

NorthEast Transportation Training & Certification Program

HMA Pavement Nuclear Density Test Report (D 2950)

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|---|--------------------------------|---|------------------------------------|
| Date/Time: September 18, 2020 | | Location: Tilcon, CT | |
| Weather: Overcast | Date Rec'd #: 9/18/2020 | Random Sample: No <input type="checkbox"/> | |
| Project: Durham Meadows Waterline - Durham, CT | | Lab Login #: - | Lot #: - |
| Contract #: 19-75-012-103 | Material ID: SP 1.0" | | Sublot #: - |
| Contractor: Ludlow Construction Co., Inc. | | Material #: - | Sample Location: First Lift |
| Pay Item #: - | Sample #: - | | Station: See Below |
| Source: Tilcon, CT | | Sample Type: QC <input type="checkbox"/> | Offset: See Below |
| Plant Type: - | | Sampled By/Cert. #: Stephen Sturges/#4395 | |

| Density Gauge Information | | | |
|---------------------------|---------|---------------------------|--------------|
| Make: | Troxler | Date of Calibration: | 4/1/2020 |
| Model #: | 3440 | Source of Calibration: | Q/C Resource |
| Serial #: | 17249 | Standard Count: | - |
| Gauge #: | 17249 | Duration of Test: | 15 Seconds |
| Other: | - | Thickness of Lift Tested: | 3.0" |

| Density of HMA in Place by Nuclear Method (D 2950) | | | | | | | |
|--|---------|--------|------|--------------|-------------------------------------|---|--------------------------|
| Sublot # | Station | Offset | Time | Random (Y/N) | (B) Max Theor. Density (From T 209) | (A) In-Place Density, kg / m ³ | % Compaction (A/B * 100) |
| - | 111+75 | - | - | N | 167.2 | 156.6 | 94.4 |
| - | 112+00 | - | - | N | 167.2 | 154.1 | 95.4 |
| - | 112+25 | - | - | N | 167.2 | 157.9 | 96.3 |
| - | 112+50 | - | - | N | 167.2 | 157.0 | 93.9 |
| - | 112+75 | - | - | N | 167.2 | 156.8 | 93.8 |
| - | 113+00 | - | - | N | 167.2 | 156.6 | 93.7 |
| - | 113+25 | - | - | N | 167.2 | 157.1 | 94.0 |
| - | 113+50 | - | - | N | 167.2 | 154.9 | 92.6 |
| - | 113+75 | - | - | N | 167.2 | 153.8 | 92.0 |
| - | 114+00 | - | - | N | 167.2 | 157.0 | 93.9 |
| - | 114+25 | - | - | N | 167.2 | 157.7 | 94.3 |
| - | 114+50 | - | - | N | 167.2 | 156.8 | 93.8 |
| - | 114+75 | - | - | N | 167.2 | 156.3 | 93.5 |
| - | 115+00 | - | - | N | 167.2 | 157.7 | 94.3 |
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Comments:

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|--|--|---------------------------------------|------------------------------------|
| Tested by: Stephen Sturges | | Reviewed by: Nicholas Lisowski | |
| Certification #: 4395 | | Certification #: 3139 | |
| Date: 9/18/2020 | | Date: 10/6/2020 | |
| Test Results Within Engineering Limits: | | YES <input type="checkbox"/> | NO <input type="checkbox"/> |

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HMA Pavement Nuclear Density Test Report (D 2950)

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|---|--------------------------------|---|-------------------------------------|
| Date/Time: September 18, 2020 | | Location: Tilcon, CT | |
| Weather: Overcast | Date Rec'd #: 9/18/2020 | Random Sample: No <input type="checkbox"/> | |
| Project: Durham Meadows Waterline - Durham, CT | | Lab Login #: - | Lot #: - |
| Contract #: 19-75-012-103 | | Material ID: SP 1.0" | |
| Contractor: Ludlow Construction Co., Inc. | | Material #: - | Sample Location: Second Lift |
| Pay Item #: - | | Sample #: - | Station: See Below |
| Source: Tilcon, CT | | Sample Type: QC <input type="checkbox"/> | Offset: See Below |
| Plant Type: - | | Sampled By/Cert. #: Stephen Sturges/#4395 | |

| Density Gauge Information | | | |
|---------------------------|---------|---------------------------|--------------|
| Make: | Troxler | Date of Calibration: | 4/1/2020 |
| Model #: | 3440 | Source of Calibration: | Q/C Resource |
| Serial #: | 17249 | Standard Count: | - |
| Gauge #: | 17249 | Duration of Test: | 15 Seconds |
| Other: | - | Thickness of Lift Tested: | 3.0" |

| Density of HMA in Place by Nuclear Method (D 2950) | | | | | | | |
|--|---------|--------|------|--------------|-------------------------------------|---|--------------------------|
| Sublot # | Station | Offset | Time | Random (Y/N) | (B) Max Theor. Density (From T 209) | (A) In-Place Density, kg / m ³ | % Compaction (A/B * 100) |
| - | 111+75 | - | - | N | 167.2 | 154.9 | 94.6 |
| - | 112+00 | - | - | N | 167.2 | 156.4 | 95.3 |
| - | 112+25 | - | - | N | 167.2 | 157.9 | 95.1 |
| - | 112+50 | - | - | N | 167.2 | 156.1 | 93.4 |
| - | 112+75 | - | - | N | 167.2 | 155.5 | 93.0 |
| - | 113+00 | - | - | N | 167.2 | 156.0 | 93.3 |
| - | 113+25 | - | - | N | 167.2 | 157.1 | 94.0 |
| - | 113+50 | - | - | N | 167.2 | 157.3 | 94.1 |
| - | 113+75 | - | - | N | 167.2 | 155.9 | 93.2 |
| - | 114+00 | - | - | N | 167.2 | 155.0 | 92.7 |
| - | 114+25 | - | - | N | 167.2 | 156.6 | 93.7 |
| - | 114+50 | - | - | N | 167.2 | 155.2 | 92.8 |
| - | 114+75 | - | - | N | 167.2 | 154.9 | 92.6 |
| - | 115+00 | - | - | N | 167.2 | 157.2 | 94.0 |
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Comments:

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| Tested by: Stephen Sturges | | Reviewed by: Nicholas Lisowski | |
| Certification #: 4395 | | Certification #: 3139 | |
| Date: 9/18/2020 | | Date: 10/6/2020 | |
| Test Results Within Engineering Limits: | | YES <input type="checkbox"/> NO <input type="checkbox"/> | |

NorthEast Transportation Training & Certification Program

HMA Field Temperatures Test Report (Sub-Base, Air, Mix)

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|--|--|--|--|
| Date/Time: September 18, 2020 | | Location: Tilcon, CT | |
| Weather: Overcast | Date Rec'd #: 9/18/2020 | Random Sample: <input type="checkbox"/> | |
| Project: Durham Meadows Waterline | Lab Login #: - | Lot #: - | |
| Contract #: 19-75-012-103 | Material ID: SP 1.0" | Sublot #: - | |
| Contractor: Ludlow Construction Co., Inc. | Material #: - | Sample Location: First Lift | |
| Pay Item #: - | Sample #: - | Station: See Below | |
| Source: Tilcon, CT | Sample Type: QC | Offset: See Below | |
| Plant Type: - | Sampled By/Cert. #: Stephen Sturges/#4395 | | |

| Temperature Reference Information | | | |
|-----------------------------------|-------------------|---------------------------------|----|
| Weather: | Sunny | Sub Base Temperature, °F (BT): | 64 |
| Thermometer Type: | Infrared Temp Gun | Air Temperature High, °F (ATH): | 66 |
| Calibration Source: | Manufacturer | Air Temperature Low, °F (ATL): | 62 |
| Calibration Date: | | | |

| HMA Field Temperature Measurements | | | | | | | |
|------------------------------------|---------|--------|------|------------------------|--------------|----------|-------------------|
| Sublot # | Station | Offset | Time | Mat Thickness (inches) | Random (Y/N) | Location | Mix Temp, °F (MT) |
| - | 111+75 | - | - | 3.0" | N | Route 17 | 301 |
| - | 112+00 | - | - | 3.0" | N | Route 17 | |
| - | 112+25 | - | - | 3.0" | N | Route 17 | |
| - | 112+50 | - | - | 3.0" | N | Route 17 | |
| - | 112+75 | - | - | 3.0" | N | Route 17 | 304 |
| - | 113+00 | - | - | 3.0" | N | Route 17 | |
| - | 113+25 | - | - | 3.0" | N | Route 17 | |
| - | 113+50 | - | - | 3.0" | N | Route 17 | |
| - | 113+75 | - | - | 3.0" | N | Route 17 | 310 |
| - | 114+00 | - | - | 3.0" | N | Route 17 | |
| - | 114+25 | - | - | 3.0" | N | Route 17 | |
| - | 114+50 | - | - | 3.0" | N | Route 17 | 300 |
| - | 114+75 | - | - | 3.0" | N | Route 17 | |
| - | 115+00 | - | - | 3.0" | N | Route 17 | |
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Comments:

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| Tested by: Stephen Sturges | Reviewed by: Nicholas Lisowski |
| Certification #: 4395 | Certification #: 3139 |
| Date: Stephen Sturges | Date: 10/6/2020 |
| Test Results Within Engineering Limits: | YES <input type="checkbox"/> NO <input type="checkbox"/> |