



## SITE NAME: SEMINOLE SQUARE

195 GEORGETOWN RD  
CHARLOTTESVILLE, VA 22901  
ALBEMARLE COUNTY



Know what's below.  
Call before you dig.

NOTE:  
ENVIRONMENTAL CONDITION - LBP ON POWER POLE. EXCAVATED  
SOILS TO BE MANAGED ACCORDING TO SOIL MANAGEMENT PLAN.

### SITE INFORMATION

PROJECT TYPE: NEW BUILD - NON TOWER COLLOCATION  
PROJECT DESCRIPTION: INSTALLATION OF ANTENNAS AND ASSOCIATED EQUIPMENT AT AN EXISTING TRANSMISSION POLE.  
SITE ADDRESS: 195 GEORGETOWN RD  
CHARLOTTESVILLE, VA 22901  
LATITUDE (NAD 83): 38° 03' 54.978"  
LONGITUDE (NAD 83): -78° 30' 20.848"  
GROUND ELEVATION: 800' (AMSL)  
JURISDICTION: ALBEMARLE COUNTY  
ZONING: RURAL AREAS  
PARCEL ID: 060A0-09-00-00400  
PARCEL AREA: 3.8220 ACRES  
PARCEL OWNER: FLINN, MARILYN P BAROTES  
TOWER OWNER: DOMINION VIRGINIA POWER  
701 EAST CARY ST.  
RICHMOND, VA 23219  
STRUCTURE TYPE: TRANSMISSION TOWER  
HEIGHT OF STRUCTURE: 110'-0" (AGL)  
RAD CENTER: 116'-0" (AGL)  
OVERALL HEIGHT OF STRUCTURE: 122'-0" (AGL)  
TOTAL LEASE AREA: 396 SQ. FT.  
POWER PROVIDER: DOMINION VA POWER (888) 837-4966  
TELCO PROVIDER: CENTURYLINK (434) 202-2999  
NATURAL GAS PROVIDER: CITY OF CHARLOTTESVILLE (434) 970-3686

### EMERGENCY INFORMATION:

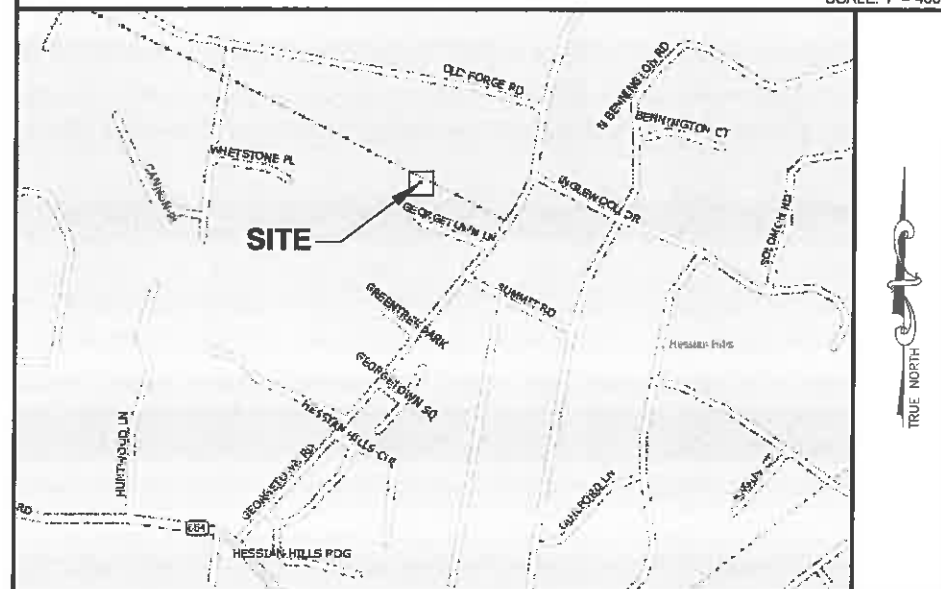
CHARLOTTESVILLE FIRE DEPARTMENT: (434) 970-3240  
CHARLOTTESVILLE POLICE DEPT: (434) 970-3280

### PROJECT TEAM

APPLICANT: VERIZON WIRELESS  
1831 RADY COURT  
RICHMOND, VA 23222  
MERLE DAIGER  
(804) 543-7573  
PROJECT MANAGEMENT FIRM: GDN SITES  
NATHAN HOLLAND  
(757) 305-8420  
ENGINEERING FIRM: NB+C ENGINEERING SERVICES, LLC.  
4435 WATERFRONT DRIVE  
SUITE 100  
GLEN ALLEN, VA 23060

### VICINITY MAP

SCALE: 1" = 4000'



### DIRECTIONS

FROM GOODES BRIDGE R TO US-360E/HULL ST. IMMEDIATE R ONTO CHIPPENHAM PKWY/VA-150. TAKE EXIT TO VA-78N/POWHITE PKWY. CONTINUE ON I-195N. FOLLOW SIGNS FOR I-64 W. TAKE CHARLOTTESVILLE EXIT 118 TO US-29N. TAKE BARRACKS RD./COUNTY 654 EXIT. LEFT ON BARRACKS RD. R AT GEORGETOWN RD. TO DESTINATION ON L.

### CODE COMPLIANCE

ALL WORK AND MATERIALS SHALL BE PERFORMED AND INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNING AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THE LATEST EDITIONS OF THE FOLLOWING CODES.

- 2012 INTERNATIONAL BUILDING CODE
- ANSI/TIA-222-G
- 2011 NATIONAL ELECTRICAL CODE
- TIA 807
- 2009 NFPA 101, LIFE SAFETY CODE
- INSTITUTE FOR ELECTRICAL & ELECTRONICS ENGINEER 81
- 2009 IFC
- IEEE C2 NATIONAL ELECTRIC SAFETY CODE LATEST EDITION
- AMERICAN CONCRETE INSTITUTE
- TELECordia GR-1275
- AMERICAN INSTITUTE OF STEEL CONSTRUCTION
- ANSI/T 311
- MANUAL OF STEEL CONSTRUCTION 13TH EDITION

### DRAWING INDEX

T-1 TITLE SHEET  
Z-1 SITE PLAN  
C-1 COMPOUND PLAN  
C-2 TOWER ELEVATION DETAILS & NOTES  
A-1 GROUND EQUIPMENT LAYOUT  
L-1 LANDSCAPING PLAN  
S-1 CONSTRUCTION DETAILS & NOTES  
S-2 EQUIPMENT CONCRETE PAD & STEEL PLATFORM DETAILS  
S-3 EQUIPMENT STEEL PLATFORM DETAILS  
S-4 GENERATOR DETAILS  
S-5 ANTENNA MOUNT DETAILS  
E-1 ELECTRICAL PLAN & DETAILS  
E-2 ELECTRICAL RISER DIAGRAM & SERVICE ENTRANCE SCHEMATIC  
E-3 ELECTRICAL PANEL SCHEDULE, DIAGRAM & NOTES  
E-4 ELECTRICAL CONDUIT SCHEMATIC  
G-1 GROUNDING PLAN & DETAILS  
G-2 GROUNDING PLAN  
G-3 GROUNDING RISER DIAGRAM, DETAILS & NOTES  
P-1 GAS PIPING DETAILS  
ES-1 EROSION & SEDIMENTATION CONTROL PLAN AND DETAILS  
ES-2 EROSION & SEDIMENTATION CONTROL DETAILS

### DO NOT SCALE DRAWINGS

THESE DRAWINGS ARE FORMATTED TO BE FULL-SIZE AT 24"X36". CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE DESIGNER / ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR MATERIAL ORDERS OR BE RESPONSIBLE FOR THE SAME. CONTRACTOR SHALL USE BEST MANAGEMENT PRACTICE TO PREVENT STORM WATER POLLUTION DURING CONSTRUCTION.

### APPROVAL BLOCK

|                      | DATE | APPROVED                 | APPROVED AS NOTED        | DISAPPROVED/REVISE       |
|----------------------|------|--------------------------|--------------------------|--------------------------|
| PROPERTY OWNER       |      | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| SITE ACQUISITION     |      | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| CONSTRUCTION MANAGER |      | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| ZONING               |      | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| UTILITIES            |      | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

NB+C<sup>TM</sup>  
TOTALLY COMMITTED.

NB+C ENGINEERING SERVICES, LLC.  
4435 WATERFRONT DRIVE, SUITE 100  
GLEN ALLEN, VA 23060  
804-543-4070

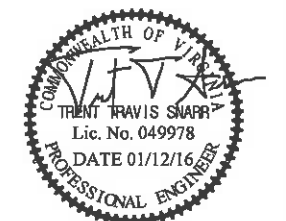
verizonwireless

1831 RADY COURT  
RICHMOND, VA 23222

"SEMINOLE SQUARE"  
VERIZON COLLOCATION  
NB+C PROJ. #27074  
195 GEORGETOWN RD  
CHARLOTTESVILLE, VA 22901  
ALBEMARLE COUNTY

### REVISIONS

| REV | DATE     | DESCRIPTION      | BY  |
|-----|----------|------------------|-----|
| 8   | 01/12/16 | REVISED          | OP  |
| 7   | 12/08/15 | REVISED          | OP  |
| 6   | 08/12/15 | CONSTRUCTION BID | AMM |
| 5   | 06/11/15 | REVISED          | AMM |
| 4   | 04/30/15 | REVISED          | AMM |
| 3   | 02/17/15 | REVISED          | DET |
| 2   | 02/13/15 | REVISED          | DET |
| 1   | 02/08/15 | REVISED          | PJP |
| 0   | 01/30/15 | PRELIMINARY      | DS  |

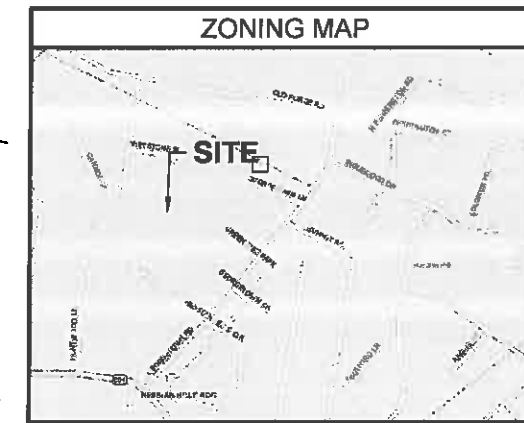
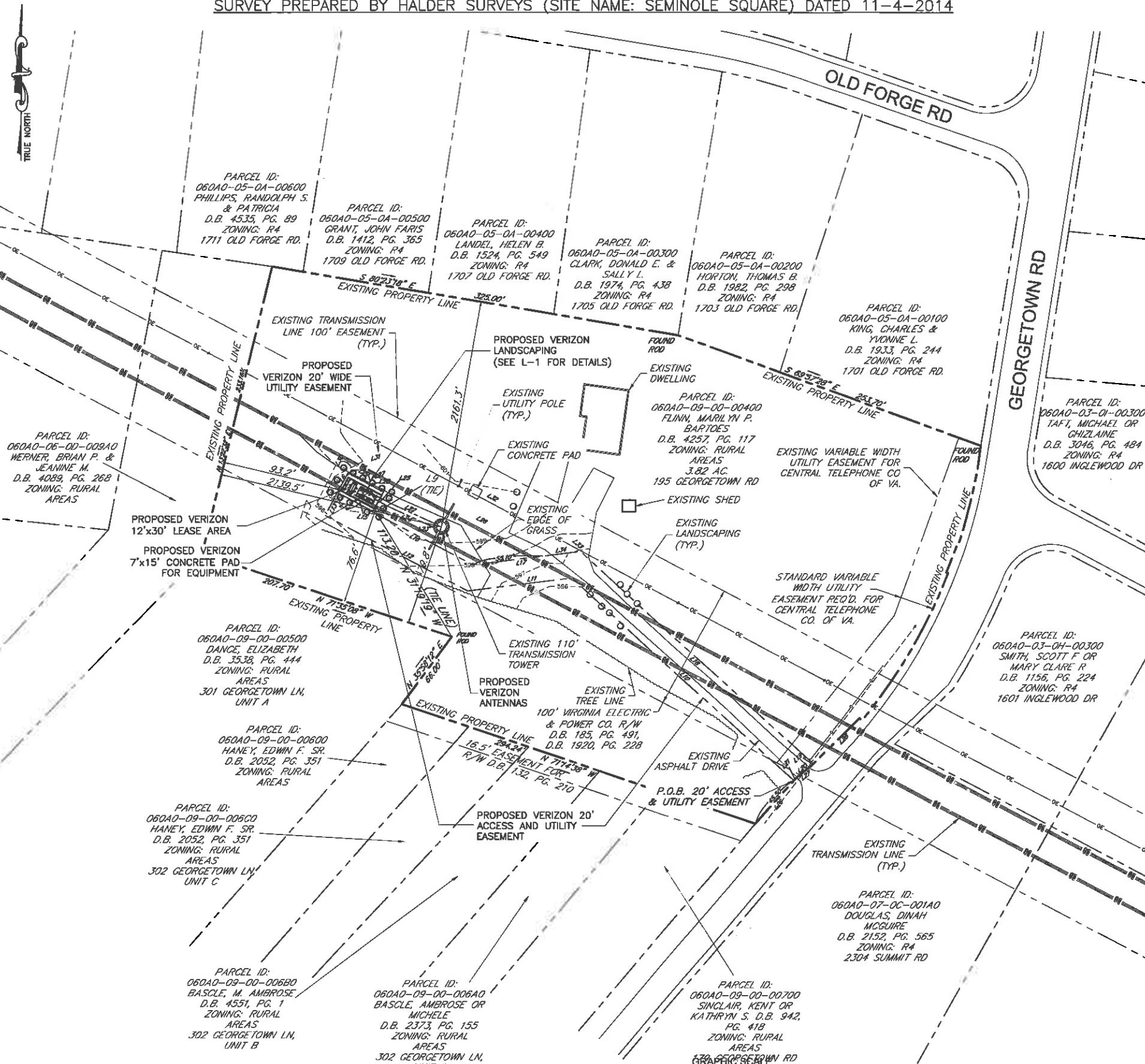


TRENT T. SNARR, P.E.  
VA PROFESSIONAL ENGINEER LIC. #49978

TITLE SHEET

T-1

SURVEY PREPARED BY HALDER SURVEYS (SITE NAME: SEMINOLE SQUARE) DATED 11-4-2014



GENERAL NOTES

1. THIS PLAN IS SUBJECT TO ALL EASEMENTS AND RESTRICTIONS OF RECORD.
  2. NO SIGNIFICANT NOISE, SMOKE, DUST, OR ODOR WILL RESULT FROM THIS FACILITY.
  3. THE FACILITY IS UNMANNED AND NOT INTENDED FOR HUMAN HABITATION. THERE IS NO HANDICAP ACCESS REQUIRED.
  4. THE FACILITY IS UNMANNED AND DOES NOT REQUIRE POTABLE WATER OR SANITARY SERVICE.
  5. POB= POINT OF BEGINNING
  6. LIMITS OF DISTURBANCE= 0.009 ACRES (SEE SHEET ES-1)
  7. ACCORDING TO FEDERAL EMERGENCY MANAGEMENT AGENCY MAPS, THE PROPOSED TELECOMMUNICATIONS SITE IS LOCATED IN ZONE "X", COMMUNITY PANEL NO. 51003C0260D, DATED 02/04/2005.
- A BOUNDARY LINE SURVEY WAS NOT PERFORMED FOR THE PREPARATION OF THIS PLAN. PROPERTY LINES AS SHOWN WERE COMPILED FROM TAX MAPS, DEEDS & PLATS OF RECORD. IT SHOULD NOT BE CONSTRUED AS AN ACCURATE BOUNDARY SURVEY.

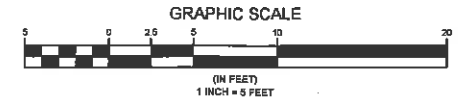
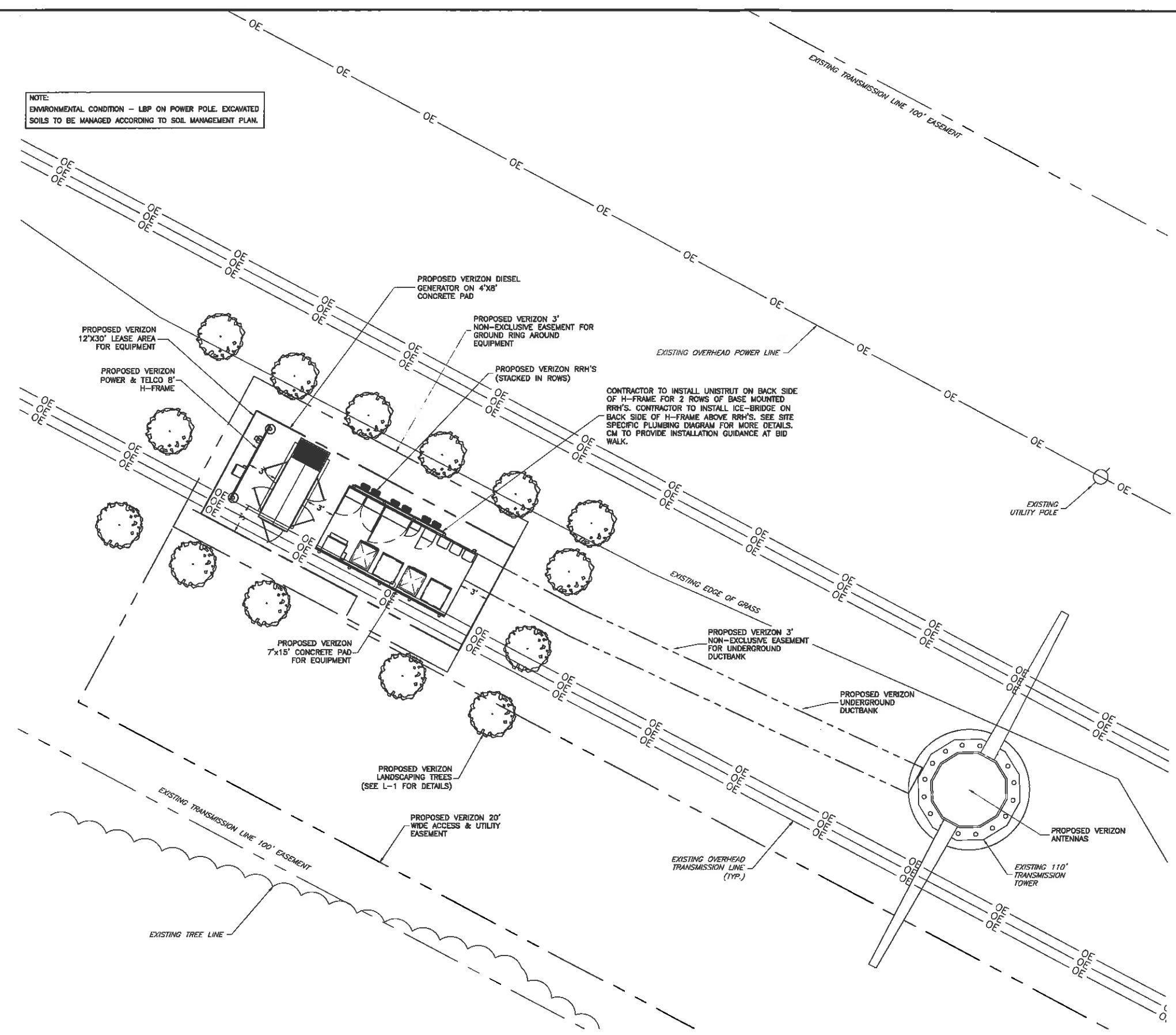
| LINE TABLE |          |               |
|------------|----------|---------------|
| LINE       | LENGTH   | BEARING       |
| L1         | NOT USED |               |
| L2         | NOT USED |               |
| L3         | NOT USED |               |
| L4         | NOT USED |               |
| L5         | 33.00'   | N 61°58'40" W |
| L6         | 12.00'   | N 28°01'20" E |
| L7         | 33.00'   | S 61°58'40" E |
| L8         | 12.00'   | S 28°01'20" W |
| L9         | 4.24'    | N 16°58'40" W |
| L10        | 238.01'  | N 47°38'14" W |
| L11        | 82.43'   | S 82°49'28" W |
| L12        | 127.20'  | N 61°58'40" W |
| L13        | 23.00'   | N 28°01'20" E |
| L14        | 20.00'   | S 61°58'40" E |
| L15        | 3.00'    | S 28°01'20" W |
| L16        | 100.85'  | S 61°58'40" E |
| L17        | 85.32'   | N 82°49'28" E |
| L18        | 249.61'  | S 47°38'14" E |
| L19        | 0.20'    | S 44°50'04" W |
| L20        | 17.22'   | S 50°24'38" W |
| L21        | 2.75'    | S 41°21'29" W |
| L22        | 48.52'   | S 68°35'00" E |
| L23        | 3.00'    | S 21°25'00" W |
| L24        | 48.87'   | N 68°35'00" W |
| L25        | 3.02'    | N 28°01'20" E |
| L26        | 135.74'  | N 61°58'40" W |
| L27        | 14.34'   | S 73°01'20" W |
| L28        | 6.62'    | S 28°01'20" W |
| L29        | 20.00'   | N 61°58'40" W |
| L30        | 14.90'   | N 28°01'20" E |
| L31        | 30.91'   | N 73°01'20" E |
| L32        | 158.62'  | S 61°58'40" E |
| L33        | 10.42'   | S 47°38'14" E |
| L34        | 30.22'   | S 82°49'28" W |



| ENGINEER           | <b>NB+C</b><br>TOTALLY COMMITTED.<br>NB+C ENGINEERING SERVICES, LLC.<br>4436 WATERBURY DRIVE SUITE 100<br>GLEN ALLEN, VA 23060<br>804-648-0070  |                  |     |  |  |   |          |         |    |   |          |         |    |   |          |                  |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |             |    |     |      |             |    |
|--------------------|---|------------------|-----|--|--|---|----------|---------|----|---|----------|---------|----|---|----------|------------------|-----|---|----------|---------|-----|---|----------|---------|-----|---|----------|---------|-----|---|----------|---------|-----|---|----------|---------|-----|---|----------|-------------|----|-----|------|-------------|----|
| APPLICANT          | <b>verizon</b> wireless<br>1831 RADY COURT<br>RICHMOND, VA 23222  |                  |     |  |  |   |          |         |    |   |          |         |    |   |          |                  |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |             |    |     |      |             |    |
| SITE INFORMATION   | "SEMINOLE SQUARE"<br>VERIZON COLLOCATION<br>NB+C PROJ. #27074<br>195 GEORGETOWN RD<br>CHARLOTTESVILLE, VA 22901<br>ALBEMARLE COUNTY   |                  |     |  |  |   |          |         |    |   |          |         |    |   |          |                  |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |             |    |     |      |             |    |
| DESIGN RECORD      | <table><tr><th colspan="4">REVISIONS</th></tr><tr><td>8</td><td>01/12/16</td><td>REVISED</td><td>OP</td></tr><tr><td>7</td><td>12/08/15</td><td>REVISED</td><td>OP</td></tr><tr><td>6</td><td>08/12/15</td><td>CONSTRUCTION BID</td><td>AMM</td></tr><tr><td>5</td><td>08/11/15</td><td>REVISED</td><td>AMM</td></tr><tr><td>4</td><td>04/30/15</td><td>REVISED</td><td>AMM</td></tr><tr><td>3</td><td>02/17/15</td><td>REVISED</td><td>DET</td></tr><tr><td>2</td><td>02/13/15</td><td>REVISED</td><td>DET</td></tr><tr><td>1</td><td>02/06/15</td><td>REVISED</td><td>PJP</td></tr><tr><td>0</td><td>01/30/15</td><td>PRELIMINARY</td><td>DS</td></tr><tr><td>REV</td><td>DATE</td><td>DESCRIPTION</td><td>BY</td></tr></table> | REVISIONS        |     |  |  | 8 | 01/12/16 | REVISED | OP | 7 | 12/08/15 | REVISED | OP | 6 | 08/12/15 | CONSTRUCTION BID | AMM | 5 | 08/11/15 | REVISED | AMM | 4 | 04/30/15 | REVISED | AMM | 3 | 02/17/15 | REVISED | DET | 2 | 02/13/15 | REVISED | DET | 1 | 02/06/15 | REVISED | PJP | 0 | 01/30/15 | PRELIMINARY | DS | REV | DATE | DESCRIPTION | BY |
| REVISIONS          |   |                  |     |  |  |   |          |         |    |   |          |         |    |   |          |                  |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |             |    |     |      |             |    |
| 8                  | 01/12/16  | REVISED          | OP  |  |  |   |          |         |    |   |          |         |    |   |          |                  |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |             |    |     |      |             |    |
| 7                  | 12/08/15  | REVISED          | OP  |  |  |   |          |         |    |   |          |         |    |   |          |                  |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |             |    |     |      |             |    |
| 6                  | 08/12/15  | CONSTRUCTION BID | AMM |  |  |   |          |         |    |   |          |         |    |   |          |                  |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |             |    |     |      |             |    |
| 5                  | 08/11/15  | REVISED          | AMM |  |  |   |          |         |    |   |          |         |    |   |          |                  |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |             |    |     |      |             |    |
| 4                  | 04/30/15  | REVISED          | AMM |  |  |   |          |         |    |   |          |         |    |   |          |                  |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |             |    |     |      |             |    |
| 3                  | 02/17/15  | REVISED          | DET |  |  |   |          |         |    |   |          |         |    |   |          |                  |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |             |    |     |      |             |    |
| 2                  | 02/13/15  | REVISED          | DET |  |  |   |          |         |    |   |          |         |    |   |          |                  |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |             |    |     |      |             |    |
| 1                  | 02/06/15  | REVISED          | PJP |  |  |   |          |         |    |   |          |         |    |   |          |                  |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |             |    |     |      |             |    |
| 0                  | 01/30/15  | PRELIMINARY      | DS  |  |  |   |          |         |    |   |          |         |    |   |          |                  |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |             |    |     |      |             |    |
| REV                | DATE  | DESCRIPTION      | BY  |  |  |   |          |         |    |   |          |         |    |   |          |                  |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |             |    |     |      |             |    |
| PROFESSIONAL STAMP |   |                  |     |  |  |   |          |         |    |   |          |         |    |   |          |                  |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |             |    |     |      |             |    |
| ENGINEER           | TRENT T. SNARR, P.E.<br>VA PROFESSIONAL ENGINEER LIC. #49978  |                  |     |  |  |   |          |         |    |   |          |         |    |   |          |                  |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |             |    |     |      |             |    |
| SHEET TITLE        | <b>SITE PLAN</b>  |                  |     |  |  |   |          |         |    |   |          |         |    |   |          |                  |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |             |    |     |      |             |    |
| SHEET NUMBER       | <b>Z-1</b>  |                  |     |  |  |   |          |         |    |   |          |         |    |   |          |                  |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |             |    |     |      |             |    |



NOTE:  
ENVIRONMENTAL CONDITION - LBP ON POWER POLE. EXCAVATED  
SOILS TO BE MANAGED ACCORDING TO SOIL MANAGEMENT PLAN.



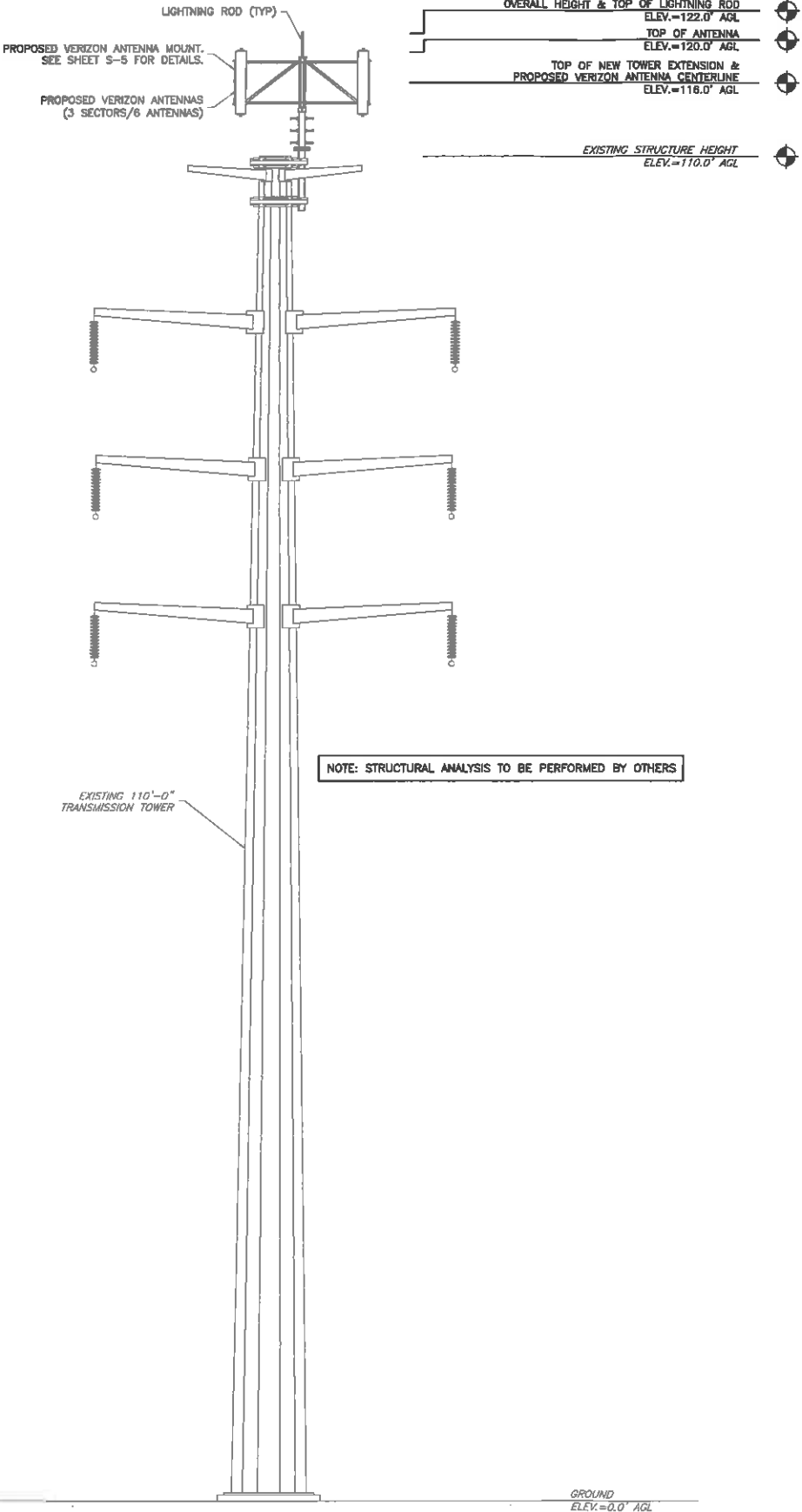
1 COMPOUND PLAN  
C-1 SCALE: 1" = 5'-0"



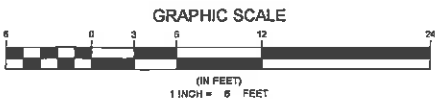
| ENGINEER           | <b>NB+C</b><br>TOTALLY COMMITTED.<br>NB+C ENGINEERING SERVICES, LLC.<br>4435 WATERFRONT DRIVE, SUITE 100<br>CLIFTON HILLS, VA 22009<br>804-616-4078  |                  |     |  |  |     |      |             |    |   |          |         |    |   |          |         |    |   |          |                  |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |             |    |
|--------------------|--|------------------|-----|--|--|-----|------|-------------|----|---|----------|---------|----|---|----------|---------|----|---|----------|------------------|-----|---|----------|---------|-----|---|----------|---------|-----|---|----------|---------|-----|---|----------|---------|-----|---|----------|---------|-----|---|----------|-------------|----|
| APPLICANT          | <b>verizon</b> wireless<br>1831 RADY COURT<br>RICHMOND, VA 23222   |                  |     |  |  |     |      |             |    |   |          |         |    |   |          |         |    |   |          |                  |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |             |    |
| SITE INFORMATION   | "SEMINOLE SQUARE"<br>VERIZON COLLOCATION<br>NB+C PROJ. #27074<br>195 GEORGETOWN RD<br>CHARLOTTESVILLE, VA 22901<br>ALBEMARLE COUNTY  |                  |     |  |  |     |      |             |    |   |          |         |    |   |          |         |    |   |          |                  |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |             |    |
| DESIGN RECORD      | <table border="1"><thead><tr><th colspan="4">REVISIONS</th></tr><tr><th>REV</th><th>DATE</th><th>DESCRIPTION</th><th>BY</th></tr></thead><tbody><tr><td>8</td><td>01/12/16</td><td>REVISED</td><td>OP</td></tr><tr><td>7</td><td>12/08/15</td><td>REVISED</td><td>OP</td></tr><tr><td>6</td><td>08/12/15</td><td>CONSTRUCTION BID</td><td>AMM</td></tr><tr><td>5</td><td>06/11/15</td><td>REVISED</td><td>AMM</td></tr><tr><td>4</td><td>04/30/15</td><td>REVISED</td><td>AMM</td></tr><tr><td>3</td><td>02/17/15</td><td>REVISED</td><td>DET</td></tr><tr><td>2</td><td>02/13/15</td><td>REVISED</td><td>DET</td></tr><tr><td>1</td><td>02/08/15</td><td>REVISED</td><td>PJP</td></tr><tr><td>0</td><td>01/30/15</td><td>PRELIMINARY</td><td>DS</td></tr></tbody></table> | REVISIONS        |     |  |  | REV | DATE | DESCRIPTION | BY | 8 | 01/12/16 | REVISED | OP | 7 | 12/08/15 | REVISED | OP | 6 | 08/12/15 | CONSTRUCTION BID | AMM | 5 | 06/11/15 | REVISED | AMM | 4 | 04/30/15 | REVISED | AMM | 3 | 02/17/15 | REVISED | DET | 2 | 02/13/15 | REVISED | DET | 1 | 02/08/15 | REVISED | PJP | 0 | 01/30/15 | PRELIMINARY | DS |
| REVISIONS          |  |                  |     |  |  |     |      |             |    |   |          |         |    |   |          |         |    |   |          |                  |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |             |    |
| REV                | DATE   | DESCRIPTION      | BY  |  |  |     |      |             |    |   |          |         |    |   |          |         |    |   |          |                  |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |             |    |
| 8                  | 01/12/16   | REVISED          | OP  |  |  |     |      |             |    |   |          |         |    |   |          |         |    |   |          |                  |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |             |    |
| 7                  | 12/08/15   | REVISED          | OP  |  |  |     |      |             |    |   |          |         |    |   |          |         |    |   |          |                  |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |             |    |
| 6                  | 08/12/15   | CONSTRUCTION BID | AMM |  |  |     |      |             |    |   |          |         |    |   |          |         |    |   |          |                  |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |             |    |
| 5                  | 06/11/15   | REVISED          | AMM |  |  |     |      |             |    |   |          |         |    |   |          |         |    |   |          |                  |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |             |    |
| 4                  | 04/30/15   | REVISED          | AMM |  |  |     |      |             |    |   |          |         |    |   |          |         |    |   |          |                  |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |             |    |
| 3                  | 02/17/15   | REVISED          | DET |  |  |     |      |             |    |   |          |         |    |   |          |         |    |   |          |                  |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |             |    |
| 2                  | 02/13/15   | REVISED          | DET |  |  |     |      |             |    |   |          |         |    |   |          |         |    |   |          |                  |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |             |    |
| 1                  | 02/08/15   | REVISED          | PJP |  |  |     |      |             |    |   |          |         |    |   |          |         |    |   |          |                  |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |             |    |
| 0                  | 01/30/15   | PRELIMINARY      | DS  |  |  |     |      |             |    |   |          |         |    |   |          |         |    |   |          |                  |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |             |    |
| PROFESSIONAL STAMP |  |                  |     |  |  |     |      |             |    |   |          |         |    |   |          |         |    |   |          |                  |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |             |    |
| ENGINEER           | TRENT T. SNARR, P.E.<br>VA PROFESSIONAL ENGINEER LIC. #49978   |                  |     |  |  |     |      |             |    |   |          |         |    |   |          |         |    |   |          |                  |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |             |    |
| SHEET TITLE        | COMPOUND PLAN  |                  |     |  |  |     |      |             |    |   |          |         |    |   |          |         |    |   |          |                  |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |             |    |
| SHEET NUMBER       | C-1  |                  |     |  |  |     |      |             |    |   |          |         |    |   |          |         |    |   |          |                  |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |             |    |

GENERAL NOTES

1. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE CODES, ORDINANCES, LAWS AND REGULATIONS OF ALL MUNICIPALITIES, UTILITIES COMPANY OR OTHER PUBLIC AUTHORITIES.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND INSPECTIONS THAT MAY BE REQUIRED BY ANY FEDERAL, STATE, COUNTY OR MUNICIPAL AUTHORITIES.
3. THE CONTRACTOR SHALL NOTIFY THE CONSTRUCTION MANAGER, IN WRITING, OF ANY CONFLICTS, ERRORS OR OMISSIONS PRIOR TO THE SUBMISSION OF BIDS OR PERFORMANCE OF WORK. MINOR OMISSIONS OR ERRORS IN THE BID DOCUMENTS SHALL NOT RELIEVE THE CONTRACTOR FROM RESPONSIBILITY FOR THE OVERALL INTENT OF THESE DRAWINGS.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL EXISTING SITE IMPROVEMENTS PRIOR TO COMMENCING CONSTRUCTION. THE CONTRACTOR SHALL REPAIR ANY DAMAGE CAUSED AS A RESULT OF CONSTRUCTION OF THIS FACILITY.
5. THE SCOPE OF WORK FOR THIS PROJECT SHALL INCLUDE PROVIDING ALL MATERIALS, EQUIPMENT AND LABOR REQUIRED TO COMPLETE THIS PROJECT. ALL EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
6. THE CONTRACTOR SHALL VISIT THE PROJECT SITE PRIOR TO SUBMITTING A BID TO VERIFY THAT THE PROJECT CAN BE CONSTRUCTED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
7. CONTRACTOR SHALL VERIFY ANTENNA ELEVATION AND AZIMUTH WITH THE ENGINEERING PRIOR TO INSTALLATION.
8. TRANSMITTER EQUIPMENT AND ANTENNAS ARE DESIGNED TO MEET ANSI/TIA 222-G REQUIREMENTS.
9. ALL STRUCTURAL ELEMENTS SHALL BE HOT DIPPED GALVANIZED STEEL.
10. CONTRACTOR SHALL MAKE A UTILITY "ONE CALL" TO LOCATE ALL UTILITIES PRIOR TO EXCAVATING.
11. IF ANY UNDERGROUND UTILITIES OR STRUCTURES EXIST BENEATH THE PROJECT AREA, CONTRACTOR MUST LOCATE IT AND CONTACT THE APPLICANT & THE OWNER'S REPRESENTATIVE.
12. OCCUPANCY IS LIMITED TO PERIODIC MAINTENANCE AND INSPECTION BY TECHNICIANS APPROXIMATELY 2 TIMES PER MONTH.
13. PRIOR TO THE INSTALLATION OF THE PROPOSED EQUIPMENT OR MODIFICATION OF THE EXISTING STRUCTURE, A STRUCTURAL ANALYSIS SHALL BE PERFORMED BY THE OWNER'S AGENT TO CERTIFY THAT THE EXISTING/PROPOSED COMMUNICATION STRUCTURE AND COMPONENTS ARE STRUCTURALLY ADEQUATE TO SUPPORT ALL EXISTING AND PROPOSED ANTENNAS, COAXIAL CABLES AND OTHER APPURTENANCES.
14. PROPERTY LINE INFORMATION WAS PREPARED USING DEEDS, TAX MAPS, AND PLANS OF RECORD AND SHOULD NOT BE CONSTRUED AS AN ACCURATE BOUNDARY SURVEY.
15. THIS PLAN IS SUBJECT TO ALL EASEMENTS AND RESTRICTIONS OF RECORD.
16. THE PROPOSED FACILITY WILL CAUSE ONLY A "DE MINIMIS" INCREASE IN STORMWATER RUNOFF. THEREFORE, NO DRAINAGE STRUCTURES ARE PROPOSED.
17. NO SIGNIFICANT NOISE, SMOKE, DUST, OR ODOR WILL RESULT FROM THIS FACILITY.
18. THE FACILITY IS UNMANNED AND NOT INTENDED FOR HUMAN HABITATION (NO HANDICAP ACCESS REQUIRED).
19. THE FACILITY IS UNMANNED AND DOES NOT REQUIRE POTABLE WATER OR SANITARY SERVICE.
20. POWER TO THE FACILITY WILL BE MONITORED BY A SEPARATE METER.



1 ELEVATION  
C-2 SCALE: 1" = 6'



INSTALLATION NOTES

1. THE PROPOSED MOUNTING PLATFORM, PIPES AND ANTENNAS WILL BE COLORED TO CLOSELY MATCH THAT OF THE EXISTING DOMINION POWER TOWER.
2. PROPOSED ANTENNAS:  
(6) ANDREW SBNHH-1D65C\_PORT1 - +45\_00DT  
7.1" DEPTH x 96.0" LENGTH x 11.9" WIDTH  
WEIGHT: 49.6 LBS  
  
NOTE: CONTRACTOR TO VERIFY PROPOSED ANTENNA INFORMATION IS THE MOST CURRENT DATA AT TIME OF CONSTRUCTION.
3. ALL CABLES CONNECTING THE GROUND-BASE EQUIPMENT TO THE ANTENNAS WILL BE RUN VERTICALLY WITHIN CABLE PORTS THAT WILL FACE THE INTERIOR OF THE PROPERTY (WESTERN SIDE) AND BE PAINTED TO MATCH THE COLOR OF THE EXISTING POWER POLE.

ENGINEER

APPLICANT

SITE INFORMATION

DESIGN RECORD

PROFESSIONAL STAMP

ENGINEER

SHEET TITLE

SHEET NUMBER

NB+C  
TOTALLY COMMITTED.

NB+C ENGINEERING SERVICES, LLC.  
4650 WATERFRONT DRIVE, SUITE 100  
GLEN ALLEN, VA 22081  
(804) 546-4070

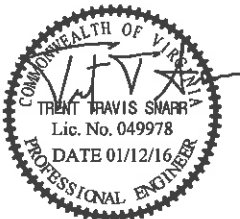
verizon  
wireless

1831 RADY COURT  
RICHMOND, VA 23222

"SEMINOLE SQUARE"  
VERIZON COLLOCATION  
NB+C PROJ. #27074  
195 GEORGETOWN RD  
CHARLOTTESVILLE, VA 22901  
ALBEMARLE COUNTY

REVISIONS

| REV | DATE     | DESCRIPTION      | BY  |
|-----|----------|------------------|-----|
| 8   | 01/12/16 | REVISED          | OP  |
| 7   | 12/08/15 | REVISED          | OP  |
| 6   | 08/12/15 | CONSTRUCTION BID | AMM |
| 5   | 06/11/15 | REVISED          | AMM |
| 4   | 04/30/15 | REVISED          | AMM |
| 3   | 02/17/15 | REVISED          | DET |
| 2   | 02/13/15 | REVISED          | DET |
| 1   | 02/08/15 | REVISED          | PJP |
| 0   | 01/30/15 | PRELIMINARY      | DS  |

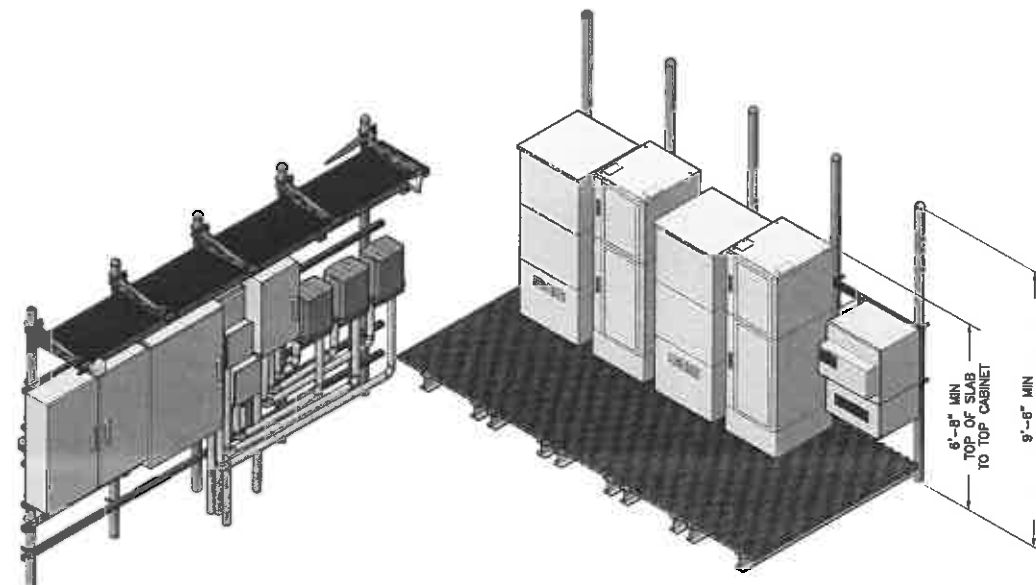
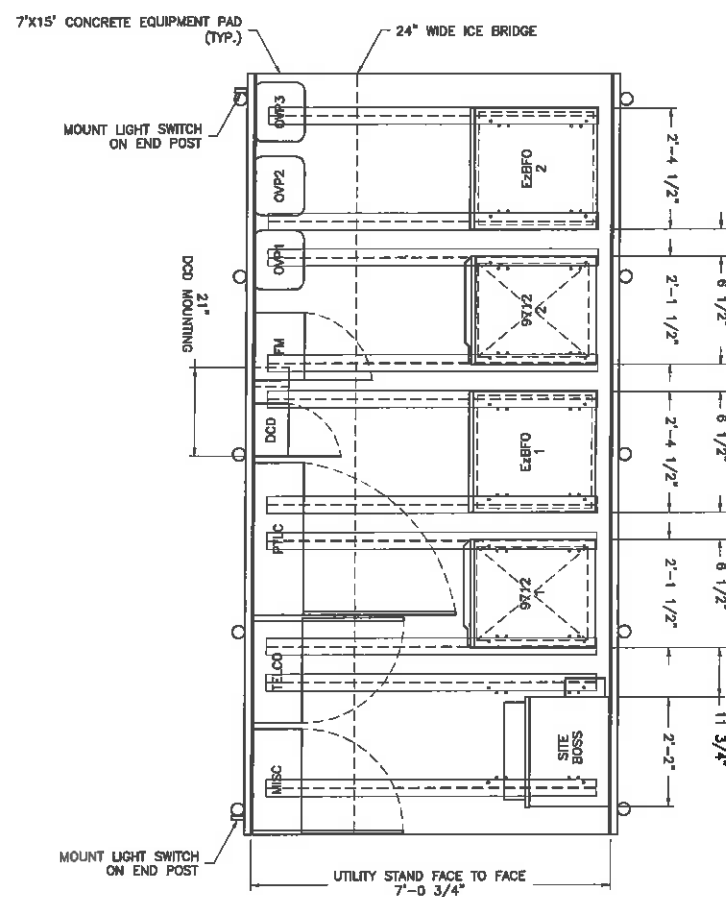
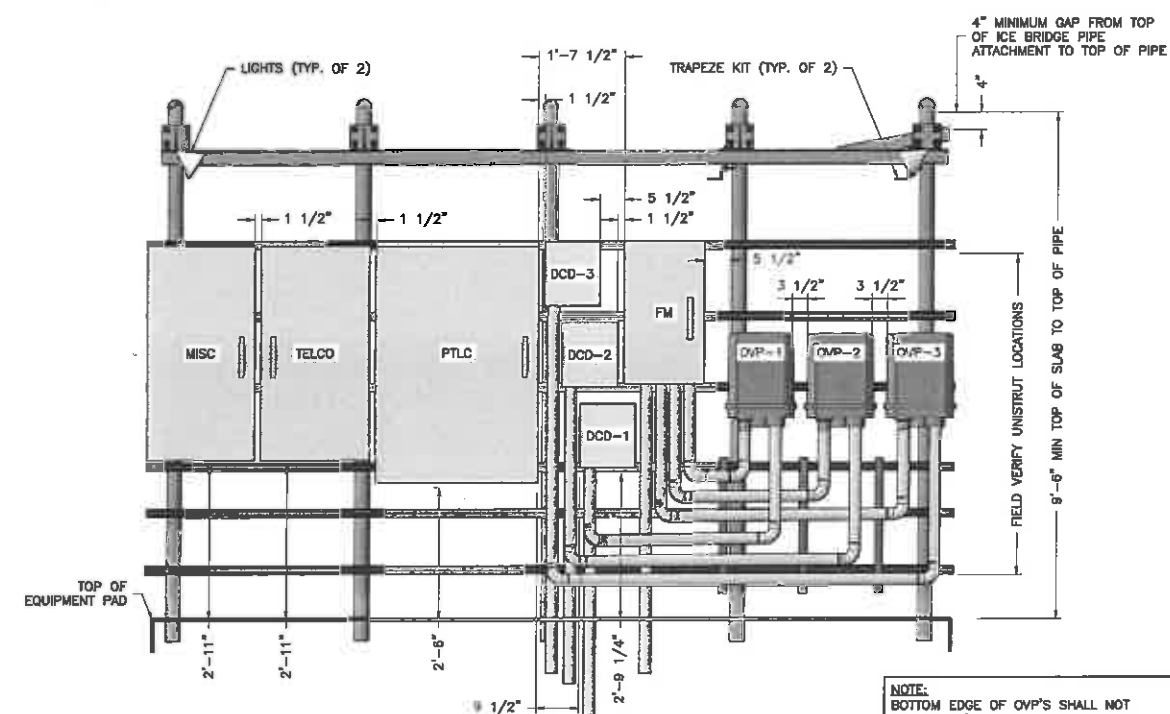
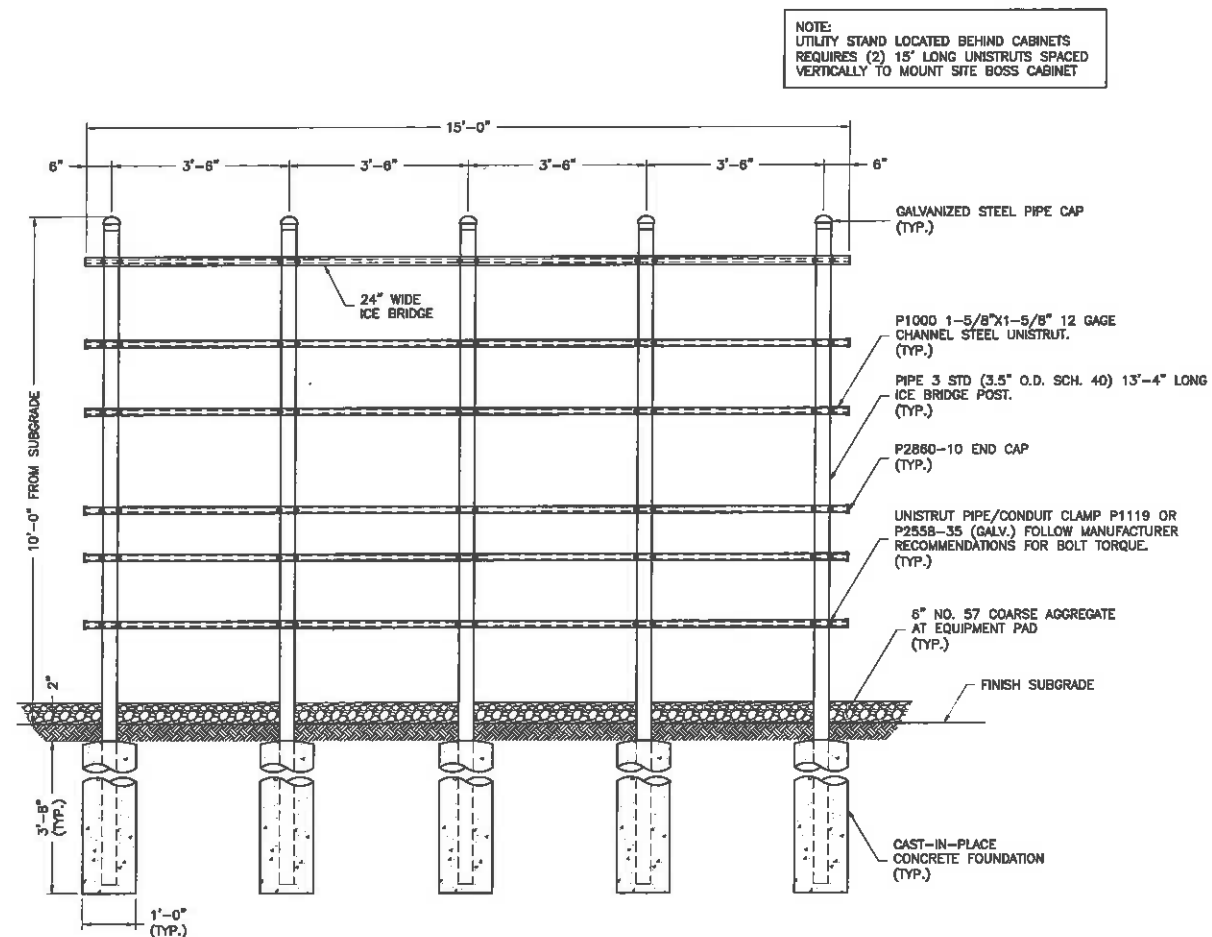


TRENT T. SNARR, P.E.  
VA PROFESSIONAL ENGINEER LIC. #49978

TOWER ELEVATION  
DETAILS & NOTES

C-2





VERIZON WIRELESS PROVIDED PLATFORM EQUIPMENT:

- ALCATEL LUCENT 9712 EQUIPMENT CABINET
- ALCATEL LUCENT EZBFQ CABINET
- (3) ALCATEL LUCENT 14"W X 12"W X 8"D
- DC DISTRIBUTION BOXES, DCD BOXES
- (3) RAYCAP DVP

CONTRACTOR PROVIDED PLATFORM EQUIPMENT:

\*THIS IS NOT A COMPREHENSIVE LIST  
IT SHOULD BE ASSUMED BY THE CONTRACTOR  
THAT ALL OTHER ITEMS DETAILED IN THIS SET  
OF DRAWINGS SHALL BE PROVIDED BY THE  
CONTRACTOR.

- LEFT HINGED 24" WIDE X 48" TALL X 12" DEEP, NEMA 3R, ENCLOSURE PAINTED GREY WITH METAL BACKBOARD AND PADLOCK LATCH, "MISCELLANEOUS ENCLOSURE", CONTRACTOR SHALL PROVIDE (2) FILE FOLDER HOLDERS, FOLD DOWN LAPTOP DESK, AND OUTDOOR RATED COVERED GFCI FOUR PLUG RECEPTACLE WITH COMBINATION PAD LOCK.
- RIGHT HINGED 24" WIDE X 48" TALL X 12" DEEP NEMA 3R CABINE, ENCLOSURE PAINTED GREY WITH METAL BACKBOARD AND PADLOCK LATCH, "TELECOM ENCLOSURE" EQUIPPED WITH (2) 66 BLOCKS WITH SPACERS WITH COMBINATION PADLOCK.
- D300L SERIES INTERSECT POWER TRANSFER LOAD CENTER MODEL AA300G-1PH-42-3R - 42 POSITION LOAD CENTER "TELECOM" WITH COMBINATION PADLOCK.
- LEFT HINGED 18" WIDE X 32" TALL X 12" DEEP, NEMA 3R, ENCLOSURE PAINTED GREY WITH METAL BACKBOARD AND PADLOCK LATCH "FIBER MANAGEMENT, "FM ENCLOSURE" WITH COMBINATION PADLOCK.
- CHARLES INDUSTRY CUBE PART NUMBER #CUBE-RL 1003B-A WITH SLIDE-OUT TRAY KIT 97-001990-A "SITE BOSS ENCLOSURE" WITH GFCI FOUR PLUG RECEPTACLE AND SINOMAS MODEL NO. RDB-00011A 50W CABINET HEATER.
- COORDINATE ADDITIONAL ENTRY GATE LOCK(S) WITH CONSTRUCTION MANAGER.

**NBC**  
TOTALLY COMMITTED.

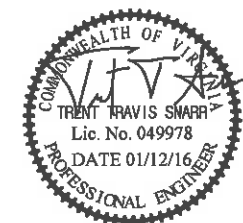
**NB+C ENGINEERING SERVICES, LLC.**  
4435 WATERFRONT DRIVE, SUITE 100  
GLEN ALLEN, VA 23060



1831 RADY COURT  
RICHMOND, VA 23222

"SEMINOLE SQUARE"  
VERIZON COLLOCATION  
NB+C PROJ. #27074  
195 GEORGETOWN RD  
CHARLOTTESVILLE, VA 22901  
ALBEMARLE COUNTY

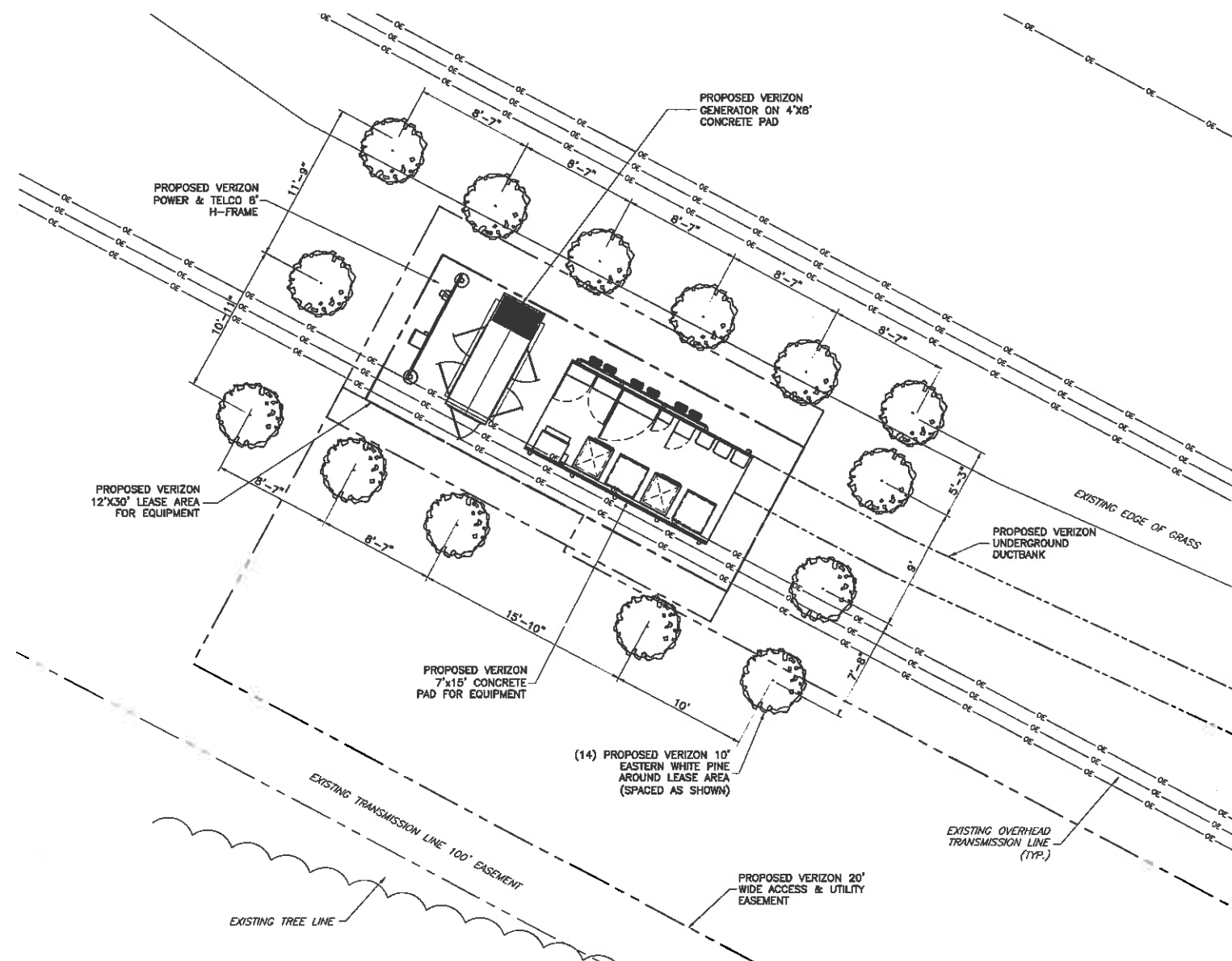
| REVISIONS |          |                  |     |
|-----------|----------|------------------|-----|
| 8         | 01/12/15 | REVISED          | OP  |
| 7         | 12/08/15 | REVISED          | OP  |
| 6         | 08/12/15 | CONSTRUCTION BID | AMM |
| 5         | 08/11/15 | REVISED          | AMM |
| 4         | 04/30/15 | REVISED          | AMM |
| 3         | 02/17/15 | REVISED          | DET |
| 2         | 02/13/15 | REVISED          | DET |
| 1         | 02/09/15 | REVISED          | PJT |
| 0         | 01/30/15 | PRELIMINARY      | DS  |
| REV       | DATE     | DESCRIPTION      | BY  |



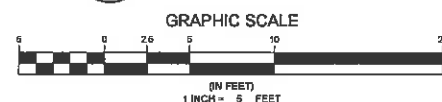
TRENT T. SNARR, P.E.  
VA PROFESSIONAL ENGINEER LIC. #49978

## GROUND EQUIPMENT LAYOUT

# A-1



1 LANDSCAPING PLAN  
SCALE: 1" = 5'

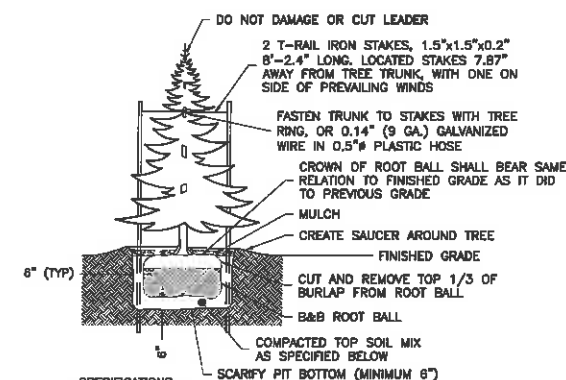


### LANDSCAPE NOTES:

1. ALL PLANT MATERIALS AND PLANTING PROCEDURES SHALL BE IN ACCORDANCE WITH THE STANDARDS AS SET FORTH BY THE AMERICAN ASSOCIATION OF NURSERYMEN.
2. MULCH SHALL BE FINELY SHREDDED HARDWOOD BARK MULCH. DO NOT COVER THE ROOT CROWN OF TREES OR SHRUBS WITH MULCH. CUT TWINE AWAY FROM THE BASE OF THE TRUNK OR STEM AND PULL BURLAP DOWN AND OFF OF THE BALL TOP.
3. PLANTING BACKFILL MIX SHALL BE ON PART LOOSE PEAT HUMUS, TO ONE PART SAND, TO ONE PART PARENT SOIL BY VOLUME.
4. SOIL SHALL BE AMENDED WITH THE FOLLOWING: 0.25LBS ORGANIC GRANULAR FERTILIZER (5-10-5), 0.75LBS OF BONEMEAL, 1.0LBS OF ROTTED COW MANURE PER CUBIC FOOT OF MIX.
5. THE CONTRACTOR SHALL WARRANTY ALL PLANTS AND MATERIALS FOR TWO YEARS FROM OWNERS ACCEPTANCE. ALL REPLACEMENTS SHALL BE AS ORIGINALLY SPECIFIED.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LOCATION PROTECTION AND REPLACEMENT OF ANY UTILITIES DAMAGED ON SITE. FIELD ADJUST PLANT LOCATIONS TO AVOID UTILITIES, SWALES, OVERHEAD WIRES, EXISTING VEGETATION TO REMAIN ETC.
7. LEASEE IS RESPONSIBLE FOR THE COST AND MAINTENANCE OF ALL LANDSCAPING.
8. ALL PLANT MATERIALS MUST BE INSTALLED EQUAL TO OR GREATER THAN THE MINIMUM SIZES SPECIFIED. NO GENUS OR SPECIES SUBSTITUTIONS ALLOWED. CULTIVAR VARIATION ALLOWED WITH THE LANDSCAPE ARCHITECTS APPROVAL. ALL PLANTS WILL BE INSPECTED AND MEASURED FOR CAMBELL COUNTY COMPLIANCE, PRIOR TO ISSUANCE OF A CERTIFICATE OF OCCUPANCY PERMIT.

### PLANTING SCHEDULE

| QUANTITY | BOTANICAL - COMMON NAME            | SIZE      |
|----------|------------------------------------|-----------|
| 14       | PINUS STROBUS - EASTERN WHITE PINE | 6'-10" DB |



#### SPECIFICATIONS:

1. DO NOT DAMAGE MAIN ROOTS OR DESTROY ROOT BALL WHEN INSTALLING TREE STAKE.
2. WATER THOROUGHLY AFTER INSTALLATION.
3. REMOVE TREE RINGS AND STAKES TWO YEARS AFTER INSTALLATIONS
4. PROVIDED DRAINAGE FOR PLANTING PIT IN IMPERMEABLE SOIL.
5. TOPSOIL MIX, SEE SPEC.

2 TREE PLANTING AND GUYING DETAIL  
L-1 NTS



Know what's below.  
Call before you dig.

ENGINEER

**NB+C**  
TOTALLY COMMITTED.

NB+C ENGINEERING SERVICES, LLC.  
4425 WATERFRONT DRIVE, SUITE 101  
GLENN ALLEN, VA 22081  
804-548-4878

APPLICANT

**verizon**wireless

1831 RADY COURT  
RICHMOND, VA 23222

SITE INFORMATION

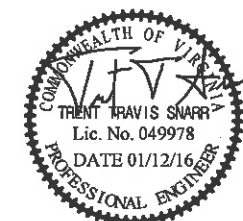
"SEMINOLE SQUARE"  
VERIZON COLLOCATION  
NB+C PROJ. #27074  
195 GEORGETOWN RD  
CHARLOTTESVILLE, VA 22901  
ALBEMARLE COUNTY

DESIGN RECORD

### REVISIONS

| REV | DATE     | DESCRIPTION      | BY  |
|-----|----------|------------------|-----|
| 8   | 01/12/16 | REVISED          | GP  |
| 7   | 12/08/15 | REVISED          | GP  |
| 6   | 08/12/15 | CONSTRUCTION BID | AMM |
| 5   | 06/11/15 | REVISED          | AMM |
| 4   | 04/30/15 | REVISED          | AMM |
| 3   | 02/17/15 | REVISED          | DET |
| 2   | 02/13/15 | REVISED          | DET |
| 1   | 02/09/15 | REVISED          | PJP |
| 0   | 01/30/15 | PRELIMINARY      | DS  |

PROFESSIONAL STAMP



ENGINEER

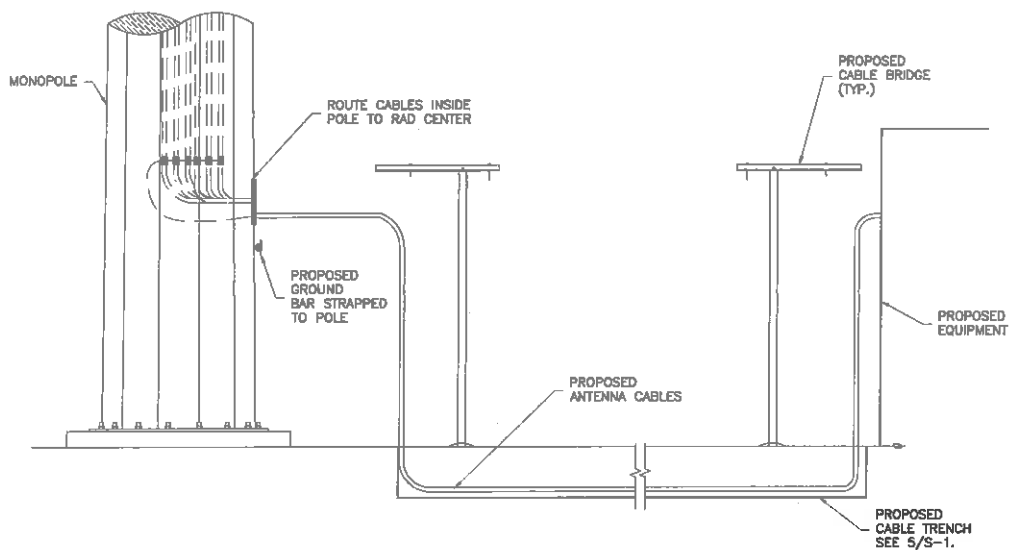
TRENT T. SNARR, P.E.  
VA PROFESSIONAL ENGINEER LIC. #49978

SHEET TITLE

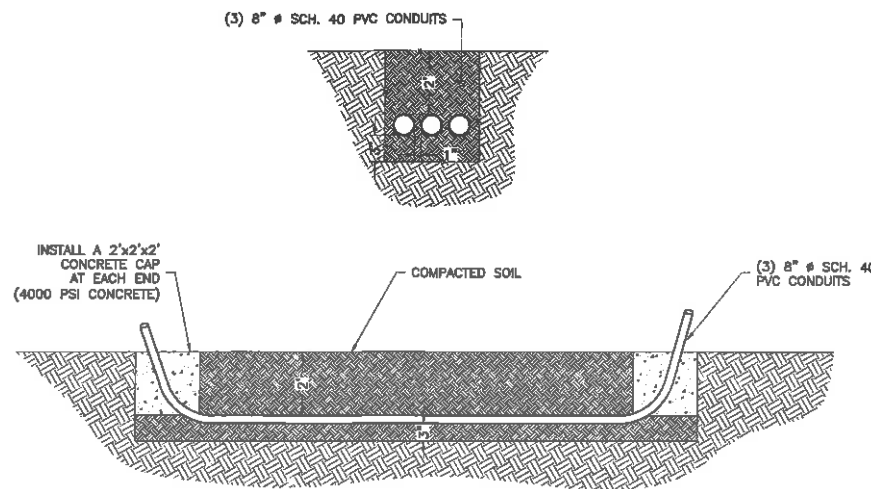
LANDSCAPING PLAN

SHEET NUMBER

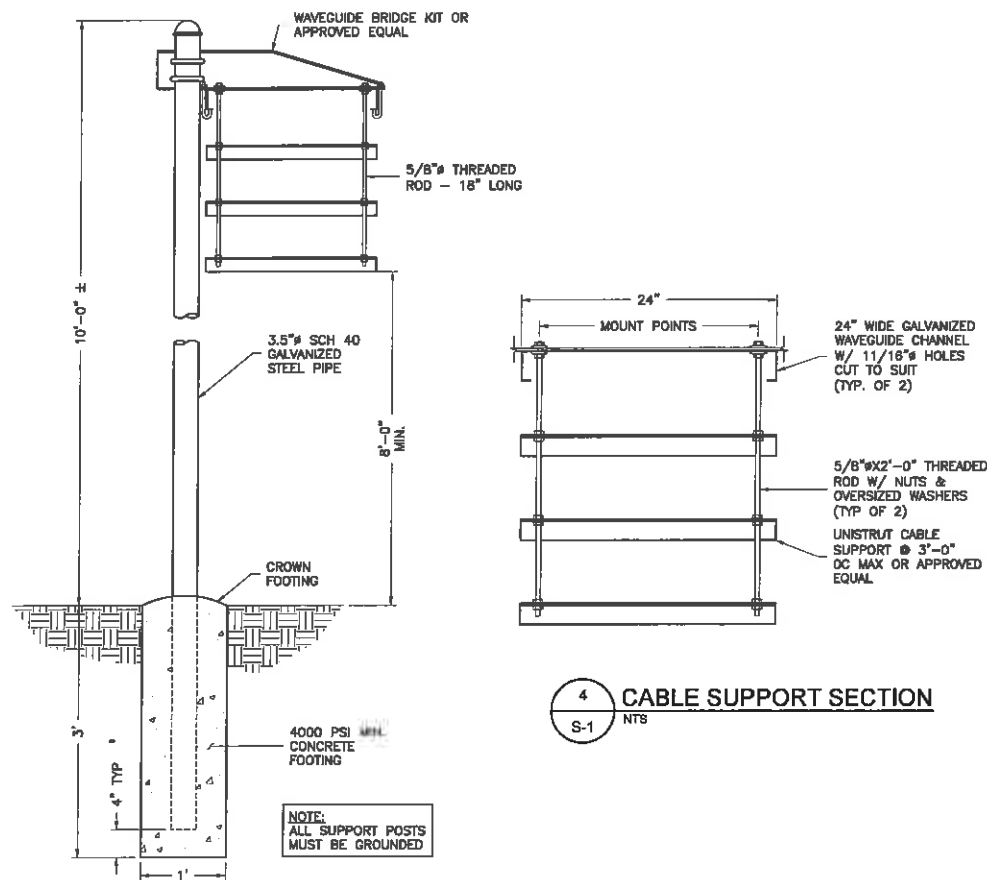
L-1



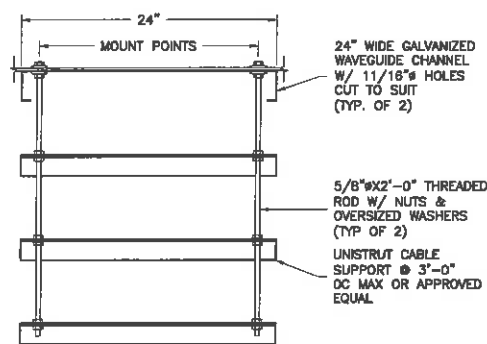
1 EQUIPMENT ELEVATION  
S-1 NTS



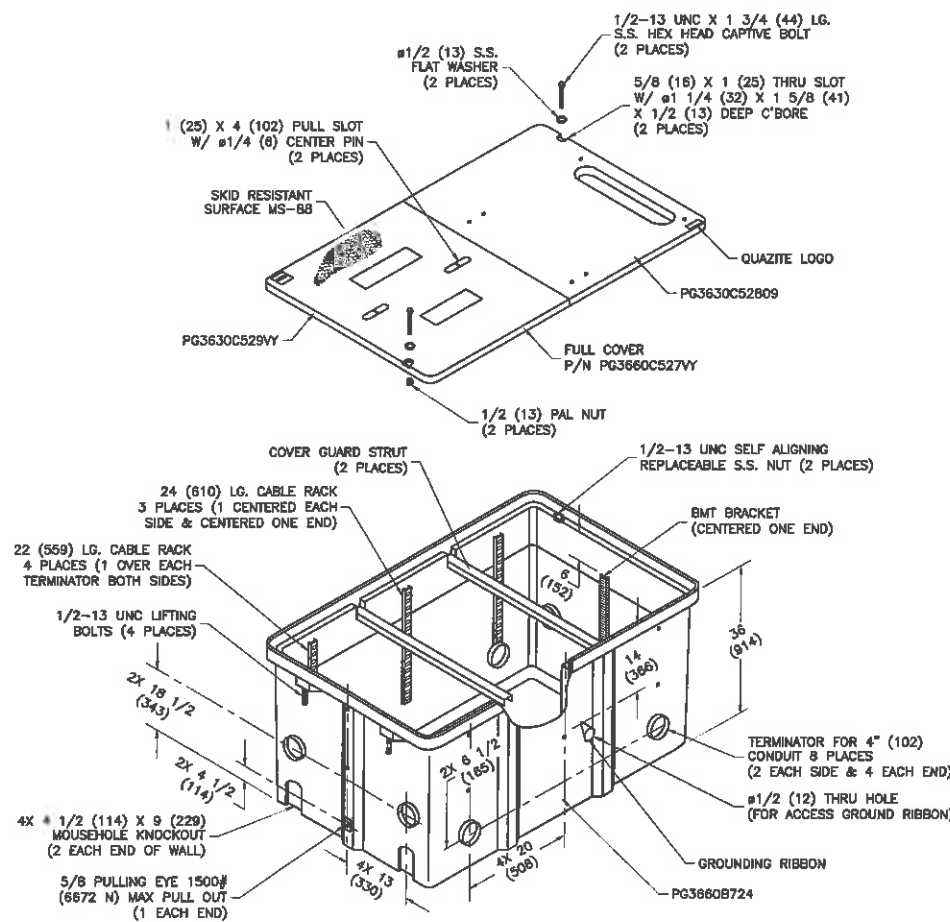
2 (3) 6" CONDUITS  
S-1 NTS



3 CABLE BRIDGE DETAIL  
S-1 NTS



4 CABLE SUPPORT SECTION  
S-1 NTS



5 STRONGWELL DETAIL  
S-1 NTS

## CONCRETE GENERAL NOTES

- ALL CONCRETE WORK SHALL CONFORM TO ACI 318, "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE" AND TO THE PROJECT SPECIFICATIONS.
- ALL CONCRETE IS TO BE NORMAL DENSITY CONCRETE WITH A MAXIMUM SLUMP OF 4 INCHES. MAXIMUM AGGREGATE SIZE 3/4 INCH. NO ADDITIONAL WATER SHALL BE ADDED TO THE CONCRETE AT THE JOB SITE.
- PROVIDE AIR ENTRAINMENT OF 4 TO 8 PERCENT IN ALL EXPOSED CONCRETE WORK WITH AIR-ENTRAINING ADMIXTURE COMPLYING WITH ASTM C 260. AT TROWEL-FINISHED FLOORS, DO NOT EXCEED AIR-ENTRAINMENT CONTENT OF 3 PERCENT.
- NO HOLES OR SLEEVES SHALL BE MADE THROUGH CONCRETE WORK OTHER THAN THOSE INDICATED ON THE STRUCTURAL DRAWINGS WITHOUT THE APPROVAL OF THE STRUCTURAL ENGINEER.
- ALL FORMWORK OFFSET TOLERANCES (PER ACI 117) TO BE CLASS A.
- FLOOR SLAB TOLERANCES TO ASTM E1155: SPECIFIED OVERALL MINIMUM VALUE OF FLATNESS F=25 WITH LOCAL MINIMUM F=17, AND MINIMUM VALUE OF LEVELNESS F=20 WITH LOCAL MINIMUM F=1 AND F=2 WITHIN 72 HOURS OF SLAB CONSTRUCTION.
- CABINETS ON SLAB (IF APPLICABLE). ALLOWABLE CAPACITY OF CONCRETE USED IN DESIGN MIN. 3500 PSI.

## FOUNDATION NOTES:

### 1. DESIGN INFORMATION AND GENERAL REQUIREMENTS

#### 1.1 CODES

- DESIGN CONFORMS TO INTERNATIONAL BUILDING CODE 2009.
- AMERICAN CONCRETE INSTITUTE "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE," ACI 318-99.

### 2. EARTHWORK

#### 2.1 FOUNDATIONS

- FOUNDATIONS HAVE BEEN DESIGNED TO BEAR ON (UNDISTURBED RESIDUAL SOILS/COMPACTED STRUCTURAL FILL), CAPABLE OF SAFELY SUPPORTING A NET ALLOWABLE BEARING PRESSURE OF 2000 PSF. IF FOUNDATION CONDITIONS PROVE UNACCEPTABLE AT ELEVATIONS SHOWN, EXCAVATION SHALL BE CARRIED DEEPER AND SHALL BE BACKFILLED WITH LEAN CONCRETE TO PLAN FOOTING BOTTOM, OR REDESIGN OF FOUNDATIONS WILL BE REQUIRED AT THE DIRECTION OF THE ENGINEER.

- DESIGN, FURNISH AND INSTALL ALL TEMPORARY SHEETING, SHORING AND DRAINAGE NECESSARY TO MAINTAIN THE EXCAVATION AND PROTECT SURROUNDING STRUCTURES AND UTILITIES.

- THOROUGHLY COMPACT ALL BOTTOM OF FOOTINGS PRIOR TO PLACING ANY CONCRETE.

### 3. CONCRETE

#### 3.1 FORMWORK

- CONCRETE CONSTRUCTION SHALL CONFORM TO "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS," (ACI 301-89).
- FORMWORK SHALL CONFORM TO ACI 301 "SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS."

#### 3.2 REINFORCEMENT

- REINFORCING STEEL ASTM A615, GRADE 60. WELDED WIRE ASTM A185 (FLAT SHEET). LAPS 40 BAR DIAMETERS UNLESS NOTED. BARS SHALL BE SECURELY HELD IN ACCURATE POSITION BY SUITABLE ACCESSORIES, TIE BARS, SUPPORT BARS, ETC. HOOK LENGTHS SHALL BE 12 BAR DIAMETERS.
- CONCRETE COVER FOR REINFORCING BARS SHALL BE AS FOLLOWS, UNLESS OTHERWISE NOTED.  
FOOTINGS & SLABS CAST AGAINST GROUND . . . . . 3"  
CONCRETE TO BE IN CONTACT WITH GROUND OR WEATHER AT BARS GREATER THAN #5 . . . . . 2"  
AT BARS #5 OR LESS . . . . . 1-1/2"  
CONCRETE NOT TO BE EXPOSED TO GROUND OR WEATHER BEAMS, GIRDERS & COLUMNS . . . . . 1-1/2"  
SLABS & WALLS . . . . . 3/4"

#### 3.3 CAST-IN-PLACE-CONCRETE

- MINIMUM 28 DAY CYLINDER STRENGTH AND MAXIMUM SLUMP, PRIOR TO ADDITION OF SUPER PLASTICIZERS, AS FOLLOWS:

| SLUMP CLASS | FOOTINGS  | F'C (PSI) |
|-------------|---|-----------|
| 3"          | CLASS I FOOTINGS  | 4000      |
| 3"          | CLASS II FOOTINGS   | 4000      |
| 3"          | CLASS III INTERIOR ELEVATED                               | 4000      |
| 4"          | SLABS & WALLS   |           |
| 4"          | CLASS V OTHER WORK  | 4000      |
| 4"          | CLASS VI LEAN CONCRETE FOR OVER EXCAVATION OF FOUNDATIONS | 2000      |
| N/A         |   |           |

- MIX DESIGN TO BE IN ACCORDANCE WITH ACI 318, CHAPTER 5. NO CALCIUM CHLORIDE OR ADMIXTURE CONTAINING CHLORIDES SHALL BE USED IN ANY CONCRETE.

- COARSE AGGREGATE FOR NORMAL WEIGHT CONCRETE SHALL CONFORM TO ASTM C33 SIZE #57. COARSE AGGREGATE FOR LIGHT WEIGHT CONCRETE SHALL CONFORM TO ASTM C330 GRADED 3/4" TO 1 1/4".

- COLD WEATHER PLACEMENT SHALL COMPLY WITH ACI 306.1

- HOT WEATHER PLACEMENT SHALL COMPLY WITH ACI 305 R.

- CHAMFER ALL EXPOSED EDGES 3/4".

- THE MAXIMUM TEMPERATURE OF ALL CONCRETE AT DELIVERY TO THE SITE SHALL BE 85°F, TOTAL DELIVERY TIME SHALL BE LESS THEN 75 MINUTES.

ENGINEER

**NB+C**  
TOTALLY COMMITTED.

NB+C ENGINEERING SERVICES, LLC.  
445 WATERFRONT DRIVE, SUITE 100  
GLENN ALLEN, VA 22060  
804-646-4070

APPLICANT

**verizon**wireless

1831 RADY COURT  
RICHMOND, VA 23222

SITE INFORMATION

"SEMINOLE SQUARE"  
VERIZON COLLOCATION  
NB+C PROJ. #27074  
195 GEORGETOWN RD  
CHARLOTTESVILLE, VA 22901  
ALBEMARLE COUNTY

DESIGN RECORD

## REVISIONS

| REV | DATE     | DESCRIPTION      | BY  |
|-----|----------|------------------|-----|
| 8   | 01/12/16 | REVISED          | OP  |
| 7   | 12/08/15 | REVISED          | OP  |
| 6   | 08/12/15 | CONSTRUCTION BID | AMM |
| 5   | 06/11/15 | REVISED          | AMM |
| 4   | 04/30/15 | REVISED          | AMM |
| 3   | 02/17/15 | REVISED          | DET |
| 2   | 02/13/15 | REVISED          | DET |
| 1   | 02/08/15 | REVISED          | PJP |
| 0   | 01/30/15 | PRELIMINARY      | DS  |

PROFESSIONAL STAMP



ENGINEER

TRENT T. SNARR, P.E.  
VA PROFESSIONAL ENGINEER LIC. #49978

SHEET TITLE

**CONSTRUCTION  
DETAILS & NOTES**

SHEET NUMBER

**S-1**



# UTILITY STAND NOTES:

- UTILITY STAND PIPES SHALL BE CONSTRUCTED OF 3" SCH 40 (3.5" O.D.) ICE BRIDGE POST CUT TO A LENGTH NO LESS THAN 13'-4".
- ALL UTILITY STAND POSTS SHALL BE INSTALLED TO THE SAME ELEVATION RELATIVE TO THE CONCRETE PAD

# CONCRETE PAD NOTES:

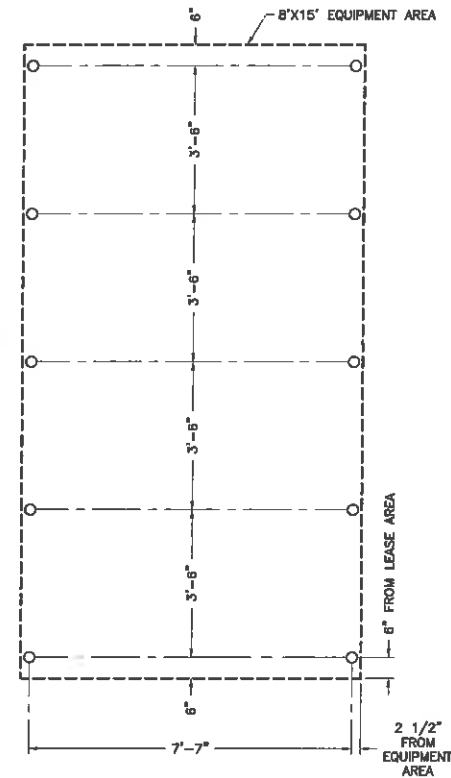
- NO CONDUIT SHALL RUN VERTICALLY THROUGH CONCRETE PAD.

# FRAMING PLAN NOTES:

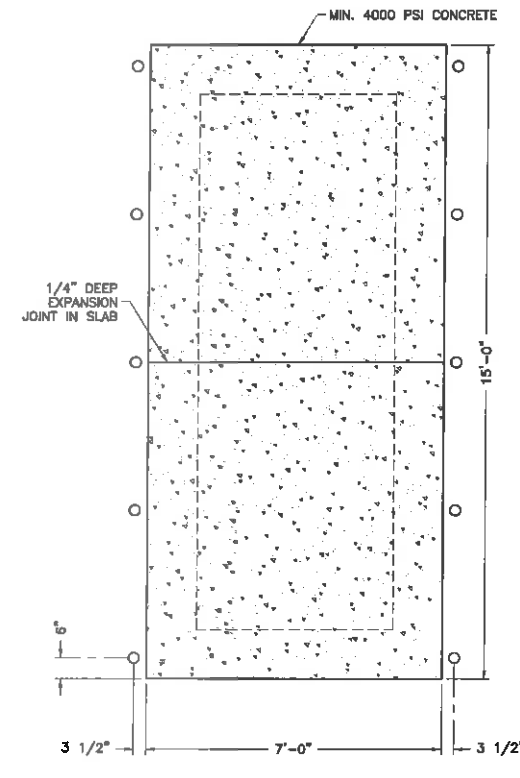
- STEEL FRAMING IS DESIGNED TO SUPPORT LUCENT EQUIPMENT.
- POST INSTALLED EXPANSION ANCHORS SHALL BE HILTI KWIK BOLT 3. ALL ANCHORS SHALL BE INSTALLED WITH HILTI NUTS AND WASHERS.
- ALL BEAMS ARE TO BE EITHER GALVANIZED W6x8.5 OR W6x9 UNLESS OTHERWISE NOTED.
- BOLT HOLES IN BEAMS ARE FOR 9712 CABINET ATTACHMENT. EZBFO SHALL ATTACH DIRECTLY TO THE GRATE.

# GRATING NOTES:

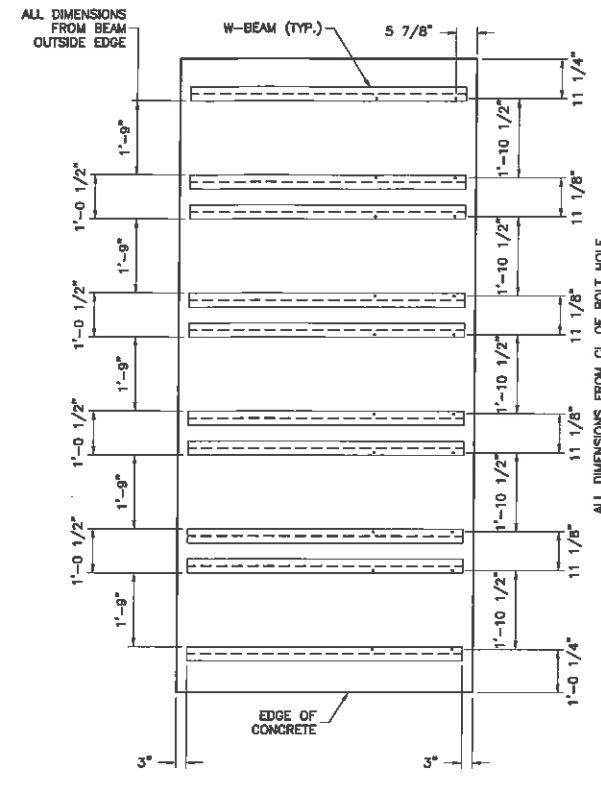
- BAR GRATING SHALL BE WELDED STEEL WITH 1" x 3/16" BAR SIZE. MAIN BARS TO BE SPACED 1 3/16" OC MAXIMUM AND CROSS BAR SPACING SHALL NOT EXCEED 4" OC. ALL GRATING SHALL HAVE A PRIMARY GALVANIZED FINISH. ALL WALKING SURFACES SHALL BE SERRATED.
- BEARING BARS OF GRATING SHALL BE TRIM Banded AROUND THE PERIMETER OF THE DECK SURFACE.
- BAR GRATING CAN BE NOTCHED TO ALLOW FOR CONDUITS SWEEPS FROM UTILITY STAND CABINET. NOTCHING SHALL BE COORDINATED TO NOT EXCEED THE OUTLINE(S) OF THE CABINET(S) ABOVE.
- ALL GRATE CUTTING SHALL BE GROUND SMOOTH OR COVERED TO PREVENT ABRASION OF CONDUIT OR CABLES



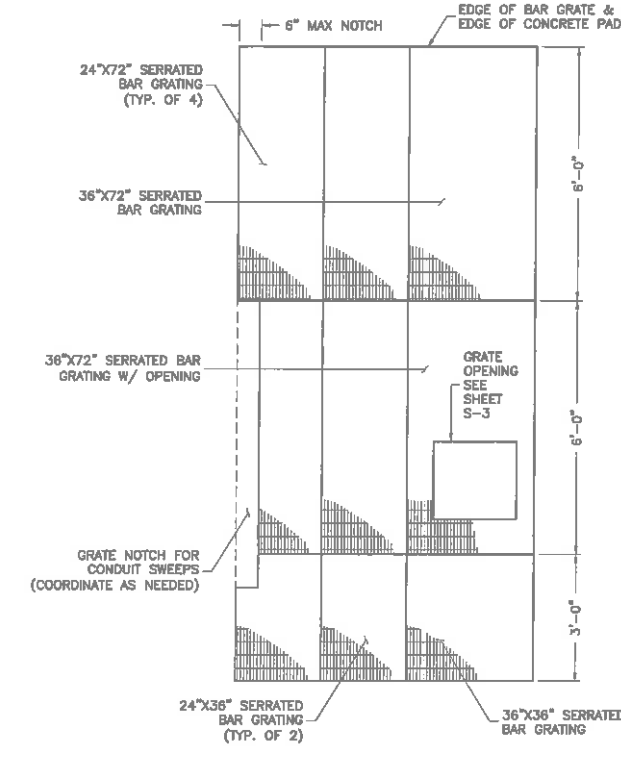
1 UTILITY STAND PLAN  
SCALE: 1/2" = 1'-0"



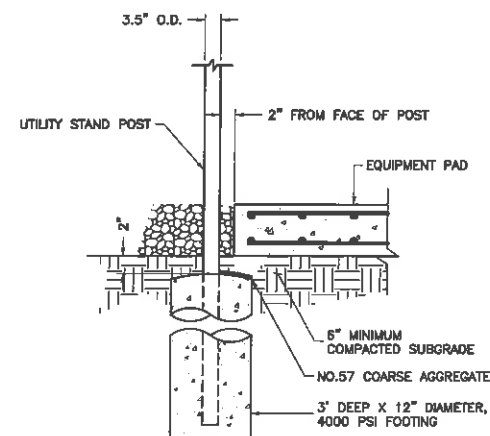
2 CONCRETE PAD PLAN  
SCALE: 1/2" = 1'-0"



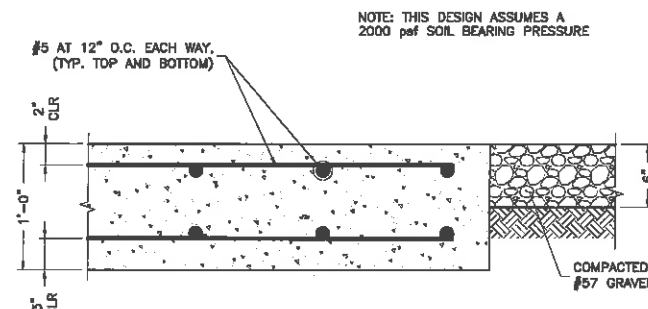
3 FRAMING PLAN  
SCALE: 1/2" = 1'-0"



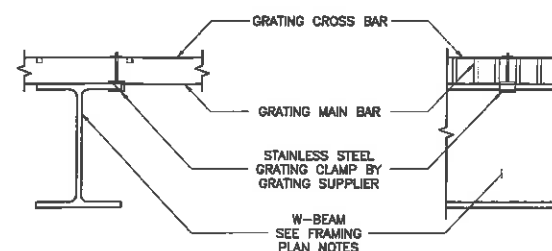
4 GRATE PLAN  
SCALE: 1/2" = 1'-0"



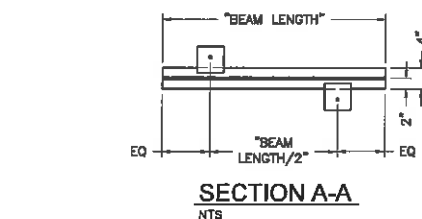
5 EQUIPMENT PAD & POST FOUNDATION  
NTS



6 CONCRETE PAD FOUNDATION  
SCALE: NTS



7 TYPICAL GRATING ATTACHMENT  
NTS



8 TYPICAL FRAMING ATTACHMENT  
NTS

ENGINEER

APPLICANT

SITE INFORMATION

DESIGN RECORD

PROFESSIONAL STAMP

ENGINEER

SHEET TITLE

SHEET NUMBER

**NB+C**  
TOTALLY COMMITTED.  
NB+C ENGINEERING SERVICES, LLC.  
4435 WATERFRONT DRIVE, SUITE 100  
ALEXANDRIA, VA 22304  
804.456.4070

**verizon**wireless  
1831 RADY COURT  
RICHMOND, VA 23222

"SEMINOLE SQUARE"  
VERIZON COLLOCATION  
NB+C PROJ. #27074  
195 GEORGETOWN RD  
CHARLOTTESVILLE, VA 22901  
ALBEMARLE COUNTY

| REVISIONS |          |                  |     |
|-----------|----------|------------------|-----|
| REV       | DATE     | DESCRIPTION      | BY  |
| 8         | 01/12/16 | REVISED          | OP  |
| 7         | 12/08/15 | REVISED          | OP  |
| 6         | 08/12/15 | CONSTRUCTION BID | AMM |
| 5         | 06/11/15 | REVISED          | AMM |
| 4         | 04/30/15 | REVISED          | AMM |
| 3         | 02/17/15 | REVISED          | DET |
| 2         | 02/13/15 | REVISED          | DET |
| 1         | 02/09/15 | REVISED          | PJP |
| 0         | 01/30/15 | PRELIMINARY      | DS  |

COMMONWEALTH OF VIRGINIA  
TRENT T. SNARR  
Lic. No. 049978  
DATE 01/12/16  
PROFESSIONAL ENGINEER

TRENT T. SNARR, P.E.  
VA PROFESSIONAL ENGINEER LIC. #49978

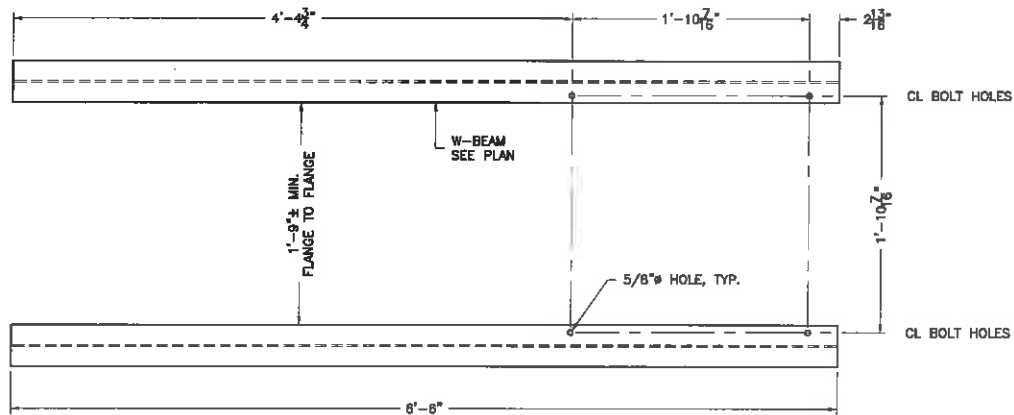
**EQUIPMENT  
CONCRETE PAD &  
STEEL PLATFORM  
DETAILS**

**S-2**



STRUCTURAL NOTES

- DESIGN REQUIREMENTS PER INTERNATIONAL BUILDING CODE 2012 AND THE EIA/TIA-222-G STRUCTURAL STANDARDS FOR STEEL ANTENNA TOWERS AND ANTENNA SUPPORTING STRUCTURES.
- INFORMATION SHOWN ON THESE DRAWINGS WAS OBTAINED BY FIELD MEASUREMENT AND FROM THE EXISTING STRUCTURAL DRAWINGS. THE GENERAL CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND NOTIFY THE ARCHITECT/ENGINEER OF ANY DISCREPANCIES PRIOR TO ORDERING MATERIALS OR PROCEEDING WITH CONSTRUCTION.
- STRUCTURAL STEEL SHALL CONFORM TO THE LATEST EDITION OF THE AISC SPECIFICATIONS FOR STRUCTURAL STEEL BUILDINGS - ALLOWABLE STRESS DESIGN AND PLASTIC DESIGN INCLUDING THE COMMENTARY AND THE AISC CODE FOR STANDARD PRACTICE.
- STRUCTURAL STEEL PLATES AND SHAPES SHALL CONFORM TO ASTM A36. ALL STRUCTURAL STEEL PIPES SHALL CONFORM TO ASTM A53 GRADE B. ALL STRUCTURAL STEEL COMPONENTS AND FABRICATED ASSEMBLIES SHALL BE HOT DIP GALVANIZED AFTER FABRICATION.
- WELDING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF AMERICAN WELDING SOCIETY (AWS) STRUCTURAL WELDING CODE - STEEL WELD ELECTRODES SHALL BE E70XX.
- ALL COAXIAL CABLE CONNECTORS AND TRANSMITTER EQUIPMENT SHALL BE AS SPECIFIED BY THE OWNER AND IS NOT INCLUDED IN THESE CONSTRUCTION DOCUMENTS. THE CONTRACTOR SHALL FURNISH ALL CONNECTION HARDWARE REQUIRED TO SECURE THE CABLES. CONNECTION HARDWARE SHALL BE STAINLESS STEEL.
- ALL THREADED STRUCTURAL FASTENERS AND THREADED ROD FOR ANTENNA SUPPORT ASSEMBLIES SHALL CONFORM TO ASTM A307 OR ASTM A36. ALL STRUCTURAL FASTENERS FOR STRUCTURAL STEEL FRAMING SHALL CONFORM TO ASTM A325. FASTENERS SHALL BE 5/8" MIN. DIAMETER BEARING TYPE CONNECTIONS WITH THREADS INCLUDED IN THE SHEAR PLANE. ALL EXPOSED FASTENERS, NUTS AND WASHERS SHALL BE GALVANIZED UNLESS OTHERWISE NOTED. CONCRETE EXPANSION ANCHORS SHALL BE HILTI KWIK BOLTS UNLESS OTHERWISE NOTED.
- NORTH ARROW SHOWN ON PLANS REFERS TO TRUE NORTH. CONTRACTOR SHALL VERIFY TRUE NORTH AND INFORM CONSTRUCTION MANAGER OF ANY DISCREPANCY BEFORE STARTING CONSTRUCTION.



1 BOLT HOLE LAYOUT  
SCALE: 1-1/2" = 1'-0"

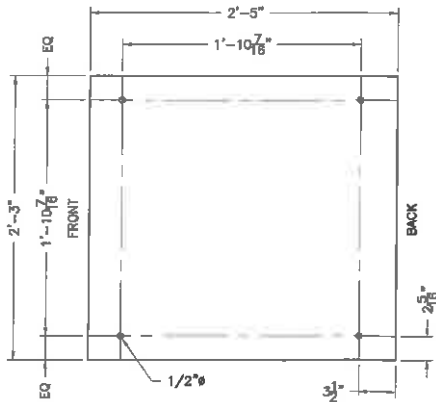
MINIMUM MATERIAL TAKEOFF

UTILITY STAND:

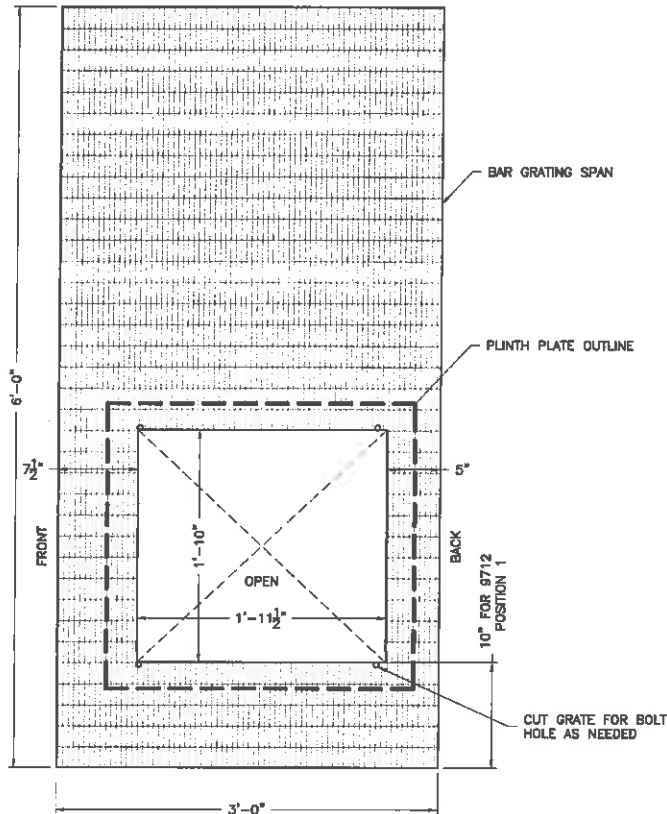
- (7) 15' LONG P1000 UNISTRUT
- UNISTRUT PIPE CLAMP FOR EACH INTERSECTION OF SUPPORT PIPE AND UNISTRUT
- UNISTRUT END CAPS FOR EACH EXPOSED END OF UNISTRUT
- (10) 3" STD (3.5" O.D.) SCHEDULE 40 GALVANIZED PIPE, 13'-4" MINIMUM LENGTH
- (10) GALVANIZED STEEL PIPE CAPS FOR 3.5" O.D. PIPE
- 15' LINEAR, 24" ICE BRIDGE
- (5) ICE BRIDGE PIPE ATTACHMENTS
- (2) COAXIAL CABLE TRAPEZE KITS

EQUIPMENT FRAME:

- (4) 24" X 72" SERRATED SURFACE GALVANIZED 1" X 3/16" BAR GRATE
- (2) 24" X 36" SERRATED SURFACE GALVANIZED 1" X 3/16" BAR GRATE
- (2) 36" X 72" SERRATED SURFACE GALVANIZED 1" X 3/16" BAR GRATE (NON-SERRATED GALVANIZED OPTIONAL FOR GRATE DIRECTLY BELOW LUCENT EQUIPMENT)
- (1) 36" X 36" SERRATED SURFACE GALVANIZED 1" X 3/16" BAR GRATE
- (10) W6X8.5 OR W6X9 GALVANIZED BEAMS
- (1) 29" X 27" X 1/8" PLINTH PLATE ASSOCIATED ATTACHMENT AND ANCHORING HARDWARE AS NEEDED PER SPECIFICATIONS



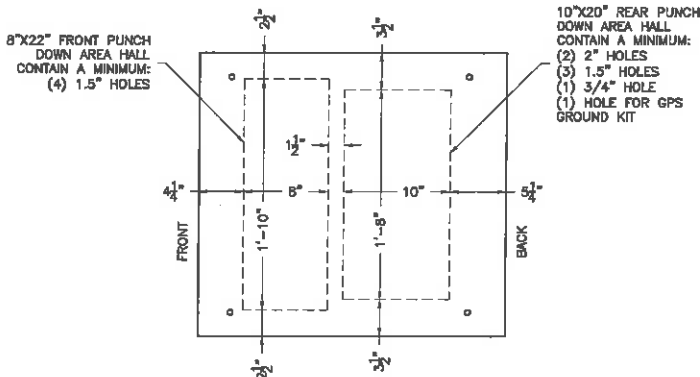
3 29"X27"X1/8" PLINTH PLATE  
SCALE: 1-1/2" = 1'-0"



2 36"X72" GRATE 9712 OPENING  
SCALE: 1-1/2" = 1'-0"

PLINTH PLATE NOTES

- ALL UNUSED PUNCHED HOLES SHALL BE SEALED WITH SCREW TIGHT METAL KNOCK OUT PLUGS, GARDNER BENDER KNOCKOUT SEALS OR EQUIVALENT.
- PUNCH DOWN AREAS ARE COORDINATED WITH ALL 9712 EQUIPMENT PLINTH. ALL HOLES AND FITTINGS SHALL BE COMPLETELY WITHIN THIS PUNCH DOWN AREAS SHOWN.



ENGINEER

NB+C  
TOTALLY COMMITTED.

NB+C ENGINEERING SERVICES, LLC.  
4435 WATERFRONT DRIVE, SUITE 100  
ELLENDALE, VA 22069  
804-546-4078

APPLICANT

verizonwireless

1831 RADY COURT  
RICHMOND, VA 23222

SITE INFORMATION

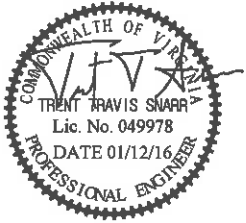
"SEMINOLE SQUARE"  
VERIZON COLLOCATION  
NB+C PROJ. #27074  
195 GEORGETOWN RD  
CHARLOTTESVILLE, VA 22901  
ALBEMARLE COUNTY

DESIGN RECORD

REVISIONS

| REV | DATE     | DESCRIPTION      | BY  |
|-----|----------|------------------|-----|
| 8   | 01/12/16 | REVISED          | OP  |
| 7   | 12/08/15 | REVISED          | OP  |
| 6   | 08/12/15 | CONSTRUCTION BID | AMM |
| 5   | 08/11/15 | REVISED          | AMM |
| 4   | 04/30/15 | REVISED          | AMM |
| 3   | 02/17/15 | REVISED          | DET |
| 2   | 02/13/15 | REVISED          | DET |
| 1   | 02/08/15 | REVISED          | PJP |
| 0   | 01/30/15 | PRELIMINARY      | DS  |

PROFESSIONAL STAMP



ENGINEER

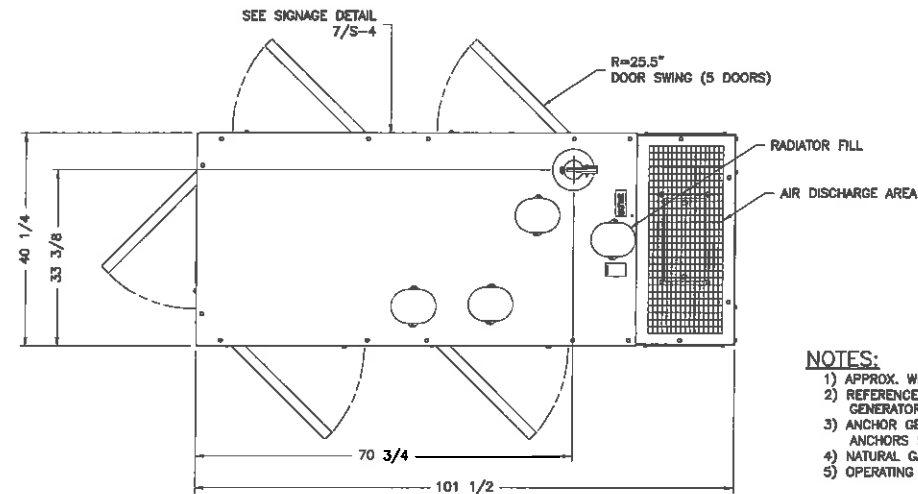
TRENT T. SNARR, P.E.  
VA PROFESSIONAL ENGINEER LIC. #49978

SHEET TITLE

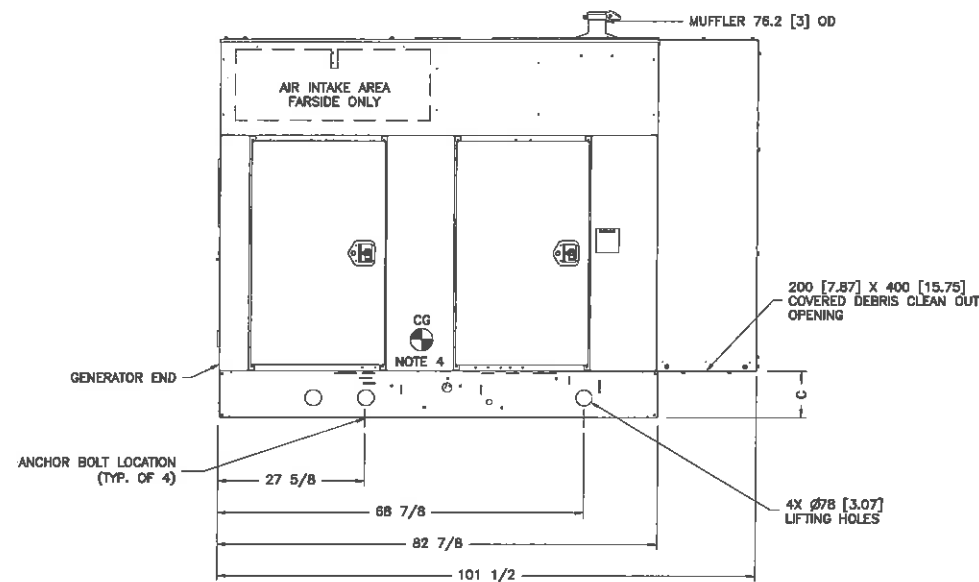
EQUIPMENT  
STEEL PLATFORM  
DETAILS

SHEET NUMBER

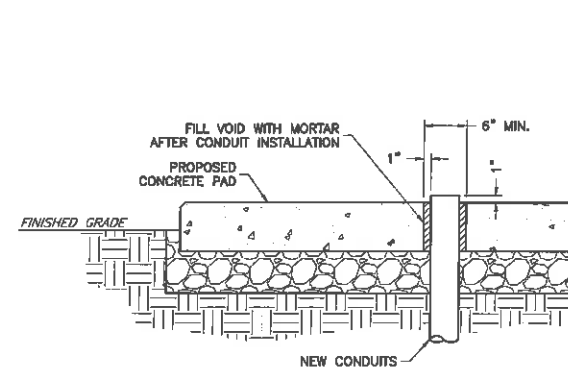
S-3



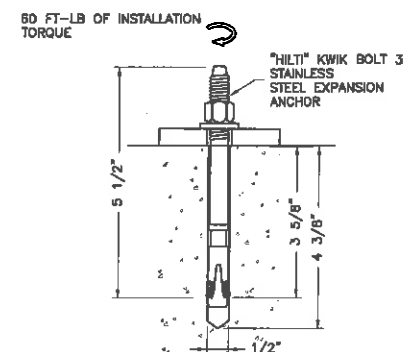
- NOTES:**
- 1) APPROX. WEIGHT: (WET) 2,872 LBS
  - 2) REFERENCE ENCLOSURE DRAWING: 0500\_3187; GENERATOR DRAWING: 0500\_5070
  - 3) ANCHOR GENERATOR TO CONCRETE PAD WITH (4) EXPANSION ANCHORS SEE DETAIL 5/S-4
  - 4) NATURAL GAS FUEL CONSUMPTION IS 590 CFH
  - 5) OPERATING FUEL PRESSURE RANGE IS 7"-13.6" H2O



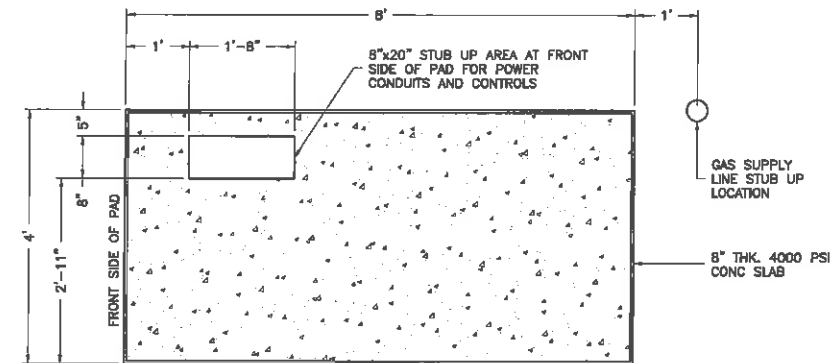
1 40KW GGPB CUMMINS POWER GENERATION NATURAL GAS GENERATOR DETAIL  
S-4 NTS



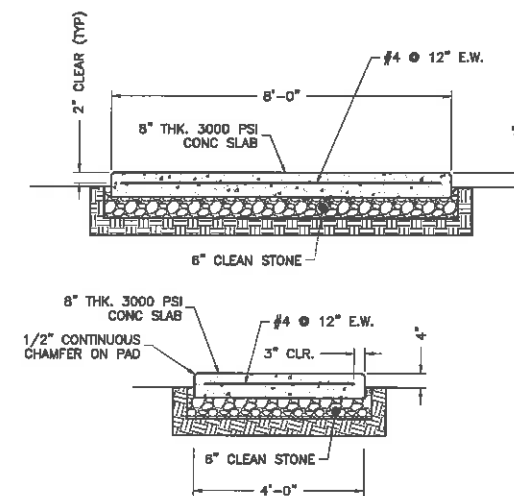
4 CONDUIT ROUTING DETAIL  
S-4 NTS



5 EXPANSION ANCHOR DETAIL  
S-4 NTS



2 GENERATOR PAD DETAIL  
S-4 NTS



3 GENERATOR PAD DETAIL  
S-4 NTS



6 SIGNAGE DETAIL  
S-4 NTS

ENGINEER



APPLICANT



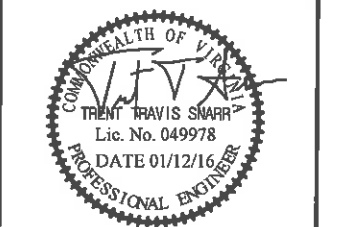
SITE INFORMATION

"SEMINOLE SQUARE"  
VERIZON COLLOCATION  
NB+C PROJ. #27074  
195 GEORGETOWN RD  
CHARLOTTESVILLE, VA 22901  
ALBEMARLE COUNTY

DESIGN RECORD

| REVISIONS |          |                  |     |
|-----------|----------|------------------|-----|
| REV       | DATE     | DESCRIPTION      | BY  |
| 8         | 01/12/16 | REVISED          | OP  |
| 7         | 12/08/15 | REVISED          | OP  |
| 6         | 08/12/15 | CONSTRUCTION BID | AMM |
| 5         | 08/11/15 | REVISED          | AMM |
| 4         | 04/30/15 | REVISED          | AMM |
| 3         | 02/17/15 | REVISED          | DET |
| 2         | 02/13/15 | REVISED          | DET |
| 1         | 02/05/15 | REVISED          | PJP |
| 0         | 01/30/15 | PRELIMINARY      | DS  |

PROFESSIONAL STAMP



ENGINEER

TRENT T. SNARR, P.E.  
VA PROFESSIONAL ENGINEER LIC. #49978

SHEET TITLE

GENERATOR  
DETAILS

SHEET NUMBER

S-4

| PARTS LIST |                |     |
|------------|----------------|-----|
| MARK       | DESCRIPTION    | QTY |
| 20182      | PIPE CAP       | 1   |
| 25081      | SAFETY COLLAR  | 2   |
| 26368      | ANGLE          | 6   |
| 26369      | ANGLE          | 6   |
| 26370      | ANGLE          | 3   |
| 26371      | ANGLE          | 3   |
| 26372      | ANGLE          | 3   |
| 26373      | ANGLE          | 3   |
| 26378      | ANGLE          | 3   |
| 26441      | HUB WELDMENT   | 1   |
| 26442      | PIPE WELDMENT  | 1   |
| 26456      | ANGLE WELDMENT | 1   |
| 26465      | HUB WELDMENT   | 1   |
| 11252      | PIPE WELDMENT  | 1   |

| HARDWARE LIST |     |   |
|---------------|-----|---|
| SYN           | QTY | DESCRIPTION                                 |
| B14           | 8   | 5/8" x 3 1/2" A325 BOLT ASS'Y               |
| B6            | 64  | 1/2" x 1 1/2" SS BOLT ASS'Y                 |
| ISO           | 2   | 1/2" x 7 1/2" SS BOLT ASS'Y                 |
| N6            | 8   | 1/2" x 1 1/2" SO HD SET SCREW               |
| S81           | 8   | 3/4" STEP BOLT ASSEMBLY                     |
| T4            | 8   | 1/2" NUT                                    |
| UB1           | 10  | 1/2" x 2 1/2" x 4" U-BOLT, NUT, L.W. & F.W. |
| V4            | 3   | 1/4" THICK SPACER W/ 9/16" HOLE             |

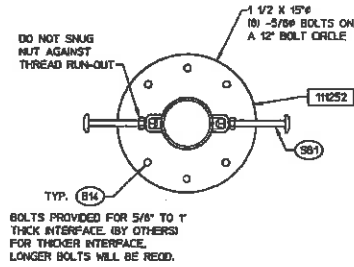
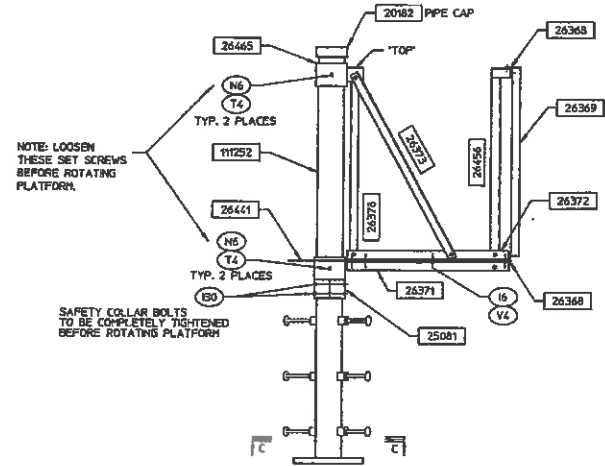
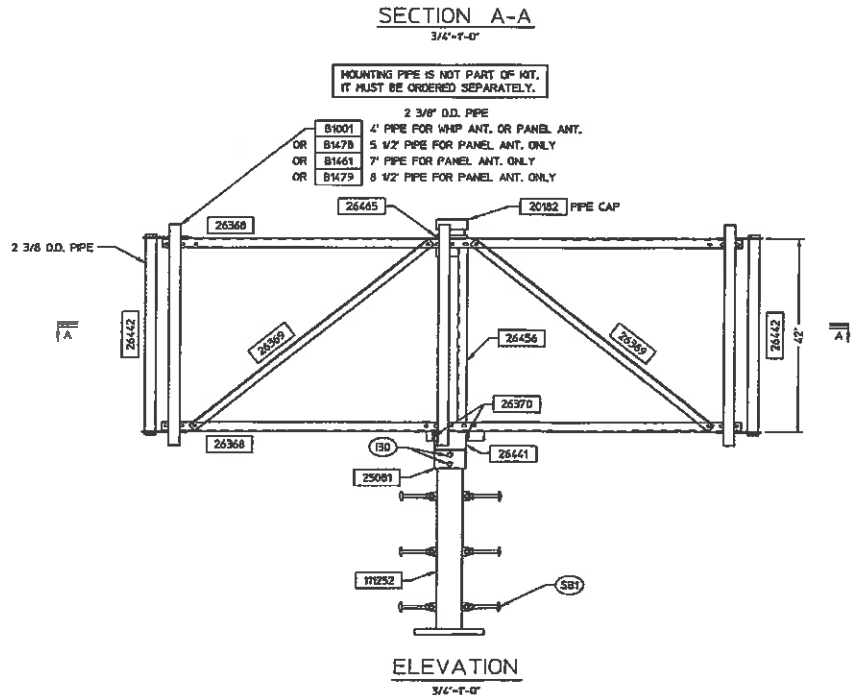
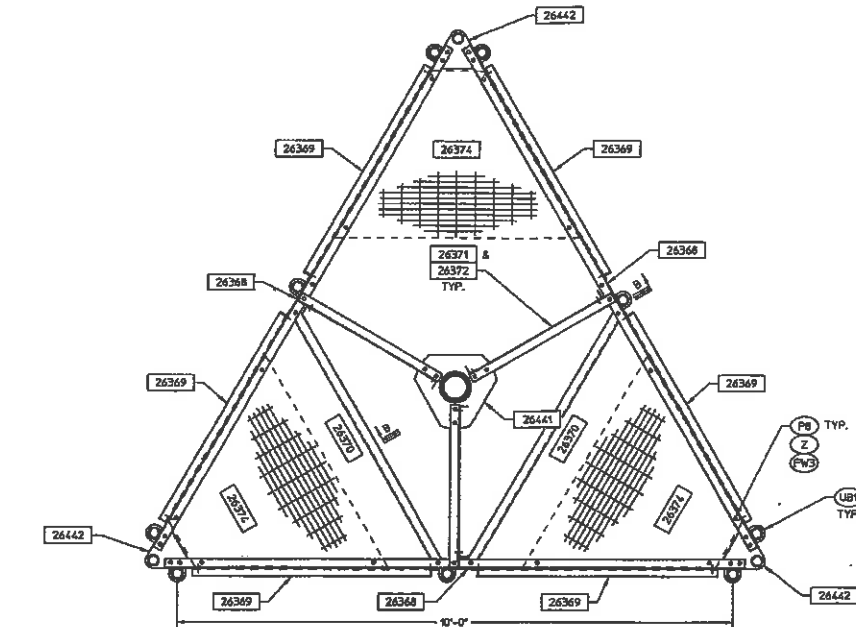
ALL BOLTS 16 UNLESS NOTED.  
TOTAL GALV. PLATFORM WT. 700#

### OPTIONAL GRATING KIT

| GRATING PARTS LIST |             |     |
|--------------------|-------------|-----|
| MARK               | DESCRIPTION | QTY |
| 26374              | GRATING     | 3   |

| GRATING HARDWARE |     |                                |
|------------------|-----|--------------------------------|
| SYN              | QTY | DESCRIPTION                    |
| P8               | 12  | 3/8" x 2" SOCKET HD BOLT ASS'Y |
| PW3              | 12  | 3/8" FLATWASHER                |
| Z                | 12  | 1" GRATING CLIP W/ 7/16" HOLE  |

TOTAL GALV. GRATING WT. 130#



|         |  |                                 |  |
|---------|--|---------------------------------|--|
| PROJECT |  | ROTATABLE ANTENNA PLATFORM      |  |
| DATE    |  | PRODUCT NO. 31-89067 & 31-99591 |  |
| BY      |  | MICROFLECT                      |  |
| DATE    |  | 3575 25TH STREET SE             |  |
| S.O.    |  | SALEM, OR 97302-0995            |  |
|         |  | ISO3163-9287 FAX ISO31 363-4613 |  |
|         |  | D-101985                        |  |
|         |  | SHEET: 1 OF 1                   |  |

**NB+C**  
TOTALLY COMMITTED.

NB+C ENGINEERING SERVICES, LLC.  
4435 WATERFRONT DRIVE, SUITE 100  
GLENN ALLEN, VA 22080  
804-543-4073

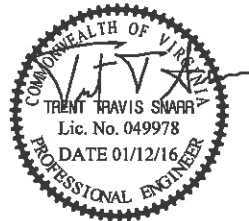
**verizon**wireless

1831 RADY COURT  
RICHMOND, VA 23222

"SEMINOLE SQUARE"  
VERIZON COLLOCATION  
NB+C PROJ. #27074  
195 GEORGETOWN RD  
CHARLOTTESVILLE, VA 22901  
ALBEMARLE COUNTY

### REVISIONS

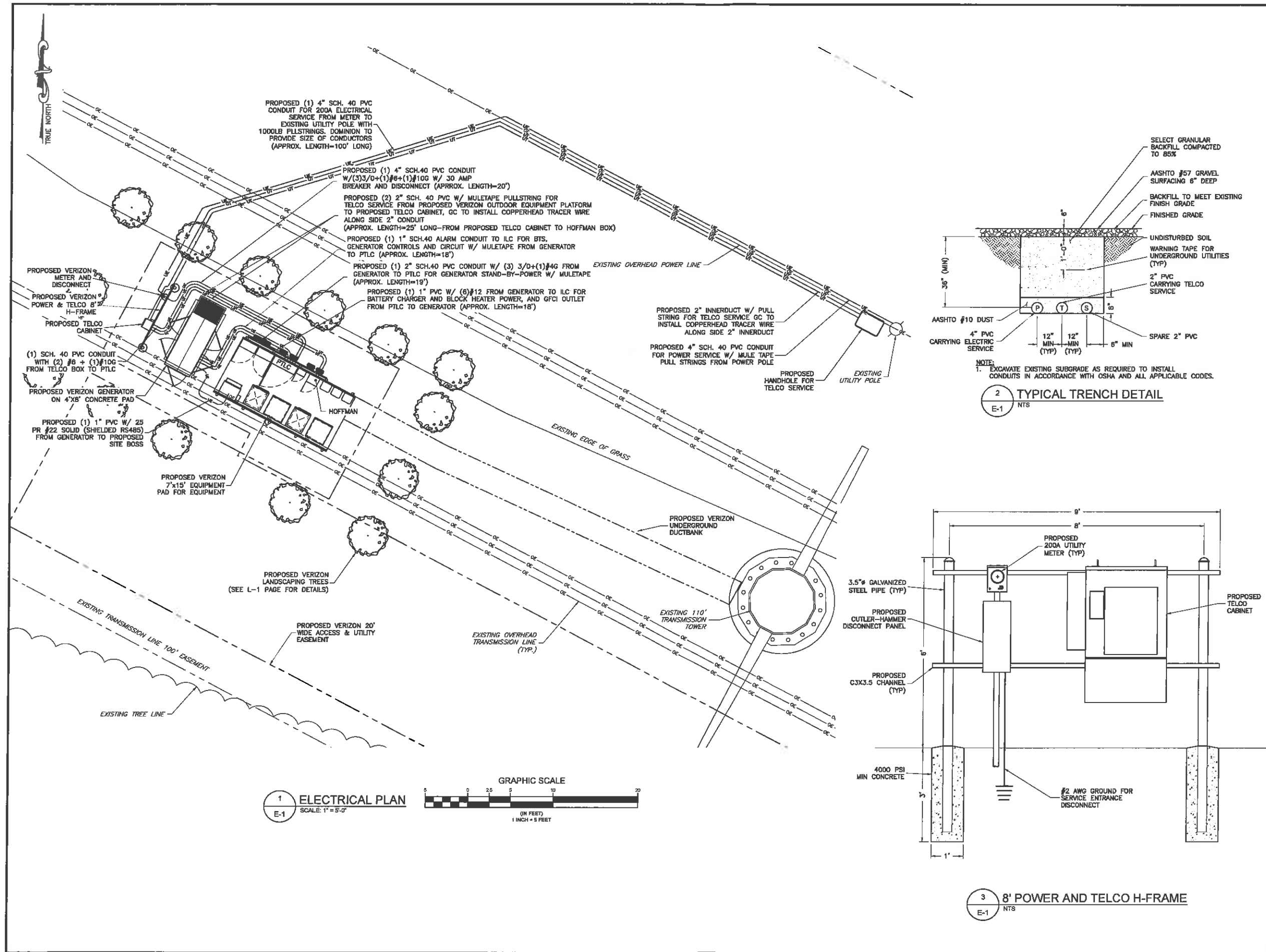
| REV | DATE     | DESCRIPTION      | BY  |
|-----|----------|------------------|-----|
| 6   | 01/12/16 | REVISED          | OP  |
| 7   | 12/08/15 | REVISED          | OP  |
| 6   | 06/12/15 | CONSTRUCTION BID | AMM |
| 5   | 08/11/15 | REVISED          | AMM |
| 4   | 04/30/15 | REVISED          | AMM |
| 3   | 02/17/15 | REVISED          | DET |
| 2   | 02/13/15 | REVISED          | DET |
| 1   | 02/09/15 | REVISED          | PJP |
| 0   | 01/30/15 | PRELIMINARY      | DS  |



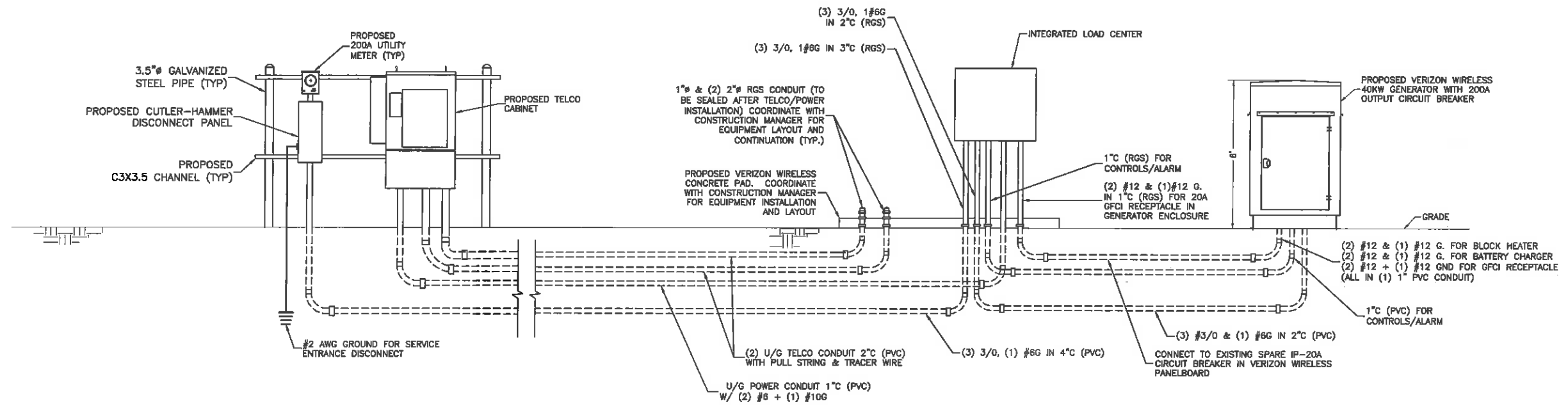
TRENT T. SNARR, P.E.  
VA PROFESSIONAL ENGINEER LIC. #49978

### ANTENNA MOUNT DETAILS

**S-5**



| ENGINEER           | <b>NB+C</b><br><b>TOTALLY COMMITTED.</b><br>NB+C ENGINEERING SERVICES, LLC.<br><small>443 WATERLOO DRIVE, SUITE 101<br/>         GLEN ALLEN, VA 23060<br/>         804-546-4078</small>  |                  |     |           |  |  |  |     |      |             |    |   |          |         |    |   |          |         |    |   |          |                  |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |             |    |
|--------------------|--|------------------|-----|-----------|--|--|--|-----|------|-------------|----|---|----------|---------|----|---|----------|---------|----|---|----------|------------------|-----|---|----------|---------|-----|---|----------|---------|-----|---|----------|---------|-----|---|----------|---------|-----|---|----------|---------|-----|---|----------|-------------|----|
| APPLICANT          | <br><b>verizon</b> wireless<br>1831 RADY COURT<br>RICHMOND, VA 23222   |                  |     |           |  |  |  |     |      |             |    |   |          |         |    |   |          |         |    |   |          |                  |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |             |    |
| SITE INFORMATION   | <b>"SEMINOLE SQUARE"</b><br><b>VERIZON COLLOCATION</b><br>NB+C PROJ. #27074<br>195 GEORGETOWN RD<br>CHARLOTTESVILLE, VA 22901<br>ALBEMARLE COUNTY  |                  |     |           |  |  |  |     |      |             |    |   |          |         |    |   |          |         |    |   |          |                  |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |             |    |
| DESIGN RECORD      | <table border="1"> <thead> <tr> <th colspan="4">REVISIONS</th> </tr> <tr> <th>REV</th> <th>DATE</th> <th>DESCRIPTION</th> <th>BY</th> </tr> </thead> <tbody> <tr> <td>8</td> <td>01/12/16</td> <td>REVISED</td> <td>GP</td> </tr> <tr> <td>7</td> <td>12/08/15</td> <td>REVISED</td> <td>GP</td> </tr> <tr> <td>6</td> <td>08/12/15</td> <td>CONSTRUCTION BID</td> <td>AMM</td> </tr> <tr> <td>5</td> <td>08/11/15</td> <td>REVISED</td> <td>AMM</td> </tr> <tr> <td>4</td> <td>04/30/15</td> <td>REVISED</td> <td>AMM</td> </tr> <tr> <td>3</td> <td>02/17/16</td> <td>REVISED</td> <td>DET</td> </tr> <tr> <td>2</td> <td>02/13/15</td> <td>REVISED</td> <td>DET</td> </tr> <tr> <td>1</td> <td>02/08/15</td> <td>REVISED</td> <td>PJP</td> </tr> <tr> <td>0</td> <td>01/30/15</td> <td>PRELIMINARY</td> <td>DS</td> </tr> </tbody> </table> |                  |     | REVISIONS |  |  |  | REV | DATE | DESCRIPTION | BY | 8 | 01/12/16 | REVISED | GP | 7 | 12/08/15 | REVISED | GP | 6 | 08/12/15 | CONSTRUCTION BID | AMM | 5 | 08/11/15 | REVISED | AMM | 4 | 04/30/15 | REVISED | AMM | 3 | 02/17/16 | REVISED | DET | 2 | 02/13/15 | REVISED | DET | 1 | 02/08/15 | REVISED | PJP | 0 | 01/30/15 | PRELIMINARY | DS |
| REVISIONS          |  |                  |     |           |  |  |  |     |      |             |    |   |          |         |    |   |          |         |    |   |          |                  |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |             |    |
| REV                | DATE   | DESCRIPTION      | BY  |           |  |  |  |     |      |             |    |   |          |         |    |   |          |         |    |   |          |                  |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |             |    |
| 8                  | 01/12/16   | REVISED          | GP  |           |  |  |  |     |      |             |    |   |          |         |    |   |          |         |    |   |          |                  |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |             |    |
| 7                  | 12/08/15   | REVISED          | GP  |           |  |  |  |     |      |             |    |   |          |         |    |   |          |         |    |   |          |                  |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |             |    |
| 6                  | 08/12/15   | CONSTRUCTION BID | AMM |           |  |  |  |     |      |             |    |   |          |         |    |   |          |         |    |   |          |                  |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |             |    |
| 5                  | 08/11/15   | REVISED          | AMM |           |  |  |  |     |      |             |    |   |          |         |    |   |          |         |    |   |          |                  |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |             |    |
| 4                  | 04/30/15   | REVISED          | AMM |           |  |  |  |     |      |             |    |   |          |         |    |   |          |         |    |   |          |                  |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |             |    |
| 3                  | 02/17/16   | REVISED          | DET |           |  |  |  |     |      |             |    |   |          |         |    |   |          |         |    |   |          |                  |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |             |    |
| 2                  | 02/13/15   | REVISED          | DET |           |  |  |  |     |      |             |    |   |          |         |    |   |          |         |    |   |          |                  |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |             |    |
| 1                  | 02/08/15   | REVISED          | PJP |           |  |  |  |     |      |             |    |   |          |         |    |   |          |         |    |   |          |                  |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |             |    |
| 0                  | 01/30/15   | PRELIMINARY      | DS  |           |  |  |  |     |      |             |    |   |          |         |    |   |          |         |    |   |          |                  |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |             |    |
| PROFESSIONAL STAMP |  |                  |     |           |  |  |  |     |      |             |    |   |          |         |    |   |          |         |    |   |          |                  |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |             |    |
| ENGINEER           | TRENT T. SNARR, P.E.<br>VA PROFESSIONAL ENGINEER LIC. #49978   |                  |     |           |  |  |  |     |      |             |    |   |          |         |    |   |          |         |    |   |          |                  |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |             |    |
| SHEET TITLE        | <b>ELECTRICAL PLAN &amp; DETAILS</b>   |                  |     |           |  |  |  |     |      |             |    |   |          |         |    |   |          |         |    |   |          |                  |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |             |    |
| SHEET NUMBER       | <b>E-1</b>   |                  |     |           |  |  |  |     |      |             |    |   |          |         |    |   |          |         |    |   |          |                  |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |             |    |



- NOTES:**
1. FINAL UTILITY DESIGN AND ROUTING TO BE CONFIRMED WITH VERIZON WIRELESS C.M., LOCAL UTILITY COMPANY AND PROPERTY OWNER PRIOR TO CONSTRUCTION.
  2. TIE ELECTRICAL SERVICE INTO PROPOSED GENERATOR/TRANSFER SWITCH. CONFIRM ALL WIRE SIZES WITH MANUFACTURER PRIOR TO CONNECTION.

1  
E-2 NTS  
ELECTRICAL RISER DIAGRAM AND SERVICE ENTRANCE (SCHEMATIC)



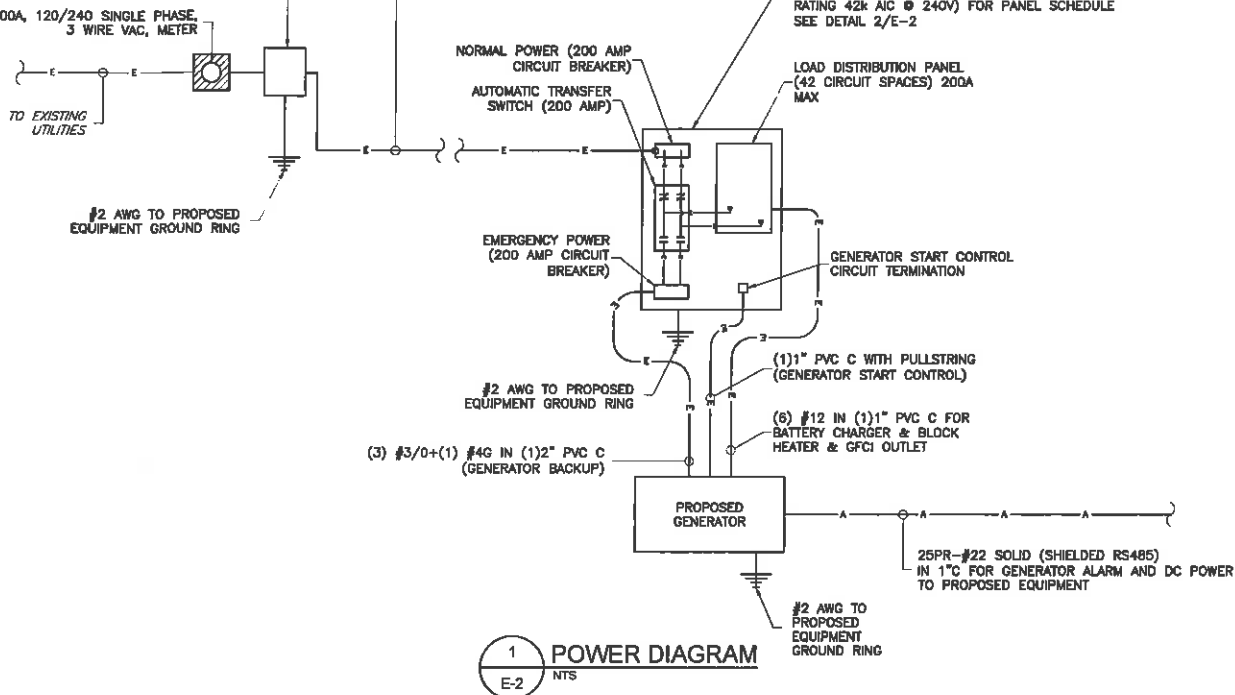
| ENGINEER           | <b>NB+C</b><br>TOTALLY COMMITTED.<br>NB+C ENGINEERING SERVICES, LLC.<br>4425 WATERFRONT DRIVE, SUITE 100<br>OLDFALLS, VA 22081<br>804-645-4078   |                  |     |  |  |     |      |             |    |   |          |         |    |   |          |         |    |   |          |                  |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |             |    |
|--------------------|--|------------------|-----|--|--|-----|------|-------------|----|---|----------|---------|----|---|----------|---------|----|---|----------|------------------|-----|---|----------|---------|-----|---|----------|---------|-----|---|----------|---------|-----|---|----------|---------|-----|---|----------|---------|-----|---|----------|-------------|----|
| APPLICANT          | <b>verizon</b> wireless<br>1831 RADY COURT<br>RICHMOND, VA 23222   |                  |     |  |  |     |      |             |    |   |          |         |    |   |          |         |    |   |          |                  |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |             |    |
| SITE INFORMATION   | "SEMINOLE SQUARE"<br>VERIZON COLLOCATION<br>NB+C PROJ. #27074<br>195 GEORGETOWN RD<br>CHARLOTTESVILLE, VA 22901<br>ALBEMARLE COUNTY  |                  |     |  |  |     |      |             |    |   |          |         |    |   |          |         |    |   |          |                  |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |             |    |
| DESIGN RECORD      | <table border="1"><thead><tr><th colspan="4">REVISIONS</th></tr><tr><th>REV</th><th>DATE</th><th>DESCRIPTION</th><th>BY</th></tr></thead><tbody><tr><td>8</td><td>01/12/16</td><td>REVISED</td><td>CP</td></tr><tr><td>7</td><td>12/08/15</td><td>REVISED</td><td>OP</td></tr><tr><td>6</td><td>08/12/15</td><td>CONSTRUCTION BID</td><td>AMM</td></tr><tr><td>5</td><td>08/11/15</td><td>REVISED</td><td>AMM</td></tr><tr><td>4</td><td>04/30/15</td><td>REVISED</td><td>AMM</td></tr><tr><td>3</td><td>02/17/15</td><td>REVISED</td><td>DET</td></tr><tr><td>2</td><td>02/13/15</td><td>REVISED</td><td>DET</td></tr><tr><td>1</td><td>02/08/15</td><td>REVISED</td><td>PJP</td></tr><tr><td>0</td><td>01/30/15</td><td>PRELIMINARY</td><td>DS</td></tr></tbody></table> | REVISIONS        |     |  |  | REV | DATE | DESCRIPTION | BY | 8 | 01/12/16 | REVISED | CP | 7 | 12/08/15 | REVISED | OP | 6 | 08/12/15 | CONSTRUCTION BID | AMM | 5 | 08/11/15 | REVISED | AMM | 4 | 04/30/15 | REVISED | AMM | 3 | 02/17/15 | REVISED | DET | 2 | 02/13/15 | REVISED | DET | 1 | 02/08/15 | REVISED | PJP | 0 | 01/30/15 | PRELIMINARY | DS |
| REVISIONS          |  |                  |     |  |  |     |      |             |    |   |          |         |    |   |          |         |    |   |          |                  |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |             |    |
| REV                | DATE   | DESCRIPTION      | BY  |  |  |     |      |             |    |   |          |         |    |   |          |         |    |   |          |                  |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |             |    |
| 8                  | 01/12/16   | REVISED          | CP  |  |  |     |      |             |    |   |          |         |    |   |          |         |    |   |          |                  |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |             |    |
| 7                  | 12/08/15   | REVISED          | OP  |  |  |     |      |             |    |   |          |         |    |   |          |         |    |   |          |                  |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |             |    |
| 6                  | 08/12/15   | CONSTRUCTION BID | AMM |  |  |     |      |             |    |   |          |         |    |   |          |         |    |   |          |                  |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |             |    |
| 5                  | 08/11/15   | REVISED          | AMM |  |  |     |      |             |    |   |          |         |    |   |          |         |    |   |          |                  |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |             |    |
| 4                  | 04/30/15   | REVISED          | AMM |  |  |     |      |             |    |   |          |         |    |   |          |         |    |   |          |                  |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |             |    |
| 3                  | 02/17/15   | REVISED          | DET |  |  |     |      |             |    |   |          |         |    |   |          |         |    |   |          |                  |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |             |    |
| 2                  | 02/13/15   | REVISED          | DET |  |  |     |      |             |    |   |          |         |    |   |          |         |    |   |          |                  |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |             |    |
| 1                  | 02/08/15   | REVISED          | PJP |  |  |     |      |             |    |   |          |         |    |   |          |         |    |   |          |                  |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |             |    |
| 0                  | 01/30/15   | PRELIMINARY      | DS  |  |  |     |      |             |    |   |          |         |    |   |          |         |    |   |          |                  |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |             |    |
| PROFESSIONAL STAMP |  |                  |     |  |  |     |      |             |    |   |          |         |    |   |          |         |    |   |          |                  |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |             |    |
| ENGINEER           | TRENT T. SNARR, P.E.<br>VA PROFESSIONAL ENGINEER LIC. #49978   |                  |     |  |  |     |      |             |    |   |          |         |    |   |          |         |    |   |          |                  |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |             |    |
| SHEET TITLE        | ELECTRICAL RISER<br>DIAGRAM &<br>SERVICE ENTRANCE<br>SCHEMATIC   |                  |     |  |  |     |      |             |    |   |          |         |    |   |          |         |    |   |          |                  |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |             |    |
| SHEET NUMBER       | E-2  |                  |     |  |  |     |      |             |    |   |          |         |    |   |          |         |    |   |          |                  |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |         |     |   |          |             |    |

ELECTRICAL NOTES

1. SUBMITTAL OF BID INDICATES THAT THE CONTRACTOR IS COGNIZANT OF ALL JOB SITE CONDITIONS AND WORK TO BE PERFORMED UNDER THIS CONTRACT.
2. CONTRACTOR SHALL PERFORM ALL VERIFICATIONS, OBSERVATION TESTS, AND EXAMINATION WORK PRIOR TO ORDERING OF ANY EQUIPMENT AND THE ACTUAL CONSTRUCTION. CONTRACTOR SHALL ISSUE A WRITTEN NOTICE OF ALL FINDINGS TO THE PROJECT MANAGER LISTING ALL MALFUNCTIONS, FAULTY EQUIPMENT AND DISCREPANCIES.
3. VERIFY HEIGHTS WITH PROJECT MANAGER PRIOR TO INSTALLATION.
4. THESE PLANS ARE DIAGRAMMATIC ONLY, FOLLOW AS CLOSELY AS POSSIBLE.
5. CONTRACTOR SHALL COORDINATE ALL WORK BETWEEN TRADES AND ALL OTHER SCHEDULING AND PROVISIONARY CIRCUMSTANCES SURROUNDING THE PROJECT.
6. CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS, INSURANCE, EQUIPMENT, INSTALLATION CONSTRUCTION TOOLS, TRANSPORTATION, ETC., FOR COMPLETE AND FUNCTIONALLY OPERATING SYSTEMS ENERGIZED AND READY FOR USE THROUGHOUT AS INDICATED ON DRAWINGS, AS SPECIFIED HEREIN AND/OR AS OTHERWISE REQUIRED.
7. ALL MATERIALS AND EQUIPMENT SHALL BE NEW AND IN PERFECT CONDITION WHEN INSTALLED AND SHALL BE OF THE BEST GRADE AND OF THE SAME MANUFACTURER THROUGHOUT FOR EACH CLASS OR GROUP OF EQUIPMENT. ELECTRICAL MATERIALS SHALL BE LISTED AND APPROVED BY UNDERWRITER'S LABORATORIES AND SHALL BEAR THE INSPECTION LABEL "J" WHERE SUBJECT TO SUCH APPROVAL. MATERIALS SHALL MEET WITH APPROVAL OF ALL GOVERNING BODIES HAVING JURISDICTION OVER THE CONSTRUCTION. MATERIALS SHALL BE MANUFACTURED IN ACCORDANCE WITH ALL CURRENT APPLICABLE STANDARDS ESTABLISHED BY ANSI, NEMA AND NFPA. ALL MATERIALS AND EQUIPMENT SHALL BE APPROVED FOR THEIR INTENDED USE AND LOCATION.
8. ALL WORK SHALL COMPLY WITH ALL APPLICABLE GOVERNING STATE, COUNTY AND CITY CODES AND OSHA, NFPA, NEC & ASHRAE REQUIREMENTS.
9. ENTIRE JOB SHALL BE GUARANTEED FOR A PERIOD OF ONE (1) YEAR AFTER THE DATE OF JOB ACCEPTANCE. ALL WORK, MATERIAL AND EQUIPMENT FOUND TO BE FAULTY DURING THAT PERIOD SHALL BE CORRECTED AT ONCE, UPON WRITTEN NOTIFICATION, AT THE EXPENSE OF THE CONTRACTOR.
10. PROPERLY SEAL ALL PENETRATIONS. PROVIDE UL LISTED FIRE-STOPS WHERE PENETRATIONS ARE MADE THROUGH FIRE-RATED ASSEMBLIES. WATER-TIGHT USING SILICONE SEALANT.
11. DELIVER ALL BROCHURES, OPERATING MANUALS, CATALOGS AND SHOP DRAWINGS TO THE PROJECT MANAGER AT JOB COMPLETION. PROVIDE MAINTENANCE MANUALS FOR MECHANICAL EQUIPMENT. AFFIX MAINTENANCE LABELS TO MECHANICAL EQUIPMENT.
12. ALL CONDUCTORS SHALL BE COPPER. MINIMUM CONDUCTOR SIZE SHALL BE #12 AWG., UNLESS OTHERWISE NOTED. CONDUCTORS SHALL BE TYPE THW, RATED IN ACCORDANCE WITH NEC 110-14(C).
13. ALL CIRCUIT BREAKERS, FUSES AND ELECTRICAL EQUIPMENT SHALL HAVE AN INTERRUPTING RATING NOT LESS THAN THE MAXIMUM INTERRUPTING CURRENT TO WHICH THEY MAY BE SUBJECTED.
14. THE ENTIRE ELECTRICAL INSTALLATION SHALL BE GROUNDED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE, ARTICLES 250 & 810 AND THE UTILITY COMPANY STANDARDS.
15. CONDUIT:
- A. RIGID CONDUIT SHALL BE U.L. LABEL GALVANIZED ZINC COATED WITH ZINC INTERIOR AND SHALL BE USED WHEN INSTALLED IN OR UNDER CONCRETE SLABS, IN CONTACT WITH THE EARTH, UNDER PUBLIC ROADWAYS, IN MASONRY WALLS OR EXPOSED ON BUILDING EXTERIOR. RIGID CONDUIT IN CONTACT WITH EARTH SHALL BE 1/2 LAPPED WRAPPED WITH HUNTS WRAP PROCESS NO. 3.
- B. ELECTRICAL METALLIC TUBING SHALL HAVE U.L. LABEL, FITTINGS SHALL BE GLAND RING COMPRESSION TYPE. EMT SHALL BE USED ONLY FOR INTERIOR RUNS.
- C. LIQUID-TIGHT FLEXIBLE METAL CONDUIT SHALL BE U.L. LISTED AND SHALL BE USED AT FINAL CONNECTIONS TO MECHANICAL EQUIPMENT & RECTIFIERS AND WHERE PERMITTED BY CODE. ALL CONDUIT IN EXCESS OF SIX FEET IN LENGTH SHALL CONTAIN A FULL-SIZE GROUND CONDUCTOR.
- D. CONDUIT RUNS SHALL BE SURFACE MOUNTED ON CEILINGS OR WALLS UNLESS NOTED OTHERWISE. ALL CONDUIT SHALL RUN PARALLEL OR PERPENDICULAR TO WALLS, FLOOR, CEILING, OR BEAMS. VERIFY EXACT ROUTING OF ALL EXPOSED CONDUIT WITH THE PROJECT MANAGER PRIOR TO INSTALLING.
- E. PVC CONDUIT MAY BE PROVIDED ONLY WHERE SHOWN, OR IN UNDERGROUND INSTALLATIONS. PROVIDE UV-RESISTANT CONDUIT WHERE EXPOSED TO THE ATMOSPHERE. PROVIDE GROUND CONDUCTOR IN ALL PVC RUNS; EXCEPT WHERE PERMITTED BY CODE TO OMIT.
17. ALL ELECTRICAL EQUIPMENT SHALL BE LABELED WITH PERMANENT ENGRAVED PLASTIC LABELS. BACKGROUND SHALL BE BLACK WITH WHITE LETTERS; EXCEPT AS REQUIRED BY CODE TO FOLLOW A DIFFERENT SCHEME.
18. UPON COMPLETION OF WORK, CONDUCT CONTINUITY, SHORT CIRCUIT, AND FALL OF POTENTIAL GROUNDING TESTS FOR APPROVAL. SUBMIT TEST REPORTS TO PROJECT MANAGER. GROUNDING SYSTEM RESISTANCE SHALL NOT EXCEED 5 OHMS. IF THE RESISTANCE VALUE IS EXCEEDED, NOTIFY THE PROJECT MANAGER FOR FURTHER INSTRUCTION ON METHODS FOR REDUCING THE RESISTANCE VALUE.
19. CLEAN PREMISES OF ALL DEBRIS RESULTING FROM WORK AND LEAVE WORK IN A COMPLETE AND UNDAMAGED CONDITION. LEGALLY DISPOSE OF ALL REMOVED, UNUSED AND EXCESS MATERIAL GENERATED BY THE WORK OF THIS CONTRACT. DELIVER ITEMS INDICATED ON THE DRAWINGS TO THE OWNER IN GOOD CONDITION. OBTAIN SIGNED RECEIPT UPON DELIVERY.
20. COORDINATE WITH UTILITY COMPANY FOR CONNECTION OF TEMPORARY AND PERMANENT POWER TO THE SITE. THE TEMPORARY POWER AND ALL HOOKUP COSTS SHALL BE PAID BY THE CONTRACTOR.
21. VERIFY ALL EXISTING CIRCUITRY PRIOR TO REMOVAL AND NEW WORK. MAINTAIN POWER TO ALL OTHER AREAS & CIRCUITS NOT SCHEDULED FOR REMOVAL.
22. RED LINED AS-BUILT PLANS SHALL BE PROVIDED TO THE CONSTRUCTION MANAGER.

23. INDOOR CONDUCTORS SHALL BE INSTALLED IN EMT UNLESS NOTED OTHERWISE. OUTDOOR CONDUCTORS SHALL BE INSTALLED IN RIGID GALVANIZED STEEL CONDUIT UNLESS NOTED OTHERWISE.
24. NY SMSA TO PROVIDE SURGE SUPPRESSOR FOR TELCO BOARD SERVING NEW EQUIPMENT. THE SURGE SUPPRESSOR TO BE INSTALLED BY CONTRACTOR AND GROUNDED TO MGB.
25. SEAL AROUND PENETRATIONS RESULTING FROM CONDUIT ROUTING WITH FIRE- STOPPING FOAM SEALANT HAVING A UL-LISTED RATING OF 2 HOURS. HAMMER-DRILLING IS NOT PERMITTED. CORE-DRILLING TO BE COORDINATED WITH BUILDING OWNER'S REPRESENTATIVE.
26. PROVIDE (2) FUSES OF SIZE RECOMMENDED BY CONDENSING UNIT MANUFACTURER.
27. PROVIDE SMOKE DETECTOR COMPATIBLE WITH EXISTING BUILDING FIRE ALARM SYSTEM. TIE TO LOCAL ZONE. COORDINATE WITH BUILDING OWNER'S FIRE ALARM SYSTEM CONTRACTOR. PROVIDE SENTROL 449CRT PHOTOELECTRIC SMOKE DETECTOR WITH AUXILIARY RELAY FOR ACU-1 SHUTDOWN.
28. PROVIDE GENERATOR CONNECTOR RECEPTACLE AND ENCLOSED CIRCUIT BREAKER IN LOCATION SUITABLE FOR PORTABLE GENERATOR ACCESS. COORDINATE WITH BUILDING OWNER FOR EXACT LOCATION. PAINT TO MATCH EXISTING WALL COLOR.
29. PROVIDE ALARM TERMINAL CABINET HIGH/LOW ALARMS MOUNTED ON TELCO BOARD.
30. PROVIDE DOOR ALARM CONTACT.

PROPOSED SQUARE D SINGLE PHASE SERVICE  
ENTRANCE RATED 120/240V, 200 AMP  
DISCONNECT MODEL # D224N OR EQUIVALENT.  
PROVIDE (2) 200 AMP FUSES WITH 200,000 AMP  
AIC RATING. CONTRACTOR TO VERIFY THAT THE  
FAULT RATING IS GREATER THAN THE INCOMING  
FAULT CURRENT FROM THE POWER COMPANY.



1 POWER DIAGRAM  
E-2 NTS

| POWER TRANSFER LOAD CENTER (PTLC) |      |                     |          |               |                           |              |                  |                                 |               |    |                   |   |           |           |                     |                |  |       |   |
|-----------------------------------|------|---------------------|----------|---------------|---------------------------|--------------|------------------|---------------------------------|---------------|----|-------------------|---|-----------|-----------|---------------------|----------------|--|-------|---|
| VOLTS: 120/240                    |      |                     | WIRE: 3  |               | RMS: 42k AIC              |              | NEUTRAL BAR: YES |                                 | BRANCH CB: 42 |    | NEMA TYPE: 3R     |   | MFR: ASCO |           |                     |                |  |       |   |
| PHASE: 1                          |      |                     | AMP: 200 |               | MAIN CB AMP: 200          |              | GROUND BAR: YES  |                                 | KEY LOCK: NO  |    | MOUNTING: SURFACE |   |           |           |                     |                |  |       |   |
| WATTS                             |      | CIRCUIT DESCRIPTION |          |               | CONDUCTOR                 | POLES        | B R K T          |                                 | C K T         |    | B R K T           |   | POLES     | CONDUCTOR | CIRCUIT DESCRIPTION |                |  | WATTS |   |
| A                                 | B    |                     |          |               |                           |              | B                | R                               | K             | T  | B                 | R |           |           |                     |                |  | K     | T |
| 2000                              |      |                     |          |               | ALU 9712                  | (3)#4+(1)#4  | 2                | 60                              | 1             | 2  | 3                 | 4 | 15        | 2         | (3)#12+(1)#10       | HEATER         |  | 1088  |   |
| 360                               |      |                     |          |               | EXTERIOR GFCI OUTLET      | (2)#12+G     | 1                | 20                              | 5             | 8  | 20                |   | 1         |           | (2)#12+G            | EXTERIOR LIGHT |  | 430   |   |
|                                   | 2000 |                     |          |               | GENERATOR BATTERY CHARGER | (2)#12+G     | 1                | 20                              | 7             | 8  |                   |   | 1         |           |                     | SPARE          |  |       |   |
| 1000                              |      |                     |          |               | GENERATOR BLOCK HEATER    | (2)#12+G     | 1                | 20                              | 9             | 10 |                   |   | 1         |           |                     | SPARE          |  |       |   |
|                                   | 300  |                     |          |               | TELCO CABINET             | (2)#4+(1)#10 | 1                | 30                              | 11            | 12 |                   |   | 1         |           |                     | SPARE          |  |       |   |
|                                   |      |                     |          |               | SPARE                     |              | 1                |                                 | 13            | 14 |                   |   | 1         |           |                     | SPARE          |  |       |   |
|                                   |      |                     |          |               | SPARE                     |              | 1                |                                 | 15            | 16 |                   |   | 1         |           |                     | SPARE          |  |       |   |
|                                   |      |                     |          |               | SPARE                     |              | 1                |                                 | 17            | 18 |                   |   | 1         |           |                     | SPARE          |  |       |   |
|                                   |      |                     |          |               | SPARE                     |              | 1                |                                 | 19            | 20 |                   |   | 1         |           |                     | SPARE          |  |       |   |
|                                   |      |                     |          |               | SPARE                     |              | 1                |                                 | 21            | 22 |                   |   | 1         |           |                     | SPARE          |  |       |   |
|                                   |      |                     |          |               | SPARE                     |              | 1                |                                 | 23            | 24 |                   |   | 1         |           |                     | SPARE          |  |       |   |
|                                   |      |                     |          |               | SPARE                     |              | 1                |                                 | 25            | 26 |                   |   | 1         |           |                     | SPARE          |  |       |   |
|                                   |      |                     |          |               | SPARE                     |              | 1                |                                 | 27            | 28 |                   |   | 1         |           |                     | SPARE          |  |       |   |
|                                   |      |                     |          |               | SPARE                     |              | 1                |                                 | 29            | 30 |                   |   | 1         |           |                     | SPARE          |  |       |   |
|                                   |      |                     |          |               | SPARE                     |              | 1                |                                 | 31            | 32 |                   |   | 1         |           |                     | SPARE          |  |       |   |
|                                   |      |                     |          |               | SPARE                     |              | 1                |                                 | 33            | 34 |                   |   | 1         |           |                     | SPARE          |  |       |   |
|                                   |      |                     |          |               | SPARE                     |              | 1                |                                 | 35            | 36 |                   |   | 1         |           |                     | SPARE          |  |       |   |
|                                   |      |                     |          |               | SPARE                     |              | 1                |                                 | 37            | 38 |                   |   | 1         |           |                     | SPARE          |  |       |   |
|                                   |      |                     |          |               | SPARE                     |              | 1                |                                 | 39            | 40 |                   |   | 1         |           |                     | SPARE          |  |       |   |
|                                   |      |                     |          |               | SPARE                     |              | 1                |                                 | 41            | 42 |                   |   | 1         |           |                     | SPARE          |  |       |   |
| 3360                              | 2300 | TOTAL               |          |               |                           |              |                  |                                 |               |    |                   |   |           | TOTAL     |                     | 1518           |  |       |   |
| LOAD DESCRIPTION                  |      | CONNECTED LOAD      |          | DEMAND FACTOR |                           | DEMAND LOAD  |                  | TOTAL CONNECTED LOAD BY PHASE   |               |    |                   |   |           |           |                     |                |  |       |   |
| LIGHTS                            |      | 430                 |          | 1.00          |                           | 430          |                  | PHASE A WATTS = 4878            |               |    |                   |   |           |           |                     |                |  |       |   |
| EQUIPMENT                         |      | 6176                |          | 1.00          |                           | 6176         |                  | PHASE B WATTS = 3388            |               |    |                   |   |           |           |                     |                |  |       |   |
| RECEPTACLES                       |      | 360                 |          | 1.00          |                           | 360          |                  | TOTAL CONNECTED LOAD KVA = 8.3  |               |    |                   |   |           |           |                     |                |  |       |   |
| MISC                              |      | 1300                |          | 1.00          |                           | 1300         |                  | TOTAL PANEL LOADING KVA = 8.3   |               |    |                   |   |           |           |                     |                |  |       |   |
| HVAC                              |      | 0                   |          | 1.00          |                           | 0            |                  | TOTAL PANEL CAPACITY KVA = 48.0 |               |    |                   |   |           |           |                     |                |  |       |   |
| TOTAL                             |      | 8266                |          |               |                           | 8266         |                  |                                 |               |    |                   |   |           |           |                     |                |  |       |   |

3 PANEL SCHEDULE  
E-2 NTS

NB+C  
TOTALLY COMMITTED.

NB+C ENGINEERING SERVICES, LLC.  
1405 WATERFRONT DRIVE, SUITE 100  
GLENN ALLEN, VA 22080  
504.548.4078

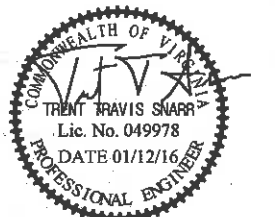
verizonwireless

1831 RADY COURT  
RICHMOND, VA 23222

"SEMINOLE SQUARE"  
VERIZON COLLOCATION  
NB+C PROJ. #27074  
195 GEORGETOWN RD  
CHARLOTTEVILLE, VA 22901  
ALBEMARLE COUNTY

REVISIONS

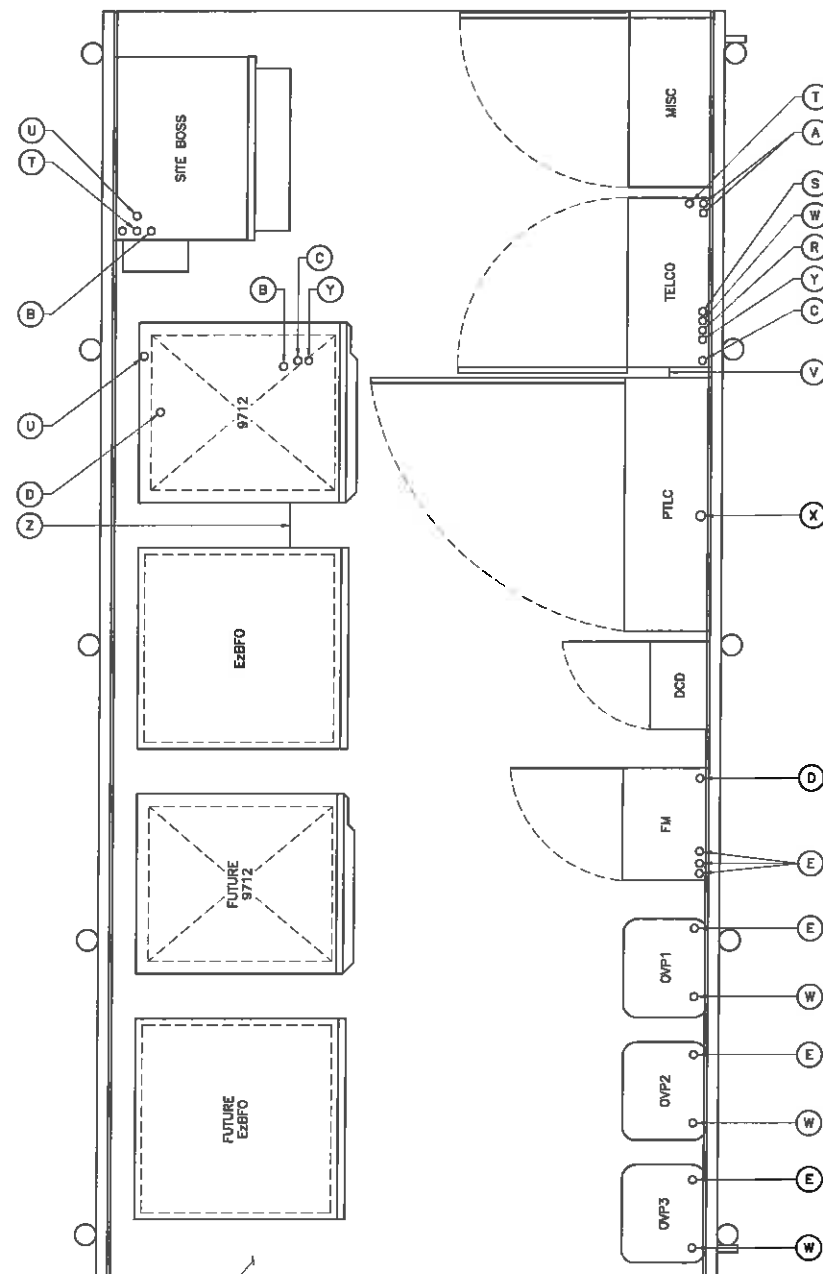
| REV | DATE     | DESCRIPTION      | BY  |
|-----|----------|------------------|-----|
| 8   | 01/12/16 | REVISED          | OP  |
| 7   | 12/08/15 | REVISED          | OP  |
| 6   | 08/12/15 | CONSTRUCTION BID | AMM |
| 5   | 08/11/15 | REVISED          | AMM |
| 4   | 04/03/15 | REVISED          | AMM |
| 3   | 02/17/15 | REVISED          | DET |
| 2   | 02/13/15 | REVISED          | DET |
| 1   | 02/06/15 | REVISED          | PJP |
| 0   | 01/30/15 | PRELIMINARY      | DS  |



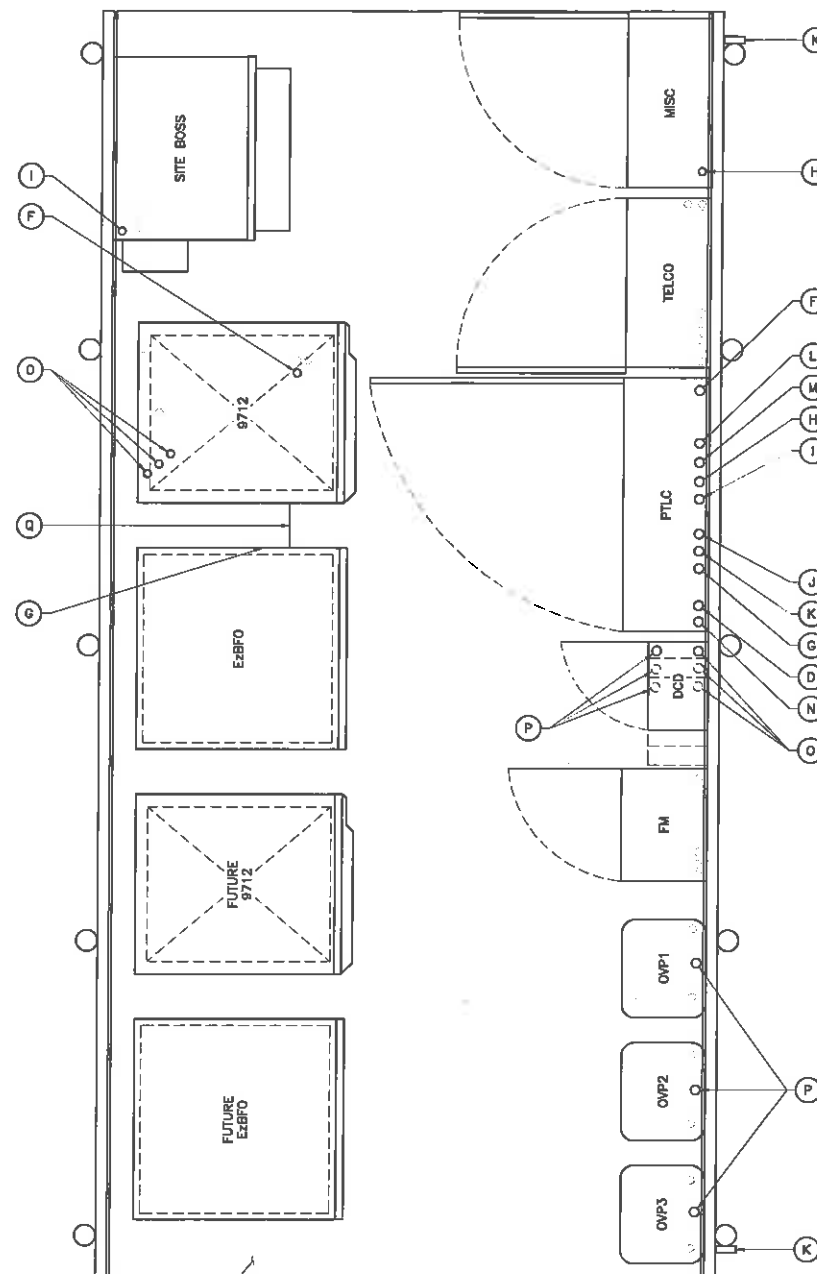
TRENT T. SNARR, P.E.  
VA PROFESSIONAL ENGINEER LIC. #49978

ELECTRICAL  
PANEL SCHEDULE,  
DIAGRAM & NOTES

E-3



1 ALARM/FIBER/CONTROLS CONDUIT CONNECTIONS  
NTS  
E-4



2 AC AND DC POWER CONDUIT CONNECTIONS  
NTS  
E-4

## PLATFORM CONDUIT NOTES

### FIBER CONDUITS

- 2-2" CONDUITS FROM FIBER PROVIDER INTO BOTTOM OF TELCO CABINET. EXCESS FIBER LENGTH TO BE NEATLY COILED INSIDE TELCO CABINET.
- 1.5" CONDUIT FROM SITE BOSS THROUGH PLINTH TO BOTTOM OF 9712 CABINET.
- 1.5" CONDUIT FROM TELCO CABINET TO THE FRONT BOTTOM PLINTH PLATE OF THE PRIMARY 9712 CABINET.
- PROVIDE 2" CONDUIT FROM REAR OF BOTTOM PLINTH PLATE OF THE 9712 CABINET TO THE FIBER MANAGEMENT CABINET ON THE UTILITY STAND.
- PROVIDE 1-1.5" CONDUIT FROM FIBER MANAGEMENT CABINET TO EACH OF 3 OVP'S.

### AC POWER CONDUITS

- PROVIDE 1.5" CONDUIT FROM THE POWER/TRANSFER/LOADCENTER TO THE BOTTOM FRONT PLINTH PLATE OF THE 9712 CABINET. CONDUIT TO CONTAIN AC CONDUCTORS FOR THE 9712 CABINET AND EZBF0 STRIP HEATERS.
- PROVIDE 1" CONDUIT FROM REAR OF PTLG TO SIDE OF EZBF0 CABINET.
- 1/2" CONDUIT FROM REAR OF PTLG TO REAR OF MISC CABINET FOR GFCI QUAD RECEPTACLE.
- 1/2" CONDUIT FROM REAR OF PTLG TO SIDE OF SITE BOSS CABINET QUAD RECEPTACLE.
- 1" CONDUIT FROM REAR OF PTLG CABINET TO GENERATOR BATTERY CHARGER/BLOCK HEATER.
- 1/2" CONDUIT FROM REAR OF PTLG CABINET TO LIGHT SWITCH.
- PROVIDE 2" CONDUIT FROM GENERATOR TO BOTTOM OF PTLG.
- PROVIDE 1.5" CONDUIT FROM REAR PTLG TO MESA CABINET DISCONNECT.
- PROVIDE 2" CONDUIT FROM SERVICE DISCONNECT TO BOTTOM OF PTLG.

### DC POWER CONDUITS

- PROVIDE 1-1.5" CONDUIT FROM BOTTOM REAR PLINTH OF 9712 CABINET TO BOTTOM OF EACH OF 3 DCD BOXES.
- PROVIDE 1-1.5" CONDUIT FROM THE BOTTOM OF EACH OF 3 DCD BOXES TO THE BOTTOM OF EACH OF 3 OVP'S.
- PROVIDE 2" CONDUIT FROM SIDE OF 9712 CABINET PLINTH TO SIDE OF EZBF0 CABINET.

### ALARM/MISCELLANEOUS CONDUITS

- PROVIDE 1" ALARM CONDUIT FROM GENERATOR THROUGH TELCO CABINET\*\*.
- PROVIDE 1" ALARM CONDUIT FROM PROPANE MONITOR THROUGH TELCO CABINET\*\*.
- PROVIDE 1.5" CONDUIT FROM BOTTOM OF TELCO CABINET TO BOTTOM OF SITE BOSS CABINET.
- PROVIDE 1.5" CONDUIT FROM BOTTOM OF SITE BOSS CABINET TO REAR SIDE PLINTH OF 9712 CABINET.
- PROVIDE 1" CONDUIT FROM SIDE OF PTLG TO SIDE OF TELCO CABINET.
- PROVIDE 3-1" CONDUITS FROM OVP'S TO TRANSITION INTO A SINGULAR 1" CONDUIT IN THE BOTTOM OF THE TELCO CABINET.
- PROVIDE 1" CONDUIT FROM PTLG TO GENERATOR CONTROL PANEL.
- PROVIDE 1.5" CONDUIT FROM FRONT BOTTOM PLINTH OF 9712 CABINET TO BOTTOM OF TELCO CABINET.
- PROVIDE 2" CONDUIT FROM SIDE PLINTH OF 9712 CABINET TO SIDE OF EZBF0.

- \* ASSUMING FIBER PROVIDER IS VERIZON.
- \*\* GENERATOR AND PROPANE MONITOR ALARMS MAY ENTER DIRECTLY INTO THE SITE BOSS CABINET.

ENGINEER

**NB+C**  
TOTALLY COMMITTED.

NB+C ENGINEERING SERVICES, LLC.  
4436 WATERFRONT DRIVE, SUITE 100  
OLNEY ALLEEN VA 22009  
804-545-4075

APPLICANT

**verizon**wireless

1831 RADY COURT  
RICHMOND, VA 23222

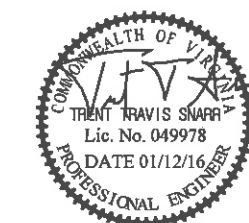
SITE INFORMATION

"SEMINOLE SQUARE"  
VERIZON COLLOCATION  
NB+C PROJ. #27074  
195 GEORGETOWN RD  
CHARLOTTESVILLE, VA 22901  
ALBEMARLE COUNTY

DESIGN RECORD

| REVISIONS |          |                  |     |
|-----------|----------|------------------|-----|
| REV       | DATE     | DESCRIPTION      | BY  |
| 8         | 01/12/16 | REVISED          | OP  |
| 7         | 12/08/15 | REVISED          | OP  |
| 6         | 08/12/15 | CONSTRUCTION BIO | AMM |
| 5         | 08/11/15 | REVISED          | AMM |
| 4         | 04/30/15 | REVISED          | AMM |
| 3         | 02/17/15 | REVISED          | DET |
| 2         | 02/13/15 | REVISED          | DET |
| 1         | 02/09/15 | REVISED          | PJP |
| 0         | 01/30/15 | PRELIMINARY      | DS  |

PROFESSIONAL STAMP



ENGINEER

TRENT T. SNARR, P.E.  
VA PROFESSIONAL ENGINEER LIC. #49978

SHEET TITLE

**ELECTRICAL  
CONDUIT  
SCHEMATIC**

SHEET NUMBER

**E-4**

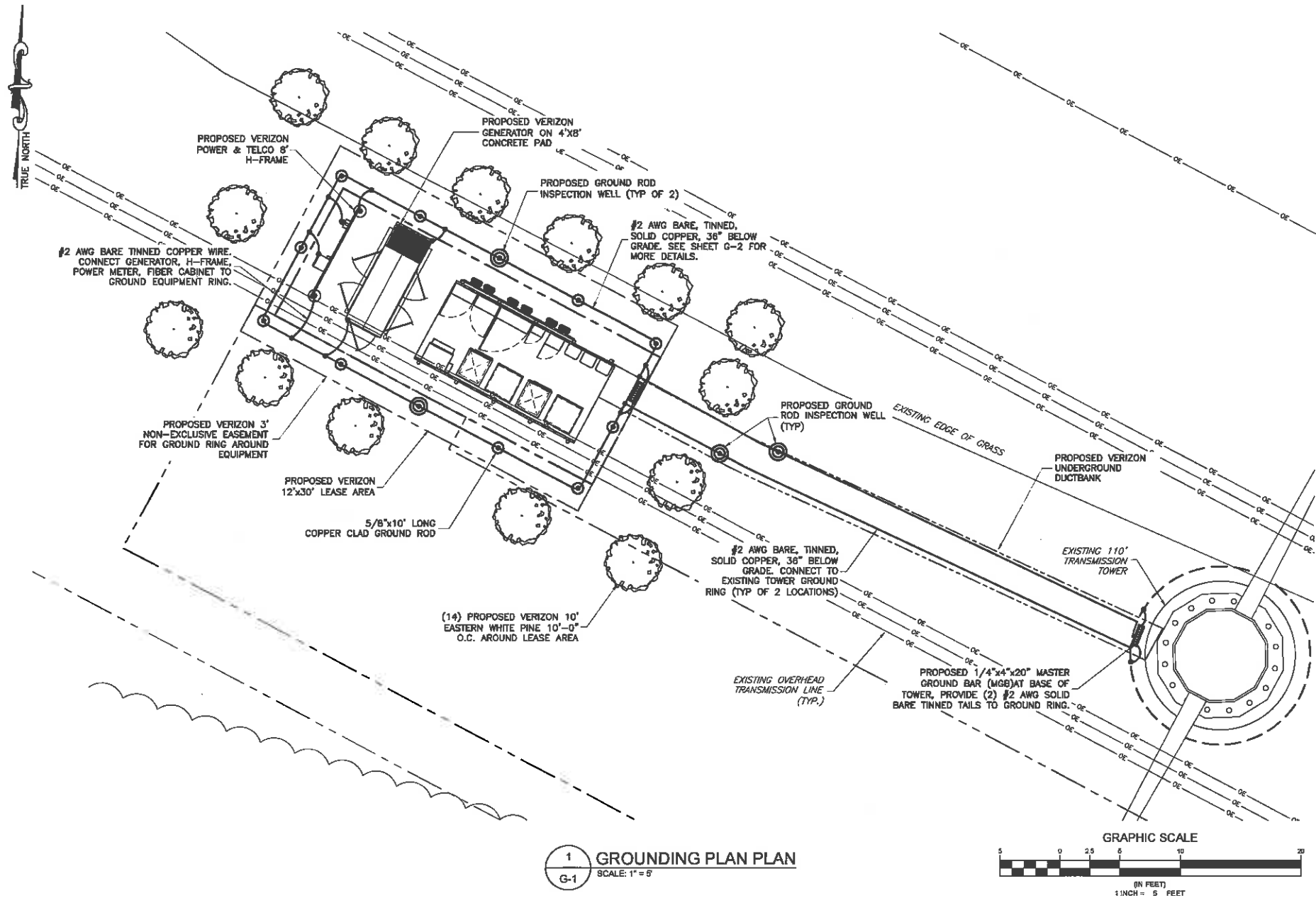


GROUNDING NOTES:

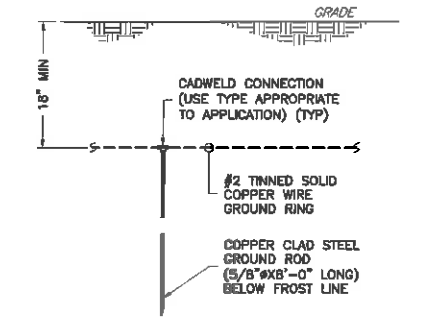
- GROUNDING SHALL COMPLY WITH ARTICLE 250 OF THE NATIONAL ELECTRICAL CODE.
- ALL GROUNDING DEVICES SHALL BE U.L. APPROVED OR LISTED FOR THEIR INTENDED USE.
- ALL WIRES SHALL BE AWG THHN/THWN COPPER UNLESS NOTED OTHERWISE.
- GROUNDING CONNECTIONS TO GROUND RODS, GROUND RING WIRE, TOWER BASE AND FENCE POSTS SHALL BE EXOTHERMIC ("CADWELDS") UNLESS NOTED OTHERWISE. CLEAN SURFACES TO SHINY METAL WHERE GROUND WIRES ARE CADWELDED TO GALVANIZED SURFACES, SPRAY CADWELD WITH GALVANIZING PAINT.
- GROUNDING CONNECTIONS TO GROUND BARS ARE TO BE TWO-HOLE BRASS MECHANICAL CONNECTORS WITH STAINLESS STEEL HARDWARE (INCLUDING SCREW SET) CLEAN GROUND BAR TO SHINY METAL AFTER MECHANICAL CONNECTION. TREAT WITH PROTECTIVE ANTI-OXIDANT COATING.
- GROUND COAXIAL CABLE SHIELDS AT BOTH ENDS WITH MANUFACTURER'S GROUNDING KITS.
- ROUTE GROUNDING CONDUCTORS THE SHORTEST AND STRAIGHTEST PATH POSSIBLE. BEND GROUNDING LEADS WITH A MINIMUM 12" RADIUS.
- INSTALL #2 AWG GREEN-INSULATED STRANDED WIRE FOR ABOVE GRADE GROUNDING AND #2 TINNED SOLID COPPER WIRE FOR BELOW GRADE GROUNDING UNLESS OTHERWISE NOTED.
- REFER TO GROUNDING PLAN FOR GROUND BAR LOCATIONS. GROUNDING CONNECTIONS SHALL BE EXOTHERMIC TYPE ("CADWELDS") TO ANTENNA MOUNTS AND GROUND RING. REMAINING GROUNDING CONNECTIONS SHALL BE COMPRESSION FITTINGS. CONNECTIONS TO GROUND BARS SHALL BE MADE WITH TWO-HOLE LUGS.
- THE GROUND ELECTRODE SYSTEM SHALL CONSIST OF DRIVEN GROUND RODS POSITION ACCORDING TO GROUNDING PLAN. THE GROUND RODS SHALL BE 5/8"x10'-0" COPPER CLAD STEEL INTERCONNECTED WITH #2 TINNED SOLID COPPER WIRE BURIED 36" BELOW GRADE. BURY GROUND RODS A MAXIMUM OF 15' APART, AND A MINIMUM OF 8' APART.
- IF ROCK IS ENCOUNTERED GROUND RODS SHALL BE PLACED AT AN OBLIQUE ANGLE NOT TO EXCEED 45°.
- EXOTHERMIC WELDS SHALL BE MADE IN ACCORDANCE WITH ERICO PRODUCTS BULLETIN A-AT.
- CONSTRUCTION OF GROUND RING AND CONNECTIONS TO EXISTING GROUND RING SYSTEM SHALL BE DOCUMENTED WITH PHOTOGRAPHS PRIOR TO BACKFILLING SITE. PROVIDE PHOTOS TO THE VERIZON CONSTRUCTION MANAGER.
- ALL GROUND LEADS EXCEPT THOSE TO THE EQUIPMENT ARE TO BE #2 TINNED SOLID COPPER WIRE. ALL EXTERIOR GROUND BARS TINNED COPPER.
- PRIOR TO INSTALLING LUGS ON GROUND WIRES, APPLY THOMAS & BETTS KOPR-SHIELD (TM OF JET LUBE INC.), PRIOR TO BOLTING GROUND WIRE LUGS TO GROUND BARS, APPLY KOPR-SHIELD OR EQUAL.
- ENGAGE AN INDEPENDENT ELECTRICAL TESTING FIRM TO TEST AND VERIFY THAT IMPEDANCE DOES NOT EXCEED FIVE OHMS TO GROUND BY MEANS OF "FALL OF POTENTIAL TEST". TEST SHALL BE WITNESSED BY A VERIZON REPRESENTATIVE, AND RECORDED ON THE "GROUND RESISTANCE TEST" FORM.
- WHERE BARE COPPER GROUND WIRES ARE ROUTED FROM ANY CONNECTION ABOVE GRADE TO GROUND RING, INSTALL WIRE IN 3/4" PVC SLEEVE, FROM 1' BELOW GRADE AND SEAL TOP WITH SILICONE MATERIAL.
- PREPARE ALL BONDING SURFACES FOR GROUNDING CONNECTIONS BY REMOVING ALL PAINT AND CORROSION DOWN TO SHINY METAL. FOLLOWING CONNECTION, APPLY APPROPRIATE ANTI-OXIDIZATION PAINT.
- ANY SITE WHERE THE EQUIPMENT (BTS, CABLE BRIDGE, PPC, GENERATOR, ETC.) IS LOCATED WITHIN 8 FEET OF METAL FENCING, THE GROUND RING SHALL BE BONDED TO THE NEAREST FENCE POST USING (3) RUNS OF #2 BARE TINNED COPPER WIRE.

GROUNDING LEGEND

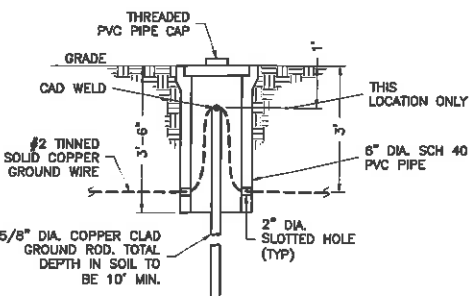
- COAXIAL CABLE SHIELD GROUND KIT CONNECTION
- COMPRESSION FITTING CONNECTION
- EXOTHERMIC WELD CONNECTION
- 5/8"x10' COPPER-CLAD STEEL GROUND ROD
- 5/8"x10' COPPER-CLAD STEEL GROUND ROD WITH INSPECTION WELL
- PROPOSED GROUND WIRING
- EXISTING GROUND WIRING
- TINNED COPPER GROUND BAR 1/4"x4"x12" OR 1/4"x4"x20"
- CGB COLLECTOR GROUND BAR
- MGB MAIN GROUND BAR



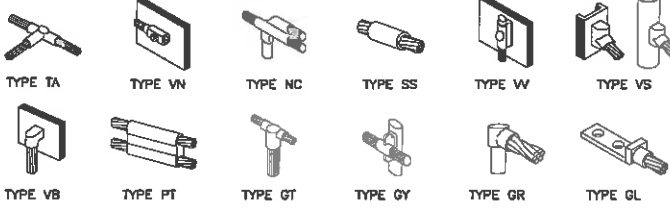
1 GROUNDING PLAN PLAN  
SCALE: 1" = 5'



2 TYPICAL GROUND ROD DETAIL  
NTS



3 INSPECTION WELL DETAIL  
NTS



4 CADWELD GROUNDING CONNECTION DETAILS  
NTS

ENGINEER

APPLICANT

SITE INFORMATION

DESIGN RECORD

PROFESSIONAL STAMP

ENGINEER

SHEET TITLE

SHEET NUMBER

**NB+C**  
TOTALLY COMMITTED.

NB+C ENGINEERING SERVICES, LLC.  
4435 WATERFRONT DRIVE, SUITE 100  
GREEN VALLEY, VA 22059  
804-461-4078

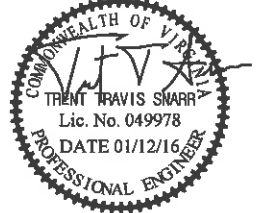
**verizon**wireless

1831 RADY COURT  
RICHMOND, VA 23222

"SEMINOLE SQUARE"  
VERIZON COLLOCATION  
NB+C PROJ. #27074  
195 GEORGETOWN RD  
CHARLOTTESVILLE, VA 22901  
ALBEMARLE COUNTY

REVISIONS

| REV | DATE     | DESCRIPTION      | BY  |
|-----|----------|------------------|-----|
| 8   | 01/12/16 | REVISED          | CP  |
| 7   | 12/08/15 | REVISED          | CP  |
| 6   | 08/12/15 | CONSTRUCTION BID | AMM |
| 5   | 08/11/15 | REVISED          | AMM |
| 4   | 04/30/15 | REVISED          | AMM |
| 3   | 02/17/15 | REVISED          | DET |
| 2   | 02/13/15 | REVISED          | DET |
| 1   | 02/08/15 | REVISED          | PJP |
| 0   | 01/30/15 | PRELIMINARY      | DS  |

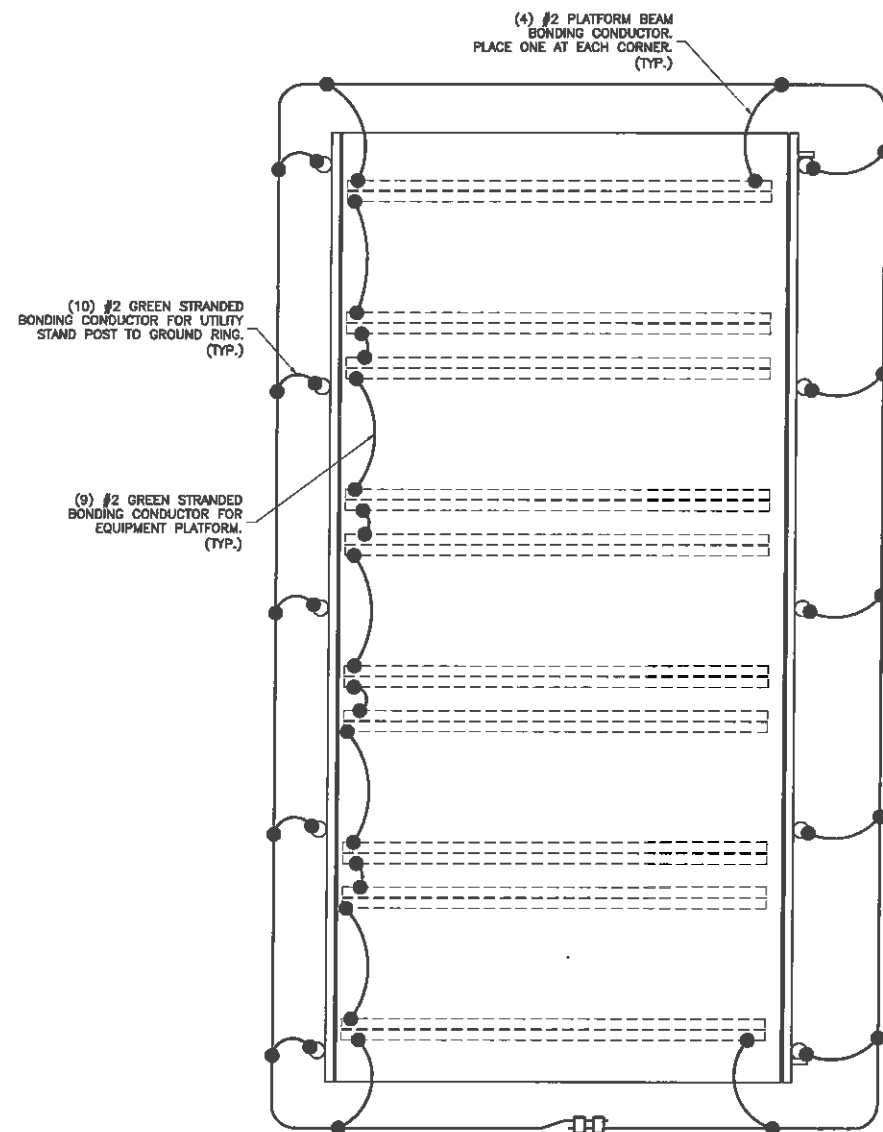


TRENT T. SNARR, P.E.  
VA PROFESSIONAL ENGINEER LIC. #49978

GROUNDING PLAN & DETAILS

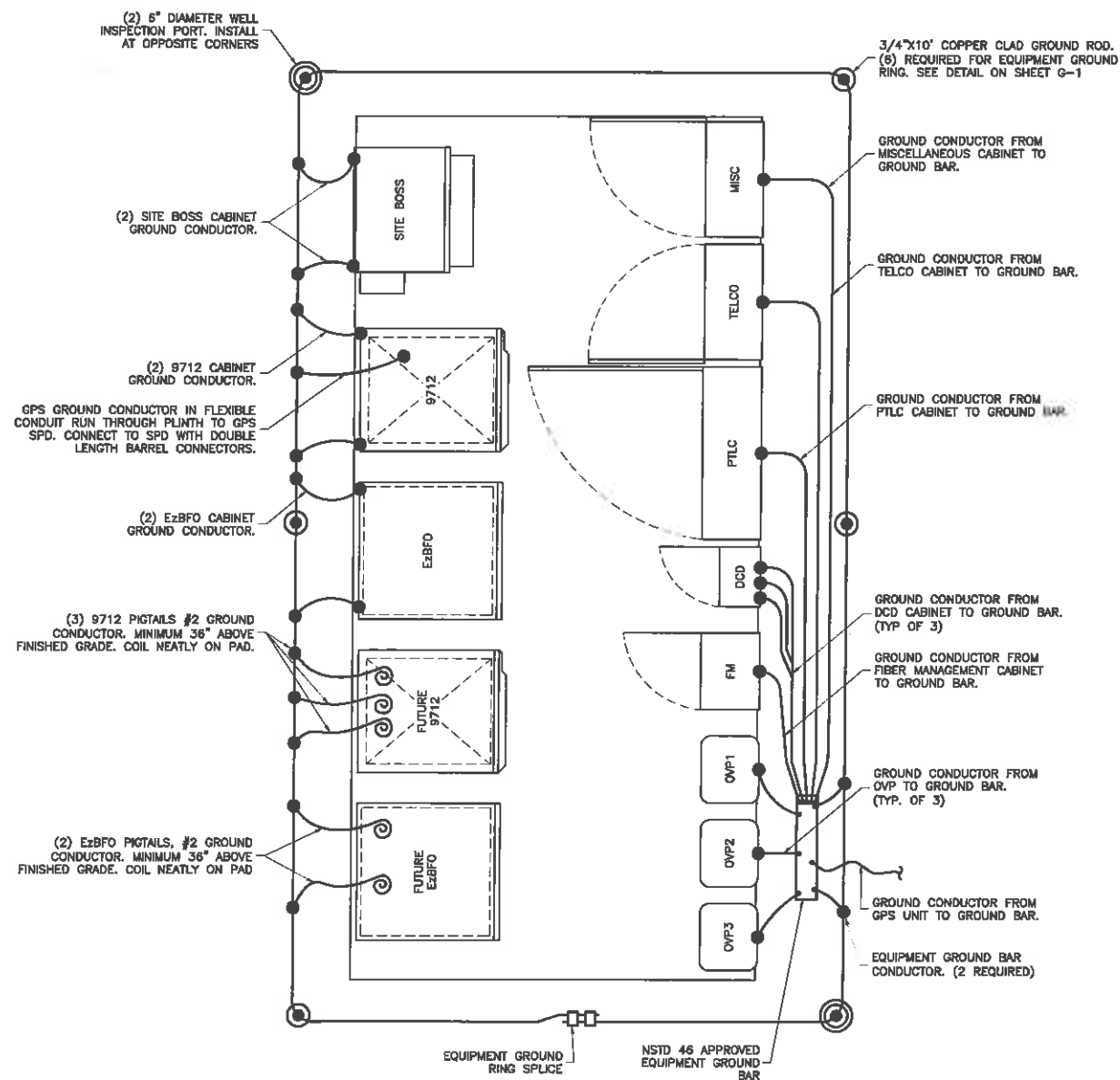
**G-1**

NOTES THIS SHEET ONLY:  
1. BELOW GRADE GROUND RING BONDS AND CONNECTIONS WILL BE EXOTHERMIC WELDS, NO EXCEPTIONS.  
2. GROUND CONDUCTORS FROM GROUND RING TO PLATFORM OR EQUIPMENT WILL BE RUN IN 3/4" PVC CONDUIT AND SEALED WITH SILICONE.  
3. CONNECTIONS TO GROUND BAR WILL BE HIGH PRESSURE CRIMPED LONG BARREL 2-HOLE LUG.



1 PLATFORM BONDING TO GROUND RING DETAILS  
G-2 NTS

NOTES:  
1. RRH'S NOT SHOWN FOR CLARITY  
2. RRH'S TO BE GROUNDED TO EQUIPMENT GROUND BAR



2 EQUIPMENT GROUNDING DETAILS  
G-2 NTS

ENGINEER

**NB+C**  
TOTALLY COMMITTED.

NB+C ENGINEERING SERVICES, LLC.  
4435 WATERFRONT DRIVE, SUITE 100  
GLYNN ALLEN, VA 23060  
804-645-0275

APPLICANT

**verizon**wireless

1831 RADY COURT  
RICHMOND, VA 23222

SITE INFORMATION

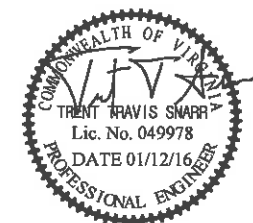
"SEMINOLE SQUARE"  
VERIZON COLLOCATION  
NB+C PROJ. #27074  
195 GEORGETOWN RD  
CHARLOTTESVILLE, VA 22901  
ALBEMARLE COUNTY

DESIGN RECORD

REVISIONS

| REV | DATE     | DESCRIPTION      | BY  |
|-----|----------|------------------|-----|
| 8   | 01/12/16 | REVISED          | CP  |
| 7   | 12/06/15 | REVISED          | OP  |
| 6   | 08/12/15 | CONSTRUCTION BID | AMM |
| 5   | 06/11/15 | REVISED          | AMM |
| 4   | 04/30/15 | REVISED          | AMM |
| 3   | 02/17/15 | REVISED          | DET |
| 2   | 02/13/15 | REVISED          | DET |
| 1   | 02/08/15 | REVISED          | PJP |
| 0   | 01/30/15 | PRELIMINARY      | DS  |

PROFESSIONAL STAMP



ENGINEER

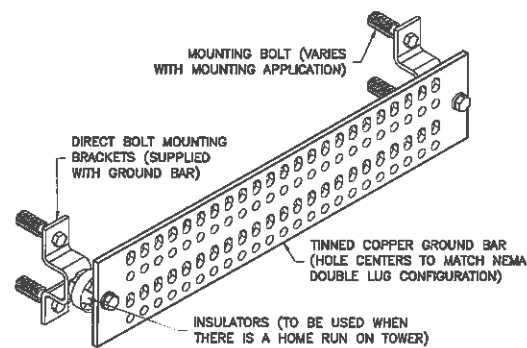
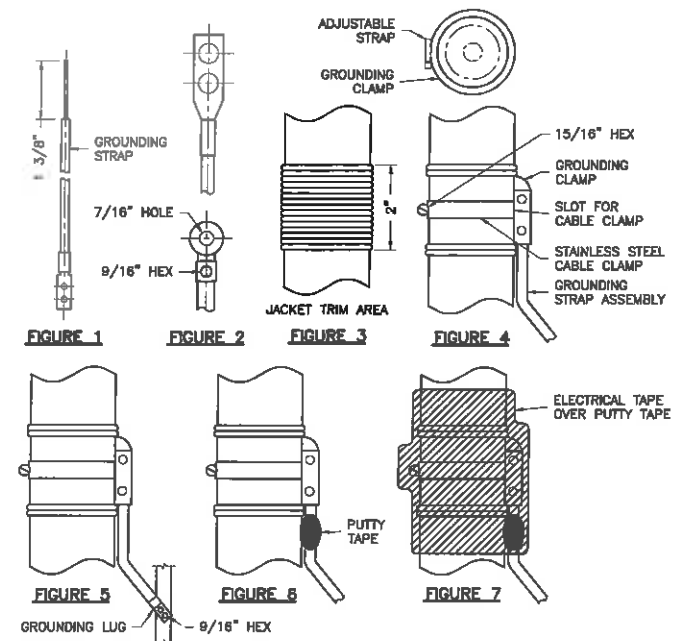
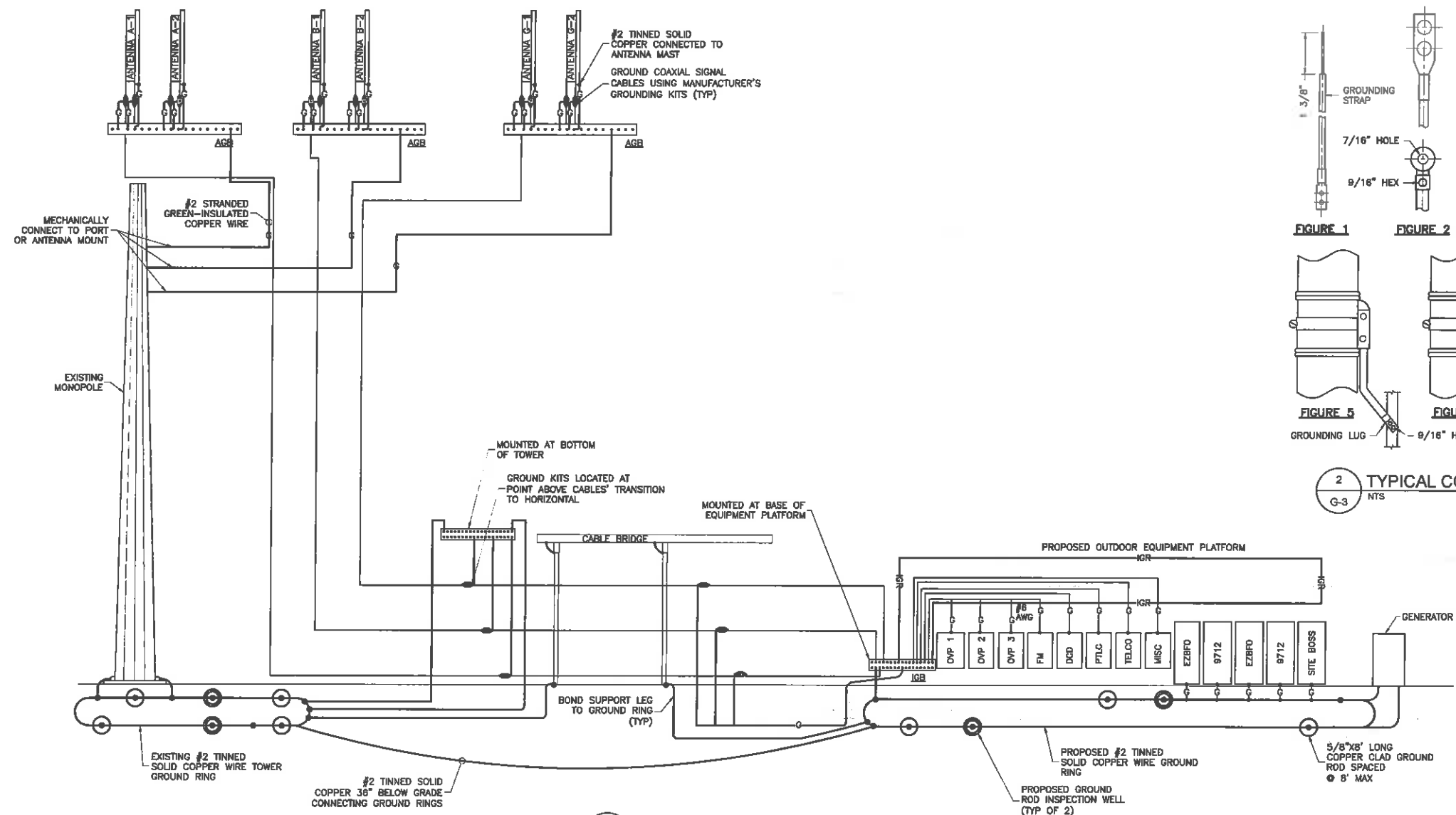
TRENT T. SNARR, P.E.  
VA PROFESSIONAL ENGINEER LIC. #49978

SHEET TITLE

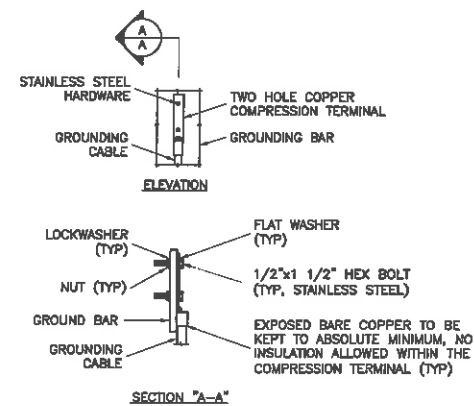
**GROUNDING  
PLAN**

SHEET NUMBER

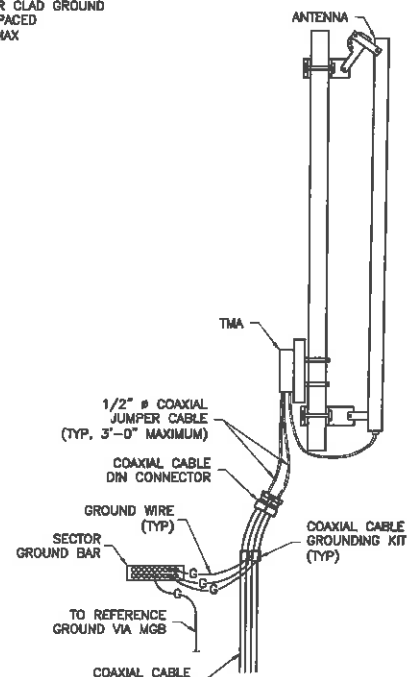
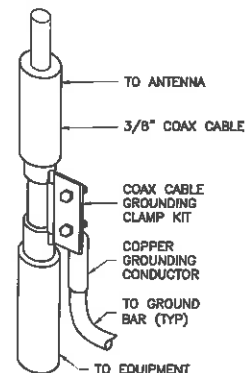
**G-2**



| GROUND BAR SCHEDULE |     |              |               |          |
|---------------------|-----|--------------|---------------|----------|
| TYPE                | QTY | MANUFACTURER | PART NO.      | REMARKS  |
| MGB                 | 2   | ANDREW       | UGBKIT-0420-T | OR EQUAL |
| CBG                 | 3   | ANDREW       | UGBKIT-0412   | OR EQUAL |



NOTE:  
1. "DOUBLING UP" OR "STACKING" OF CONNECTIONS IS NOT PERMITTED.  
2. OXIDE INHIBITING COMPOUND TO BE USED AT ALL LOCATIONS.



**NB+C**  
TOTALLY COMMITTED.

NB+C ENGINEERING SERVICES, LLC.  
4405 WATERFRONT DRIVE, SUITE 100  
GLENN ALLEN, VA 22080  
804-548-4078

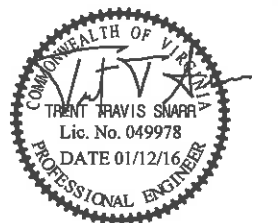
**verizon**wireless

1831 RADY COURT  
RICHMOND, VA 23222

"SEMINOLE SQUARE"  
VERIZON COLLOCATION  
NB+C PROJ. #27074  
195 GEORGETOWN RD  
CHARLOTTESVILLE, VA 22901  
ALBEMARLE COUNTY

## REVISIONS

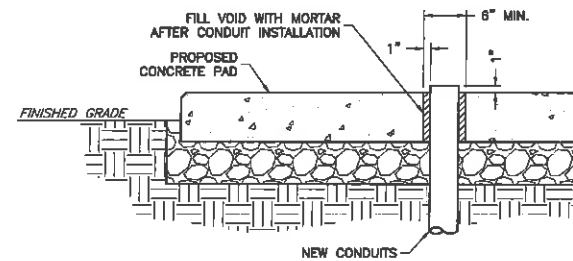
| REV | DATE     | DESCRIPTION      | BY  |
|-----|----------|------------------|-----|
| 8   | 01/12/16 | REVISED          | OP  |
| 7   | 12/08/15 | REVISED          | OP  |
| 6   | 08/12/15 | CONSTRUCTION BID | AMM |
| 5   | 06/11/15 | REVISED          | AMM |
| 4   | 04/30/15 | REVISED          | AMM |
| 3   | 02/17/15 | REVISED          | DET |
| 2   | 02/13/15 | REVISED          | DET |
| 1   | 02/09/15 | REVISED          | PJP |
| 0   | 01/30/15 | PRELIMINARY      | DS  |



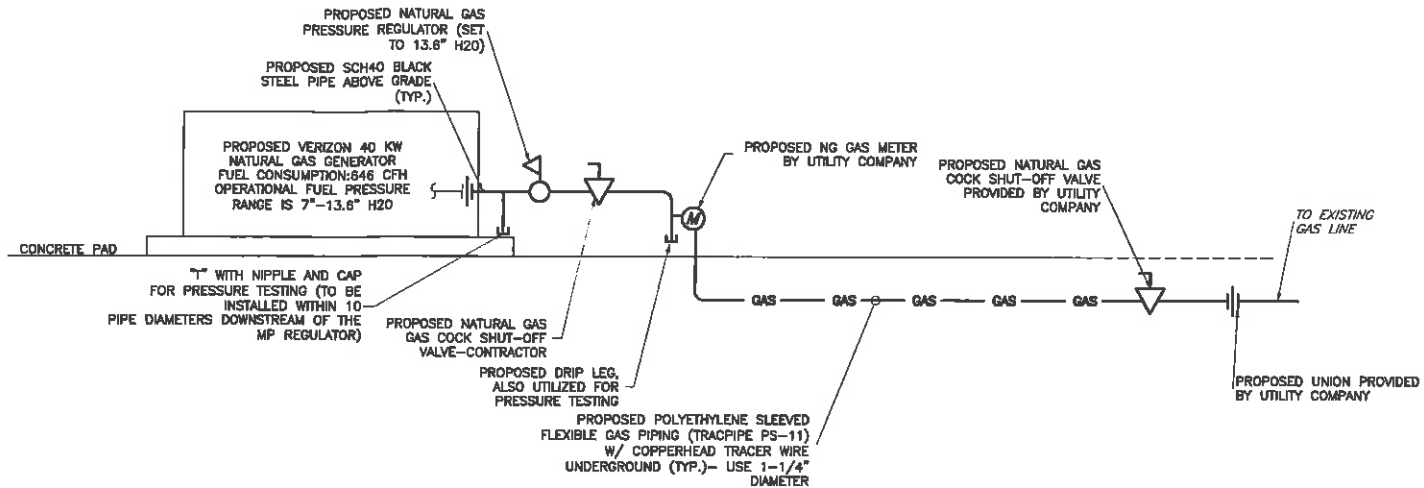
TRENT T. SNARR, P.E.  
VA PROFESSIONAL ENGINEER LIC. #49978

## GROUNDING RISER DIAGRAM & DETAILS

**G-3**



1 CONDUIT PENETRATION DETAIL  
P-1 NTS



2 GAS RISER DIAGRAM  
P-1 SCALE: NOT TO SCALE

#### SYMBOLS LIST & ABBREVIATIONS

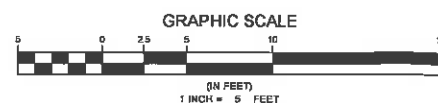
|  |                    |      |                                 |
|--|--------------------|------|---------------------------------|
|  | UNION              | MBH  | 1000 BRITISH THERMAL UNITS/HOUR |
|  | GAS COCK           | PSIG | POUNDS PER SQUARE INCH GAUGE    |
|  | PRESSURE REGULATOR | CFH  | CUBIC FEET PER HOUR             |
|  | NATURAL GAS PIPE   | IFGC | INTERNATIONAL FUEL GAS CODE     |
|  | NATURAL GAS METER  |      |                                 |

#### GENERAL NOTES

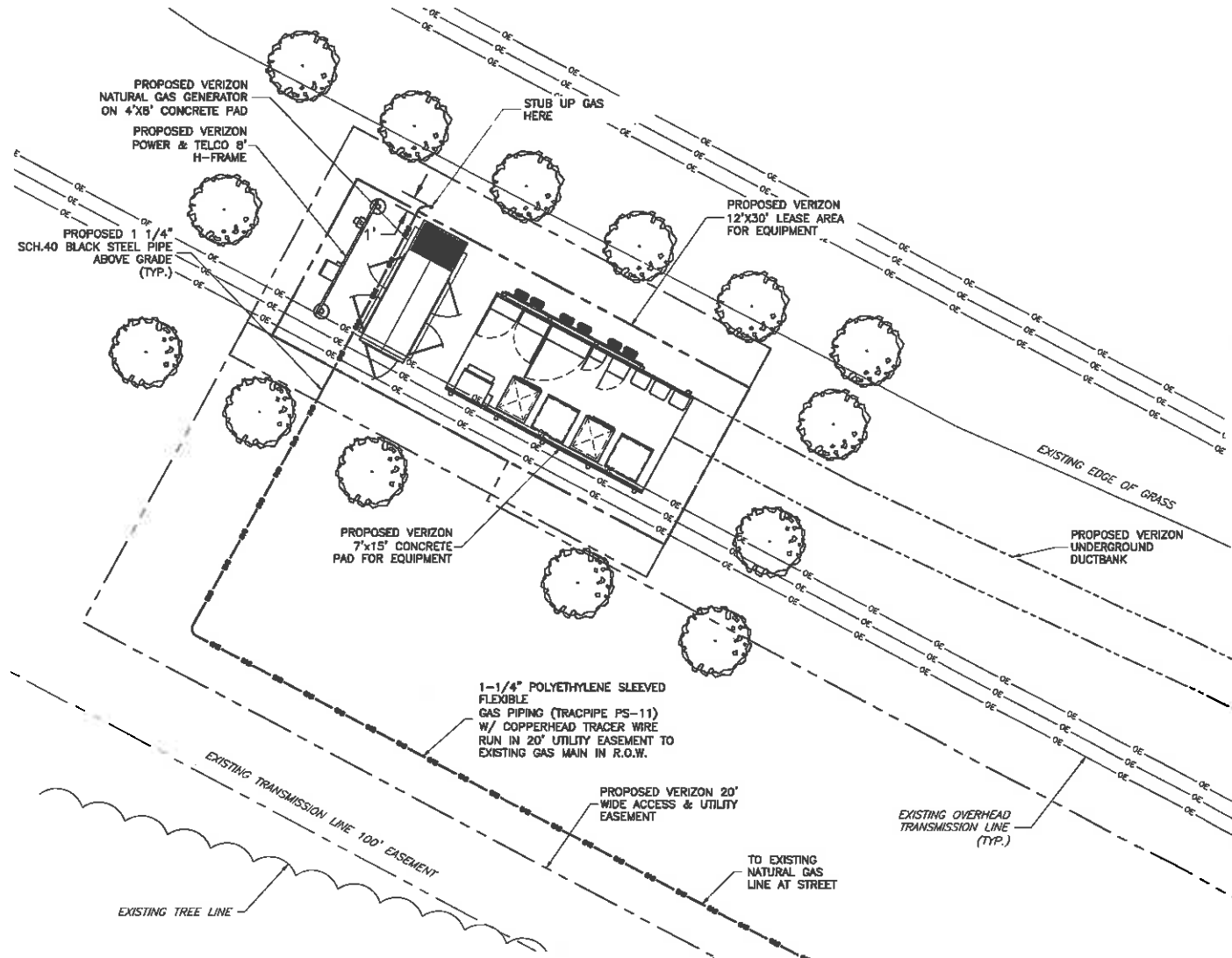
1. PROPOSED PIPE DIAMETER TO BE 1.25" DIAMETER WHICH IS BASED ON A 2 PSI PRESSURE AT THE CONNECTION IN THE STREET RIGHT OF WAY.
2. THE CONTRACTOR SHALL BE RESPONSIBLE TO FIELD VERIFY ALL EXISTING CONDITIONS, PARTICULARLY WHERE THEY MAY IMPACT THE PROPOSED WORK, PRIOR TO STARTING CONSTRUCTION. MINOR VARIATIONS CAN BE EXPECTED. ANY REQUIRED DEVIATION FROM THE CONTRACT DOCUMENTS AS A RESULT OF DIFFERING SITE CONDITIONS SHALL BE APPROVED BY THE ENGINEER PRIOR TO PROCEEDING WITH CONSTRUCTION.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD VERIFYING EXISTING CONDITIONS. EXISTING CONDITIONS HAVE BEEN OBTAINED FROM RECENT FIELD SURVEY.
4. THE CONTRACTOR SHALL CONNECT ALL ITEMS OF EQUIPMENT AND SHALL PROVIDE ALL ITEMS NECESSARY TO COMPLETE THE GAS LINE INSTALLATION.
5. ALL MATERIALS PROVIDED SHALL BE NEW AND FREE FROM DEFECTS.
6. ALL VALVES SHALL BE INSTALLED TO ALLOW PROPER SERVICING AND OR REMOVAL WITHOUT DISCONNECTING ALL PIPING AND ACCESSORIES.
7. ALL EXPOSED NATURAL GAS PIPING SHALL BE SCHEDULE 40 BLACK STEEL PIPE (ASTM A53) WITH 150 PSI FITTINGS.
8. ALL BELOW GRADE NATURAL GAS PIPING SHALL BE POLYETHYLENE-SLEEVED FLEXIBLE GAS PIPING (TRACPIPE PS-11) OR APPROVED EQUAL.
9. DI-ELECTRIC FITTINGS SHALL BE USED FOR CONNECTIONS OF DISSIMILAR PIPING MATERIALS.
10. ALL FERROUS GAS PIPING EXPOSED TO THE ATMOSPHERE OR OTHERWISE SUSCEPTIBLE TO CORROSION SHALL BE PROTECTED WITH A CORROSION RESISTANT COATING WITH "NATURAL GAS" IDENTIFICATION EVERY 25 FEET.

#### NOTES

1. TOTAL LENGTH = 480LF + 44 LF FOR FITTINGS = 504LF.
2. ALL GAS PIPING & AND ACCESSORIES SHALL BE INSTALLED IN ACCORDANCE WITH IFGC 2012 AND LOCAL CODES.
3. ALL GAS PIPING SIZED IN ACCORDANCE WITH IFGC 2012, CHAPTER 4 (ASSUMING A 1.5" H2O PRESSURE DROP OVER ENTIRE LENGTH OF PIPING).
4. GAS PIPING SIZES LISTED ARE BASED ON THE ENGINEER'S UNDERSTANDING OF THE PROPOSED ROUTING FROM THE GAS METER TO GENERATOR. CONTRACTOR SHALL BEAR SOLE RESPONSIBILITY FOR RECALCULATING GAS PIPE SIZE BASED ON ACTUAL ROUTING. UNDER NO CIRCUMSTANCES SHALL CONTRACTOR ASSUME THAT SIZES LISTED REFLECT EXACT PIPE LENGTHS AND NUMBER OF BENDS.
5. FUEL CONSUMPTION: 846 CFH



3 GAS PIPING PLAN  
P-1 SCALE 1"=5'



**NB+C**  
TOTALLY COMMITTED.

NB+C ENGINEERING SERVICES, LLC.  
4435 WATERFRONT DRIVE, SUITE 100  
OLNEY ALLEN, VA 22059  
804-546-4078

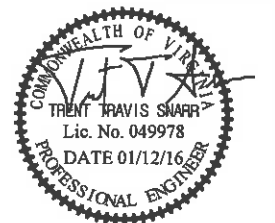
**verizon**wireless

1831 RADY COURT  
RICHMOND, VA 23222

"SEMINOLE SQUARE"  
VERIZON COLLOCATION  
NB+C PROJ. #27074  
195 GEORGETOWN RD  
CHARLOTTESVILLE, VA 22901  
ALBEMARLE COUNTY

#### REVISIONS

| REV | DATE     | DESCRIPTION      | BY  |
|-----|----------|------------------|-----|
| 8   | 01/12/16 | REVISED          | CP  |
| 7   | 12/08/15 | REVISED          | OP  |
| 6   | 08/12/15 | CONSTRUCTION BID | AMM |
| 5   | 06/11/15 | REVISED          | AMM |
| 4   | 04/30/15 | REVISED          | AMM |
| 3   | 02/17/15 | REVISED          | DET |
| 2   | 02/13/15 | REVISED          | DET |
| 1   | 02/06/15 | REVISED          | PJP |
| 0   | 01/30/15 | PRELIMINARY      | DS  |



TRENT T. SNARR, P.E.  
VA PROFESSIONAL ENGINEER LIC. #49978

**GAS PIPING  
DETAILS**

**P-1**

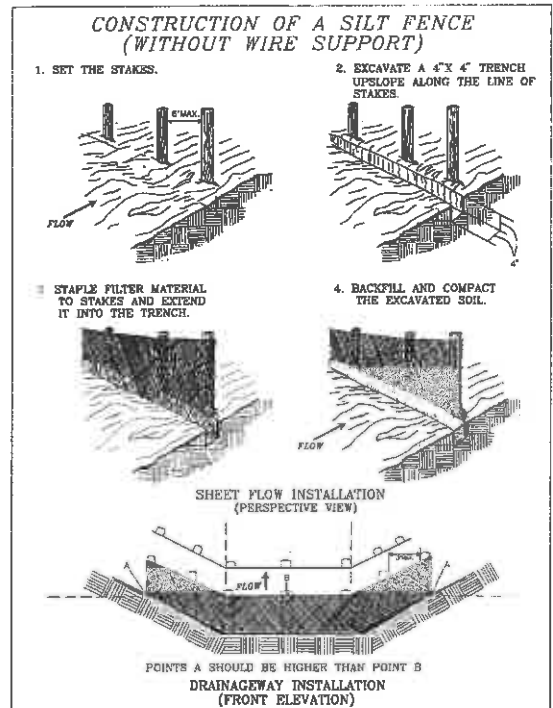


Know what's below.  
Call before you dig.



1992

3.05



Source: Adapted from Installation of Straw and Fabric Filter Barriers for Sediment Control, Sherwood and Wyant

Plate 3.05-2

III - 25

**1 STANDARD FILTER FABRIC FENCE (18" HIGH)**  
ES-2 NTS

1992

3.02

**STD & SPEC 3.02  
TEMPORARY STONE  
CONSTRUCTION ENTRANCE**  
CE

**Definition**

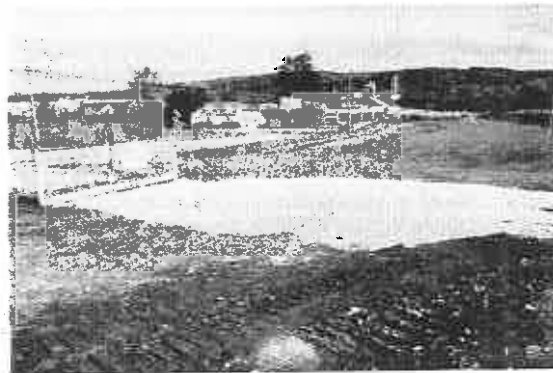
A stabilized stone pad with a filter fabric underliner located at points of vehicular ingress and egress on a construction site.

**Purpose**

To reduce the amount of mud transported onto paved public roads by motor vehicles or runoff.

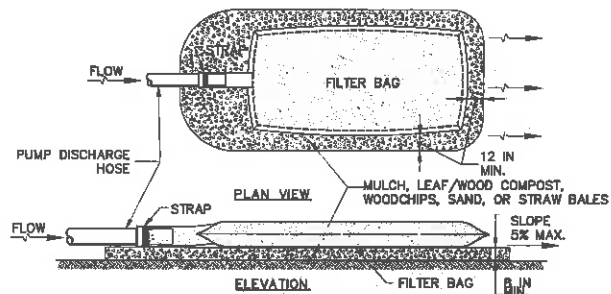
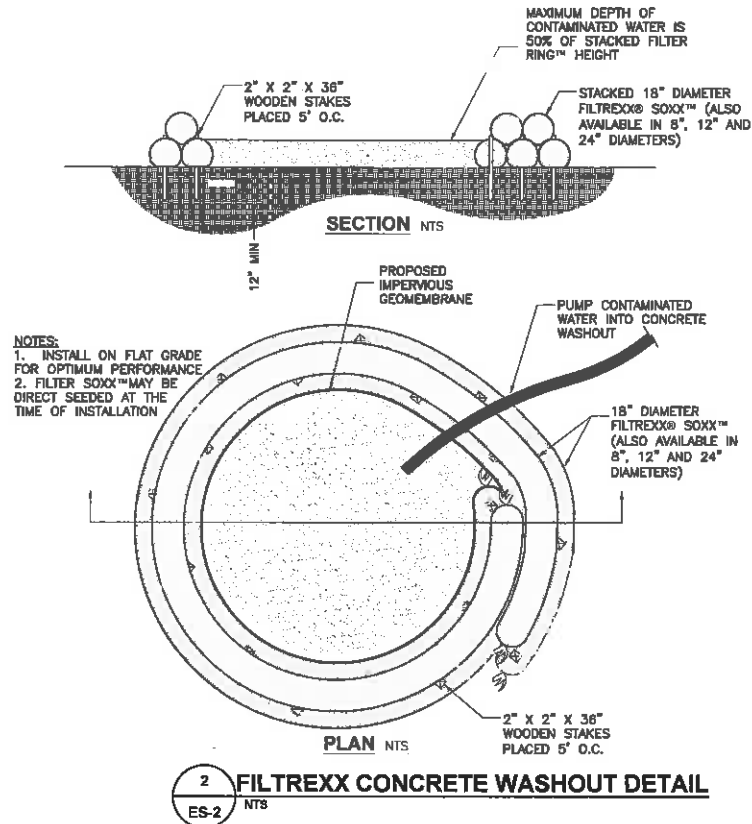
**Conditions Where Practice Applies**

Wherever traffic will be leaving a construction site and move directly onto a public road or other paved area.



III - 6

**3 ROCK CONSTRUCTION ENTRANCE**  
ES-2 NTS



**CONSTRUCTION SPECIFICATIONS**

1. TIGHTLY SEAL SLEEVE AROUND THE PUMP DISCHARGE HOSE WITH A STRAP OR SIMILAR DEVICE.
2. PLACE FILTER BAG ON SUITABLE BASE (E.G., MULCH, LEAF/WOOD COMPOST, WOODCHIPS, SAND, OR STRAW BALES) LOCATED ON A LEVEL OR 5% MAXIMUM SLOPING SURFACE. DISCHARGE TO A STABILIZED AREA. EXTEND BASE A MINIMUM OF 12 INCHES FROM EDGES OF BAG.
3. CONTROL PUMPING RATE TO PREVENT EXCESSIVE PRESSURE WITHIN THE FILTER BAG IN ACCORDANCE WITH THE MANUFACTURER RECOMMENDATIONS. AS THE BAG FILLS WITH SEDIMENT, REDUCE PUMPING RATE.
4. REMOVE AND PROPERLY DISPOSE OF FILTER BAG UPON COMPLETION OF PUMPING OPERATIONS OR AFTER BAG HAS REACHED CAPACITY, WHICHEVER OCCURS FIRST. SPREAD THE DEWATERED SEDIMENT FROM THE BAG IN AN APPROVED UPLAND AREA AND STABILIZE WITH SEED AND MULCH BY THE END OF THE WORK DAY. RESTORE THE SURFACE AREA BENEATH THE BAG TO ORIGINAL CONDITION UPON REMOVAL OF THE DEVICE.
5. USE NONWOVEN GEOTEXTILE WITH DOUBLE STITCHED SEAMS USING HIGH STRENGTH THREAD. SIZE SLEEVE TO ACCOMMODATE A MAXIMUM 4 INCH DIAMETER PUMP DISCHARGE HOSE. THE BAG MUST BE MANUFACTURED FROM A NONWOVEN GEOTEXTILE THAT MEETS OR EXCEEDS MINIMUM AVERAGE ROLL VALUES (MARV) FOR THE FOLLOWING:

|                             |                          |             |
|-----------------------------|--------------------------|-------------|
| GRAB TENSILE                | 250 LB                   | ASTM D-4632 |
| PUNCTURE                    | 150 LB                   | ASTM D-4633 |
| FLOW RATE                   | 70 GAL/MIN/FT²           | ASTM D-4491 |
| PERMITTIVITY (SEC⁻¹)        | 1.2 SEC⁻¹                | ASTM D-4491 |
| UV RESISTANCE               | 70% STRENGTH @ 500 HOURS | ASTM D-4355 |
| APPARENT OPENING SIZE (AOS) | 0.15-0.18 MM             | ASTM D-4751 |
| SEAM STRENGTH               | 90%                      | ASTM D-4632 |
6. REPLACE FILTER BAG IF BAG CLOGS OR HAS RIPS, TEARS, OR PUNCTURES. DURING OPERATION KEEP CONNECTION BETWEEN PUMP HOSE AND FILTER BAG WATER TIGHT. REPLACE BEDDING IF IT BECOMES DISPLACED.

**4 PUMPED WATER FILTER BAG**  
ES-2 NTS

ENGINEER

APPLICANT

SITE INFORMATION

DESIGN RECORD

PROFESSIONAL STAMP

ENGINEER

SHEET TITLE

SHEET NUMBER

**NB+C**  
TOTALLY COMMITTED.

NB+C ENGINEERING SERVICES, LLC.  
4855 WATERFRONT DRIVE, SUITE 100  
GLENN ALLEN, VA 22060  
804.548.4070

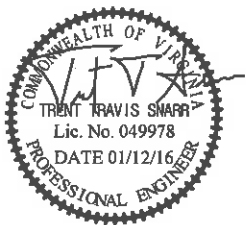
**verizon**wireless

1831 RADY COURT  
RICHMOND, VA 23222

"SEMINOLE SQUARE"  
VERIZON COLLOCATION  
NB+C PROJ. #27074  
195 GEORGETOWN RD  
CHARLOTTESVILLE, VA 22901  
ALBEMARLE COUNTY

**REVISIONS**

| #   | DATE     | REVISION         | BY  |
|-----|----------|------------------|-----|
| 8   | 01/12/16 | REVISED          | OP  |
| 7   | 12/08/15 | REVISED          | CP  |
| 6   | 08/12/15 | CONSTRUCTION BID | AMM |
| 5   | 06/11/15 | REVISED          | AMM |
| 4   | 04/30/15 | REVISED          | AMM |
| 3   | 02/17/15 | REVISED          | DET |
| 2   | 02/13/15 | REVISED          | DET |
| 1   | 02/06/15 | REVISED          | PJP |
| 0   | 01/30/15 | PRELIMINARY      | DS  |
| REV | DATE     | DESCRIPTION      | BY  |



TRENT T. SNARR, P.E.  
VA PROFESSIONAL ENGINEER LIC. #49978

**EROSION &  
SEDIMENTATION  
CONTROL DETAILS**

**ES-2**

| PARTS LIST |                |     | PRODUCT NO.<br>31-89067 |
|------------|----------------|-----|-------------------------|
| MARK       | DESCRIPTION    | QTY |                         |
| 20182      | PIPE CAP       | 1   |                         |
| 25081      | SAFETY COLLAR  | 2   |                         |
| 26368      | ANGLE          | 6   |                         |
| 26369      | ANGLE          | 6   |                         |
| 26370      | ANGLE          | 2   |                         |
| 26371      | ANGLE          | 3   |                         |
| 26372      | ANGLE          | 3   |                         |
| 26373      | ANGLE          | 3   |                         |
| 26378      | ANGLE          | 3   |                         |
| 26441      | HUB WELDMENT   | 1   |                         |
| 26442      | PIPE WELDMENT  | 3   |                         |
| 26456      | ANGLE WELDMENT | 3   |                         |
| 26465      | HUB WELDMENT   | 1   |                         |
| 11252      | PIPE WELDMENT  | 1   |                         |

| HARDWARE LIST |     |  | PRODUCT NO.<br>31-89067 |
|---------------|-----|--|-------------------------|
| SYM           | QTY | DESCRIPTION                                |                         |
| B14           | 8   | 5/8" X 3 1/2" A325 BOLT ASSY               |                         |
| I6            | 64  | 1/2" X 1 1/2" G5 BOLT ASSY                 |                         |
| I30           | 2   | 1/2" X 7 1/2" G5 BOLT ASSY                 |                         |
| N6            | 8   | 1/2" X 1 1/2" SO HD SET SCREW              |                         |
| SB1           | 6   | 3/4" STEP BOLT ASSEMBLY                    |                         |
| T4            | 8   | 1/2" NUT                                   |                         |
| UB1           | 16  | 1/2" X 2 1/2" X 4 U-BOLT, NUT, L.W. & F.W. |                         |
| V4            | 3   | 1/4" THICK SPACER W/ 9/16" HOLE            |                         |

ALL BOLTS I6 UNLESS NOTED.

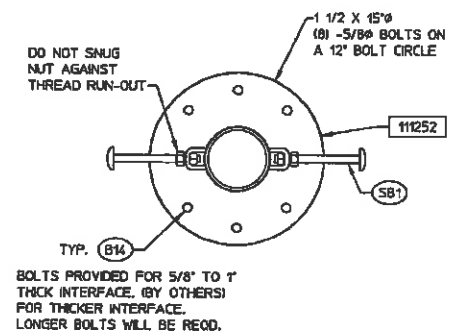
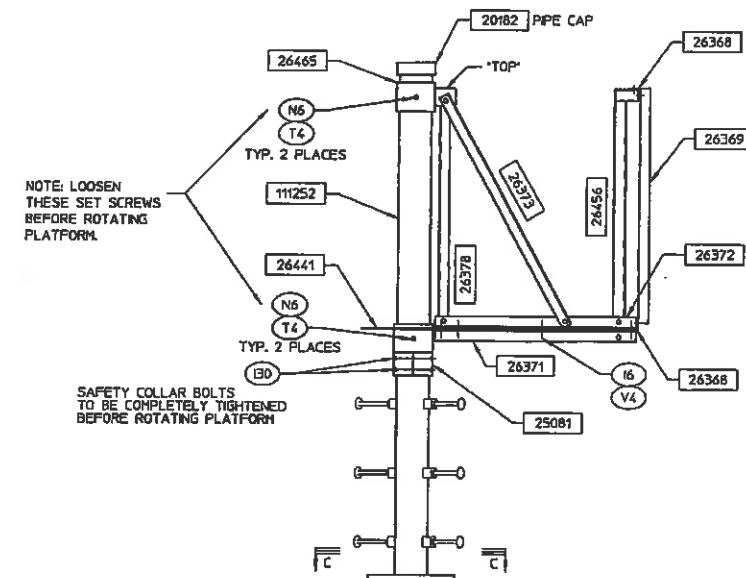
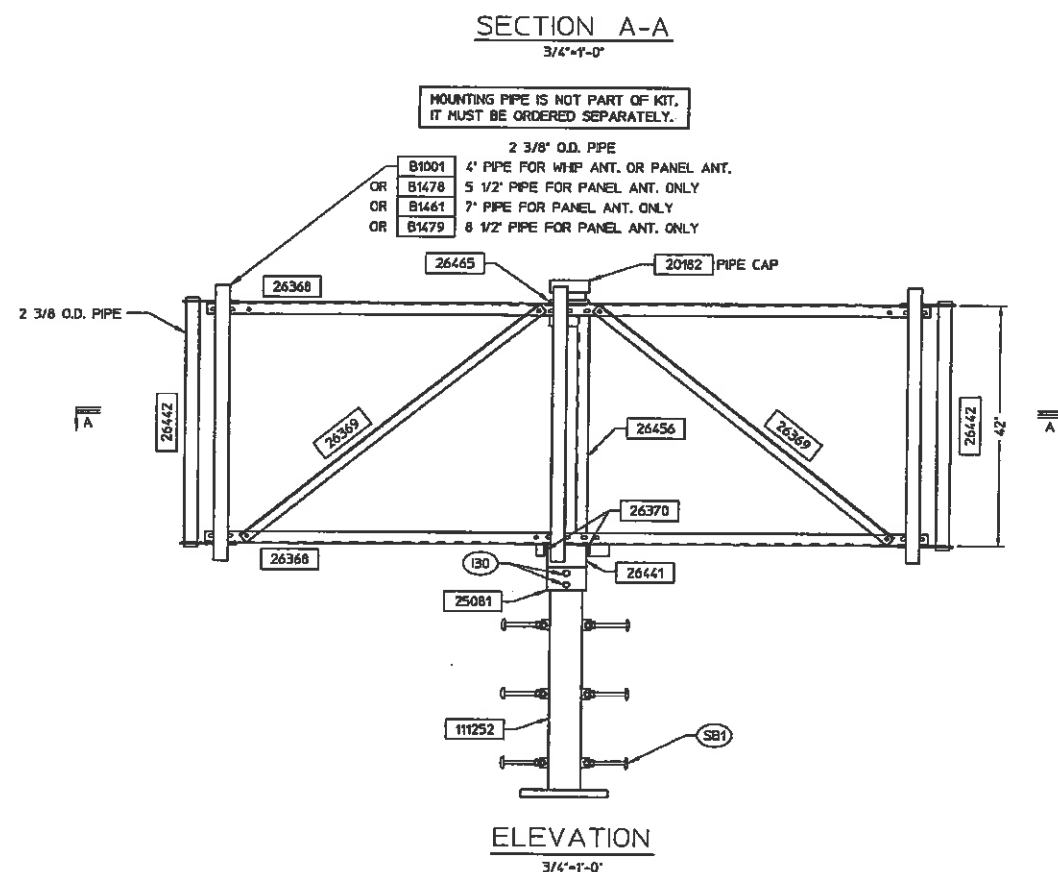
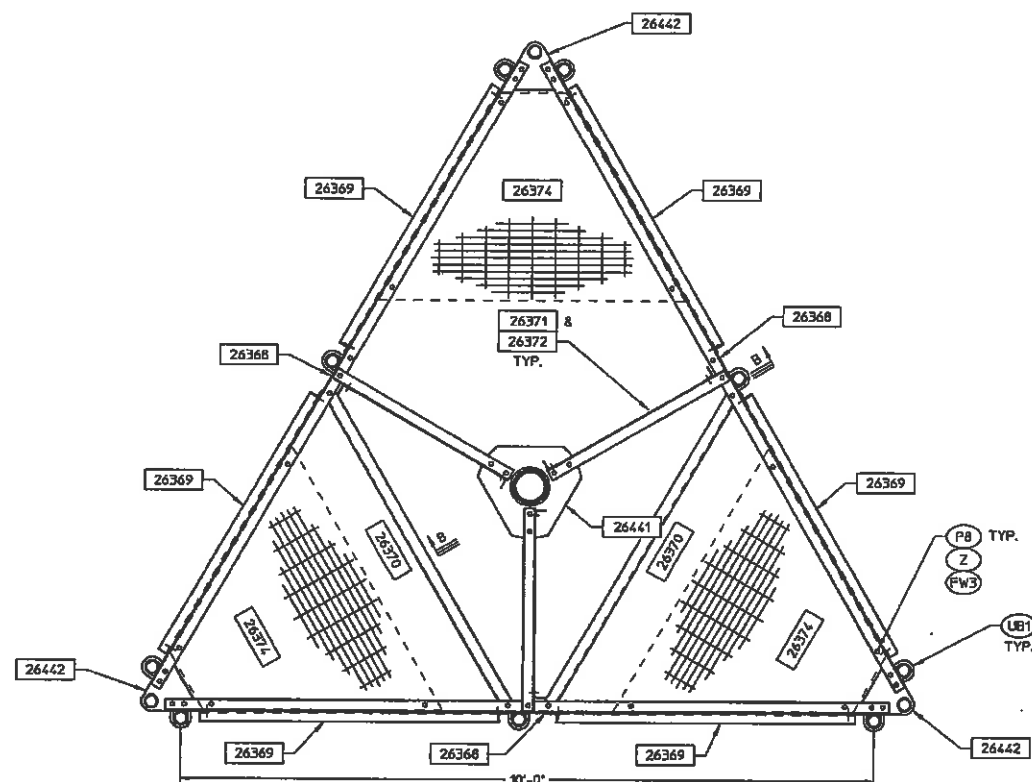
TOTAL GALV. PLATFORM WT. 700#

OPTIONAL GRATING KIT

| GRATING PARTS LIST |             |     | PRODUCT NO.<br>31-99591 |
|--------------------|-------------|-----|-------------------------|
| MARK               | DESCRIPTION | QTY |                         |
| 26374              | GRATING     | 3   |                         |

| GRATING HARDWARE |     |                                 | PRODUCT NO.<br>31-99591 |
|------------------|-----|---------------------------------|-------------------------|
| SYM              | QTY | DESCRIPTION                     |                         |
| P8               | 12  | 3/8" X 2 SOCKET HD BOLT ASSY    |                         |
| FW3              | 12  | 3/8" FLATWASHER                 |                         |
| Z                | 12  | "CB" GRATING CLIP W/ 7/16" HOLE |                         |

TOTAL GALV. GRATING WT. 130#



|     |  |           |  |       |  |             |  |
|-----|--|-----------|--|-------|--|-------------|--|
| REV |  | DATE      |  | BY/CK |  | DESCRIPTION |  |
| 1   |  | 18 JUL 98 |  | MF    |  | D-101985    |  |
| 2   |  |           |  | CK    |  |             |  |
| 3   |  |           |  | AH    |  |             |  |
| 4   |  |           |  | S.D.  |  |             |  |

ROTATABLE ANTENNA PLATFORM  
 PRODUCT NO. 31-89067 & 31-99591  
**MICROFLECT**  
 3575 25TH STREET SE  
 SALEM, OR 97302-0905  
 (503)363-9267 FAX (503) 363-4613

SHEET: 1 OF 1