

# Aggregate Optimization Chart

## Production Gradation Report

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

Sample Date: 6/30/25

Concrete Grade: **DM, 4500HP**

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

Dates Test Represents: 7/1/2025 through 7/7/2025

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

| Agg. Class      | Pit #  | Source   | Weight (SSD) | ft <sup>3</sup> | Specific Gravity | % Contribution |
|-----------------|--------|----------|--------------|-----------------|------------------|----------------|
| 6AA             | 58-003 | Stoneco  | 1530         | 9.11            | 2.69             | 51.9           |
| 26A             | 58-003 | Stoneco  | 270          | 1.61            | 2.69             | 9.2            |
| 2NS             | 63-114 | Highland | 1150         | 6.95            | 2.65             | 39.0           |
| <b>Total Wt</b> |        |          | <b>2950</b>  | <b>17.68</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"    | 99.3  | 100.0 | 100.0 | 99.6                 | 0.4        | 0.4                   |
| 3/4"  | 80.6  | 100.0 | 100.0 | 89.9                 | 9.7        | 10.1                  |
| 1/2"  | 36.4  | 98.4  | 100.0 | 66.9                 | 23.1       | 33.1                  |
| 3/8"  | 19.6  | 85.1  | 100.0 | 56.9                 | 9.9        | 43.1                  |
| #4    | 3.1   | 10.3  | 99.0  | 41.1                 | 15.8       | 58.9                  |
| #8    | 1.4   | 3.0   | 84.4  | 33.9                 | 7.2        | 66.1                  |
| #16   | 1.0   | 1.7   | 68.9  | 27.5                 | 6.4        | 72.5                  |
| #30   | 0.9   | 1.5   | 51.5  | 20.7                 | 6.9        | 79.3                  |
| #50   | 0.8   | 1.3   | 24.3  | 10.0                 | 10.7       | 90.0                  |
| #100  | 0.8   | 1.3   | 4.9   | 2.4                  | 7.6        | 97.6                  |
| LBW   | 0.7   | 1.2   | 1.1   | 0.9                  | 1.5        | 99.1                  |

\*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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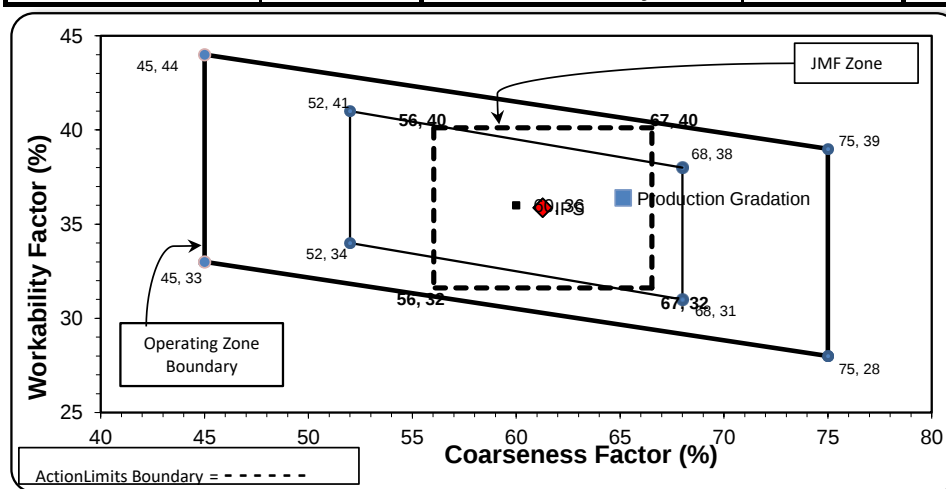
Production Gradation ☒ Batch Plant Gradations ☐ Aggregate Supplier Gradations

Adjusted WF Initial Production Sample (IPS)

|                           |           |                            |           |             |
|---------------------------|-----------|----------------------------|-----------|-------------|
| <b>Coarseness Factor:</b> | <b>65</b> | <b>Workability Factor:</b> | <b>34</b> | <b>36.4</b> |
|---------------------------|-----------|----------------------------|-----------|-------------|

|                           |           |
|---------------------------|-----------|
| <b>Coarseness Factor:</b> | <b>61</b> |
|---------------------------|-----------|

|                            |           |
|----------------------------|-----------|
| <b>Workability Factor:</b> | <b>36</b> |
|----------------------------|-----------|



| 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:

*[Signature]*



## Daily Summary Report

Date Tuesday, July 1, 2025

| Sample Id             | -674985548                | -1989627662               | -674976524                |
|-----------------------|---------------------------|---------------------------|---------------------------|
| Plant                 | S103<br>Superior Brighton | S103<br>Superior Brighton | S103<br>Superior Brighton |
| Product               | 1022<br>2NS GR            | 1067<br>26A Mod LS        | 1051<br>6AA LS            |
| Specification         | 2NS GR Spec               | 26A Mod LS Spec           | 6AA LS                    |
| Sample Type           | QA                        | QA                        | QA                        |
| 2" (50mm)             |                           | 100.0                     | 100.0                     |
| 1 1/2" (37.5mm)       |                           | 100.0                     | 100.0                     |
| 1" (25mm)             |                           | 100.0                     | 99.3                      |
| 3/4" (19mm)           |                           | 100.0                     | 80.6                      |
| 1/2" (12.5mm)         |                           | 98.4                      | 36.4                      |
| 3/8" (9.5mm)          | 100.0                     | 85.1                      | 19.6                      |
| #4 (4.75mm)           | 99.0                      | 10.3                      | 3.1                       |
| #8 (2.36mm)           | 84.4                      | 3.0                       | 1.4                       |
| #16 (1.18mm)          | 68.9                      | 1.7                       | 1.0                       |
| #30 (.6mm)            | 51.5                      | 1.5                       | 0.9                       |
| #50 (.3mm)            | 24.3                      | 1.3                       | 0.8                       |
| #100 (.15mm)          | 4.9                       | 1.3                       | 0.8                       |
| #200 (75µm)           | 1.1                       | 1.2                       | 0.78                      |
| Pan                   | 0.0                       | 0.0                       | 0.00                      |
| FM                    | 2.67                      |                           |                           |
| Wash Loss (#200/75um) | 1.1                       | 1.2                       | 0.7                       |
| Total Moisture        | 4.38                      | 4.36                      | 3.19                      |