

# Aggregate Optimization Chart

MIX ID'S: DDD0K7E7 and DDD0K7E9

Production Gradation Report

**PLANT #:** **P-36**

Sample Date: 10/31/16

Concrete Grade: **DM**

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

Dates Test Represents: \_\_\_\_\_ to \_\_\_\_\_

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

Agg. Class	Pit #	Source	Weight (SSD)	ft <sup>3</sup>	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
<b>Total Wt</b>			<b>2985</b>	<b>17.95</b>		<b>100.0</b>

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



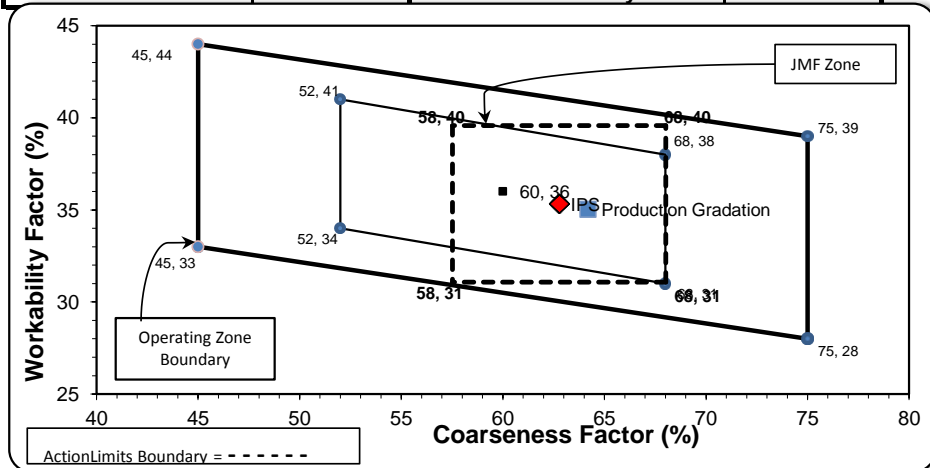
**Superior Materials, LLC**  
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Sieve	6AA	26A	2NS	Cumulative % Passing	% Retained	Cumulative % Retained
2"	100.0	100.0	100.0	100.0	0.0	0.0
1.5"	100.0	100.0	100.0	100.0	0.0	0.0
1"	99.7	100.0	100.0	99.9	0.1	0.1
3/4"	81.0	100.0	100.0	91.1	8.8	8.9
1/2"	39.6	96.6	100.0	71.1	19.9	28.9
3/8"	16.0	82.9	100.0	58.3	12.9	41.7
#4	2.7	16.3	97.5	42.5	15.7	57.5
#8	1.1	4.5	84.4	35.0	7.5	65.0
#16	0.9	2.6	68.3	28.2	6.8	71.8
#30	0.8	2.2	48.8	20.3	7.9	79.7
#50	0.7	2.1	20.0	8.6	11.6	91.4
#100	0.7	2.0	2.9	1.7	6.9	98.3
LBW	0.6	1.7	0.6	0.7	1.0	99.3

\*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:** **64**      **Workability Factor:** **35**



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: