

Aggregate Optimization Chart

PLANT #: **P-32**

Sample Date: **1/9/23**

Concrete Grade: **DM, 4500HP**

Dates Test Represents: **1/10/2023** through **1/16/2023**

Contractor: _____

MDOT No.: _____

Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution
6AA	71-47	Presque Isle	1455	8.90	2.62	50.1
26A	71-47	Presque Isle	300	1.83	2.62	10.3
2NS	95-013	Smelter Bay	1150	6.95	2.65	39.6
Total Wt			2905	17.69		100.0

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



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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"	97.1	100.0	100.0	98.5	1.5	1.5
3/4"	72.4	100.0	100.0	86.2	12.4	13.8
1/2"	32.2	97.7	100.0	65.8	20.4	34.2
3/8"	14.5	86.9	100.0	55.8	10.0	44.2
#4	1.9	15.4	96.1	40.6	15.2	59.4
#8	1.4	3.5	82.8	33.8	6.7	66.2
#16	1.4	1.8	67.6	27.6	6.2	72.4
#30	1.3	1.5	48.8	20.1	7.5	79.9
#50	1.3	1.4	23.6	10.1	10.0	89.9
#100	1.2	1.4	6.6	3.4	6.8	96.6
LBW	0.9	1.1	1.2	1.0	2.3	99.0

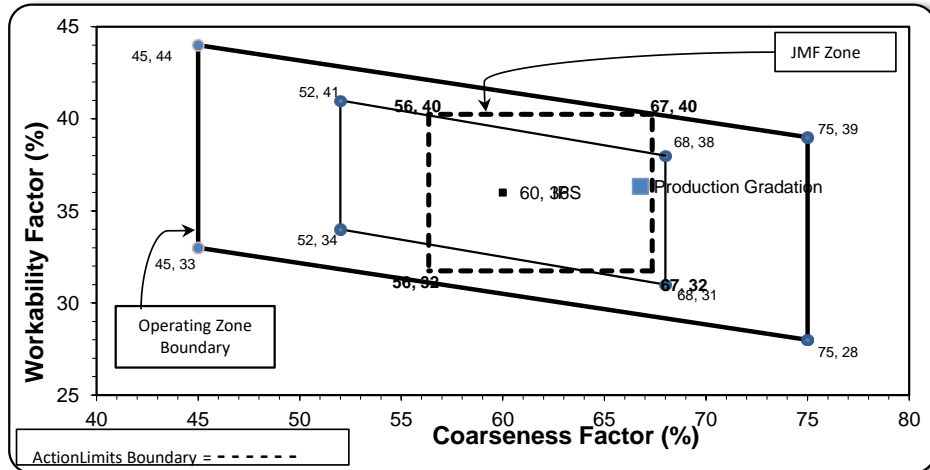
*Maximum % Retained must be above the 3/8" sieve.
 *Any two adjacent sieves must equal 10% except max., nom. max., #100 and #200 sieves.
 *% Retained must be at least 4% for each sieve except max., nom. max., #100 and #200 sieves.
 *% Retained must be at least 8% for the 1" sieve when a 2" max. size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

Production Gradation Batch Plant Gradations Aggregate Supplier Gradations

Adjusted WF Initial Production Sample (IPS)

Coarseness Factor:	67	Workability Factor:	34	36.3
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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: