

Aggregate Optimization Chart

PLANT #: **P-O2**

Sample Date: 12/16/24

Concrete Grade: **P1M, 3500HP**

Dates Test Represents: 12/17/2024 through 12/23/2024

Contractor: _____

MDOT No.: _____

Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution
CA	71-47	Presque Isle	870	5.32	2.62	28.3
IA	71-47	Presque Isle	1000	6.12	2.62	32.6
2NS	63-115	Ray Rd	1200	7.26	2.65	39.1
Total Wt			3070	18.70		100.0

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



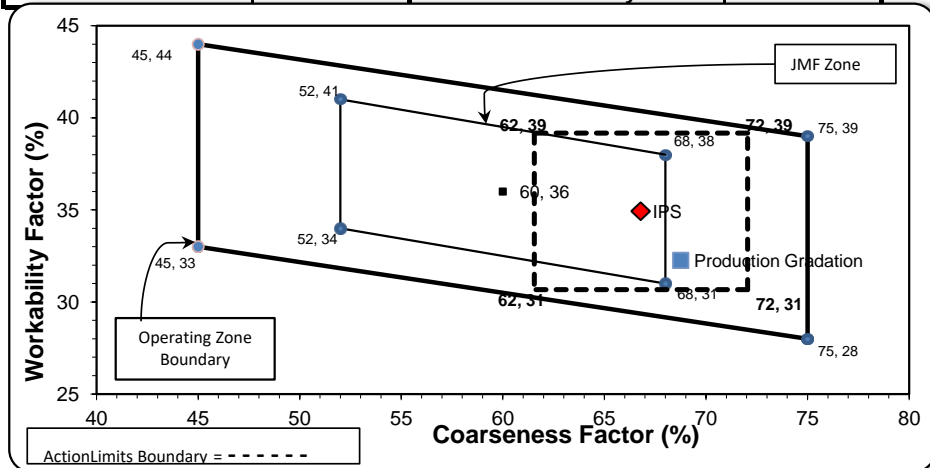
Superior Materials, LLC
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Sieve	CA	IA	2NS	Cumulative % Passing	% Retained	Cumulative % Retained
2"	100.0	100.0	100.0	100.0	0.0	0.0
1.5"	100.0	100.0	100.0	100.0	0.0	0.0
1"	31.5	100.0	100.0	80.6	19.4	19.4
3/4"	7.8	99.1	100.0	73.6	7.0	26.4
1/2"	2.9	72.3	100.0	63.5	10.1	36.5
3/8"	2.1	42.2	100.0	53.4	10.0	46.6
#4	1.4	6.4	98.2	40.9	12.6	59.1
#8	1.3	3.0	79.1	32.3	8.6	67.7
#16	1.2	2.3	63.3	25.8	6.4	74.2
#30	1.1	2.1	48.4	19.9	5.9	80.1
#50	1.0	2.0	25.6	10.9	9.0	89.1
#100	1.0	1.8	6.2	3.3	7.6	96.7
LBW	0.8	1.4	0.9	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

Coarseness Factor:	69	Workability Factor:	32
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Initial Production Sample (IPS)

Coarseness Factor:	67
Workability Factor:	35

Sieve	Cumulative % Passing	% Retained	Cumulative % Retained
2"	100.0	0.0	0.0
1.5"	100.0	0.0	0.0
1"	85.0	15.0	15.0
3/4"	72.3	12.7	27.7
1/2"	64.5	7.8	35.5
3/8"	56.5	8.0	43.5
#4	42.7	13.8	57.3
#8	34.9	7.8	65.1
#16	29.0	5.9	71.0
#30	21.0	8.0	79.0
#50	8.2	12.8	91.8
#100	1.6	6.5	98.4
LBW	0.7	0.9	99.3

PREPARED BY:
 SM, LLC Technical Service

Approved By: