

**ASPHALT DENSITY  
DETERMINATION REPORT**

DATE: 8/10/2020

JOB NUMBER: 2020073E (PW-7018)

PROJECT NAME: HMA Mill &amp; Resurfacing 2020

LOCATION: Detroit, MI

GAUGE NUMBER: 26254

CLIENT: CoD/WSP

OWNER: City of Detroit (CoD)

CONTRACTOR: AJAX

PROJECT ENGINEER: Jason Lukasik, P.E.

WEATHER: Sunny

| TEST PERFORMED ON:                                                      |        | X     | WEARING COURSE (WC)   |             |               | LEVELING COURSE (LC)  |        |             | BASE COURSE (BC)      |                                 |                   | OTHER     |        |     |  |
|-------------------------------------------------------------------------|--------|-------|-----------------------|-------------|---------------|-----------------------|--------|-------------|-----------------------|---------------------------------|-------------------|-----------|--------|-----|--|
| STRUCTURE: Top Course on Carpenter From Dequinder to Contant.           |        |       |                       |             |               |                       |        |             |                       |                                 |                   |           |        |     |  |
| 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    | 496                   | 146.6       | 99            | 7.6                   | 5.5    | 156.2       | 93.8                  | Carpenter & ST. Aubin           | 3                 |           | BT     |     |  |
| 2                                                                       |        | BS    | 510                   | 144.7       | 108           | 8.4                   | 6.2    | 156.2       | 92.6                  | Carpenter & Fleming             | 12                |           | BT     |     |  |
| 3                                                                       |        | BS    | 494                   | 146.8       | 105           | 8.1                   | 5.9    | 156.2       | 94                    | Carpenter & Arlington           | 4                 |           | BT     |     |  |
| 4                                                                       |        | BS    | 505                   | 145.3       | 108           | 8.4                   | 6.1    | 156.2       | 93                    | Carpenter & Maine               | 9                 |           | BT     |     |  |
| 5                                                                       |        | BS    | 504                   | 145.5       | 107           | 8.3                   | 6.1    | 156.2       | 93.1                  | Carpenter & Jos Campau          | 30                |           | BT     |     |  |
| 6                                                                       |        | BS    | 510                   | 144.7       | 100           | 7.7                   | 5.6    | 156.2       | 92.6                  | Carpenter & McDougall           | 2                 |           | BT     |     |  |
| 7                                                                       |        | BS    | 490                   | 147.4       | 105           | 8.1                   | 5.8    | 156.2       | 94.4                  | Carpenter & Gallagher           | 6                 |           | BT     |     |  |
| 8                                                                       |        | BS    | 507                   | 145.1       | 102           | 7.9                   | 5.7    | 156.2       | 92.9                  | Carpenter & Moran               | 1                 |           | BT     |     |  |
| 9                                                                       |        | BS    | 467                   | 150.7       | 98            | 7.5                   | 5.2    | 156.2       | 96.5                  | Carpenter & ST. Aubin           |                   | 5.00      | BT     |     |  |
| 10                                                                      |        | BS    | 509                   | 144.8       | 106           | 8.2                   | 6      | 156.2       | 92.7                  | Carpenter & Fleming             |                   | 8.00      | BT     |     |  |
| 11                                                                      |        | BS    | 495                   | 146.7       | 102           | 7.9                   | 5.7    | 156.2       | 93.9                  | Carpenter & MacKay              |                   | 3.00      | BT     |     |  |
| MAXIMUM DETERMINATION (LAB)                                             |        |       |                       |             |               |                       |        |             |                       | PRESCALE                        |                   |           |        |     |  |
| NOTE: Gmb to Marshall conversion is $Gmb * 62.4 (PCF) = MARSHALL (PCF)$ |        |       |                       |             |               |                       |        |             |                       | 16                              |                   |           |        |     |  |
| NOTE: Gmm to TMD conversion is $Gmm * 62.4 (PCF) = TMD (PCF)$           |        |       |                       |             |               |                       |        |             |                       | 16                              |                   |           |        |     |  |
| MAXIMUM WET DENSITY BY:                                                 |        |       | MARSHALL/Gmb 95.0%    |             |               | TMD/Gmm 92.0% - 96.0% |        |             | DENSITY               |                                 | MOISTURE          |           |        |     |  |
|                                                                         |        |       | TMD/Gmm 92.0% - 97.0% |             |               | X                     |        |             | TMD/Gmm 92.0% - 98.0% |                                 |                   |           |        |     |  |
| REMARKS:                                                                |        |       |                       |             |               |                       |        |             |                       | READING 1                       |                   | 1874      |        | 670 |  |
| Top Course on Carpenter RD using SE3 with a TMD of 156.2                |        |       |                       |             |               |                       |        |             |                       | READING 2                       |                   | 1864      |        | 675 |  |
|                                                                         |        |       |                       |             |               |                       |        |             |                       | READING 3                       |                   | 1857      |        | 679 |  |
|                                                                         |        |       |                       |             |               |                       |        |             |                       | READING 4                       |                   | 1859      |        | 676 |  |
|                                                                         |        |       |                       |             |               |                       |        |             |                       | OPERATING STANDARDS (READING 5) |                   |           |        |     |  |
|                                                                         |        |       |                       |             |               |                       |        |             |                       | DENSITY                         |                   | 1874      |        | 668 |  |
| SOMAT FIELD REPRESENTATIVE: Cory Gray                                   |        |       |                       |             |               |                       |        |             |                       | DATE:                           |                   | 8/10/2020 |        |     |  |
| SOMAT PROJECT MANAGER(s): Steve Drummond, P.E.                          |        |       |                       |             |               |                       |        |             |                       | DATE:                           |                   | 8/18/2020 |        |     |  |

\*All results noted in this report relate only to items inspected or tested by Somat Engineering, Inc. and/or Somat Engineering of Ohio, Inc. (Somat). This report shall not be reproduced, except in full, without the prior written approval of Somat.