Aggregate Optimization Chart

MIX ID'S: DDD0K7E7 and DDD0K7E9

Production Gradation Report

PLANT #: **P-103**

Contractor: _____

Sample Date: 2/27/17

Concrete Grade: **DM**

Dates Test Represents: 2/27/2017 to 3/5/2017

MDOT No.: _____

Agg. Class	Pit #	Source	Weight (SSD)	ft³	Specific Gravity	% Contribution
6AA	58-003	Stoneco	1320	7.86	2.69	44.1
26A	58-003	Stoneco	450	2.68	2.69	15.1
2NS	81-93	Burmeister	1220	7.41	2.64	40.8
		Total Wt	**2990**	**17.95**		100.0

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

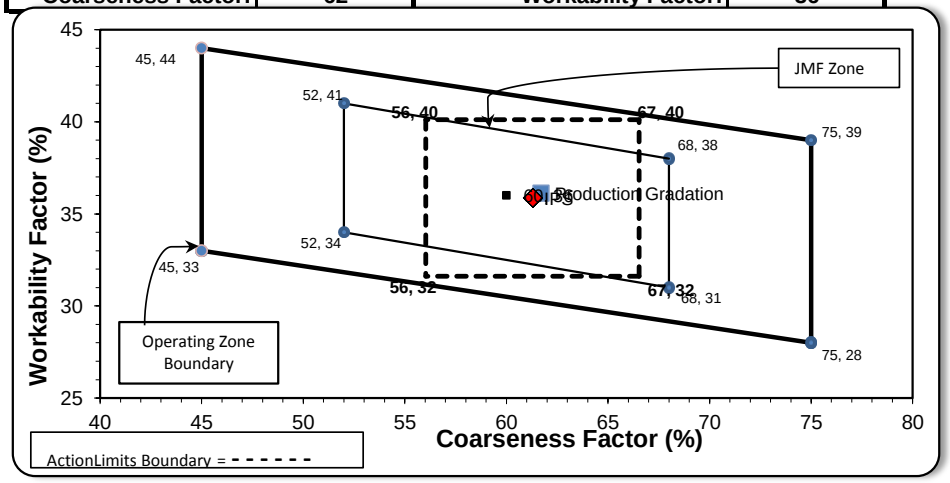
Sieve	6AA	26A	2NS	Cumulative % Passing	% Retained	Cumulative % Retained
2"	100.0	100.0	100.0	100.0	0.0	0.0
1.5"	100.0	100.0	100.0	100.0	0.0	0.0
1"	99.4	100.0	100.0	99.7	0.3	0.3
3/4"	80.7	100.0	100.0	91.5	8.3	8.5
1/2"	35.2	100.0	100.0	71.4	20.1	28.6
3/8"	15.3	86.5	100.0	60.6	10.8	39.4
#4	2.9	16.7	99.0	44.2	16.4	55.8
#8	2.2	3.9	84.7	36.1	8.1	63.9
#16	2.1	2.0	67.9	28.9	7.2	71.1
#30	1.9	1.7	47.9	20.6	8.3	79.4
#50	1.7	1.5	16.5	7.7	12.9	92.3
#100	1.6	1.5	2.8	2.1	5.6	97.9
LBW	1.4	1.3	1.0	1.2	0.9	98.8

*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.

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

Production Gradation ○ Batch Plant Gradations ◉ Aggregate Supplier Gradations

Coarseness Factor:	62	Workability Factor:	36



Intial Production Sample (IPS)

Coarseness Factor:	61	
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"	99.3	0.7	0.7
3/4"	89.2	10.1	10.8
1/2"	70.7	18.5	29.3
3/8"	60.7	10.0	39.3
#4	44.4	16.3	55.6
#8	35.9	8.5	64.1
#16	27.3	8.6	72.7
#30	19.1	8.2	80.9
#50	7.4	11.7	92.6
#100	1.9	5.6	98.1
LBW	0.7	1.2	99.3

PREPARED BY:
SM, LLC Technical Service

Approved BY:

Aggregate Optimization Chart

MIX ID'S: DDD0K7E7 and DDD0K7E9

Production Gradation Report

PLANT #: **P-38**

Contractor:

Sample Date: 2/27/17

Concrete Grade: **DM**

Dates Test Represents: 2/27/2017 to 3/5/2017

MDOT No.:

Agg. Class	Pit #	Source	Weight (SSD)	ft^3	Specific Gravity	% Contribution
6AA	58-003	Stoneco	1320	7.86	2.69	44.1
26A	58-003	Stoneco	450	2.68	2.69	15.1
2NS	81-93	Burmeister	1220	7.41	2.64	40.8
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1.5"	100.0	100.0	100.0	100.0	0.0	0.0
1"	99.4	100.0	100.0	99.7	0.3	0.3
3/4"	80.7	100.0	100.0	91.5	8.3	8.5
1/2"	35.2	100.0	100.0	71.4	20.1	28.6
3/8"	15.3	86.5	100.0	60.6	10.8	39.4
#4	2.9	16.7	99.0	44.2	16.4	55.8
#8	2.2	3.9	84.7	36.1	8.1	63.9
#16	2.1	2.0	67.9	28.9	7.2	71.1
#30	1.9	1.7	47.9	20.6	8.3	79.4
#50	1.7	1.5	16.5	7.7	12.9	92.3
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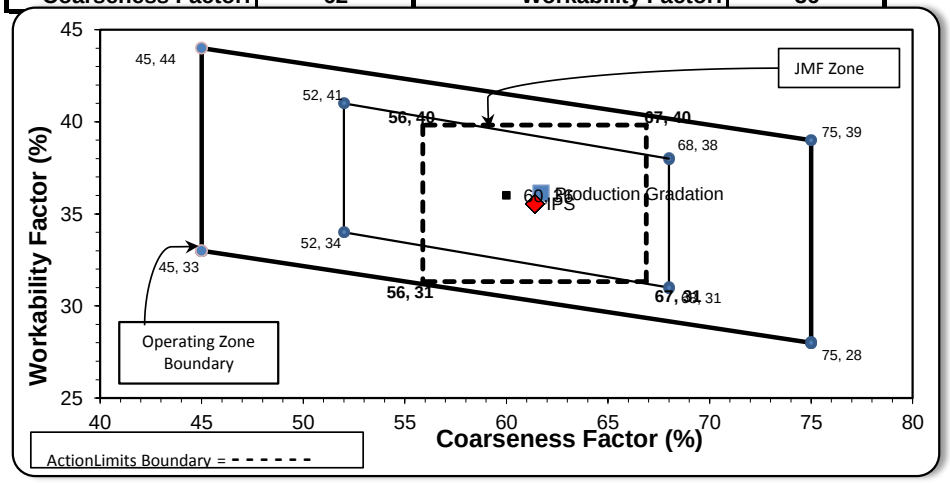

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1/2"	70.5	18.6	29.5
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#30	20.6	7.1	79.4
#50	8.7	11.8	91.3
#100	1.6	7.1	98.4
LBW	1.1	0.6	98.9

PREPARED BY:
SM, LLC Technical Service

Approved By: