Attached is a *HIGH-MAST LIGHT TOWER FOUNDATION INVESTIGATION REPORT (REPORT)* on the above referenced project. The Department of Transportation, Rockdale County or its consultant, in making this report available to contractors, assumes no responsibility for its accuracy. No claim will be considered if the contractor relies on this information in his bidding or in his construction operations and finds that it is inaccurate. This REPORT is furnished FOR INFORMATION ONLY and is not considered as part of the plans, specifications, or contract for this project. The contractor’s attention is directed to Subsection 102.05 of the Standard Specifications to satisfy himself concerning the conditions to be encountered.
HIGH-MAST LIGHT TOWER FOUNDATION INVESTIGATION REPORT

Lighting Improvements at I-20 Interchanges with Sigman Road (CR 66) and Salem Road (SR 162)
GDOT Project No. 0015099
Rockdale County, Georgia
Issue Date: June 15, 2018

Submitted to:
Volkert, Inc.
160 Greencastle Road, Suite A
Tyrone, Georgia 30290

Submitted by:
Willmer Engineering Inc.
Project No. ATL-71.4289

FOR INFORMATION ONLY
June 15, 2018

Mr. Ben Rabun, PE
Volkert, Inc.
160 Greencastle Road, Suite A
Tyrone, Georgia 30290

SUBJECT: HIGH-MAST LIGHT TOWER FOUNDATION INVESTIGATION REPORT
Lighting Improvements at I-20 Interchanges with Sigman Road (CR 66) and Salem Road (SR 162)
PI No. 0015099
Rockdale County, Georgia
Willmer Project No. ATL-71.4289

Dear Mr. Rabun:

Willmer Engineering Inc. (Willmer) is pleased to provide this High-Mast Light Tower Foundation Investigation report for lighting improvements at the I-20 Interchanges with Sigman Road and Salem Road in Rockdale County, Georgia. The light tower foundation investigation was performed in general accordance with our Subconsultant Professional Services Agreement with Volkert dated April 23, 2018, and Georgia Department of Transportation (GDOT) guidance documents for light tower foundation investigation.

The attached summary presents the site and subsurface conditions at the proposed light tower locations and our recommendations related to foundation design and construction.

We appreciate the opportunity to be of service to you on this project and look forward to a continuing relationship. Please contact us if you have any questions concerning this report or require further assistance.

Sincerely,

WILLMER ENGINEERING INC.

Justin Dunlap
Staff Geotechnical Engineer

James L. Willmer, PE
Executive Vice President/Principal Consultant

Daniel C. Pitts, PE
Project Geotechnical Engineer

P:\4289 Volkert Lighting Improvements at Sigman Road & Salem Rd I-20 \Reports\02. Cover Letter
Attachments:  High-Mast Light Tower Foundation Investigation

Figures
Figure 1: Project Location Map
Figure 2A: Boring Location Plan at Sigman Road
Figure 2B: Boring Location Plan at Salem Road
Figure 3: Boring Location Plan (Sheets 1 through 7)

Appendix I
Boring Record Legend
Unified Soil Classification System Reference Sheet
Engineering Description of Rock Hardness
Boring Logs

Appendix II
Site Photographs
# HIGH-MAST LIGHT TOWER FOUNDATION INVESTIGATION

<table>
<thead>
<tr>
<th>Willmer Project Number</th>
<th>ATL-71.4289</th>
</tr>
</thead>
<tbody>
<tr>
<td>P.I. Number</td>
<td>0015099</td>
</tr>
<tr>
<td>Location</td>
<td>I-20 at Interchanges with Sigman Road and Salem Road, Rockdale County, Georgia</td>
</tr>
</tbody>
</table>

## GENERAL INFORMATION

**Project Description**

This project involves the foundation investigation for 28 proposed high-mast light towers at two interchanges on I-20 from west of Lithonia to the Newton County line in Rockdale County, Georgia. The first interchange is I-20 at Sigman Road/CR-66 and the second interchange is I-20 at Salem Road/SR-162. A project location map is presented in Figure 1.

Plan drawings provided to us by Volkert showing the approximate boring locations relative to the proposed light tower locations are presented in Figures 3. Site photographs of approximate boring locations are presented in Appendix II.

The borings were located by Willmer using a handheld GPS unit. Ground surface elevations at the boring locations are based on topographic drawings provided to us by Volkert.

**Geologic Information**

This project is geologically located within the Piedmont Physiographic Province of Georgia and is underlain by garnet mica schist, granitic gneiss, and biotitic gneiss rock formations.

**Subsurface Features**

Subsurface conditions encountered at the boring locations consisted primarily of fill soils (underlain by alluvial soils in borings H-13 and H-16), above residual soils, partially weathered rock (PWR), and bedrock.

The fill soils consisted primarily of very loose to medium dense clayey sand with rock fragments and stiff to very stiff sandy clay. The alluvial soils consisted primarily of soft to firm sandy clay. The residual soils consisted primarily of loose to very dense silty sand, loose to medium dense clayey sand, very soft to firm sandy clay, and soft to very stiff sandy silt. PWR was encountered at 9 of the 29 boring locations at depths ranging between 6 and 30 feet below current grade. Auger refusal (typically indicative of the top of bedrock) was encountered at 6 of the 28 boring locations at depths ranging between 7.5 and 25 feet below current grade.
Subsurface Features  
(continued)  

Rock was cored in 3 of the 6 locations where auger refusal was shallower than 20 feet. The rock recovery ranged from 85 to 100 percent and rock quality designation (RQD) ranged from 58 to 100 percent. Individual boring logs are presented in Appendix I.

Groundwater was encountered at 13 of the 28 boring locations and ranged between 5.3 and 20 feet below current grade. Seasonal groundwater level fluctuations should be expected.

The ground surface elevations and groundwater depth data at the boring locations are summarized in the following table.
# LIGHT TOWER AND BORING INFORMATION

<table>
<thead>
<tr>
<th>Light Tower No.</th>
<th>Light Tower Location¹ (Alignment)</th>
<th>Baseline</th>
<th>Ground Surface Elevation at Tower Location² (feet)</th>
<th>Boring No.</th>
<th>Approximate Boring Location¹</th>
<th>Ground Surface Elevation at Boring Location² (feet)</th>
<th>Groundwater / Cave Depth³ (feet)</th>
</tr>
</thead>
<tbody>
<tr>
<td>H-1</td>
<td>114+86; 80' RT</td>
<td>I-20</td>
<td>903</td>
<td>H-1</td>
<td>114+86; 80' RT</td>
<td>903</td>
<td>13.5 (TOB)</td>
</tr>
<tr>
<td>H-2</td>
<td>110+25; 80' LT</td>
<td>I-20</td>
<td>906.9</td>
<td>H-2</td>
<td>110+25; 80' LT</td>
<td>906.9</td>
<td>NE</td>
</tr>
<tr>
<td>H-3</td>
<td>124+03; 95' RT</td>
<td>I-20</td>
<td>902.2</td>
<td>H-3</td>
<td>124+03; 95' RT</td>
<td>902.2</td>
<td>13.5 (TOB)</td>
</tr>
<tr>
<td>H-4</td>
<td>119+02; 69' LT</td>
<td>I-20</td>
<td>908.7</td>
<td>H-4</td>
<td>119+02; 69' LT</td>
<td>908.7</td>
<td>9</td>
</tr>
<tr>
<td>H-5</td>
<td>132+48; 92' RT</td>
<td>I-20</td>
<td>930</td>
<td>H-5</td>
<td>132+48; 92' RT</td>
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<tr>
<td>H-6</td>
<td>127+76; 103' LT</td>
<td>I-20</td>
<td>917.1</td>
<td>H-6</td>
<td>127+76; 93' LT</td>
<td>917.1</td>
<td>21.5 (cave)</td>
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<tr>
<td>H-7</td>
<td>139+16; 114' RT</td>
<td>I-20</td>
<td>935.3</td>
<td>H-7</td>
<td>139+16; 114' RT</td>
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<td>NE</td>
</tr>
<tr>
<td>H-8</td>
<td>135+56; 133' LT</td>
<td>I-20</td>
<td>942.3</td>
<td>H-8</td>
<td>135+56; 133' LT</td>
<td>942.3</td>
<td>NE</td>
</tr>
<tr>
<td>H-9</td>
<td>147+89; 91' RT</td>
<td>I-20</td>
<td>941.1</td>
<td>H-9</td>
<td>147+89; 91' RT</td>
<td>941.1</td>
<td>19 (TOB)</td>
</tr>
<tr>
<td>H-10</td>
<td>143+32; 80' LT</td>
<td>I-20</td>
<td>930.6</td>
<td>H-10</td>
<td>143+32; 80' LT</td>
<td>930.6</td>
<td>6</td>
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<tr>
<td>H-11</td>
<td>405+59; 70' RT</td>
<td>I-20</td>
<td>790</td>
<td>H-11</td>
<td>405+59; 70' RT</td>
<td>790</td>
<td>13 (TOB)</td>
</tr>
<tr>
<td>H-12</td>
<td>152+74; 82' LT</td>
<td>I-20</td>
<td>948.5</td>
<td>H-12</td>
<td>152+74; 82' LT</td>
<td>948.5</td>
<td>15</td>
</tr>
<tr>
<td>H-13</td>
<td>409+35; 68' RT</td>
<td>I-20</td>
<td>790</td>
<td>H-13</td>
<td>409+35; 68' RT</td>
<td>790</td>
<td>8</td>
</tr>
<tr>
<td>H-14</td>
<td>413+35; 80' LT</td>
<td>I-20</td>
<td>789.4</td>
<td>H-14</td>
<td>413+35; 80' LT</td>
<td>789.4</td>
<td>5.3</td>
</tr>
<tr>
<td>H-15</td>
<td>416+05; 83' RT</td>
<td>I-20</td>
<td>797.2</td>
<td>H-15</td>
<td>416+05; 83' RT</td>
<td>797.2</td>
<td>10 (TOB)</td>
</tr>
<tr>
<td>H-16</td>
<td>419+19; 89' LT</td>
<td>I-20</td>
<td>798.7</td>
<td>H-16</td>
<td>419+19; 89' LT</td>
<td>798.7</td>
<td>16.5 (cave)</td>
</tr>
<tr>
<td>H-17</td>
<td>423+27; 119' RT</td>
<td>I-20</td>
<td>820.2</td>
<td>H-17</td>
<td>423+27; 119' RT</td>
<td>820.2</td>
<td>NE</td>
</tr>
<tr>
<td>H-18</td>
<td>427+18; 120' LT</td>
<td>I-20</td>
<td>822.5</td>
<td>H-18</td>
<td>427+18; 106' LT</td>
<td>826</td>
<td>12.6</td>
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<tr>
<td>H-19</td>
<td>430+58; 94' RT</td>
<td>I-20</td>
<td>830</td>
<td>H-19</td>
<td>430+58; 94' RT</td>
<td>830</td>
<td>16 (TOB)</td>
</tr>
<tr>
<td>H-20</td>
<td>435+07; 165' LT</td>
<td>I-20</td>
<td>858.1</td>
<td>H-20</td>
<td>435+07; 165' LT</td>
<td>858.1</td>
<td>19 (cave)</td>
</tr>
<tr>
<td>H-21</td>
<td>434+75; 215' LT</td>
<td>I-20</td>
<td>860.7</td>
<td>H-21</td>
<td>434+75; 215' LT</td>
<td>860.7</td>
<td>NE</td>
</tr>
<tr>
<td>H-22</td>
<td>443+56; 109' LT</td>
<td>I-20</td>
<td>836.4</td>
<td>H-22</td>
<td>443+56; 109' LT</td>
<td>836.4</td>
<td>21.5 (cave)</td>
</tr>
</tbody>
</table>
### Light Tower Foundation Investigation Report

#### Lighting Improvements at I-20 Interchanges with Sigman Road (CR 66) and Salem Road (SR 162)

**PI No. 0015099**  
**Rockdale County, Georgia**  
**Willmer Project No. ATL-71.4289**  
**Page 4**

**Table: Light Tower Location and Boring Details**

<table>
<thead>
<tr>
<th>Light Tower No.</th>
<th>Light Tower Location¹ (Alignment)</th>
<th>Baseline</th>
<th>Ground Surface Elevation at Tower Location² (feet)</th>
<th>Boring No.</th>
<th>Approximate Boring Location¹</th>
<th>Ground Surface Elevation at Boring Location² (feet)</th>
<th>Groundwater / Cave Depth³ (feet)</th>
</tr>
</thead>
<tbody>
<tr>
<td>H-23</td>
<td>439+63; 93' RT</td>
<td>I-20</td>
<td>840</td>
<td>H-23</td>
<td>439+63; 93' RT</td>
<td>840</td>
<td>19 (cave)</td>
</tr>
<tr>
<td>H-24</td>
<td>447+56; 82' LT</td>
<td>I-20</td>
<td>845</td>
<td>H-24</td>
<td>447+56; 82' LT</td>
<td>845</td>
<td>16.6 (cave)</td>
</tr>
<tr>
<td>H-26</td>
<td>451+37; 69' LT</td>
<td>I-20</td>
<td>852.4</td>
<td>H-26</td>
<td>451+37; 59' LT</td>
<td>854</td>
<td>NE</td>
</tr>
<tr>
<td>H-28</td>
<td>455+29; 68' LT</td>
<td>I-20</td>
<td>850</td>
<td>H-28</td>
<td>455+29; 58' LT</td>
<td>852</td>
<td>19 (cave)</td>
</tr>
<tr>
<td>H-30</td>
<td>459+11; 63' LT</td>
<td>I-20</td>
<td>850</td>
<td>H-30</td>
<td>459+11; 53' LT</td>
<td>852</td>
<td>19 (cave)</td>
</tr>
<tr>
<td>H-32</td>
<td>462+88; 64' RT</td>
<td>I-20</td>
<td>847.2</td>
<td>H-32</td>
<td>462+88; 54' RT</td>
<td>849</td>
<td>17 (cave)</td>
</tr>
</tbody>
</table>

**Notes:**
1. Stations and offsets for the tower and boring locations are based on I-20 centerline stationing provided to us by Volkert.
2. Ground surface elevations at the tower and boring locations are based on topographic drawings provided to us by Volkert.
3. Groundwater levels recorded 24+ hours after boring completion unless noted otherwise. Stabilized groundwater levels are expected to be similar to the groundwater levels measured at 24+ hours. The water levels measured at the time of boring (TOB) are generally lower than the 24+ hour readings and are not representative of the stabilized groundwater level.

**Abbreviations:**
- TOB = Time of Boring
- NE = None Encountered
Foundation recommendations were based on the following maximum service loads at the base of the towers, provided to us by Volkert:

<table>
<thead>
<tr>
<th>Load Type</th>
<th>Value</th>
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</thead>
<tbody>
<tr>
<td>Axial Load</td>
<td>10.5 kips</td>
</tr>
<tr>
<td>Lateral Load</td>
<td>3.1 kips</td>
</tr>
<tr>
<td>Moment</td>
<td>175.8 ft-kips</td>
</tr>
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</table>

A total of 24 borings were drilled to 20 feet or deeper below the proposed base elevation of the tower without encountering auger refusal. We recommend that the high-mast light towers H-1, H-3 through H-7, H-9, and H-11 through H-28 be founded on 20-foot long, 48-inch diameter drilled shafts in accordance with GDOT standard design.

Borings H-2, H-10, and H-17 encountered rock at depths of 15.5, 17, and 19 feet below the proposed base elevation of the tower, respectively. We recommend that the towers at these locations be founded on 48-inch diameter drilled shafts socketed into rock to a total shaft length of 20 feet, or socketed a minimum of 4 feet into rock, whichever is shallower.

At boring H-8, auger refusal was encountered at 7.5 feet below the proposed base elevation of the tower. We recommend that this tower be founded on a 48-inch diameter drilled shaft socketed at least 4 feet into rock with a minimum total shaft length of 10 feet below the final grade.

As an alternative, tower H-8 may be founded on a spread footing on rock embedded a minimum of 1-foot into rock. We recommend an allowable bearing pressure of 20 ksf and an estimated footing bottom elevation of 934 feet.

It should be noted that at tower location H-21, auger refusal on boulder in the existing fill was encountered at depths ranging from 5 to 10 feet below the proposed base elevation at offset borings located within 10 feet from the tower location. Therefore, boulders may be encountered during drilled shaft installation.
Groundwater was encountered above the proposed drilled shaft tip elevations at the following 13 boring locations:

- H-1
- H-3 and H-4
- H-9 through H-16
- H-18 and H-19

Temporary casing and/or dewatering will be required during excavation. Tremie method may need to be used to place the concrete in the shafts if the excavations cannot be dewatered.

It should be noted that groundwater levels are expected to fluctuate due to seasonal variations and weather conditions. Therefore, the groundwater elevations encountered during construction can be different from those encountered in our borings. It should also be noted that actual groundwater levels are expected to be higher than those measured at the time of boring.

Reported By: Justin Dunlap / Daniel C. Pitts, PE

Reviewed By: James L. Willmer, PE
FIGURES
FIGURE 1
PROJECT LOCATION MAP
HIGH-MAST LIGHT FOUNDATION INVESTIGATION
LIGHTING IMPROVEMENTS AT I-20 INTERCHANGES
WITH SIGMAN ROAD AND SALEM ROAD
ROCKDALE COUNTY, GEORGIA
WILLMER PROJECT ATL-71.4289

SOURCE: DELORME STREET ATLAS 2015
SCALE: 1" = 1 MILE
DATE: 6/14/2018
DRAWN BY: JC
REVIEWED BY: JD

APPROXIMATE PROJECT LOCATION AT SIGMAN ROAD
APPROXIMATE PROJECT LOCATION AT SALEM ROAD

FOR INFORMATION ONLY

SOURCE: PI No. 0015099
GDOT PROJECT NUMBER
P:\4289 Volkert Lighting Improvements at Sigman Road & Salem Rd I-20\CADD\FIG 1 PROJECT LOCATION.dwg
FIGURE 2A
BORING LOCATION PLAN AT SIGMAN ROAD
HIGH-MAST LIGHT FOUNDATION INVESTIGATION
LIGHTING IMPROVEMENTS AT I-20 INTERCHANGES
WITH SIGMAN ROAD AND SALEM ROAD
ROCKDALE COUNTY, GEORGIA
WILLMER PROJECT ATL-71.4289

SCALE: 1" = 500'
DATE: 6/14/2018
DRAWN BY: DS
REVIEWED BY: JD

LEGEND:

BORING LOCATION

H - 1
H - 2
H - 3
H - 4
H - 5
H - 6
H - 7
H - 8
H - 9
H - 10
H - 11
H - 12

SOURCE: GOOGLE MAPS
FIGURE 2B
BORING LOCATION PLAN AT SALEM ROAD HIGH-MAST LIGHT FOUNDATION INVESTIGATION
LIGHTING IMPROVEMENTS AT I-20 INTERCHANGES WITH SIGMAN ROAD AND SALEM ROAD
ROCKDALE COUNTY, GEORGIA
WILLMER PROJECT ATL-71.4289

LEGEND:

BORING LOCATION

SOURCE: GOOGLE MAPS

SCALE: 1" = 600'

DATE: 6/14/2018
DRAWN BY: DS
REVIEWED BY: JD

GDOT PROJECT NUMBER
Pi No. 0015099

FOR INFORMATION ONLY
FIGURE 3 (SHEET 3 OF 7)
BORING LOCATION PLAN
HIGH-MAST LIGHT FOUNDATION INVESTIGATION
LIGHTING IMPROVEMENTS AT I-20 INTERCHANGES
WITH SIGMAN ROAD AND SALEM ROAD
ROCKDALE COUNTY, GEORGIA
WILLMER PROJECT ATL-71.4289

SCALE: 1" = 200'
DATE: 6/14/2018
DRAWN BY: DS
REVIEWED BY: JD

BASED DRAWING PROVIDED BY VOLKERT

LEGEND:

H - 7 BORING LOCATION

GDOT PROJECT NUMBER
PI No. 0015099

FIGURE 3 (SHEET 3 OF 7)
BORING LOCATION PLAN
HIGH-MAST LIGHT FOUNDATION INVESTIGATION
LIGHTING IMPROVEMENTS AT I-20 INTERCHANGES
WITH SIGMAN ROAD AND SALEM ROAD
ROCKDALE COUNTY, GEORGIA
WILLMER PROJECT ATL-71.4289

P.4289 Volkert Lighting Improvements at Sigman Road & Salem Rd I-20\CADD\FIG 3 BORING LOCATION PLAN.dwg

FOR INFORMATION ONLY
LEGEND:

H - 11  BORING LOCATION

BASED DRAWING PROVIDED BY VOLKERT

SCALE: 1" = 200'

DATE: 6/14/2018
DRAWN BY: DS
REVIEWED BY: JD

GDOT PROJECT NUMBER
PI No. 0015099

FIGURE 3 (SHEET 4 OF 7)
BORING LOCATION PLAN
HIGH-MAST LIGHT FOUNDATION INVESTIGATION
LIGHTING IMPROVEMENTS AT I-20 INTERCHANGES
WITH SIGMAN ROAD AND SALEM ROAD
ROCKDALE COUNTY, GEORGIA
WILLMER PROJECT ATL-71.4289

FOR INFORMATION ONLY
FIGURE 3 (SHEET 5 OF 7)
BORING LOCATION PLAN
HIGH-MAST LIGHT FOUNDATION INVESTIGATION
LIGHTING IMPROVEMENTS AT I-20 INTERCHANGES
WITH SIGMAN ROAD AND SALEM ROAD
ROCKDALE COUNTY, GEORGIA
WILLMER PROJECT ATL-71.4289

GDOT PROJECT NUMBER
PI No. 0015099

SCALE: 1" = 200'

DATE: 6/14/2018
DRAWN BY: DS
REVIEWED BY: JD

LEGEND:

BORING LOCATION

BASED DRAWING PROVIDED BY VOLKERT

FOR INFORMATION ONLY
FIGURE 3 (SHEET 6 OF 7)
BORING LOCATION PLAN
HIGH-MAST LIGHT FOUNDATION INVESTIGATION
LIGHTING IMPROVEMENTS AT I-20 INTERCHANGES
WITH SIGNMAN ROAD AND SALEM ROAD
ROCKDALE COUNTY, GEORGIA
WILLMER PROJECT ATL-71.4289

SCALE: 1" = 200'
DATE: 6/14/2018
DRAWN BY: DS
REVIEWS BY: JD

GDOT PROJECT NUMBER
PI No. 0015099

LEGEND:

H - 22 BORING LOCATION

BASED DRAWING PROVIDED BY VOLKERT

MATCHLINE STA. 455+00
(SEE SHEET 5 OF 7)
MATCHLINE STA. 436+00
(SEE SHEET 5 OF 7)

FOR INFORMATION ONLY
SM, CL, etc: - GROUP SYMBOL based on Unified Soil Classification System. 
(Refer to ASTM D-2488 and Table 1 of D-2487)

N-VALUE: BLOWS PER FOOT: Standard Penetration Resistance (SPT) blow count, 
the sum of the second and third 6-inch increments of the SPT test. 
(Refer to ASTM D-1586)

CONSISTENCY / RELATIVE DENSITY Correlated with SPT Blow Count, N:

<table>
<thead>
<tr>
<th>SILTS AND CLAYS</th>
<th>SANDS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>N (blows per foot)</strong></td>
<td><strong>Consistency</strong></td>
</tr>
<tr>
<td>0 - 2</td>
<td>Very Soft</td>
</tr>
<tr>
<td>3 - 4</td>
<td>Soft</td>
</tr>
<tr>
<td>5 - 8</td>
<td>Firm</td>
</tr>
<tr>
<td>9 - 15</td>
<td>Stiff</td>
</tr>
<tr>
<td>16 - 30</td>
<td>Very Stiff</td>
</tr>
<tr>
<td>31 - 50</td>
<td>Hard</td>
</tr>
<tr>
<td>&gt; 50</td>
<td>Very Hard</td>
</tr>
</tbody>
</table>

**NOTES:**
Groundwater Measurements:
- Water level at 24 hours
- Water level at time of boring
- Caved level
## Unified Soil Classification System Reference Sheet

<table>
<thead>
<tr>
<th>Major Divisions</th>
<th>Letter Symbol</th>
<th>Typical Descriptions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Coarse Grained Soils</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Gravel and Gravelly Soils</strong></td>
<td>(GW)</td>
<td>Clean Gravels with little or no fines</td>
</tr>
<tr>
<td>(GP)</td>
<td>Poorly graded gravels, gravel-sand mixtures, little or no fines</td>
<td></td>
</tr>
<tr>
<td>(GM)</td>
<td>Silty gravels and gravel-sand-silt mixtures</td>
<td></td>
</tr>
<tr>
<td>(GC)</td>
<td>Clayey gravels and gravel-sand-clay mixtures</td>
<td></td>
</tr>
<tr>
<td><strong>Sand and Sandy Soils</strong></td>
<td>(SW)</td>
<td>Clean sand with little or no fines</td>
</tr>
<tr>
<td>(SP)</td>
<td>Poorly graded sands, gravelly sands, little or no fines</td>
<td></td>
</tr>
<tr>
<td>(SM)</td>
<td>Silty sands and sand-silt mixtures</td>
<td></td>
</tr>
<tr>
<td>(SC)</td>
<td>Clayey sands and sand-clay mixtures</td>
<td></td>
</tr>
<tr>
<td><strong>Fine Grained Soils</strong></td>
<td>(ML)</td>
<td>Inorganic silts and very fine sands, rock flour, silty or very fine sands or clayey silts with slight plasticity</td>
</tr>
<tr>
<td>(CL)</td>
<td>Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays</td>
<td></td>
</tr>
<tr>
<td>(OL)</td>
<td>Organic silts and organic silty clays of low plasticity</td>
<td></td>
</tr>
<tr>
<td><strong>Highly Organic Soils</strong></td>
<td>(MH)</td>
<td>Inorganic elastic silts, micaceous or diatomaceous fine sandy or silty soils</td>
</tr>
<tr>
<td>(CH)</td>
<td>Inorganic clays of high plasticity, fat clays</td>
<td></td>
</tr>
<tr>
<td>(OH)</td>
<td>Organic clays of medium to high plasticity, organic silts</td>
<td></td>
</tr>
<tr>
<td>(PT)</td>
<td>Peat, humus, swamp soils with high organic contents</td>
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</tr>
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</table>
## ENGINEERING DESCRIPTION OF ROCK HARDNESS

<table>
<thead>
<tr>
<th>Hardness</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very hard</td>
<td>Cannot be scratched with knife or sharp pick. Breaking of hand specimens requires several hard blows of geologist's pick.</td>
</tr>
<tr>
<td>Hard</td>
<td>Can be scratched with knife or pick only with difficulty. Hard blow of hammer required to detach hand specimen.</td>
</tr>
<tr>
<td>Moderately hard</td>
<td>Can be scratched with knife or pick, can be excavated by hard blow of point of a geologist's pick. Hand specimens can be detached by moderate blow.</td>
</tr>
<tr>
<td>Medium</td>
<td>Can be grooved or gouged 1/16 inch deep by firm pressure on knife or pick point. Can be excavated in small chips to pieces about 1 inch maximum size by hard blows of the point of a geologist's pick.</td>
</tr>
<tr>
<td>Soft</td>
<td>Can be gouged or grooved readily with knife or pick point. Can be excavated in chips to pieces several inches in size by moderate blows of a pick point. Small thin pieces can be broken by finger pressure.</td>
</tr>
<tr>
<td>Very soft</td>
<td>Can be carved with knife. Can be excavated readily with point of pick. Pieces 1 inch or more in thickness can be broken with finger pressure. Can be scratched readily by fingernail.</td>
</tr>
<tr>
<td>Partially Weathered Rock</td>
<td>For engineering purposes, partially weathered rock (PWR) is locally defined as residual soils exhibiting Standard Penetration Test N-values in excess of 50 blows for 6 inches of penetration.</td>
</tr>
</tbody>
</table>
TOPSOIL = 3”

RESIDUUM: Firm and stiff tan and brown fine sandy Silt (very micaceous)

- becomes orange

- becomes tan, brown, and grey

Firm to stiff brown, black, and orange medium to fine sandy Silt (very micaceous)

Boring was terminated at 30 feet below the existing ground surface.

Groundwater was encountered at 13.5 feet below the existing ground surface at the time of boring completion.

The boring caved at 24 feet below the existing ground surface at the time of boring completion.
### Topsoil = 3"
- Medium dense brown and tan clayey medium to fine sand
- Becomes micaceous

### Residuum: Medium dense brown and tan clayey medium to fine sand
- Becomes micaceous

### Partially Weathered Rock:
- Sampled as very hard brown and tan medium to fine sandy silt
  - (micaceous)

### Rock:
- Moderately hard to soft light grey and black medium to coarse grained biotitic gneiss
- Lens of partially weathered rock was encountered from 17.5 to 18.5 feet below existing ground surface.

Auger refusal was encountered at 15.5 feet below the existing ground surface. One offset boring was performed 5 feet south of H-2 and encountered auger refusal at 16 feet below the existing ground surface.

Coring was terminated at 20.5 feet below the existing ground surface.

No groundwater was encountered at the time of boring completion.
Rock Core obtained from H-2
Core Run #1: 15.5-20.5 ft. bgs
Recovery = 85%
RQD = 58%
**TOPSOIL = 3"**

**RESIDUUM:** Firm reddish brown medium to fine sandy SILT (very micaceous)

Firm to very soft brown medium to fine sandy CLAY (micaceous)

- becomes tan and brown
- becomes grey and white

Loose to medium dense tan and white clayey medium to fine SAND

- becomes micaceous

Boring was terminated at 40 feet below the existing ground surface.

Groundwater was encountered at 13.5 feet below the existing ground surface at the time of boring completion.

The boring caved at 16 feet below the existing ground surface at the time of boring completion.
TOPSOIL = 3"

RESIDUUM: Medium dense and loose red clayey medium to fine SAND (micaceous)

Stiff brown, tan, and orange medium to fine sandy SILT (very micaceous)

- becomes white, tan, and brown

- becomes brown and black

PARTIALLY WEATHERED ROCK:
Sampled as very dense brown and black silty medium to fine SAND

Boring was terminated at 30 feet below the existing ground surface.

Groundwater was encountered at 13.5 feet and 9 feet below the existing ground surface at the time of boring completion and at 24 hours after boring completion, respectively.

The boring caved at 16 feet below the existing ground surface at 24 hours after boring completion.
TOPSOIL = 3"

RESIDUUM: Medium dense and loose tan, white, and reddish brown (mottled black) silty medium to fine SAND (micaceous)

Medium dense tan (mottled black) silty medium to fine SAND

Boring was terminated at 30 feet below the existing ground surface.

Groundwater was encountered at 20 feet below the existing ground surface at the time of boring completion.

The boring caved at 23.5 feet below the existing ground surface at the time of boring completion.
The boring was offset 10 feet west of the proposed tower location.

Boring was terminated at 30 feet below the existing ground surface.

No groundwater was encountered at the time of boring completion.

The boring caved at 21.5 feet below the existing ground surface at the time of boring completion.
TOPSOIL = 3"
FILL: Loose brown clayey medium to fine SAND with rock fragments

RESIDUUM: Medium dense tan clayey medium to fine SAND
- becomes tan and white
- becomes tan and orange (mottled black)

The boring was offset 10 feet south of the proposed tower location.

Boring was terminated at 30 feet below the existing ground surface.

Auger refusal was encountered at 3 feet below the existing ground surface. One offset boring was performed 5 feet north of H-7 and encountered auger refusal at 5 feet below the existing ground surface.

No groundwater was encountered at the time of boring completion.
SS - Split Spoon
ST - Shelby Tube
NQ - Rock Core, 1-7/8"

NX - Rock Core, 2-1/8"
CU - Cuttings
CT - Continuous Tube

HSA - Hollow Stem Auger
CFA - Continuous Flight Augers
DC - Driving Casing

RW - Rotary Wash
RC - Rock Core

<table>
<thead>
<tr>
<th>VERTICAL DEPTH (ft)</th>
<th>GRAPHIC LOG</th>
<th>SAMPLE TYPE</th>
<th>REC%</th>
<th>RQD %</th>
<th>MATERIAL DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td></td>
<td>SS</td>
<td></td>
<td></td>
<td>TOPSOIL = 3&quot;</td>
</tr>
<tr>
<td>5</td>
<td></td>
<td>SS</td>
<td></td>
<td></td>
<td>RESIDUUM: Medium dense orange and brown silty medium to fine SAND (micaceous)</td>
</tr>
<tr>
<td>10</td>
<td></td>
<td>SS</td>
<td></td>
<td></td>
<td>PARTIALLY WEATHERED ROCK: Sampled as very dense tan and brown silty medium to fine SAND (micaceous)</td>
</tr>
<tr>
<td>15</td>
<td></td>
<td>NQ 97</td>
<td>97</td>
<td></td>
<td>ROCK: Very hard to hard light grey and black medium to coarse grained BIOTITIC GRANITE</td>
</tr>
</tbody>
</table>

Auger refusal was encountered at 7.5 feet below the existing ground surface. One offset boring was performed 5 feet south of H-7 and encountered auger refusal at 10 feet below the existing ground surface.

Coring was terminated at 17.5 feet below the existing ground surface.

No groundwater was encountered at the time of boring completion.
Rock Core Photographs
Lighting Improvements at I-20 Interchanges with Sigman Road (CR 66) and Salem Road (SR 162)
GDOT Project No. 0015099
Rockdale County, Georgia
Willmer Project No. ATL-71.4289

Rock Core obtained from H-8
Core Run #1: 7.5-12.5 ft. bgs
   Recovery = 97%
   RQD = 97%

Core Run #2: 12.5-17.5 ft. bgs
   Recovery = 100%
   RQD = 100%
SS - Split Spoon
ST - Shelby Tube
NQ - Rock Core, 1-7/8"

TOPSOIL = 3"

RESIDUUM: Firm to stiff orange and brown medium to fine sandy CLAY

Medium dense to loose tan clayey medium to fine SAND

- becomes coarse to fine with rock fragments

Medium dense tan, white, and black clayey medium to fine SAND with rock fragments (slightly micaceous)

Boring was terminated at 30 feet below the existing ground surface.

Groundwater was encountered at 19 feet below the existing ground surface at the time of boring completion.

The boring caved at 24 feet below the existing ground surface at the time of boring completion.
**Material Description**

- **TOPSOIL = 3"**
- **RESIDUUM**: Medium dense to loose brown clayey medium to fine **SAND**
  - becomes tan and micaceous

- **Medium dense brown, tan, and orange silty medium to fine **SAND** (micaceous)

- **PARTIALLY WEATHERED ROCK**: Sampled as very dense white, tan, and black silty medium to fine **SAND** (micaceous)

- **ROCK**: Very hard to hard light grey and black medium to coarse grained **BIOTITIC GRANITE**

Auger refusal was encountered at 17 feet below the existing ground surface. One offset boring was performed 5 feet north of H-10 and encountered auger refusal at 14 feet below the existing ground surface.

Coring was terminated at 22 feet below the existing ground surface.

Groundwater was encountered at 8.5 feet and 6 feet below the existing ground surface at the time of boring completion and at 24 hours after boring completion, respectively.
**Rock Core obtained from H-10**

Core Run #1: 17-22 ft. bgs  
Recovery = 98%  
RQD = 98%
TOPSOIL = 3"

RESIDUUM: Medium dense brown, orange, and grey silty medium to fine SAND (slightly micaceous)

PARTIALLY WEATHERED ROCK:
Sampled as very dense grey, white, and black clayey medium to fine SAND (micaceous)

RESIDUUM: Very stiff fine sandy SILT (very micaceous)

PARTIALLY WEATHERED ROCK:
Sampled as very hard brown, white, and black medium to fine sandy SILT (very micaceous)

Auger refusal was encountered at 20 feet below the existing ground surface.

Groundwater was encountered at 13 feet below the existing ground surface at the time of boring completion.

The boring caved at 16 feet below the existing ground surface at the time of boring completion.
TOPSOIL = 3”

RESIDUUM: Medium dense tan and reddish brown clayey medium to fine SAND (micaceous)

Stiff tan and reddish brown medium to fine sandy SILT (micaceous)

Firm to stiff white, tan, and reddish brown medium to fine sandy SILT

- becomes mottled black

Boring was terminated at 30 feet below the existing ground surface.

Groundwater was encountered at 19 feet and 15 feet below the existing ground surface at the time of boring completion and at 24 hours after boring completion, respectively.

The boring caved at 20 feet below the existing ground surface at the time of boring completion.

**Standard Penetration Test Data**

<table>
<thead>
<tr>
<th>Elevation (feet)</th>
<th>5</th>
<th>10</th>
<th>20</th>
<th>40</th>
<th>60</th>
<th>80</th>
</tr>
</thead>
<tbody>
<tr>
<td>N-value</td>
<td>11</td>
<td>18</td>
<td>11</td>
<td>10</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Sample Type**

- SS - Split Spoon
- ST - Shelby Tube
- NQ - Rock Core, 1-7/8"
TOPSOIL = 3"
Fill: Very stiff to stiff red and tan medium to fine sandy CLAY (micaceous)

ALLUVIUM: Firm to soft grey, white, and tan medium to fine sandy CLAY (micaceous)

RESIDUUM: Soft to stiff brown fine sandy SILT

Medium dense black and tan silty medium to fine SAND (micaceous)

Boring was terminated at 35 feet below the existing ground surface.

One undisturbed Shelby tube sample was taken at an offset location 2 feet south of H-13 from a depth of 6 to 8 feet below the existing ground surface.

Groundwater was encountered at 6 feet and 8 feet below the existing ground surface at the time of boring completion and at 24 hours after boring completion, respectively.

The boring caved at 17 feet below the existing ground surface at the time of boring completion.
TOPSOIL = 3"

RESIDUUM: Loose and medium dense tan clayey medium to fine SAND (micaceous)

Firm to soft tan medium to fine sandy SILT (micaceous)

Firm to stiff brown and tan medium to fine sandy SILT

Boring was terminated at 40 feet below the existing ground surface.

One undisturbed Shelby tube sample was attempted from a depth of 20 to 22 feet below the existing ground surface.

Groundwater was encountered at 10.5 feet and 5.3 feet below the existing ground surface at the time of boring completion and at 24 hours after boring completion, respectively.
The boring caved at 13 feet below the existing ground surface at the time of boring completion.
TOPSOIL = 3"

FILL: Loose red and brown clayey medium to fine SAND with root fragments (micaceous)

Medium dense brown, tan, and white clayey coarse to fine SAND (micaceous)

RESIDUUM: Loose to very dense brown silty medium to fine SAND (micaceous)

Dense tan, white, and black silty medium to fine SAND with rock fragments

PARTIALLY WEATHERED ROCK:
Sampled as very dense black and white silty medium to fine SAND (micaceous)

Boring was terminated at 30 feet below the existing ground surface.

Groundwater was encountered at 10 feet below the existing ground surface at the time of boring completion.

The boring caved at 12 feet below the existing ground surface at the time of boring completion.
Project: Lighting Improvements I-20 Interchanges with Sigman Rd and Salem Rd
Location: Rockdale County, Georgia
Project Number: ATL-71.4289

BORING No. H-16
Location: SEE FIGURE 2

Azimuth: -- Angle from Horizontal: 90 Surface Elevation (ft): 798.70 Station: 419+19; 89' LT

Drilling Equipment: TRACK-MOUNTED CME 45 Drilling Method: HSA - Automatic Hammer

Core Boxes: NA Samples: 9 Overburden (ft): NA Rock (ft): NA Total Depth (ft): 30.0

Logged By: JRD Date Drilled: 5/4/18

TOPSOIL = 3”
FILL: Loose brown silty medium to fine SAND (micaceous)
Very loose brown clayey medium to fine SAND (micaceous)
ALLUVIUM: Loose brown and grey clayey medium to fine SAND (micaceous)
Very soft grey medium to fine sandy CLAY
RESIDUUM: Loose tan silty medium to fine SAND (very micaceous)
Loose to medium dense tan, brown, and white silty coarse to fine SAND (micaceous)

Boring was terminated at 30 feet below the existing ground surface.

One undisturbed shelby tube sample was taken from a depth of 10 to 12 feet below the existing ground surface.

No groundwater was encountered at the time of boring completion.

The boring caved at 16.5 feet below the existing ground surface at the time of boring completion.

FOR INFORMATION ONLY
TOPSOIL = 3"  
RESIDUUM: Loose to medium dense orange silty coarse to fine SAND (slightly micaceous)  
- becomes tan

Loose to medium dense tan (mottled black) silty medium to fine SAND

PARTIALLY WEATHERED ROCK: Sampled as very hard brown and white silty medium to fine SAND (micaceous).  
Auger refusal was encountered at 19 feet below the existing ground surface. One offset boring was performed 5 feet north of H-17 and encountered auger refusal at 19.5 feet below the existing ground surface.  
No groundwater was encountered at the time of boring completion.
**ASPHALT = 6"**

RESIDUUM: Medium dense reddish brown silty medium to fine SAND (micaceous)

Stiff to very stiff reddish brown and tan medium to fine sandy SILT (very micaceous)

**PARTIALLY WEATHERED ROCK:**
Sampled as very hard tan medium to fine sandy SILT (micaceous)

The boring was offset 14 feet west of the proposed tower location.

Auger refusal was encountered at 25 feet below the existing ground surface.

Groundwater was encountered at 14 feet and 12.6 feet below the existing ground surface at the time of boring completion and at 24 hours after boring completion, respectively.

The boring caved at 16 feet below the existing ground surface at the time of boring completion.
TOPSOIL = 3”

FILL: Medium dense tan and brown clayey medium to fine SAND (slightly micaceous)

RESIDUUM: Medium dense tan and brown (mottled black) clayey medium to fine SAND

Stiff tan and brown medium to fine sandy SILT (micaceous)

Stiff tan, white, and brown silty medium to fine SILT (micaceous)

Boring was terminated at 30 feet below the existing ground surface.

Groundwater was encountered at 16 feet below the existing ground surface at the time of boring completion.

The boring caved at 20 feet below the existing ground surface at the time of boring completion.
SS - Split Spoon
ST - Shelby Tube
NQ - Rock Core, 1-7/8"
NX - Rock Core, 2-1/8"  
CU - Cuttings  
CT - Continuous Tube

HSA - Hollow Stem Auger  
CFA - Continuous Flight Augers  
DC - Driving Casing  
RW - Rotary Wash  
RC - Rock Core

**Boring No. H-20**

**Location:** Rockdale County, Georgia  
**Project Number:** ATL-71.4289

**Drilling Equipment:** TRACK-MOUNTED CME 45  
**Drilling Method:** HSA - Automatic Hammer

**Logged By:** JRD  
**Date Drilled:** 5/1/18

---

**MATERIAL DESCRIPTION**

- **TOPSOIL = 4"**
- **FILL:** Loose to medium dense red clayey coarse to fine SAND with rock fragments
- **RESIDUUM:** Stiff to firm tan medium to fine sandy SILT (micaceous)
- **- becomes tan and red**
- **Stiff to very stiff white, pink, and tan medium to fine sandy SILT**
- **PARTIALLY WEATHERED ROCK:**  
  Sampled as very dense white and tan silty coarse to fine SAND  

Boring was terminated at 30 feet below the existing ground surface.

No groundwater was encountered at the time of boring completion.

The boring caved at 19 feet below the existing ground surface at the time of boring completion.
TOPSOIL = 3"

FILL: Loose brown clayey medium to fine SAND (slightly micaceous) with rock fragments

Medium dense brown clayey medium to fine SAND (slightly micaceous) with boulder fill
- Woven geotextile fabric encountered at 8 feet
- Loose brown clayey medium to fine SAND (slightly micaceous) with rock and root fragments

RESIDUUM: Medium dense orange and brown silty medium to fine SAND (micaceous)

Stiff tan and brown fine sandy SILT (micaceous)

Boring was terminated at 30 feet below the existing ground surface.

Three offset borings were performed at 5 feet south, 10 feet south, and 5 feet east of H-21 and encountered auger refusal on possible boulder fill at 6 feet, 5 feet, and 10 feet below the existing ground surface, respectively.

No groundwater was encountered at the time of boring completion.
TOPSOIL = 3”
FILL: Very stiff to stiff red medium to fine sandy CLAY (micaceous)
RESIDUUM: Medium dense to loose tan and brown silty medium to fine SAND (micaceous)
- becomes tan and grey (very micaceous)
- becomes tan and orange
- becomes tan, white and brown

Medium dense tan, white, and brown silty medium to fine SAND

Boring was terminated at 40 feet below the existing ground surface.
No groundwater was encountered at the time of boring completion.
The boring caved at 21.5 feet below the existing ground surface at the time of boring completion.
**Descriptions of Materials:***

- **TOPSOIL = 4"**
- **FILL**: Medium dense grey and brown clayey medium to fine **SAND** with rock fragments
- **RESIDUUM**: Loose brown silty medium to fine **SAND** (very micaceous) - becomes brown and white

**Boring Details:**

- **Boring No.**: H-23
- **Drilling Method**: HSA - Automatic Hammer
- **Drilling Equipment**: TRACK-MOUNTED CME 45
- **Core Boxes**: NA
- **Samples**: 8
- **Overburden (ft)**: NA
- **Rock (ft)**: NA
- **Total Depth (ft)**: 30.0
- **Date Drilled**: 4/30/18

**Standard Penetration Test Data**

<table>
<thead>
<tr>
<th>Elevation (feet)</th>
<th>5</th>
<th>10</th>
<th>20</th>
<th>40</th>
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<td>11</td>
<td>7</td>
<td>8</td>
<td>6</td>
<td>10</td>
</tr>
</tbody>
</table>

**Remarks:**

- Boring was terminated at 30 feet below the existing ground surface.
- No groundwater was encountered at the time of boring completion.
- The boring caved at 19 feet below the existing ground surface at the time of boring completion.
Boring was terminated at 30 feet below the existing ground surface.

No groundwater was encountered at the time of boring completion.

The boring caved at 16.6 feet below the existing ground surface at the time of boring completion.
The boring was offset 10 feet west of the proposed tower location.

Boring was terminated at 30 feet below the existing ground surface.

No groundwater was encountered at the time of boring completion.
The boring was offset 10 feet west of the proposed tower location.

Boring was terminated at 30 feet below the existing ground surface.

No groundwater was encountered at the time of boring completion.

The boring caved at 19 feet below the existing ground surface at the time of boring completion.
**BORING No. H-30**

**Location:** SEE FIGURE 2

**Azimuth:** --  
Angle from Horizontal: **90**  
Surface Elevation (ft): **852.00**  
Station: **459+11; 53’ LT**

**Drilling Equipment:** TRACK-MOUNTED CME 45  
**Drilling Method:** HSA - Automatic Hammer  

**Core Boxes:** NA  
**Samples:** 8  
**Overburden (ft):** NA  
**Rock (ft):** NA  
**Total Depth (ft):** 30.0

Logged By: JRD  
Date Drilled: 4/30/18

**MATERIAL DESCRIPTION**

- **ASPHALT = 6”**
- **FILL:** Loose reddish brown clayey medium to fine SAND (micaceous)
- **RESIDUUM:** Loose and medium dense reddish brown, pink, and white silty medium to fine SAND (micaceous)
- - becomes mottled black
- Medium dense tan, black and white silty medium to fine SAND (very micaceous)

The boring was offset 10 feet west of the proposed tower location.

Boring was terminated at 30 feet below the existing ground surface.

No groundwater was encountered at the time of boring completion.

The boring caved at 19 feet below the existing ground surface at the time of boring completion.
The boring was offset 10 feet west of the proposed tower location.

Boring was terminated at 30 feet below the existing ground surface.

No groundwater was encountered at the time of boring completion.

The boring caved at 17 feet below the existing ground surface at the time of boring completion.
Site Photographs
Lighting Improvements at I-20 Interchanges
with Sigman Road (CR 66) and Salem Road (SR 162)
GDOT Project No. 0015099
Rockdale County, Georgia
Willmer Project No. ATL-71.4289
Sheet 1 of 14

Boring H-1; Looking Southeast; 05/2/2018

Boring H-2; Looking North; 05/2/2018
Site Photographs
Lighting Improvements at I-20 Interchanges
with Sigman Road (CR 66) and Salem Road (SR 162)
GDOT Project No. 0015099
Rockdale County, Georgia
Willmer Project No. ATL-71.4289
Sheet 2 of 14

Boring H-3; Looking South; 05/02/2018

Boring H-4; Looking Southwest; 05/02/2018
Site Photographs
Lighting Improvements at I-20 Interchanges
with Sigman Road (CR 66) and Salem Road (SR 162)
GDOT Project No. 0015099
Rockdale County, Georgia
Willmer Project No. ATL-71.4289
Sheet 3 of 14

Boring H-5; Looking East; 05/02/2018

Boring H-6; Looking North; 05/01/2018
Site Photographs
Lighting Improvements at I-20 Interchanges with Sigman Road (CR 66) and Salem Road (SR 162)
GDOT Project No. 0015099
Rockdale County, Georgia
Willmer Project No. ATL-71.4289
Sheet 5 of 14

Boring H-9; Looking South; 05/03/2018

Boring H-10; Looking South; 05/24/2018
Site Photographs
Lighting Improvements at I-20 Interchanges
with Sigman Road (CR 66) and Salem Road (SR 162)
GDOT Project No. 0015099
Rockdale County, Georgia
Willmer Project No. ATL-71.4289
Sheet 6 of 14

Boring H-11; Looking South; 05/03/2018

Boring H-12; Looking North; 05/03/2018
Site Photographs
Lighting Improvements at I-20 Interchanges
with Sigman Road (CR 66) and Salem Road (SR 162)
GDOT Project No. 0015099
Rockdale County, Georgia
Willmer Project No. ATL-71.4289
Sheet 7 of 14

Boring H-13; Looking South; 05/03/2018

Boring H-14; Looking North; 05/01/2018
Site Photographs
Lighting Improvements at I-20 Interchanges
with Sigman Road (CR 66) and Salem Road (SR 162)
GDOT Project No. 0015099
Rockdale County, Georgia
Willmer Project No. ATL-71.4289
Sheet 8 of 14
Site Photographs
Lighting Improvements at I-20 Interchanges with Sigman Road (CR 66) and Salem Road (SR 162)
GDOT Project No. 0015099
Rockdale County, Georgia
Willmer Project No. ATL-71.4289
Sheet 9 of 14

Boring H-17; Looking West; 05/03/2018

Boring H-18; Looking North; 05/01/2018
Site Photographs
Lighting Improvements at I-20 Interchanges
with Sigman Road (CR 66) and Salem Road (SR 162)
GDOT Project No. 0015099
Rockdale County, Georgia
Willmer Project No. ATL-71.4289
Sheet 11 of 14

Boring H-21; Looking North; 05/25/2018

Boring H-22; Looking East; 05/04/2018
Site Photographs
Lighting Improvements at I-20 Interchanges with Sigman Road (CR 66) and Salem Road (SR 162)
GDOT Project No. 0015099
Rockdale County, Georgia
Willmer Project No. ATL-71.4289
Sheet 12 of 14

Boring H-23; Looking South; 04/30/2018

Boring H-24; Looking South; 05/04/2018
Site Photographs
Lighting Improvements at I-20 Interchanges
with Sigman Road (CR 66) and Salem Road (SR 162)
GDOT Project No. 0015099
Rockdale County, Georgia
Willmer Project No. ATL-71.4289
Sheet 13 of 14

Boring H-26; Looking West; 05/01/2018

Boring H-28; Looking West; 04/30/2018

FOR INFORMATION ONLY
Site Photographs
Lighting Improvements at I-20 Interchanges
with Sigman Road (CR 66) and Salem Road (SR 162)
GDOT Project No. 0015099
Rockdale County, Georgia
Willmer Project No. ATL-71.4289
Sheet 14 of 14

Boring H-30; Looking West; 04/30/2018

Boring H-32; Looking West; 04/30/2018
DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA
INTERDEPARTMENTAL CORRESPONDENCE

FILE
0015099, Rockdale County
PI No. 0015099
I-20 @ CR 66/Sigman Rd & @ SR162 -
Lighting

FROM
Monica L. Flournoy, P.E., State Materials Engineer

TO
Kimberly Nesbitt, P.E., State Program Delivery Administrator
Attn: Oluchukwu Anyaebosi, Project Manager

OFFICE
Materials and Testing
Forest Park, Georgia

DATE
August 29, 2018

SUBJECT
Acceptance of Consultant’s High-Mast Light Tower Foundation Investigation Report

As requested, we have reviewed the High-Mast Light Tower Foundation Investigation Report that was written on June 15, 2018, by Willmer Engineering Inc., of Atlanta, Georgia. This Report is acceptable for use. Copies of this Report should be forwarded to the appropriate Offices by the Project Manager.

The consultant should provide a PDF of the accepted Report to this Office.

If additional information is needed, please contact Michael Murray E.I.T., of the Geotechnical Bureau at 404-608-3728 (Direct) or 404-608-4720 (Main).

MLF: GEF: MM

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