

FRANKLIN COUNTY
PETITION/APPLICATION FOR COMPREHENSIVE PLAN CONFORMANCE
REVIEW
(Type or Print)

I/We, US Cellular, as Owner(s), Contract Purchasers, or Owner's Authorized Agent of the property described below, hereby apply to the Franklin County Board of Supervisors for a Comprehensive Plan conformance review on the property as described below:

1. Petitioners Name: US Cellular - Emilee Lauer

2. Property Owner's Name: Carline M Deal

Phone Number: 540-420-6721

Address: 730 Providence Church Road

Henry, VA

Zip: 24102

3. Exact Directions to Property from Rocky Mount: Head toward Flyd Ave on S Mian St for 2.4 miles to ramp for US Hwy 220 S towards Martinsville, for 10.8 miles, turn right onto Henry Rd, go for 1.4 miles, turn right onto Providence Church Rd go for 0.7 miles site just past landowners driveway on right.

4. Tax Map and Parcel Number: 112-65.02

5. Election District: Blue Ridge

6. Property Information:

A. Size of Property: 20.32 acres

B. Existing Zoning: NZ

C. Existing Land Use: ADR/UNDDEV 20-99 ACR

D. Is property located within any of the following overlay zoning districts:

Corridor District Westlake Overlay District Smith Mountain Lake Surface District

E. Is any land submerged under water or part of a lake? Yes No If yes, explain.

7. Proposed Comprehensive Plan conformance review information:

A. Proposed Land Use: ADR/UNDDEV 20-99 ACR

B. Size of Proposed Use: 0.39 acres

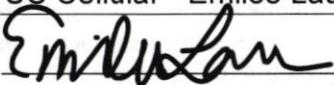
C. Other Details of Proposed Use: Proposed wireless tower 190' in height with a 4' lightning rod totaling at 194'.

Checklist for completed items:

- Application Form
- Letter of Application
- Concept Plan
- Application Fee

****I certify that this application for a Comprehensive Plan conformance review and the information submitted herein is correct and accurate. I authorize County staff to access this property for purposes related to the review and processing of this application.**

Petitioner's Name (Print): US Cellular - Emilee Lauer

Signature of Petitioner: 

Date: 4/24/2025

Mailing Address: 8410 W Bryn Mawr Ave

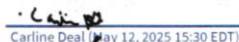
Chicago, IL 60631

Telephone: 540-580-5139

Email Address: emilee@odps-inc.com

Owner's consent, if petitioner is not property owner:

Owner's Name (Print): Carline M. Deal

Signature of Owner: 
Carline Deal (May 12, 2025 15:30 EDT)

Date: 5/12/2025

Letter of Application

US Cellular is proposing the construction of a new wireless facility on parcel 112-65.02 owned by Carline M Deal. The tower will be 190' tall with a lighting rod 4' totaling the tower height at 194'. The leased compound size will be 100' x 100' with a 30' wide access and utility easement. The total disturbed property for the project will be 0.39 acres.

This site is in an unzoned area of the county however, US Cellular has designed the site to meet setbacks listed in the ordinance of 120% of the tower height from all adjacent property lines as well as a 100' wide buffer easement except for ingress/egress.

There will be no effects to the surrounding area from the proposed wireless facility.

This facility is being purposed to help provide coverage in a gap in existing service and well as helping to offload other existing towers in close proximity to the location.

Thank You,

Emilee Lauer

Site Acquisition Specialist

Agent for US Cellular

Conservation Areas

This plan has identified a number of critical areas, including floodplains, steep slopes, streambanks, and historic sites, where special protection is appropriate to ensure both the community and the individual property interests are protected.

Policies for Conservation

1. The County will ensure that the Soil Survey of the entire County is complete and accessible to the public.
2. The County will seek to identify and map critical groundwater areas, and will develop appropriate policies to ensure their long term conservation.
3. The County will encourage the incorporation of visual design standards for all new developments impacting the Blue Ridge Parkway.
4. The County will view the Blackwater and Pigg Rivers as critical management areas and strive to improve the water quality and access to the rivers as Blueway resources.
5. The task of the County will be to identify and to map conservation areas. Once the location and boundaries of each area are determined, the County can develop specific policies and standards to provide appropriate incentives and protections to ensure long term conservation.

Tower Sites and Communication Facilities

Modern tower sites and communication facilities and the service they provide are necessary infrastructure, similar to electricity, natural gas, telephone and cable service. Telecommunication services are important for a favorable business environment for new economic growth and for the quality of life of County residents. Like other industrial uses, telecommunication towers must be located with consideration of the impact on surrounding properties and the qualities of the rural landscape. The County will protect its citizens from an uncontrolled proliferation of facilities and will carefully evaluate proposals to minimize the visual impact for those residents in the immediate area and for those in the larger community who view the facility from a distance. The policies below identify performance standards and policies to be applied to new telecommunications sites as they are proposed.

Policies for Tower Sites and Communication Facilities

1. **Service to Remote Users:** The County will encourage new facilities that fill existing significant gaps in the ability of remote users to access the local and national communication network.
2. **Strengthening the EMS Network:** The County will encourage developers of new facilities to provide opportunities to improve the service of the County's Emergency Service Network.
3. **Co-location:** The County will encourage each new applicant to cooperate with prospective users who request rights to co-locate transmission and reception hardware.

4. **Strategic Planning:** Each applicant must show that the proposal contributes to the existing inventory of facilities and service levels and that other facilities, structures or alternatives are not available to provide the service under consideration. Current plans for service in and around the County and region must be demonstrated to the County's satisfaction.
5. **Evaluation of Visibility:** Each new applicant will include sufficient information to enable the County to measure the visibility of the facility.
6. **Mitigation of Impacts:** Objectionable aspects of individual facilities should be addressed through a combination of realistic performance standards, buffering, setbacks, consideration of less intrusive alternative locations and mitigation strategies such as camouflage, concealment, disguise, and/or the placement of towers with less height.
7. **Lighting:** New facilities shall not be artificially lighted, unless required by the FAA or other applicable authority. If lighting is required, the lighting alternatives and design chosen must cause the least disturbance to surrounding views.
8. **Abandoned Towers:** The County will request applicants to notify the County at such time that the tower becomes inoperable or that its intended purpose is not longer needed. The County will have the right to require that the then tower owners remove the tower, if it is not used for a period of six (6) months. The County may require a bond for the removal of said tower.
9. **Safety Certification:** The applicant must demonstrate that any proposed facility shall not create a safety, health or other hazard, and that regular monitoring as well as, current and overall maintenance is assured, listing all responsible parties. After construction of any facility that becomes unsafe shall be immediately repaired. If the unsafe situation is not corrected in a timely manner, the County shall act appropriately to cause the facility to be removed.

Policies for Tower Sites and Communication Facilities Responses

1. This tower will fill existing significant gaps in the communication network. Please refer to coverage maps.
2. This tower will allow space for Franklin County EMS availability to collocate by submitting an application to tower owner.
3. Understood, designed to hold future collocations.
4. Please refer to RF write up.
5. Please refer to Zone of Visibility Map.
6. Please refer to Construction Drawings. Tower designed to meet property setbacks from the zoning ordinance of 120% of tower height from each property line. Includes a 100' buffer easement around the site from requirements of the zoning ordinance. Tower is to remain galvanized per ordinance to better blend in with the surrounding landscapes.
7. Please refer to FAA Opinion Letter, no lighting required.
8. Understood.
9. Understood, will follow all county and state regulations pertaining to wireless telecommunication facilities.



Site Acquisition Request Form

(Revision 11.0)

Composite RSRP Before

Specifications are only guidelines for Site Acquisition. They may vary with site selection.

Document# NNO-06-0002-FRM (Fabian Parra, 2023)

Last updated by Brooke Lepore, Fabian Parra on 11/1/2023



Site Acquisition Request Form (Revision 11.0)

Composite RSRP After

Specifications are only guidelines for Site Acquisition. They may vary with site selection.

Document# NNO-06-0002-FRM (Fabian Parra, 2023)

Last updated by Brooke Lepore, Fabian Parra on 11/1/2023

Strategic Planning

The proposed capacity site “Henry” will be used to offload existing facilities that are maxed out on their voice and data services. In the area targeted for this capacity site, there were no existing structures or alternatives that could provide the service needed.

When referencing the attached maps showing coverage gaps with the existing towers for US Cellular, you will see “Prilliman” site located to the West of the proposed site. It is the “Prilliman” east facing sector exceeding capacity for voice and data services towards the unincorporated community Henry.

This proposed capacity site, “Henry”, will pull the high traffic use of the “Prilliman” site over to it helping to lessen the load and will also increase the coverage on State Route 220 and in the gaps between “Prilliman” and “Brier Mountain” existing towers.

Jeff Barlow

Henry (563411) Tower Viewshed Map

58-meter height. Green highlight = visible (does not account for vegetation)

Legend

- 1/2-mile radius (FCC Visual Area of Potential Effect)
- 1-mile radius
- Henry (563411) Tower

Henry (563411) Tower 

Google Earth

Image © 2025 Airbus

N

1 mi

OPINION LETTER

March 18, 2025

FAA and FCC Not Required

Lori Lee
US Cellular Corporation
8410 W. Bryn Mawr Ave, Suite 700
Chicago, IL 60631

RE: 563411 - Henry, VA Airspace Analysis
 Latitude (NAD-83): 36° 51' 23.33" N
 Longitude (NAD-83): 79° 56' 34.74" W
 Ground Elevation: 1275.0 ft. GE
 Tower tip height: 194.0 ft. AGL
 Overall height: 1469.0 ft. AMSL



Dear Ms. Lee,

Our airspace analysis results for the 563411 - Henry, VA site are as follows:

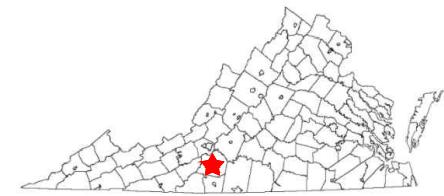
1. Per AIRSPACE, filing an FAA Form 7460-1 is not required for the proposed Monopole height of 194.0 ft. AGL (1469.0 ft. AMSL). The maximum allowable height for not filing an FAA Form 7460-1 is 201 ft. AGL.
2. FCCs TOWAIR Determination indicates that this structure does not require registration. There are no airports within 8 Kilometers (5 miles) of the coordinates you provided. The maximum allowable height for not filing an ASR is 201 ft. AGL.
3. The proposed site is 13.885 nm North from the nearest public landing facility – MTV: Blue Ridge. At an overall height of 1469.0 ft. AMSL, it does not exceed FAR 77.9 (a) or FAR 77.9 (b) Notice Criteria for MTV airport. This airport has both Circling and Straight-In Instrument approach procedures. It does not exceed any glide slopes of MTV airport. MTV: Blue Ridge is an airport type landing facility associated with the city of Martinsville, VA.
4. The proposed site is not within any of the instrument approach procedures of MTV airport.
5. The nearest private landing facility is VG40: Woody Field, which is an airport type landing facility not eligible for study under FAR Part 77 sub-Part C. It is 4.22 nm SE from the proposed site.
6. The proposed 194.0 ft. AGL height would not adversely affect low altitude en route airways and/ or VFR routes in the area.
7. The nearest AM tower is WYTI, which is 8.73 mi (14050 meters) away bearing 17.49°. WYTI AM is operating a non-directional type antenna system. As noted per the FCC AM Tower Locator and per FCC regulation 13-115, Section 1.30002, the structure will not require a 'Proof of Performance' measurement study before and after construction.
8. Marking and lighting are not required for the proposed height of 194.0 ft AGL as FAA notification is not required.
9. All Wireless Applications Corp. analyses are based on the latest AIRSPACE, FAA Notice Criteria Tool and FCC TOWAIR programs.

If you have any questions, please do not hesitate to call. Thank you.

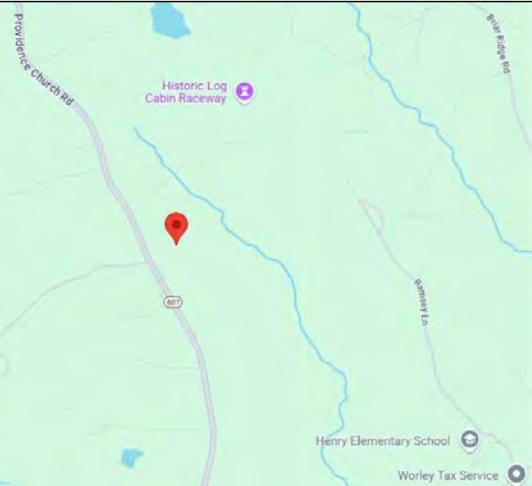
Ronald W. Lageson, Jr.
425-643-5000 (office)
425-649-5675 (fax)



STATE LOCATION



SITE LOCATION



DRIVING DIRECTIONS

FROM PIEDMONT TRIAD INTERNATIONAL AIRPORT NC: GET ON I-73N FOLLOW I-73N AND US-220 N TO OAK LEVEL RD IN OAK LEVEL. TAKE ORIGINAL HENRY RD AND HENRY RD TO VA-40 E IN FRANKLIN COUNTY. TURN RIGHT ONTO PHILPOTT DR. THEN TURN RIGHT ONTO ORIGINAL HENRY RD. THEN TURN LEFT ONTO STATE RTE 605/HENRY RD. TURN RIGHT ONTO VA-40 E ON THEN ON FRANKLIN ST WILL FIND THE SITE ON THE RIGHT.

PROJECT TEAM

PROJECT CONTACT:

NAME: U.S. CELLULAR CORPORATION
ADDRESS: 8410 W. BRYN MAWR
CITY, STATE, ZIP: CHICAGO, IL 60631
CONTACT: JON SCARBOROUGH

TOWER OWNER:

NAME: U.S. CELLULAR CORPORATION
ADDRESS: 8410 W. BRYN MAWR
CITY, STATE, ZIP: CHICAGO, IL 60631
CONTACT: JON SCARBOROUGH

CIVIL ENGINEER:

NAME: TEP OPCO, LLC
ADDRESS: 326 TRYON ROAD
CITY, STATE, ZIP: RALEIGH, NC 27603-3530
CONTACT: SCOTT C. BRANTLEY, P.E.
PHONE: (919) 661-6351

ELECTRICAL ENGINEER:

NAME: TEP OPCO LLC
ADDRESS: 326 TRYON ROAD
CITY, STATE, ZIP: RALEIGH, NC 27603-3530
CONTACT: SCOTT C. BRANTLEY, P.E.
PHONE: (919) 661-6351

PROPOSED 190-FT SELF-SUPPORT (194-FT OVERALL HEIGHT)

SITE NAME:

HENRY

SITE NUMBER:

563411

SITE ADDRESS:
**730 PROVIDENCE
CHURCH RD.
HENRY, VA 24102
(FRANKLIN COUNTY)**

INDEX OF SHEETS

NO.	SHEET TITLE	REV
T-1	TITLE SHEET	5
-	SITE SURVEY	-
C-1	SITE PLAN	5
C-2	COMPOUND DETAIL	5
C-3	TOWER ELEVATION	5
C-4AB	CABINET DETAILS	5
C-5	ICE BRIDGE DETAILS	5
C-6AB	FENCE & MAN GATE DETAILS	5
C-7	SIGNAGE DETAILS	5
C-8ABCD	SOIL & EROSION CONTROL PLAN	5
C-9AB	SILT FENCE DETAILS & EROSION CONTROL MATTING DETAILS	5
C-10	ACCESS DRIVE DETAILS	5
C-10AB	CONSTRUCTION ENTRANCE DETAIL & SITE TRIANGLES	5
C-11	CULVERT DETAILS	5
C-12ABCD	ANTENNA & MW MOUNTING DETAILS & RF CONFIGURATION	5
C-12EFGH	ANTENNA & MW SPECIFICATIONS	5
C-13AB	RAYCAP AND RRH MOUNT SPEC SHEET	5
C-14AB	ANTENNA MOUNTING DETAILS & RF CONFIGURATION	5
C-15AB	LABEL STANDARDS I-II	5
E-1	ELECTRICAL NOTES	5
E-2	ONE-LINE DIAGRAM & POWER PANEL SCHEDULE	5
E-3	POWER/TELCO PLAN	5
E-3AB	EQUIPMENT H-FRAME & SERVICE RACK DETAILS	5
E-4,5	COMPOUND & EQUIPMENT GROUNDING PLAN	5
E-6,7,8	GROUNDING DETAILS I, II, III	5
N-1	PROJECT NOTES	5

PROJECT INFORMATION

LATITUDE: N 36° 51' 23.3308" (NAD '83)*
LONGITUDE: W 79° 56' 34.7406" (NAD '83)*
EXISTING GROUND ELEVATION: 1275.3' ± (NAVD '88)*
PROPOSED GROUND ELEVATION: 1277.2' ± (NAVD '88)*
* INFORMATION PER 1-A CERTIFICATION PROVIDED BY BRYAN JONES SURVEYING, P.C. DATED FEBRUARY 25 2025.
TOWER TYPE: 190' SELF-SUPPORT (194' OVERALL)
LOADING TYPE: 4T4R/2T2R
ACCESS ISSUES: N/A
GATE COMBO: 8722

STRUCTURAL NOTE

STRUCTURAL STATUS:
• MOUNT SA - N/A
• TOWER SA - N/A

SCOPE OF WORK

TOWER SCOPE:

PROPOSED EQUIPMENT:
(3) DENGYO OCT8-2LX2HX-BW65 ANTENNA
(6) NOKIA A90Q AIRSCALE ANTENNA
(3) SECTOR FRAMES (SABRE P/N: C1085777C-5278)
(2) 1/4" HYBRID CABLES
(2) RAYCAP RUSDC-6267-PF-48
(3) RRH DUAL MOUNTS (SABRE P/N: C10114260)
(3) NOKIA AHCA RRHS
(3) GROUND BARS
(1) WAVEGUIDE LADDER
(1) COMMSCOPE VHLPX4-11W/A MICROWAVE DISH
(2) AVIAT ODU 600V2 SPLIT HP
(2) CNT-400 COAX CABLES

RADIO & ANTENNA JUMPERS:
(3) POWER JUMPERS FROM RAYCAP TO B5 RRHS
(6) FIBER JUMPERS FROM RAYCAP TO B5 RRHS
(6) PROPOSED 1/2" JUMPERS FROM B5 RRHS TO ANTENNA
(3) RET JUMPERS FROM B5 RRHS TO ANTENNA

GROUND EQUIPMENT SCOPE:

PROPOSED EQUIPMENT:
(1) 7'x10' CONCRETE PAD
(1) CHARLES EQUIPMENT CABINET
(3) 10'-0" ICE BRIDGE SECTIONS INCLUDED
(1) (20'-0" SECTION IN LENGTH REQUIRED PER DESIGN)
(1) (6'-0" SECTION IN LENGTH REQUIRED PER DESIGN)
(1) RAYCAP RUSDC-6267-PF-48 (MOUNTED ON H-FRAME)
(2) JUNCTION BOX
(1) GROUND BAR ON EQUIPMENT H-FRAME
(1) GROUND BAR ON EQUIPMENT PAD
(1) CAC EQUIPMENT CABINET
(1) MULTI-GANG METER SERVICE RACK WITH TELCO BOX
(COORDINATE WITH LOCAL UTILITY COMPANY)
(1) 200A POWER METER & SERVICE ENTRANCE DISCONNECT
(3) 5' UNISTRUTS FOR H-FRAME AND U-BOLTS FOR MOUNTING
(4) 9' UNISTRUTS FOR H-FRAME AND U-BOLTS FOR MOUNTING
(8) 7' UNISTRUTS FOR SERVICE RACK & U-BOLTS FOR MOUNTING

SPECIAL REQUIREMENTS:

ANTENNA AZIMUTHS:
CONTRACTOR SHALL VERIFY AZIMUTHS PRIOR TO CONSTRUCTION. CONTRACTOR TO REQUEST RF SHEET FROM CM, DO NOT GO ONLY OFF DRAWINGS.

UTILITIES:

POWER COMPANY: APCO
CONTACT: CUSTOMER SERVICE
PHONE: (800) 956.4237
POLE # NEAR SITE: A3301110
MICROWAVE SITE: BRIER MTN
CONTACT: N/A
PHONE: N/A
POLE # NEAR SITE: N/A



PLANS PREPARED FOR:

uscellular
8410 W BRYN MAWR, SUITE 700
CHICAGO, IL 60631
(603) 486-9357

PROJECT INFORMATION:

HENRY
SITE #: 563411
(E911 ADDRESS T.B.D.)
730 PROVIDENCE CHURCH RD.
HENRY, VA 24102
(FRANKLIN COUNTY)

PLANS PREPARED BY:



TEP OPCO, LLC
326 TRYON ROAD
RALEIGH, NC 27603-3530
OFFICE: (919) 661-6351
www.tepgroup.net



5	04-17-25	CONSTRUCTION
4	04-15-25	PRELIMINARY
3	03-25-25	PRELIMINARY
REV	DATE	ISSUED FOR:
DRAWN BY: SAB	CHECKED BY: DAO	

SHEET TITLE: **TITLE SHEET**

SHEET NUMBER: T-1	REVISION: 5
TEP #: 342022.985051	

NOTES:

This plat represents a current field survey by Bryan Jones Surveying, P.C.

The State Plane orientation and Bench Mark elevation was taken from survey of Site Name: Henry 563411, dated 10-11-2024, prepared by Accupoint Surveying & Design.

This survey has been prepared without the benefit of a title report and does not necessarily indicate all encumbrances on the property.

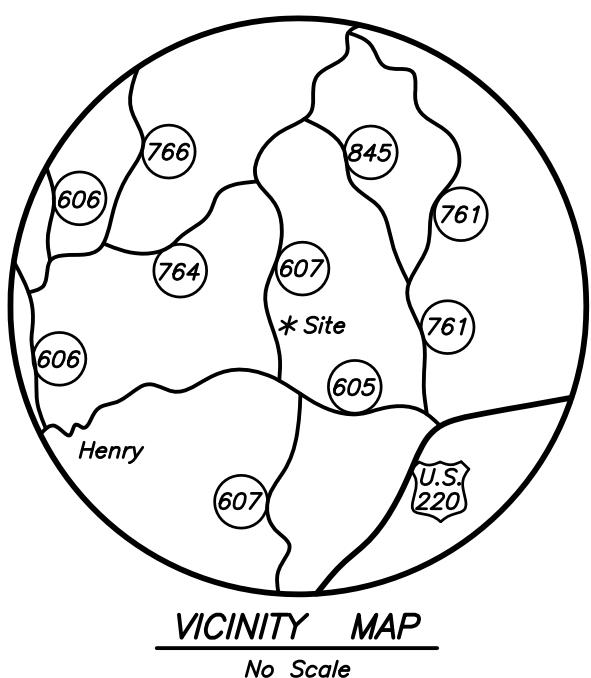
This property is not located within a FEMA Flood Hazard Zone. It is located in Zone X. Refer to FEMA Flood Insurance Rate Map No. 51067C0480C, dated Dec. 16, 2008.

All deed and map references shown hereon are of record in the Franklin County Circuit Court Clerk's Office.

LEGAL DESCRIPTION OF LEASE AREA:

Situated on the westerly side of Tract 1 as shown on Plat Of Survey Prepared For Donald G. Brooks, Jr. In D.B. 926 - Pg. 1469, in the Blue Ridge District of Franklin County, Virginia; Beginning at a point marked by a rod set, being the southwest corner of the Lease Area herein described, and further being N. 0° 47' 57" W. 449.58 feet from the southwest corner of said Tract 1 on the east right-of-way line of Providence Church Road, State Route 607, ±0.7 mile from its intersection with Henry Road, State Route 605; thence departing from said point of beginning N. 26° 33' 55" W. 100.00 feet to a point marked by a rod set; thence N. 63° 26' 05" E. 100.00 feet to a point marked by a rod set; thence S. 26° 33' 55" E. 100.00 feet to a point marked by a rod set; thence S. 63° 26' 05" W. 100.00 feet to the point of beginning; being a description of the Lease Area containing 10,000 square feet.

Reference Meridian = Va State Plane, South Zone Survey of Site Name: Henry 563411, dated 10-11-2024, prepared by Accupoint Surveying & Design.



PROVIDENCE

STATE
ROUTE
607

CHURCH

ROAD

LEGAL DESCRIPTION OF 10' UTILITY EASEMENT:

Situated on the westerly side of Tract 1 as shown on Plat Of Survey Prepared For Donald G. Brooks, Jr. In D.B. 926 - Pg. 1469, in the Blue Ridge District of Franklin County, Virginia; Beginning at a point marked by a rod set, being the southwest corner of the Lease Area herein described, and further being N. 0° 47' 57" W. 449.58 feet from the southwest corner of said Tract 1 on the east right-of-way line of Providence Church Road, State Route 607, ±0.7 mile from its intersection with Henry Road, State Route 605; thence departing from said point of beginning N. 26° 33' 55" W. 100.00 feet to the beginning of the 10' Utility Easement being a point marked by a rod set at the northwest corner of the Lease Area; thence N. 26° 33' 55" W. 10.00 feet to a point; thence N. 63° 26' 05" E. 100.00 feet to a point; thence S. 26° 33' 55" E. 10.00 feet to a point marked by a rod set at the northeast corner of the Lease Area; thence with the Lease Area line S. 63° 26' 05" W. 100.00 feet to the beginning of the 10' Utility Easement; being a description of the 10' Utility Easement containing 1,000 square feet.

LEGAL DESCRIPTION OF ACCESS AND UTILITY EASEMENT:

Situated on the westerly side of Tract 1 as shown on Plat Of Survey Prepared For Donald G. Brooks, Jr. In D.B. 926 - Pg. 1469, in the Blue Ridge District of Franklin County, Virginia; Beginning at a point marked by a rod set, being the southwest corner of the Lease Area and the southeast corner of the 30' Access And Utility Easement herein described, and further being N. 0° 47' 57" W. 449.58 feet from the southwest corner of said Tract 1 on the east right-of-way line of Providence Church Road, State Route 607, ±0.7 mile from its intersection with Henry Road, State Route 605; thence departing from said point of beginning S. 63° 26' 05" W. 30.00 feet to a point; thence N. 26° 33' 55" W. 65.00 feet to a point; thence S. 63° 26' 25" W. 193.06 feet to a point on the east right-of-way of Providence Church Road, State Route 607; thence with the said east right-of-way N. 26° 34' 05" W. 30.00 feet to a point; thence leaving the east right-of-way of Providence Church Road, State Route 607, N. 63° 26' 25" E. 193.06' to a point; thence N. 26° 33' 55" W. 150.00 feet to a point; thence N. 63° 26' 05" E. 30.00 feet to a point; thence S. 26° 33' 55" E. passing a rod set at 10.00 feet, being the northwest corner of the Lease Area, in all 110.00 feet to the point of beginning; being a description of the 30' Access And Utility Easement containing 9,092 square feet.

PLAT OF LEASE AREA
FOR THE TOWER SITE
HENRY 563411

Showing A Lease Area Situated Off The East Side Of Providence Church Road, Blue Ridge District, Franklin County, Virginia.

Franklin County Parcel ID: 1120006502, Tax No. 112-65.02

Current Owner: Carline M. Deal

Source Of Title Legal Reference: D.B. 1118 - Pg. 1743

Map Reference: Plat Of Survey Prepared For Donald G. Brooks In D.B. 926 - Pg. 1469, Tract 1

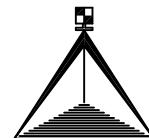
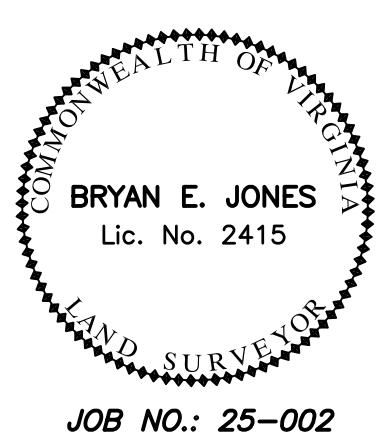
Tax No. 112-65.02
Tract 1
20.317 Acres
Carline M. Deal
D.B.1118-Pg.1743
Map In D.B.926-Pg.1469

Contour Interval = 1 Foot
0' 40' 80' 120'
Scale : 1" = 40'

February 28, 2025

I certify that the Franklin County Subdivision Ordinance does not apply to this plat, because it is a survey of a lease area and no property lines are being changed.

Bryan E. Jones, LS 2415

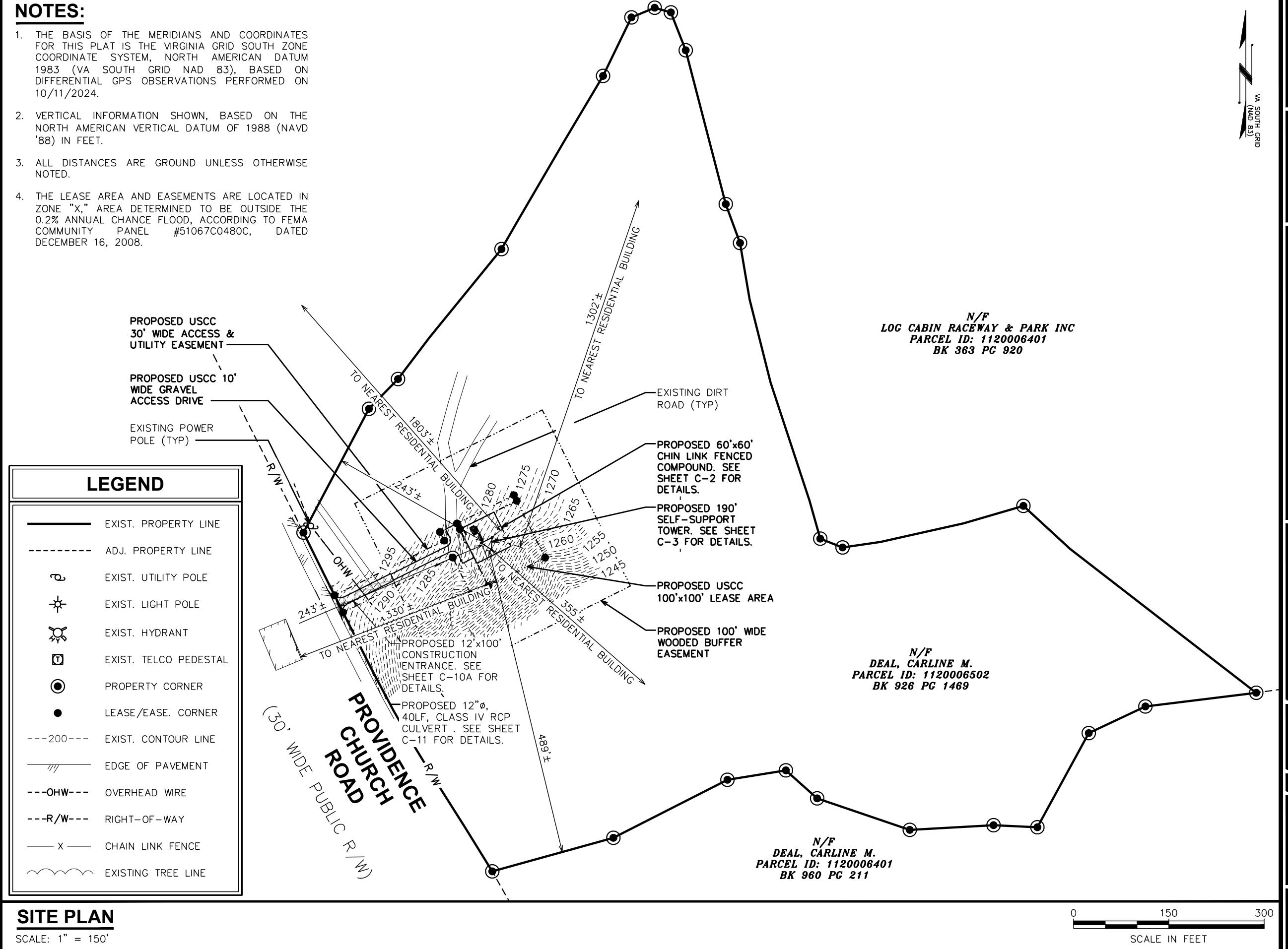


BRYAN JONES SURVEYING, P.C.
785 PROVIDENCE CHURCH ROAD, HENRY, VIRGINIA 24102
276-647-4448

JOB NO.: 25-002

NOTES:

1. THE BASIS OF THE MERIDIANS AND COORDINATES FOR THIS PLAT IS THE VIRGINIA GRID SOUTH ZONE COORDINATE SYSTEM, NORTH AMERICAN DATUM 1983 (VA SOUTH GRID NAD 83), BASED ON DIFFERENTIAL GPS OBSERVATIONS PERFORMED ON 10/11/2024.
 2. VERTICAL INFORMATION SHOWN, BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD '88) IN FEET.
 3. ALL DISTANCES ARE GROUND UNLESS OTHERWISE NOTED.
 4. THE LEASE AREA AND EASEMENTS ARE LOCATED IN ZONE "X," AREA DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOOD, ACCORDING TO FEMA COMMUNITY PANEL #51067C0480C, DATED DECEMBER 16, 2008.



PLANS PREPARED FOR:

The logo for uscellular, featuring a stylized blue starburst icon followed by the brand name in a blue, lowercase, sans-serif font.

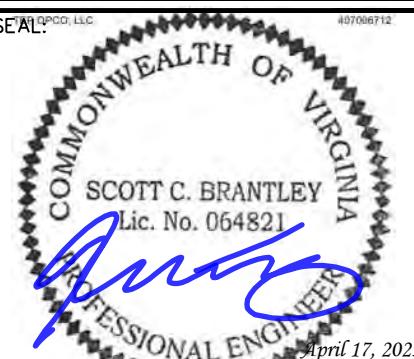
PROJECT INFORMATION:

HENRY
SITE #: 563411
(E911 ADDRESS T.B.D.)
PROVIDENCE CHURCH
HENRY, VA 24102
(FRANKLIN COUNTY)

PLANS PREPARED BY:



TEP OPCO, LLC
326 TRYON ROAD
RALEIGH, NC 27603-3530
OFFICE: (919) 661-6351
www.tepgroup.net



5	04-17-25	CONSTRUCTION
4	04-15-25	PRELIMINARY
3	03-25-25	PRELIMINARY
EV	DATE	ISSUED FOR:

DRAWN BY: SAB CH

SITE PLAN

SHEET NUMBER:

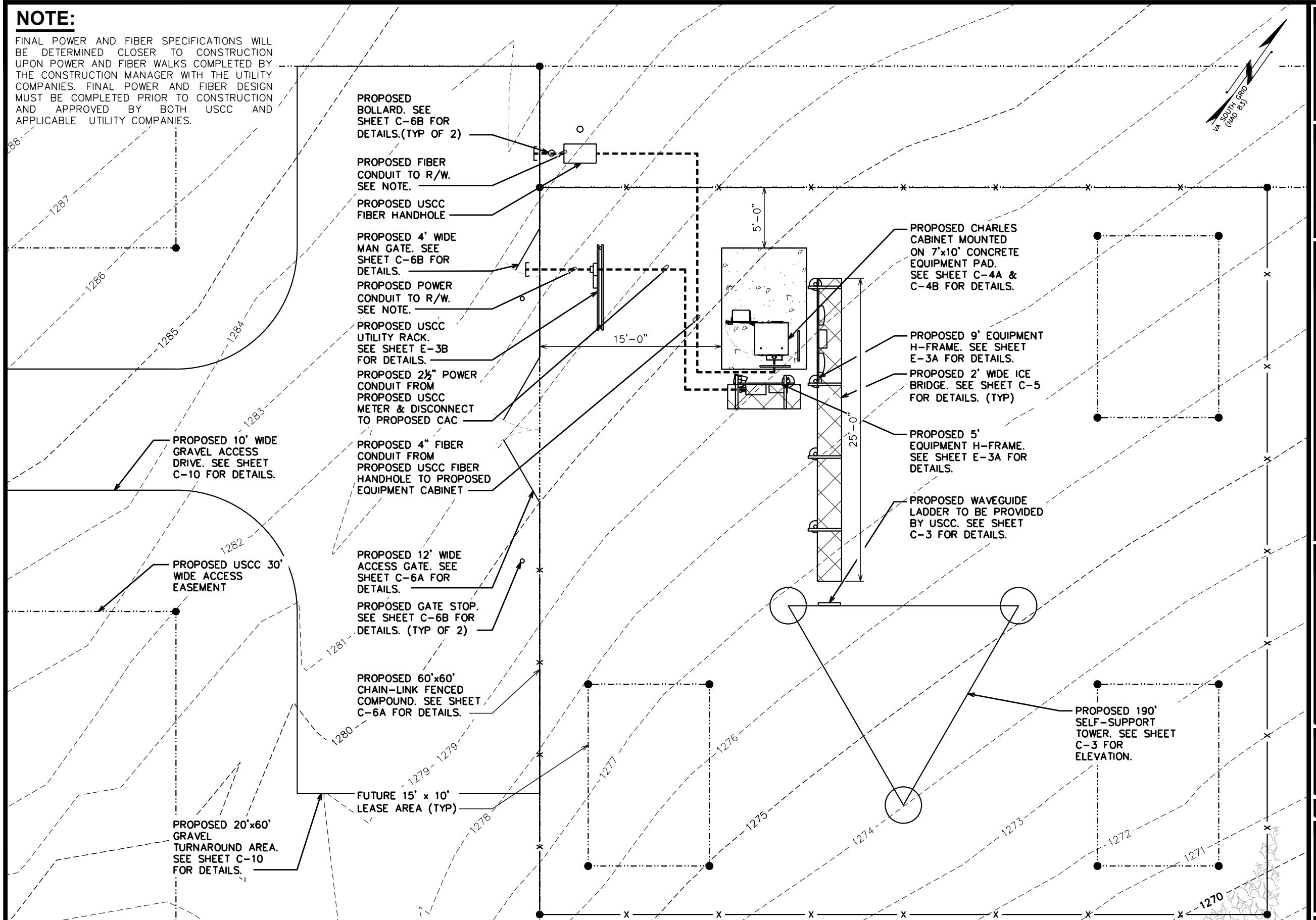
C-1

SION:

TEP #:342022.985051

NOTE:

FINAL POWER AND FIBER SPECIFICATIONS WILL BE DETERMINED CLOSER TO CONSTRUCTION UPON POWER AND FIBER WALKS COMPLETED BY THE CONSTRUCTION MANAGER WITH THE UTILITY COMPANIES. FINAL POWER AND FIBER DESIGN MUST BE COMPLETED PRIOR TO CONSTRUCTION AND APPROVED BY BOTH USCC AND APPLICABLE UTILITY COMPANIES.



PLANS PREPARED FOR:

uscellular
8410 W BRYN MAWR, SUITE 700
CHICAGO, IL 60631
(603) 486-9357

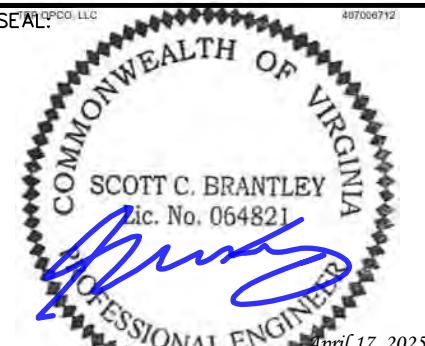
PROJECT INFORMATION:

HENRY
SITE #: 563411
(E911 ADDRESS T.B.D.)
730 PROVIDENCE CHURCH RD.
HENRY, VA 24102
(FRANKLIN COUNTY)

PLANS PREPARED BY:



TEP OPCO, LLC
326 TRYON ROAD
RALEIGH, NC 27603-3530
OFFICE: (919) 661-6351
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5	04-17-25	CONSTRUCTION
4	04-15-25	PRELIMINARY
3	03-25-25	PRELIMINARY

REV DATE ISSUED FOR:

DRAWN BY: SAB CHECKED BY: DAO

SHEET TITLE:

COMPOUND DETAIL

SHEET NUMBER: C-2 REVISION: 5

TEP #: 342022.985051

NOTES:

1. PROPOSED CABLES TO BE RUN PER SPECIFICATIONS OF PASSING STRUCTURAL ANALYSIS.
2. TOWER SHALL BE CONSTRUCTED OF GALVANIZED STEEL OR PAINTED PER APPLICABLE STANDARDS OF THE FAA OR OTHER APPLICABLE FEDERAL OR STATE AGENCY
3. TOWER ELEVATION SHOWN FOR REFERENCE ONLY. VERIFY ACTUAL TOWER DESIGN & LOADING WITH TOWER DRAWINGS FROM MANUFACTURER AND/OR PASSING STRUCTURAL ANALYSIS PRIOR TO CONSTRUCTION.

EUPEN HYBRID CABLE LENGTH				
PROPOSED RAYCAP QUANTITY AT GROUND LEVEL:	2			
ICE BRIDGE LENGTH:	25-FT			
RAYCAP CENTERLINE:	185-FT			
TOTAL ESTIMATED LENGTH OF HYBRID CABLE:	210-FT			
TOTAL EST. LENGTH OF HYBRID CABLE (ROUNDED UP):	210-FT			
JUMPER INFO				
FIBER/POWER JUMPER LENGTH FROM RAYCAP TO RRU				
	B5	C-BAND ANT		
ALPHA SECTOR:	10-M (32.8-FT)	10-M (32.8-FT)		
BETA SECTOR:	10-M (32.8-FT)	10-M (32.8-FT)		
GAMMA SECTOR:	10-M (32.8-FT)	10-M (32.8-FT)		
$\frac{1}{2}$ " JUMPER FROM RRU TO ANTENNA				
	B5			
ALPHA SECTOR:	25-FT			
BETA SECTOR:	25-FT			
GAMMA SECTOR:	25-FT			
RET JUMPER INFO				
RRU TO ANTENNA				
	B5			
ALPHA SECTOR:	10-M (32.8-FT)			
BETA SECTOR:	10-M (32.8-FT)			
GAMMA SECTOR:	10-M (32.8-FT)			

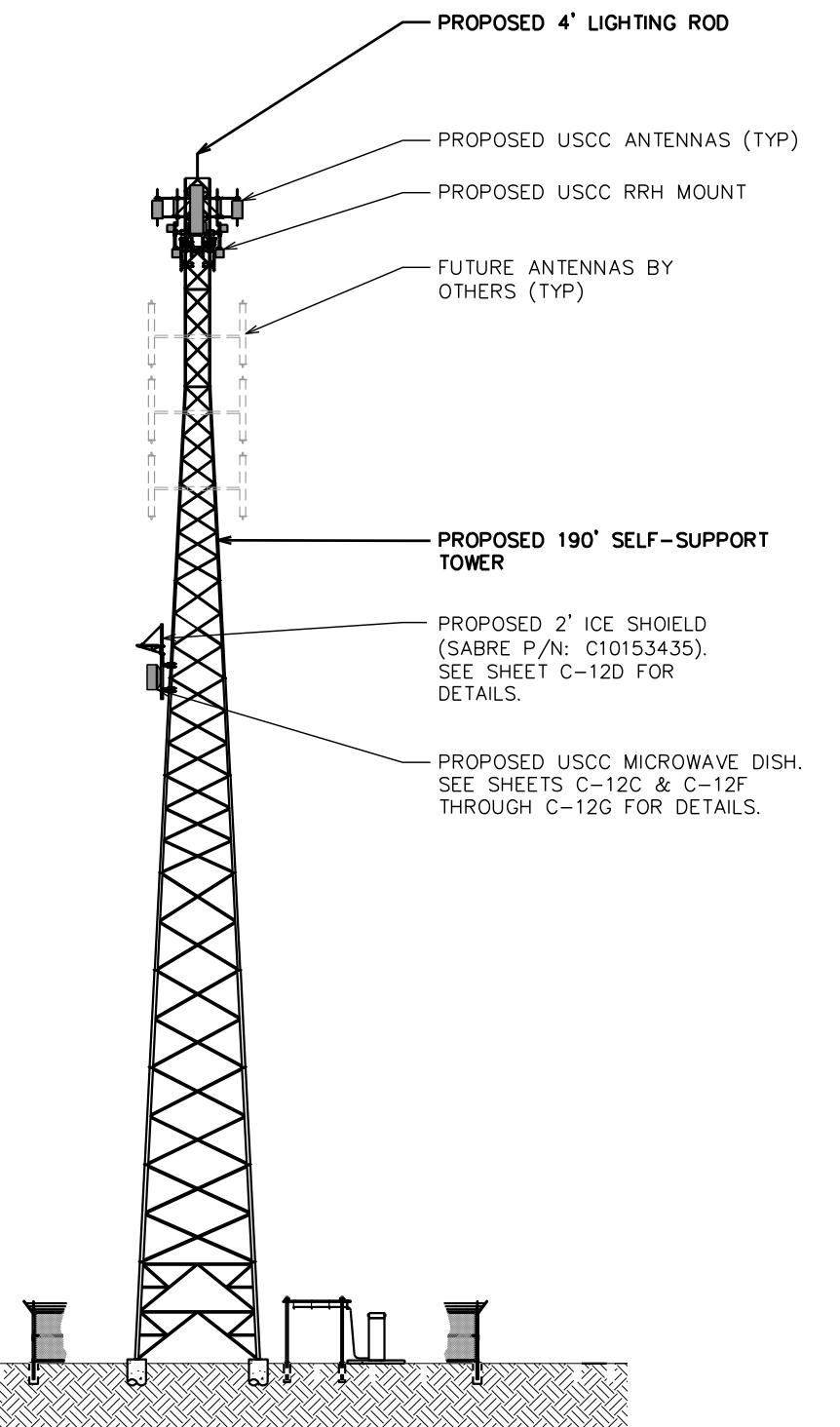
TOWER ELEVATION

SCALE: 1" = 30'

194'-0" T/LIGHTNING ROD
190'-0" T/TOWER
185'-0" Q/PROPOSED ANTENNAS (USCC)

110'-0" Q/PROPOSED MW DISH (USCC)

0'-0" (REFERENCE) T/GRADE



0 30 60
SCALE IN FEET

PLANS PREPARED FOR:

uscellular
8410 W BRYN MAWR, SUITE 700
CHICAGO, IL 60631
(603) 486-9357

PROJECT INFORMATION:

HENRY
SITE #: 563411
(E911 ADDRESS T.B.D.)
730 PROVIDENCE CHURCH RD.
HENRY, VA 24102
(FRANKLIN COUNTY)

PLANS PREPARED BY:



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326 TRYON ROAD
RALEIGH, NC 27603-3530
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5 04-17-25 CONSTRUCTION
4 04-15-25 PRELIMINARY
3 03-25-25 PRELIMINARY
REV DATE ISSUED FOR:

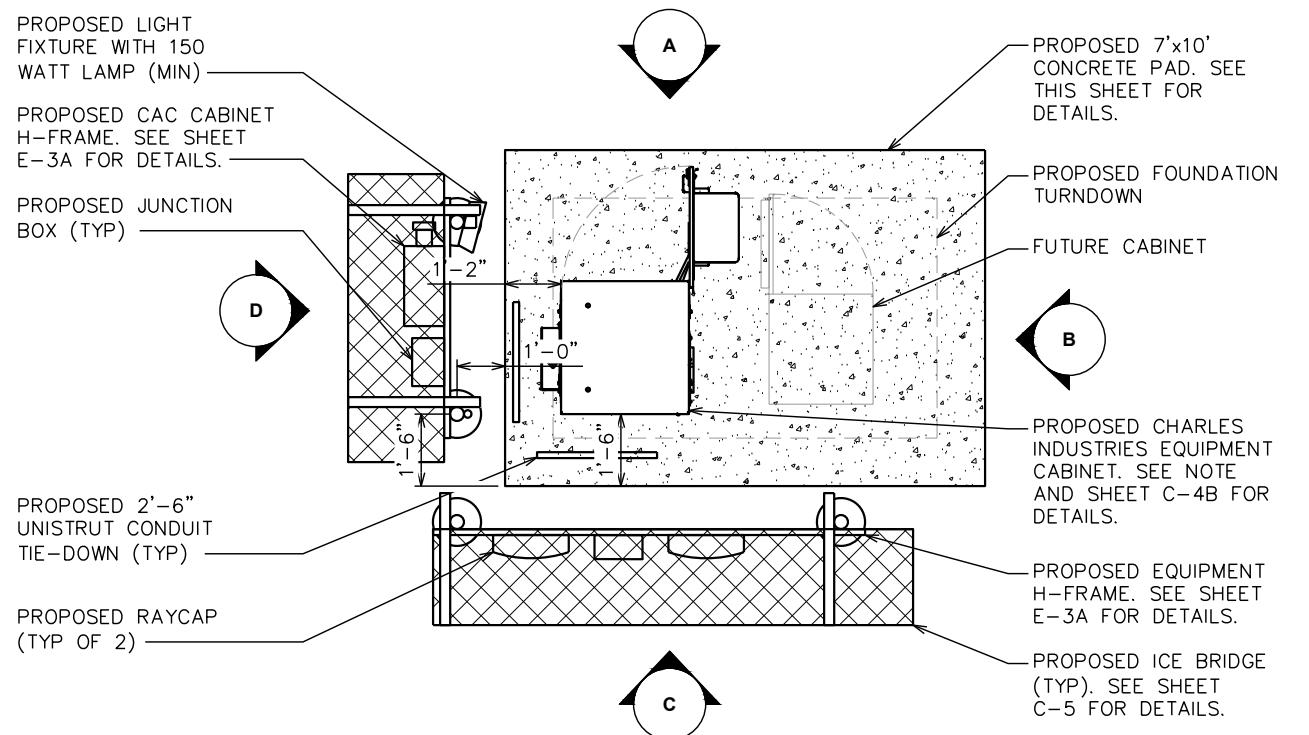
DRAWN BY: SAB CHECKED BY: DAO

SHEET TITLE:
TOWER ELEVATION

SHEET NUMBER: C-3 REVISION: 5
TEP #: 342022.985051

NOTE:

PROPOSED CHARLES INDUSTRIES CABINET TO BE MOUNTED TO PLINTH PROVIDED BY MANUFACTURER PER MANUFACTURER SPECIFICATIONS.

**EQUIPMENT LAYOUT**

SCALE: $\frac{1}{4}$ " = 1'-0"

0 4 8
SCALE IN FEET

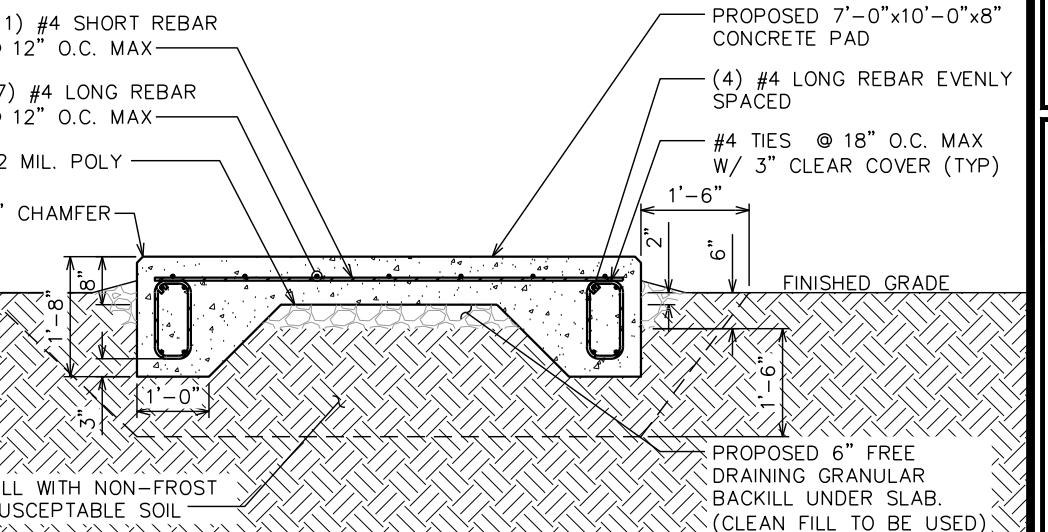
STRUCTURAL NOTES:

SPECIFICATIONS/CODES:

1. CONCRETE WORK SHALL BE PERFORMED IN ACCORDANCE WITH ACI 318-14.
2. REINFORCING STEEL SHALL BE PLACED IN ACCORDANCE WITH THE CONCRETE REINFORCING STEEL INSTITUTE (CRSI) "MANUAL OF STANDARD PRACTICE".
3. DESIGN SHALL BE PER 2021 INTERNATIONAL BUILDING CODE.
4. CONCRETE SHALL BE 2500 PSI.
5. REBAR $F_y = 60,000$ PSI.
6. ALL BACKFILL SHALL BE THOROUGHLY COMPACTED TO A MINIMUM OF 95% DENSITY USING THE MODIFIED PROCTOR METHOD.

FOUNDATION NOTES:

1. FOUNDATION DESIGN BASED ON 2000 PSF SOIL BEARING CAPACITY. IF OTHER CONDITIONS EXIST, FOUNDATION SHALL BE REDESIGNED. CONTRACTOR SHALL HAVE SOIL BEARING CAPACITY VERIFIED BY A LICENSED PROFESSIONAL GEOTECHNICAL ENGINEER PRIOR TO INITIATION OF CONSTRUCTION ACTIVITIES.
2. CONCRETE SHALL BE 2500 PSI.
3. REBAR $F_y = 60,000$ PSI.
4. ALL BACKFILL SHALL BE THOROUGHLY COMPACTED TO A MINIMUM OF 95% DENSITY USING THE MODIFIED PROCTOR METHOD.

**FOUNDATION DETAIL**

SCALE: N.T.S.

PLANS PREPARED FOR:

uscellular
8410 W BRYN MAWR, SUITE 700
CHICAGO, IL 60631
(603) 486-9357

PROJECT INFORMATION:

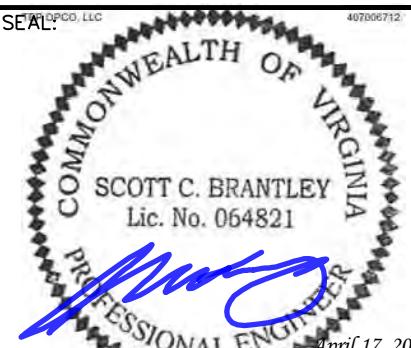
HENRY
SITE #: 563411

(E911 ADDRESS T.B.D.)
730 PROVIDENCE CHURCH RD.
HENRY, VA 24102
(FRANKLIN COUNTY)

PLANS PREPARED BY:



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RALEIGH, NC 27603-3530
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5	04-17-25	CONSTRUCTION
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3	03-25-25	PRELIMINARY
REV	DATE	ISSUED FOR:

DRAWN BY: SAB CHECKED BY: DAO

SHEET TITLE:

CABINET DETAILS

SHEET NUMBER:	REVISION:
C-4A	5
TEP #: 342022.985051	

ELEVATION A

SCALE: $\frac{1}{4}$ " = 1'-0"

0 4 8
SCALE IN FEET

ELEVATION B

SCALE: $\frac{1}{4}$ " = 1'-0"

ELEVATION C

SCALE: $\frac{1}{4}$ " = 1'-0"

ELEVATION D

SCALE: $\frac{1}{4}$ " = 1'-0"

PLANS PREPARED FOR:



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SHEET TITLE:

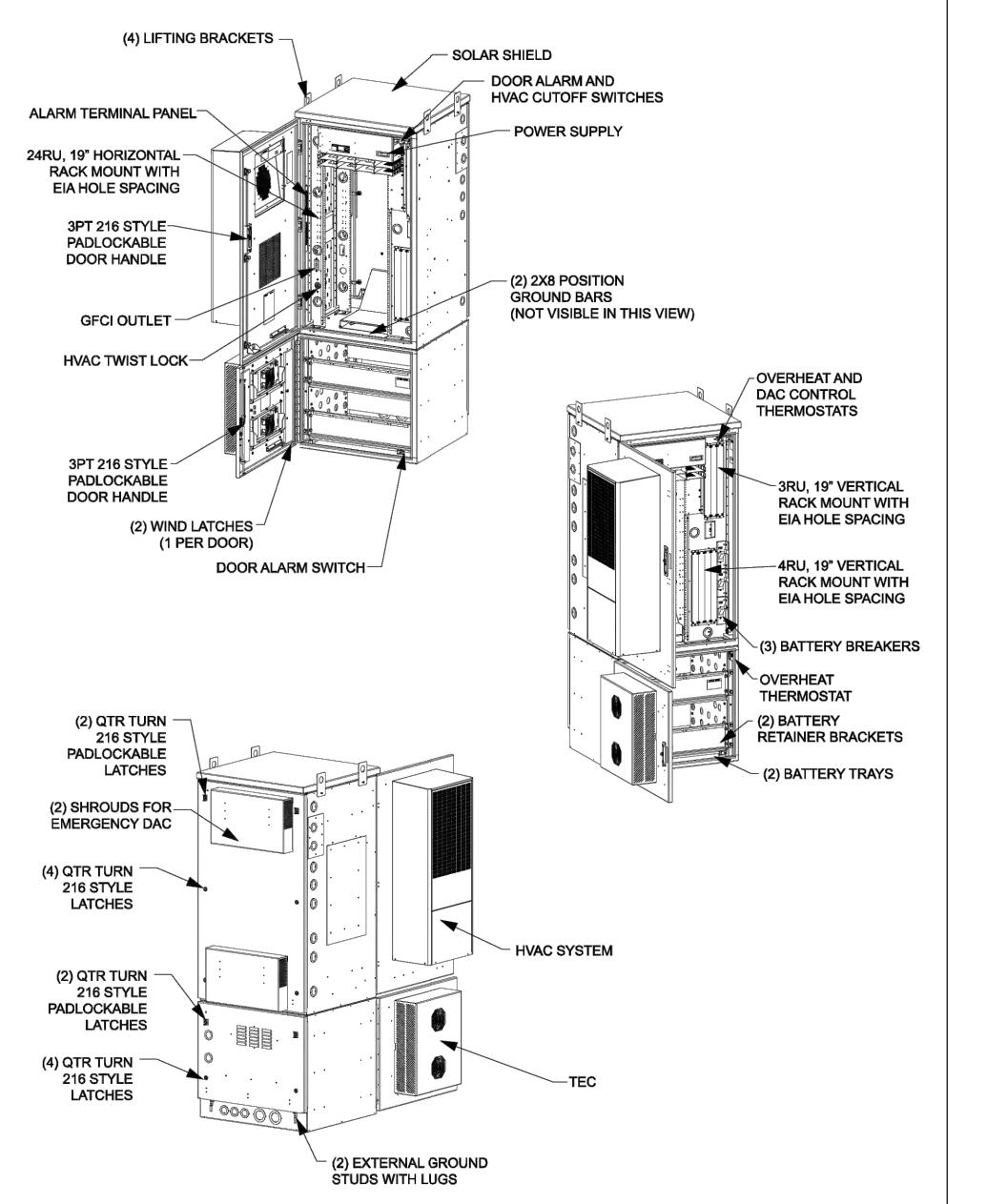
CABINET DETAILS

SHEET NUMBER:	REVISION:
C-4B	5

TEP #342022.985051

LT-SS4B231UN4

Charles



2nd Printing

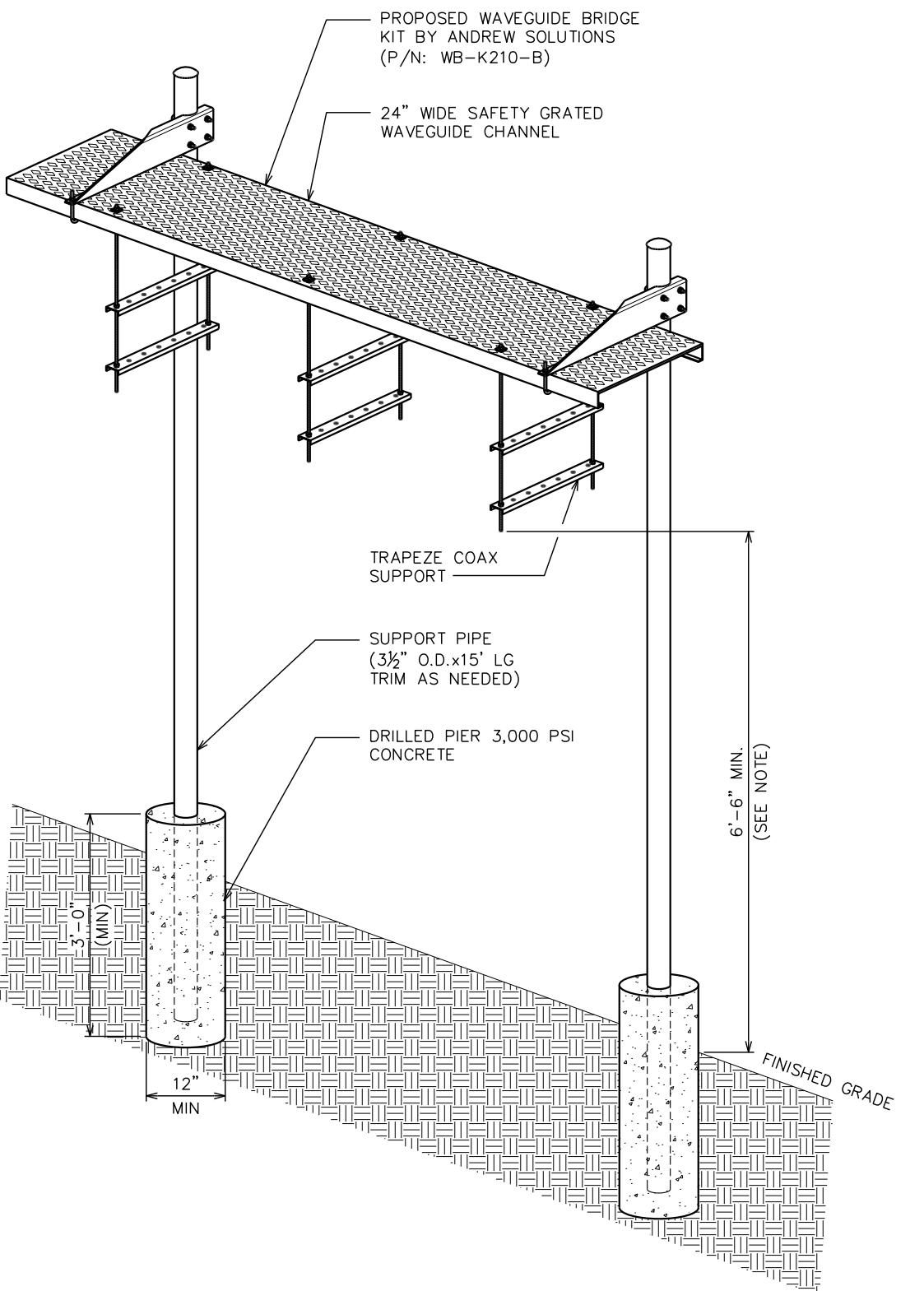
Page 2 of 5

CHARLES CABINET DETAIL (CUBE-SS4B231UN4)

SCALE: N.T.S.

NOTE:

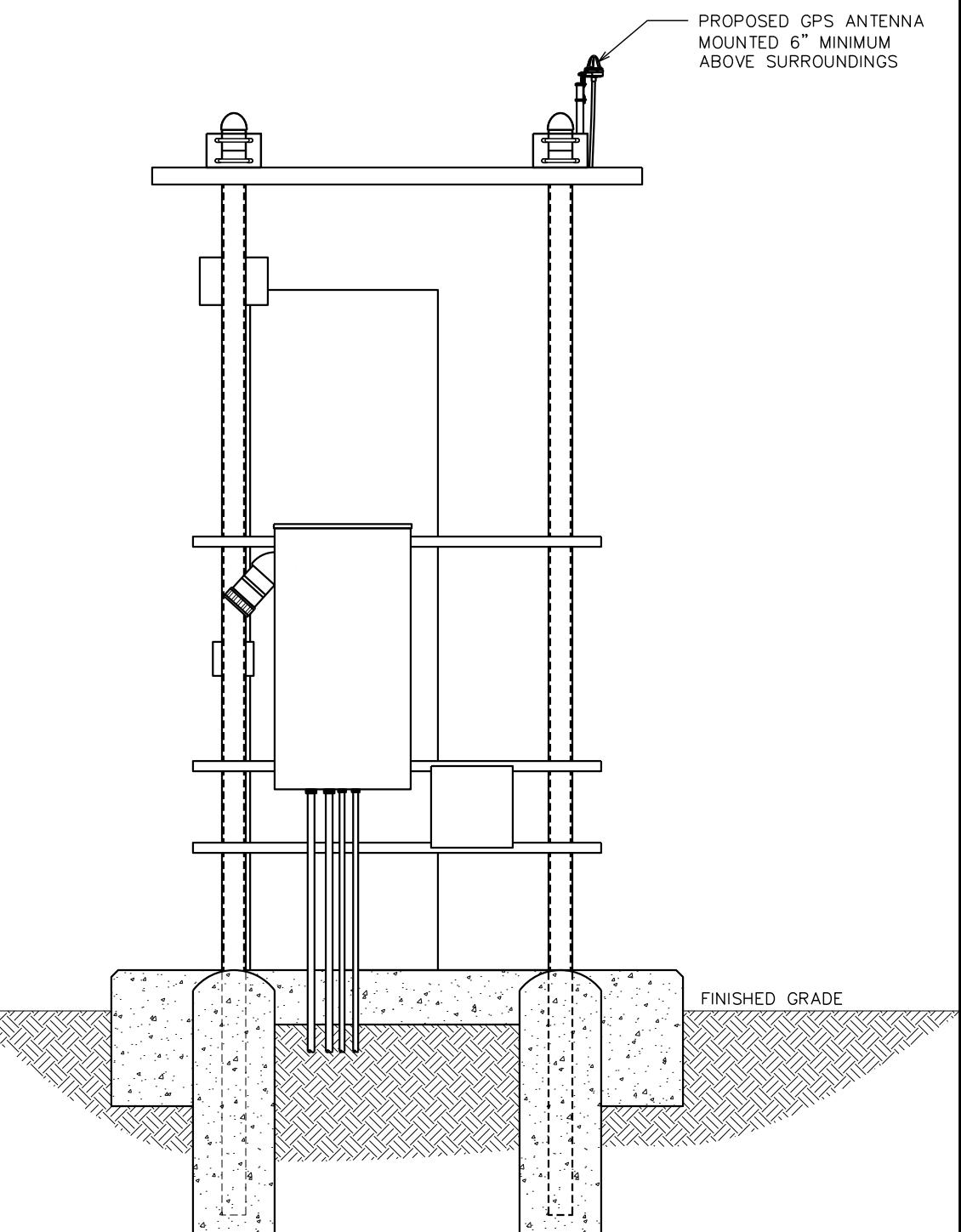
CONTRACTOR TO ENSURE LOWEST ATTACHMENT ON PROPOSED ICE BRIDGE SECTION(S) ARE TO BE A MINIMUM 6'-6" ABOVE FINAL GRADE.

**ICE BRIDGE DETAIL**

SCALE: N.T.S.

NOTE:

GPS ANTENNA SHALL BE MOUNTED TO THE ICE BRIDGE POST WITH A UNIVERSAL GPS MOUNTING KIT (VALMONT P/N: B1841).

**GPS MOUNTING DETAIL**

SCALE: N.T.S.

PLANS PREPARED FOR:

uscellular
8410 W BRYN MAWR, SUITE 700
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(603) 486-9357

PROJECT INFORMATION:

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SHEET TITLE:

ICE BRIDGE DETAILS

SHEET NUMBER:	REVISION:
C-5	5

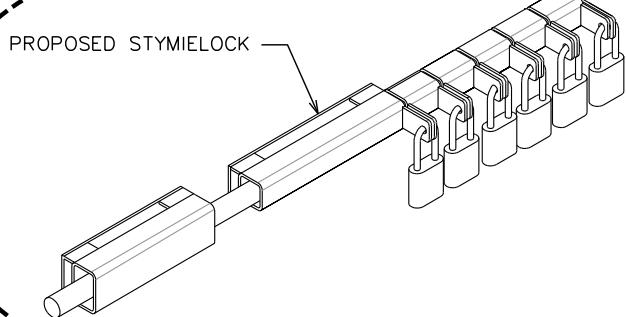
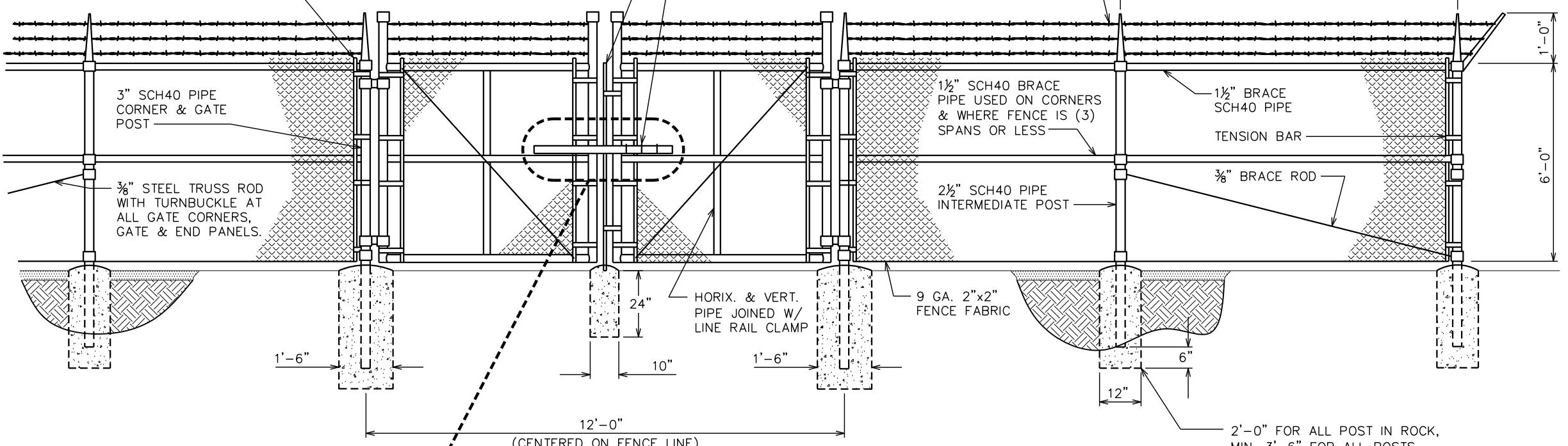
TEP# 342022.985051

STRETCHER BARS FULL HEIGHT
NOT LESS THAN $\frac{3}{16}$ " x $\frac{3}{4}$ " MIN.
CROSS SECTION ON ALL GATES
AND POSTS

1 $\frac{1}{8}$ " O.D. PLUNGER ROD
STYMELOCK TO BE
ATTACHED TO GATE FRAME

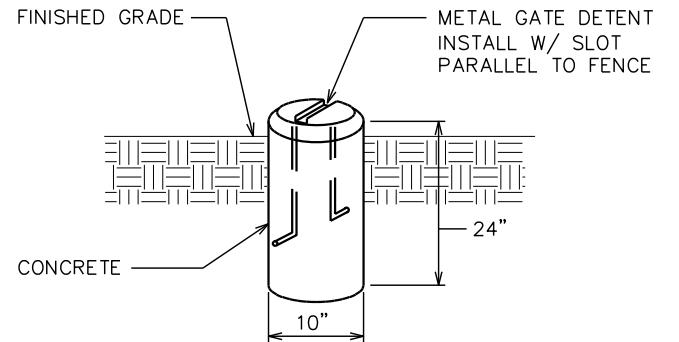
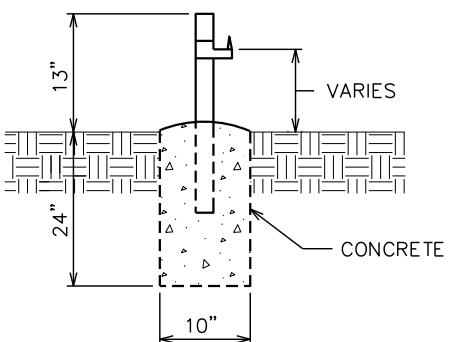
GALV/ 3 STRANDS OF 12 GA.
BARBED WIRE WITH 4 POINT
BARBS @ 3'-0" O.C.

8' 0" O.C. MAX.
5'-0" O.C. MIN.



TYPICAL FENCE ELEVATION

SCALE: N.T.S.



GATE STOP / KEEPER DETAIL

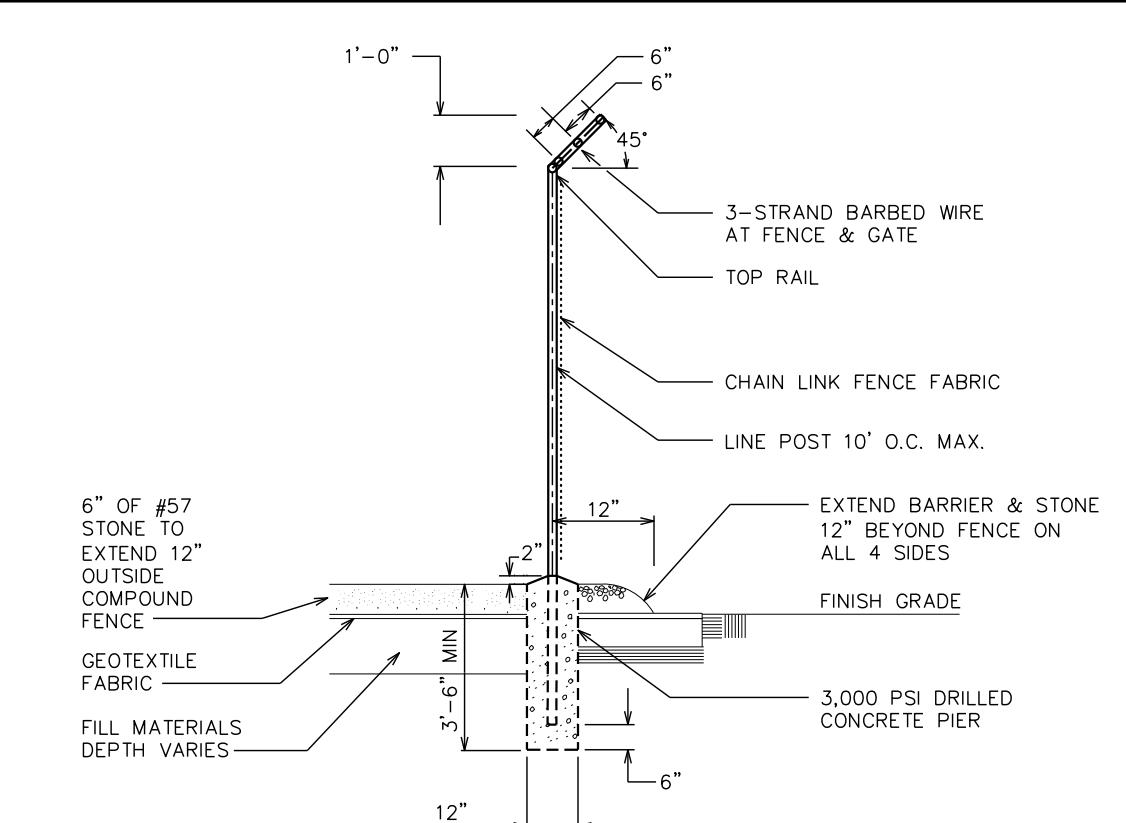
SCALE: N.T.S.

GATE DETENT DETAIL

SCALE: N.T.S.

FENCE / BARBED WIRE ARM DETAIL

SCALE: N.T.S.



PLANS PREPARED FOR:

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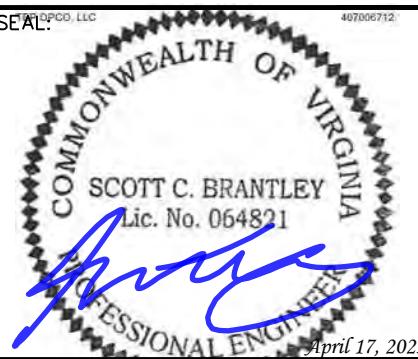
PROJECT INFORMATION:

HENRY
SITE #: 563411
(E911 ADDRESS T.B.D.)
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HENRY, VA 24102
(FRANKLIN COUNTY)

PLANS PREPARED BY:



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5	04-17-25	CONSTRUCTION
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REV	DATE	ISSUED FOR:

DRAWN BY: SAB CHECKED BY: DAO

SHEET TITLE:

FENCE DETAILS

SHEET NUMBER:	REVISION:
C-6A	5

TEP #342022.985051

PLANS PREPARED FOR:



8410 W BRYN MAWR, SUITE 700
CHICAGO, IL 60631
(603) 486-9357

PROJECT INFORMATION:

HENRY

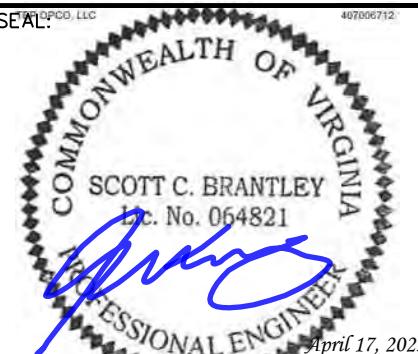
SITE #: 563411

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HENRY, VA 24102
(FRANKLIN COUNTY)

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REV	DATE	ISSUED FOR:

DRAWN BY: SAB CHECKED BY: DAO

SHEET TITLE:

MAN GATE & BOLLARD DETAILS

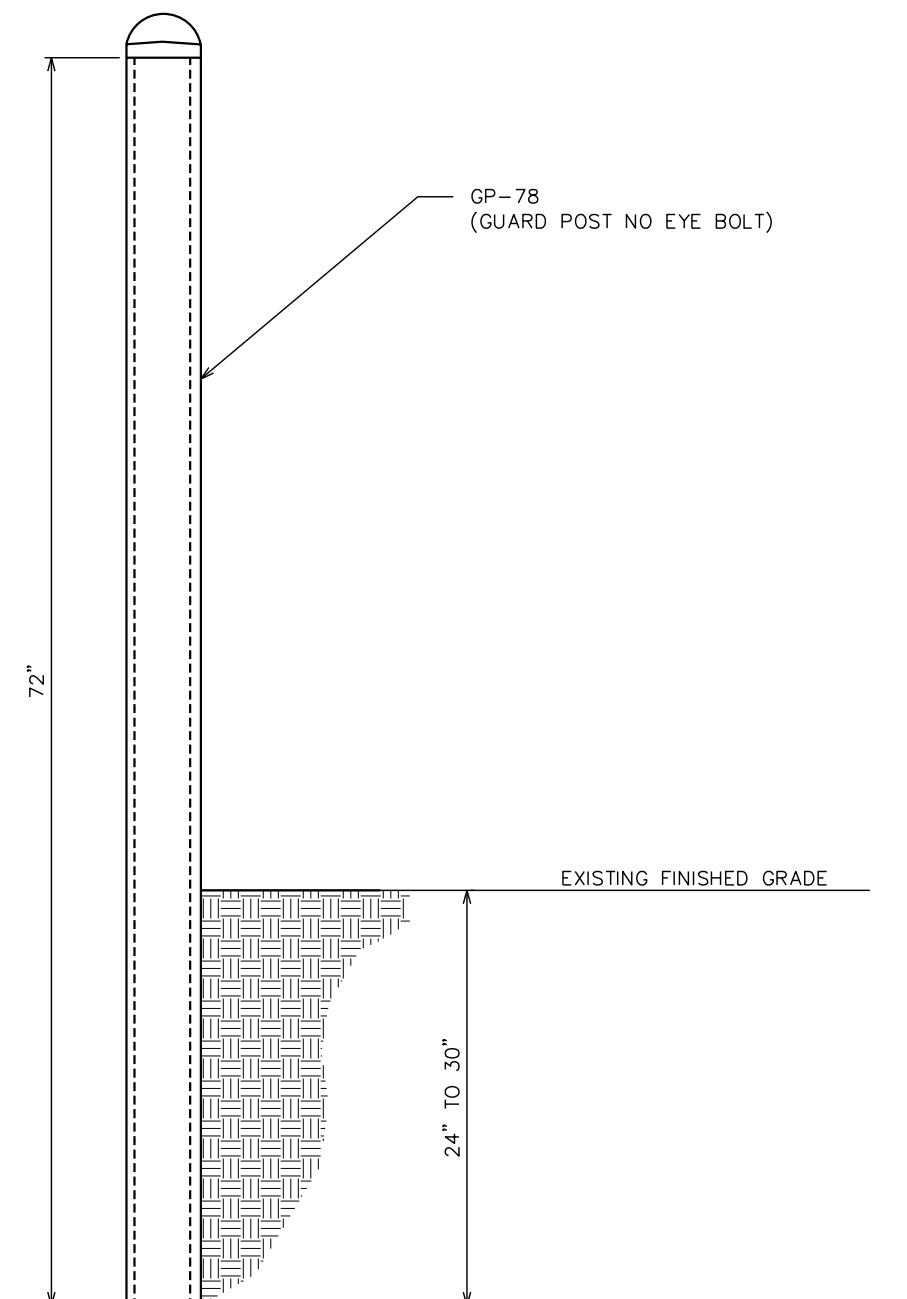
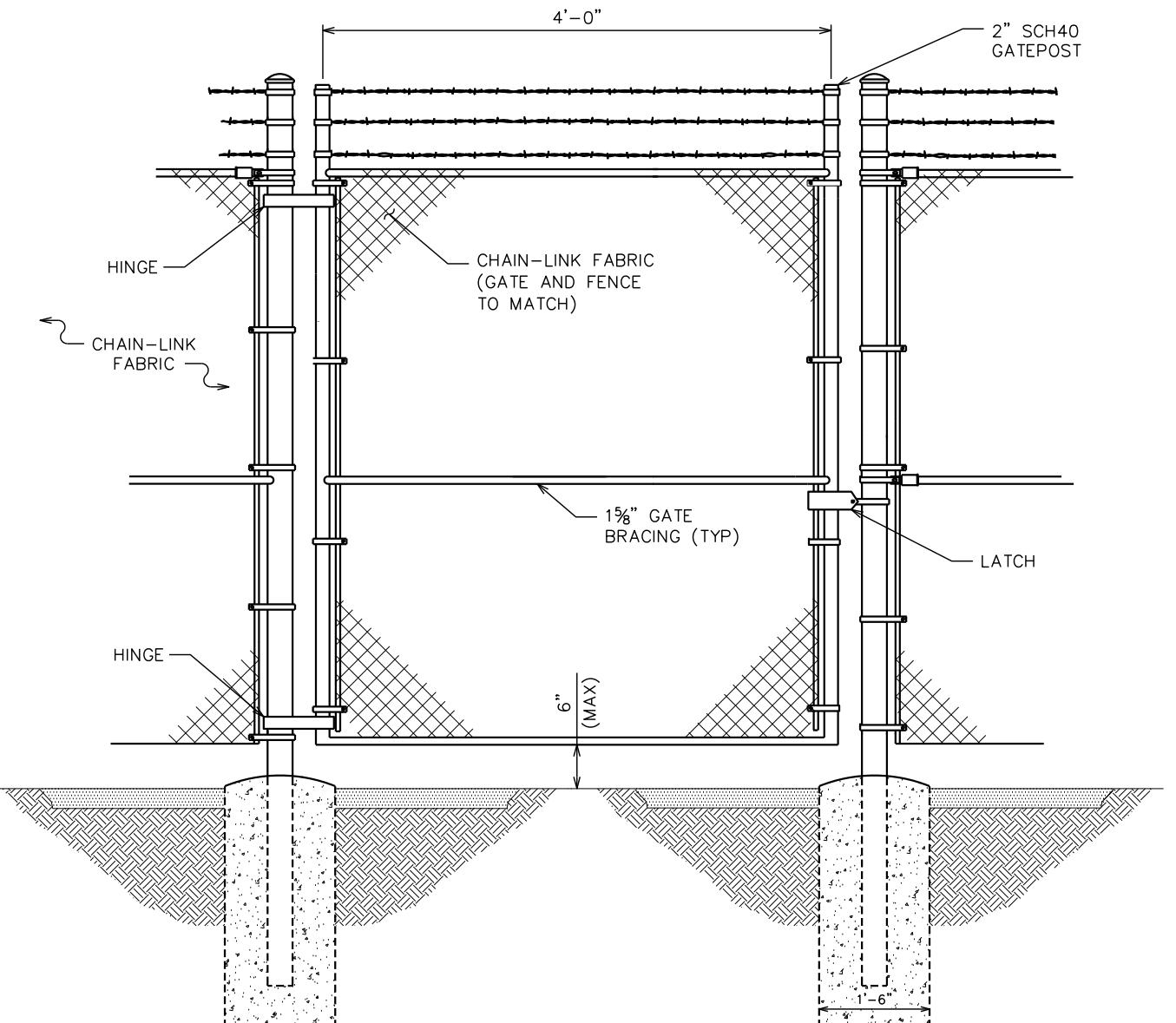
SHEET NUMBER:	REVISION:
C-6B	5

MAN GATE DETAIL

SCALE: N.T.S.

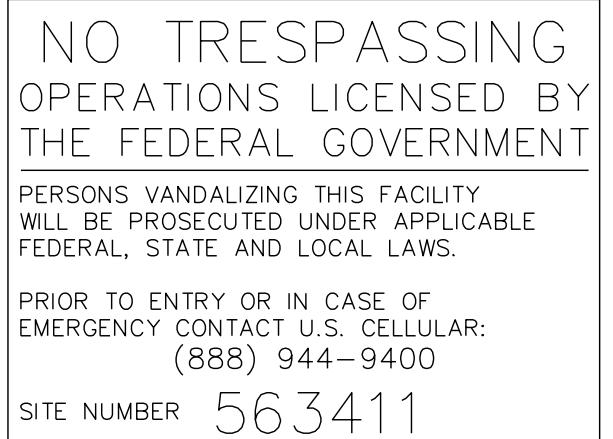
BOLLARD DETAIL

SCALE: N.T.S.

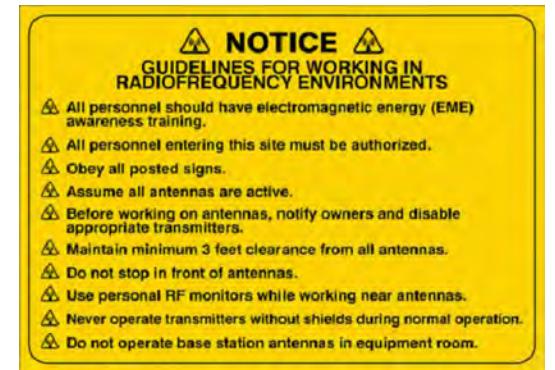


NOTES:

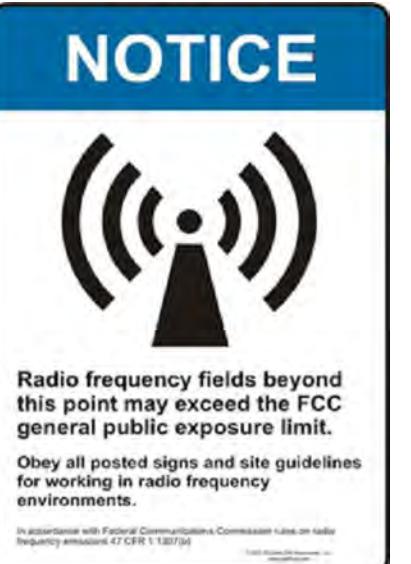
1. SIGNS SHALL BE MADE OF ALUMINUM WITH $\frac{1}{4}$ " HOLES $\frac{1}{2}$ " FROM EACH CORNER TO HANG SIGNS ON FENCE.
2. SIGNS SHALL BE INSTALLED AS FOLLOWS:
GATE: NO TRESPASSING, RF GUIDELINES, RF WARNING, NFPA SULFURIC ACID, AUTHORIZED PERSONNEL ONLY
INTERIOR OF FENCE GATE: EXIT SIGN
3. SIGNS SHALL BE INSTALLED WITH CENTER AT 5' ABOVE FINISHED GRADE.



① NO TRESPASSING SIGN
SIZE: 22"X 22" (0.063" ALUMINUM)
(TO BE MOUNTED ON GATE)



② RF GUIDELINES
SIZE: 6"X 4"
(TO BE MOUNTED ON GATE)



③ RF WARNING SIGN
SIZE: 10"X 14"
(TO BE MOUNTED ON GATE)



④ NFPA SULFURIC ACID SIGN
SIZE: 6.25"X 9"
(TO BE MOUNTED ON GATE)



⑤ REFLECTIVE EXIT SIGN
SIZE: 10"X 7"
(TO BE MOUNTED TO INTERIOR GATE FENCE)



⑥ AUTHORIZED PERSONNEL ONLY SIGN
SIZE: 14"X 10"
(TO BE MOUNTED ON GATE)

TYPICAL SIGNS AND SPECIFICATIONS

SCALE: N.T.S.

PLANS PREPARED FOR:

uscellular
8410 W BRYN MAWR, SUITE 700
CHICAGO, IL 60631
(603) 486-9357

PROJECT INFORMATION:

HENRY
SITE #: 563411
(E911 ADDRESS T.B.D.)
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(FRANKLIN COUNTY)

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5	04-17-25	CONSTRUCTION
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3	03-25-25	PRELIMINARY
REV	DATE	ISSUED FOR:

DRAWN BY: SAB CHECKED BY: DAO

SHEET TITLE:

SIGNAGE DETAILS

SHEET NUMBER:	REVISION:
C-7	5

TEP #:342022.985051

NOTES:

1. CONTRACTOR SHALL ENSURE POSITIVE DRAINAGE ACROSS THE COMPOUND.
 2. CONTRACTOR TO ENSURE 2:1 SLOPES TO EXISTING GRADE UNLESS SPECIFIED OTHERWISE.

LEGEND

SILT FENCE	
LODA	LODA

SOIL & EROSION CONTROL PLAN

SCALE: 1" = 20'

A horizontal scale bar with two tick marks. The first tick mark is at the 20-foot mark, and the second tick mark is at the 40-foot mark. The distance between these two marks is indicated by a thick black line segment.

ANS PREPARED FOR:



JECT INFORMATION:

HENRY

SITE #: 563411
(E911 ADDRESS T.B.D.)
730 PROVIDENCE CHURCH RD.
HENRY, VA 24102
(FRANKLIN COUNTY)

PLANS PREPARED BY:



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3	03-25-25	PRELIMINARY
EV	DATE	ISSUED FOR:

DRAWN BY: SAB CHECKED BY: DAO

SHEET TITLE:

SOIL AND EROSION

CONTINUATION

884 5

C-8A

IEP #:342022.985051

NOTES:

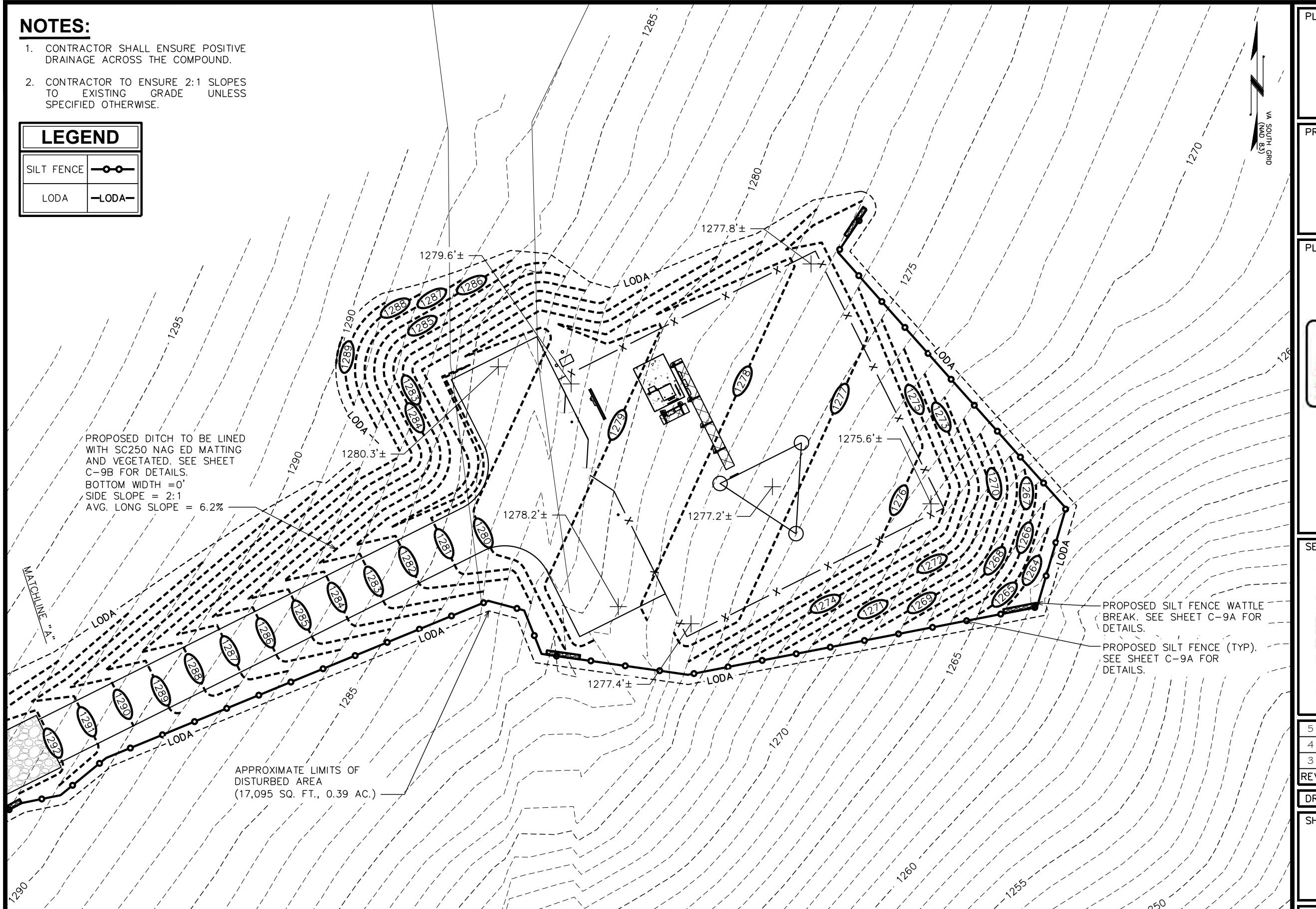
1. CONTRACTOR SHALL ENSURE POSITIVE DRAINAGE ACROSS THE COMPOUND.
 2. CONTRACTOR TO ENSURE 2:1 SLOPES TO EXISTING GRADE UNLESS SPECIFIED OTHERWISE.

LEGEND

SILT FENCE	
LODA	LODA

PROPOSED DITCH TO BE LINED
WITH SC250 NAG ED MATTING
AND VEGETATED. SEE SHEET
C-9B FOR DETAILS.
BOTTOM WIDTH = 0'
SIDE SLOPE = 2:1
AVG. LONG SLOPE = 6.2% —

APPROXIMATE LIMITS OF
DISTURBED AREA
(17,095 SQ. FT., 0.39 AC.)



SOIL & EROSION CONTROL PLAN

SCALE: 1" = 20'

A horizontal scale bar with a black segment from 20 to 40 feet. The text "SCALE IN FEET" is centered below the bar.

ANS PREPARED FOR:



ECT INFORMATION:
HENRY
SITE #: 563411
(E911 ADDRESS T.B.D.)
730 PROVIDENCE CHURCH RD
HENRY, VA 24102
(FRANKLIN COUNTY)

ANS PREPARED BY:



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A circular seal for a professional engineer. The outer ring contains the text "COMMONWEALTH OF VIRGINIA" at the top and "PROFESSIONAL ENGINEER" at the bottom. The inner circle contains "SCOTT C. BRANTLEY" and "Lic. No. 064821". A blue ink signature is written across the center of the seal.

04-17-25	CONSTRUCTION
04-15-25	PRELIMINARY
03-25-25	PRELIMINARY
DATE	ISSUED FOR:

DRAWN BY: SAB | CHECKED BY: DAO

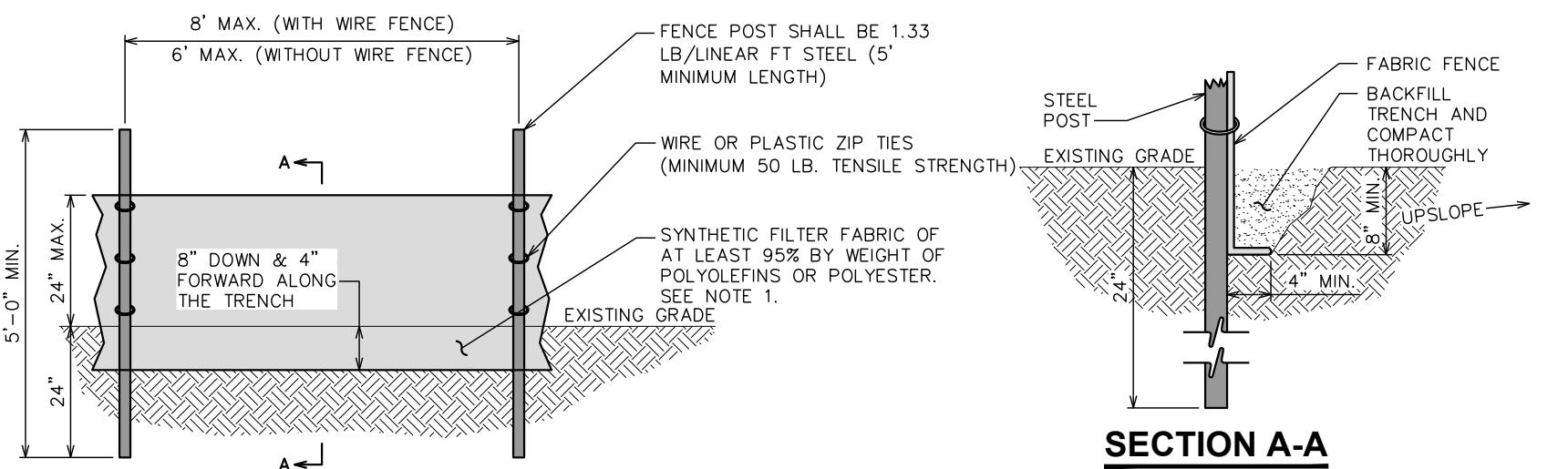
SOIL AND EROSION CONTROL PLAN II

HEFT NUMBER: REVISION:

C-8B 5

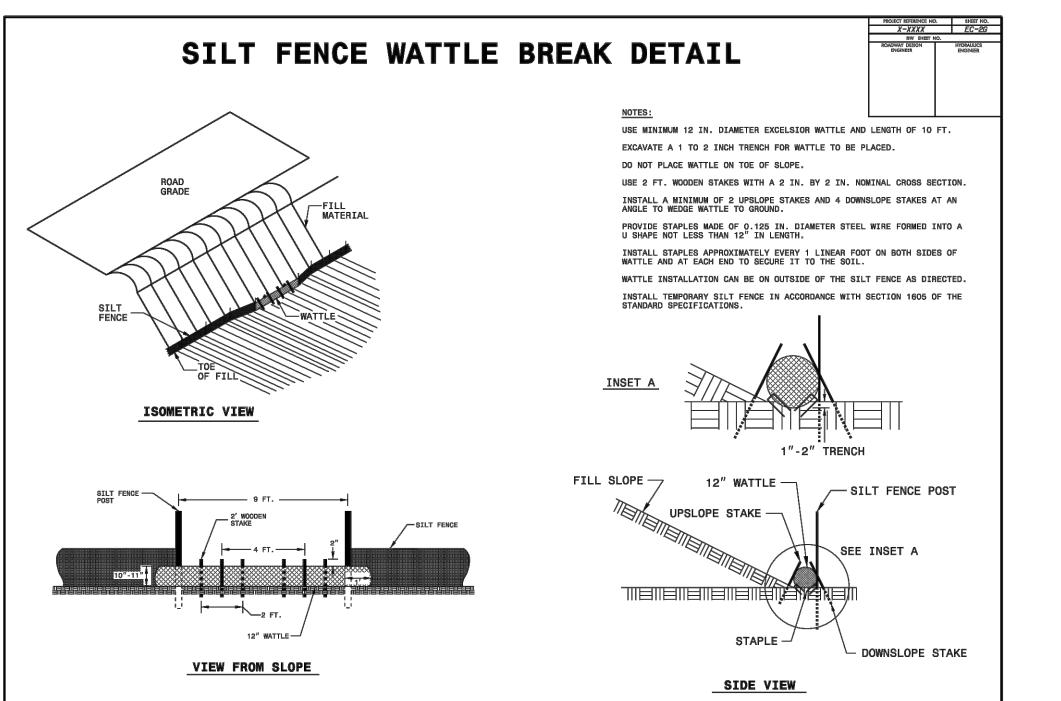
NOTES:

1. FILTER FABRIC SHALL CONFORM TO THE REQUIREMENTS LISTED IN ASTM D 6461.
2. ENDS OF INDIVIDUAL FILTER FABRIC SHALL BE SECURELY FASTENED AT A SUPPORT POST WITH 4 FEET MINIMUM OVERLAP TO THE NEXT POST
3. PLACE 10 INCHES OF FABRIC ALONG THE BOTTOM AND SIDE OF THE TRENCH.
4. INSPECT SEDIMENT FENCE(S) AT LEAST ONCE A WEEK AND AFTER EACH RAINFALL.
5. REMOVE SEDIMENT DEPOSITS AS NECESSARY TO PROVIDE ADEQUATE STORAGE VOLUME FOR THE NEXT RAIN AND TO REDUCE PRESSURE ON THE FENCE.
6. AFTER CONSTRUCTION IS COMPLETE, THE CONTRACTOR SHALL REMOVE ALL FENCING MATERIALS AND UNSTABLE SEDIMENT DEPOSITS, BRING THE AREA TO GRADE AND PROPERLY STABILIZE THE SITE.



SILT FENCE DETAIL

SCALE: N.T.S.



STANDARD SILT FENCE WATTLE BREAK DETAIL

SCALE: N.T.S.

PLANS PREPARED FOR:

uscellular
8410 W BRYN MAWR, SUITE 700
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(603) 486-9357

PROJECT INFORMATION:

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SHEET TITLE:

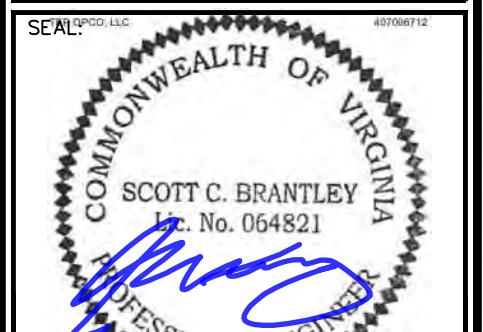
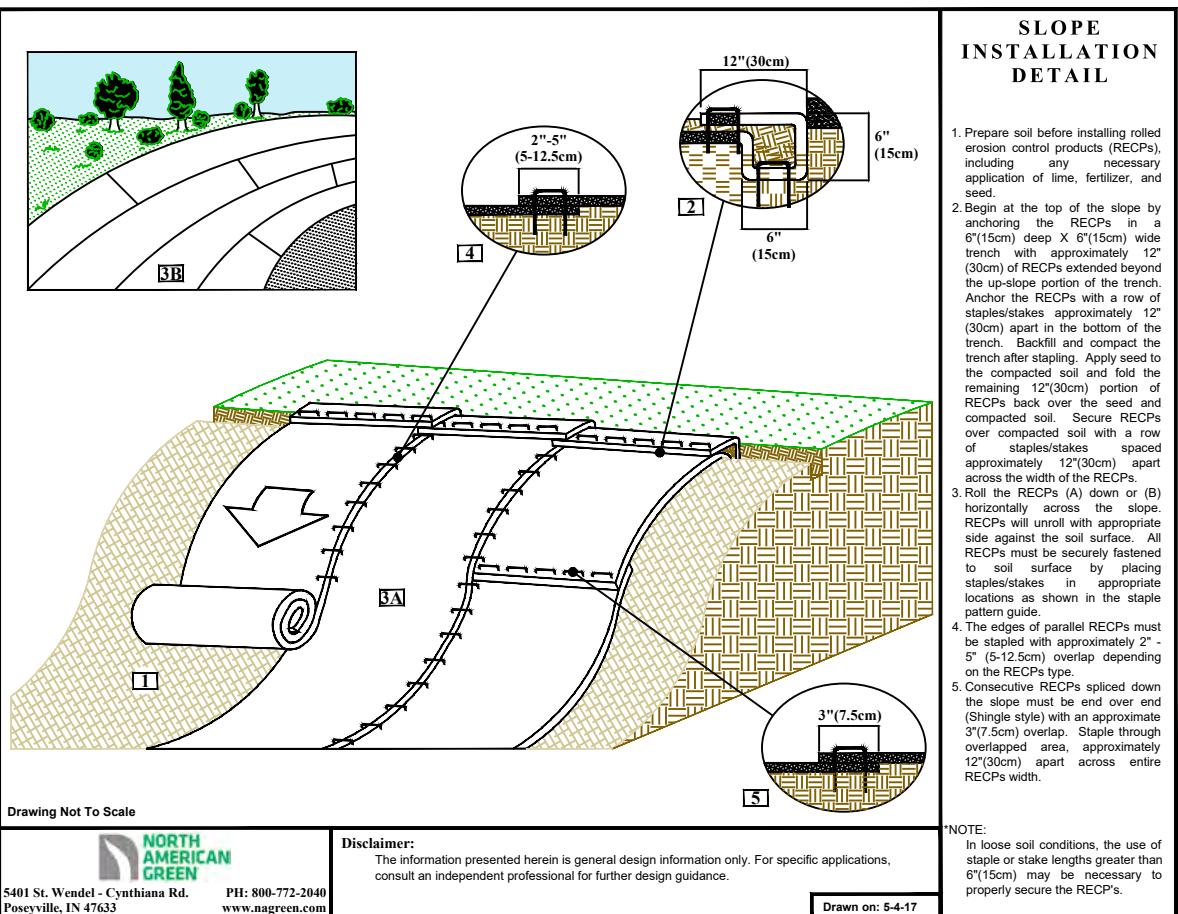
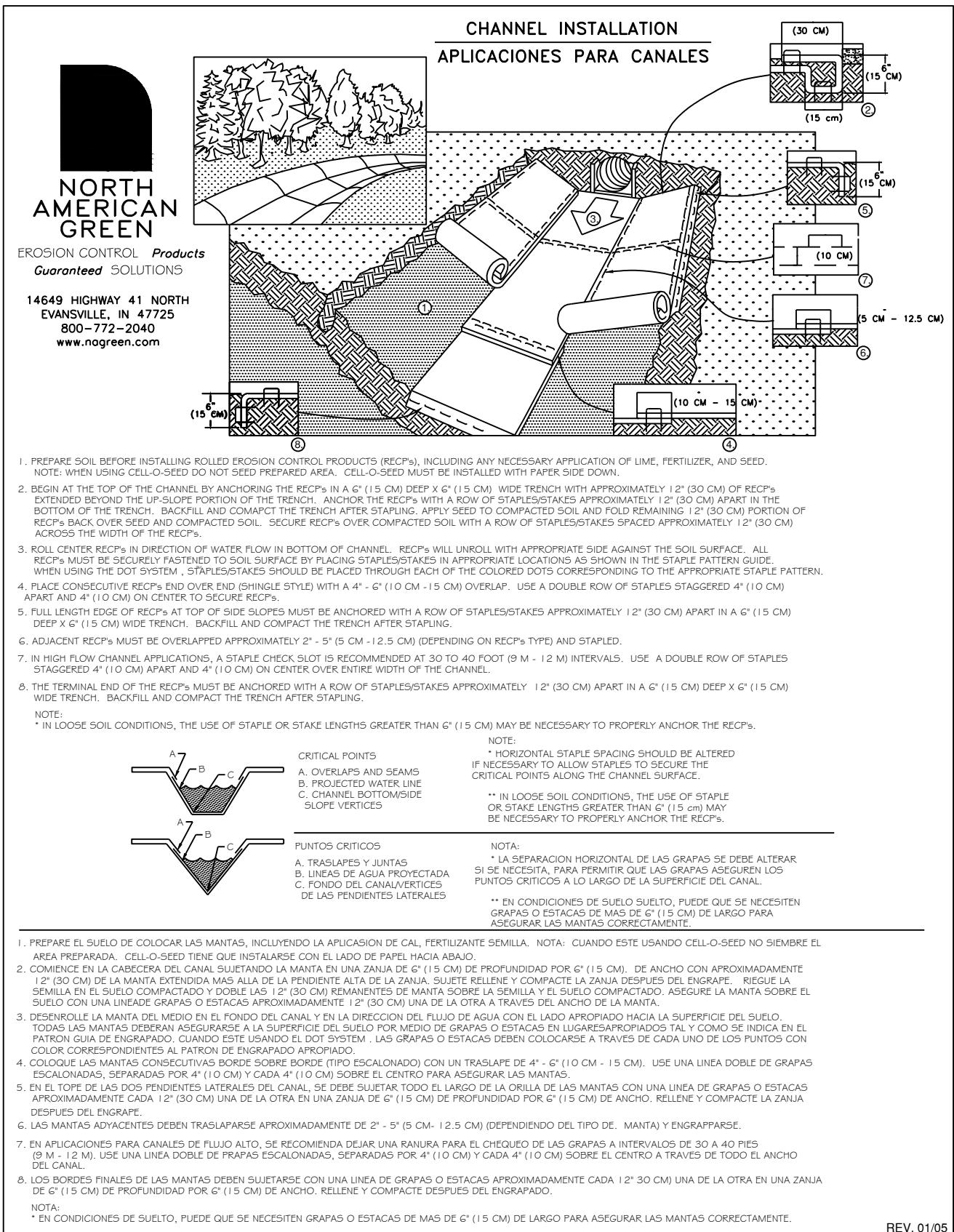
SILT FENCE DETAILS

SHEET NUMBER: C-9A REVISION: 5
TEP #: 342022.985051

PLANS PREPARED FOR:



TEP IS A FAMILY OF COMPANIES LICENSED TO PROVIDE DIFFERENT SERVICES IN DIFFERENT JURISDICTIONS. DEPENDING ON THE JURISDICTION, PROFESSIONAL ENGINEERING AND LAND SURVEYING SERVICES ARE PROVIDED BY TEP OPCO LLC, A DELAWARE LIMITED LIABILITY COMPANY. TEP ENGINEERING, LLC, A NEW YORK PROFESSIONAL LIMITED LIABILITY COMPANY, WE ACQUIRE THE REQUISITE LICENSES IN EACH STATE. ADDITIONAL INFORMATION CAN BE OBTAINED FROM THE COMPANY.



5	04-17-25	CONSTRUCTION
4	04-15-25	PRELIMINARY
3	03-25-25	PRELIMINARY
REV	DATE	ISSUED FOR:
DRAWN BY:	SAB	CHECKED BY: DAO

SHEET TITLE:	
EROSION CONTROL MATTING DETAILS	

SHEET NUMBER:	REVISION:
C-9B	5

EROSION CONTROL MATTING DETAILS

SCALE: N.T.S.

TEP #: 342022.985051

PLANS PREPARED FOR:



8410 W BRYN MAWR, SUITE 700
CHICAGO, IL 60631
(603) 486-9357

PROJECT INFORMATION:

HENRY
SITE #: 563411
(E911 ADDRESS T.B.D.)
730 PROVIDENCE CHURCH RD.
HENRY, VA 24102
(FRANKLIN COUNTY)

PLANS PREPARED BY:



TEP OPCO, LLC
326 TRYON ROAD
RALEIGH, NC 27603-3530
OFFICE: (919) 661-6351
www.tepgroup.net



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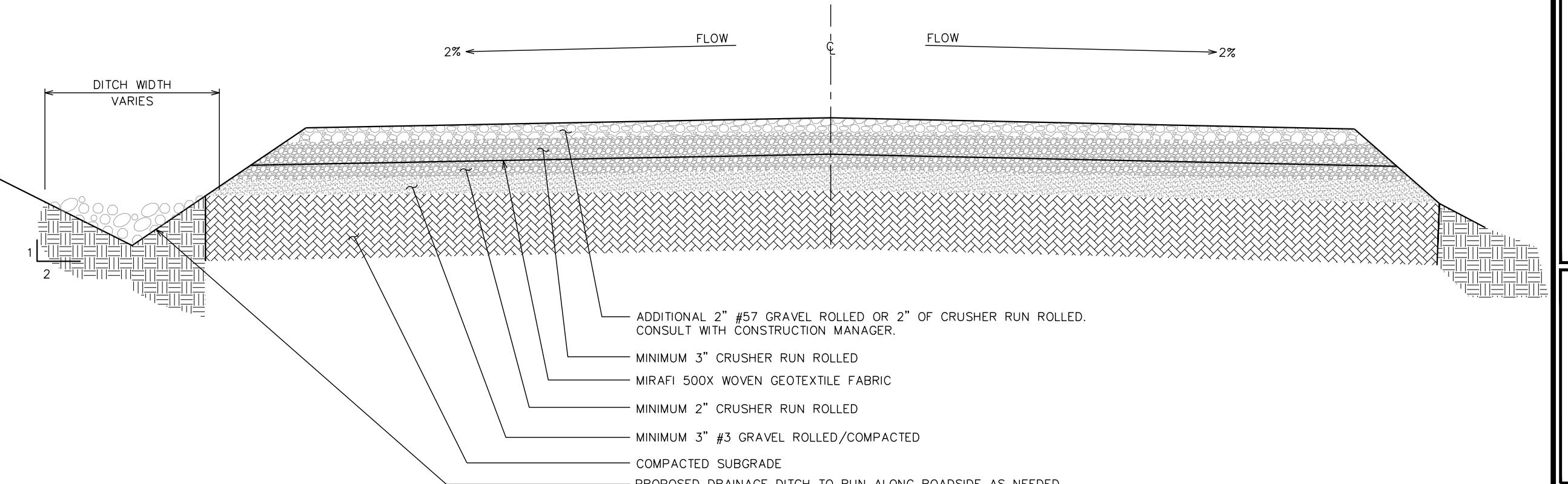
DRAWN BY: SAB CHECKED BY: DAO

SHEET TITLE:

ACCESS ROAD DETAILS

SHEET NUMBER:	REVISION:
C-10	5

TEP #:342022.985051

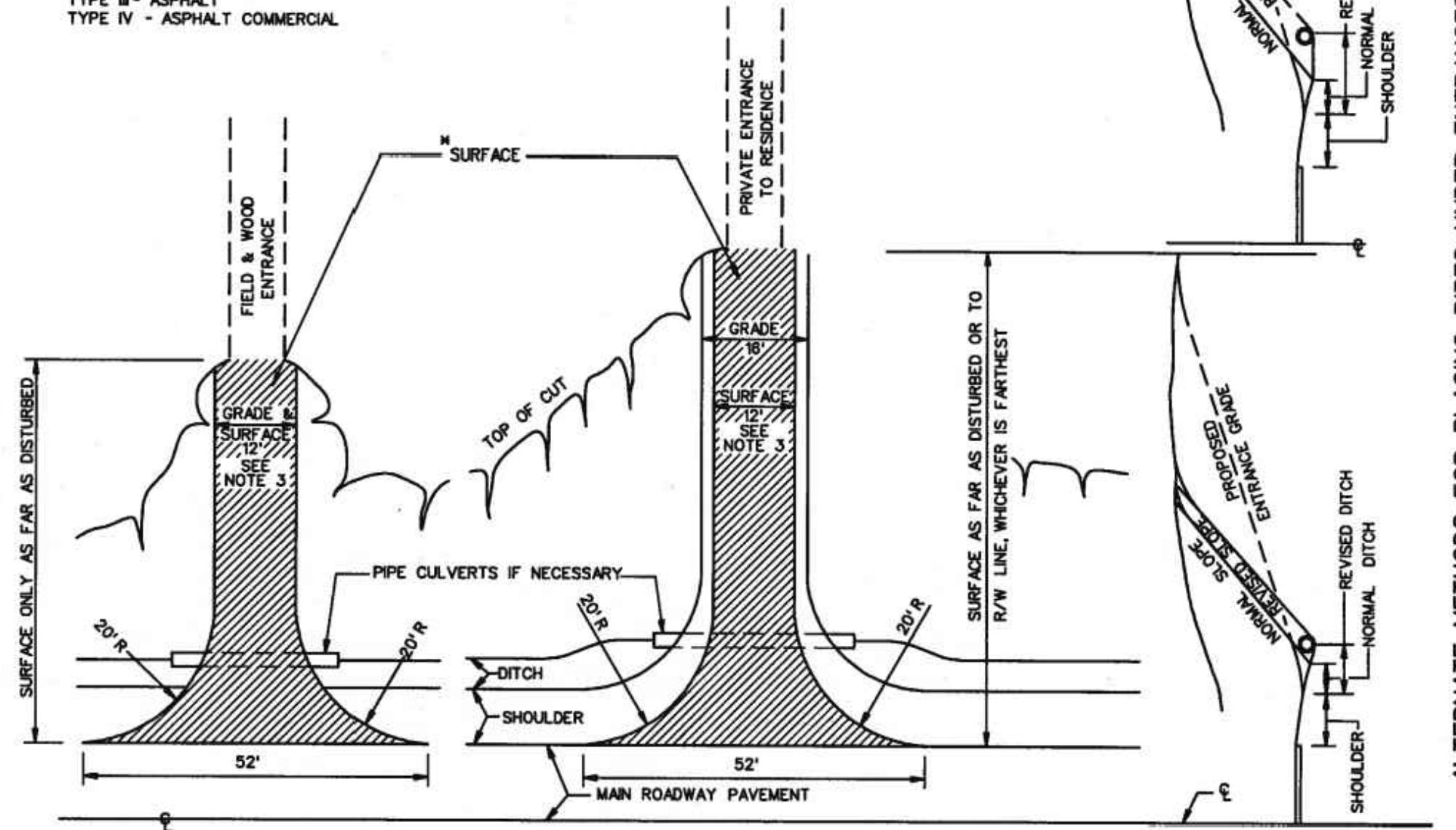


STANDARD ROAD SECTION

SCALE: N.T.S.

* TO BE DETERMINED BY THE EXISTING CONDITIONS
AT THE TIME OF CONSTRUCTION

TYPE I - CRUSHER RUN AGGREGATE
TYPE II - CONCRETE
TYPE III - ASPHALT
TYPE IV - ASPHALT COMMERCIAL



NOTES:

1. ALL ENTRANCE GRADES SHALL START BACK OF THE SHOULDER LINE. IF DRAINAGE IS NECESSARY, THE DITCH MAY BE MOVED BACK TO PROVIDE AT LEAST 9" OF COVER OVER PIPE, AS SHOWN IN THE ALTERNATE METHODS FOR PLACING PIPE UNDER ENTRANCES DIAGRAM.
2. ENTRANCE GRADES ARE TO BE SMOOTHLY TIED INTO THE ROADWAY BY ROUNDING AS NECESSARY.
3. 12' OR EXISTING WIDTH WHICHEVER IS GREATER.
4. LENGTHS OF CULVERTS SHOWN ON ROAD PLANS FOR ENTRANCES ARE APPROXIMATE AND SHALL BE ADJUSTED TO OBTAIN ABOVE ROADWAY WIDTHS.
5. ENTRANCES IN FILL TO BE SAME AS ABOVE EXCEPT LOCATION OF CULVERT (WHEN NECESSARY).

SPECIFICATION
REFERENCE

512

STANDARD PRIVATE ENTRANCES

VIRGINIA DEPARTMENT OF TRANSPORTATION

VDOT
ROAD AND BRIDGE STANDARDS
REVISION DATE SHEET 1 OF 1
602.02

CONSTRUCTION ENTRANCE DETAIL

SCALE: N.T.S.

0 150 300
SCALE IN FEET

PLANS PREPARED FOR:

uscellular
8410 W BRYN MAWR, SUITE 700
CHICAGO, IL 60631
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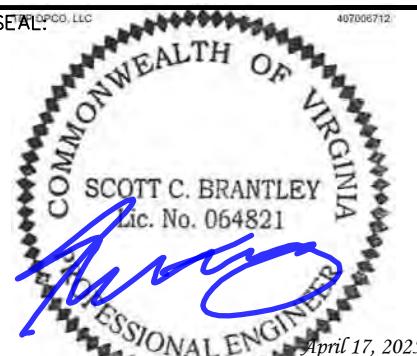
PROJECT INFORMATION:

HENRY
SITE #: 563411
(E911 ADDRESS T.B.D.)
730 PROVIDENCE CHURCH RD.
HENRY, VA 24102
(FRANKLIN COUNTY)

PLANS PREPARED BY:



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DRAWN BY: SAB CHECKED BY: DAO

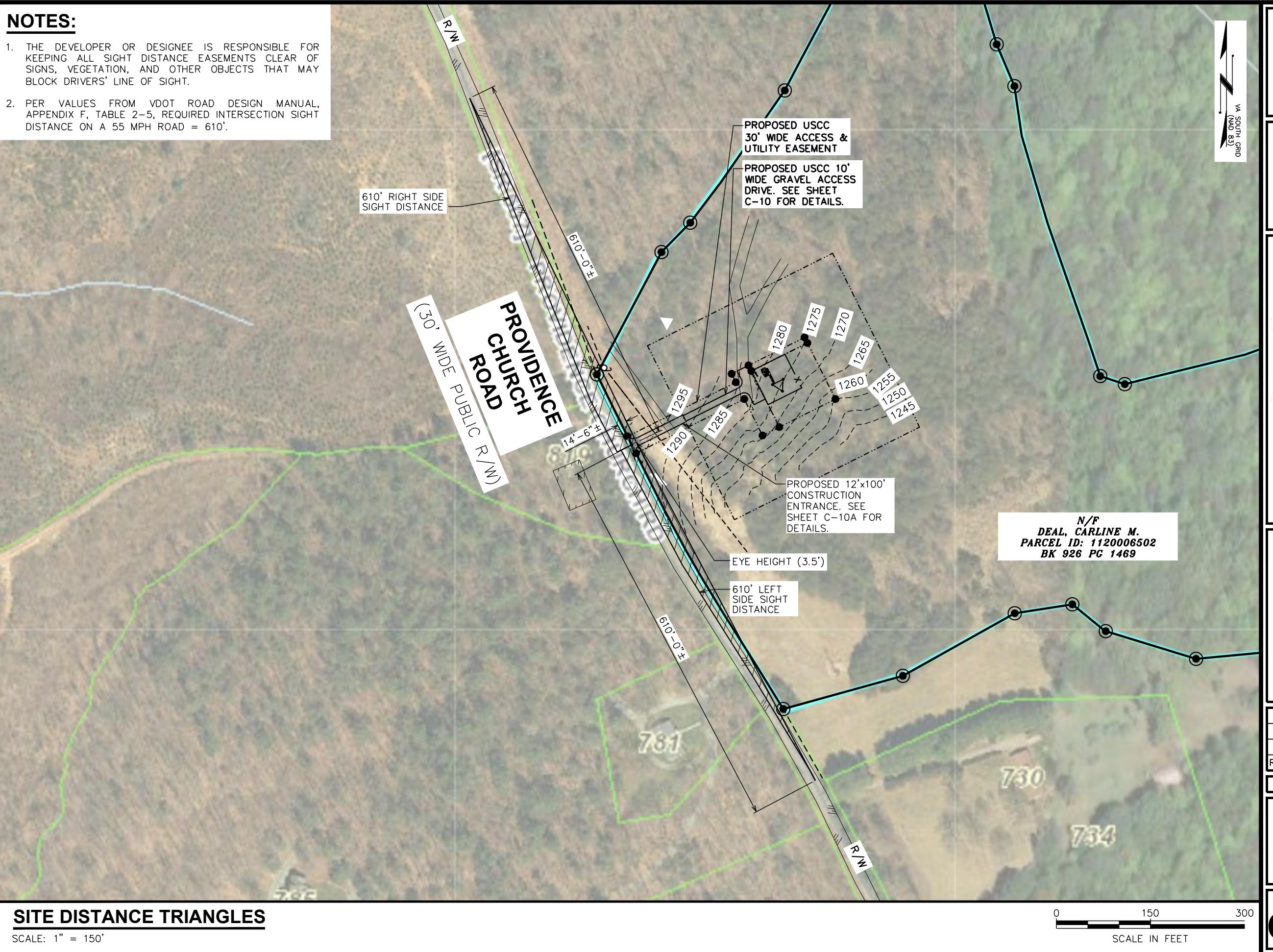
SHEET TITLE:

**CONSTRUCTION
ENTRANCE DETAILS**

SHEET NUMBER: C-10A REVISION: 5
TEP #: 342022.985051

NOTES:

1. THE DEVELOPER OR DESIGNEE IS RESPONSIBLE FOR KEEPING ALL SIGHT DISTANCE EASEMENTS CLEAR OF SIGNS, VEGETATION, AND OTHER OBJECTS THAT MAY BLOCK DRIVERS' LINE OF SIGHT.
2. PER VALUES FROM VDOT ROAD DESIGN MANUAL, APPENDIX F, TABLE 2-5, REQUIRED INTERSECTION SIGHT DISTANCE ON A 55 MPH ROAD = 610'.



PLANS PREPARED FOR:

uscellular
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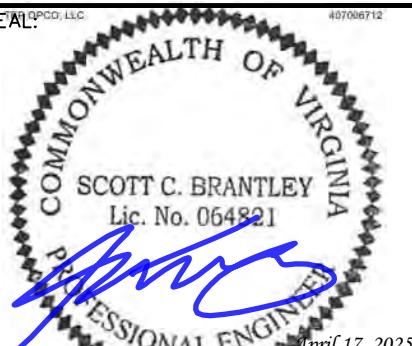
PROJECT INFORMATION:

HENRY
SITE #: 563411
(E911 ADDRESS T.B.D.)
730 PROVIDENCE CHURCH RD.
HENRY, VA 24102
(FRANKLIN COUNTY)

PLANS PREPARED BY:



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RALEIGH, NC 27603-3530
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5	04-17-25	CONSTRUCTION
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3	03-25-25	PRELIMINARY
REV	DATE	ISSUED FOR:

DRAWN BY: SAB | CHECKED BY: DAO

SHEET TITLE:

SITE DISTANCE TRIANGLES

SHEET NUMBER: **C-10B** | REVISION: **5**
TEP #: 342022.985051

PLANS PREPARED FOR:

uscellular
8410 W BRYN MAWR, SUITE 700
CHICAGO, IL 60631
(603) 486-9357

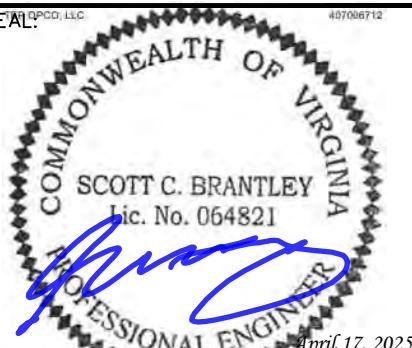
PROJECT INFORMATION:

HENRY
SITE #: 563411
(E911 ADDRESS T.B.D.)
730 PROVIDENCE CHURCH RD.
HENRY, VA 24102
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PLANS PREPARED BY:



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REV	DATE	ISSUED FOR:

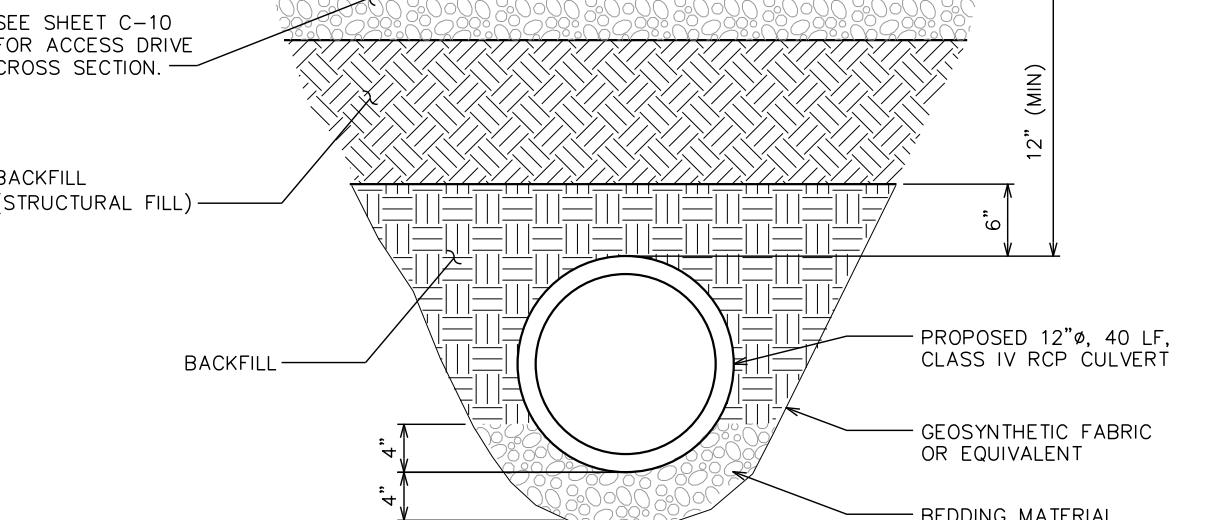
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SHEET TITLE:

CULVERT DETAILS

SHEET NUMBER: C-11	REVISION: 5
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TEP #: 342022.985051



12"Ø CULVERT DETAIL

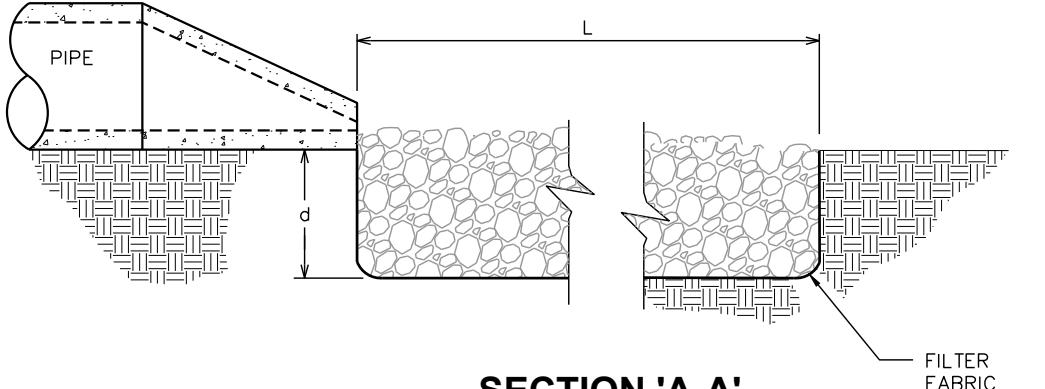
SCALE: N.T.S.

NOTES:

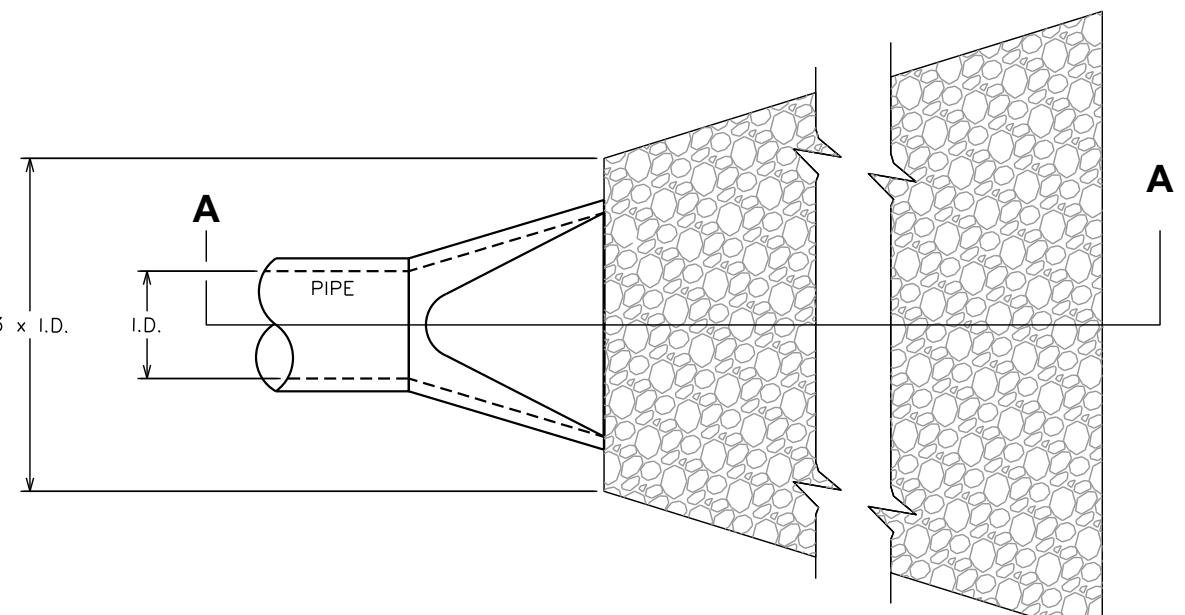
1. L = THE LENGTH OF THE RIPRAP APRON.
2. d = 1.5 TIMES THE MAXIMUM STONE DIAMETER BUT NOT LESS THAN 6" (INCHES).
3. A FILTER BLANKET OR FILTER FABRIC SHOULD BE INSTALLED BETWEEN THE RIPRAP AND SOIL FOUNDATION.

DISSIPATOR PAD SIZING

RIP-RAP APRON NO.	CULVERT DIAMETER (IN)	WIDTH (FT)	LENGTH (FT)	DEPTH (IN)	D ₅₀ (IN)
1	12	3	4	18	6



SECTION 'A-A'



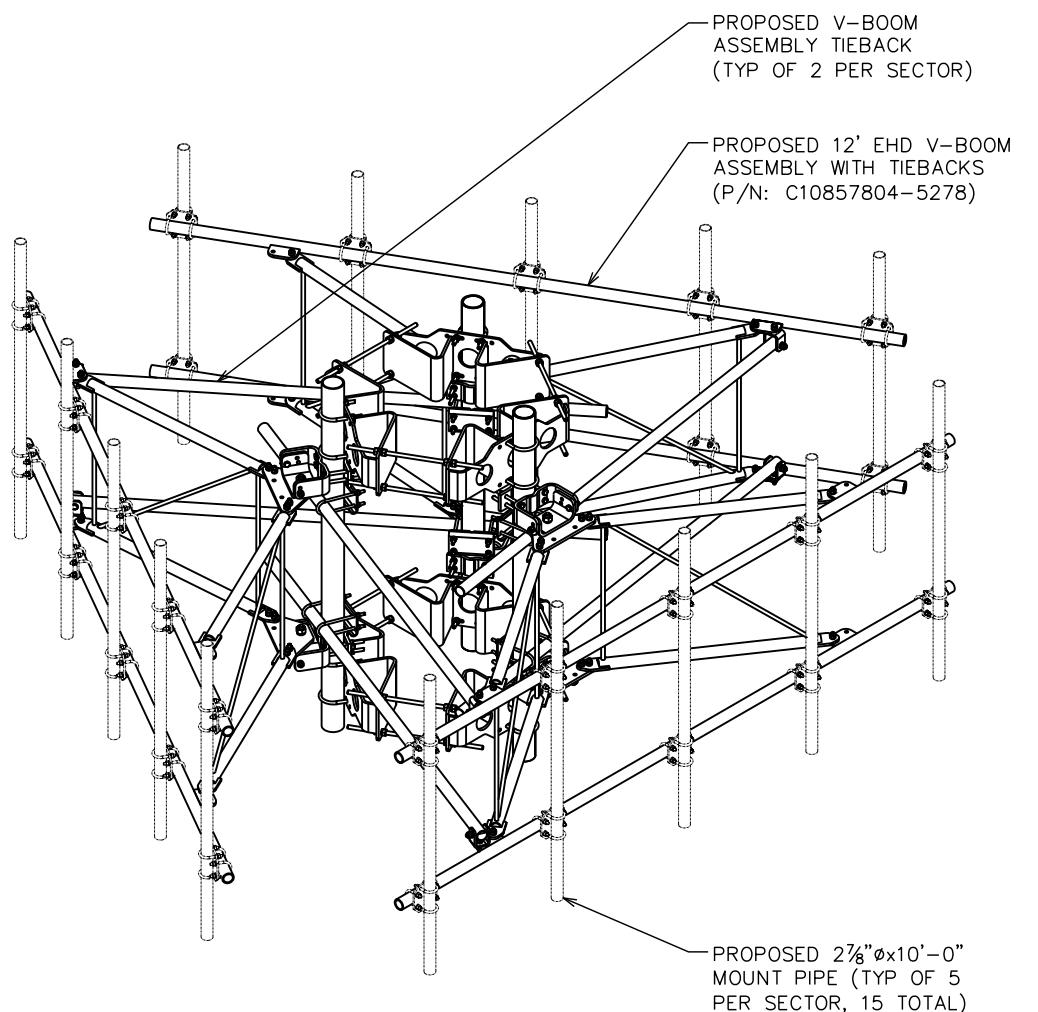
PLAN VIEW

DISSIPATOR PAD DETAILS

SCALE: N.T.S.

NOTES:

1. MOUNT INCLUDES ATTACHMENT HARDWARE AND $2\frac{1}{8}'' \times 10'-0''$ MOUNT PIPES.
2. MOUNT TO BE SUPPLIED BY TOWER MANUFACTURER.

**ANTENNA MOUNT DETAILS**

SCALE: N.T.S.

NOTES:

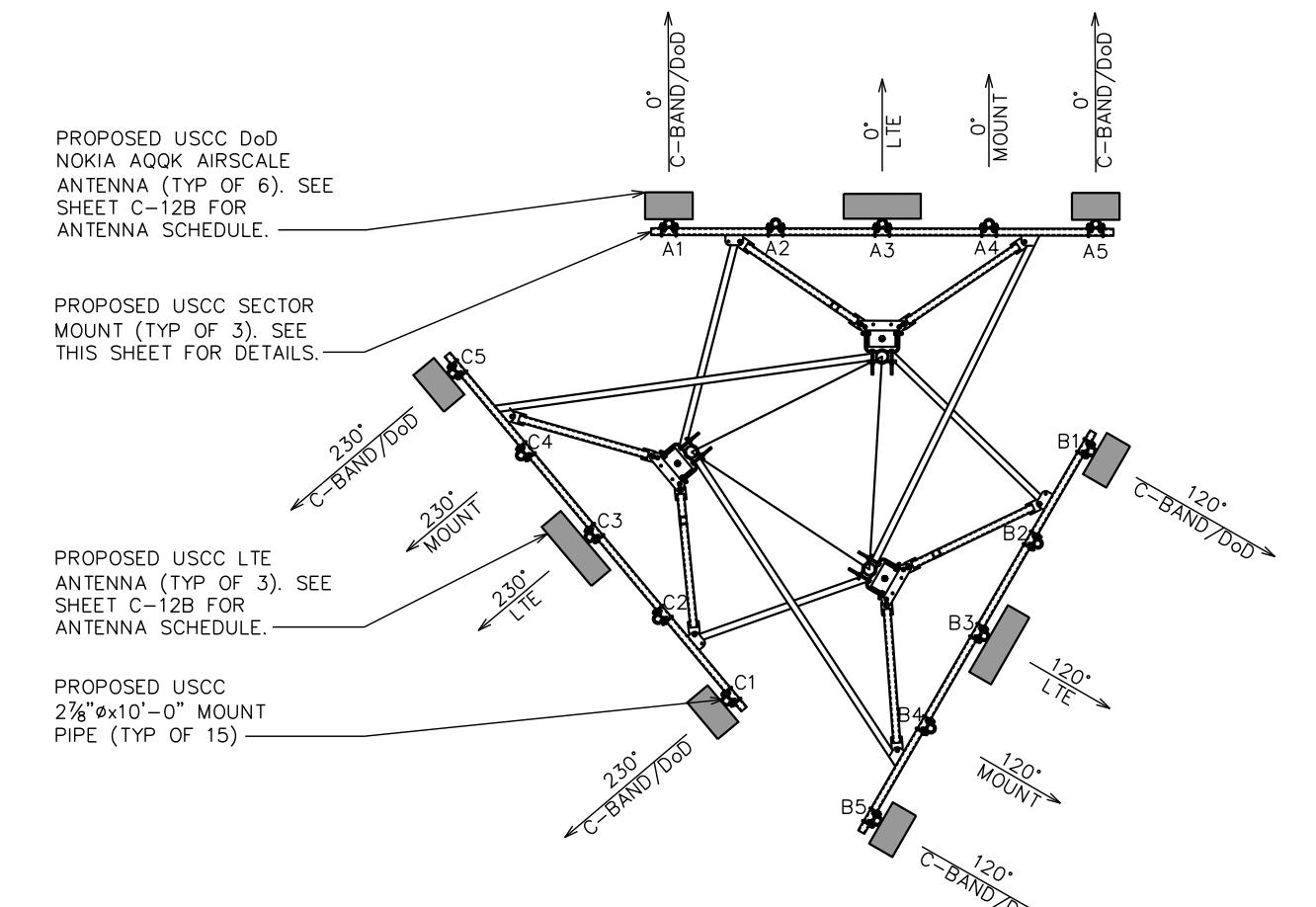
1. CONTRACTOR TO CONFIRM ANTENNA AZIMUTH WITH USCC LOADING SHEET PRIOR TO INSTALLATION.
2. SEE SHEET C-14A & C-14B FOR PLUMBING DIAGRAM.
3. SEE SHEETS C-13A THROUGH C-13B FOR RRH & RAYCAP DETAILS.
4. SEE SHEET C-12E THROUGH C-12F FOR ANTENNA SPECIFICATIONS.

PROPOSED USCC DoD NOKIA AQK AIRSCALE ANTENNA (TYP OF 6). SEE SHEET C-12B FOR ANTENNA SCHEDULE.

PROPOSED USCC SECTOR MOUNT (TYP OF 3). SEE THIS SHEET FOR DETAILS.

PROPOSED USCC LTE ANTENNA (TYP OF 3). SEE SHEET C-12B FOR ANTENNA SCHEDULE.

PROPOSED USCC $2\frac{1}{8}'' \times 10'-0''$ MOUNT PIPE (TYP OF 15)

**MOUNT ORIENTATION**SCALE: $\frac{3}{16}'' = 1'-0''$

0 4 8
SCALE IN FEET

PLANS PREPARED FOR:



PROJECT INFORMATION:

HENRY**SITE #: 563411**

(E911 ADDRESS T.B.D.)
730 PROVIDENCE CHURCH RD.
HENRY, VA 24102
(FRANKLIN COUNTY)

PLANS PREPARED BY:



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SHEET TITLE:

ANTENNA MOUNTING DETAILS

SHEET NUMBER: **C-12A** REVISION: **5**
TEP #: 342022.985051

PLANS PREPARED FOR:


 8410 W BRYN MAWR, SUITE 700
 CHICAGO, IL 60631
 (603) 486-9357

PROJECT INFORMATION:

**HENRY
SITE #: 563411**

 (E911 ADDRESS T.B.D.)
 730 PROVIDENCE CHURCH RD.
 HENRY, VA 24102
 (FRANKLIN COUNTY)

PLANS PREPARED BY:


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SHEET TITLE:

RF CONFIGURATION

SHEET NUMBER:	REVISION:
C-12B	5

TEP #: 342022.985051

ANTENNA/CABLE SCHEDULE													
ANTENNA	SECTOR	TECH	MANUFACTURER (MODEL #)	AZIMUTH (TRUE NORTH)	MOUNTING HEIGHT	LB RET TILT 1/2	MB RET TILT 1/2	MECH. D-TILT	EQUIPMENT	SURGE PROTECTION	COAX/CABLE	CABLE LENGTH*	COAX JUMPER*
A1	ALPHA	C-BAND	NOKIA AQQK AIRSCALE MAA 64T64R n77	0°	Q @ 185'-0"	0°	0°	0°	(3) NOKIA AHCA B5 RRH & (6) NOKIA AQQA	(2) RUSDC-6267-PF-48 RAYCAP	(2) 1 1/4"Ø HYBRID CABLE	210'±	25'±
A3	ALPHA	LTE	DENGYO OCT8-2LX2HX-BW65	0°	Q @ 185'-0"	2°	0°	0°					25'±
A5	ALPHA	C-BAND	NOKIA AQQK AIRSCALE MAA 64T64R n77	0°	Q @ 185'-0"	0°	0°	0°					25'±
B1	BETA	C-BAND	NOKIA AQQK AIRSCALE MAA 64T64R n77	120°	Q @ 185'-0"	0°	0°	0°					25±
B3	BETA	LTE	DENGYO OCT8-2LX2HX-BW65	120°	Q @ 185'-0"	2°	0°	0°					25'±
B5	BETA	C-BAND	NOKIA AQQK AIRSCALE MAA 64T64R n77	120°	Q @ 185'-0"	0°	0°	0°					25'±
C1	ALPHA	C-BAND	NOKIA AQQK AIRSCALE MAA 64T64R n77	230°	Q @ 185'-0"	0°	0°	0°					25'±
C3	ALPHA	LTE	DENGYO OCT8-2LX2HX-BW65	230°	Q @ 185'-0"	2°	0°	0°					25'±
C5	ALPHA	C-BAND	NOKIA AQQK AIRSCALE MAA 64T64R n77	230°	Q @ 185'-0"	0°	0°	0°					25'±

NOTES:

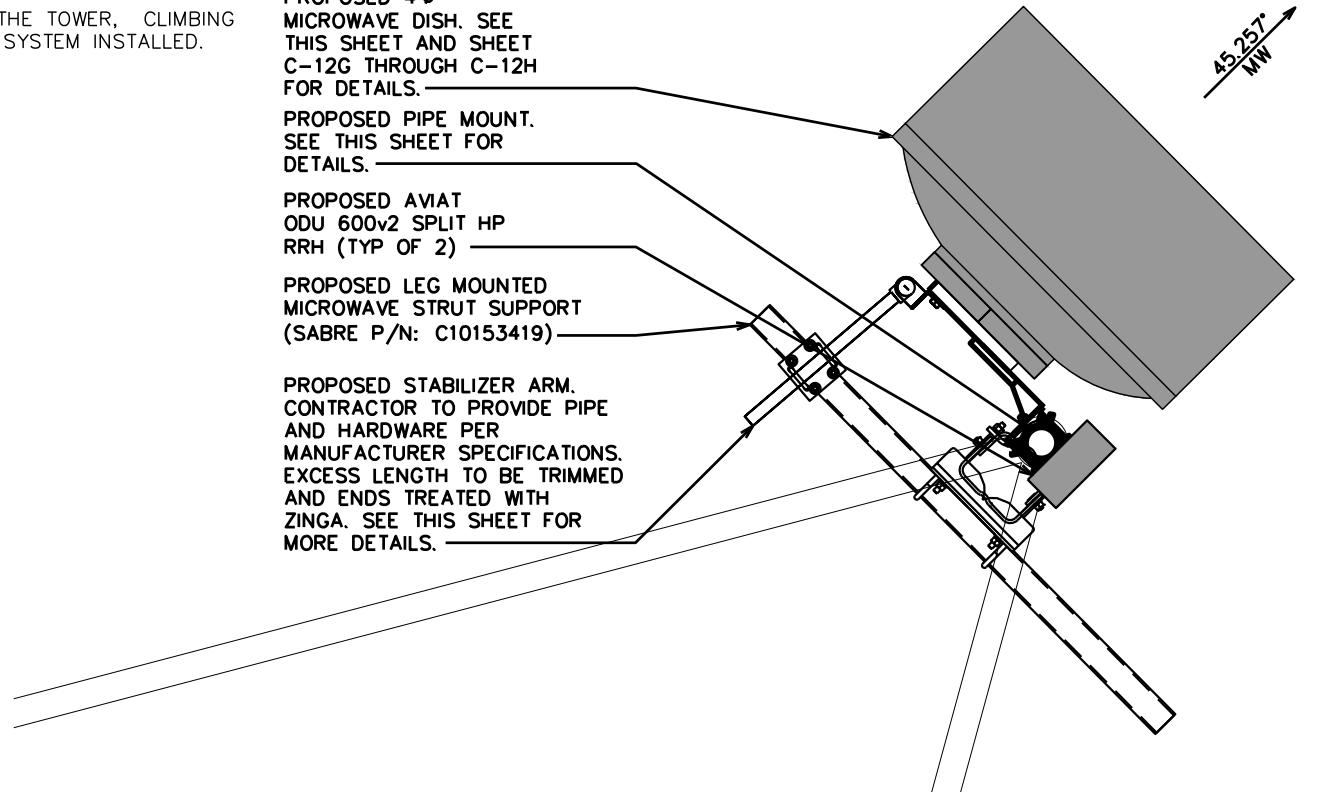
1. *CONTRACTOR SHALL FIELD VERIFY HYBRID CABLE AND COAX JUMPER LENGTHS PRIOR TO ORDERING MATERIALS.
2. (3) ANTENNA PER SECTOR FOR A TOTAL OF (9) ANTENNAS.
3. CONTRACTOR TO VERIFY AZIMUTHS PRIOR TO CONSTRUCTION.
4. CONTRACTOR TO REQUEST RF SHEET FROM CONSTRUCTION MANAGER PRIOR TO CONSTRUCTION.

RF CONFIGURATION

SCALE: N.T.S.

NOTE:

INSTALL SHALL NOT CAUSE DAMAGE TO THE TOWER, CLIMBING FACILITY, SAFETY CLIMB, OR ANY OTHER SYSTEM INSTALLED.

**PROPOSED MICROWAVE PLAN @ 110'-0"**

SCALE: $\frac{1}{4}$ " = 1'-0"



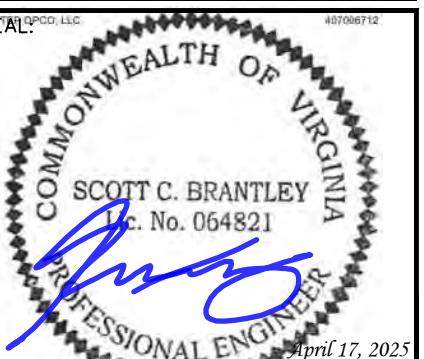
PLANS PREPARED FOR:
uscellular
8410 W BRYN MAWR, SUITE 700
CHICAGO, IL 60631
(603) 486-9357

PROJECT INFORMATION:
HENRY
SITE #: 563411
(E911 ADDRESS T.B.D.)
730 PROVIDENCE CHURCH RD.
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(FRANKLIN COUNTY)

PLANS PREPARED BY:



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326 TRYON ROAD
RALEIGH, NC 27603-3530
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DRAWN BY: SAB CHECKED BY: DAO

SHEET TITLE:
MICROWAVE MOUNTING DETAILS I

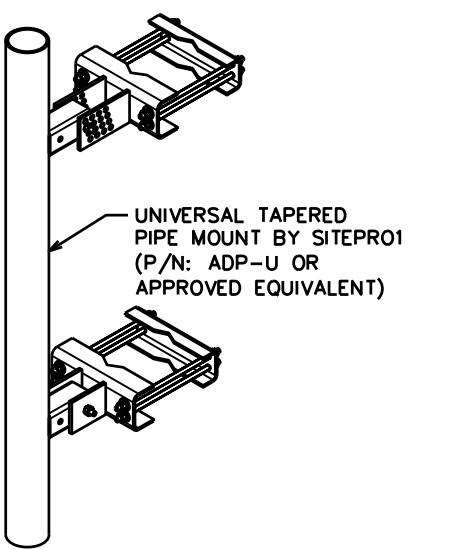
SHEET NUMBER: **C-12C** REVISION: **5**
TEP #: 342022.985051

PROPOSED MICROWAVE ANTENNA/COAX SCHEDULE

SCALE: N.T.S.

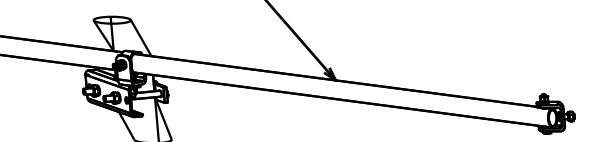
NOTES:

1. CONTRACTOR TO VERIFY LEG SIZE WITH TOWER MODIFICATION DESIGN.
2. UNIVERSAL TAPERED PIPE MOUNT INCLUDES $4\frac{1}{2}$ "^Ø X 63" PIPE MOUNT AND HARDWARE TO ATTACH TO $5\frac{3}{4}$ "^Ø TO $10\frac{3}{4}$ "^Ø ROUND MEMBERS OR $2\frac{1}{2}$ " TO 8" ANGLE MEMBERS.
3. PIPE MOUNT SHALL BE INSTALLED PLUMB 90 DEGREES VERTICAL.

**NOTE:**

CONTRACTOR TO PROVIDE PIPE HARDWARE PER MANUFACTURER SPECIFICATIONS. EXTEND 1'-0" PAST ATTACHMENT POINT. EXCESS LENGTH TO BE TRIMMED AND ENDS TREATED WITH ZINGA.

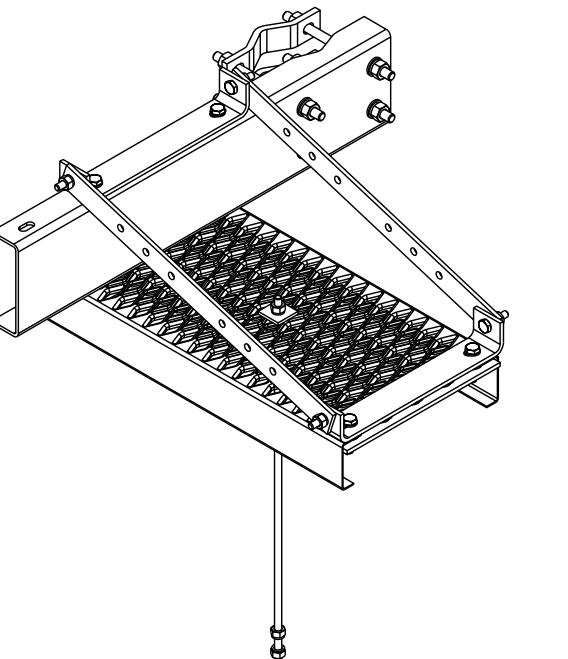
SWIVEL KNUCKLE TIEBACK
ASSEMBLY BY SABRE.
(P/N: C10179001)

**PROPOSED PIPE MOUNT**

SCALE: N.T.S.

NOTES:

- SABRE P/N: C10153435
- 12"x24" ICE SHIELD
- MOUNTS UP TO $4\frac{1}{2}$ " O.D. PIPE
- INCLUDES ICE SHIELD AND ATTACHMENT HARDWARE

**SWIVEL KNUCKLE DETAIL**

SCALE: N.T.S.

PLANS PREPARED FOR:

uscellular
8410 W BRYN MAWR, SUITE 700
CHICAGO, IL 60631
(603) 486-9357

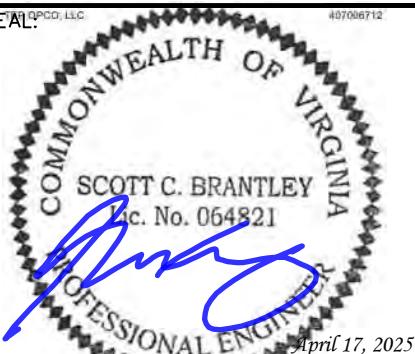
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REV	DATE	ISSUED FOR:

DRAWN BY: SAB CHECKED BY: DAO

SHEET TITLE:

MICROWAVE MOUNTING DETAILS II

SHEET NUMBER: C-12D	REVISION: 5
TEP #: 342022.985051	

MICROWAVE DISH WAVEGUIDE SHEILD

SCALE: N.T.S.

PLANS PREPARED FOR:



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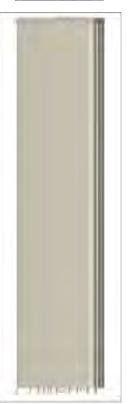
DENGYO	Base Station Antennas
Frequency Range	617-894x2 1695-2400x2
Polarization	±45°
Half-Power Beam Width	65°
Electrical Downtilt	2° - 12°x4

Type OCT8-2LX2HX-BW65

Base Station Antenna
8-ports 617-894 / 617-894 / 1695-2400 / 1695-2400 MHz 65°, 16 / 16 / 18 / 18 dBi, 2°-12° / 2°-12° / 2°-12° / 2° - 12° Tilt Antenna With 4 Integrated RCUs.

Electrical Specifications

Frequency Range(MHz)	2x617-894	2x1695-2400				
617-698	698-824	824-894				
1695-1920	1920-2180	2300-2400				
Polarization	±45°					
Horizontal 3dB Beamwidth(°)	70	65	60	66	63	58
Vertical 3dB Beamwidth(°)	10.4	9.1	8.0	5.5	5	4.3
Gain (dBi)	15.1	15.6	16.0	17.6	18.0	18.1
Electrical Downtilt	2°-12°			2°-12°		
Upper Sidelobe Suppression(dB)	First	≥16	≥16	≥16	≥16	≥16
Front-to-Back Ratio		≥25	≥25	≥25	≥25	≥25
Total Power, ±30° (dB)		≥25	≥25	≥25	≥25	≥25
Cross polar ratio	Main direction(dB)	≥17	≥17	≥17	≥17	≥17
±60° (dB)		≥7	≥7	≥7	≥7	≥7
Isolation ports		≥25 dB				
Isolation Frequency		≥30 dB				
VSWR		< 1.5				
Intermodulation IM3		< -150 dBc(2x43dBm carrier)				
Impedance		50 Ω				
Max. Power per Input (at 50°C ambient temperature)	500 W		300 W			
Lightning Protection		DC Ground				



Mechanical Specifications	
Redome Material	ASA
Connector Type and Location	4.3-10x8 ,Bottom IRCU in: 1 x 8 pin male IRCU out: 1 x 8 pin female
Dimensions, HxWxD (mm)(inches)	2438 x 533 x 160 / 95.9 x 21.0 x 6.3
Packing Size(mm)(inches)	2660 x 634 x 291 / 104.7 x 25.0 x 11.5
Weight, w/o Mounting kit(kg)(lbs)	40 / 88.2
Weight, with Mounting kit(kg)(lbs)	46 / 101.4
Packing Weight(kg)(lbs)	52 / 114.7
Max. Wind Velocity(mph)	150
Mounting hardware	≤ 50 mm ~ ≤ 115 mm
Operational Temperature(°C)	-40 to +65
Operational Humidity(%)	<95
Wind Load at 100mph (Frontal/lateral/Rearside)(N)	1502/280/1089

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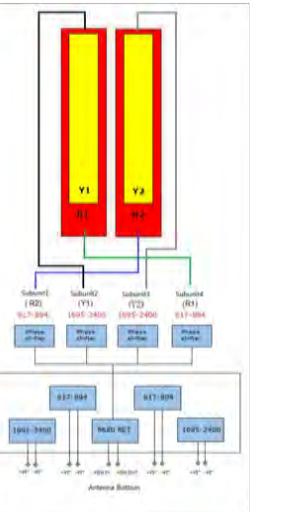
OCT8-2LX2HX-BW65 Rev.1

DENGYO	Base Station Antennas
Frequency Range	617-894x2 1695-2400x2
Polarization	±45°
Half-Power Beam Width	65°
Electrical Downtilt	2° - 12°x4

Type OCT8-2LX2HX-BW65

Integrated RET Properties	
Protocols	Compliant to AISG 2.0/3GPP
Input voltage range	+10→+30VDC(pin 5)
Power consumption	<2W(stand by)<13W(motor activated)
Connectors	AISG Antenna
Hardware Interface	2 x 8 pin connector acc. To IEC 60190-9 Acc. to AISG Daisy chain in male Daisy chain out:female Two motor shaft(Embedded motor)
Adjustment time(full range)	RS485/A/B(pin5/pin3);Power supply(pin6); DC return(pin7)Acc. to AISG
Adjustment Cycles	40 sec(typically depending on antenna)
Torque Max	≥10000 ≥160mNm
Lightning Protection Rating	IEC 61000-4-5 Current Pulse, 0/20 μs 10 Repetitions Min. @ 6kA IEC 61312-1 Annex B Current Pulse Profile, 10/350 μs, 200 Repetitions Min. @ 0.6kA

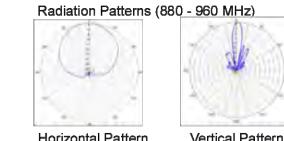
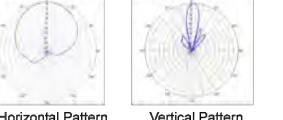
COMPREHENSIVE TILT CONFIGURATION



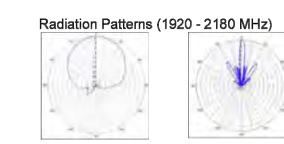
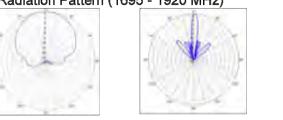
DENGYO	Base Station Antennas
Frequency Range	617-894x2 1695-2400x2
Polarization	±45°
Half-Power Beam Width	65°
Electrical Downtilt	2° - 12°x4

Type OCT8-2LX2HX-BW65

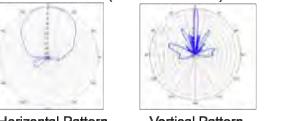
Radiation Pattern (617 - 880 MHz)



Radiation Pattern (1695 - 1920 MHz)



Radiation Pattern (2180 - 2400 MHz)



Radiation Pattern (2400 - 2480 MHz)



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OCT8-2LX2HX-BW65 Rev.1

ANTENNA DETAILS

SCALE: N.T.S.

SHEET NUMBER: **C-12E** REVISION: **5**
TEP #: 342022.985051

AQQK AirScale MAA 64T64R 192AE n77 320W

Technical data

Product Specifications

Standard	3GPP/FCC, TDD
Supported RAT by HW	5G / LTE
Band / Frequency range	3700 - 3980 MHz
Max. supported modulation	256 QAM
Number of TX/RX paths	64T / 64R
MIMO streams	16
Instantaneous bandwidth IBW	280 MHz
Occupied bandwidth OBW	200 MHz
Total average EIRP	79.5 dBm
Max. output power per TRX	5 W / TRX (320W total), SW settable up to 13 dB down
Dimensions / Volume	1001 mm x 448 mm x 113 mm (H x W x D) / 49 l
Weight	36 kg, without mounting brackets
Wind load Front/Rear/Side	587/592/124 N, EN1991-1-4, wind velocity 42m/s (150 km/h)
Supply voltage / Connector type	DC -36 V ... -60 V / 2-pole circular connector for APPG plug
Power consumption	1189 W (75% DL duty cycle, ETSI 24h average load)
Optical ports	4 x SFP28 / for AOPC IP seal
Other interfaces / Connector type	AISG / C485, EAC (6 alarms + 1 control) / MDR26 for ASAD, RF Monitor Port/SMA, 6 status LEDs
Operational temperature range	-40 °C ... +55 °C
Cooling	Forced fan cooling
Installation options	Pole / Wall. Mechanical down tilt max 28°, up tilt max 27°
Ingress / Surge protection	IP65 / Class II 20 kA

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ANTENNA DETAILS

SCALE: N.T.S.

AirScale High Power Wide Band MAA benefits

- 5G Adaptive Antenna System for optimized capacity and coverage
- Beamforming capable 64T64R with total 320W output power
- Optimized operation for US C-Band (sub-band n77)



NOKIA

PLANS PREPARED FOR:

uscellular
8410 W BRYN MAWR, SUITE 700
CHICAGO, IL 60631
(603) 486-9357

PROJECT INFORMATION:

HENRY
SITE #: 563411
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PLANS PREPARED BY:



TEP OPCO, LLC
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OFFICE: (919) 661-6351
www.tepgroup.net



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REV	DATE	ISSUED FOR:
DRAWN BY:	SAB	CHECKED BY: DAO

SHEET TITLE:

ANTENNA SPECIFICATIONS

SHEET NUMBER:	REVISION:
C-12F	5

TEP #: 342022.985051

PLANS PREPARED FOR:



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VHLPX4-11W/A

Base Product



1.2 m | 4 ft ValuLine® High Performance Low Profile Antenna, dual-polarized, 10.125–11.700 GHz

Product Classification

Product Type

Product Brand

Microwave antenna
ValuLine®

General Specifications

Antenna Type

VHLPX - ValuLine® High Performance Low Profile Antenna, dual-polarized

Polarization

Dual

Side Struts, Included

1 inboard

Side Struts, Optional

1 inboard

Dimensions

Diameter, nominal

1.2 m | 4 ft

Electrical Specifications

Operating Frequency Band

10.125 – 11.700 GHz

Gain, Low Band

40.2 dBi

Gain, Mid Band

40.7 dBi

Gain, Top Band

41 dBi

Boresite Cross Polarization Discrimination (XPD)

30 dB

Front-to-Back Ratio

66 dB

Beamwidth, Horizontal

1.6 °

Beamwidth, Vertical

1.6 °

Return Loss

17.7 dB

VSWR

1.3

Radiation Pattern Envelope Reference (RPE)

7185A

Electrical Compliance

Brazil Anatel Class 2 | Canada SRSP 310.5 | Canada SRSP 310.7
Part A | Canada SRSP 310.7 Part B | ETSI 302.217 Class



Page 1 of 5

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Revised: March 12, 2025

VHLPX4-11W/A

3 | US FCC Part 101A @ 10.55–10.7 GHz | US FCC Part 101A @ 10.7–11.7 GHz | US FCC Part 101B @ 10.125–11.7 GHz

Mechanical Specifications

Compatible Mounting Pipe Diameter

115 mm | 4.5 in

Fine Azimuth Adjustment Range

±15°

Fine Elevation Adjustment Range

±15°

Wind Speed, operational

201 km/h | 124.896 mph

Wind Speed, survival

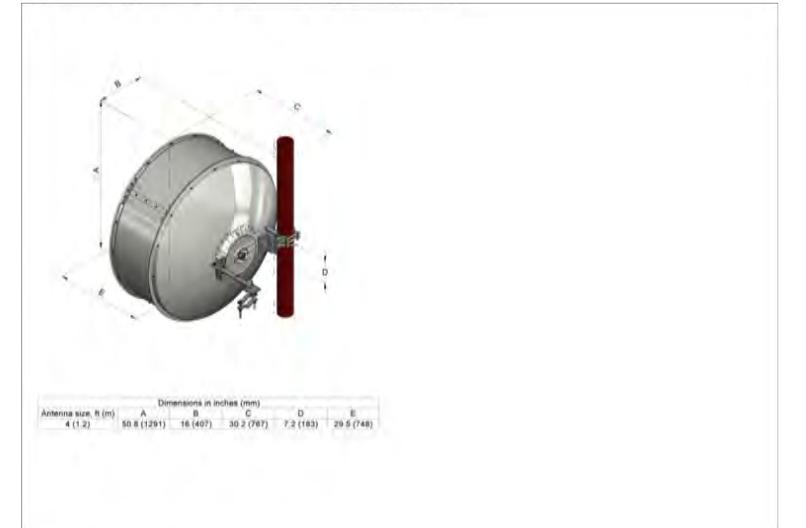
250 km/h | 155.343 mph

201 km/h | 124.896 mph

250 km/h | 155.343 mph

VHLPX4-11W/A

Antenna Dimensions and Mounting Information



Wind Forces at Wind Velocity Survival Rating

Axial Force (FA)	5326 N 1,197.333 lbf
Side Force (FS)	2638 N 593.046 lbf
Twisting Moment (MT)	2162 N·m 19,135.312 in lbf
Force on Inboard Strut Side	2862 N 643.403 lbf
Zcg without Ice	43 mm 1.693 in
Zcg with 1/2 in (12 mm) Radial Ice	284 mm 11.181 in
Weight with 1/2 in (12 mm) Radial Ice	74 kg 163.142 lb

Page 2 of 5

Page 3 of 5

Page 2 of 5

Page 3 of 5

Page 4 of 5

Page 5 of 5

Page 4 of 5

Page 5 of 5

Page 6 of 5

Page 7 of 5

Page 8 of 5

Page 9 of 5

Page 10 of 5

Page 11 of 5

Page 12 of 5

Page 13 of 5

Page 14 of 5

Page 15 of 5

Page 16 of 5

Page 17 of 5

Page 18 of 5

Page 19 of 5

Page 20 of 5

Page 21 of 5

Page 22 of 5

Page 23 of 5

Page 24 of 5

Page 25 of 5

Page 26 of 5

Page 27 of 5

Page 28 of 5

Page 29 of 5

Page 30 of 5

Page 31 of 5

Page 32 of 5

Page 33 of 5

Page 34 of 5

Page 35 of 5

Page 36 of 5

Page 37 of 5

Page 38 of 5

Page 39 of 5

Page 40 of 5

Page 41 of 5

Page 42 of 5

Page 43 of 5

Page 44 of 5

Page 45 of 5

Page 46 of 5

Page 47 of 5

Page 48 of 5

Page 49 of 5

Page 50 of 5

Page 51 of 5

Page 52 of 5

Page 53 of 5

Page 54 of 5

Page 55 of 5

Page 56 of 5

Page 57 of 5

Page 58 of 5

Page 59 of 5

Page 60 of 5

Page 61 of 5

Page 62 of 5

Page 63 of 5

Page 64 of 5

Page 65 of 5

Page 66 of 5

Page 67 of 5

Page 68 of 5

Page 69 of 5

Page 70 of 5

Page 71 of 5

Page 72 of 5

Page 73 of 5

Page 74 of 5

Page 75 of 5

Page 76 of 5

Page 77 of 5

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PLANS PREPARED FOR:



PROJECT INFORMATION:

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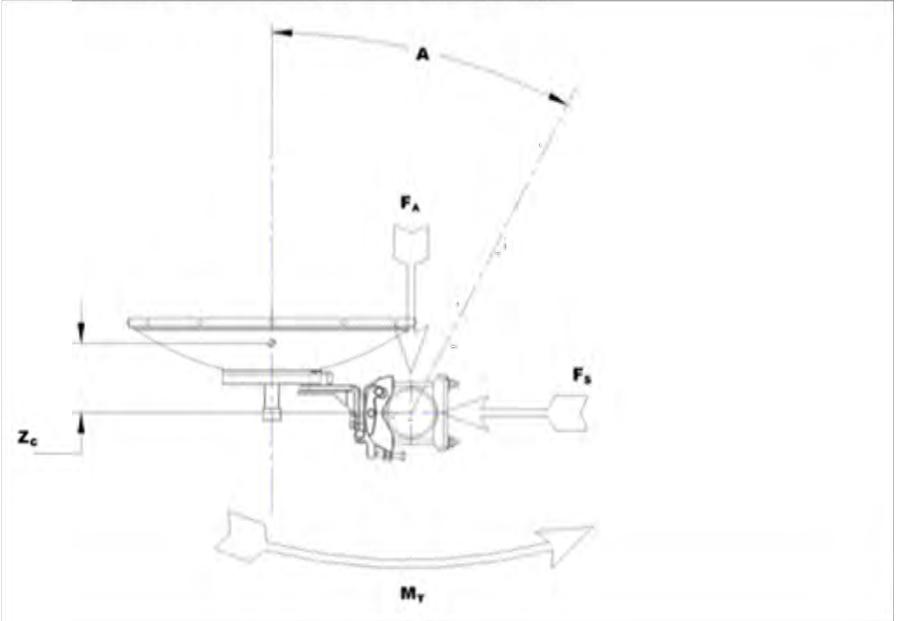
MICROWAVE SPECIFICATIONS II

SHEET NUMBER:	REVISION:
C-12H	5

TEP #: 342022.985051

VHLPX4-11W/A

Wind Forces at Wind Velocity Survival Rating Image



Packaging and Weights

Weight, net

32 kg | 70.548 lb

Regulatory Compliance/Certifications

Agency Classification

ISO 9001:2015 Designed, manufactured and/or distributed under this quality management system

* Footnotes

Operating Frequency Band

Bands correspond with CCIR recommendations or common allocations used throughout the world. Other ranges can be accommodated on special order.

Page 4 of 5

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VHLPX4-11W/A

Gain, Mid Band

For a given frequency band, gain is primarily a function of antenna size. The gain of Andrew antennas is determined by either gain by comparison or by computer integration of the measured antenna patterns.

Boresite Cross Polarization Discrimination (XPD)

The difference between the peak of the co-polarized main beam and the maximum cross-polarized signal over an angle twice the 3 dB beamwidth of the co-polarized main beam.

Front-to-Back Ratio

Denotes highest radiation relative to the main beam, at $180^\circ \pm 40^\circ$, across the band. Production antennas do not exceed rated values by more than 2 dB unless stated otherwise.

Return Loss

The figure that indicates the proportion of radio waves incident upon the antenna that are rejected as a ratio of those that are accepted.

VSWR

Maximum; is the guaranteed Peak Voltage-Standing-Wave-Ratio within the operating band.

Radiation Pattern Envelope Reference (RPE)

Radiation patterns define an antenna's ability to discriminate against unwanted signals. Under still dry conditions, production antennas will not have any peak exceeding the current RPE by more than 3dB, maintaining an angular accuracy of $\pm 1^\circ$ throughout

Wind Speed, operational

For VHLP(X), SHP(X), HX and USX antennas, the wind speed where the maximum antenna deflection is $0.3 \times$ the 3 dB beam width of the antenna. For other antennas, it is defined as a deflection is equal to or less than 0.1 degrees.

Wind Speed, survival

The maximum wind speed the antenna, including mounts and radomes, where applicable, will withstand without permanent deformation. Realignment may be required. This wind speed is applicable to antenna with the specified amount of radial ice.

Axial Force (F_A)

Maximum forces exerted on a supporting structure as a result of wind from the most critical direction for this parameter. The individual maximums specified may not occur simultaneously. All forces are referenced to the mounting pipe.

Side Force (F_S)

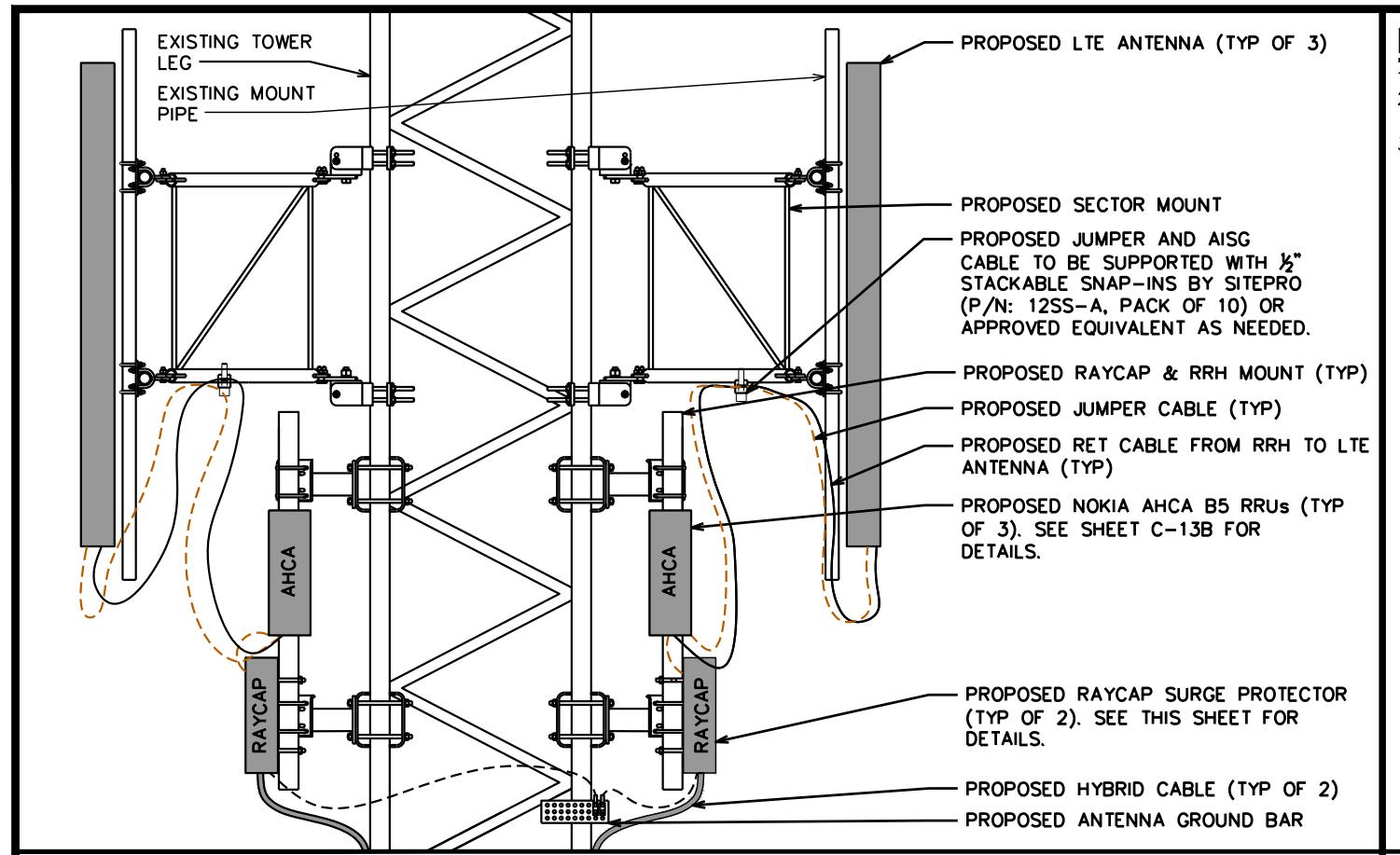
Maximum side force exerted on the mounting pipe as a result of wind from the most critical direction for this parameter. The individual maximums specified may not occur simultaneously. All forces are referenced to the mounting pipe.

Twisting Moment (MT)

Maximum forces exerted on a supporting structure as a result of wind from the most critical direction for this parameter. The individual maximums specified may not occur simultaneously. All forces are referenced to the mounting pipe.

ANTENNA DETAILS

SCALE: N.T.S.



PROPOSED RAYCAP & RRH MOUNTING DETAIL (ELEVATION)

SCALE: N.T.S.

NOTES:

1. NOKIA RRHs TO BE PROVIDED BY USCC.
2. CONTRACTOR TO LEAVE OPENING FOR SAFETY CLIMB AND ENSURE SAFETY CLIMB IS NOT OBSTRUCTED/COMPROMISED.
3. TOWER TOP FIBER/POWER CONNECTIONS FROM RAYCAP TO RRH SHOULD BE SHIELDED IN 1" INTERDUC (75' PROVIDED IN HYBRID KIT)

PROPOSED NOKIA BOOK MOUNT (TYP OF 3). SEE THIS SHEET FOR DETAILS.

PROPOSED NOKIA AHCA B12/B71 RRUs (TYP OF 3). MOUNT PER MANUFACTURER SPECS.

PROPOSED RRH DUAL MOUNT BY SITEPRO. SEE THIS SHEET FOR DETAILS.

PROPOSED RAYCAP SURGE PROTECTOR (TYP OF 2). MOUNT PER MANUFACTURER SPECS. SEE THIS SHEET FOR DETAILS.

PROPOSED RAYCAP & RRH MOUNTING DETAIL (PLAN)

SCALE: N.T.S.



PROJECT INFORMATION:

HENRY

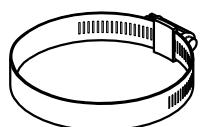
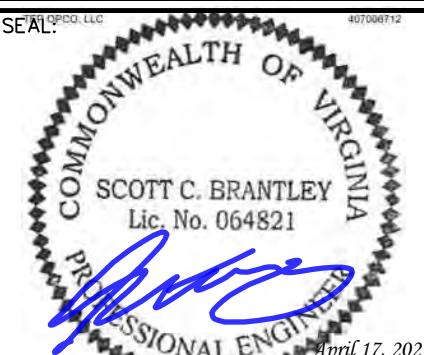
SITE #: 563411

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730 PROVIDENCE CHURCH RD.
HENRY, VA 24102
(FRANKLIN COUNTY)

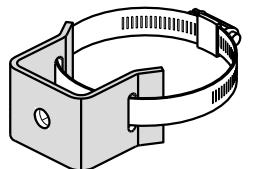
PLANS PREPARED BY:



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326 TRYON ROAD
RALEIGH, NC 27603-3530
OFFICE: (919) 661-6351
www.tepgroup.net



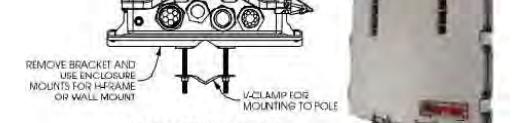
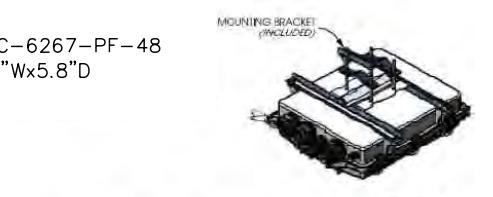
ROUND MEMBER ADAPTER DETAIL



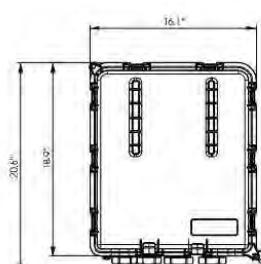
UNIVERSAL STANDOFF DETAIL

NOTES:

- P/N: RUSDC-6267-PF-48
- 20.6" H x 18.9" W x 5.8" D
- 19.95 LBS.



BOTTOM VIEW



FRONT VIEW



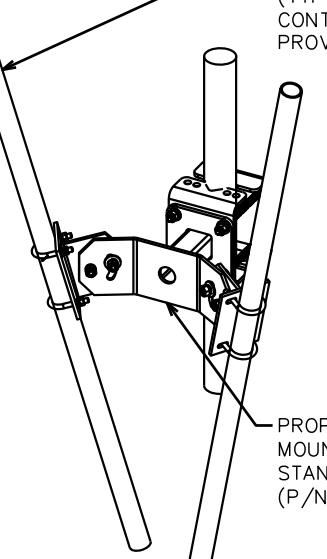
SIDE VIEW

NOTES:

USCC PROVIDED RRH MOUNT

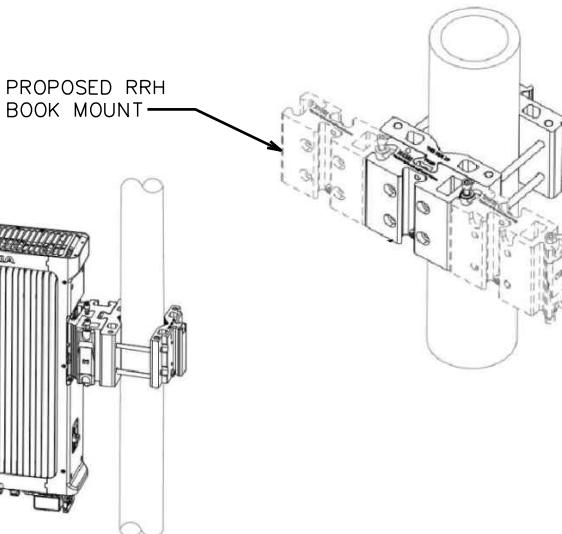
PROPOSED 2 7/8" Ø x 6'-0" MOUNT PIPE (TYP OF 2 PER MOUNT). CONTRACTOR TO PROVIDE.

PROPOSED DUAL TOWER MOUNT WITH 8" STANDOFF BY SABRE (P/N: C10114260)



NOTES:

1. NOKIA POLE MOUNTING KIT (AMPA) 473879A.
2. CAN BE USED WITH PIPES FROM 1.2" Ø TO 4.7" Ø.



MOUNTING DETAILS

SCALE: N.T.S.

RAYCAP SPEC SHEET

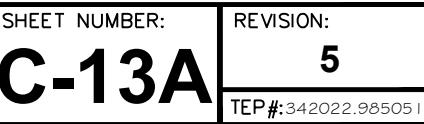
SCALE: N.T.S.

PROPOSED RRU MOUNT DETAIL

SCALE: N.T.S.

RRH BOOK MOUNT

SCALE: N.T.S.





NOKIA

Product name	AirScale RRH 4T4R B5 160W AHCA - 473966A
Supported frequency bands	3GPP band 5
Frequencies	DL 869-894MHz, UL 824-849MHz
Number of TX/RX ports	4/4
Instantaneous Bandwidth IBW	25MHz
Occupied Bandwidth OBW	25MHz
Output power	4T4R 40 W/ 2T4R 60W
Dimensions (mm) height x width x depth	337 x 295 x 165
Volume (liters)	16.4
Weight (kg)	16.7
Supply Voltage / Voltage Range	DC-48V / -36V to -60V
Typical Power Consumption	207 W (ETSI 24h Avg - 4x20W mode)
Antenna ports	4TX/4RX, 4.3-10+
Optical ports	2 x CPRI 9.8 Gbps
ALD control interfaces	AISG3.0 from ANT1, 2, 3, 4 and RET (Power supply ANT1 and ANT3)
Other interfaces	External alarm MDR-26 serial connector (4 inputs, 1 output) DC circular power connector
Operational temperature range	-40°C to 55°C (with no solar load)
Ingress protection class	IP65
Installation options	Pole or wall, RAS, vertical or horizontal book mount
Surge protection	Class II 5kA

NOKIA AHCA RRH SPEC SHEET

SCALE: N.T.S.

PLANS PREPARED FOR:

uscellular
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CHICAGO, IL 60631
(603) 486-9357

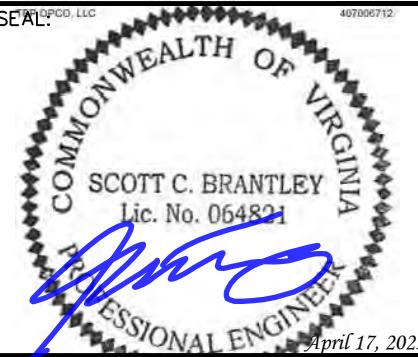
PROJECT INFORMATION:

HENRY
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REV	DATE	ISSUED FOR:

DRAWN BY: SAB CHECKED BY: DAO

SHEET TITLE:

RRH SPECIFICATIONS

SHEET NUMBER: C-13B REVISION: 5

5

TEP #:342022.985051

NOTES:

1. UNUSED PORTS TO BE CAPPED. CAPS INCLUDED WITH EQUIPMENT PURCHASE. CONTRACTOR TO SUPPLY IF NECESSARY.
2. SEE TOWER ELEVATION FOR SPECIFIC JUMPER LENGTHS AND SIZES.
3. ALL JUMPERS BETWEEN RRH AND ANTENNAS MUST BE THE SAME LENGTH (PER SECTOR).
4. EXCESS JUMPER AND RET CABLES TO BE SECURED WITH GROMMETS AND SNAP-INS. VELCRO MAY NOT BE USED.
5. CONTRACTOR TO USE STRANDED INSULATED GROUND LEAD #6. SPECIFIED BY MANUFACTURER.

PLANS PREPARED FOR:



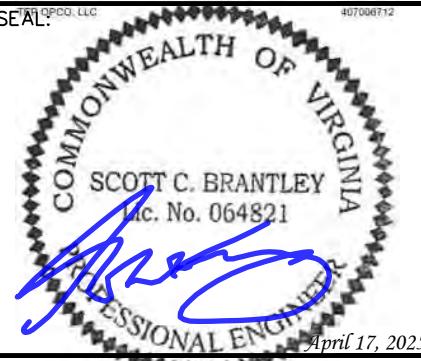
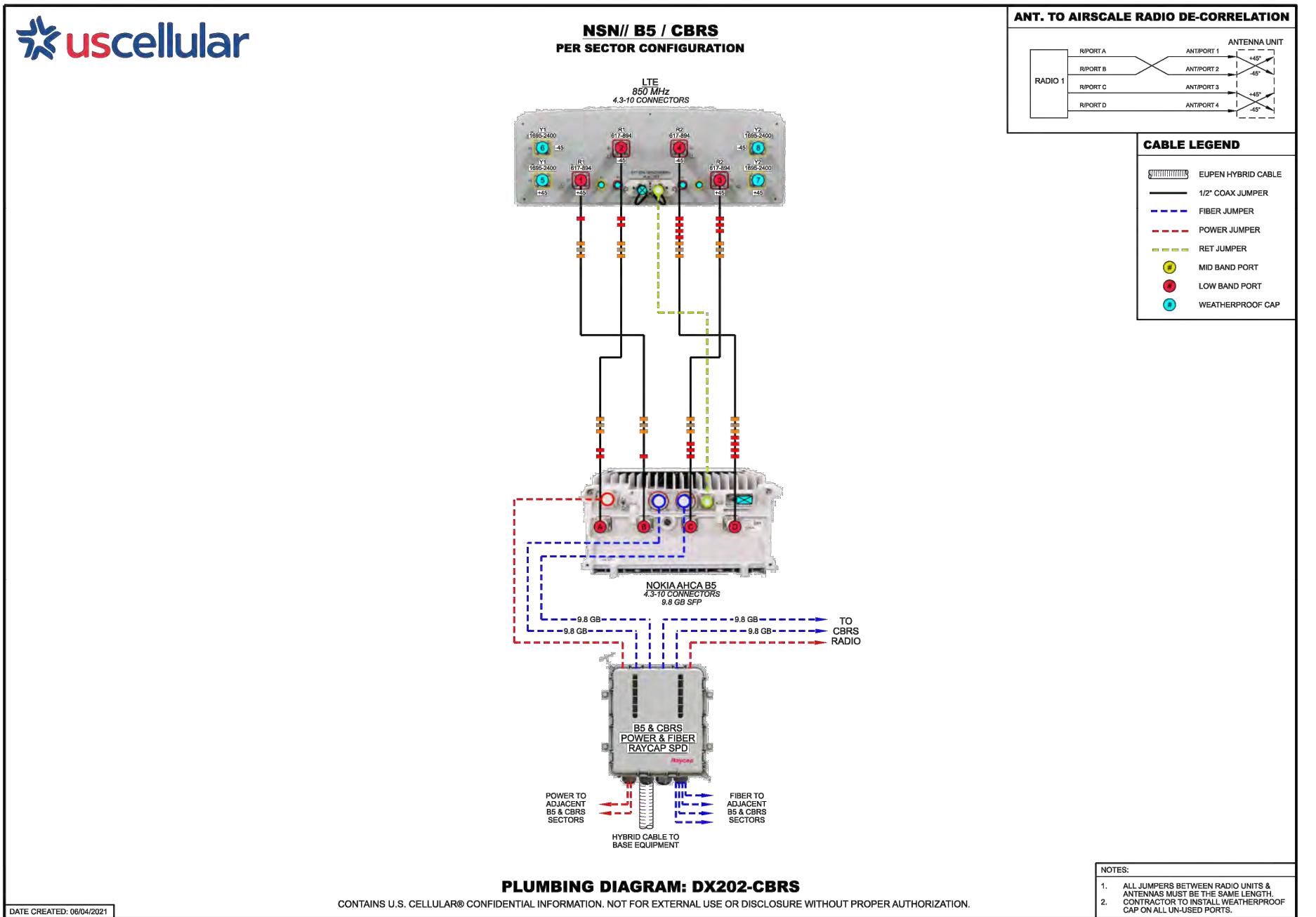
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SHEET TITLE:

LTE PLUMBING DIAGRAM

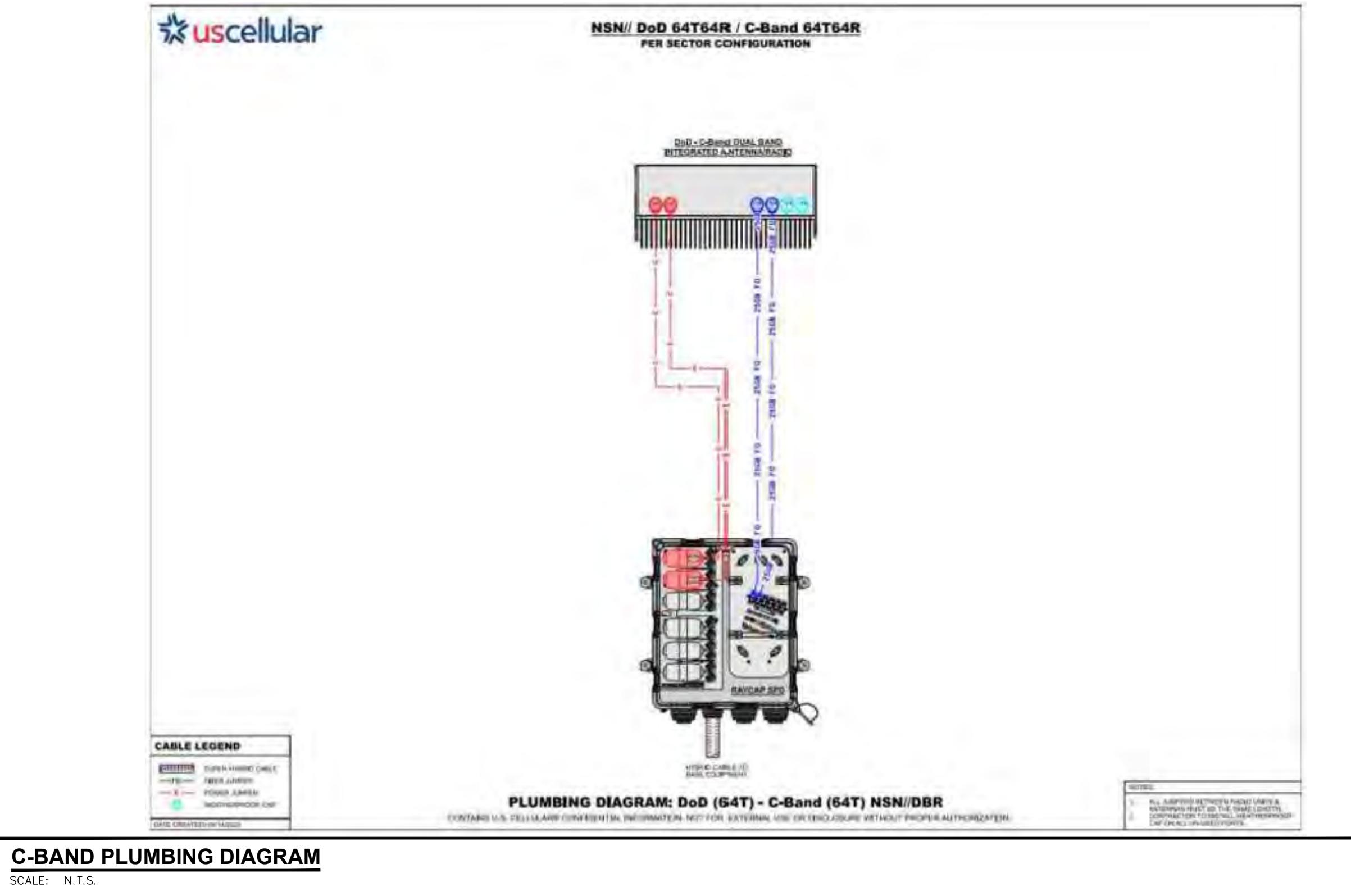
SHEET NUMBER: **C-14A** REVISION: **5**
TEP #: 342022.985051

LTE PLUMBING DIAGRAM

SCALE: N.T.S.

NOTES:

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2. SEE TOWER ELEVATION FOR SPECIFIC JUMPER LENGTHS AND SIZES.
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PLANS PREPARED FOR:

uscellular
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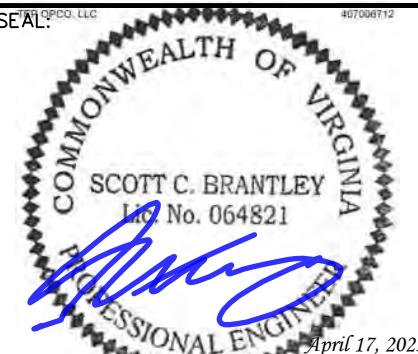
PROJECT INFORMATION:

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SITE #: 563411
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HENRY, VA 24102
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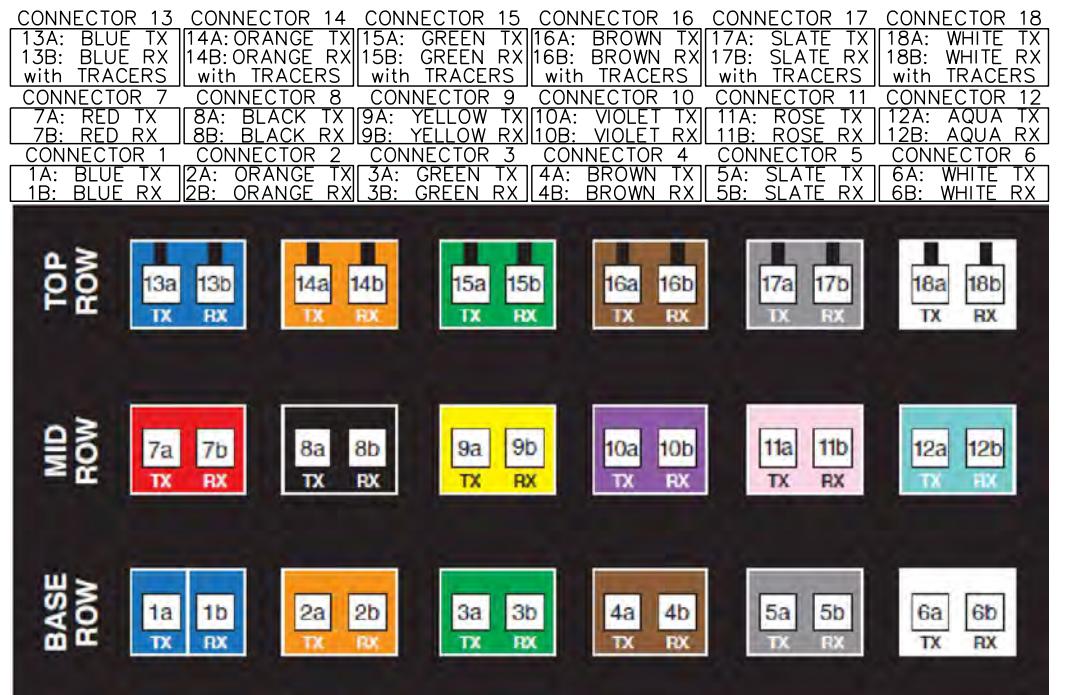
SHEET TITLE:

C-BAND PLUMBING DIAGRAM

SHEET NUMBER: **C-14B** REVISION: **5**
TEP #: 342022.985051

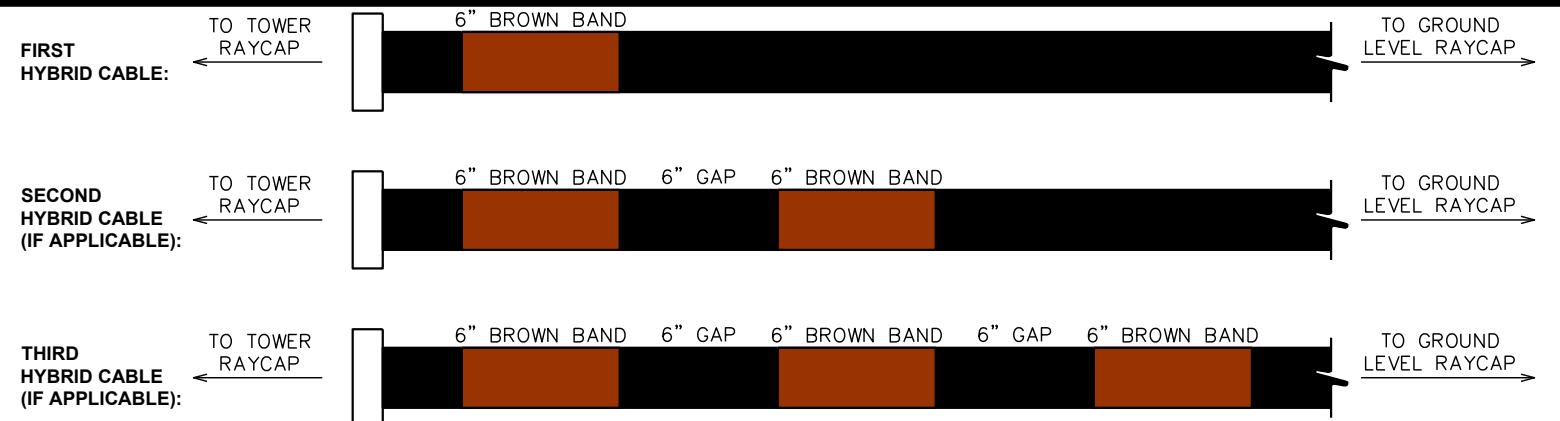
NOTE:

REFER TO USCC DOCUMENT "TOWER MOUNTED EQUIPMENT AND TOWER CABLE STANDARDS AT CELL SITES" FOR COMPLETE COLOR CODING STANDARDS.



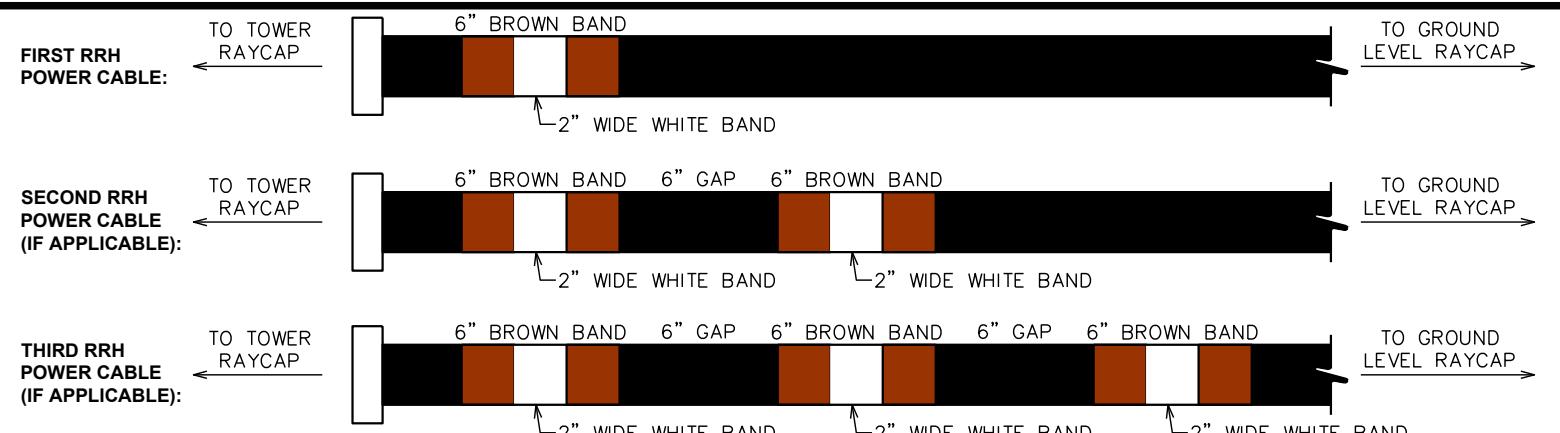
FIBER CABLE LABELING

SCALE: N.T.S.



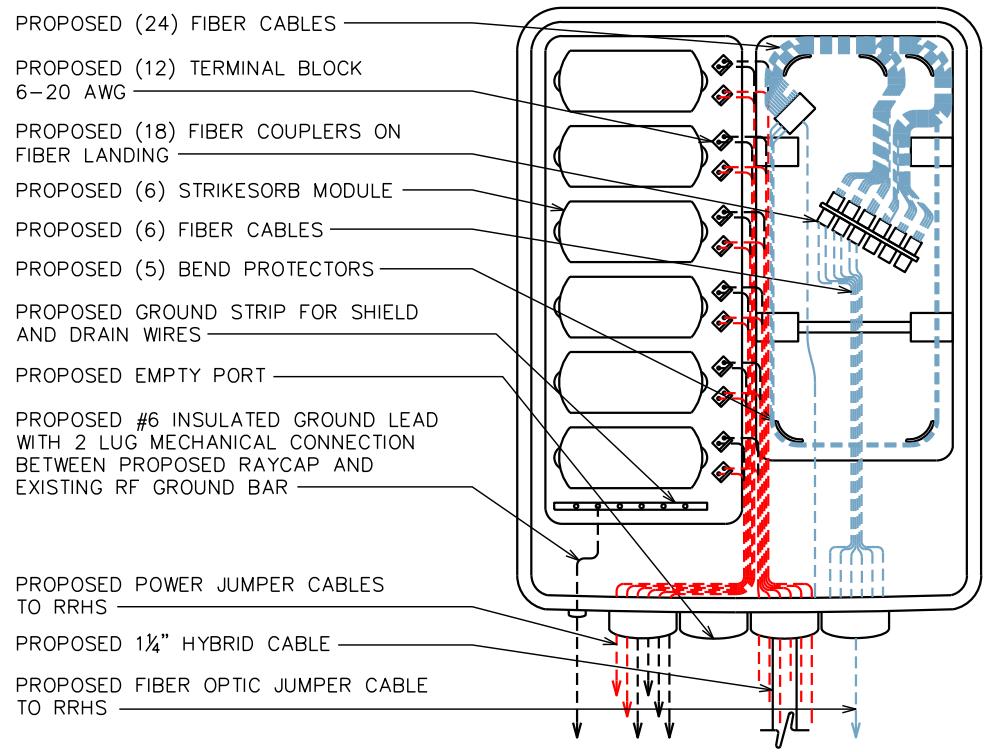
HYBRID CABLE BANDING

SCALE: N.T.S.



POWER CABLE BANDING

SCALE: N.T.S.



RAYCAP CABLING

SCALE: N.T.S.

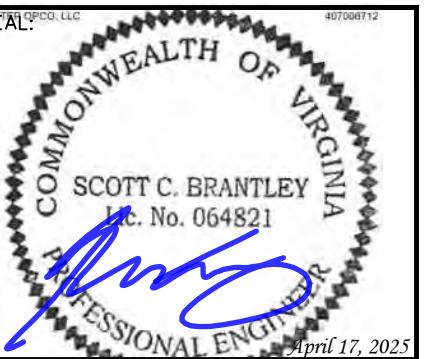
PLANS PREPARED FOR:
uscellular
8410 W BRYN MAWR, SUITE 700
CHICAGO, IL 60631
(603) 486-9357

PROJECT INFORMATION:
HENRY
SITE #: 563411
(E911 ADDRESS T.B.D.)
730 PROVIDENCE CHURCH RD.
HENRY, VA 24102
(FRANKLIN COUNTY)

PLANS PREPARED BY:



TEP OPCO, LLC
326 TRYON ROAD
RALEIGH, NC 27603-3530
OFFICE: (919) 661-6351
www.tepgroup.net



5	04-17-25	CONSTRUCTION
4	04-15-25	PRELIMINARY
3	03-25-25	PRELIMINARY
REV	DATE	ISSUED FOR:

DRAWN BY: SAB CHECKED BY: DAO

SHEET TITLE:

LABELING STANDARDS I

SHEET NUMBER: **C-15A** REVISION: **5**
TEP #: 342022.985051

Sector Band Assignments (Most Common Case: Single Technology within the Sector)					
Sector Band	Assigned Color	Line 1	Line 2	Line 3	Line 4
Alpha (Sector 1)	red	1 red band	2 red bands	3 red bands	4 red bands
Beta (Sector 2)	white	1 white band	2 white bands	3 white bands	4 white bands
Gamma (Sector 3)	blue	1 blue band	2 blue bands	3 blue bands	4 blue bands
Delta (Sector 4, if applicable)	green	1 green band	2 green bands	3 green bands	4 green bands
Epsilon (Sector 5, if applicable)	violet	1 violet band	2 violet bands	3 violet bands	4 violet bands
Zeta (Sector 6, if applicable)	brown	1 brown band	2 brown bands	3 brown bands	4 brown bands

FREQUENCY BAND

FREQUENCY	FREQUENCY BAND
700 (B12)	GREEN
800 (B5)	BROWN
1900 (B2)	BLUE
2100 (B4 & B66)	WHITE
5100 (B46)-LAA	GREY
600 (B71)	VIOLET
3500 (B48)-CBRS	RED

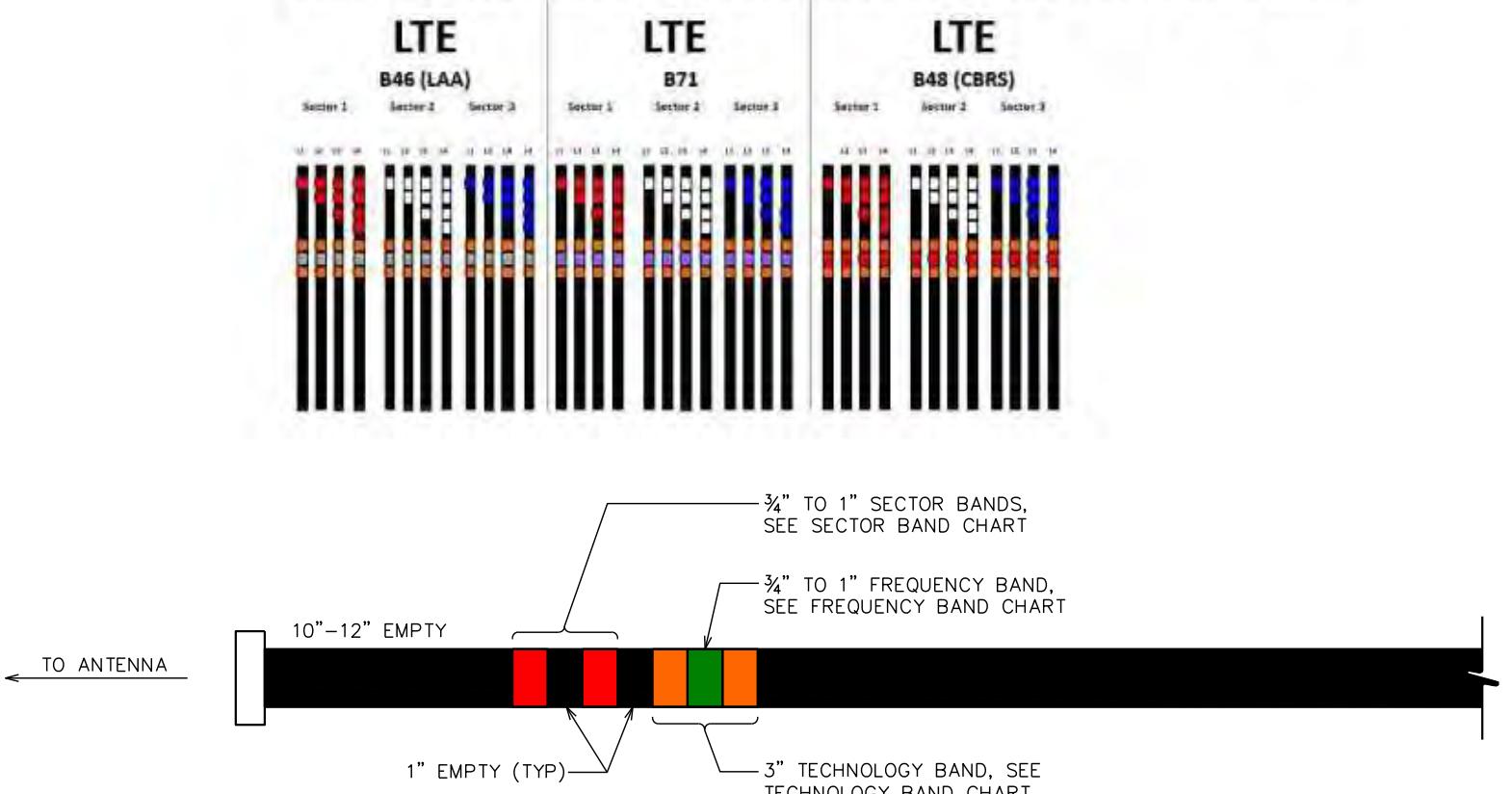
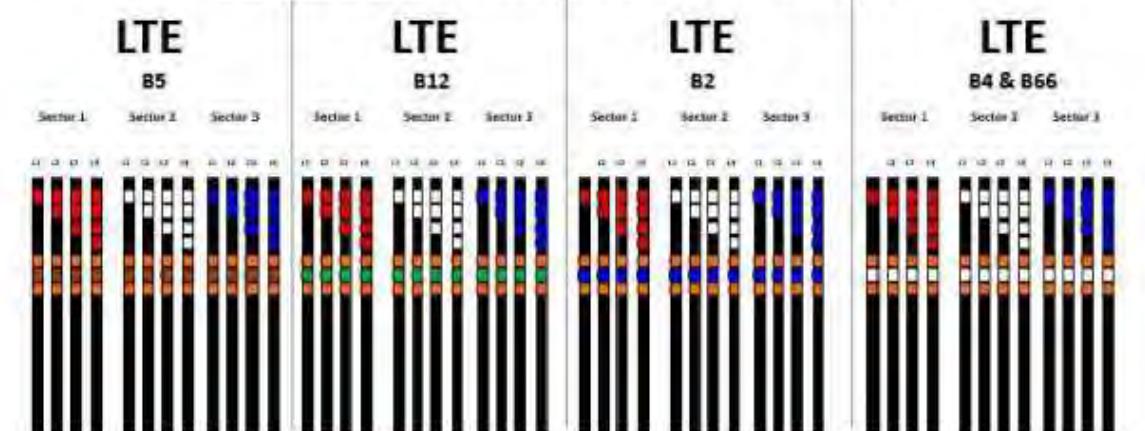
PLANS PREPARED FOR:



PROJECT INFORMATION:

HENRY
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USC COAX Color Code Standard



COAX CABLE BANDING

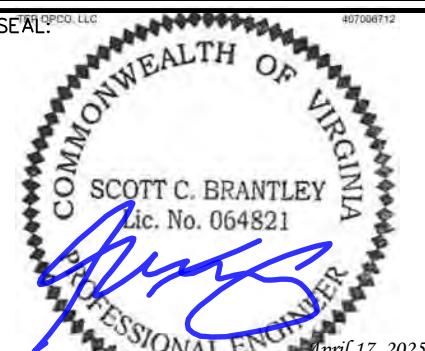
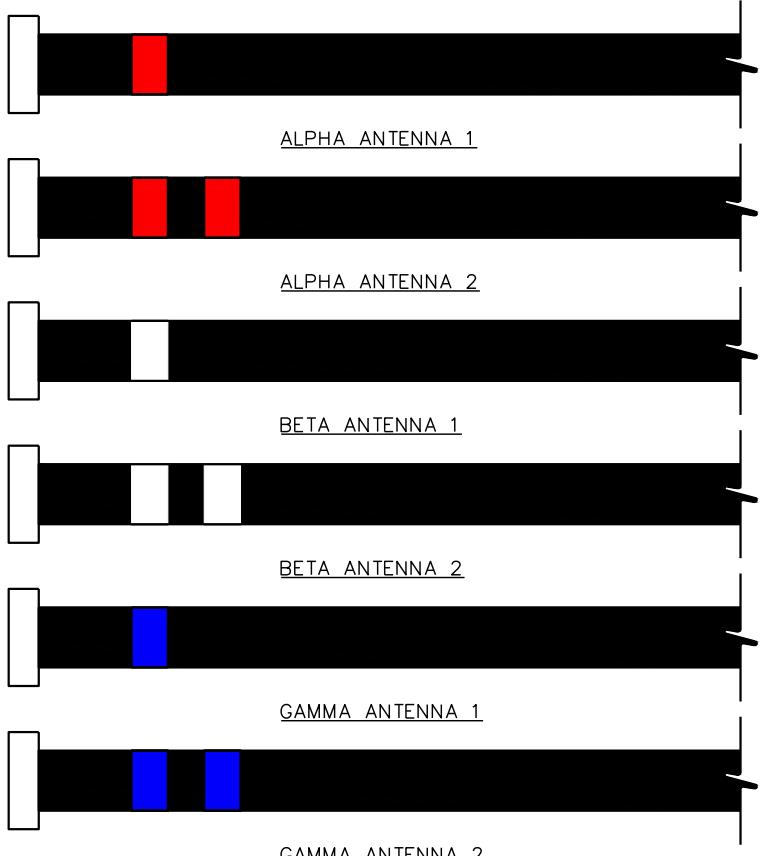
SCALE: N.T.S.

RET CABLE BANDING

SCALE: N.T.S.

RET SECTOR BAND

SECTOR	LINE 1 - FIRST TECHNOLOGY	LINE 2 - FIRST TECHNOLOGY
ALPHA	(1) RED BAND	(2) RED BAND
BETA	(1) WHITE BAND	(2) WHITE BAND
GAMMA	(1) BLUE BAND	(2) BLUE BAND



5 04-17-25 CONSTRUCTION
4 04-15-25 PRELIMINARY
3 03-25-25 PRELIMINARY
REV DATE ISSUED FOR:
DRAWN BY: SAB CHECKED BY: DAO

LABELING STANDARDS II

SHEET NUMBER: C-15B REVISION: 5
TEP #: 342022.985051

SCOPE:

1. PROVIDE LABOR, MATERIALS, INSPECTION, AND TESTING TO PROVIDE CODE COMPLIANCE FOR ELECTRIC, TELEPHONE, AND GROUNDING/LIGHTNING SYSTEMS.

CODES:

1. THE INSTALLATION SHALL COMPLY WITH APPLICABLE LAWS AND CODES. THESE INCLUDE BUT ARE NOT LIMITED TO THE LATEST ADOPTED EDITIONS OF:

A. THE NATIONAL ELECTRICAL SAFETY CODE	D. LOCAL AND STATE AMENDMENTS
B. THE NATIONAL ELECTRIC CODE - NFPA-70	E. THE INTERNATIONAL ELECTRIC CODE - IEC (WHERE APPLICABLE)
C. REGULATIONS OF THE SERVING UTILITY COMPANY	
2. PERMITS REQUIRED SHALL BE OBTAINED BY THE CONTRACTOR.
3. AFTER COMPLETION AND FINAL INSPECTION OF THE WORK, THE OWNER SHALL BE FURNISHED A CERTIFICATE OF COMPLETION AND APPROVAL.

TESTING:

1. UPON COMPLETION OF THE INSTALLATION, OPERATE AND ADJUST THE EQUIPMENT AND SYSTEMS TO MEET SPECIFIED PERFORMANCE REQUIREMENTS. THE TESTING SHALL BE DONE BY QUALIFIED PERSONNEL.

GUARANTEE:

1. IN ADDITION TO THE GUARANTEE OF THE EQUIPMENT BY THE MANUFACTURER, EACH PIECE OF EQUIPMENT SPECIFIED HEREIN SHALL ALSO BE GUARANTEED FOR DEFECTS OF MATERIAL OR WORKMANSHIP OCCURRING DURING A PERIOD OF ONE (1) YEAR FROM FINAL ACCEPTANCE OF THE WORK BY THE OWNER AND WITHOUT EXPENSE TO THE OWNER.
2. THE WARRANTEE CERTIFICATES & GUARANTEES FURNISHED BY THE MANUFACTURERS SHALL BE TURNED OVER TO THE OWNER.

UTILITY CO-ORDINATION:

1. CONTRACTOR SHALL COORDINATE WORK WITH THE POWER AND TELEPHONE COMPANIES AND SHALL COMPLY WITH THE SERVICE REQUIREMENTS OF EACH UTILITY COMPANY.

EXAMINATION OF SITE:

1. PRIOR TO BEGINNING WORK, THE CONTRACTOR SHALL VISIT THE SITE OF THE JOB AND SHALL FAMILIARIZE HIMSELF WITH THE CONDITIONS AFFECTING THE PROPOSED ELECTRICAL INSTALLATION AND SHALL MAKE PROVISIONS AS TO THE COST THEREOF. FAILURE TO COMPLY WITH THE INTENT OF THIS SECTION WILL IN NO WAY RELIEVE THE CONTRACTOR OF PERFORMING THE WORK NECESSARY FOR A COMPLETE AND WORKING SYSTEM OR SYSTEMS.

CUTTING, PATCHING AND EXCAVATION:

1. COORDINATION OF SLEEVES, CHASES, ETC., BETWEEN SUBCONTRACTORS WILL BE REQUIRED PRIOR TO THE CONSTRUCTION OF ANY PORTION OF THE WORK. CUTTING AND PATCHING OF WALLS, PARTITIONS, FLOORS, AND CHASES IN CONCRETE, WOOD, STEEL OR MASONRY SHALL BE DONE AS PROVIDED ON THE DRAWINGS.
2. NECESSARY EXCAVATIONS AND BACKFILLING INCIDENTAL TO THE ELECTRICAL WORK SHALL BE PROVIDED BY THE ELECTRICAL CONTRACTOR UNLESS SPECIFICALLY NOTED OTHERWISE ON THE DRAWING.
3. SEAL PENETRATIONS THROUGH RATED WALLS, FLOORS, ETC., WITH APPROVED METHOD AS LISTED BY UL.

RACEWAYS / CONDUITS GENERAL:

1. CONDUCTORS SHALL BE INSTALLED IN LISTED RACEWAYS. CONDUIT SHALL BE RIGID STEEL, EMT, SCH40 PVC, OR SCH80PVC AS INDICATED ON THE DRAWINGS. THE RACEWAY SYSTEM SHALL BE COMPLETE COMPLETE BEFORE INSTALLING CONDUCTORS.
2. EXTERIOR RACEWAYS AND GROUNDING SLEEVES SHALL BE SEALED AT POINTS OF ENTRANCE AND EXIT. THE RACEWAY SYSTEM SHALL BE BONDED PER NEC.

EXTERIOR CONDUIT:

1. EXPOSED CONDUIT SHALL BE NEATLY INSTALLED AND RUN PARALLEL OR PERPENDICULAR TO STRUCTURAL ELEMENTS. SUPPORTS AND MOUNTING HARDWARE SHALL BE HOT DIPPED GALVANIZED STEEL.
2. THE CONDUIT SHALL BE RIGID STEEL AT GRADE TRANSITIONS OR WHERE EXPOSED TO DAMAGE.
3. UNDERGROUND CONDUITS SHALL BE RIGID STEEL, SCH40 PVC, OR SCH80 PVC AS INDICATED ON THE DRAWINGS.
4. BURIAL DEPTH OF CONDUITS SHALL BE AS REQUIRED BY CODE FOR EACH SPECIFIC CONDUIT TYPE AND APPLICATION, BUT SHALL NOT BE LESS THAN THE FROST DEPTH AT THE SITE.
5. CONDUIT ROUTES ARE SCHEMATIC. CONTRACTOR SHALL FIELD VERIFY ROUTES BEFORE BID. COORDINATE ROUTE WITH WIRELESS CARRIER AND/OR BUILDING OWNER.

INTERIOR CONDUIT:

1. CONCEALED CONDUIT IN WALLS OR INTERIOR SPACES ABOVE GRADE MAY BE EMT OR PVC.
2. CONDUIT RUNS SHALL USE APPROVED COUPLINGS AND CONNECTORS. PROVIDE INSULATED BUSHING FOR ALL CONDUIT TERMINATIONS. CONDUIT RUNS IN A WET LOCATION SHALL HAVE WATERPROOF FITTINGS.
3. PROVIDE SUPPORTS FOR CONDUITS IN ACCORDANCE WITH NEC REQUIREMENTS. CONDUITS SHALL BE SIZED AS REQUIRED BY NEC.

EQUIPMENT:

1. DISCONNECT SWITCHES SHALL BE SERVICE ENTRANCE RATED, HEAVY DUTY TYPE.
2. CONTRACTOR SHALL VERIFY MAXIMUM AVAILABLE FAULT CURRENT AND COORDINATE INSTALLATION WITH THE LOCAL UTILITY BEFORE STARTING WORK. CONTRACTOR WILL VERIFY THAT EXISTING CIRCUIT BREAKERS ARE RATED FOR MORE THAN AVAILABLE FAULT CURRENT AND REPLACE AS NECESSARY.
3. NEW CIRCUIT BREAKERS SHALL BE RATED TO WITHSTAND THE MAXIMUM AVAILABLE FAULT CURRENT AS DETERMINED BY THE LOCAL UTILITY.

CONDUCTORS:

1. FURNISH AND INSTALL CONDUCTORS SPECIFIED IN THE DRAWINGS. CONDUCTORS SHALL BE COPPER AND SHALL HAVE TYPE THWN (MIN) (75° C) INSULATION, RATED FOR 600 VOLTS.
2. THE USE OF ALUMINUM CONDUCTORS SHALL BE LIMITED TO THE SERVICE FEEDERS INSTALLED BY THE UTILITY.
3. CONDUCTORS SHALL BE PROVIDED AND INSTALLED AS FOLLOWS:
 - A. MINIMUM WIRE SIZE SHALL BE #12 AWG.
 - B. CONDUCTORS SIZE #8 AND LARGER SHALL BE STRANDED. CONDUCTORS SIZED #10 AND #12 MAY BE SOLID OR STRANDED.
 - C. CONNECTION FOR #10 AWG #12 AWG SHALL BE BY TWISTING TIGHT AND INSTALLING INSULATED PRESSURE OR WIRE NUT CONNECTIONS.
 - D. CONNECTION FOR #8 AWG AND LARGER SHALL BE BY USE OF STEEL CRIMP-ON SLEEVES WITH NYLON INSULATOR.
3. CONDUCTORS SHALL BE COLOR CODED IN ACCORDANCE WITH NEC STANDARDS.

UL COMPLIANCE:

1. ELECTRICAL MATERIALS, DEVICES, CONDUCTORS, APPLIANCES, AND EQUIPMENT SHALL BE LABELED/LISTED BY UL OR ACCEPTED BY JURISDICTION (I.E., LOCAL COUNTY OR STATE) APPROVED THIRD PARTY TESTING AGENCY.

GROUNDING:

1. ELECTRICAL NEUTRALS, RACEWAYS AND NON-CURRENT CARRYING PARTS OF ELECTRICAL EQUIPMENT AND ASSOCIATED ENCLOSURES SHALL BE GROUNDED IN ACCORDANCE WITH NEC ARTICLE 250. THIS SHALL INCLUDE NEUTRAL CONDUCTORS, CONDUITS, SUPPORTS, CABINETS, BOXES, GROUND BUSSES, ETC. THE NEUTRAL CONDUCTOR FOR EACH SYSTEM SHALL BE GROUNDED AT A SINGLE POINT.
2. PROVIDE GROUND CONDUCTOR IN RACEWAYS PER NEC.
3. PROVIDE BONDING AND GROUND TO MEET NFPA 780 - "LIGHTNING PROTECTION" AS A MINIMUM.
4. PROVIDE GROUNDING SYSTEM AS INDICATED ON THE DRAWINGS, AS REQUIRED BY THE NATIONAL ELECTRIC CODE, RADIO EQUIPMENT MANUFACTURERS, AND MOTOROLA R56 (AS APPLICABLE).

ABBREVIATIONS AND LEGEND

A	- AMPERE	PNLBD	- PANELBOARD
AFG	- ABOVE FINISHED GRADE	PVC	- RIGID NON-METALLIC CONDUIT
ATS	- AUTOMATIC TRANSFER SWITCH	RGS	- RIGID GALVANIZED STEEL CONDUIT
AWG	- AMERICAN WIRE GAUGE	SW	- SWITCH
BCW	- BARE COPPER WIRE	TGB	- TOWER GROUND BAR
BFG	- BELOW FINISHED GRADE	UL	- UNDERWRITERS LABORATORIES
BKR	- BREAKER	V	- VOLTAGE
C	- CONDUIT	W	- WATTS
CKT	- CIRCUIT	XFMR	- TRANSFORMER
DISC	- DISCONNECT	XMTR	- TRANSMITTER
EGR	- EXTERNAL GROUND RING		
EMT	- ELECTRIC METALLIC TUBING		
FSC	- FLEXIBLE STEEL CONDUIT		
GEN	- GENERATOR		
GPS	- GLOBAL POSITIONING SYSTEM		
GRD	- GROUND		
IGB	- ISOLATED GROUND BAR		
IGR	- INTERIOR GROUND RING (HALO)		
KW	- KILOWATTS		
NEC	- NATIONAL ELECTRIC CODE		
PCS	- PERSONAL COMMUNICATION SYSTEM		
PH	- PHASE		
PNL	- PANEL		

-----E-----	UNDERGROUND ELECTRICAL CONDUIT
-----T-----	UNDERGROUND TELEPHONE CONDUIT
	KILOWATT-HOUR METER
	UNDERGROUND BONDING AND GROUNDING CONDUCTOR.
	GROUND ROD
	CADWELD
	GROUND ROD WITH INSPECTION WELL

PLANS PREPARED FOR:


 8410 W BRYN MAWR, SUITE 700
 CHICAGO, IL 60631
 (603) 486-9357

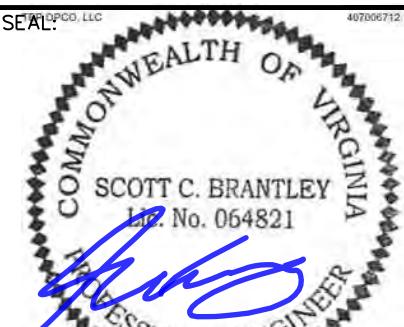
PROJECT INFORMATION:

HENRY
SITE #: 563411
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 730 PROVIDENCE CHURCH RD.
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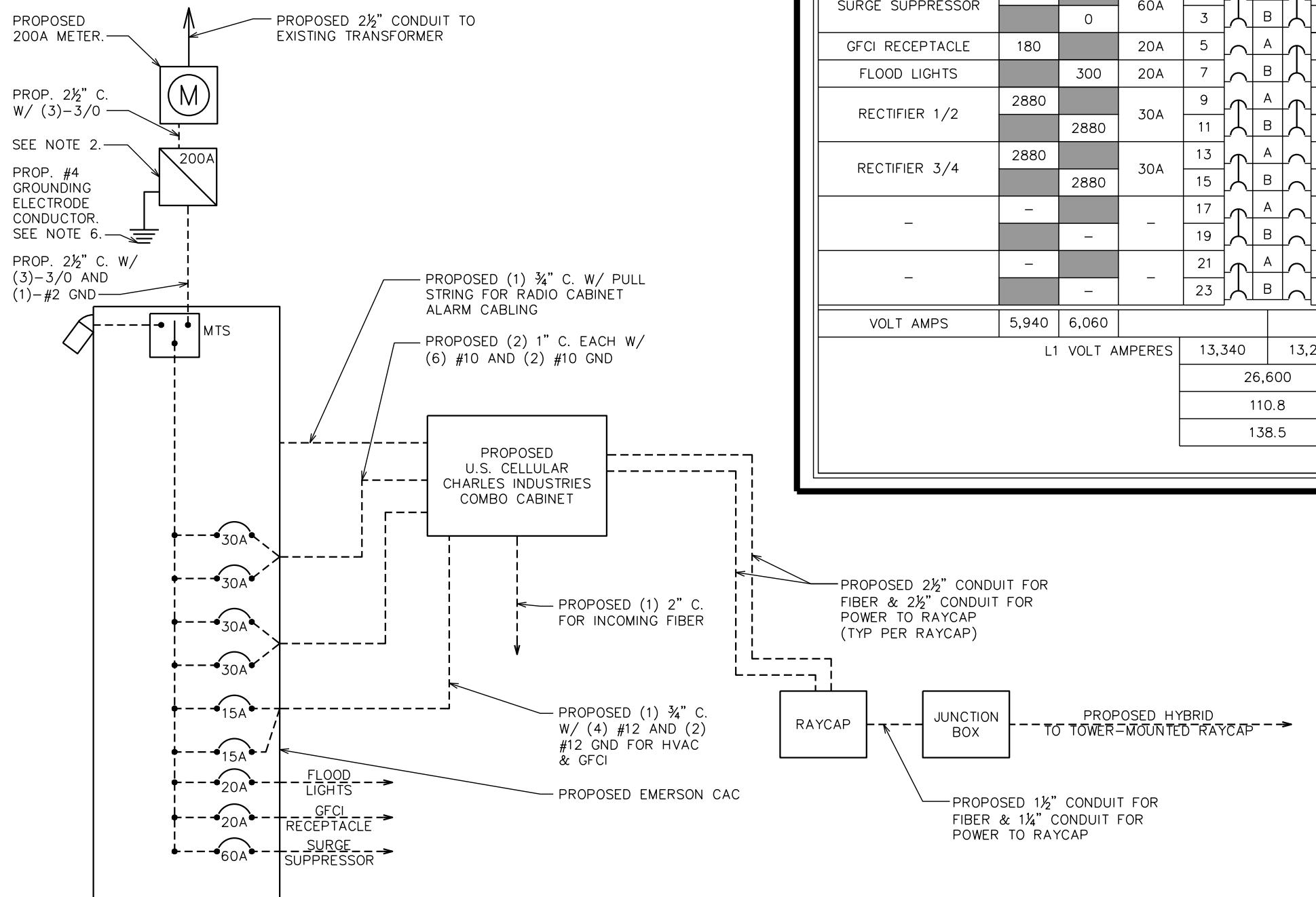


5	04-17-25	CONSTRUCTION
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3	03-25-25	PRELIMINARY
REV	DATE	ISSUED FOR:
DRAWN BY:	SAB	CHECKED BY: DAO

SHEET TITLE:	ELECTRICAL NOTES	
SHEET NUMBER:	E-1	
REVISION:	5	
		TEP #: 342022.985051

NOTES:

1. FOR COMPLETE INTERNAL WIRING AND ARRANGEMENT, REFER TO VENDOR PRINTS PROVIDED BY EQUIPMENT MANUFACTURER.
2. 200A RATED DISCONNECT FUSED AT 200A. IF NOT EXISTING, INSTALL 200A SERVICE ENTRANCE RATED DISCONNECT FUSED AT 200A.
3. SOME BREAKERS NOT SHOWN IN ONE LINE DIAGRAM FOR CLARITY.
4. CONTRACTOR TO VERIFY LOAD CENTER PANEL CAPACITY AND EXISTING LOADING IS WITHIN RATED LIMITS.
5. PROPOSED CONDUCTOR FEEDING PROPOSED CHARLES CABINET IS BASED ON MANUFACTURER SPECIFICATIONS.
6. THE GROUNDING ELECTRODE CONDUCTOR IS SIZED FOR A SINGLE 200A SERVICE. THE CONTRACTOR WILL INSTALL (1) 3/0 COPPER GEC INSTEAD IF THE METER BANK SHARES A COMMON N-G BOND
7. THE WIRING DIAGRAM PROVIDED BY THE MANUFACTURER DOES NOT SHOW A NEUTRAL BEING USED. THE CONTRACTOR WILL NEED TO VERIFY WITH THE INSTALLATION SPECS.



ONE LINE DIAGRAM

SCALE: N.T.S.

NOTE:

CONTRACTOR TO VERIFY THE SIZE OF ALL BREAKERS SHOWN AND WITH MANUFACTURER SPECIFICATIONS.

200A 120/240VAC POWER PANEL SCHEDULE

LOAD SERVED	VOLT AMPERES (WATTS)		TRIP	CKT #	PHASE	CKT #	TRIP	VOLT AMPERES (WATTS)		LOAD SERVED
	L1	L2						L1	L2	
SURGE SUPPRESSOR	0	0	60A	1	A	2	30A	2880	2880	RECTIFIER 5/6
		0		3	B	4			2880	
GFCI RECEPTACLE	180		20A	5	A	6	30A	2880	2880	RECTIFIER 7/8
FLOOD LIGHTS		300	20A	7	B	8			2880	
RECTIFIER 1/2	2880			9	A	10	15A	1440	1440	HVAC (COMBO CABINET)
		2880		11	B	12				
RECTIFIER 3/4	2880		30A	13	A	14	15A	200	200	GFCI (COMBO CABINET)
		2880		15	B	16				
	-			17	A	18		-	-	
		-		19	B	20		-	-	
	-			21	A	22		-	-	
		-		23	B	24		-	-	
VOLT AMPS	5,940	6,060						7,400	7,200	VOLT AMPS
								13,340	13,260	L1 VOLT AMPERES
								26,600		TOTAL VOLT AMPERES
								110.8		TOTAL AMPS
								138.5		AMPS X 125%

PLANS PREPARED FOR:

uscellular
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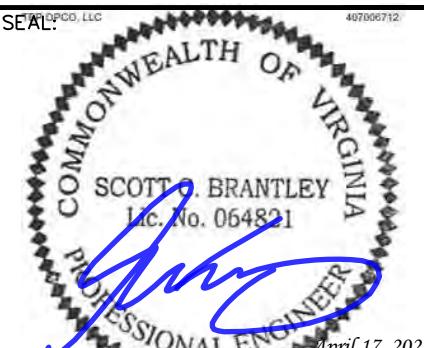
PROJECT INFORMATION:

HENRY
SITE #: 563411
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HENRY, VA 24102
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SHEET TITLE:

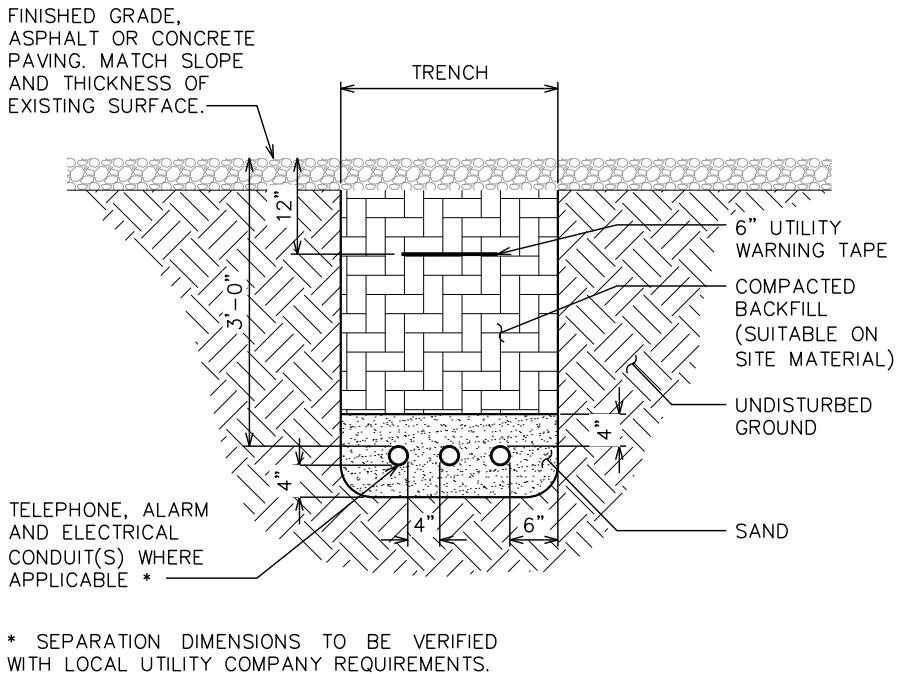
ONE LINE DIAGRAM & POWER PANEL SCHEDULE

SHEET NUMBER:	REVISION:
E-2	5

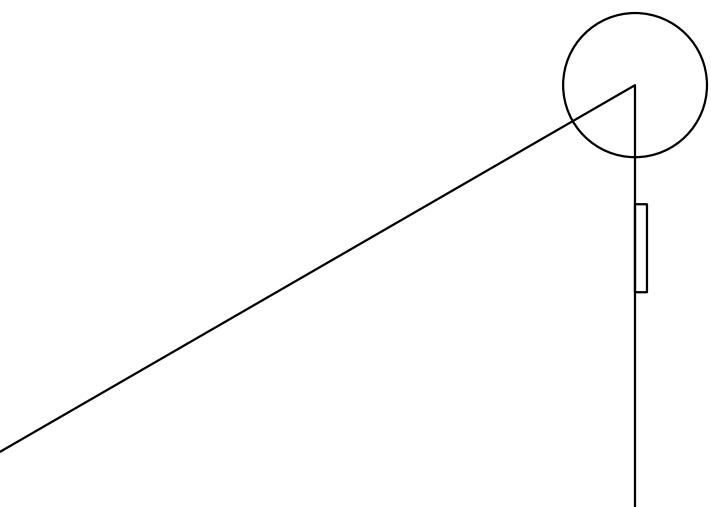
TEP #: 342022.985051

NOTES:

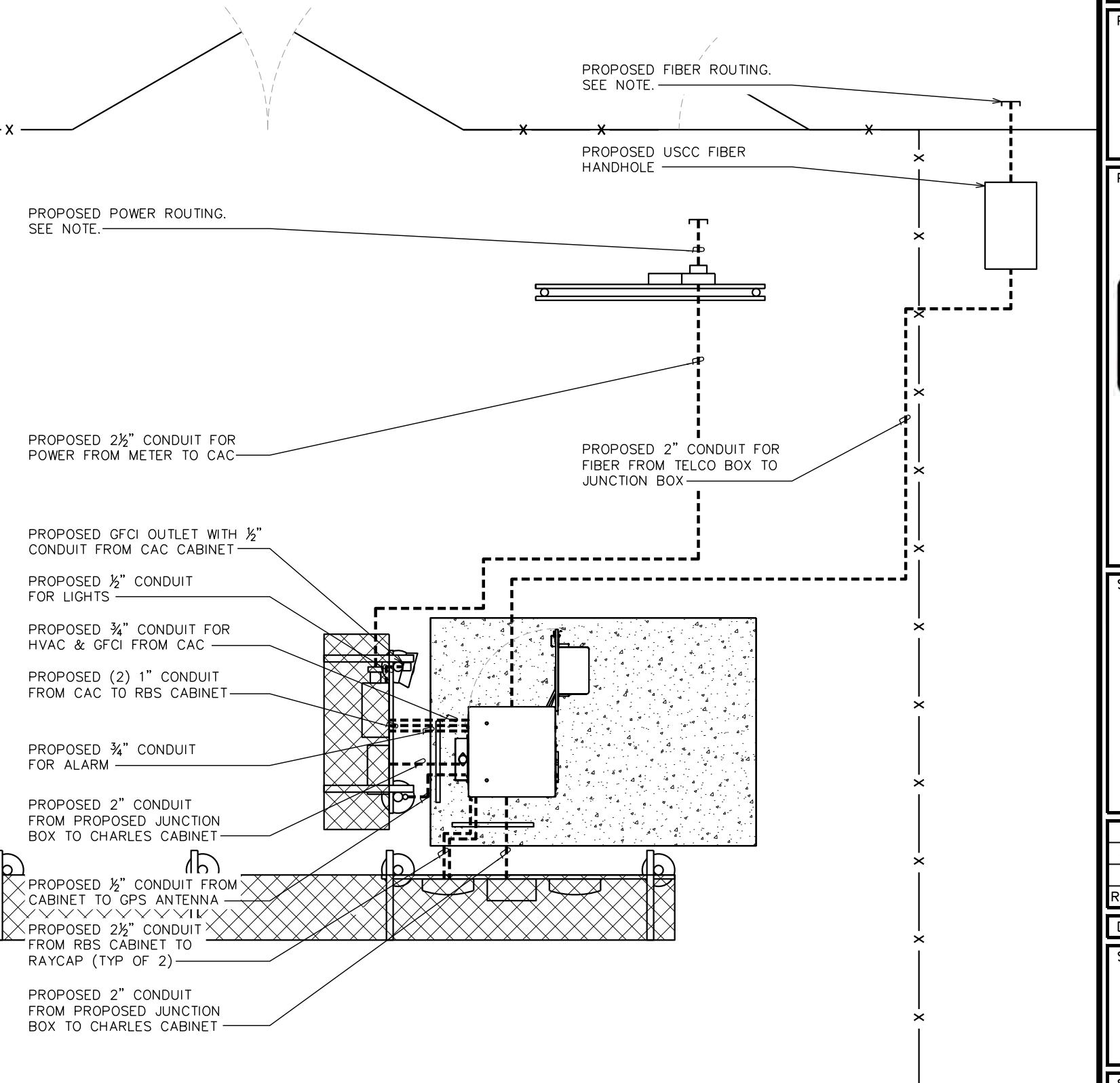
1. ACTUAL SEPARATION OF CONDUITS TO BE DETERMINED BY SITE SPECIFIC REQUIREMENTS.
2. PROVIDE PVC CONDUIT BELOW GRADE EXCEPT AS NOTED BELOW.
3. PROVIDE RGS CONDUIT AND ELBOWS AT STUB UP LOCATIONS (I.E. SERVICE POLES, EQUIPMENT, ETC.)
4. PROVIDE RGS CONDUIT FOR INSTALLATIONS BELOW PARKING LOTS AND ROADWAYS.

**UNDERGROUND CONDUIT(S) TRENCH DETAIL**

SCALE: N.T.S.

**NOTE:**

FINAL POWER AND FIBER SPECIFICATIONS WILL BE DETERMINED CLOSER TO CONSTRUCTION UPON POWER AND FIBER WALKS COMPLETED BY THE CONSTRUCTION MANAGER WITH THE UTILITY COMPANIES. FINAL POWER AND FIBER DESIGN MUST BE COMPLETED PRIOR TO CONSTRUCTION AND APPROVED BY BOTH USCC AND APPLICABLE UTILITY COMPANIES.



PLANS PREPARED FOR:

uscellular
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CHICAGO, IL 60631
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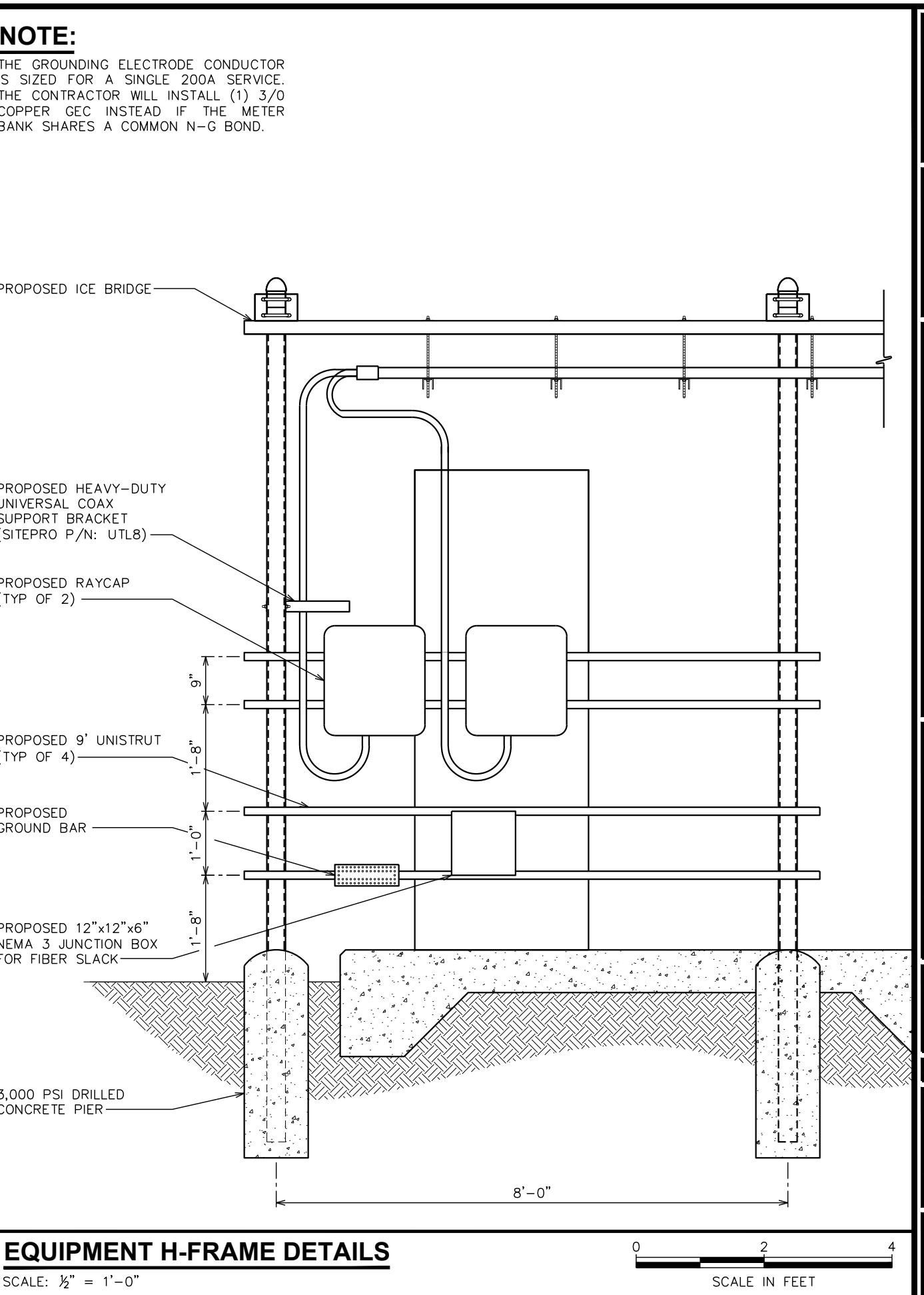
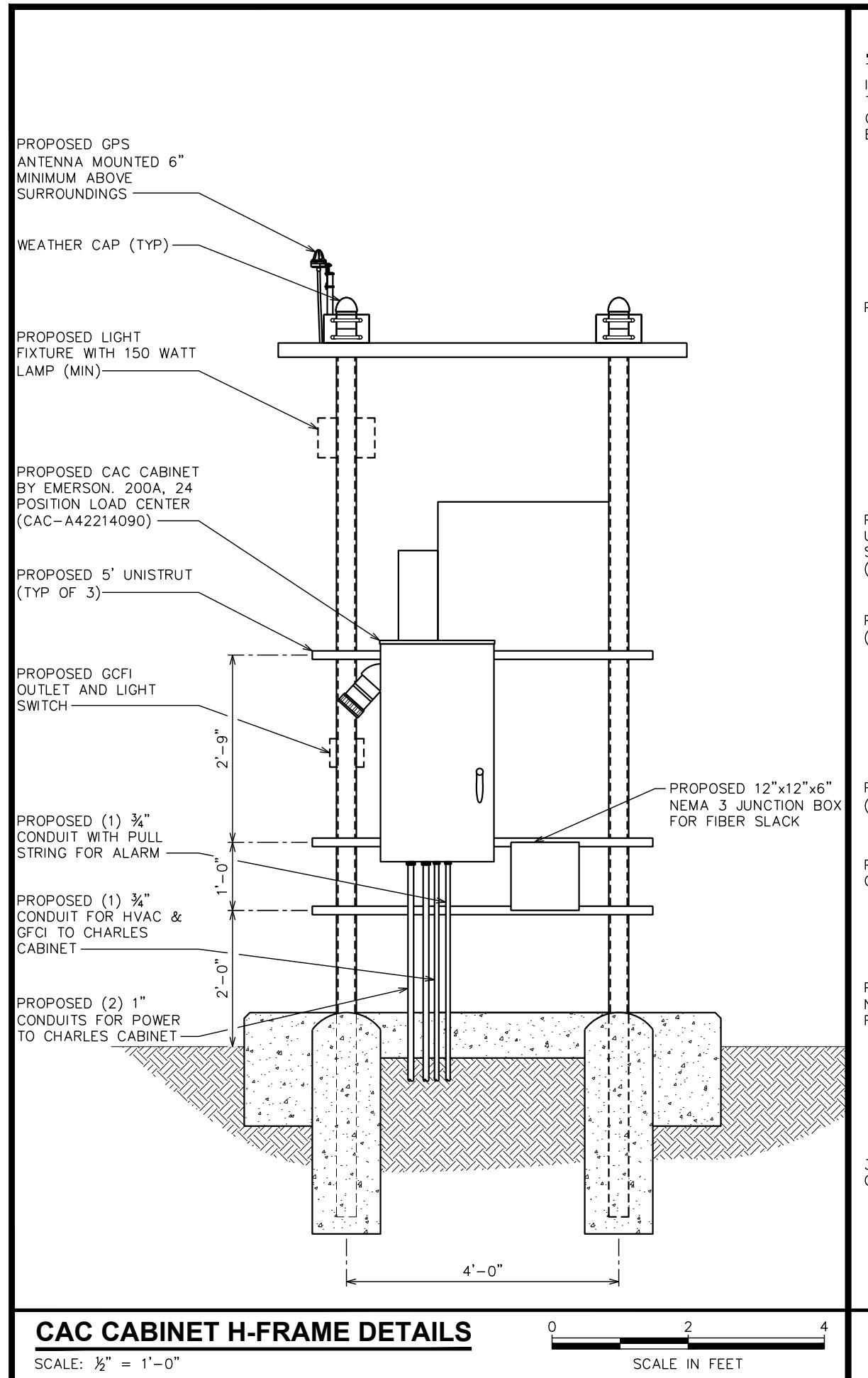


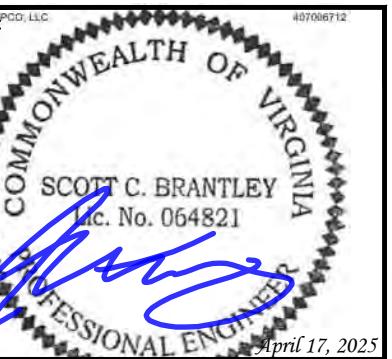
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DRAWN BY: SAB	CHECKED BY: DAO	

SHEET TITLE:

**POWER/TELCO
PLAN**

SHEET NUMBER:	REVISION:
E-3	5



PLANS PREPARED FOR:		
 <p>uscellular 8410 W BRYN MAWR, SUITE 700 CHICAGO, IL 60631 (603) 486-9357</p>		
PROJECT INFORMATION:		
<p>HENRY SITE #: 563411 (E911 ADDRESS T.B.D.) 730 PROVIDENCE CHURCH RD. HENRY, VA 24102 (FRANKLIN COUNTY)</p>		
PLANS PREPARED BY:		
 <p>TEP OPCO, LLC 326 TRYON ROAD RALEIGH, NC 27603-3530 OFFICE: (919) 661-6351 www.tepgroup.net</p>		
<p>SEAL:  SCOTT C. BRANTLEY Lic. No. 064821 PROFESSIONAL ENGINEER April 17, 2025</p>		
5	04-17-25	CONSTRUCTION
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REV	DATE	ISSUED FOR:
DRAWN BY: SAB		CHECKED BY: DAO
SHEET TITLE:		
EQUIPMENT & CAC H-FRAME DETAILS		
SHEET NUMBER:		REVISION:
E-3A		5
TEP# 342022.985051		

TEP IS A FAMILY OF COMPANIES LICENSED TO PROVIDE DIFFERENT SERVICES IN DIFFERENT JURISDICTIONS. DEPENDING ON THE JURISDICTION, PROFESSIONAL ENGINEERING AND LAND SURVEYING SERVICES ARE PROVIDED BY TEP OPCO LLC, A DELAWARE LIMITED LIABILITY COMPANY. TEP ENGINEERING, LLC, A NEW YORK PROFESSIONAL LIMITED LIABILITY COMPANY, WE ACQUIRE THE REQUISITE LICENSES IN EACH STATE. ADDITIONAL INFORMATION CAN BE OBTAINED FROM THE COMPANY.

NOTE:

THE GROUNDING ELECTRODE CONDUCTOR IS SIZED FOR A SINGLE 200A SERVICE. THE CONTRACTOR WILL INSTALL (1) 3/0 COPPER GEC INSTEAD IF THE METER BANK SHARES A COMMON N-G BOND.

PLANS PREPARED FOR:

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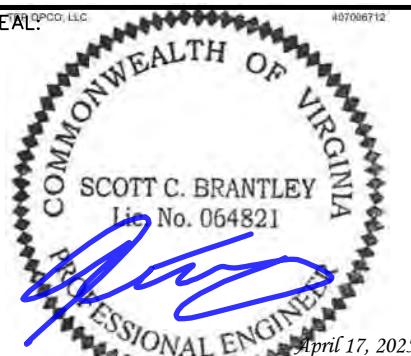
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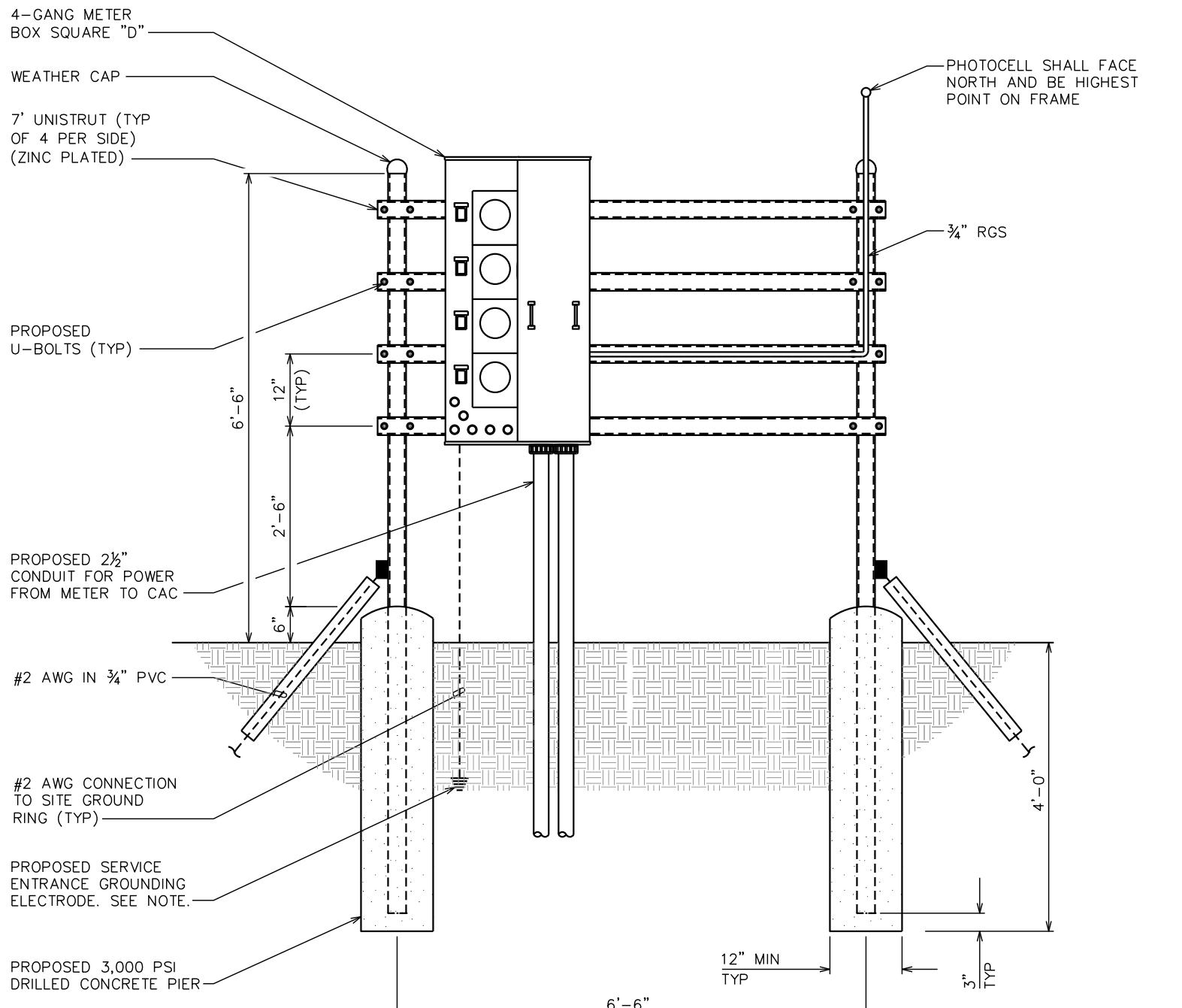
SERVICE RACK DETAILS

SHEET NUMBER:	REVISION:
E-3B	5

TEP #: 342022.985051

SERVICE RACK DETAILS

SCALE: N.T.S.



DRAWING NOTES

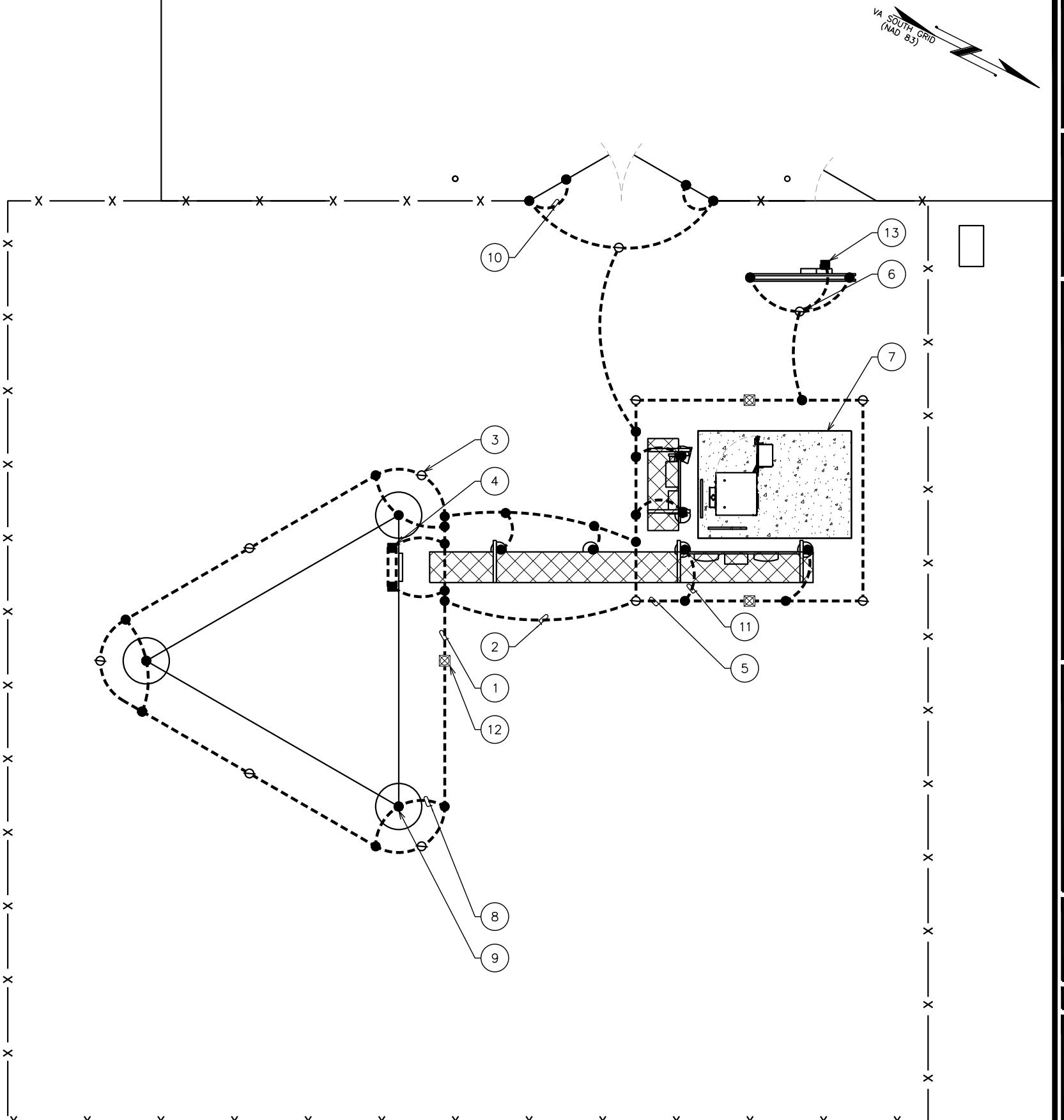
- 1 PROPOSED TOWER GROUND RING BURIED 30" BFG OR 6" BELOW FROST DEPTH (WHICHEVER IS GREATER)
- 2 PROPOSED TOWER GROUND RING BOND TO PROPOSED EQUIPMENT GROUND RING (TYP)
- 3 PROPOSED $\frac{5}{8}'' \times 10'$ COPPER GROUND ROD (TYP)
- 4 PROPOSED TOWER GROUND BAR
- 5 PROPOSED EQUIPMENT GROUND RING (BURIED 30" BFG OR 6" BELOW FROST DEPTH, WHICHEVER IS GREATER)
- 6 PROPOSED SERVICE ENTRANCE GROUNDING ELECTRODE
- 7 FOR EQUIPMENT PAD GROUNDING, SEE SHEET E-5.
- 8 TOWER GROUND RING TO TOWER STEEL (TYP OF 3)
- 9 PROPOSED CADWELD (TYP)
- 10 GATE POST GROUNDING (TYP)
- 11 ICE BRIDGE POST GROUND TO EQUIPMENT GROUND RING
- 12 PROPOSED $\frac{5}{8}'' \times 10'$ COPPER GROUND ROD WITH INSPECTION WELL (TYP)
- 13 PROPOSED 2-HOLE MECHANICAL LUG CONNECTION (TYP)

GROUNDING NOTES:

1. CONTRACTOR SHALL VERIFY THAT GROUNDING ELECTRODES SHALL BE CONNECTED IN A RING USING #2 AWG BARE TINNED COPPER WIRE. THE TOP OF THE GROUND RODS AND THE RING CONDUCTOR SHALL BE 30 INCHES BELOW FINISHED GRADE OR 6" BELOW FROST DEPTH (WHICHEVER IS GREATER). GROUNDING ELECTRODES SHALL BE DRIVEN ON 10'-0" CENTERS (9'-0" MINIMUM, 16'-0" MAXIMUM; PROVIDE AND INSTALL AS REQUIRED PER TYPICAL GROUNDING PLAN SHOWN).
2. BONDING OF THE GROUNDED CONDUCTOR (NEUTRAL) AND THE GROUNDING CONDUCTOR SHALL BE AT THE SERVICE DISCONNECTING MEANS. BONDING JUMPER SHALL BE INSTALLED PER N.E.C. ARTICLE 250.30.
3. GROUND RING CONNECTION CONDUCTORS SHALL BE OF EQUAL LENGTH, MATERIAL, AND BONDING TECHNIQUE.
4. CONTRACTOR SHALL ENSURE GROUND RING IS WITHIN 12 TO 36 INCHES OF THE EQUIPMENT PAD. PROVIDE/INSTALL GROUNDING CONNECTIONS SHOWN ABOVE AS NEEDED PER EXISTING SITE GROUNDING SYSTEM. CONTRACTOR SHALL VERIFY ALL EXISTING SITE GROUNDING CONDITIONS BEFORE STARTING WORK OR PURCHASING EQUIPMENT.
5. BOND CIGBE TO EXTERNAL GROUND RING WITH 2 RUNS OF #2 BARE TINNED SOLID COPPER CONDUCTOR IN PVC. CONNECT BAR END WITH 2 HOLE LUG, AND "CADWELD" THE OTHER END TO THE EXTERNAL GROUND ROD.
6. THE PREFERRED LOCATION FOR COAX GROUNDING IS AT THE BASE OF THE TOWER PRIOR TO THE COAX BEND. BONDING IS SHOWN ON THE ICE BRIDGE DUE TO DIFFICULTY WITH WELDING OR ATTACHING TO TOWER LEGS. CONTRACTOR SHALL ADVISE CONSTRUCTION MANAGER PRIOR TO PLACING CIGBE ON ICE BRIDGE IF MOUNTING TO TOWER LEG IS POSSIBLE.

COMPOUND GROUNDING PLAN

SCALE: $\frac{1}{8}'' = 1'-0''$



0 8 16
SCALE IN FEET

PLANS PREPARED FOR:

uscellular
8410 W BRYN MAWR, SUITE 700
CHICAGO, IL 60631
(603) 486-9357

PROJECT INFORMATION:

HENRY
SITE #: 563411
(E911 ADDRESS T.B.D.)
730 PROVIDENCE CHURCH RD.
HENRY, VA 24102
(FRANKLIN COUNTY)

PLANS PREPARED BY:



TEP OPCO, LLC
326 TRYON ROAD
RALEIGH, NC 27603-3530
OFFICE: (919) 661-6351
www.tepgroup.net



5	04-17-25	CONSTRUCTION
4	04-15-25	PRELIMINARY
3	03-25-25	PRELIMINARY
REV	DATE	ISSUED FOR:

DRAWN BY: SAB CHECKED BY: DAO

SHEET TITLE:
**COMPOUND
GROUNDING PLAN**

SHEET NUMBER: E-4 REVISION: 5
TEP #: 342022.985051

DRAWING NOTES

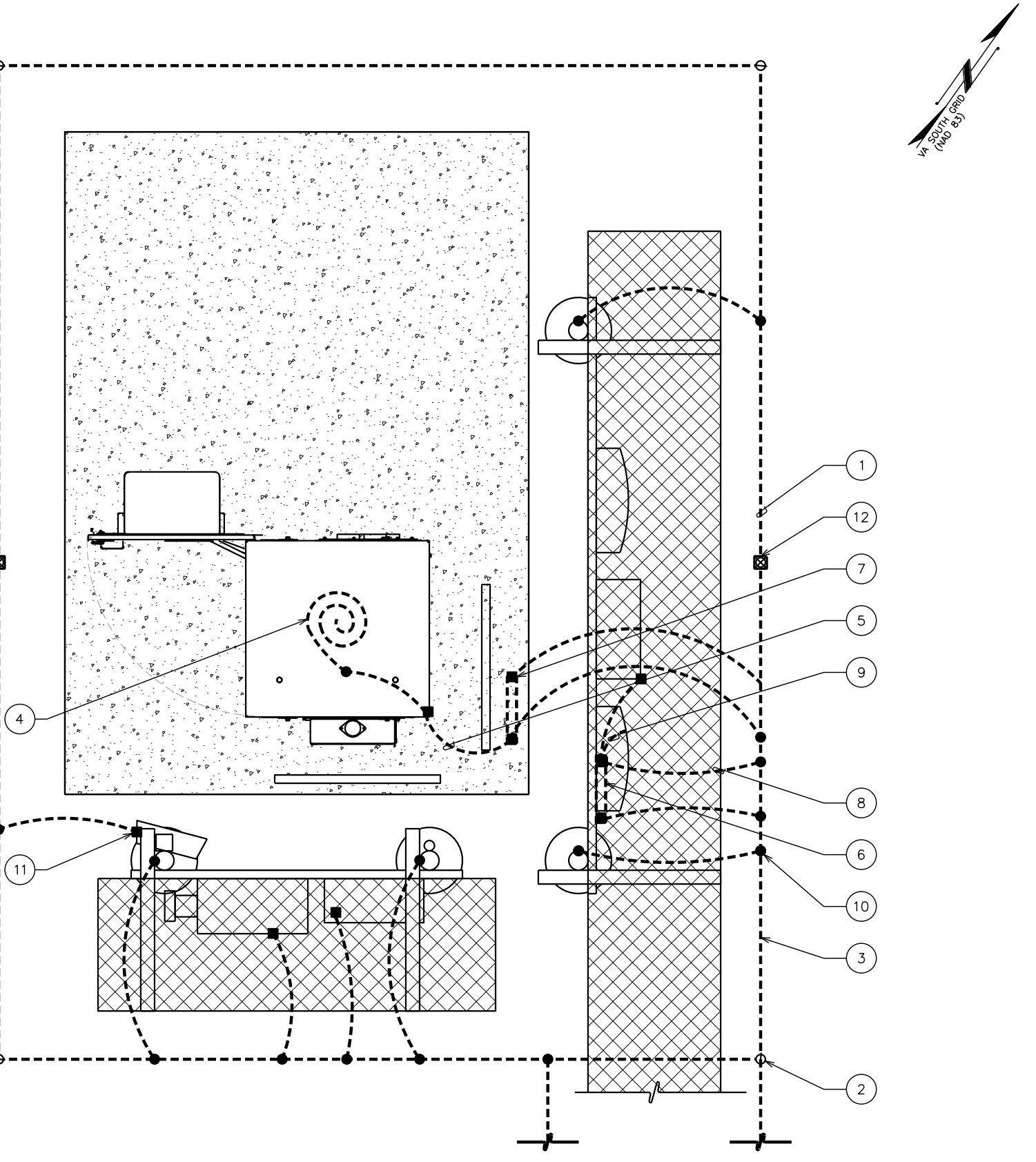
- 1 EXTEND EQUIPMENT GROUND RING TO PROPOSED TOWER GROUND RING (TYP)
- 2 PROPOSED $\frac{5}{8}'' \times 10'$ COPPER GROUND ROD (TYP)
- 3 PROPOSED EQUIPMENT GROUND RING (BURIED 30" BFG OR 6" BELOW FROST DEPTH, WHICHEVER IS DEEPER)
- 4 GROUND PROPOSED CABINET PER MFG'S SPECIFICATIONS (TYP)
- 5 CABINET GROUND TO PROPOSED GROUND BAR
- 6 GROUND BAR MOUNTED ON H-FRAME
- 7 GROUND BAR MOUNTED ON EQUIPMENT PAD
- 8 GROUND LEAD FROM PROPOSED GROUND BAR TO PROPOSED GROUND RING (TYP OF 4)
- 9 PROPOSED EQUIPMENT GROUND (TYP)
- 10 PROPOSED CADWELD (TYP)
- 11 PROPOSED 2-HOLE MECHANICAL LUG CONNECTION (TYP)
- 12 PROPOSED GROUND ROD WITH INSPECTION WELL

GROUNDING NOTES:

1. CONTRACTOR SHALL VERIFY THAT GROUNDING ELECTRODES SHALL BE CONNECTED IN A RING USING #2 AWG BARE TINNED COPPER WIRE. THE TOP OF THE GROUND RODS AND THE RING CONDUCTOR SHALL BE 30 INCHES BELOW FINISHED GRADE (OR 6" BELOW FROST DEPTH, WHICHEVER IS GREATER). GROUNDING ELECTRODES SHALL BE DRIVEN ON 10'-0" CENTERS (9'-0" MINIMUM, 16'-0" MAXIMUM; PROVIDE AND INSTALL AS REQUIRED PER TYPICAL GROUNDING PLAN SHOWN).
2. BONDING OF THE GROUNDED CONDUCTOR (NEUTRAL) AND THE GROUNDING CONDUCTOR SHALL BE AT THE SERVICE DISCONNECTING MEANS. BONDING JUMPER SHALL BE INSTALLED PER N.E.C. ARTICLE 250.30.
3. GROUND RING CONNECTION CONDUCTORS SHALL BE OF EQUAL LENGTH, MATERIAL, AND BONDING TECHNIQUE.
4. CONTRACTOR SHALL ENSURE GROUND RING IS WITHIN 12 TO 36 INCHES OF THE EQUIPMENT PAD. PROVIDE/INSTALL GROUNDING CONNECTIONS SHOWN ABOVE AS NEEDED PER EXISTING SITE GROUNDING SYSTEM. CONTRACTOR SHALL VERIFY ALL EXISTING SITE GROUNDING CONDITIONS BEFORE STARTING WORK OR PURCHASING EQUIPMENT.
5. BOND CIGBE TO EXTERNAL GROUND RING WITH 2 RUNS OF #2 BARE TINNED SOLID COPPER CONDUCTOR IN PVC. CONNECT BAR END WITH 2 HOLE LUG, AND "CADWELD" THE OTHER END TO THE EXTERNAL GROUND ROD.
6. THE PREFERRED LOCATION FOR COAX GROUNDING IS AT THE BASE OF THE TOWER PRIOR TO THE COAX BEND. BONDING IS SHOWN ON THE ICE BRIDGE DUE TO DIFFICULTY WITH WELDING OR ATTACHING TO TOWER LEGS. CONTRACTOR SHALL ADVISE CONSTRUCTION MANAGER PRIOR TO PLACING CIGBE ON ICE BRIDGE IF MOUNTING TO TOWER LEG IS POSSIBLE.

TYPICAL EQUIPMENT GROUNDING PLAN

SCALE: $\frac{1}{2}'' = 1'-0''$



0 2 4
SCALE IN FEET

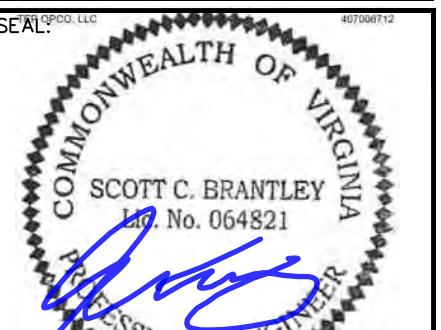
PLANS PREPARED FOR:
uscellular
8410 W BRYN MAWR, SUITE 700
CHICAGO, IL 60631
(603) 486-9357

PROJECT INFORMATION:
HENRY
SITE #: 563411
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HENRY, VA 24102
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PLANS PREPARED BY:



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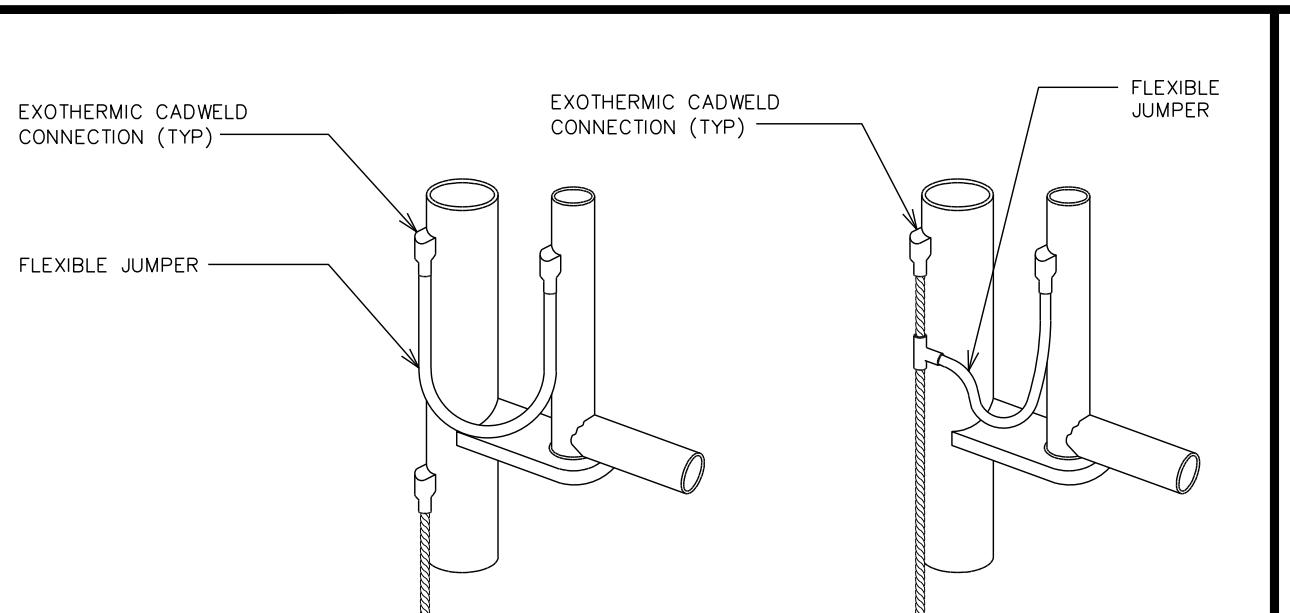
REV DATE ISSUED FOR:

DRAWN BY: SAB CHECKED BY: DAO

SHEET TITLE:

EQUIPMENT GROUNDING PLAN

SHEET NUMBER: E-5 REVISION: 5
TEP #: 342022.985051



TYPICAL FENCE AND GATE BONDING DETAIL

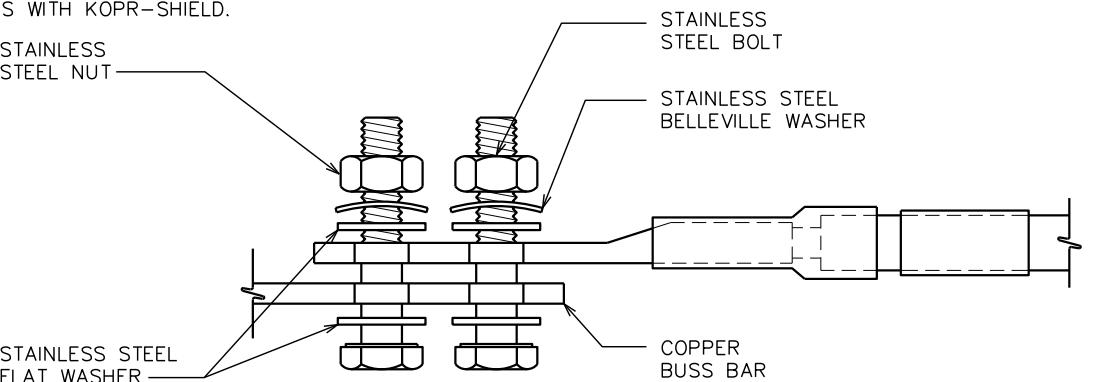
SCALE: N.T.S.

NOTE:

ALL PVC CONDUITS USED FOR GROUNDING SHALL BE SEALED WITH SILICONE SEALANT AT BOTH ENDS

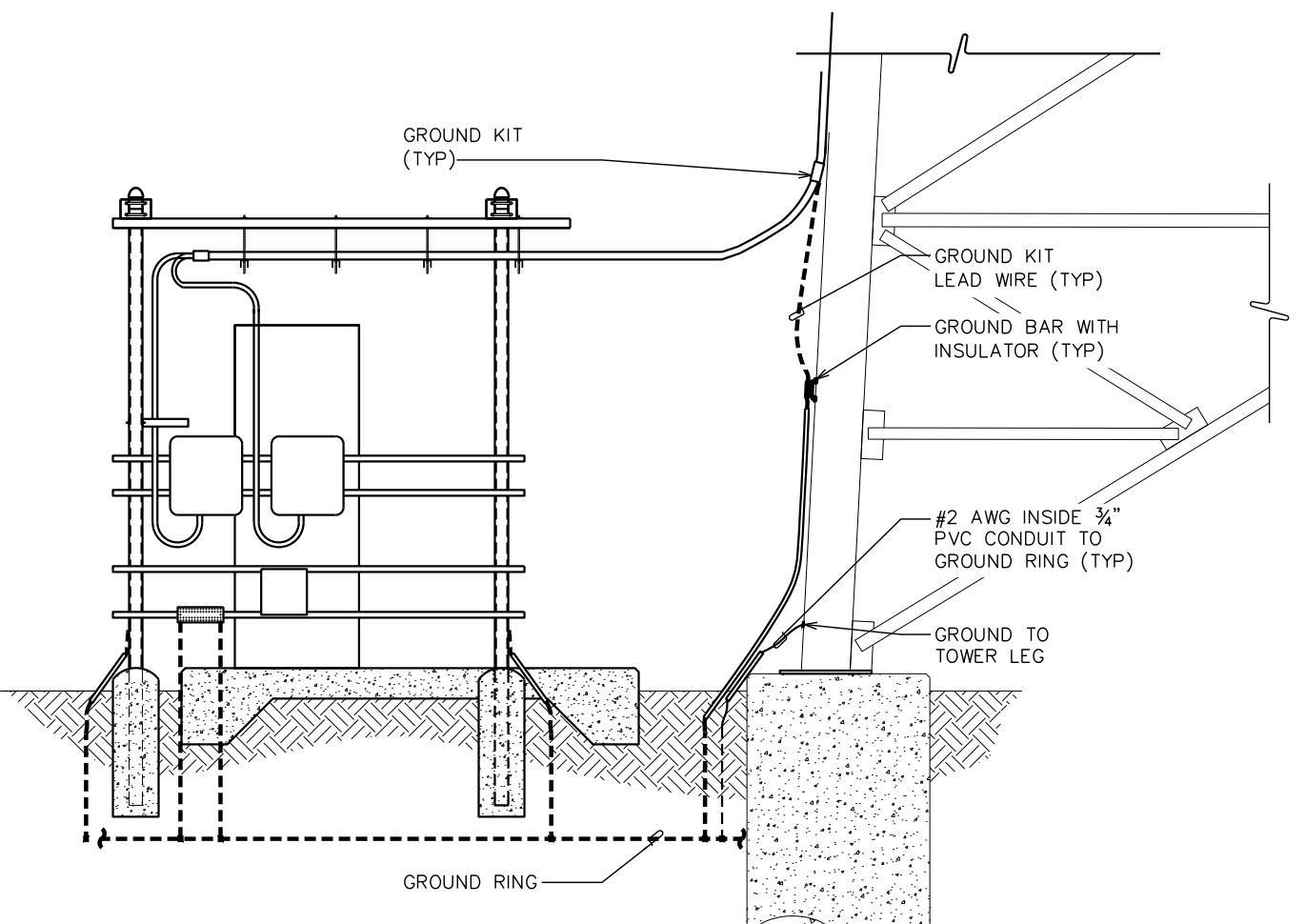
NOTES:

1. ALL HARDWARE SHALL BE 18-8 STAINLESS STEEL, INCLUDING THE BELLEVILLE WASHERS. COAT ALL SURFACES WITH KOPR-SHIELD BEFORE MATING.
2. FOR GROUND BOND TO STEEL ONLY: INSERT A DRAGON TOOTH WASHER BETWEEN THE LUG AND STEEL. COAT ALL SURFACES WITH KOPR-SHIELD.



TYPICAL LUG DETAIL

SCALE: N.T.S.



ICE BRIDGE/COAX/GROUNDING BAR ELEVATION

SCALE: N.T.S.

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8410 W BRYN MAWR, SUITE 700
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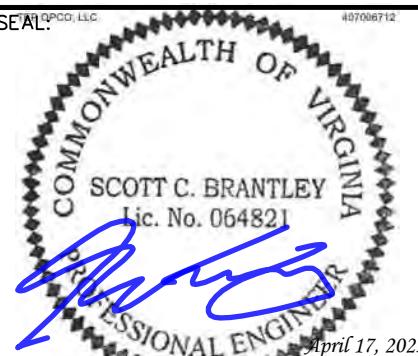
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SITE #: 563411
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REV	DATE	ISSUED FOR:

DRAWN BY: SAB CHECKED BY: DAO

SHEET TITLE:

**GROUNDING
DETAILS I**

SHEET NUMBER: E-6 REVISION: 5

TEP IS A FAMILY OF COMPANIES LICENSED TO PROVIDE DIFFERENT SERVICES IN DIFFERENT JURISDICTIONS. DEPENDING ON THE JURISDICTION, PROFESSIONAL ENGINEERING AND LAND SURVEYING SERVICES ARE PROVIDED BY TEP OPCO LLC, A DELAWARE LIMITED LIABILITY COMPANY. TEP ENGINEERING, LLC, A NEW YORK PROFESSIONAL LIMITED LIABILITY COMPANY, WE ACQUIRE THE REQUISITE LICENSES IN EACH STATE. ADDITIONAL INFORMATION CAN BE OBTAINED FROM THE COMPANY.

PLANS PREPARED FOR:



8410 W BRYN MAWR, SUITE 700
CHICAGO, IL 60631
(603) 486-9357

PROJECT INFORMATION:

HENRY

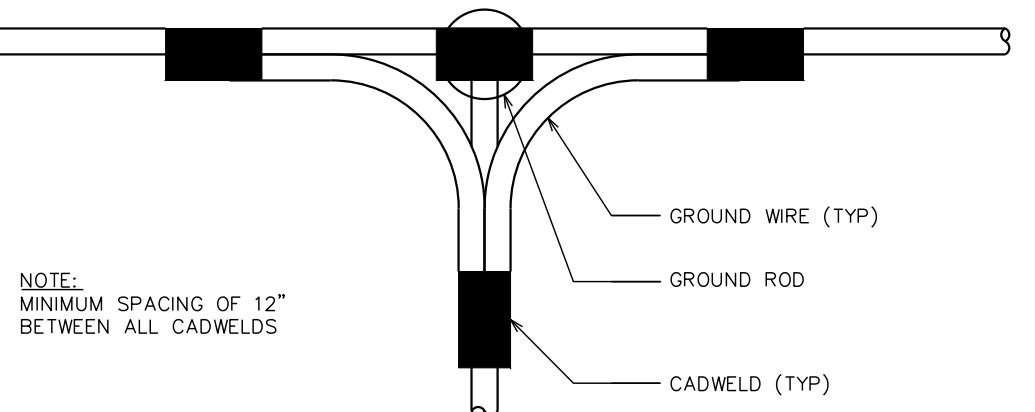
SITE #: 563411

(E911 ADDRESS T.B.D.)
730 PROVIDENCE CHURCH RD.
HENRY, VA 24102
(FRANKLIN COUNTY)

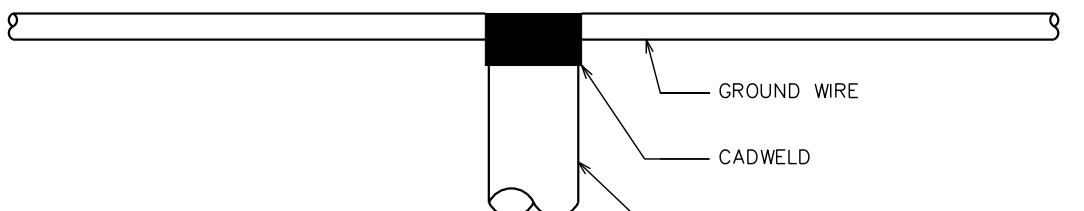
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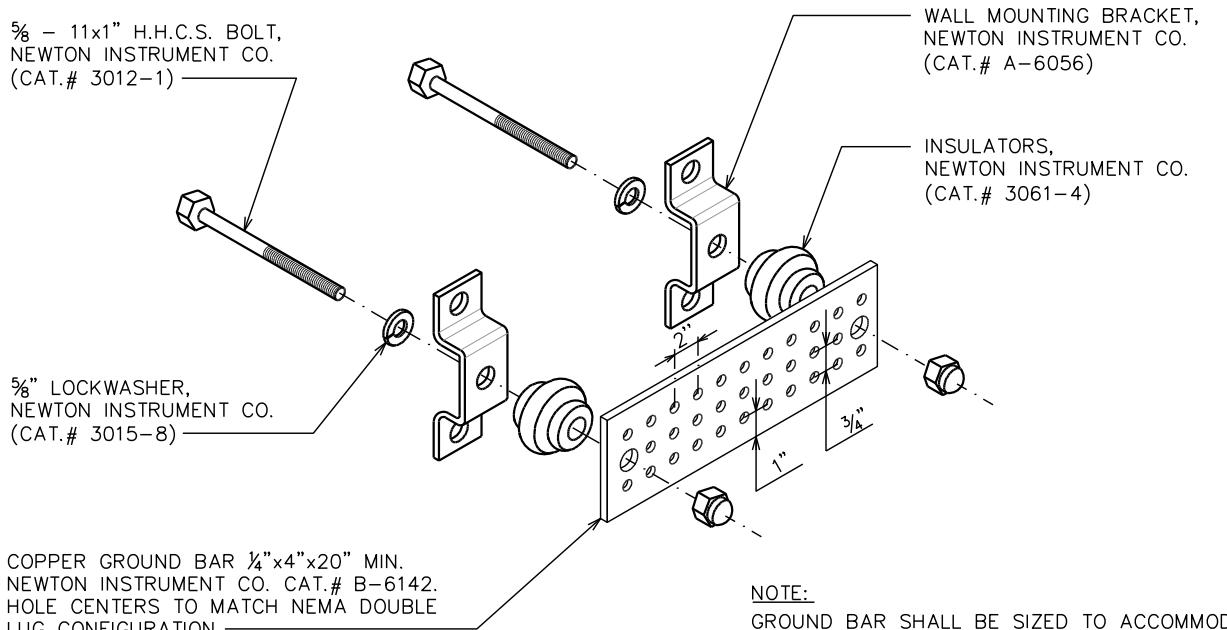
TOP VIEW



SIDE VIEW

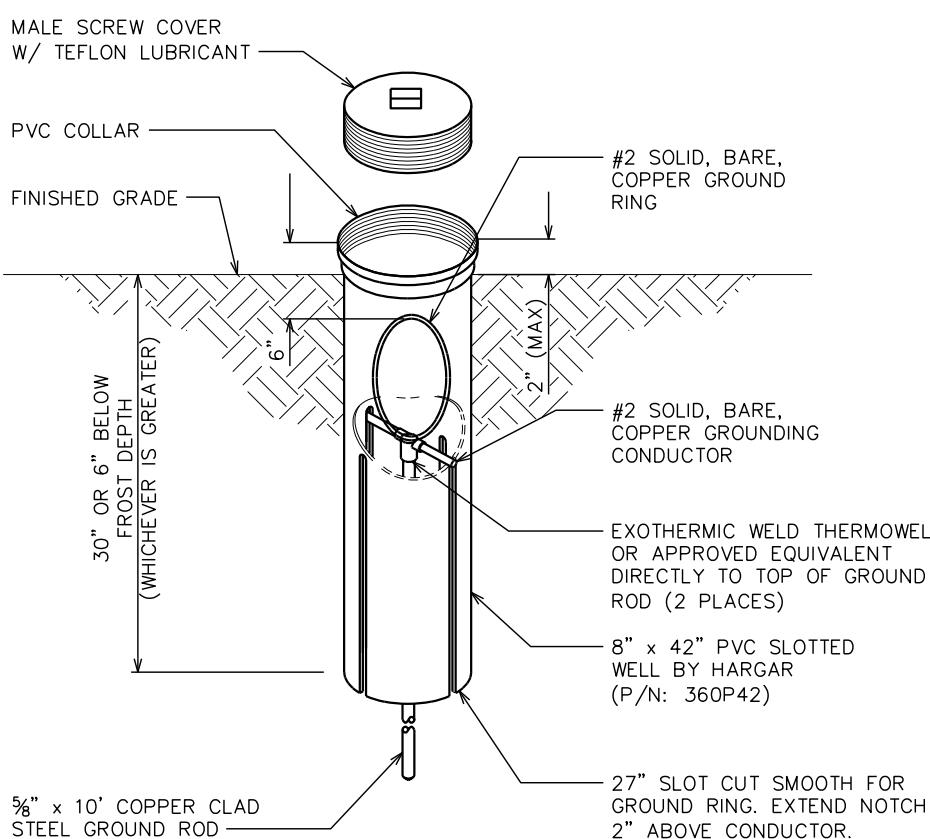
CADWELD GROUNDING DETAIL

SCALE: N.T.S.



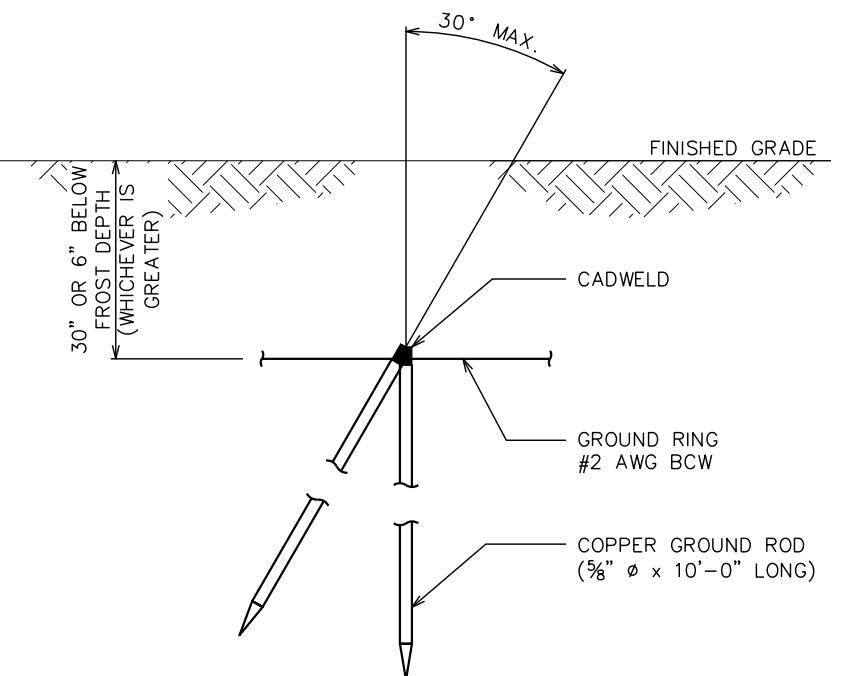
STANDARD GROUND BAR DETAIL

SCALE: N.T.S.



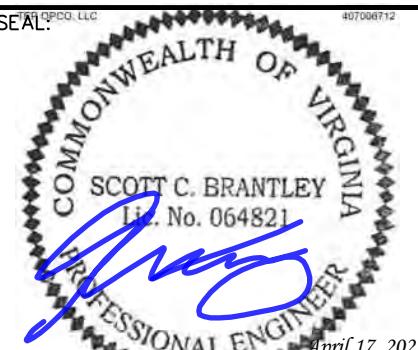
GROUND ROD WITH INSPECTION WELL

SCALE: N.T.S.



COPPER-CLAD STEEL GROUND ROD

SCALE: N.T.S.



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SHEET TITLE:

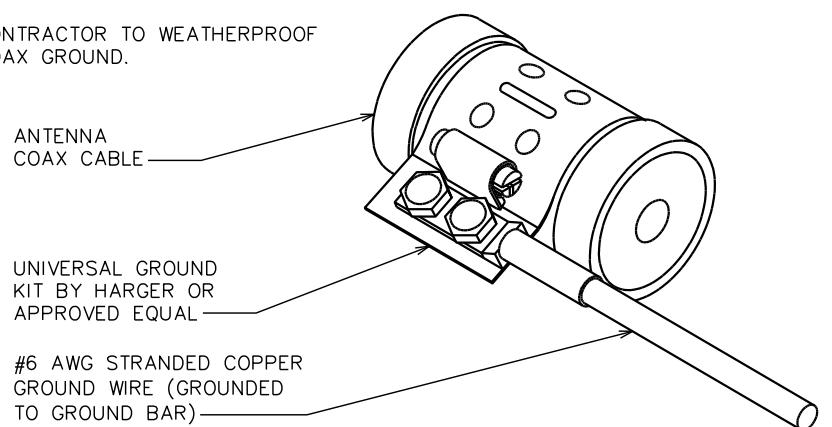
**GROUNDING
DETAILS II**

SHEET NUMBER:	REVISION:
E-7	5

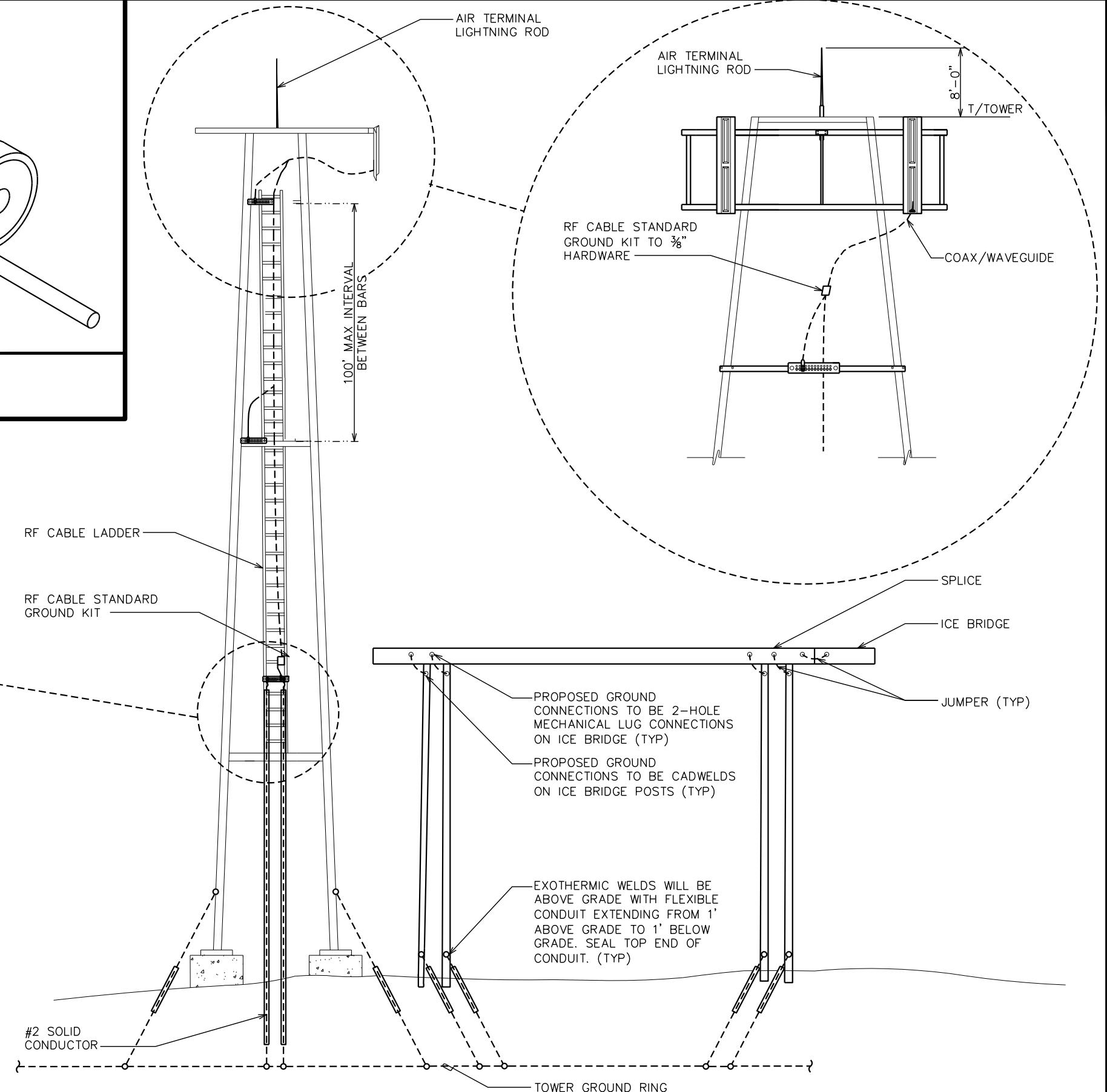
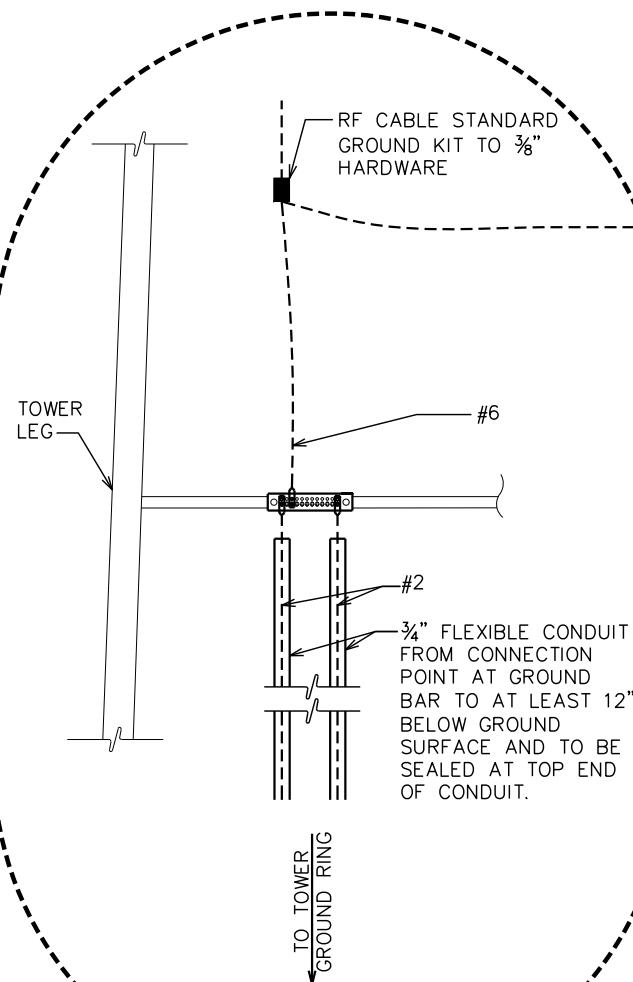
TEP #342022.985051

NOTES:

1. DO NOT INSTALL COAX GROUND KIT AT A BEND.
2. CONTRACTOR TO WEATHERPROOF COAX GROUND.

**CABLE GROUNDING DETAIL**

SCALE: N.T.S.

**ICE BRIDGE, COAX, STANCHION, AND TOWER GROUNDING DETAIL**

SCALE: N.T.S.

PLANS PREPARED FOR:

uscellular
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CHICAGO, IL 60631
(603) 486-9357

PROJECT INFORMATION:

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(FRANKLIN COUNTY)

PLANS PREPARED BY:



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REV DATE ISSUED FOR:

DRAWN BY: SAB CHECKED BY: DAO

SHEET TITLE:

GROUNDING DETAILS III

SHEET NUMBER: E-8 REVISION: 5

TEP #: 342022.985051

GENERAL NOTES:

- ALL REFERENCES TO OWNER IN THESE DOCUMENTS SHALL BE CONSIDERED U.S. CELLULAR OR ITS DESIGNATED REPRESENTATIVE.
- ALL WORK PRESENTED ON THESE DRAWINGS MUST BE COMPLETED BY THE CONTRACTOR UNLESS NOTED OTHERWISE. THE CONTRACTOR MUST HAVE CONSIDERABLE EXPERIENCE IN PERFORMANCE OF WORK SIMILAR TO THAT DESCRIBED HEREIN. BY ACCEPTANCE OF THIS ASSIGNMENT, THE CONTRACTOR IS ATTESTING THAT HE DOES HAVE SUFFICIENT EXPERIENCE AND ABILITY, THAT HE IS KNOWLEDGEABLE OF THE WORK TO BE PERFORMED AND THAT HE IS PROPERLY LICENSED AND PROPERLY REGISTERED TO DO THIS WORK IN THE STATE OF VIRGINIA.
- STRUCTURE IS DESIGNED IN ACCORDANCE WITH ANSI/TIA/EIA-222-H, AND CONFORMS TO THE REQUIREMENTS OF THE INTERNATIONAL BUILDING CODE, 2021 EDITION.
- WORK SHALL BE COMPLETED IN ACCORDANCE WITH THE INTERNATIONAL BUILDING CODE, 2021 EDITION.
- UNLESS SHOWN OR NOTED OTHERWISE ON THE CONTRACT DRAWINGS, OR IN THE SPECIFICATIONS, THE FOLLOWING NOTES SHALL APPLY TO THE MATERIALS LISTED HEREIN, AND TO THE PROCEDURES TO BE USED ON THIS PROJECT.
- ALL HARDWARE ASSEMBLY MANUFACTURER'S INSTRUCTIONS SHALL BE FOLLOWED EXACTLY AND SHALL SUPERSEDE ANY CONFLICTING NOTES ENCLOSED HEREIN.
- IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO DETERMINE ERECTION PROCEDURE AND SEQUENCE, TO INSURE THE SAFETY OF THE STRUCTURE AND ITS COMPONENT PARTS DURING ERECTION AND/OR FIELD MODIFICATIONS. THIS INCLUDES, BUT IS NOT LIMITED TO, THE ADDITION OF TEMPORARY BRACING, GUYS OR TIE DOWNS THAT MAY BE NECESSARY. SUCH MATERIAL SHALL BE REMOVED AND SHALL REMAIN THE PROPERTY OF THE CONTRACTOR AFTER THE COMPLETION OF THE PROJECT.
- ALL DIMENSIONS, ELEVATIONS, AND EXISTING CONDITIONS SHOWN ON THE DRAWINGS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO BEGINNING ANY MATERIALS ORDERING, FABRICATION OR CONSTRUCTION WORK ON THIS PROJECT. CONTRACTOR SHALL NOT SCALE CONTRACT DRAWINGS IN LIEU OF FIELD VERIFICATIONS. ANY DISCREPANCIES SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE OWNER AND THE OWNER'S ENGINEER. THE DISCREPANCIES MUST BE RESOLVED BEFORE THE CONTRACTOR IS TO PROCEED WITH THE WORK. THE CONTRACT DOCUMENTS DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES. OBSERVATION VISITS TO THE SITE BY THE OWNER AND/OR THE ENGINEER SHALL NOT INCLUDE INSPECTION OF THE PROTECTIVE MEASURES OR THE PROCEDURES.
- ALL MATERIALS AND EQUIPMENT FURNISHED SHALL BE NEW AND OF GOOD QUALITY, FREE FROM FAULTS AND DEFECTS AND IN CONFORMANCE WITH THE CONTRACT DOCUMENTS. ANY AND ALL SUBSTITUTIONS MUST BE PROPERLY APPROVED AND AUTHORIZED IN WRITING BY THE OWNER AND ENGINEER PRIOR TO INSTALLATION. THE CONTRACTOR SHALL FURNISH SATISFACTORY EVIDENCE AS TO THE KIND AND QUALITY OF THE MATERIALS AND EQUIPMENT BEING SUBSTITUTED.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR INITIATING, MAINTAINING, AND SUPERVISING ALL SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK. THE CONTRACTOR IS RESPONSIBLE FOR INSURING THAT THIS PROJECT AND RELATED WORK COMPLIES WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL SAFETY CODES AND REGULATIONS GOVERNING THIS WORK.
- ACCESS TO THE PROPOSED WORK SITE MAY BE RESTRICTED. THE CONTRACTOR SHALL COORDINATE INTENDED CONSTRUCTION ACTIVITY, INCLUDING WORK SCHEDULE AND MATERIALS ACCESS, WITH THE RESIDENT LEASING AGENT FOR APPROVAL.
- BILL OF MATERIALS AND PART NUMBERS LISTED ON CONSTRUCTION DRAWINGS ARE INTENDED TO AID CONTRACTOR. CONTRACTOR SHALL VERIFY PARTS AND QUANTITIES WITH MANUFACTURER PRIOR TO BIDDING AND/OR ORDERING MATERIALS.
- ALL PERMITS THAT MUST BE OBTAINED ARE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR WILL BE RESPONSIBLE FOR ABIDING BY ALL CONDITIONS AND REQUIREMENTS OF THE PERMITS.
- 24 HOURS PRIOR TO THE BEGINNING OF ANY CONSTRUCTION, THE CONTRACTOR MUST NOTIFY THE APPLICABLE JURISDICTIONAL (STATE, COUNTY OR CITY) ENGINEER.
- THE CONTRACTOR SHALL REWORK (DRY, SCARIFY, ETC.) ALL MATERIAL NOT SUITABLE FOR SUBGRADE IN ITS PRESENT STATE. AFTER REWORKING, IF THE MATERIAL REMAINS UNSUITABLE, THE CONTRACTOR SHALL UNDERCUT THIS MATERIAL AND REPLACE WITH APPROVED MATERIAL. ALL SUBGRADES SHALL BE PROOFROLLED WITH A FULLY LOADED TANDEM AXLE DUMP TRUCK PRIOR TO PAVING. ANY SOFTER MATERIAL SHALL BE REWORKED OR REPLACED.
- THE CONTRACTOR IS REQUIRED TO MAINTAIN ALL PIPES, DITCHES, AND OTHER DRAINAGE STRUCTURES FREE FROM OBSTRUCTION UNTIL WORK IS ACCEPTED BY THE OWNER. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGES CAUSED BY FAILURE TO MAINTAIN DRAINAGE STRUCTURE IN OPERABLE CONDITION.
- ALL MATERIALS AND WORKMANSHIP SHALL BE WARRANTED FOR ONE YEAR FROM ACCEPTANCE DATE.
- ALL BUILDING DIMENSIONS SHALL BE VERIFIED WITH THE PLANS (LATEST REVISION) PRIOR TO COMMENCING CONSTRUCTION. NOTIFY THE ENGINEER IMMEDIATELY IF ANY DISCREPANCIES ARE DISCOVERED. THE OWNER SHALL HAVE A SET OF APPROVED PLANS AVAILABLE AT THE SITE AT ALL TIMES WHILE WORK IS BEING PERFORMED. A DESIGNATED RESPONSIBLE EMPLOYEE SHALL BE AVAILABLE FOR CONTACT BY GOVERNING AGENCY INSPECTORS.

STRUCTURAL STEEL NOTES:

- THE FABRICATION AND ERECTION OF STRUCTURAL STEEL SHALL CONFORM TO THE AISC SPECIFICATIONS AND MANUAL OF STEEL CONSTRUCTION, 14TH EDITION.
- UNLESS OTHERWISE NOTED, ALL STRUCTURAL ELEMENTS SHALL CONFORM TO THE FOLLOWING REQUIREMENTS:
 - STRUCTURAL STEEL, ASTM DESIGNATION A36 OR A992-GR50.
 - ALL BOLTS, ASTM A325 TYPE I GALVANIZED HIGH STRENGTH BOLTS.
 - ALL NUTS, ASTM A563 CARBON AND ALLOY STEEL NUTS.
 - ALL WASHERS, ASTM F436 HARDENED STEEL WASHERS.
- ALL CONNECTIONS NOT FULLY DETAILED ON THESE PLANS SHALL BE DETAILED BY THE STEEL FABRICATOR IN ACCORDANCE WITH AISC SPECIFICATIONS AND MANUAL OF STEEL CONSTRUCTION, 14TH EDITION.
- HOLES SHALL NOT BE FLAME CUT THRU STEEL UNLESS APPROVED BY THE ENGINEER.
- HOT-DIP GALVANIZE ALL ITEMS UNLESS OTHERWISE NOTED, AFTER FABRICATION WHERE PRACTICABLE. GALVANIZING: ASTM A123, ASTM, A153/A153M OR ASTM A653/A653M, C90, AS APPLICABLE.
- REPAIR DAMAGED SURFACES WITH GALVANIZING REPAIR METHOD AND PAINT CONFORMING TO ASTM A780 OR BY APPLICATION OF STICK OR THICK PASTED MATERIAL SPECIFICALLY DESIGNED FOR REPAIR OF GALVANIZING. CLEAN AREAS TO BE REPAIRED AND REMOVE SLAG FROM WELDS. HEAT SURFACES TO WHICH STICK OR PASTE MATERIAL IS APPLIED, WITH A TORCH TO A TEMPERATURE SUFFICIENT TO MELT THE METALLICS IN STICK OR PASTE; SPREAD MOLTEN MATERIAL UNIFORMLY OVER SURFACES TO BE COATED AND WIPE OFF ANY EXCESS.
- A NUT LOCKING DEVICE SHALL BE INSTALLED ON ALL PROPOSED AND/OR REPLACED BOLTS.
- ALL PROPOSED AND/OR REPLACED BOLTS SHALL BE OF SUFFICIENT LENGTH TO EXCLUDE THE THREADS FROM THE SHEAR PLANE.
- ALL PROPOSED AND/OR REPLACED BOLTS SHALL BE OF SUFFICIENT LENGTH SUCH THAT THE END OF THE BOLT BE AT LEAST FLUSH WITH THE FACE OF THE NUT. IT IS NOT PERMITTED FOR THE BOLT END TO BE BELOW THE FACE OF THE NUT AFTER TIGHTENING IS COMPLETED.
- ALL ASSEMBLY AND ANCHOR BOLTS ARE TO BE TIGHTENED TO A "SNUG TIGHT" CONDITION AS DEFINED IN SECTION 8.1 OF THE AISC, "SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS", DATED JUNE 30, 2004.
- FLAT WASHERS ARE TO BE INSTALLED WITH BOLTS OVER SLOTTED HOLES.
- DO NOT OVER TORQUE ASSEMBLY BOLTS. GALVANIZING ON BOLTS, NUTS, AND STEEL PARTS MAY ACT AS A LUBRICANT, THUS OVER TIGHTENING MAY OCCUR AND MAY CAUSE BOLTS TO CRACK AND SNAP OFF.
- PAL NUTS ARE TO BE INSTALLED AFTER NUTS ARE TIGHT AND WITH EDGE LIP OUT. PAL NUTS ARE NOT REQUIRED WHEN SELF-LOCKING NUTS ARE PROVIDED.
- GALVANIZED ASTM A325 BOLTS SHALL NOT BE REUSED.
- WELDING SHALL BE PERFORMED IN ACCORDANCE WITH AMERICAN WELDING SOCIETY (AWS) D1.1-2010 STRUCTURAL WELDING CODE - STEEL.

PLANS PREPARED FOR:

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8410 W BRYN MAWR, SUITE 700
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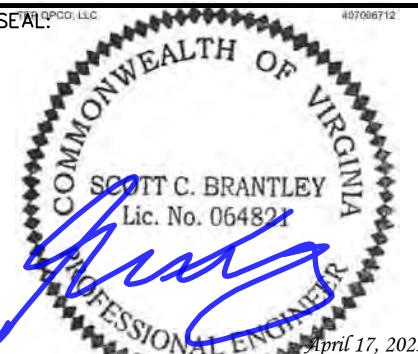
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SHEET TITLE:

**PROJECT
NOTES**

SHEET NUMBER:	REVISION:
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TEP #:342022.985051