

# Aggregate Optimization Chart

## Production Gradation Report

**PLANT #:** **P-103**

Sample Date: 6/9/25

Concrete Grade: **S2M, 3500HP**

Dates Test Represents: 6/10/2025 through 6/16/2025

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

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

Agg. Class	Pit #	Source	Weight (SSD)	ft <sup>3</sup>	Specific Gravity	% Contribution
6AA	58-003	Stoneco	1600	9.53	2.69	51.6
26A	58-003	Stoneco	300	1.79	2.69	9.7
2NS	63-114	Highland	1200	7.26	2.65	38.7
<b>Total Wt</b>			<b>3100</b>	<b>18.58</b>		<b>100.0</b>

<---- 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"	100.0	100.0	100.0	100.0	0.0	0.0
3/4"	85.2	100.0	100.0	92.4	7.6	7.6
1/2"	46.8	98.8	100.0	72.4	19.9	27.6
3/8"	27.0	87.3	100.0	61.1	11.3	38.9
#4	4.4	16.6	99.0	42.2	18.9	57.8
#8	2.2	3.4	85.6	34.6	7.6	65.4
#16	1.8	2.0	68.2	27.5	7.1	72.5
#30	1.6	1.6	49.4	20.1	7.4	79.9
#50	1.5	1.4	22.8	9.7	10.4	90.3
#100	1.4	1.3	3.5	2.2	7.5	97.8
LBW	1.3	1.2	0.5	1.0	1.2	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 4% for the 3/4" sieve when

a 1.5" max. size (nom. Max. 1.0") aggregate is used.



**Superior Materials, LLC**

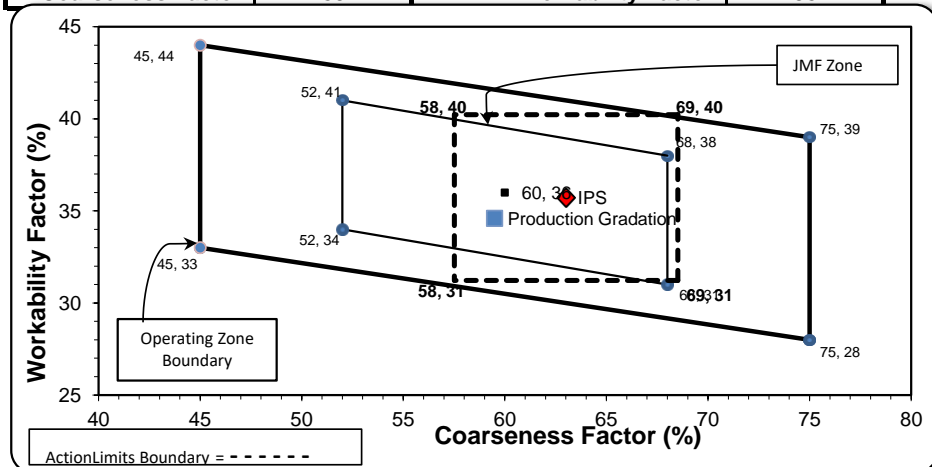
30701 W. 10 Mile Rd.

Suite 500

Farmington Hills, MI 48336

Production Gradation ☐ Batch Plant Gradations ☒ Aggregate Supplier Gradations

<b>Coarseness Factor:</b>	<b>59</b>	<b>Workability Factor:</b>	<b>35</b>
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Initial Production Sample (IPS)

Coarseness Factor:		63	
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"	99.2	0.8	0.8
3/4"	90.9	8.3	9.1
1/2"	71.3	19.6	28.7
3/8"	59.5	11.8	40.5
#4	43.8	15.7	56.2
#8	35.7	8.1	64.3
#16	27.0	8.7	73.0
#30	18.6	8.4	81.4
#50	6.8	11.8	93.2
#100	1.4	5.4	98.6
LBW	0.6	0.8	99.4

PREPARED BY:  
SM, LLC Technical Service

Approved BY:

*[Signature]*

# Aggregate Optimization Chart

## Production Gradation Report

**PLANT #:** **p11**

Sample Date: 6/9/25

Concrete Grade: **S2M, 3500HP**

Dates Test Represents: 6/10/2025 through 6/16/2025

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

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

Agg. Class	Pit #	Source	Weight (SSD)	ft <sup>3</sup>	Specific Gravity	% Contribution
6AA	71-47	Presque Isle	1520	9.30	2.62	49.8
26A	71-47	Presque Isle	300	1.83	2.62	9.8
2NS	63-115	Ray Rd	1230	7.44	2.65	40.3
<b>Total Wt</b>			<b>3050</b>	<b>18.57</b>		<b>100.0</b>

<---- 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"	97.4	100.0	100.0	98.7	1.3	1.3
3/4"	77.1	100.0	100.0	88.6	10.1	11.4
1/2"	32.5	96.9	100.0	66.1	22.5	33.9
3/8"	15.3	83.4	100.0	56.2	9.9	43.8
#4	2.4	20.7	95.5	41.7	14.4	58.3
#8	1.8	7.6	78.4	33.3	8.5	66.7
#16	1.7	4.2	61.6	26.1	7.2	73.9
#30	1.6	3.5	46.5	19.9	6.2	80.1
#50	1.6	3.2	26.3	11.7	8.2	88.3
#100	1.5	3.0	6.6	3.7	8.0	96.3
LBW	1.2	2.7	1.1	1.3	2.4	98.7

\*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 4% for the 3/4" sieve when a 1.5" max. size (nom. Max. 1.0") aggregate is used.



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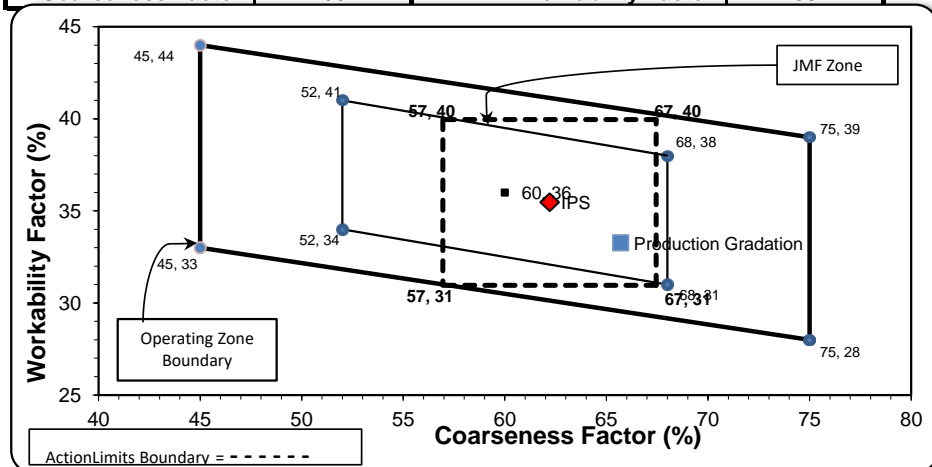
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Production Gradation ☐ Batch Plant Gradations ☒ Aggregate Supplier Gradations

<b>Coarseness Factor:</b>	<b>66</b>	<b>Workability Factor:</b>	<b>33</b>
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Initial Production Sample (IPS)

Coarseness Factor:		62	
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"	100.0	0.0	0.0
3/4"	94.0	6.0	6.0
1/2"	70.2	23.7	29.8
3/8"	59.9	10.4	40.1
#4	42.7	17.2	57.3
#8	35.5	7.2	64.5
#16	28.4	7.0	71.6
#30	19.2	9.2	80.8
#50	8.9	10.3	91.1
#100	3.1	5.9	96.9
LBW	1.4	1.7	98.6

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SM, LLC Technical Service

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