

CLIENT:

Ludlow Construction Co., Inc.

PROJECT:

Durham Meadows Waterline

Durham, CT

19 Carmelina's Circle

Ludlow, MA 01056 Attn: Mr. Mike Pio

DATE:

September 18, 2019

REPORT #:

19-75-012-007 Page 1 of 5

General Location:

South Main Street, Waterline Trench

Field Rep:

Stephen Sturges

General Contractor:

Ludlow Construction Co., Inc.

Earthwork Contractor:

Ludlow Construction Co., Inc.

Air Temp:

45°F

Weather:

Night/ Clear

Soil ID#:

3519-600 Reddish Brown Silty Sand w/ Gravel

Soil Type: Proctor Sample Source:

Onsite

Proctor Value:

136.3 lbs/ft<sup>3</sup>

Optimum Moisture:

6.6%

Travlar 2420

Required Compaction:

95.0%

| Sauge Type:                            | Troxler 3430           |                                         | Required Compaction: 95.0%              |                                         |  |  |
|----------------------------------------|------------------------|-----------------------------------------|-----------------------------------------|-----------------------------------------|--|--|
| TEST<br>NUMBER                         | DEPTH/ELEV.<br>(in/ft) | MOISTURE<br>(%)                         | DRY DENSITY<br>(pcf)                    | COMPACTION (%)                          |  |  |
| 1                                      | 10"/40.0" BFG          | 11.4%                                   | 131.3                                   | 96.3%                                   |  |  |
| LOCATION:                              | Station #106+86        |                                         |                                         | *************************************** |  |  |
| 2                                      | 10"/ 40.0" BFG         | 12.0%                                   | 131.0                                   | 96.1%                                   |  |  |
| LOCATION:                              | Station #107+11        |                                         | *************************************** |                                         |  |  |
| 3                                      | 10"/ 40.0" BFG         | 9.9%                                    | 132.0                                   | 96.8%                                   |  |  |
| LOCATION:                              | Station #107+36        |                                         |                                         | *************************************** |  |  |
| LOCATION:                              |                        |                                         |                                         |                                         |  |  |
|                                        |                        |                                         |                                         | ······                                  |  |  |
| LOCATION:                              |                        |                                         |                                         | ·····                                   |  |  |
|                                        |                        |                                         |                                         |                                         |  |  |
| LOCATION:                              |                        | *************************************** |                                         | *************************************** |  |  |
| ************************************** |                        |                                         |                                         |                                         |  |  |
| LOCATION:                              |                        |                                         |                                         |                                         |  |  |
|                                        |                        |                                         |                                         |                                         |  |  |

REMARKS:

BFG - Below Finish Grade (BFG - 4.0" Below Base Course for Asphalt)



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Soil ID#:

3519-600 Reddish Brown Silty Sand w/ Gravel

Soil Type:

Onsite

Proctor Value:

136.3

lbs/ft3

Optimum Moisture:

6.6%

Troxler 3430

95.0% Required Compaction:

| lauge Type:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Troxler 3430           |                                         | kequired compaction. |                   |  |  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|-----------------------------------------|----------------------|-------------------|--|--|
| TEST<br>NUMBER                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | DEPTH/ELEV.<br>(in/ft) | MOISTURE<br>(%)                         | DRY DENSITY<br>(pcf) | COMPACTION<br>(%) |  |  |
| The second secon | 10"/28.0" BFG          | 9.0%                                    | 132.5                | 97.2%             |  |  |
| 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | ·                      | *************************************** |                      |                   |  |  |
| LOCATION:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Station #106+86        | 8.3%                                    | 130.8                | 96.0%             |  |  |
| 5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 10"/ 28.0" BFG         | 8.370                                   |                      |                   |  |  |
| LOCATION:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Station #107+11        |                                         |                      | 95.6%             |  |  |
| 6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 10"/ 28.0" BFG         | 10.0%                                   | 130.3                | 95.070            |  |  |
| LOCATION:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Station #107+36        |                                         |                      |                   |  |  |
| LOCATION:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                        |                                         |                      |                   |  |  |
| LOCATION:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                        |                                         |                      |                   |  |  |
| LOCATION:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                        |                                         |                      |                   |  |  |
| LOCATION:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                        |                                         |                      |                   |  |  |
| LOCATION.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                        |                                         |                      |                   |  |  |
| LOCATION:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                        |                                         |                      |                   |  |  |

REMARKS: BFG - Below Finish Grade (BFG - 4.0" Below Base Course for Asphalt)



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General Contractor:

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Earthwork Contractor:

45°F

Air Temp: Weather:

Night/ Clear

Soil ID#:

3519-600

Soil Type:

Reddish Brown Silty Sand w/ Gravel

Proctor Sample Source:

Onsite

Proctor Value:

lbs/ft3 136.3

Optimum Moisture:

6.6%

Troxler 3430

Required Compaction:

95.0%

Gauge Type: COMPACTION MOISTURE **DRY DENSITY** TEST DEPTH/ELEV. (%) (pcf) (%) NUMBER (in/ft) 97.0% 132.2 7.9% 10"/16.0" BFG Station #106+86 LOCATION: 96.8% 131.9 8.7% 10"/16.0" BFG Station #107+11 LOCATION: 96.3% 131.3 7.0% 10"/16.0" BFG Station #107+36 LOCATION:

LOCATION:

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Earthwork Contractor:

45°F

Air Temp: Weather:

Night/ Clear

Soil ID#:

3519-608

Soil Type:

Light Gray Gravel w/ Silt & Sand (1.5" minus)

Proctor Sample Source: Haynes Group

Proctor Value:

138.9

lbs/ft3

Optimum Moisture:

7.8%

Troxler 3430

Required Compaction:

95.0%

Gauge Type: COMPACTION DRY DENSITY MOISTURE DEPTH/ELEV. TEST (pcf) (%) (%) (in/ft) NUMBER 96.5% 134.0 2.7% 6"/8.0" BFG 10 Station #106+86 LOCATION: 97.0% 134.7 3.1% 6"/8.0" BFG 11 LOCATION: Station #107+11 96.5% 134.1 3.4% 6"/8.0" BFG 12 Station #107+36 LOCATION: LOCATION: LOCATION: LOCATION: LOCATION:

LOCATION:

REMARKS: BFG - Below Finish Grade (BFG - 4.0" Below Base Course for Asphalt)



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General Contractor:

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lbs/ft3

Earthwork Contractor: Air Temp:

45°F

Weather:

Night/ Clear

Soil ID#:

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Soil Type:

Light Gray Gravel w/ Silt & Sand (1.5" minus)

Proctor Sample Source:

Haynes Group

Proctor Value:

138.9

Optimum Moisture:

7.8%

Troyler 3430

95.0% Required Compaction:

| auge Type:     | Troxler 3430           | Required compaction. |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                |  |
|----------------|------------------------|----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|--|
| TEST<br>NUMBER | DEPTH/ELEV.<br>(in/ft) | MOISTURE<br>(%)      | DRY DENSITY (pcf)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | COMPACTION<br>(%)                                                                                              |  |
| 13             | 2"/4.0" BFG            | 3.3%                 | 134.7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 97.0%                                                                                                          |  |
| LOCATION:      | Station #106+86        |                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                |  |
| 14             | 2"/ 4.0" BFG           | 3.6%                 | 135.3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 97.4%                                                                                                          |  |
| LOCATION:      | Station #107+11        |                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                |  |
| 15             | 2"/ 4.0" BFG           | 2.8%                 | 135.9                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 97.8%                                                                                                          |  |
| LOCATION:      | Station #107+36        |                      | and the second s |                                                                                                                |  |
| LOCATION:      |                        |                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | onummini inimuuun muummuun maanaan maa |  |

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