.0	58.8	9.8	41.2
#4	2.9	22.1	95.5	41.9	16.9	58.1
#8	2.0	5.2	82.9	34.4	7.5	65.6
#16	1.9	2.3	67.8	28.0	6.4	72.0
#30	1.8	1.9	49.1	20.5	7.5	79.5
#50	1.8	1.7	23.6	10.4	10.1	89.6
#100	1.7	1.6	6.5	3.6	6.8	96.4
LBW	1.4	1.4	1.1	1.3	2.3	98.7

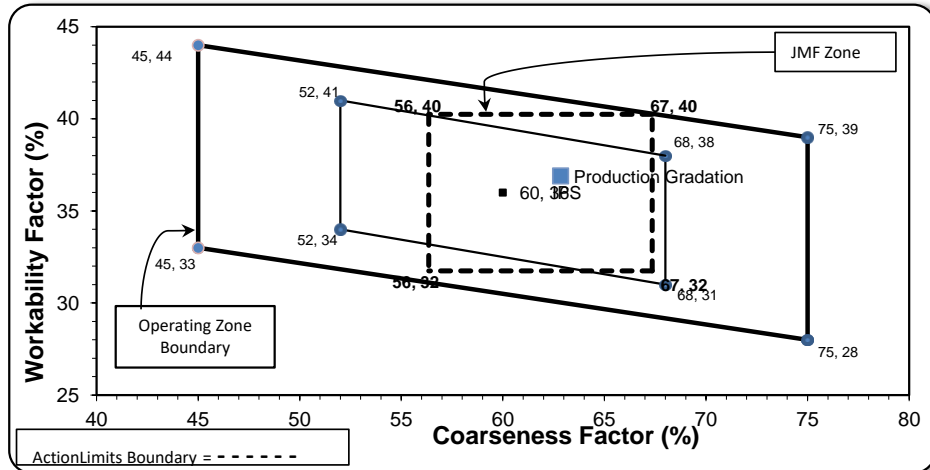
*Maximum % Retained must be above the 3/8" sieve.
 *Any two adjacent sieves must equal 10% except max., nom. max., #100 and #200 sieves.
 *% Retained must be at least 4% for each sieve except max., nom. max., #100 and #200 sieves.
 *% Retained must be at least 8% for the 1" sieve when a 2" max. size (nom. Max. 1.5") aggregate is used.

Production Gradation Batch Plant Gradations Aggregate Supplier Gradations

Adjusted WF Initial Production Sample (IPS)

Coarseness Factor:	63	Workability Factor:	34	36.9	Coarseness Factor:	62
---------------------------	-----------	----------------------------	-----------	-------------	---------------------------	-----------

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"	95.0	5.0	5.0
1/2"	72.3	22.8	27.7
3/8"	60.4	11.8	39.6
#4	42.6	17.8	57.4
#8	36.0	6.6	64.0
#16	29.5	6.5	70.5
#30	20.3	9.2	79.7
#50	9.5	10.8	90.5
#100	3.4	6.1	96.6
LBW	1.3	2.1	98.7

PREPARED BY:
 SM, LLC Technical Service

Approved By: