

Aggregate Optimization Chart

MIX ID'S: DDD0K7E7 and DDD0K7E9

Production Gradation Report

PLANT #: **P-36**

Sample Date: 11/14/16

Concrete Grade: **DM**

Contractor: _____

Dates Test Represents: 11/14/2016 to 11/20/2016

MDOT No.: _____

Agg. Class	Pit #	Source	Weight (SSD)	ft ³	Specific Gravity	% Contribution
6AA	58-003	Stoneco	1405	8.37	2.69	47.1
26A	71-47	Presque Isle	380	2.32	2.62	12.7
2NS	63-92	AA Grange Hall	1200	7.26	2.65	40.2
Total Wt			2985	17.95		100.0

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



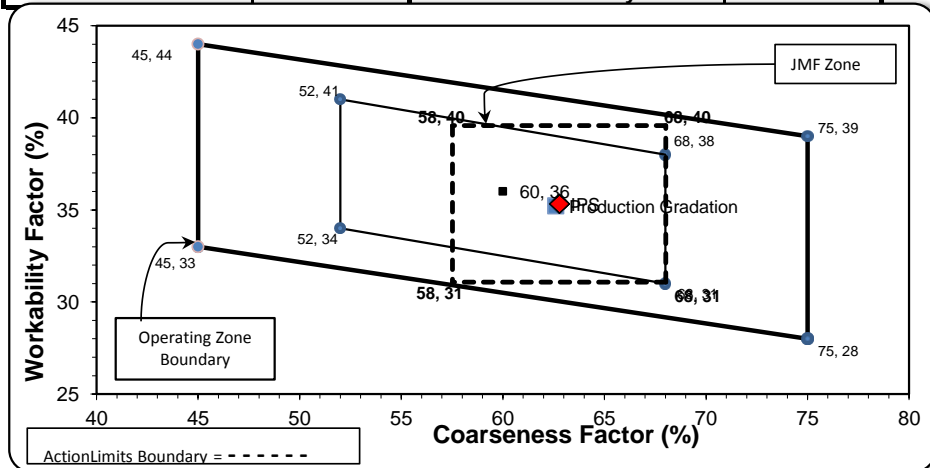
Superior Materials, LLC
 30701 W. 10 Mile Rd.
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 Farmington Hills, MI 48336

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"	99.7	100.0	100.0	99.9	0.1	0.1
3/4"	78.9	100.0	100.0	90.1	9.8	9.9
1/2"	35.9	98.5	100.0	69.6	20.4	30.4
3/8"	16.7	89.4	100.0	59.4	10.2	40.6
#4	2.7	16.8	97.5	42.6	16.8	57.4
#8	1.6	4.5	84.3	35.2	7.4	64.8
#16	1.0	2.9	68.4	28.3	6.9	71.7
#30	0.9	2.6	48.9	20.4	7.9	79.6
#50	0.8	1.7	19.7	8.5	11.9	91.5
#100	0.7	1.6	3.0	1.7	6.8	98.3
LBW	0.8	1.4	0.6	0.8	0.9	99.2

*Maximum % Retained must be above the 3/8" sieve.
 *Any two adjacent sieves must equal 13% except max., nom. max., #100 and #200 sieves.
 *% Retained must be at least 5% 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:	63	Workability Factor:	35
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Initial Production Sample (IPS)

Coarseness Factor:		63	
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"	99.9	0.1	0.1
3/4"	89.1	10.8	10.9
1/2"	71.3	17.8	28.7
3/8"	59.4	11.9	40.6
#4	42.6	16.8	57.4
#8	35.3	7.3	64.7
#16	28.5	6.8	71.5
#30	20.9	7.6	79.1
#50	9.0	12.0	91.0
#100	1.7	7.3	98.3
LBW	0.7	1.0	99.3

PREPARED BY:
 SM, LLC Technical Service

Approved By: