



Somat Engineering, Inc.

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ASTM D2950

REPORT NUMBER: 010 SHEET: 1 OF 2

# ASPHALT DENSITY DETERMINATION REPORT

DATE: 7/30/2020

JOB NUMBER: 2020073E (PW-7018)

PROJECT NAME: HMA Mill & Resurfacing 2020

LOCATION: Detroit, MI

GAUGE NUMBER: 15829

CLIENT: CoD/WSP

OWNER: City of Detroit (CoD)

CONTRACTOR: Ajax

PROJECT ENGINEER: Jason Lukasik, P.E.

WEATHER: Fair

| TEST PERFORMED ON:                                                      |        | WEARING COURSE (WC) |                       | LEVELING COURSE (LC) |                      | BASE COURSE (BC)      |        | OTHER       |           |                                 |                   |           |        |
|-------------------------------------------------------------------------|--------|---------------------|-----------------------|----------------------|----------------------|-----------------------|--------|-------------|-----------|---------------------------------|-------------------|-----------|--------|
| STRUCTURE:                                                              |        |                     |                       |                      |                      |                       |        |             |           |                                 |                   |           |        |
| TEST                                                                    |        |                     | WET DENSITY           |                      | MOISTURE             |                       |        | DENSITY     |           | TEST LOCATION                   |                   |           |        |
| ORIG.                                                                   | RETEST | DEPTH               | DENSITY COUNTS        | WET DENSITY          | MOIST. COUNTS        | MOIST.                | MOIST. | MAX DENSITY | COMPACT.  | STATIONING/LOCATION             | OFFSET OF CL (FT) |           | COURSE |
|                                                                         |        | INCH                | DC                    | PCF                  | MC                   | PCF                   | %      | PCF         | %         |                                 | LEFT              | RIGHT     |        |
| 1                                                                       |        | BS                  | 478                   | 146.1                | 113                  | 8                     | 5.8    | 156.2       | 93.5      | 42.4347, - 83.1611              |                   | 8.00      | BT     |
| 2                                                                       |        | BS                  | 450                   | 150.5                | 111                  | 7.8                   | 5.5    | 156.2       | 96.2      | 42.4336, - 83.1610              |                   | 7.00      | BT     |
| 3                                                                       |        | BS                  | 490                   | 144.4                | 111                  | 7.8                   | 5.7    | 156.2       | 92.4      | 42.4324, - 83.1610              |                   | 6.00      | BT     |
| 4                                                                       |        | BS                  | 485                   | 145.1                | 112                  | 7.9                   | 5.8    | 156.2       | 92.9      | 42.4304, - 83.1609              |                   | 4.00      | BT     |
| 5                                                                       |        | BS                  | 458                   | 148.9                | 144                  | 10.7                  | 7.7    | 156.2       | 95.3      | 42.4296, - 83.1609              |                   | 6.00      | BT     |
| 6                                                                       |        | BS                  | 448                   | 150.7                | 108                  | 7.6                   | 5.3    | 156.2       | 96.4      | 42.4291, - 83.1609              |                   | 9.00      | BT     |
| 7                                                                       |        | BS                  | 478                   | 146                  | 128                  | 9.3                   | 6.8    | 156.2       | 93.5      | 42.4285, - 83.1609              |                   | 8.00      | BT     |
| 8                                                                       |        | BS                  | 456                   | 149.4                | 115                  | 8.2                   | 5.8    | 156.2       | 95.6      | 42.4347, - 83.1611              | 2                 |           | BT     |
| 9                                                                       |        | BS                  | 493                   | 143.9                | 109                  | 7.7                   | 5.6    | 156.2       | 92.1      | 42.4336, - 83.1610              |                   | 5.00      | BT     |
| 10                                                                      |        | BS                  | 484                   | 145.2                | 109                  | 7.7                   | 5.6    | 156.2       | 93        | 42.4324, - 83.1610              | 4                 |           | BT     |
| 11                                                                      |        | BS                  | 479                   | 145.9                | 125                  | 9                     | 6.6    | 156.2       | 93.4      | 42.4304, - 83.1609              |                   | 1.00      | BT     |
| MAXIMUM DETERMINATION (LAB)                                             |        |                     |                       |                      |                      |                       |        |             |           | PRESCALE                        |                   |           |        |
| NOTE: Gmb to Marshall conversion is $Gmb * 62.4 (PCF) = MARSHALL (PCF)$ |        |                     |                       |                      |                      |                       |        |             |           | 16                              |                   | 16        |        |
| NOTE: Gmm to TMD conversion is $Gmm * 62.4 (PCF) = TMD (PCF)$           |        |                     |                       |                      |                      |                       |        |             |           | DENSITY                         |                   | MOISTURE  |        |
| MAXIMUM WET DENSITY BY:                                                 |        |                     | MARSHALL/Gmb 95.0%    |                      |                      | TMD/Gmm 92.0% - 96.0% |        |             | DENSITY   |                                 | MOISTURE          |           |        |
|                                                                         |        |                     | TMD/Gmm 92.0% - 97.0% |                      |                      | TMD/Gmm 92.0% - 98.0% |        |             | READING 1 |                                 | 1841 706          |           |        |
| REMARKS:                                                                |        |                     |                       |                      |                      |                       |        |             |           | READING 2                       |                   | 1830 705  |        |
|                                                                         |        |                     |                       |                      |                      |                       |        |             |           | READING 3                       |                   | 1840 706  |        |
|                                                                         |        |                     |                       |                      |                      |                       |        |             |           | READING 4                       |                   | 1840 706  |        |
|                                                                         |        |                     |                       |                      |                      |                       |        |             |           | OPERATING STANDARDS (READING 5) |                   |           |        |
|                                                                         |        |                     |                       |                      |                      |                       |        |             |           | DENSITY                         |                   | MOISTURE  |        |
|                                                                         |        |                     |                       |                      |                      |                       |        |             |           | 1829                            |                   | 701       |        |
| SOMAT FIELD REPRESENTATIVE:                                             |        |                     |                       |                      | Garrett Hineman      |                       |        |             |           | DATE:                           |                   | 7/30/2020 |        |
| SOMAT PROJECT MANAGER(s):                                               |        |                     |                       |                      | Steve Drummond, P.E. |                       |        |             |           | DATE:                           |                   | 8/5/2020  |        |

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