

Aggregate Optimization Chart

Production Gradation Report

PLANT #: P-102

Sample Date: 3/4/24

Concrete Grade: DM, 4500HP

Contractor: _____

Dates Test Represents: 3/5/2024 through 3/11/2024

MDOT No.: _____

| Agg. Class | Pit # | Source | Weight (SSD) | ft ³ | Specific Gravity | % Contribution |
|-----------------|--------|----------|--------------|-----------------|------------------|----------------|
| 6AA | 58-003 | Stoneco | 1400 | 8.34 | 2.69 | 47.5 |
| 26A | 58-003 | Stoneco | 400 | 2.38 | 2.69 | 13.6 |
| 2NS | 63-114 | Highland | 1150 | 6.95 | 2.65 | 39.0 |
| Total Wt | | | 2950 | 17.68 | | 100.0 |

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



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

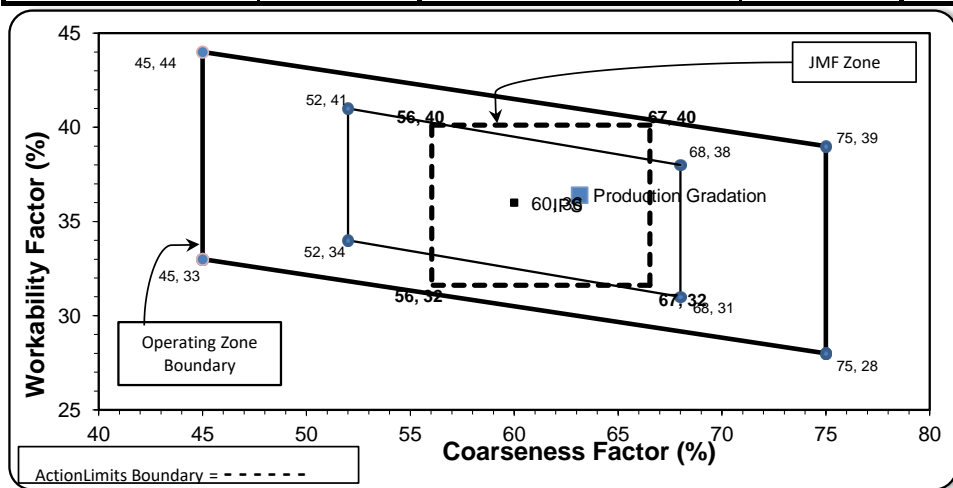
| Sieve | 6AA | 26A | 2NS | Cumulative % Passing | % Retained | Cumulative % Retained |
|-------|-------|-------|-------|----------------------|------------|-----------------------|
| 2" | 100.0 | 100.0 | 100.0 | 100.0 | 0.0 | 0.0 |
| 1.5" | 100.0 | 100.0 | 100.0 | 100.0 | 0.0 | 0.0 |
| 1" | 99.6 | 100.0 | 100.0 | 99.8 | 0.2 | 0.2 |
| 3/4" | 84.2 | 100.0 | 100.0 | 92.5 | 7.3 | 7.5 |
| 1/2" | 37.2 | 98.7 | 100.0 | 70.0 | 22.5 | 30.0 |
| 3/8" | 15.9 | 86.5 | 100.0 | 58.3 | 11.8 | 41.7 |
| #4 | 3.4 | 11.5 | 98.8 | 41.7 | 16.6 | 58.3 |
| #8 | 2.7 | 3.6 | 82.4 | 33.9 | 7.8 | 66.1 |
| #16 | 2.5 | 2.5 | 65.0 | 26.9 | 7.0 | 73.1 |
| #30 | 2.4 | 2.1 | 46.4 | 19.5 | 7.4 | 80.5 |
| #50 | 2.3 | 1.9 | 20.2 | 9.2 | 10.3 | 90.8 |
| #100 | 2.0 | 1.8 | 3.9 | 2.7 | 6.5 | 97.3 |
| LBW | 1.8 | 1.7 | 0.6 | 1.3 | 1.4 | 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.

Production Gradation Batch Plant Gradations Aggregate Supplier Gradations Adjusted WF Initial Production Sample (IPS)

| | | | | |
|---------------------------|-----------|----------------------------|-----------|-------------|
| Coarseness Factor: | 63 | Workability Factor: | 34 | 36.4 |
|---------------------------|-----------|----------------------------|-----------|-------------|

| | |
|----------------------------|-----------|
| 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: