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EROSION AND SEDIMENT CONTROL DETAILS I

EROSION AND SEDIMENT CONTROL DETAILS II

DO NOT SCALE DRAWINGS

THESE DRAWINGS ARE FORMATTED TO BE FULL-SIZE AT 24"X36". CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND

DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR MATERIAL ORDERS OR BE

RESPONSIBLE FOR THE SAME. CONTRACTOR SHALL USE BEST MANAGEMENT PRACTICE

SHALL IMMEDIATELY NOTIFY THE DESIGNER / ENGINEER IN WRITING OF ANY

TO PREVENT STORM WATER POLLUTION DURING CONSTRUCTION.

EROSION AND SEDIMENT CONTROL & GRADING PLAN

GROUNDING PLAN AND DETAILS

EROSION AND SEDIMENT DETAILS

ELECTRICAL RISER DIAGRAM & SERVICE ENTRANCE SCHEMATIC

CONCRETE PAD DETAILS

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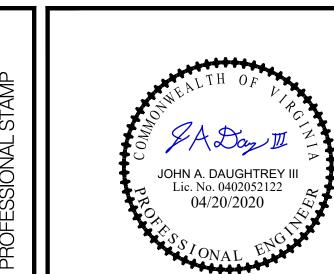


NB+C ENGINEERING SERVICES, LLC.

1831 RADY COURT RICHMOND, VA 23222

WILD TURKEY WILD TURKEY LANE CHARLOTTESVILLE, VA 22903 ALBEMARLE COUNTY

REVISIONS 04/20/20 REVISED 03/09/20 PJP REVISED 02/24/20 REVISED 12/04/19 REVISED 11/18/19 10/30/19 PRELIMINARY CD



REV DATE

DESCRIPTION

JOHN A. DAUGHTREY III, P.E. VA PROFESSIONAL ENGINEER LIC. #052122

TITLE SHEET

SITE NAME: WILD TURKEY

WILD TURKEY LANE CHARLOTTESVILLE, VA 22903 ALBEMARLE COUNTY

VICINITY MAP SCALE: 1" = 2000' United States • VA

DIRECTIONS

DEPART GOODES BRIDGE RD TOWARD WALMSLEY BLVD. TURN RIGHT ONTO WALMSLEY BLVD. TURN RIGHT ONTO TURNER RD. TURN RIGHT ONTO US-360 E / HULL ST RD. TAKE RAMP RIGHT FOR VA-150 NORTH TOWARD POWHITE PKWY. TAKE RAMP RIGHT AND FOLLOW SIGNS FOR VA-76-TOLL NORTH. ROAD RESTRICTED AT YOUR PLANNED TRAVEL TIME. KEEP LEFT TO STAY ON VA-76 N / BELTLINE EXPY. KEEP STRAIGHT ONTO I-195 N. TAKE RAMP LEFT FOR I-64 WEST TOWARD CHARLOTTESVILLE. AT EXIT 114, TAKE RAMP RIGHT TOWARD IVY. TURN RIGHT ONTO VA-637 / DICK WOODS RD. MAKE A U-TURN AT IVY DEPOT RD. TURN LEFT ONTO US-250 / IVY RD. KEEP LEFT TO STAY ON US-250. TURN LEFT ONTO WILD TURKEY LN. ARRIVE AT SITE ON THE LEFT.

CODE COMPLIANCE

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

- 2015 INTERNATIONAL BUILDING CODE
- 2014 NATIONAL ELECTRICAL CODE
- 2015 NFPA 101, LIFE SAFETY CODE

 - 2015 IFC
 - AMERICAN CONCRETE INSTITUTE

SUITE 100 GLEN ALLEN, VA 23060 (804) 548-4079

4435 WATERFRONT DRIVE

SITE INFORMATION

WILD TURKEY LANE

38° 3' 14.0503"

-78° 39' 53.7307"

 $667.3' \pm (ASML)$

ALBEMARLE COUNTY

RA - RURAL AREA

05700-00-00-041L0

CROSS LIVING TRUST 635 BOONE TRAIL

1831 RADY COURT

RICHMOND, VA 23222

CHARLOTTESVILLE, VA 22903

6.0 ± ACRES

VERIZON

MONOPOLE

113.0'± AGL

121.0'± AGL

900 SQ. FT.

3,335 ± SQ. FT.

EMERGENCY INFORMATION:

PROJECT TEAM

JOHN KIRBY

GDN SITES

(540) 280-9630

NATE HOLLAND

(757) 305-8420

VERIZON (800)871-9244

(434) 296-5833

(434) 972-4001

NETWORK BUILDING & CONSULTING

NB+C ENGINEERING SERVICES, LLC.

DOMINION VA POWER (866)366-4357

ALBEMARLE COUNTY GIS 2018, 4' CONTOURS

CAUSEWAY CONSULTANT'S SURVEY DATED 09/30/19

CHARLOTTESVILLE, VA 22903

RAWLAND: PROPOSED INSTALLATION OF

EQUIPMENT WITHIN SECURED COMPOUND.

TELECOMMUNICATIONS TOWER AND RELATED

ROBERT L & JEANNE K CROSS TRUSTEES OF THE

PROJECT DESCRIPTION:

SITE ADDRESS:

LATITUDE (NAD 83):

LONGITUDE (NAD 83):

GROUND ELEVATION:

JURISDICTION

PARCEL ID #:

PARCEL AREA

PARCEL OWNER:

TOWER OWNER:

STRUCTURE TYPE

RAD CENTER:

HEIGHT OF STRUCTURE

TOTAL LEASE AREA:

POWER PROVIDER:

TELCO PROVIDER:

Z-1 TOPOGRAPHY:

ES-1 TOPOGRAPHY:

AREA OF DISTURBANCE:

OVERALL HEIGHT OF STRUCTURE:

ALBEMARLE COUNTY FIRE & RESCUE:

CONSTRUCTION MANAGER

PROJECT MANAGEMENT FIRM:

ENGINEERING FIRM:

ALBEMARLE COUNTY SHERIFF'S OFFICE:

ZONING:

- AMERICAN INSTITUTE OF STEEL CONSTRUCTION
- MANUAL OF STEEL CONSTRUCTION 14TH EDITION

ANSI/TIA-222-G TIA 607

IEEE C2 NATIONAL ELECTRIC SAFETY CODE LATEST EDITION

ES-5

INSTITUTE FOR ELECTRICAL & ELECTRONICS ENGINEER 81

TELECORDIA GR-1275

ANSI/T 311

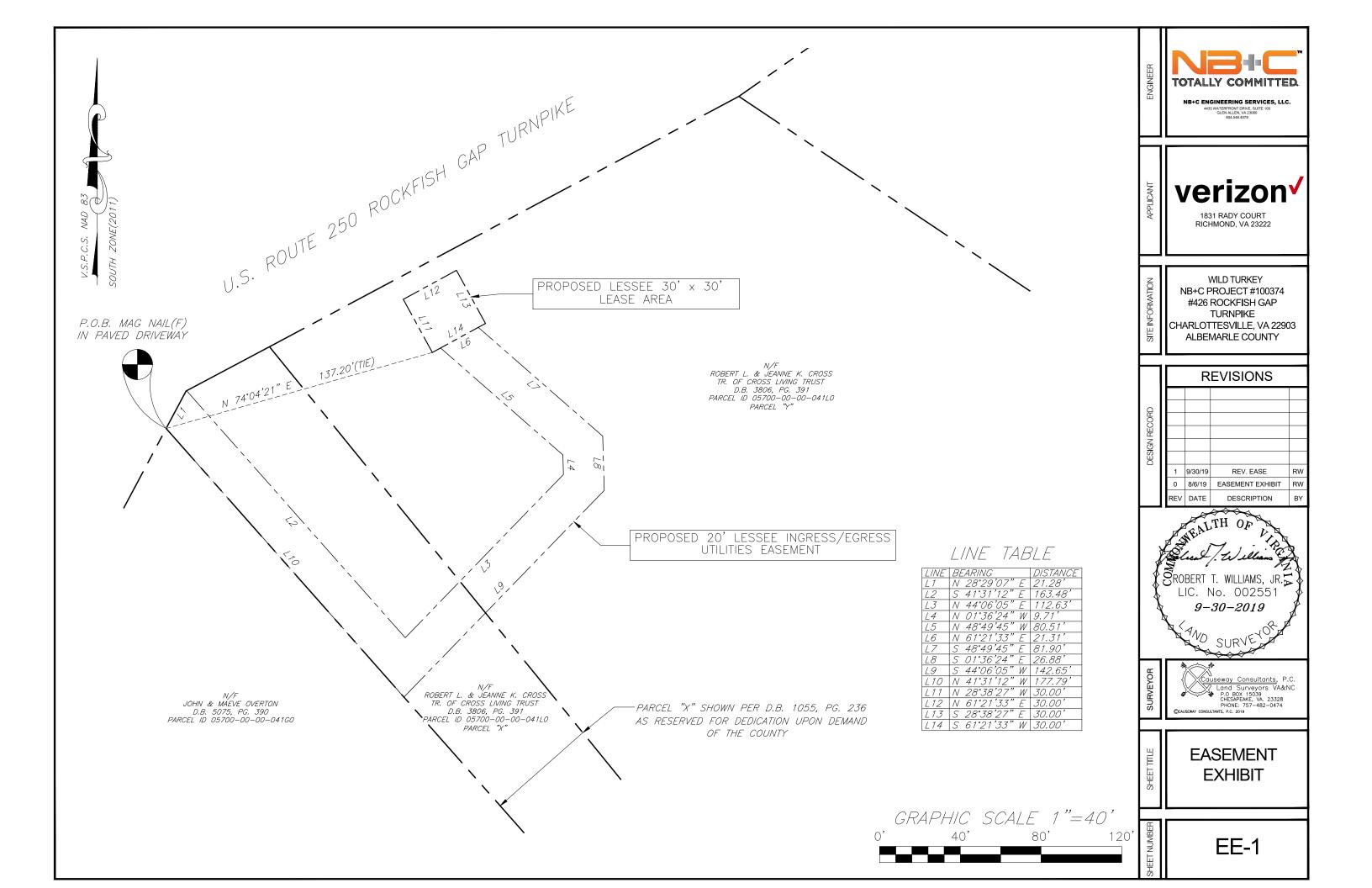


EXHIBIT NOTES

- 1. TOPOGRAPHIC SURVEY PERFORMED BY CAUSEWAY CONSULTANTS, P.C.
- P. O. BOX 15039. CHESAPEAKE. VIRGINIA. 23328-50394. PHONE: 757-482-0474. SURVEY DATE: JULY 15, 2019.
- 2. COORDINATES AND ELEVATIONS SHOWN WERE ESTABLISHED USING STATIC GPS. OBSERVATIONS, POST PROCESSED THROUGH NOAA'S OPUS WEBSITE AND CONVERTED TO NAVD 88 AND NAD 83, U.S SURVEY FOOT, FOR THE VERTICAL DATUM AND HORIZONTAL COORDIANTES. RESPECTIVELY, USING U.S. ARMY CORPS OF ENGINEERS CORPSCON SOFTWARE, VERSION 6.01 AND PUBLISHED BENCHMARKS.
- 3. NO SUB-SURFACE INVESTIGATION WAS PERFORMED BY CAUSEWAY CONSULTANTS, P.C. THIS EXHIBIT DOES NOT GUARANTEE THE "EXISTENCE OR NONEXISTENCE" OF UNDERGROUND UTILITIES. PRIOR TO ANY CONSTRUCTION OR EXCAVATION, CONTACT MISS UTILITY AT 1-800-552-7001 TO CONFIRM THE LOCATION OR EXISTENCE OF UNDERGROUND UTILITIES.
- 4. THIS EXHIBIT WAS DONE WITH THE BENEFIT OF A TITLE REPORT BY US TITLE SOLUTIONS, FILE No. 63455-VA1906-5010, REF. No. 18082-2nd PARCEL, DATED JUNE 19, 2019.
- 5. PROPERTY IS SUBJECT TO ALL EASEMENTS AND RESTRICTIONS OF RECORD.
- 6. THIS EXHIBIT DOES NOT REPRESENT A BOUNDARY SURVEY. THE RIGHT-OF-WAY. PROPERTY LINE AND/OR EASEMENTS SHOWN HEREON REPRESENT A COMPILATION OF RECORDED DEEDS, PLATS, G.I.S. RECORDS AND TAX MAPS.
- 7. THE AREA OF THE PROPOSED CELL TOWER APPEARS TO LIE WITHIN FLOOD ZONE "X". ACCORDING TO THE FEDERAL EMERGENCY MANAGEMENT AGENCY - NATIONAL FLOOD INSURANCE COMMUNITY NUMBER 51003C-0245 D, DATED FEBRUARY 4, 2005.
- 8. THE EXISTENCE OF HAZARDOUS WASTE, VEGETATED WETLANDS, OR TIDAL WETLANDS, WAS NEITHER INVESTIGATED. NOR CONFIRMED DURING THE PERFORMANCE OF THIS EXHIBIT.

LEGAL DESCRIPTION PROPOSED LESSEE 30' x 30' LEASE AREA

A PROPOSED LESSEE 30' x 30' LEASE AREA ON PARCEL "Y" AS SHOWN ON THAT CERTAIN MAP RECORDED IN DEED BOOK 1055 AT PAGE 234, OF RECORD IN THE CLERK OF THE CIRCUIT COURTS OFFICE. ALBEMARLE COUNTY. VIRGINIA: BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT A MAG NAIL IN THE NORTHWESTERLY MOST CORNER OF PARCEL "X" AS SHOWN ON SAID MAP, THENCE ALONG A TIE LINE N 74°04'21" E A DISTANCE OF 137.20' TO A POINT BEING THE TRUE POINT AND PLACE OF BEGINNING:

THENCE N 28°38'27" W A DISTANCE OF 30.00' TO A POINT: THENCE N 61°21'33" E A DISTANCE OF 30.00' TO A POINT: THENCE S 28°38'27" E A DISTANCE OF 30.00' TO A POINT; THENCE S 61°21'33" W A DISTANCE OF 30.00' TO A POINT WHICH IS THE TRUE POINT AND PLACE OF BEGINNING, HAVING AN AREA OF 900 SQUARE FEET.

LEGAL DESCRIPTION PROPOSED LESSEE 20' INGRESS/EGRESS AND UTILITIES EASEMENT

A PROPOSED LESSEE 20' INGRESS/EGRESS AND UTILITIES EASEMENT OVER AND ACROSS PARCEL "X" AND PARCEL "Y" AS SHOWN ON THAT CERTAIN MAP RECORDED IN DEED BOOK 1055 AT PAGE 234. OF RECORD IN THE CLERK OF THE CIRCUIT COURTS OFFICE, ALBEMARLE COUNTY, VIRGINIA: BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT A MAG NAIL IN THE NORTHWESTERLY MOST CORNER OF PARCEL "X" AS SHOWN ON SAID MAP, THENCE ALONG U.S. ROUTE 250, LOCALLY KNOWN AS ROCKFISH GAP TURNPIKE N 28°29'07" E A DISTANCE OF 21.28' TO A NAIL;

THENCE LEAVING SAID U.S. ROUTE 250, S 41°31'12" E A DISTANCE OF 163.48' TO A POINT:

THENCE N 44°06'05" E A DISTANCE OF 112.63' TO A POINT;

THENCE N 01°36'24" W A DISTANCE OF 9.71' TO A POINT:

THENCE N 48°49'45" W A DISTANCE OF 80.51' TO A POINT;

THENCE N 61°21'33" E A DISTANCE OF 21.31' TO A POINT; THENCE S 48°49'45" E A DISTANCE OF 81.90' TO A POINT:

THENCE S 01°36'24" E A DISTANCE OF 26.88' TO A POINT:

THENCE S 44°06'05" W A DISTANCE OF 142.65' TO A POINT;

THENCE N 41°31'12" W A DISTANCE OF 177.79' TO A POINT WHICH IS THE POINT OF BEGINNING, HAVING AN AREA OF 7,955 SQUARE FEET OR 0.183 ACRES.

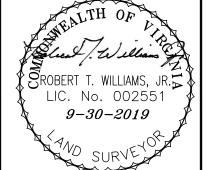
TOTALLY COMMITTED. NB+C ENGINEERING SERVICES, LLC.

verizon

1831 RADY COURT RICHMOND, VA 23222

WILD TURKEY NB+C PROJECT #100374 #426 ROCKFISH GAP TURNPIKE CHARLOTTESVILLE, VA 22903 ALBEMARLE COUNTY

REVISIONS 1 9/30/19 REV. EASE 0 8/6/19 EASEMENT EXHIBIT REV DATE DESCRIPTION

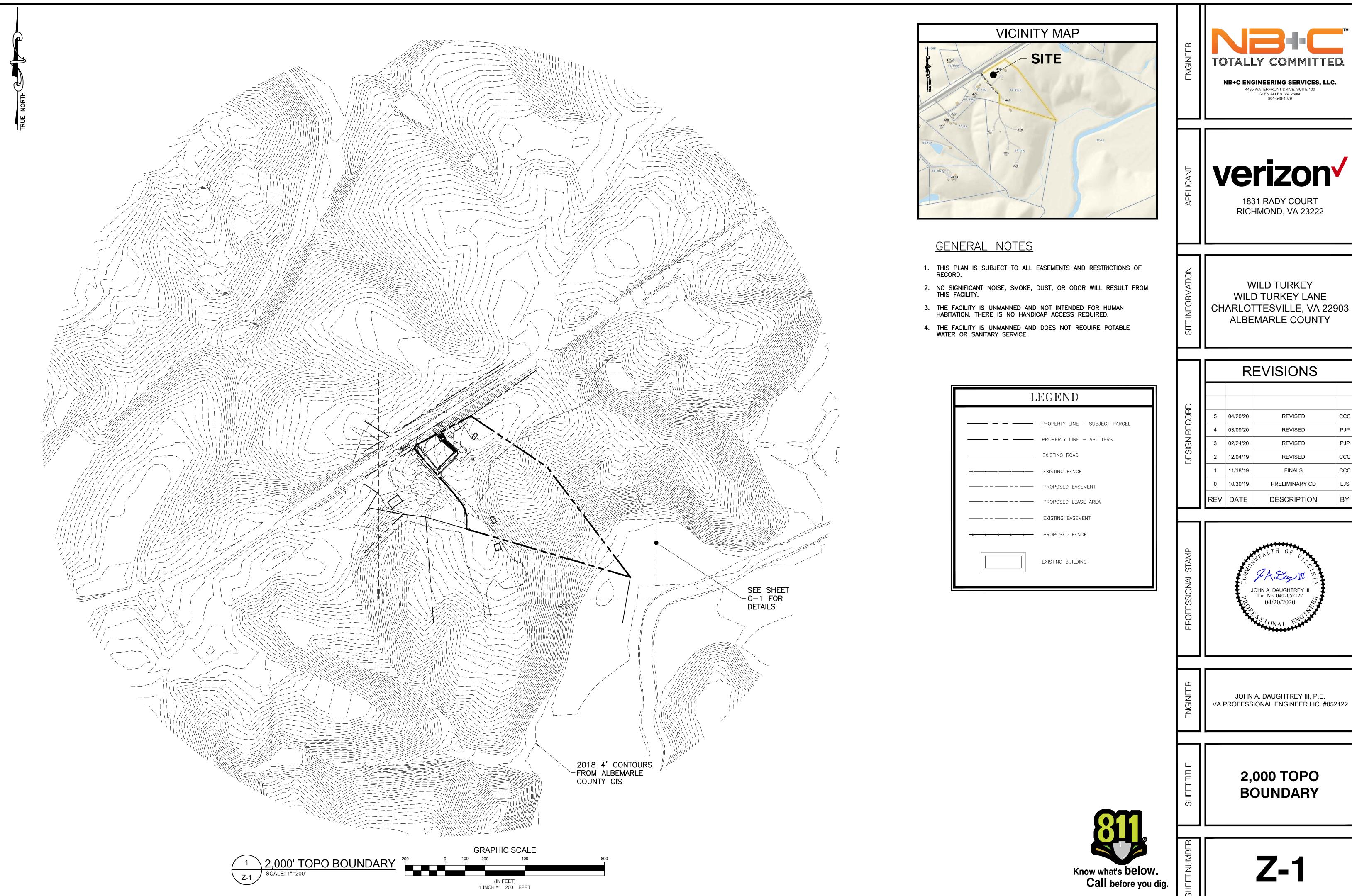


SURVEYOR

Causeway Consultants, P.C. Land Surveyors VA&NC
P.O BOX 15039
CHESAPEAKE, VA. 23328
PHONE: 757-482-0474

EASEMENT EXHIBIT

FF-2



NB+C ENGINEERING SERVICES, LLC. 4435 WATERFRONT DRIVE, SUITE 100 GLEN ALLEN, VA 23060 804-548-4079

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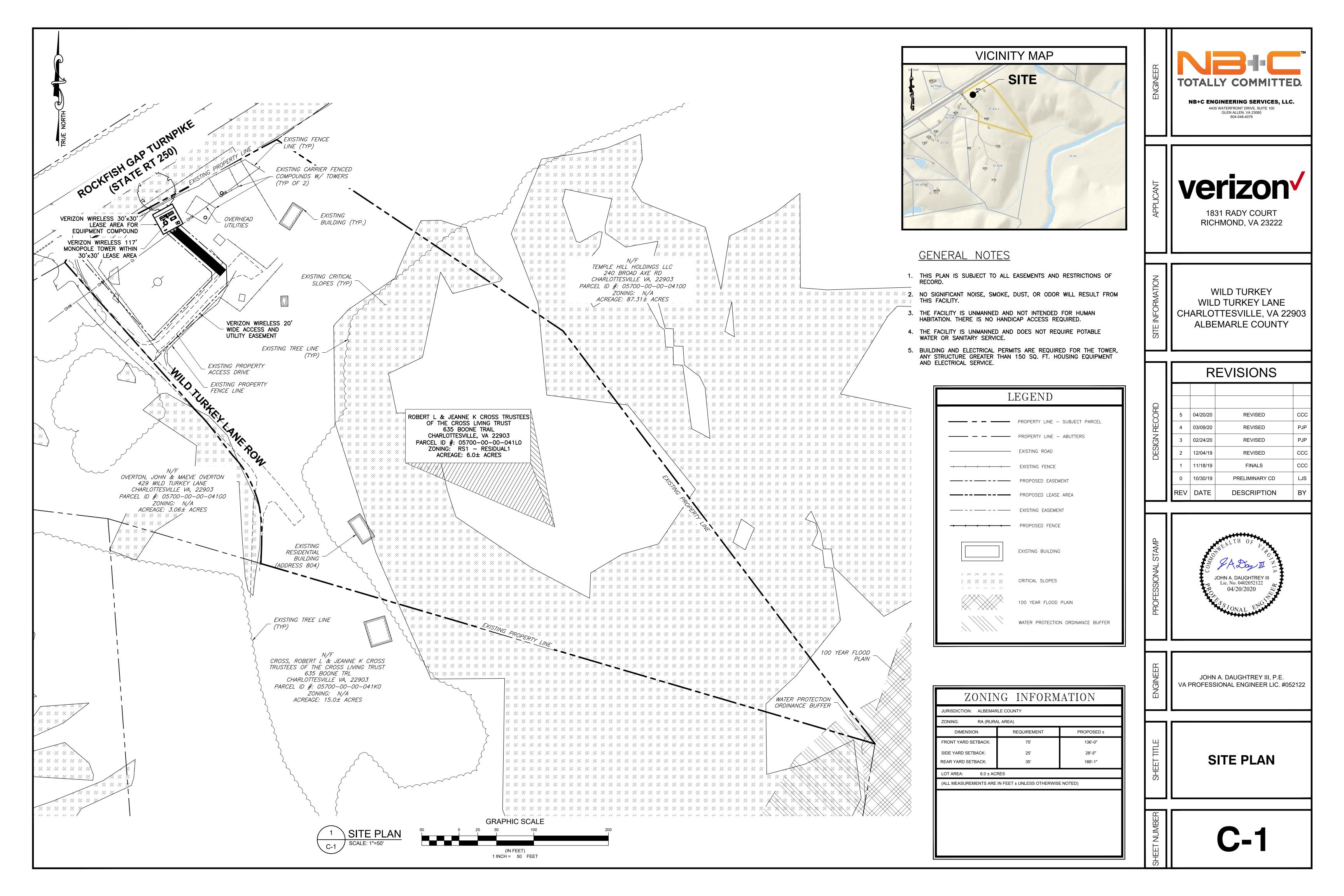
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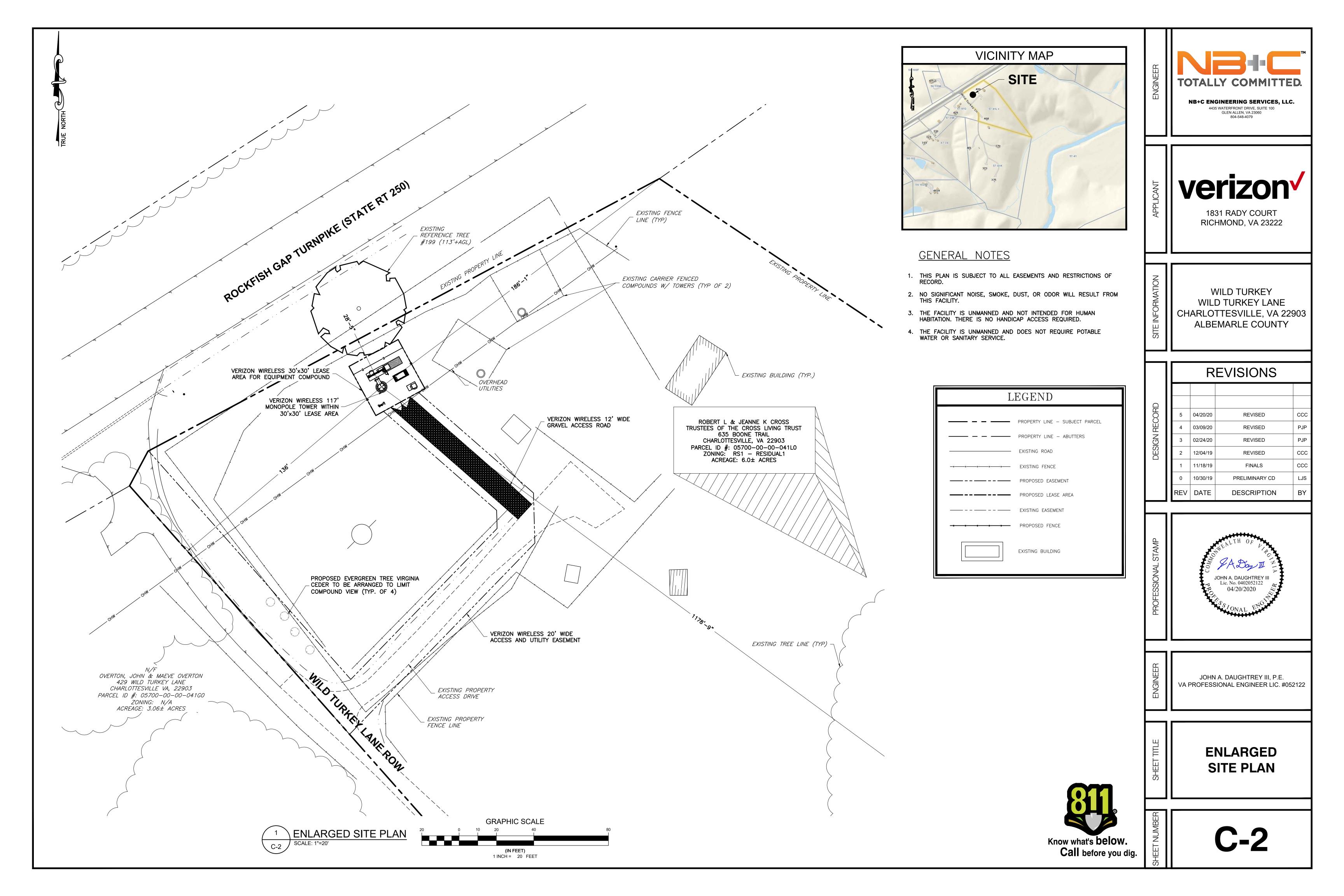
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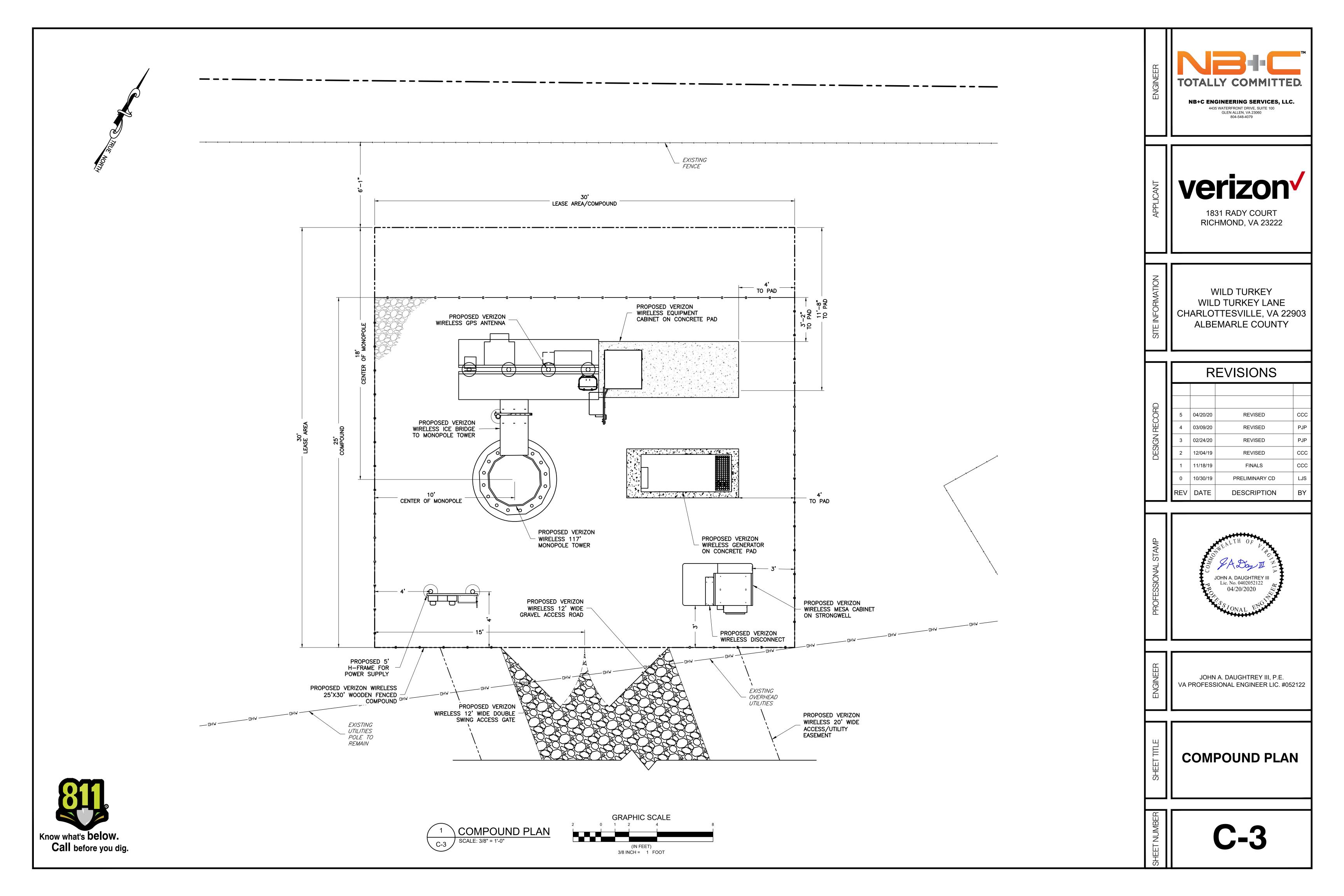


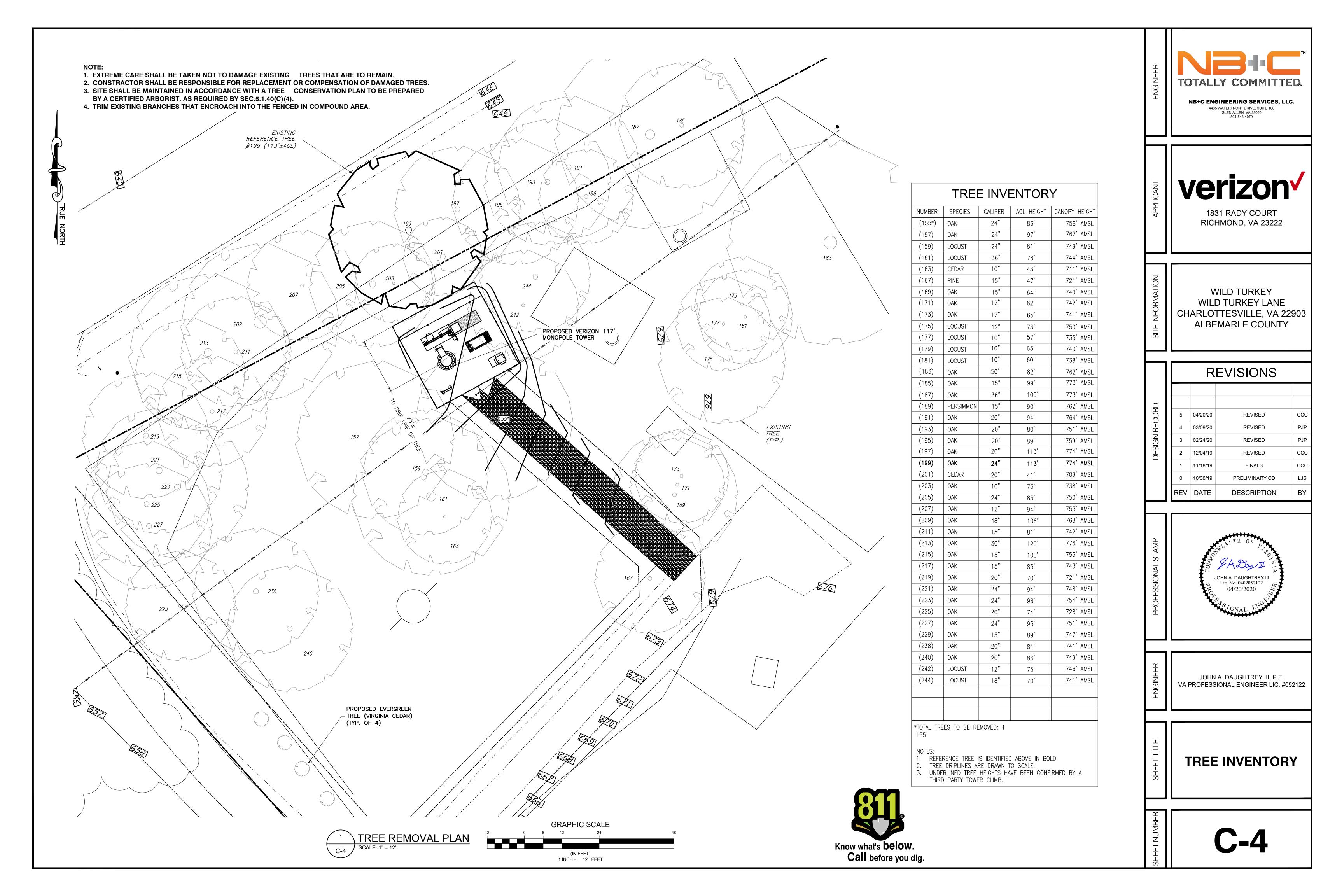
JOHN A. DAUGHTREY III, P.E. VA PROFESSIONAL ENGINEER LIC. #052122

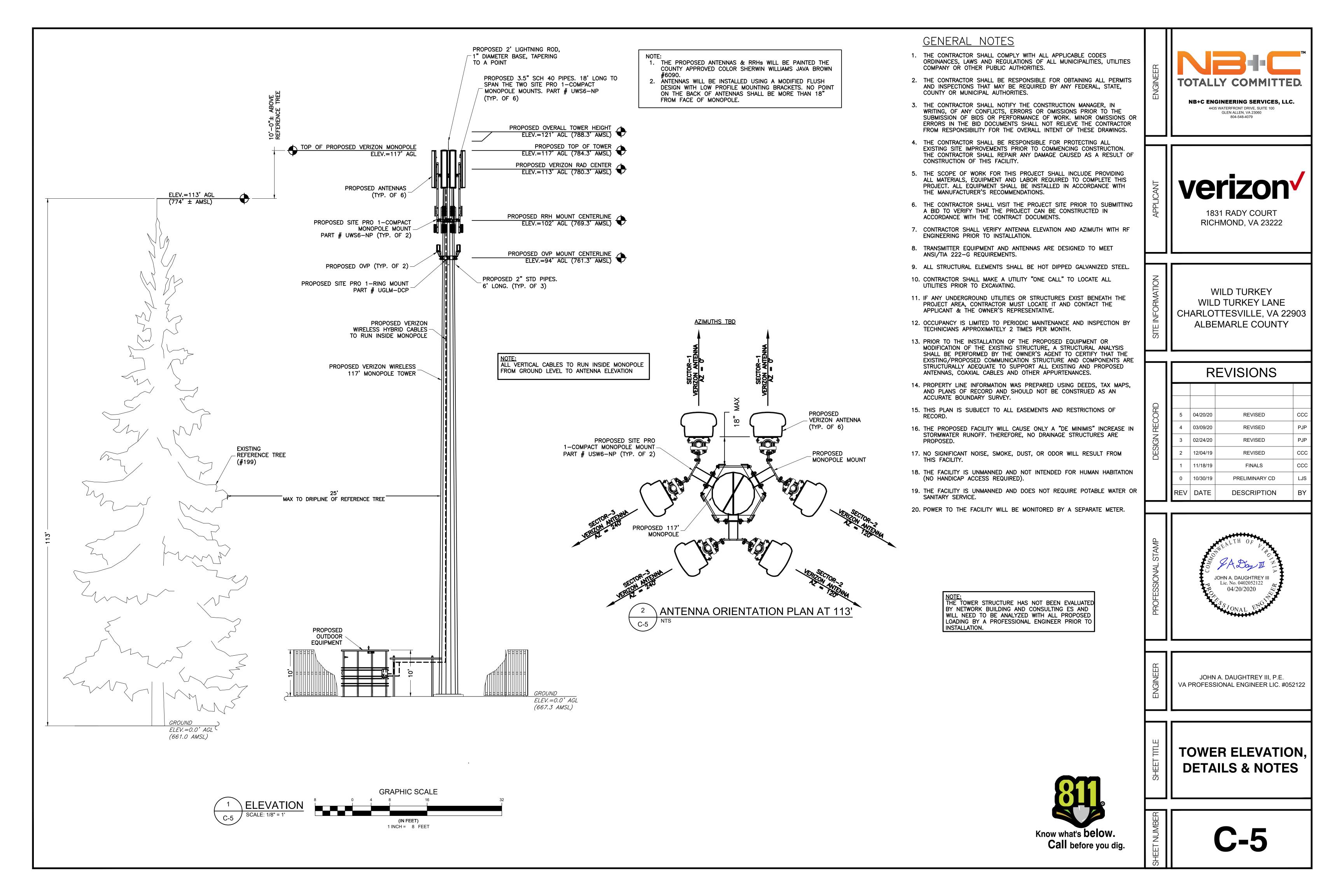
2,000 TOPO **BOUNDARY**



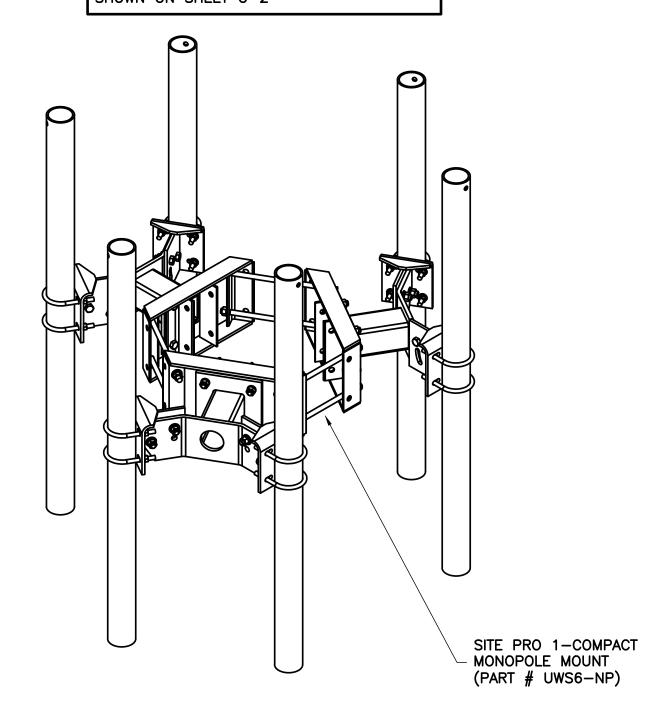






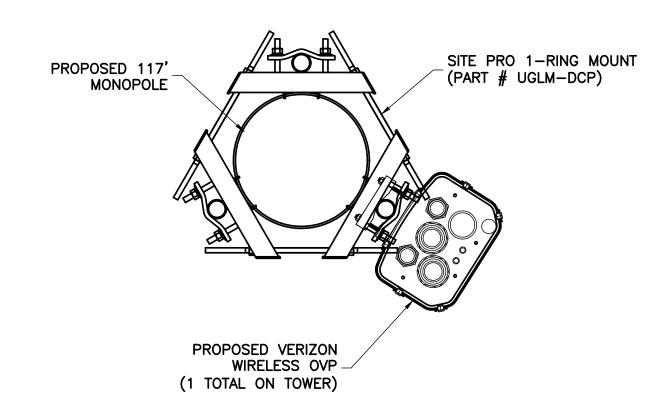


NOTE:
TWO OF THESE MOUNTS ARE REQUIRED FOR
THIS SITE. THE (6) 3.5" SCH. 40 X 18'
LONG PIPE MOUNTS ARE SOLD SEPARATELY.
THE PIPE MOUNTS WILL SPAN BETWEEN THE
TWO COMPACT MONOPOLE MOUNTS AS
SHOWN ON SHEET C-2



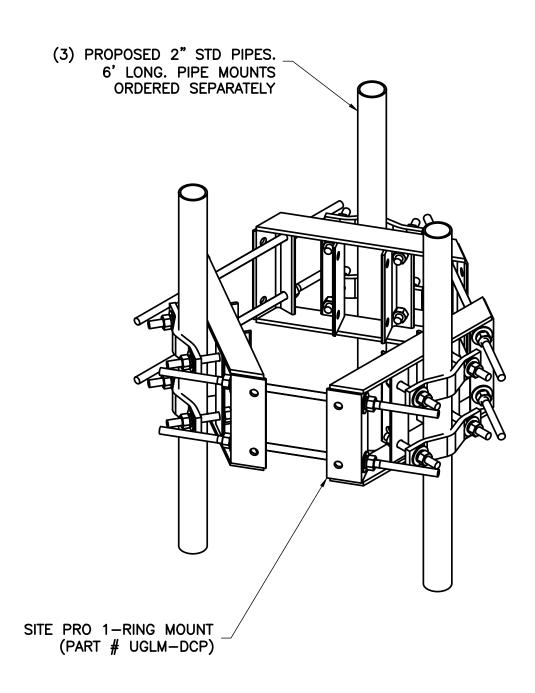
NOTE: CONTRACTOR TO PROVIDE SITE PRO 1-COMPACT MONOPOLE MOUNT (PART # UWS6-NP) OR APPROVED EQUIVALENT





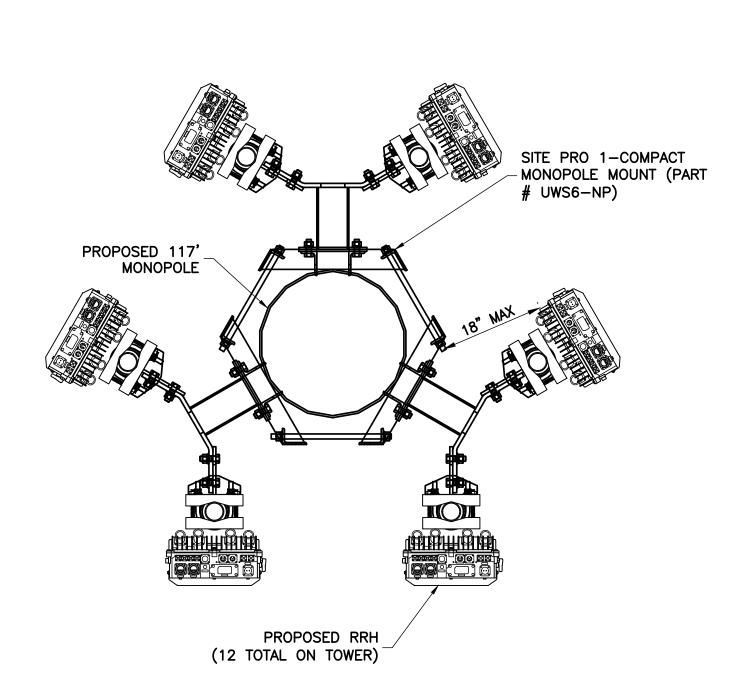
PROPOSED OVP ORIENTATION PLAN - 95' MOUNT CENTER C-6 NTS



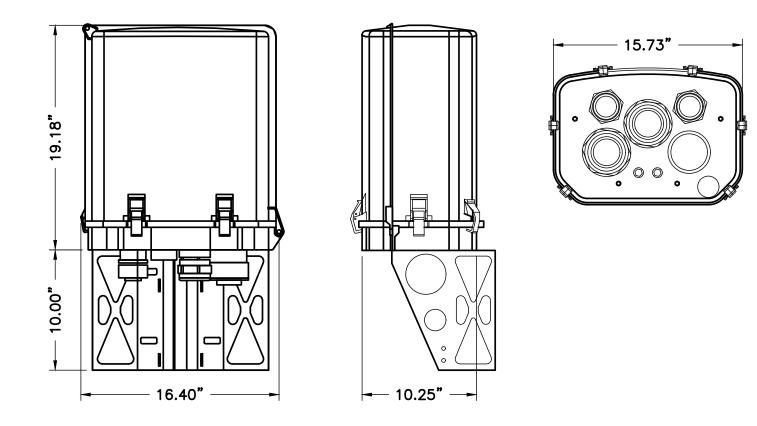


NOTE: CONTRACTOR TO PROVIDE SITE PRO 1-RING MOUNT (PART # UGLM-DCP) OR APPROVED EQUIVALENT

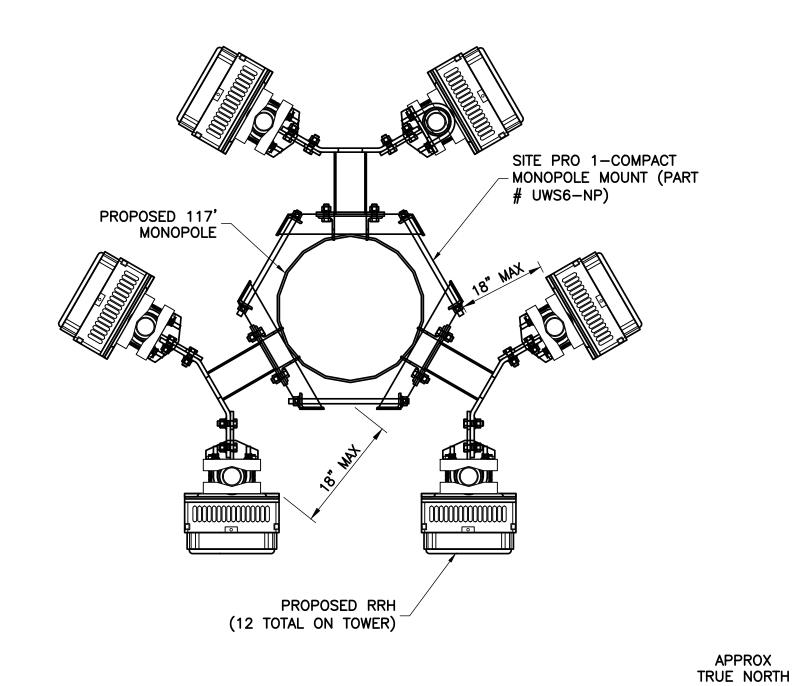




PROPOSED RRH ORIENTATION PLAN - 102' RAD CENTER



RAYCAP OVP BOX #RHSDC-3315-PF-48



PROPOSED RRH ORIENTATION PLAN - 102' RAD CENTER





NB+C ENGINEERING SERVICES, LLC. 4435 WATERFRONT DRIVE, SUITE 100 GLEN ALLEN, VA 23060 804-548-4079

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1831 RADY COURT RICHMOND, VA 23222

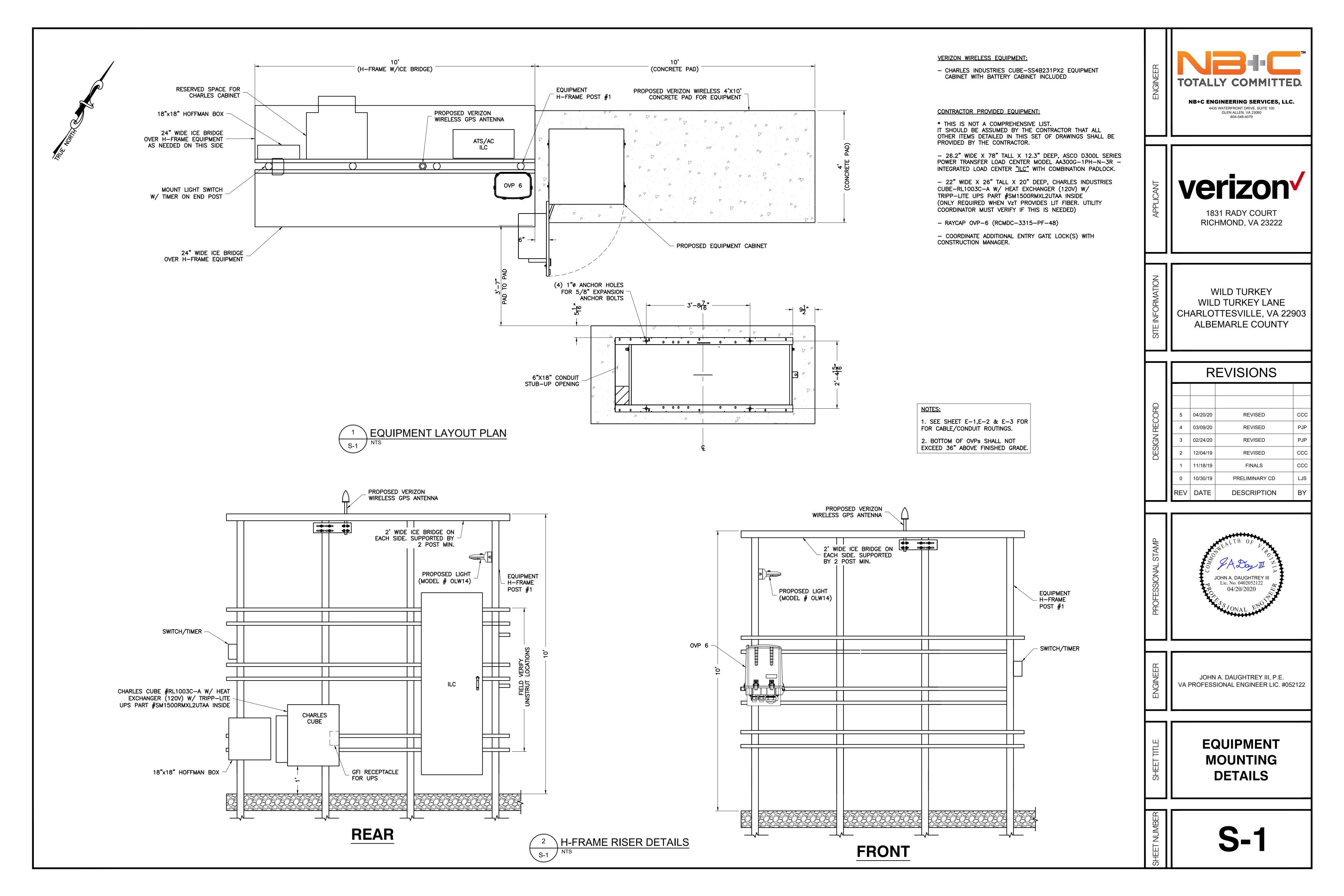
WILD TURKEY WILD TURKEY LANE CHARLOTTESVILLE, VA 22903 ALBEMARLE COUNTY

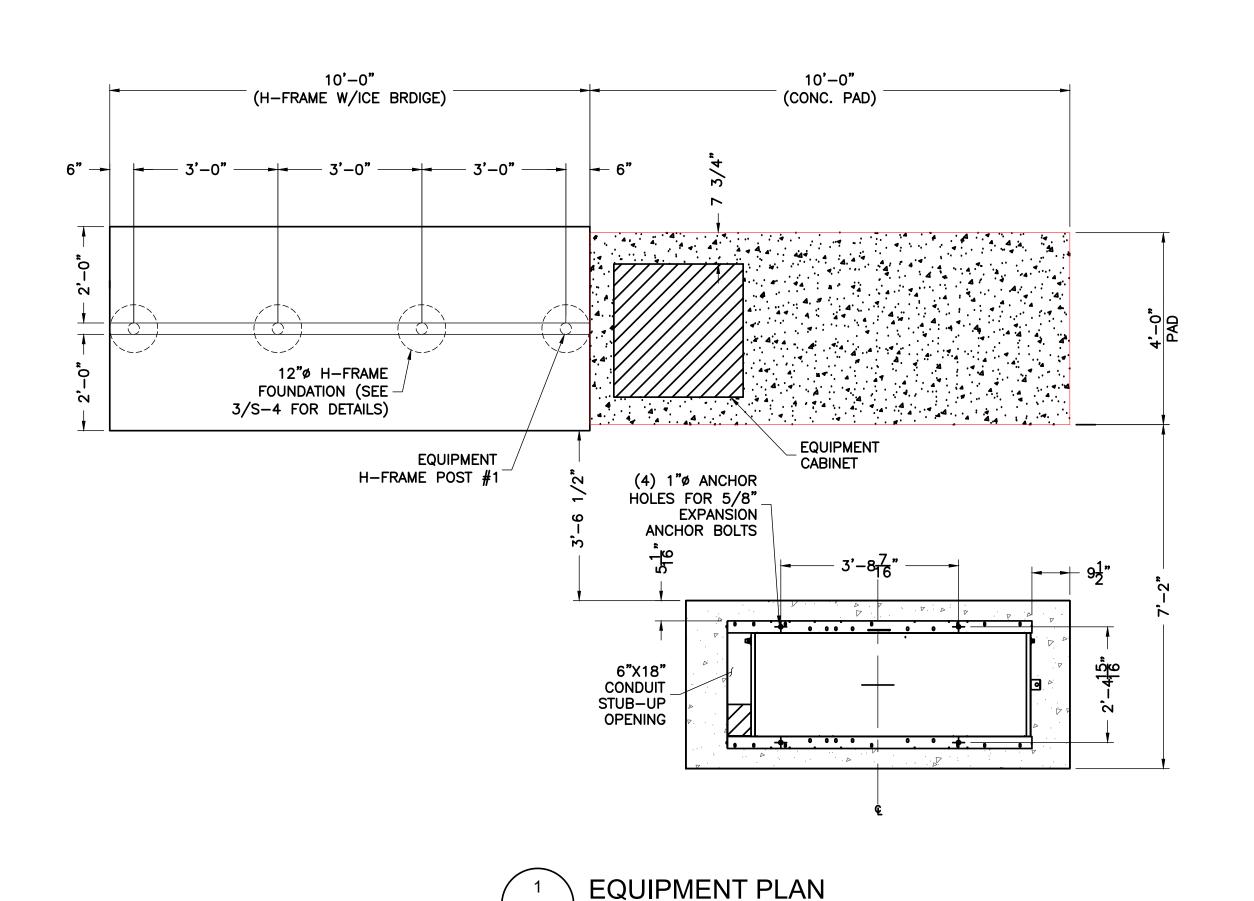
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DESIGN RECORD	3	02/24/20	REVISED	PJP				
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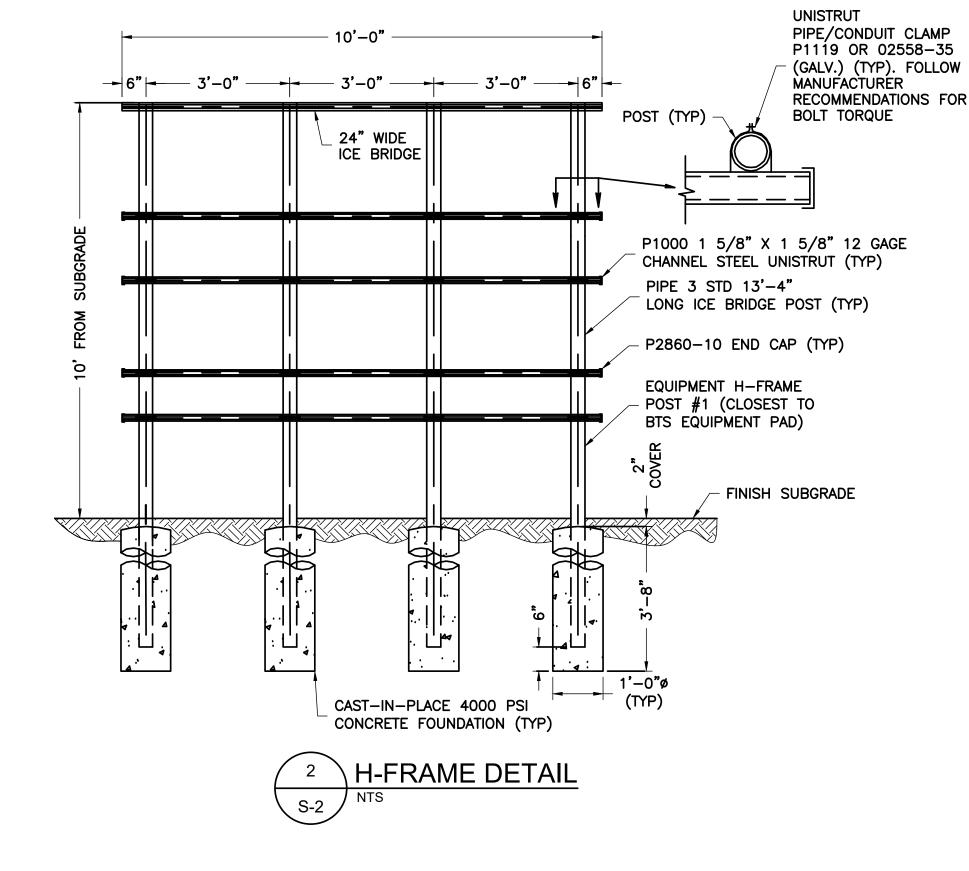
JOHN A. DAUGHTREY III Lic. No. 0402052122

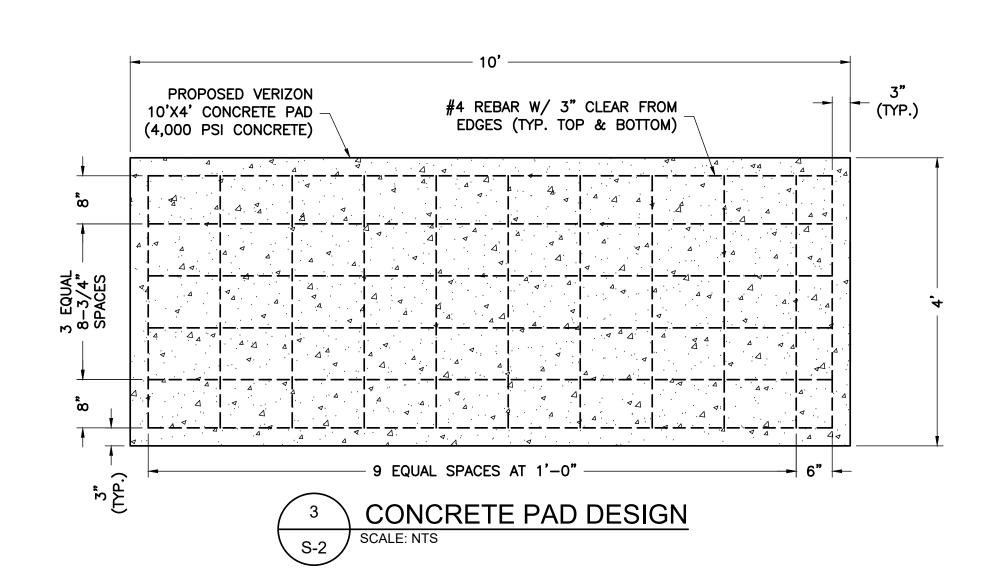
JOHN A. DAUGHTREY III, P.E. VA PROFESSIONAL ENGINEER LIC. #052122

MOUNT DETAILS

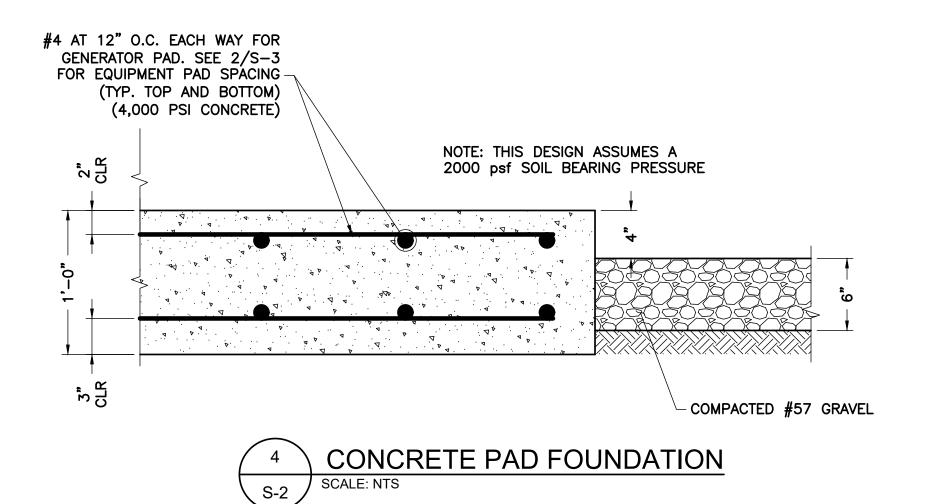


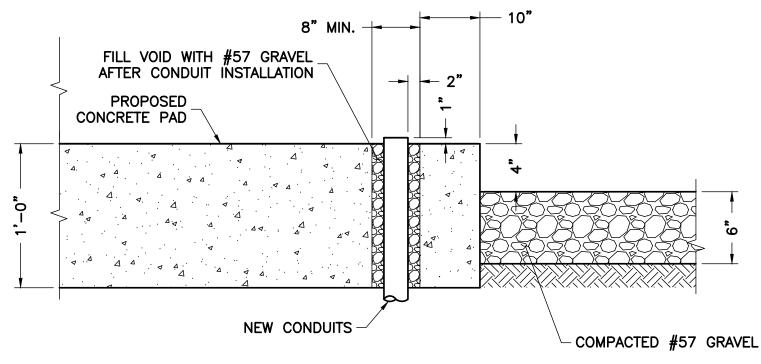




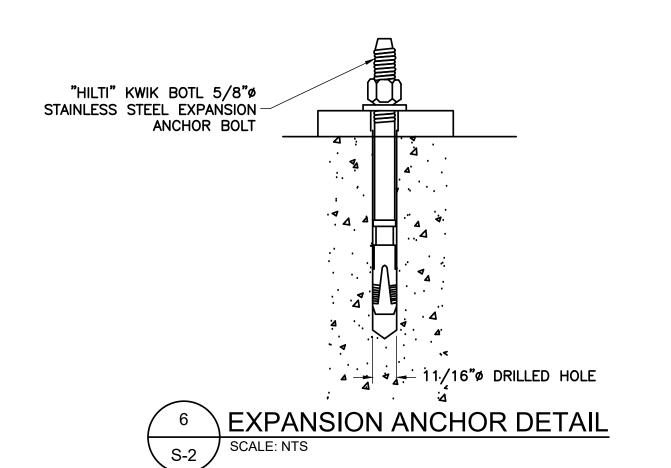


SCALE: NTS





5 GENERATOR CONDUIT ROUTING DETAIL
SCALE: NTS



CONCRETE GENERAL NOTES

- 1. ALL CONCRETE WORK SHALL CONFORM TO ACI 318, "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE" AND TO THE PROJECT SPECIFICATIONS.
- 2. ALL CONCRETE IS TO BE NORMAL DENSITY CONCRETE WITH A MAXIMUM SLUMP OF 4 INCHES. MAXIMUM AGGREGATE SIZE 3/4 INCH. NO ADDITIONAL WATER SHALL BE ADDED TO THE CONCRETE AT THE JOB SITE.
- 3. PROVIDE AIR ENTRAINMENT OF 4 TO 6 PERCENT IN ALL EXPOSED CONCRETE WORK WITH AIR—ENTRAINING ADMIXTURE COMPLYING WITH ASTM C 260. AT TROWEL—FINISHED FLOORS, DO NOT EXCEED AIR—ENTRAINMENT CONTENT OF 3 PERCENT.
- 4. NO HOLES OR SLEEVES SHALL BE MADE THROUGH CONCRETE WORK OTHER THAN THOSE INDICATED ON THE STRUCTURAL DRAWINGS WITHOUT THE APPROVAL OF THE STRUCTURAL ENGINEER.
- 5. ALL FORMWORK OFFSET TOLERANCES (PER ACI 117) TO BE CLASS A.
- 6. FLOOR SLAB TOLERANCES TO ASTM E1155; SPECIFIED OVERALL MINIMUM VALUE OF FLATNESS F F=25 WITH LOCAL MINIMUM F F=17, AND MINIMUM VALUE OF LEVELNESS F F=20 WITH LOCAL MINIMUM F I AND F F WITHIN 72 HOURS OF SLAB CONSTRUCTION.
- 7. CABINETS ON SLAB (IF APPLICABLE). ALLOWABLE CAPACITY OF CONCRETE USED IN DESIGN MIN. 3500 PSI.

FOUNDATION NOTES:

1. <u>DESIGN INFORMATION AND GENERAL REQUIREMENTS</u>

1.1 CODES

- A. DESIGN CONFORMS TO INTERNATIONAL BUILDING CODE 2015.
- B. AMERICAN CONCRETE INSTITUTE "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE," ACI 318-24.

2. <u>EARTHWORK</u>

2.1 FOUNDATIONS

- A. FOUNDATIONS HAVE BEEN DESIGNED TO BEAR ON (UNDISTURBED RESIDUAL SOILS/COMPACTED STRUCTURAL FILL), CAPABLE OF SAFELY SUPPORTING A NET ALLOWABLE BEARING PRESSURE OF 2000 PSF. IF FOUNDATION CONDITIONS PROVE UNACCEPTABLE AT ELEVATIONS SHOWN, EXCAVATION SHALL BE CARRIED DEEPER AND SHALL BE BACKFILLED WITH LEAN CONCRETE TO PLAN FOOTING BOTTOM, OR REDESIGN OF FOUNDATIONS WILL BE REQUIRED AT THE DIRECTION OF THE ENGINEER.
- B. DESIGN, FURNISH AND INSTALL ALL TEMPORARY SHEETING, SHORING AND DRAINAGE NECESSARY TO MAINTAIN THE EXCAVATION AND PROTECT SURROUNDING STRUCTURES AND UTILITIES.
- C. THOROUGHLY COMPACT ALL BOTTOM OF FOOTINGS PRIOR TO PLACING ANY CONCRETE.

3. CONCRETE

3.1 FORMWORK

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

3.2 REINFORCEMENT

- A. REINFORCING STEEL ASTM A615, GRADE 60. WELDED WIRE ASTM A185 (FLAT SHEET). LAPS 40 BAR DIAMETERS UNLESS NOTED. BARS SHALL BE SECURELY HELD IN ACCURATE POSITION BY SUITABLE ACCESSORIES, TIE BARS, SUPPORT BARS, ETC. HOOK LENGTHS SHALL BE 12 BAR DIAMETERS.
- B. CONCRETE COVER FOR REINFORCING BARS SHALL BE AS FOLLOWS,

UNLESS CIHERWISE NOTED.
FOOTINGS & SLABS CAST AGAINST GROUND 3"
CONCRETE TO BE IN CONTACT WITH GROUND OR WEATHER AT
BARS GREATER THAN #5
AT BARS #5 OR LESS 1-1/2
CONCRETE" NOT TO BE EXPOSED TO GROUND OR WEATHER
BEAMS, GIRDERS & COLUMNS 1-1/2'
SLABS & WALLS

3.3 CAST-IN-PLACE-CONCRETE

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

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

- B. MIX DESIGN TO BE IN ACCORDANCE WITH ACI 318, CHAPTER 5. NO CALCIUM CHLORIDE OR ADMIXTURE CONTAINING CHLORIDES SHALL BE USED IN ANY CONCRETE.
- C. COARSE AGGREGATE FOR NORMAL WEIGHT CONCRETE SHALL CONFORM TO ASTM C33 SIZE #57. COARSE AGGREGATE FOR LIGHT WEIGHT CONCRETE SHALL CONFORM TO ASTM C330 GRADED 3/4" TO 1/4".
- D. COLD WEATHER PLACEMENT SHALL COMPLY WITH ACI 306.1
- E. HOT WEATHER PLACEMENT SHALL COMPLY WITH ACI 305 R.
- F. CHAMFER ALL EXPOSED EDGES 3/4".
- G. THE MAXIMUM TEMPERATURE OF ALL CONCRETE AT DELIVERY TO THE SITE SHALL BE 85°F, TOTAL DELIVERY TIME SHALL BE LESS THEN 75 MINUTES.

TOTALLY COMMITTE

NB+C ENGINEERING SERVICES, LLC.

4435 WATERFRONT DRIVE, SUITE 100

GLEN ALLEN, VA 23060

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1831 RADY COURT RICHMOND, VA 23222

WILD TURKEY
WILD TURKEY LANE
CHARLOTTESVILLE, VA 22903
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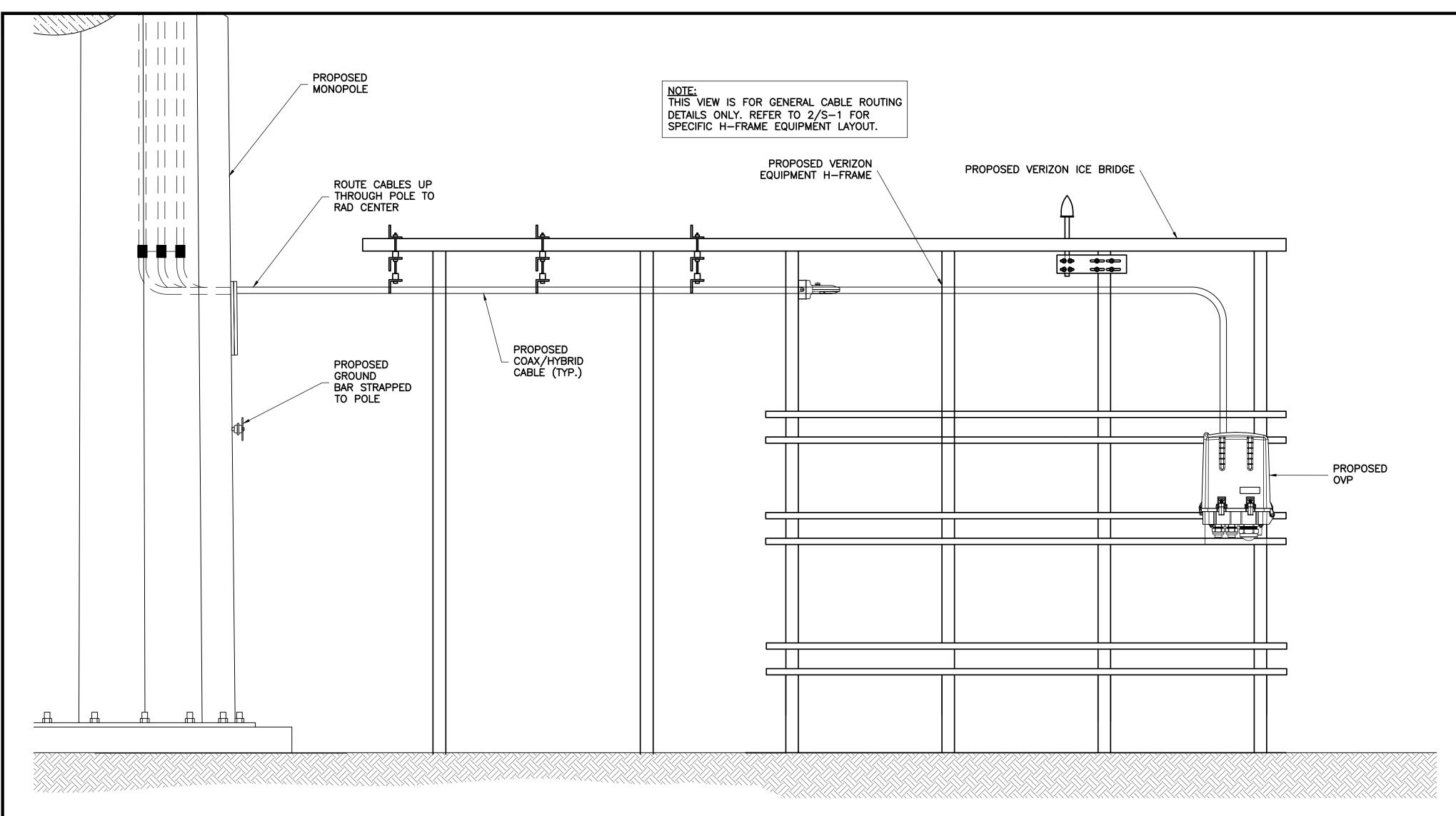
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DESIGN RECORD	3	02/24/20	REVISED	PJP
DES	2	12/04/19	REVISED	ССС
	1	11/18/19	FINALS	ССС
	0	10/30/19	PRELIMINARY CD	LJS
	REV	DATE	DESCRIPTION	BY

JOHN A. DAUGHTREY III
Lic. No. 0402052122
04/20/2020

JOHN A. DAUGHTREY III, P.E. VA PROFESSIONAL ENGINEER LIC. #052122

CONCRETE PAD DETAILS

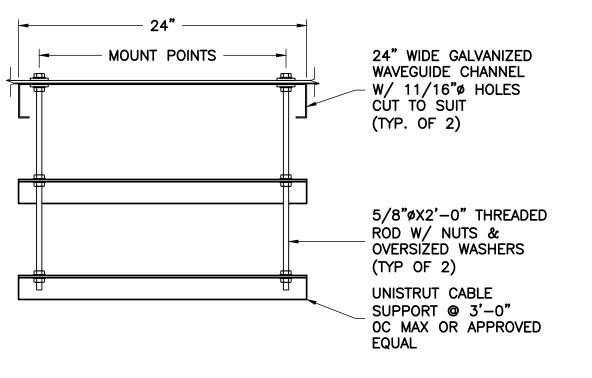
S-2



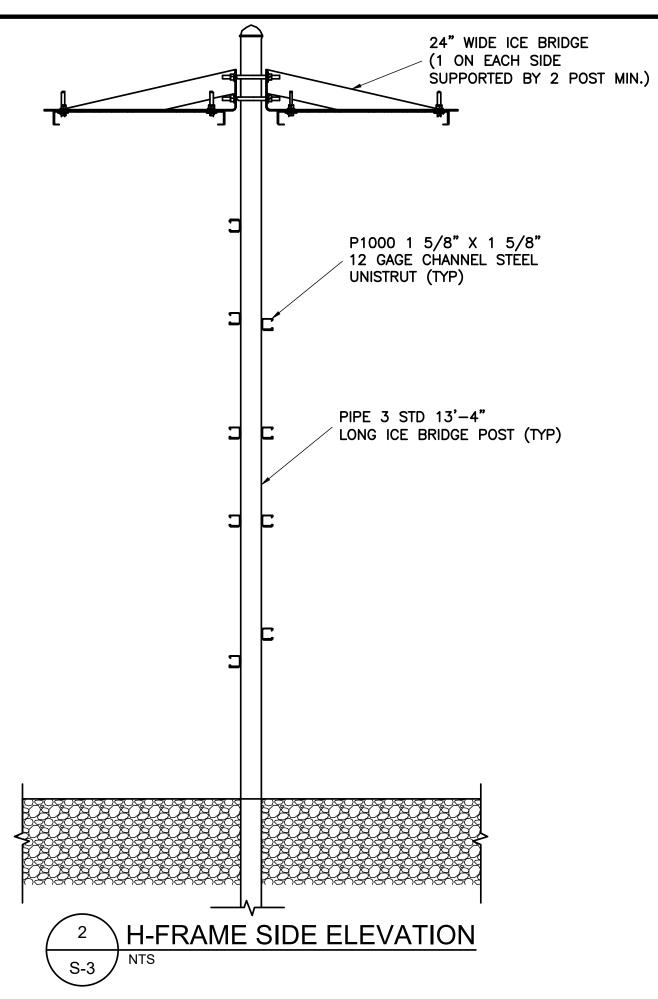


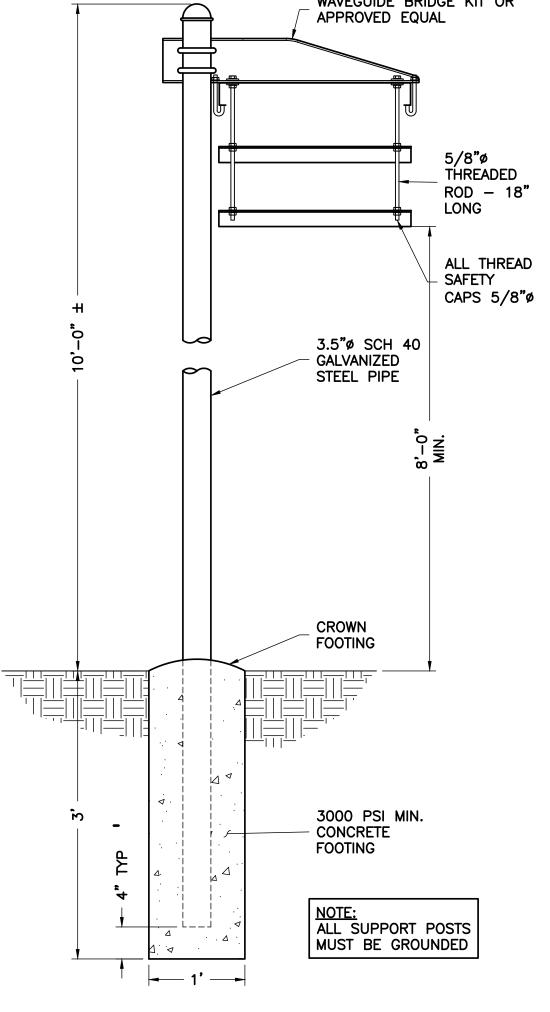
STRUCTURAL NOTES

- 1. DESIGN REQUIREMENTS PER INTERNATIONAL BUILDING CODE 2015 AND THE ANSI/TIA-222-G STRUCTURAL STANDARDS FOR STEEL ANTENNA TOWERS AND ANTENNA SUPPORTING STRUCTURES.
- 2. INFORMATION SHOWN ON THESE DRAWINGS WAS OBTAINED BY FIELD MEASUREMENT AND FROM THE EXISTING STRUCTURAL DRAWINGS. THE GENERAL CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS AND NOTIFY THE ARCHITECT/ENGINEER OF ANY DISCREPANCIES PRIOR TO ORDERING MATERIALS OR PROCEEDING WITH CONSTRUCTION.
- 3. STRUCTURAL STEEL SHALL CONFORM TO THE LATEST EDITION OF THE AISC SPECIFICATIONS FOR STRUCTURAL STEEL BUILDINGS - ALLOWABLE STRESS DESIGN AND PLASTIC DESIGN INCLUDING THE COMMENTARY AND THE AISC CODE FOR STANDARD PRACTICE.
- 4. STRUCTURAL STEEL PLATES AND SHAPES SHALL CONFORM TO ASTM A36. ALL STRUCTURAL STEEL PIPES SHALL CONFORM TO ASTM A53 GRADE B. ALL STRUCTURAL STEEL COMPONENTS AND FABRICATED ASSEMBLIES SHALL BE HOT DIP GALVANIZED AFTER FABRICATION.
- 5. WELDING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF AMERICAN WELDING SOCIETY (AWS) STRUCTURAL WELDING CODE -STEEL WELD ELECTRODES SHÀLL BE E70XX.
- 6. ALL COAXIAL CABLE CONNECTORS AND TRANSMITTER EQUIPMENT SHALL BE AS SPECIFIED BY THE OWNER AND IS NOT INCLUDED IN THESE CONSTRUCTION DOCUMENTS. THE CONTRACTOR SHALL FURNISH ALL CONNECTION HARDWARE REQUIRED TO SECURE THE CABLES. CONNECTION HARDWARE SHALL BE STAINLESS STEEL.
- 7. ALL THREADED STRUCTURAL FASTENERS AND THREADED ROD FOR ANTENNA SUPPORT ASSEMBLIES SHALL CONFORM TO ASTM A307 OR ASTM A36. ALL STRUCTURAL FASTENERS FOR STRUCTURAL STEEL FRAMING SHALL CONFORM TO ASTM A325. FASTENERS SHALL BE 5/8" MIN. DIAMETER BEARING TYPE CONNECTIONS WITH THREADS INCLUDED IN THE SHEAR PLANE. ALL EXPOSED FASTENERS, NUTS AND WASHERS SHALL BE GALVANIZED UNLESS OTHERWISE NOTED. CONCRETE EXPANSION ANCHORS SHALL BE HILTI KWIK BOLTS UNLESS OTHERWISE NOTED.
- 8. NORTH ARROW SHOWN ON PLANS REFERS TO TRUE NORTH. CONTRACTOR SHALL VERIFY TRUE NORTH AND INFORM CONSTRUCTION MANAGER OF ANY DISCREPANCY BEFORE STARTING CONSTRUCTION.

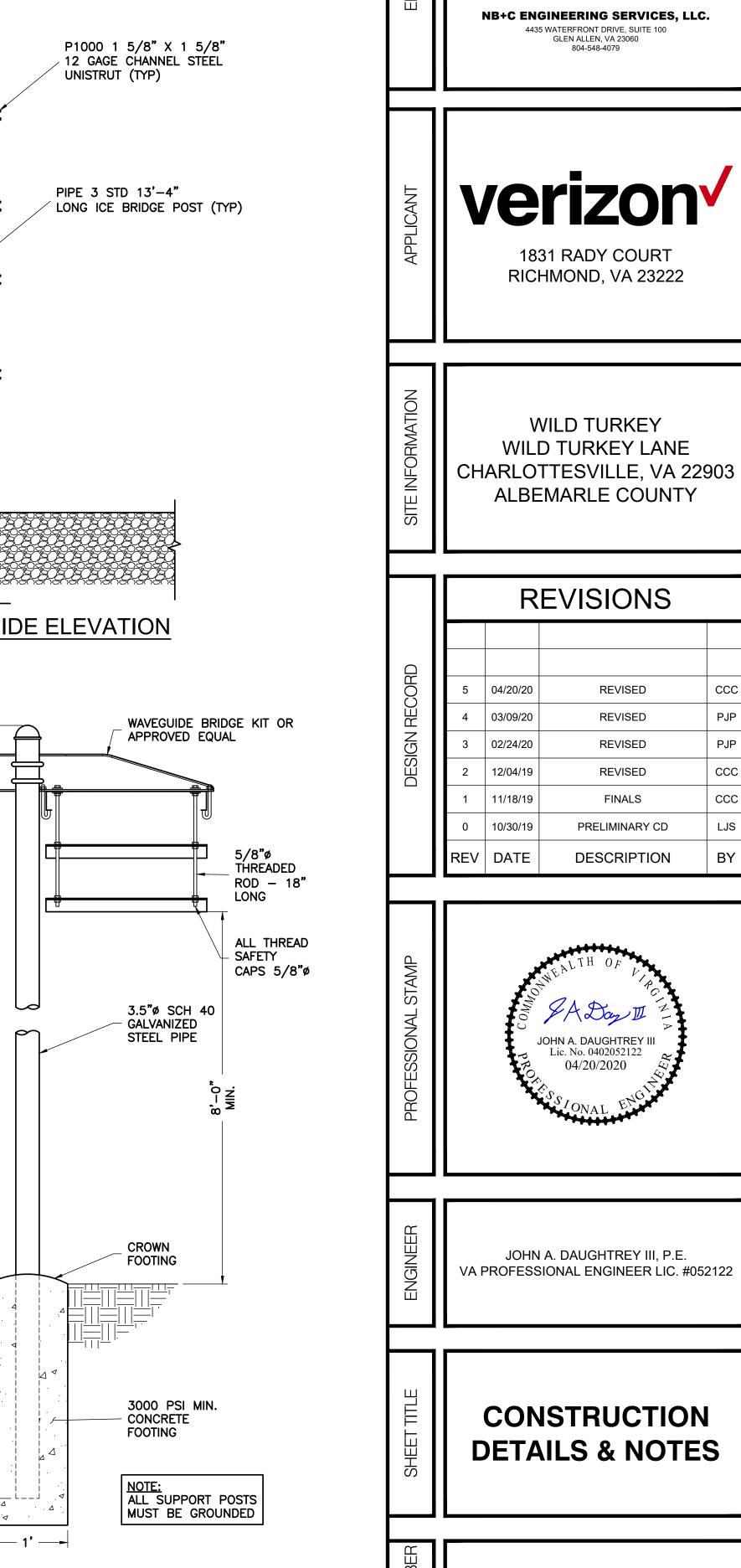


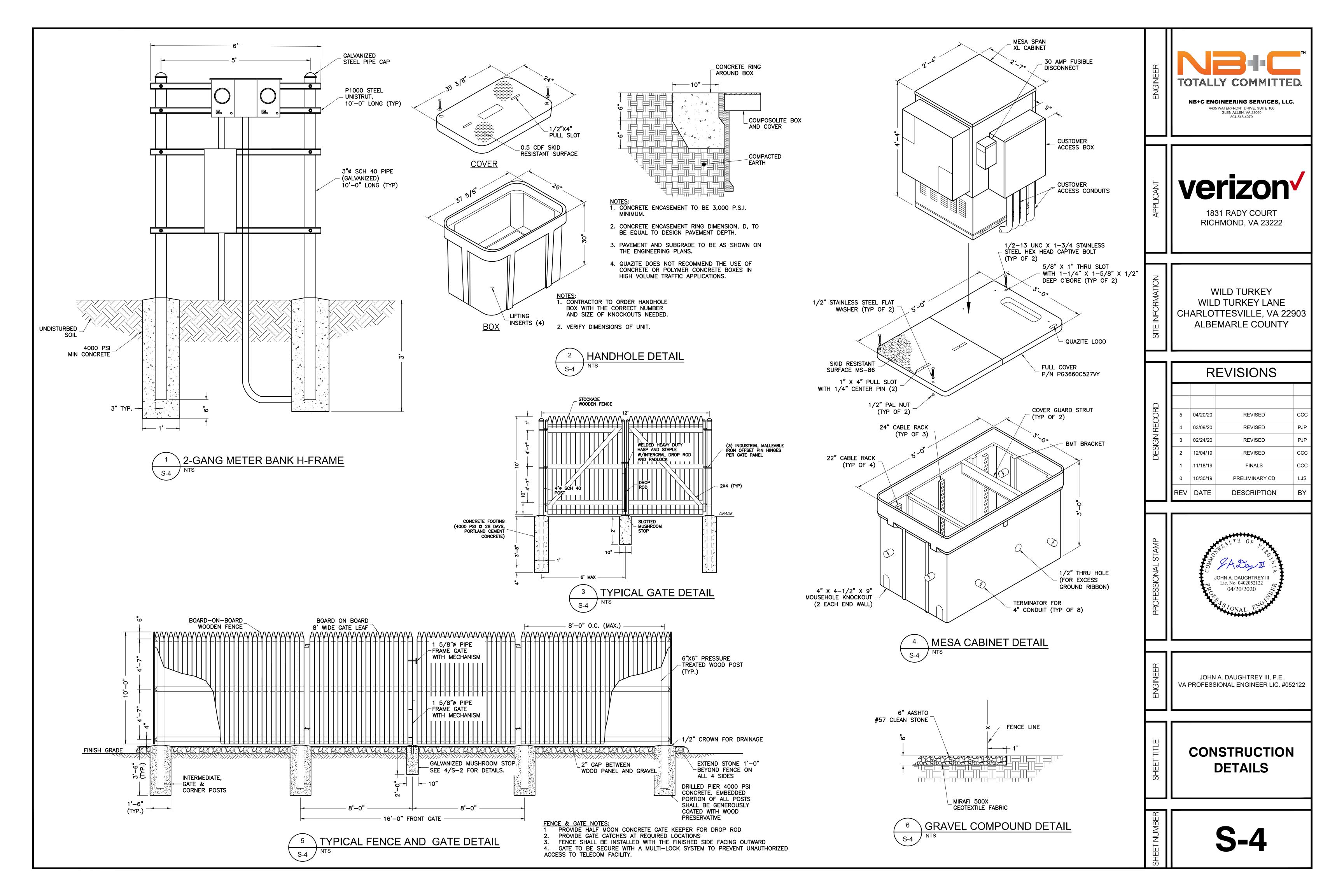
CABLE SUPPORT SECTION

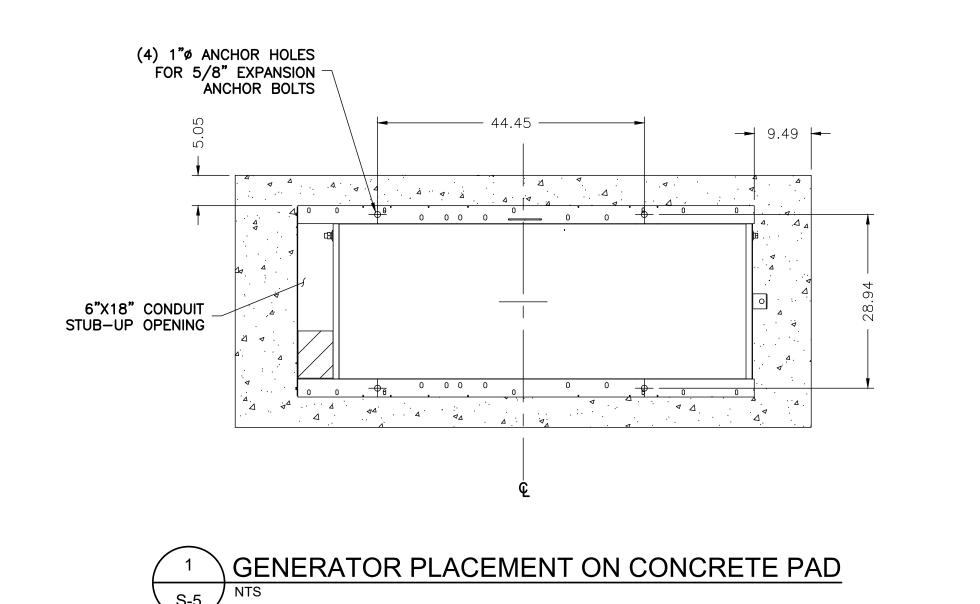


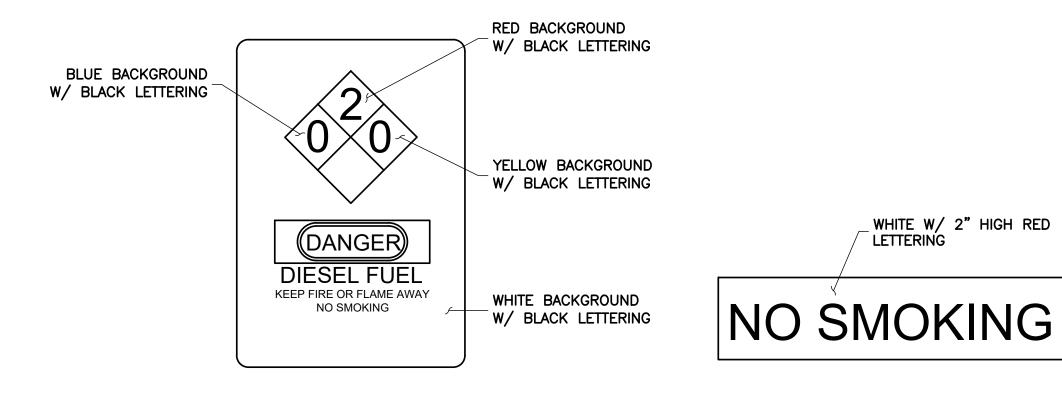


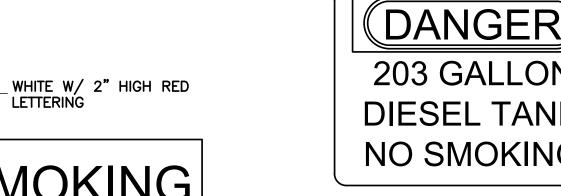
CABLE BRIDGE DETAIL









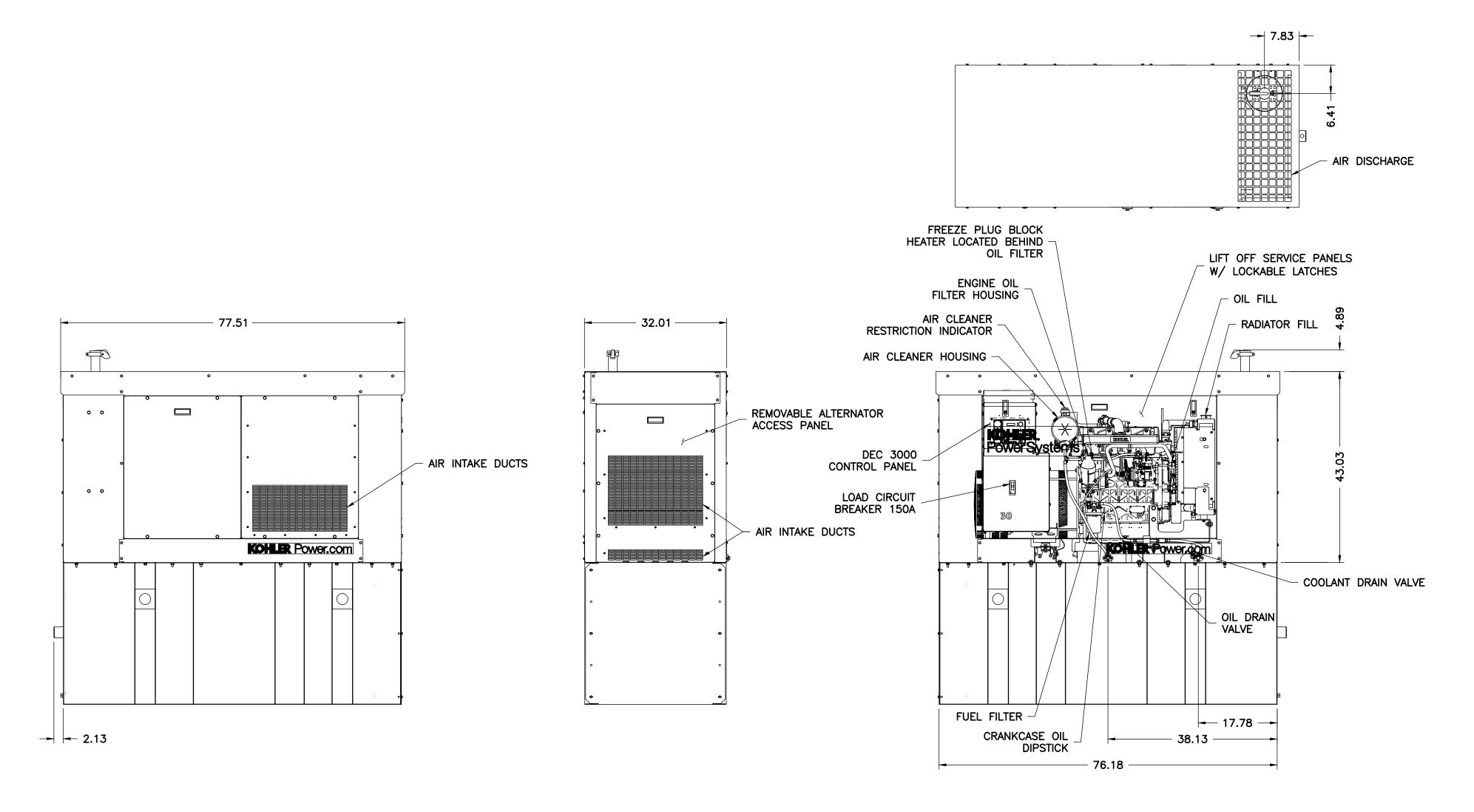


DANGER 203 GALLON DIESEL TANK NO SMOKING

SIGNAGE DETAIL

SIGNAGE DETAIL

SIGNAGE DETAIL



KOHLER 30KW VERIZON DIESEL GENERATOR DETAIL

1831 RADY COURT RICHMOND, VA 23222

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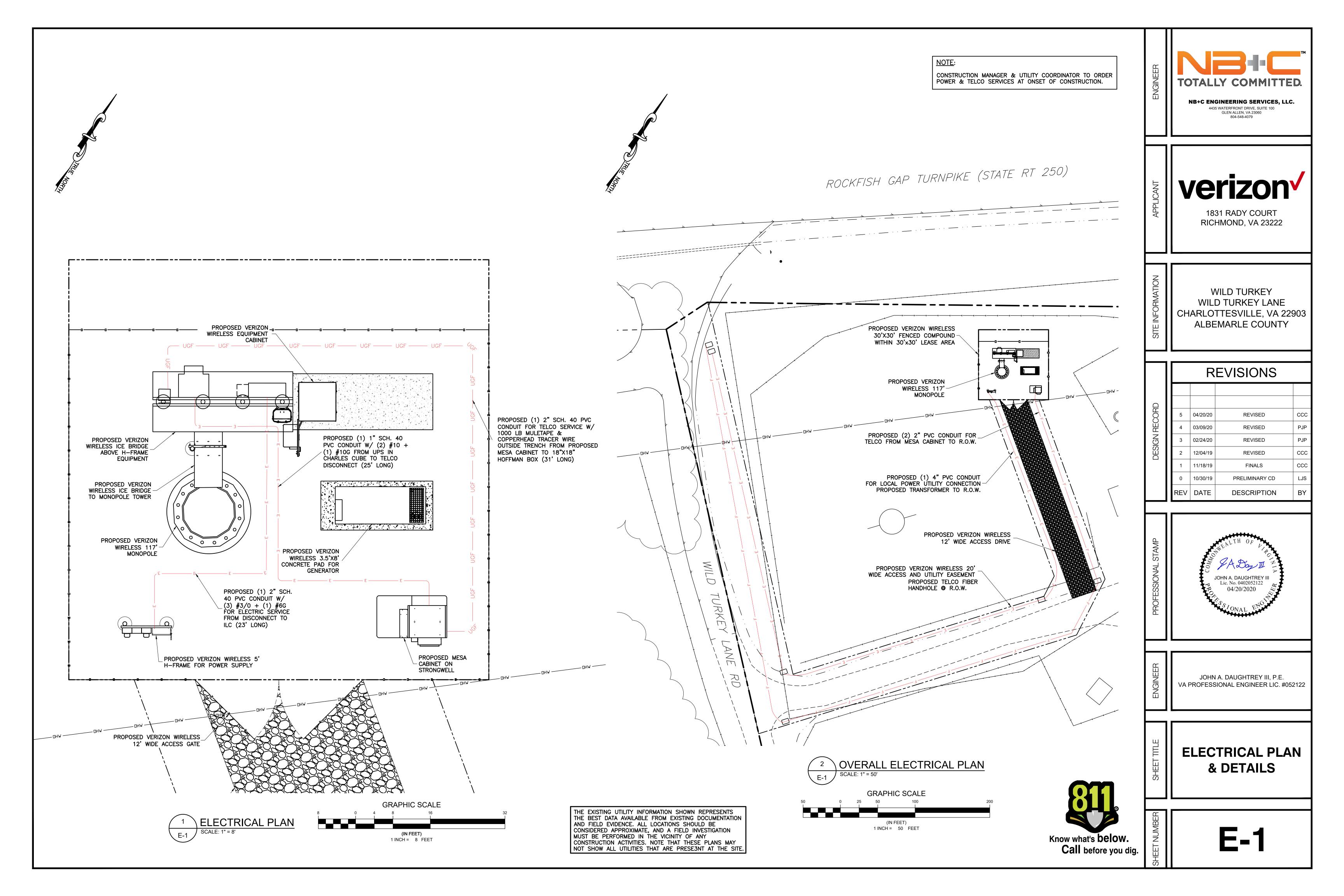
WILD TURKEY WILD TURKEY LANE CHARLOTTESVILLE, VA 22903 ALBEMARLE COUNTY

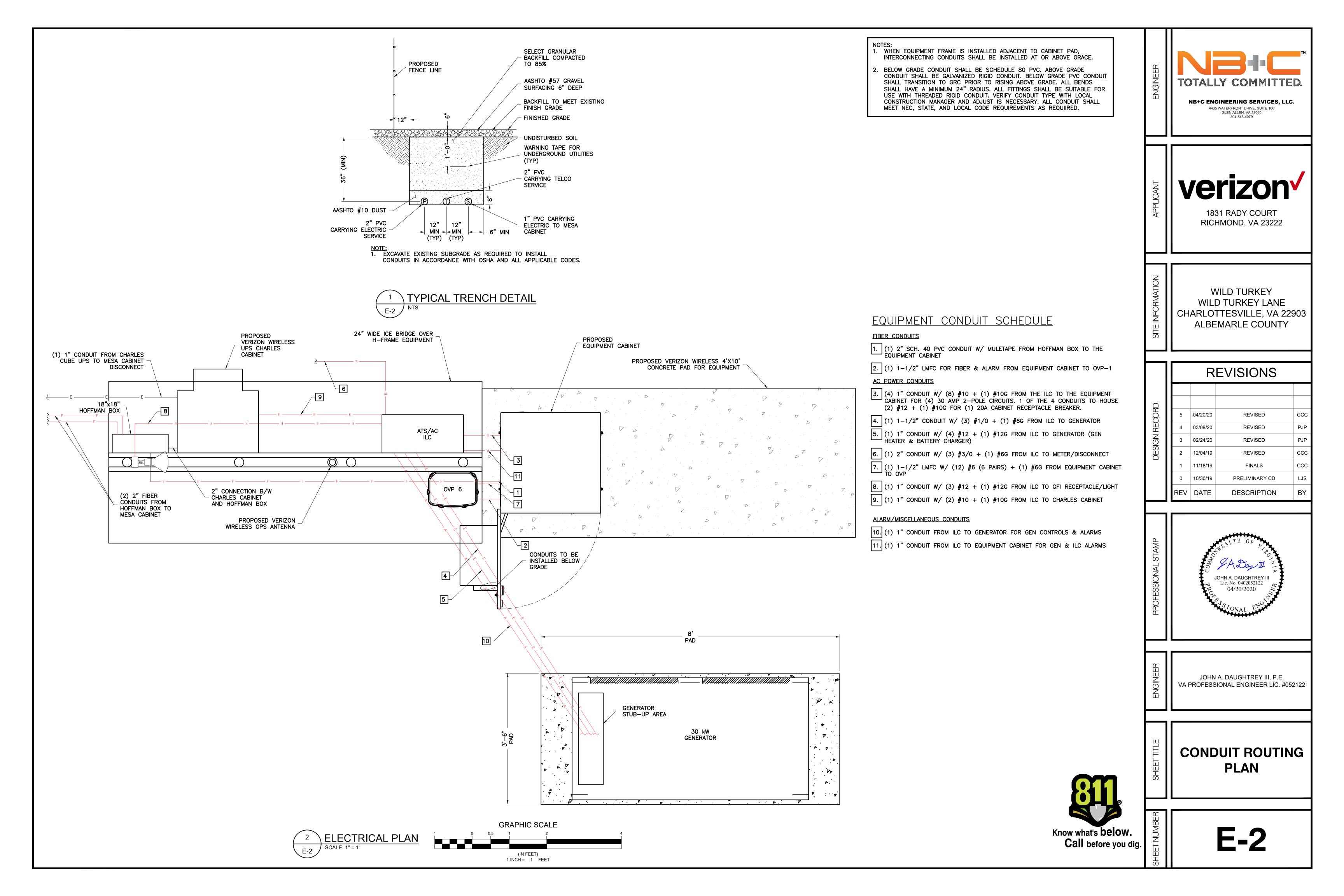
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	REV	DATE	DESCRIPTION	BY

JOHN A. DAUGHTREY III Lic. No. 0402052122

JOHN A. DAUGHTREY III, P.E. VA PROFESSIONAL ENGINEER LIC. #052122

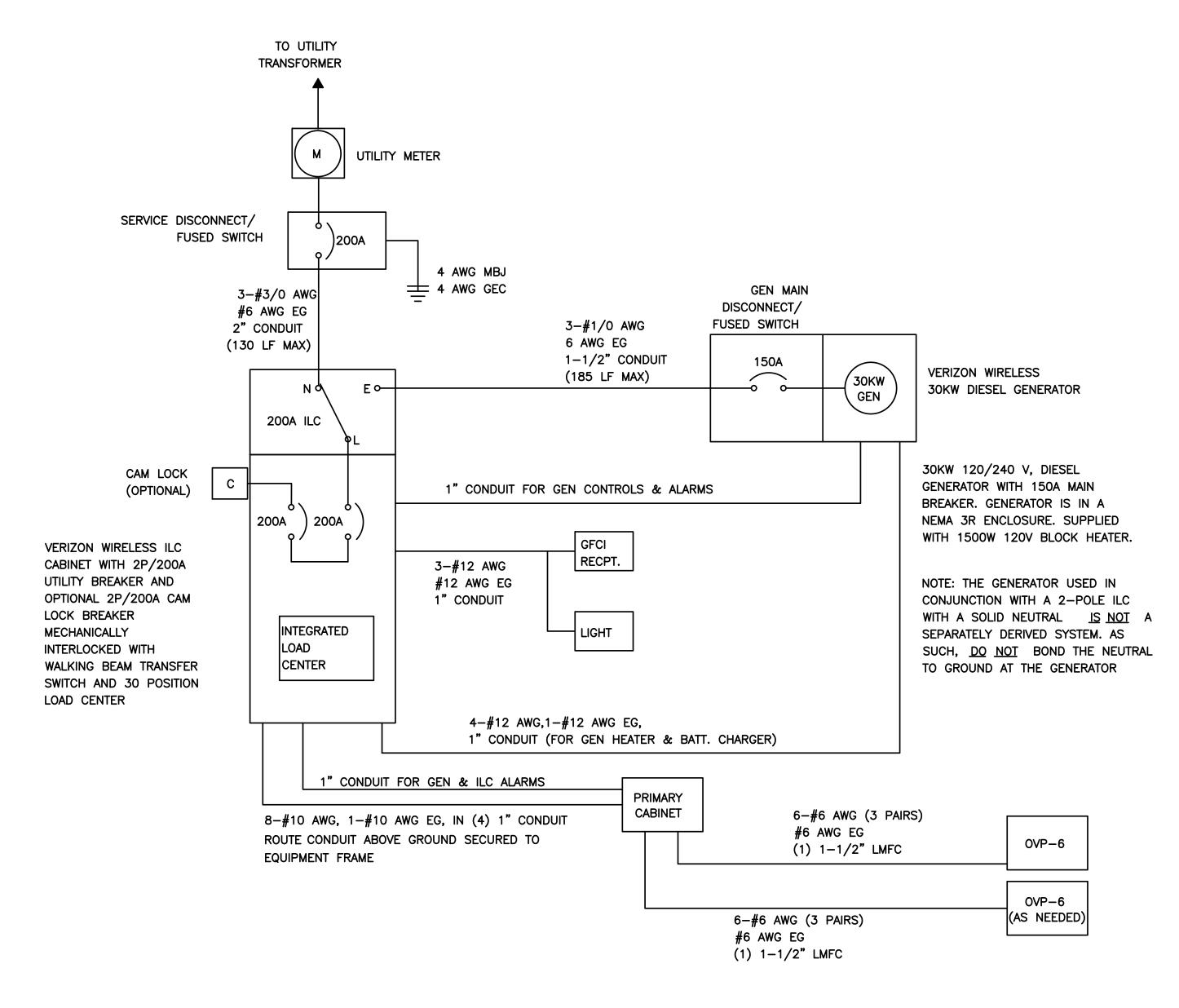
GENERATOR DETAILS





LOAD CALCULATION	
LOAD	AMPS
PROPOSED LOAD:	148.0
TOTAL DEMAND:	148.0
VOLTAGE: 120/240V SIN	IGLE PHASE 3W 200

NOTE: PANEL SCHEDULE AND SINGLE LINE DIAGRAM REPRESENT A SITE WITH A NEW GE POWER PLANT, 30 KW DIESEL GENERATOR, AND TWO SOURCE ILC (THREE SOURCE ILC OPTIONAL AS NEEDED). ADJUST AS NECESSARY PER LOCAL SITE CONDITIONS .



ELECTRICAL SINGLE LINE DIAGRAM

- 1. ALL EQUIPMENT SHALL BE NEMA 3R RATED.
- 2. ALL EQUIPMENT SHALL BE LIGHTNING PROTECTED IN ACCORDANCE WITH TIA-222-G AND VERIZON WIRELESS STANDARDS.
- 3. CONDUCTOR SIZES AND DISTANCES HAVE BEEN SIZED FOR 3% MAX VOLTAGE DROP (TOTAL SYSTEM VOLTAGE DROP ON BOTH FEEDERS AND BRANCH CIRCUITS TO THE FARTHEST DEMAND SHALL NOT EXCEED 5%).
- 4. WIRE SIZING AND MAXIMUM DISTANCE FROM GENERATOR TO ILC ASSUMES POWER FACTOR OF 0.9.
- 5. BELOW GRADE CONDUIT SHALL BE SCHEDULE 80 PVC. ABOVE GRADE CONDUIT SHALL BE GALVANIZED RIGID CONDUIT. BELOW GRADE PVC CONDUIT SHALL TRANSITION TO GRC PRIOR TO RISING ABOVE GRADE. ALL BENDS SHALL HAVE A MINIMUM 24" RADIUS. ALL FITTINGS SHALL BE SUITABLE FOR USE WITH THREADED RIGID CONDUIT. VERIFY CONDUIT TYPE WITH LOCAL CONSTRUCTION MANAGER AND ADJUST IF NECESSARY. ALL CONDUIT SHALL MEET NEC, STATE, AND LOCAL CODE REQUIREMENTS AS REQUIRED.

PANE! NAME		VZW ILC		MODEL NUMBER	:	AS	CO E)300L SE	ERIES						
RATE	TED		PHASE/		1	3									
MAIN BREAI		200	AMPS		BUS RATING:		2	00			KEY DOOR LATCH:	YES			
MOUN		SURFACE		NEUTRAL BAR:	-	YI	ES			HENGED DOOR:	YES				
ENCLO	OSURE	NEMA	3R		AIC:		6	5K							
205	USAGE	BUS /	AMPS	LOAD	DOLES.	AMDS		5		POLES	LOAD	BUS	AMPS	USAGE	POS
POS	FACTOR	L1	L2	LOAD	POLES	AMPS	L1	L2	AMPS	PULES	LOAD	L1	L2	FACTOR	105
1	1	18		DECTIFIED		304			30A		FUTURE	18		1	2
3	1		18	RECTIFIER	2	30A			JUA	2	RECTIFIER		18	1	4
5	1	18		DECTIFIED		704			704		FUTURE	18		1	6
7	1		18	RECTIFIER	2	30A			30A	2	RECTIFIER		18	1	8
9	1	18		DEOTIFIED		704									10
11	1		18	RECTIFIER	2	30A									12
13	1	18		DECTIFIED		704									14
15	1		18	RECTIFIER	2	30A									16
17	1.25	16		GFI RECEPT. /LIGHT	1	20A									18
19	1		16	BLOCK HEATER	1	20A									20
21	1	16		BATT. CHARGER	1	20A									22
23	1		24	UPS RECEPT	1	30A									24
25															26
27															28
29															30
		104	112	:SUB TOTAL AMPS							SUB TOTAL AMPS:	36	36		
		•	•		•						FACTORED TOTAL AMPS:	140	148		

- 1. ALL CONDUCTORS ARE TYPE THWN (75°C) COPPER.
- 2. MAXIMUM LENGTH OF RUN FOR RECTIFIER CIRCUITS IS 50FT.
- 3. ASCO INTEGRATED LOAD CENTER INCLUDES 200 AMP MAIN DISCONNECT AND TRANSFER SWITCH FOR PORTABLE
- OR PERMANENT GENERATOR.
- 4. RECTIFIER LOADS ARE CONSIDERED TO BE NON-CONTINUOUS. 5. IF ADDITIONAL FUTURE LOADS ARE ADDED WHICH CAUSE TOTAL DEMAND TO EXCEED GENERATOR BREAKER SIZE,
- BACKUP POWER SYSTEM SHALL BE EVALUATED AND UPGRADED AS NECESSARY.

PANEL SCHEDULE (1) 2" RGC STRAIGHT RUN AT GRADE (CLAMP TO EQUIPMENT (1) 2" CONDUIT FRAME POSTS), TRANSITION TO 2" VZW EQUIPMENT FRAME (FOR DARK FIBER OR LMFC AT EACH FOR EQUIPMENT TERMINATION POINT EBH AS NEEDED) CABINET CONNECTIONS (18"X18" FIBER JUNCTION BOX FOR DARK FIBER OR CHARLES CABINET AS NEEDED FOR EBH) PRIMARY (1) 2" CONDUIT FOR CABINET DARK FIBER * AND (1) 2" CONDUIT VZW FIBER HANDHOLE FIBER HANDHOLE/ (OR JUNCTION BOX ON FOR EBH IF NEEDED ** 1-1/2" LMFC FOR MEET-ME POINT COMMON USE UTILITY FIBER AND ALARM AT ROW FRAME) IN COMPOUND (SHIELDED CAT 5) AS NEEDED OVP-6 EBH DEMARC F REQUIRED, VERIFY REQUIREMENTS WITH (1) 2" CONDUIT EBH PROVIDER) (FOR EBH IF NEEDED)

FIBER SINGLE LINE DIAGRAM

- * ADD (1) ADDITIONAL 2" CONDUIT FOR DARK FIBER (2 TOTAL) IF REQUIRED BY LOCAL MARKET FACILITIES, VERIFY PRIOR TO CONSTRUCTION. (ADD 2 PULL STRINGS TO EACH CONDUIT)
- ** VERIFY EBH REQUIREMENTS WITH TELCO PROVIDER PRIOR TO CONSTRUCTION. (ADD 2 PULL STRINGS TO EACH CONDUIT)



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REVISIONS REVISED 04/20/20 03/09/20 REVISED 02/24/20 REVISED 12/04/19 REVISED 11/18/19 10/30/19 PRELIMINARY CD REV DATE

DESCRIPTION

JOHN A. DAUGHTREY III Lic. No. 0402052122 04/20/2020

JOHN A. DAUGHTREY III, P.E. VA PROFESSIONAL ENGINEER LIC. #052122

> PANEL SCHEDULE & ONE-LINE (DIESEL OPTION)

ELECTRICAL NOTES

- SUBMITTAL OF BID INDICATES THAT THE CONTRACTOR IS COGNIZANT OF ALL JOB SITE CONDITIONS AND WORK TO BE PERFORMED UNDER THIS CONTRACT.
- CONTRACTOR SHALL PERFORM ALL VERIFICATIONS, OBSERVATION TESTS, AND EXAMINATION WORK PRIOR TO ORDERING OF ANY EQUIPMENT AND THE ACTUAL CONSTRUCTION. CONTRACTOR SHALL ISSUE A WRITTEN NOTICE OF ALL FINDINGS TO THE PROJECT MANAGER LISTING ALL MALFUNCTIONS, FAULTY EQUIPMENT AND DISCREPANCIES.
- 3. VERIFY HEIGHTS WITH PROJECT MANAGER PRIOR TO INSTALLATION.
- 4. THESE PLANS ARE DIAGRAMMATIC ONLY, FOLLOW AS CLOSELY AS POSSIBLE.
- 5. CONTRACTOR SHALL COORDINATE ALL WORK BETWEEN TRADES AND ALL OTHER SCHEDULING AND PROVISIONARY CIRCUMSTANCES SURROUNDING THE PROJECT.
- CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS, INSURANCE, EQUIPMENT, INSTALLATION CONSTRUCTION TOOLS, TRANSPORTATION, ETC., FOR COMPLETE AND FUNCTIONALLY OPERATING SYSTEMS ENERGIZED AND READY FOR USE THROUGHOUT AS INDICATED ON DRAWINGS, AS SPECIFIED HEREIN AND/OR AS OTHERWISE REQUIRED.
- ALL MATERIALS AND EQUIPMENT SHALL BE NEW AND IN PERFECT CONDITION WHEN INSTALLED AND SHALL BE OF THE BEST GRADE AND OF THE SAME MANUFACTURER THROUGHOUT FOR EACH CLASS OR GROUP OF EQUIPMENT ELECTRICAL MATERIALS SHALL BE LISTED AND APPROVED BY UNDERWRITER'S LABORATORIES AND SHALL BEAR THE INSPECTION LABEL "J" WHERE SUBJECT TO SUCH APPROVAL. MATERIALS SHALL MEET WITH APPROVAL OF ALL GOVERNING BODIES HAVING JURISDICTION OVER THE CONSTRUCTION. MATERIALS SHALL BE MANUFACTURED IN ACCORDANCE WITH ALL CURRENT APPLICABLE STANDARDS ESTABLISHED BY ANSI, NEMA AND NBFU. ALL MATERIALS AND EQUIPMENT SHALL BE APPROVED FOR THEIR INTENDED USE AND LOCATION.
- 8. ALL WORK SHALL COMPLY WITH ALL APPLICABLE GOVERNING STATE, COUNTY AND CITY CODES AND OSHA, NFPA, NEC & ASHRAE REQUIREMENTS.
- ENTIRE JOB SHALL BE GUARANTEED FOR A PERIOD OF ONE (1) YEAR AFTER THE DATE OF JOB ACCEPTANCE. ALL WORK, MATERIAL AND EQUIPMENT FOUND TO BE FAULTY DURING THAT PERIOD SHALL BE CORRECTED AT ONCE, UPON WRITTEN NOTIFICATION, AT THE EXPENSE OF THE CONTRACTOR.
- 10. PROPERLY SEAL ALL PENETRATIONS. PROVIDE UL LISTED FIRE-STOPS WHERE PENETRATIONS ARE MADE THROUGH FIRE-RATED ASSEMBLIES. WATER-TIGHT USING SILICONE SEALANT.
- 11. DELIVER ALL BROCHURES, OPERATING MANUALS, CATALOGS AND SHOP DRAWINGS TO THE PROJECT MANAGER AT JOB COMPLETION. PROVIDE MAINTENANCE MANUALS FOR MECHANICAL EQUIPMENT. AFFIX MAINTENANCE LABELS TO MECHANICAL EQUIPMENT.

- 12. ALL CONDUCTORS SHALL BE COPPER. MINIMUM CONDUCTOR SIZE SHALL BE #12 AWG., UNLESS OTHERWISE NOTED. CONDUCTORS SHALL BE TYPE THWN, RATED IN ACCORDANCE WITH NEC 110-14(C).
- 13. ALL CIRCUIT BREAKERS, FUSES AND ELECTRICAL EQUIPMENT SHALL HAVE AN INTERRUPTING RATING NOT LESS THE MAXIMUM INTERRUPTING CURRENT TO WHICH THEY MAY BE SUBJECTED.
- 14. THE ENTIRE ELECTRICAL INSTALLATION SHALL BE GROUNDED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE; ARTICLES 250 & 810 AND THE UTILITY COMPANY STANDARDS.

15. CONDUIT:

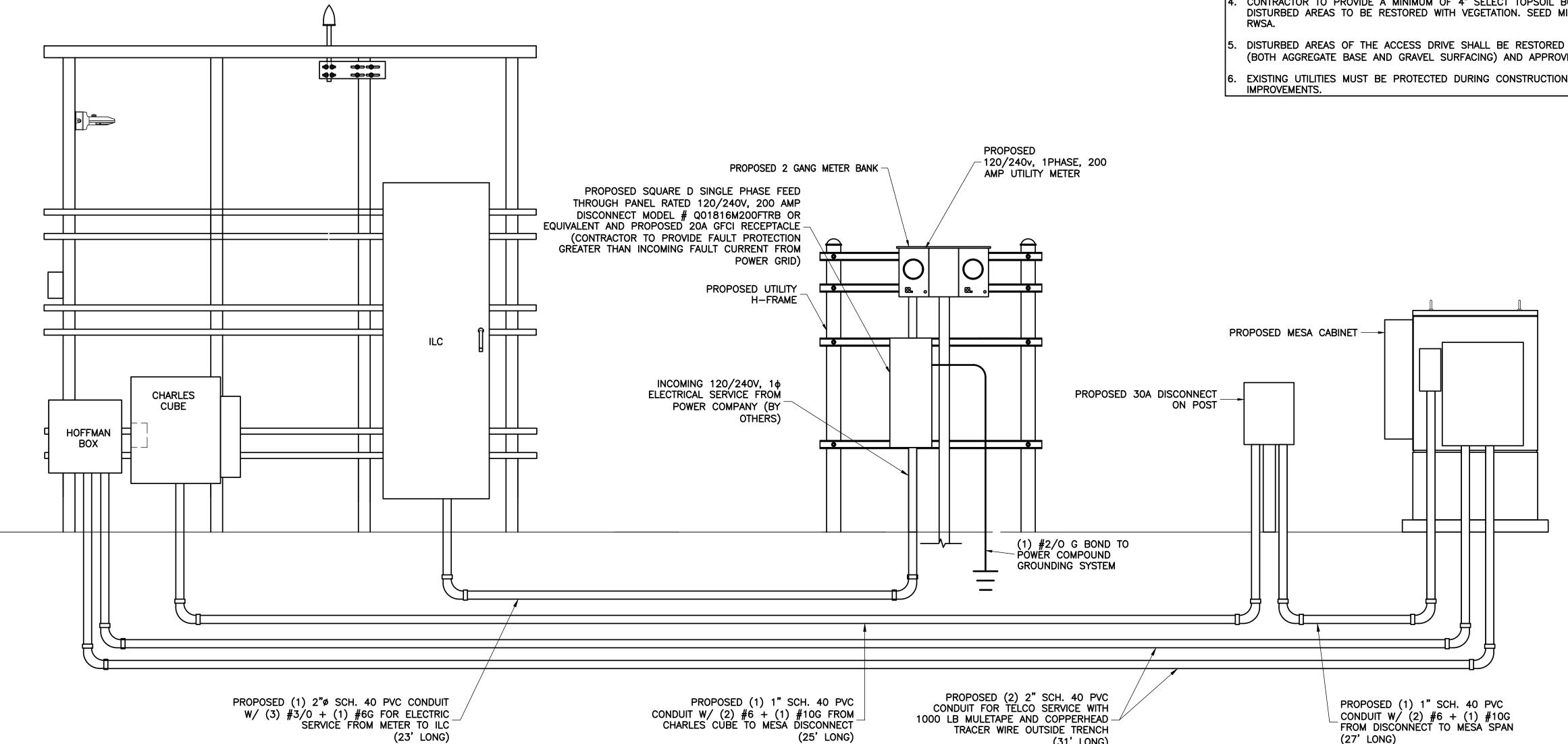
- A. RIGID CONDUIT SHALL BE U.L. LABEL GALVANIZED ZINC COATED WITH ZINC INTERIOR AND SHALL BE USED WHEN INSTALLED IN OR UNDER CONCRETE SLABS, IN CONTACT WITH THE EARTH, UNDER PUBLIC ROADWAYS, IN MASONRY WALLS OR EXPOSED ON BUILDING EXTERIOR. RIGID CONDUIT IN CONTACT WITH EARTH SHALL BE 1/2 LAPPED WRAPPED WITH HUNTS WRAP PROCESS NO. 3.
- B. ELECTRICAL METALLIC TUBING SHALL HAVE U.L. LABEL, FITTINGS SHALL BE GLAND RING COMPRESSION TYPE. EMT SHALL BE USED ONLY FOR INTERIOR RUNS.
- C. LIQUID-TIGHT FLEXIBLE METAL CONDUIT SHALL BE U.L. LISTED AND SHALL BE USED AT FINAL CONNECTIONS TO MECHANICAL EQUIPMENT & RECTIFIERS AND WHERE PERMITTED BY CODE. ALL CONDUIT IN EXCESS OF SIX FEET IN
- D. CONDUIT RUNS SHALL BE SURFACE MOUNTED ON CEILINGS OR WALLS UNLESS NOTED OTHERWISE. ALL CONDUIT SHALL RUN PARALLEL OR PERPENDICULAR TO WALLS, FLOOR, CEILING, OR BEAMS, VERIFY EXACT ROUTING OF ALL EXPOSED CONDUIT WITH THE PROJECT MANAGER PRIOR TO INSTALLING

LENGTH SHALL CONTAIN A FULL-SIZE GROUND CONDUCTOR.

- E. PVC CONDUIT MAY BE PROVIDED ONLY WHERE SHOWN, OR IN UNDERGROUND INSTALLATIONS. PROVIDE UV-RESISTANT CONDUIT WHERE EXPOSED TO THE ATMOSPHERE. PROVIDE GROUND CONDUCTOR IN ALL PVC RUNS; EXCEPT WHERE PERMITTED BY CODE TO OMIT.
- 17. ALL ELECTRICAL EQUIPMENT SHALL BE LABELED WITH PERMANENT ENGRAVED PLASTIC LABELS. BACKGROUND SHALL BE BLACK WITH WHITE LETTERS; EXCEPT AS REQUIRED BY CODE TO FOLLOW A DIFFERENT SCHEME.

- 18. UPON COMPLETION OF WORK, CONDUCT CONTINUITY, SHORT CIRCUIT, AND FALL OF POTENTIAL GROUNDING TESTS FOR APPROVAL. SUBMIT TEST REPORTS TO PROJECT MANAGER. GROUNDING SYSTEM RESISTANCE SHALL NOT EXCEED 5 OHMS. IF THE RESISTANCE VALUE IS EXCEEDED, NOTIFY THE PROJECT MANAGER FOR FURTHER INSTRUCTION ON METHODS FOR REDUCING THE RESISTANCE VALUE.
- 19. CLEAN PREMISES OF ALL DEBRIS RESULTING FROM WORK AND LEAVE WORK IN A COMPLETE AND UNDAMAGED CONDITION. LEGALLY DISPOSE OF ALL REMOVED, UNUSED AND EXCESS MATERIAL GENERATED BY THE WORK OF THIS CONTRACT, DELIVER ITEMS INDICATED ON THE DRAWINGS TO THE OWNER IN GOOD CONDITION, OBTAIN SIGNED RECEIPT UPON DELIVERY.
- 20. COORDINATE WITH UTILITY COMPANY FOR CONNECTION OF TEMPORARY AND PERMANENT POWER TO THE SITE. THE TEMPORARY POWER AND ALL HOOKUP COSTS SHALL BE PAID BY THE CONTRACTOR.
- 21. VERIFY ALL EXISTING CIRCUITRY PRIOR TO REMOVAL AND NEW WORK. MAINTAIN POWER TO ALL OTHER AREAS & CIRCUITS NOT SCHEDULED FOR REMOVAL.
- 22. RED LINED AS-BUILT PLANS SHALL BE PROVIDED TO THE CONSTRUCTION MANAGER.
- 23. INDOOR CONDUCTORS SHALL BE INSTALLED IN EMT UNLESS NOTED OTHERWISE. OUTDOOR CONDUCTORS SHALL BE INSTALLED IN RIGID GALVANIZED STEEL CONDUIT UNLESS NOTED OTHERWISE.
- 24. NY SMSA TO PROVIDE SURGE SUPPRESSOR FOR TELCO BOARD SERVING NEW EQUIPMENT, THE SURGE SUPPRESSOR TO BE INSTALLED BY CONTRACTOR AND GROUNDED TO MGB.
- 25. SEAL AROUND PENETRATIONS RESULTING FROM CONDUIT ROUTING WITH FIRE- STOPPING FOAM SEALANT HAVING A UL-LISTED RATING OF 2 HOURS, HAMMER-DRILLING IS NOT PERMITTED. CORE-DRILLING TO BE COORDINATED WITH BUILDING OWNER'S REPRESENTATIVE.
- 26. PROVIDE (2) FUSES OF SIZE RECOMMENDED BY CONDENSING UNIT MANUFACTURER.
- 27. PROVIDE SMOKE DETECTOR COMPATIBLE WITH EXISTING BUILDING FIRE ALARM SYSTEM. TIE TO LOCAL ZONE. COORDINATE WITH BUILDING OWNER'S FIRE ALARM SYSTEM CONTRACTOR. PROVIDE SENTROL 449CRT PHOTOELECTRIC SMOKE DETECTOR WITH AUXILIARY RELAY FOE ACU-1 SHUTDOWN.
- 28. PROVIDE GENERATOR CONNECTOR RECEPTACLE AND ENCLOSED CIRCUIT BREAKER IN LOCATION SUITABLE FOR PORTABLE GENERATOR ACCESS. COORDINATE WITH BUILDING OWNER FOR EXACT LOCATION. PAINT TO MATCH EXISTING WALL COLOR.
- 29. PROVIDE ALARM TERMINAL CABINET HIGH/LOW ALARMS MOUNTED ON TELCO BOARD.
- 30. PROVIDE DOOR ALARM CONTACT.

- DUE TO EXISTING UTILITIES IN THE AREA, ALL TRENCHING IS TO BE DUG BY HAND.
- SITE SHALL BE SCRAPED TO A DEPTH OF 3" MINIMUM TO REMOVE VEGETATIVE MATTER. EXCESS MATERIAL GENERATED FROM SCRAPING ACTIVITIES SHALL BE BECOME THE PROPERTY OF THE CONTRACTOR AND BE DISPOSED OF OFF-SITE.
- EXCAVATION MATERIAL SHALL BE USED FOR SURFACE GRADING AS NECESSARY; EXCESS MATERIAL SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND BE DISPOSED OF OFF-SITE.
- CONTRACTOR TO PROVIDE A MINIMUM OF 4" SELECT TOPSOIL BORROW AND SEED TO ALL DISTURBED AREAS TO BE RESTORED WITH VEGETATION. SEED MIX SHALL BE APPROVED BY THE
- DISTURBED AREAS OF THE ACCESS DRIVE SHALL BE RESTORED TO ITS ORIGINAL CROSS-SECTION (BOTH AGGREGATE BASE AND GRAVEL SURFACING) AND APPROVED BY THE RWSA.
- EXISTING UTILITIES MUST BE PROTECTED DURING CONSTRUCTION OF THE PROPOSED



Know what's below. Call before you dig.

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JOHN A. DAUGHTREY III Lic. No. 0402052122 04/20/2020

JOHN A. DAUGHTREY III, P.E. 'A PROFESSIONAL ENGINEER LIC. #052122

ELECTRICAL RISER DIAGRAM & SERVICE ENTRANCE **SCHEMATIC**

ELECTRICAL RISER DIAGRAM AND SERVICE ENTRANCE (SCHEMATIC)

(31' LONG)

GROUNDING NOTES:

- 1. GROUNDING SHALL COMPLY WITH ARTICLE 250 OF THE NATIONAL ELECTRICAL CODE.
- 2. ALL GROUNDING DEVICES SHALL BE U.L. APPROVED OR LISTED FOR THEIR INTENDED USE.
- 3. ALL WIRES SHALL BE AWG THHN/THWN COPPER UNLESS NOTED OTHERWISE.
- 4. GROUNDING CONNECTIONS TO GROUND RODS, GROUND RING WIRE, TOWER BASE AND FENCE POSTS SHALL BE EXOTHERMIC ("CADWELDS") UNLESS NOTED OTHERWISE. CLEAN SURFACES TO SHINY METAL. WHERE GROUND WIRES ARE CADWELDED TO GALVANIZED SURFACES, SPRAY CADWELD WITH GALVANIZING PAINT.
- 5. GROUNDING CONNECTIONS TO GROUND BARS ARE TO BE TWO—HOLE BRASS MECHANICAL CONNECTORS WITH STAINLESS STEEL HARDWARE (INCLUDING SCREW SET) CLEAN GROUND BAR TO SHINY METAL. AFTER MECHANICAL CONNECTION, TREAT WITH PROTECTIVE ANTIOXIDANT COATING.
- 6. GROUND COAXIAL CABLE SHIELDS AT BOTH ENDS WITH MANUFACTURER'S GROUNDING KITS.
- 7. ROUTE GROUNDING CONDUCTORS THE SHORTEST AND STRAIGHTEST PATH POSSIBLE. BEND GROUNDING LEADS WITH A MINIMUM 12" RADIUS.
- 8. INSTALL #2 AWG GREEN-INSULATED STRANDED WIRE FOR ABOVE GRADE GROUNDING AND #2 TINNED SOLID COPPER WIRE FOR BELOW GRADE GROUNDING UNLESS OTHERWISE NOTED.
- 9. REFER TO GROUNDING PLAN FOR GROUND BAR LOCATIONS. GROUNDING CONNECTIONS SHALL BE EXOTHERMIC TYPE ("CADWELDS") TO ANTENNA MOUNTS AND GROUND RING. REMAINING GROUNDING CONNECTIONS SHALL BE COMPRESSION FITTINGS. CONNECTIONS TO GROUND BARS SHALL BE MADE WITH TWO-HOLE LUGS.
- 10. THE GROUND ELECTRODE SYSTEM SHALL CONSIST OF DRIVEN GROUND RODS POSITION ACCORDING TO GROUNDING PLAN. THE GROUND RODS SHALL BE 5/8"X10'-0" COPPER CLAD STEEL INTERCONNECTED WITH #2 TINNED SOLID COPPER WIRE BURIED 36" BELOW GRADE. BURY GROUND RODS A MAXIMUM OF 15' APART, AND A MINIMUM OF 8' APART.
- 11. IF ROCK IS ENCOUNTERED GROUND RODS SHALL BE PLACED AT AN OBLIQUE ANGLE NOT TO EXCEED 45°.
- 12. EXOTHERMIC WELDS SHALL BE MADE IN ACCORDANCE WITH ERICO PRODUCTS BULLETIN A-AT.
- 13. CONSTRUCTION OF GROUND RING AND CONNECTIONS TO EXISTING GROUND RING SYSTEM SHALL BE DOCUMENTED WITH PHOTOGRAPHS PRIOR TO BACKFILLING SITE. PROVIDE PHOTOS TO THE VERIZON CONSTRUCTION MANAGER.
- 14. ALL GROUND LEADS EXCEPT THOSE TO THE EQUIPMENT ARE TO BE #2 TINNED SOLID COPPER WIRE. ALL EXTERIOR GROUND BARS TINNED COPPER.
- 15. PRIOR TO INSTALLING LUGS ON GROUND WIRES, APPLY THOMAS & BETTS KOPR—SHIELD (TM OF JET LUBE INC.). PRIOR TO BOLTING GROUND WIRE LUGS TO GROUND BARS, APPLY KOPR—SHIELD OR EQUAL.
- 16. ENGAGE AN INDEPENDENT ELECTRICAL TESTING FIRM TO TEST AND VERIFY THAT IMPEDANCE DOES NOT EXCEED FIVE OHMS TO GROUND BY MEANS OF "FALL OF POTENTIAL TEST". TEST SHALL BE WITNESSED BY A VERIZON REPRESENTATIVE, AND RECORDED ON THE "GROUND RESISTANCE TEST" FORM.
- 17. WHERE BARE COPPER GROUND WIRES ARE ROUTED FROM ANY CONNECTION ABOVE GRADE TO GROUND RING, INSTALL WIRE IN 3/4" PVC SLEEVE, FROM 1' BELOW GRADE AND SEAL TOP WITH SILICONE MATERIAL.
- 18. PREPARE ALL BONDING SURFACES FOR GROUNDING CONNECTIONS BY REMOVING ALL PAINT AND CORROSION DOWN TO SHINY METAL. FOLLOWING CONNECTION, APPLY APPROPRIATE ANTI-OXIDIZATION PAINT.
- 19. ANY SITE WHERE THE EQUIPMENT (BTS, CABLE BRIDGE, PPC, GENERATOR, ETC.) IS LOCATED WITHIN 6 FEET OF METAL FENCING, THE GROUND RING SHALL BE BONDED TO THE NEAREST FENCE POST USING (3) RUNS OF #2 BARE TINNED COPPER WIRE.

GROUNDING LEGEND

COAXIAL CABLE SHIELD

GROUND KIT CONNECTION

5/8"X10' COPPER—CLAD STEEL GROUND ROD

COMPRESSION FITTING CONNECTION

EXOTHERMIC WELD CONNECTION

5/8"X10' COPPER-CLAD STEEL

PROPOSED GROUND WIRING

TINNED COPPER GROUND BAR 1/4"X4"X12" OR 1/4"X4"X20"

EXISTING GROUND WIRING

COLLECTOR GROUND BAR

MAIN GROUND BAR

GROUND ROD WITH INSPECTION WELL



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RICHMOND, VA 23222

WILD TURKEY

WILD TURKEY LANE

CHARLOTTESVILLE, VA 22903

ALBEMARLE COUNTY

REVISIONS

REVISED

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REVISED

REVISED

FINALS

PRELIMINARY CD

DESCRIPTION

JOHN A. DAUGHTREY III Lic. No. 0402052122

04/20/2020

JOHN A. DAUGHTREY III, P.E. VA PROFESSIONAL ENGINEER LIC. #052122

GROUNDING PLAN

& DETAILS

PJP

PJP

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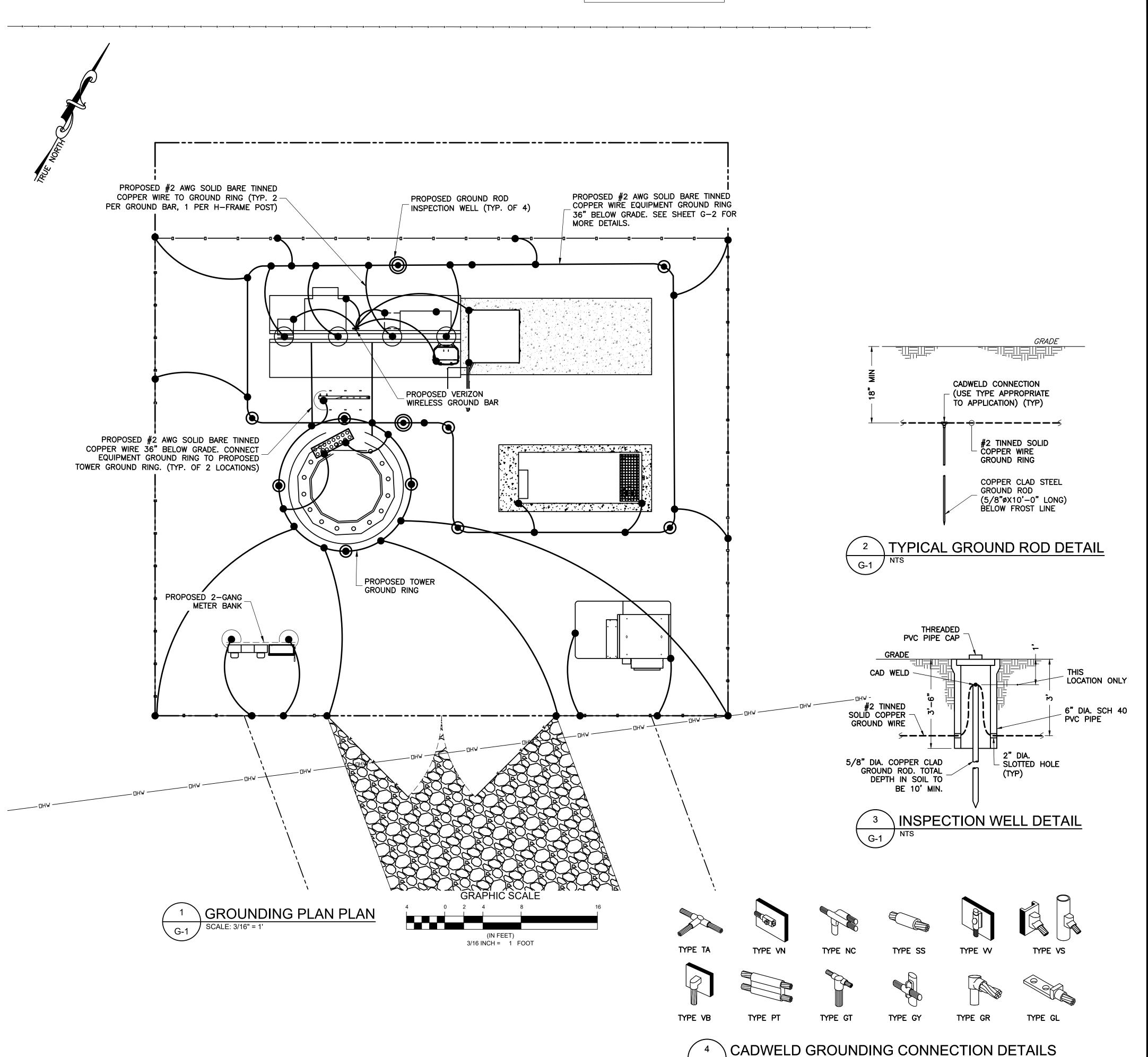
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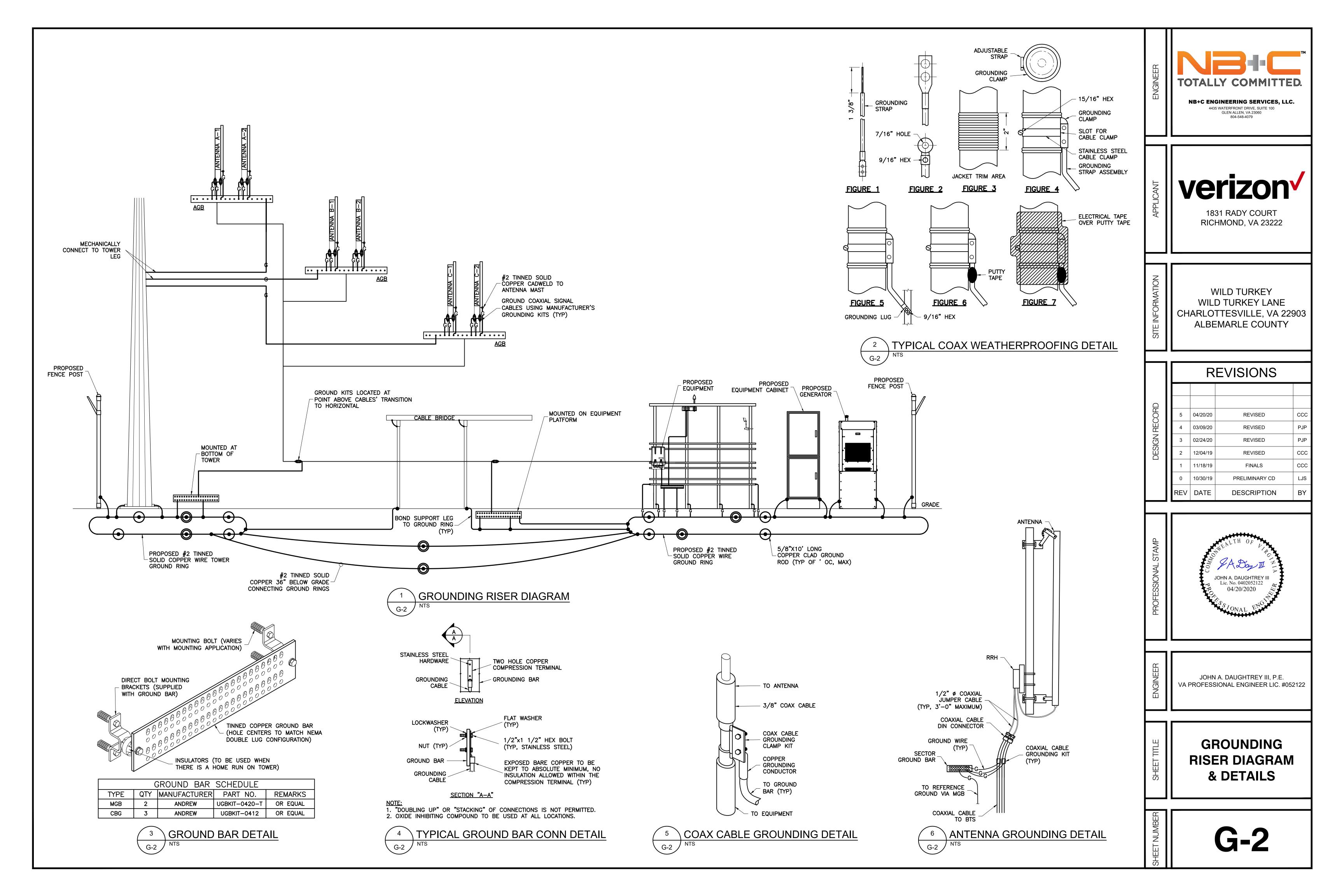
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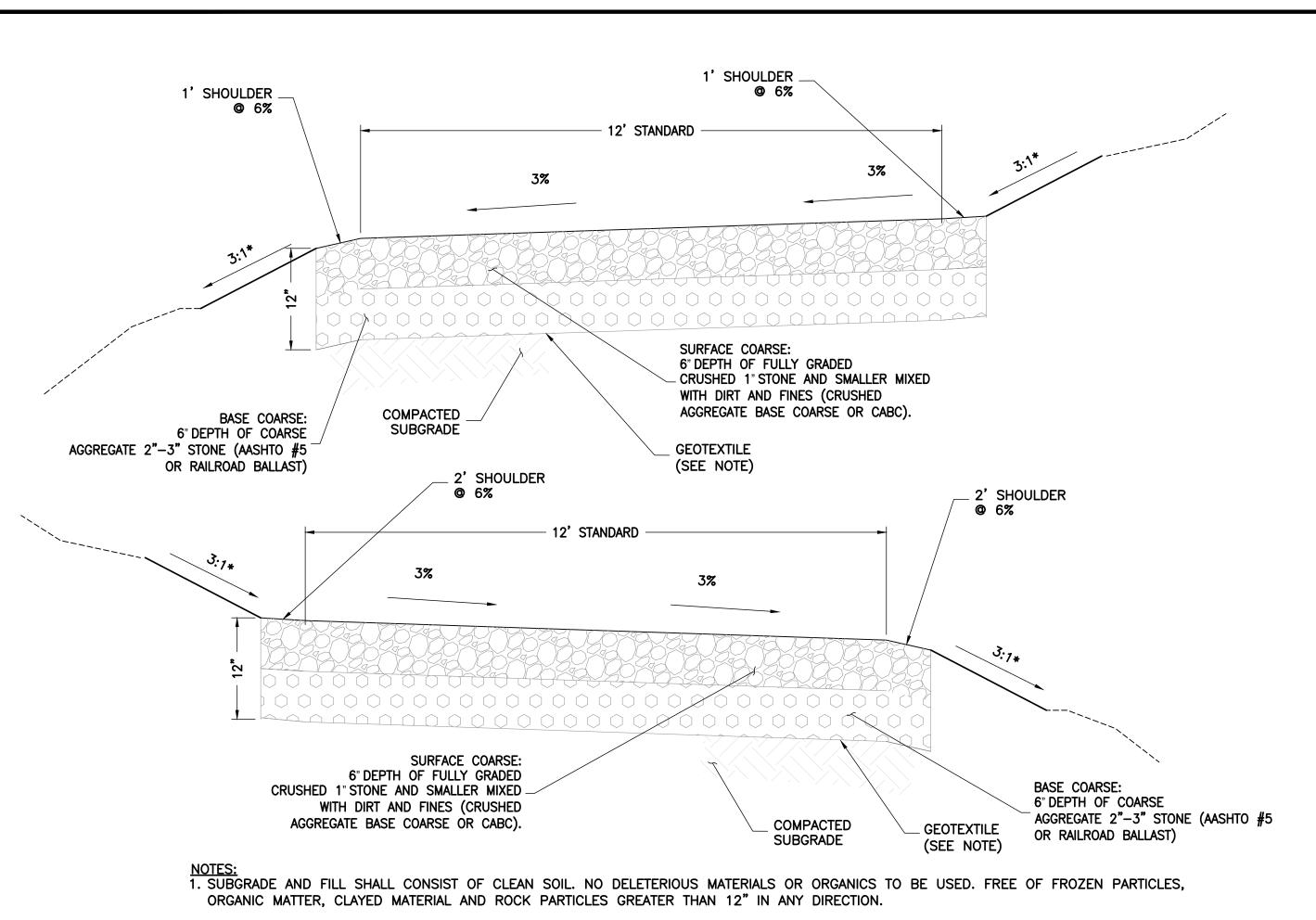
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10/30/19

REV DATE







- 2. REMOVE ALL TOPSOIL AND ORGANICS BEFORE COMMENCING ACCESS ROAD FOR A MIN. DEPTH OF 12".
- 3. CONTRACTOR TO USE 6" DEEP GRAVEL BASE (2A MODIFIED) AS MEANS OF ACCESS FOR ALL HEAVY CONSTRUCTION TRAFFIC. PROPOSED GRAVEL SURFACE (6" DEEP CRUSHER RUN) TO BE INSTALLED AFTER ALL MAJOR CONSTRUCTION HAS BEEN COMPLETED.
- 4. THE PROPOSED ROAD MUST BE KEYED INTO THE EXISTING GRADE. THE FINAL FINISHED GRADE SHALL BE FLUSH WITH THE EXISTING GRADE TO ALLOW FOR PROPER DRAINAGE ACROSS THE ROAD.
- 4. WOVEN GEOTEXTILE: APPROVED PRODUCTS ARE US FABRICS: US 200 AND TENCATE: 160N. CONTRACTOR MAY SUBMIT DESIGN ALTERNATIVE.



NGINEER



NB+C ENGINEERING SERVICES, LLC.

4435 WATERFRONT DRIVE, SUITE 100
GLEN ALLEN, VA 23060
804-548-4079



1831 RADY COURT RICHMOND, VA 23222

TE INFORMATION

WILD TURKEY
WILD TURKEY LANE
CHARLOTTESVILLE, VA 22903
ALBEMARLE COUNTY

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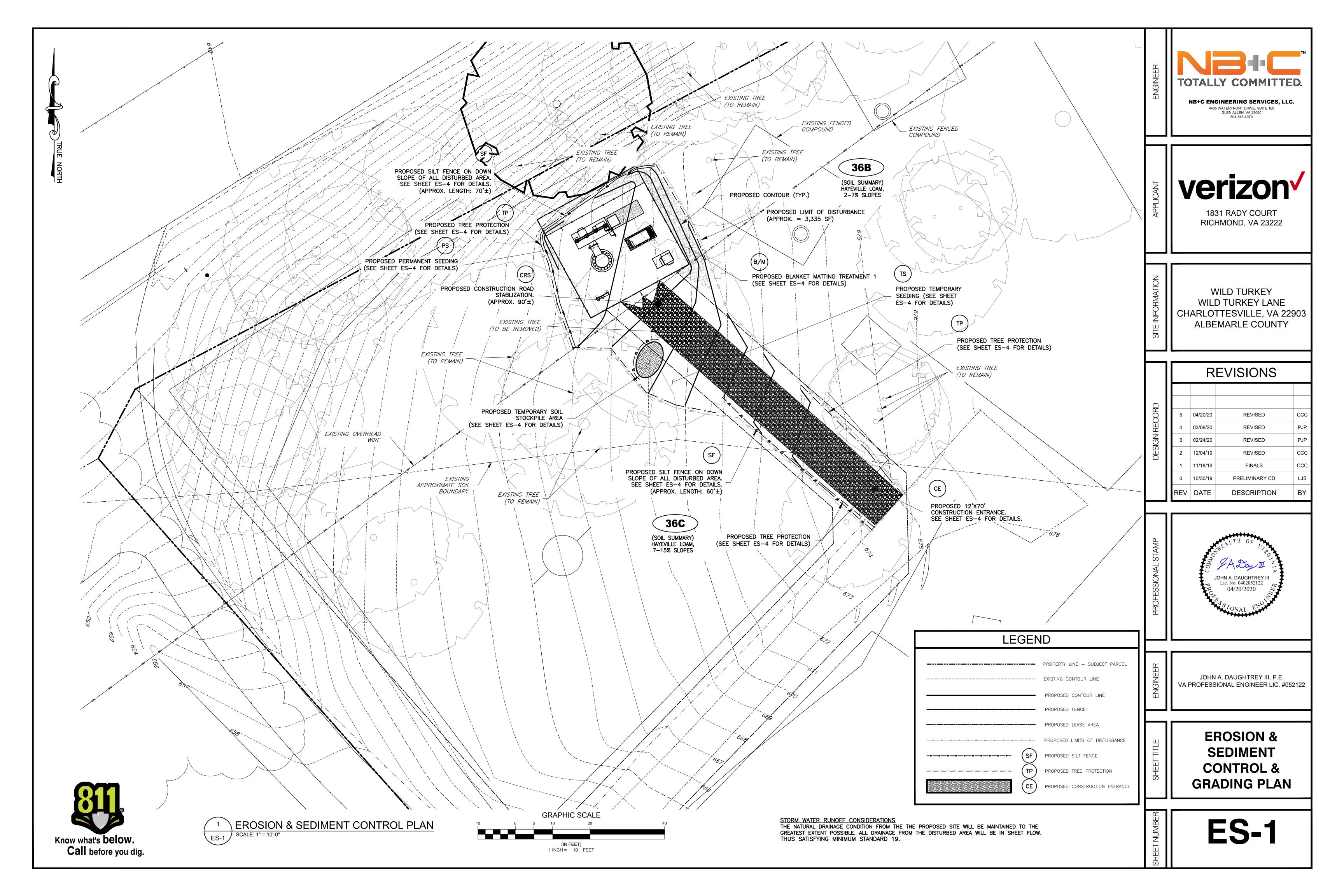
JOHN A. DAUGHTREY III, P.E. VA PROFESSIONAL ENGINEER LIC. #052122

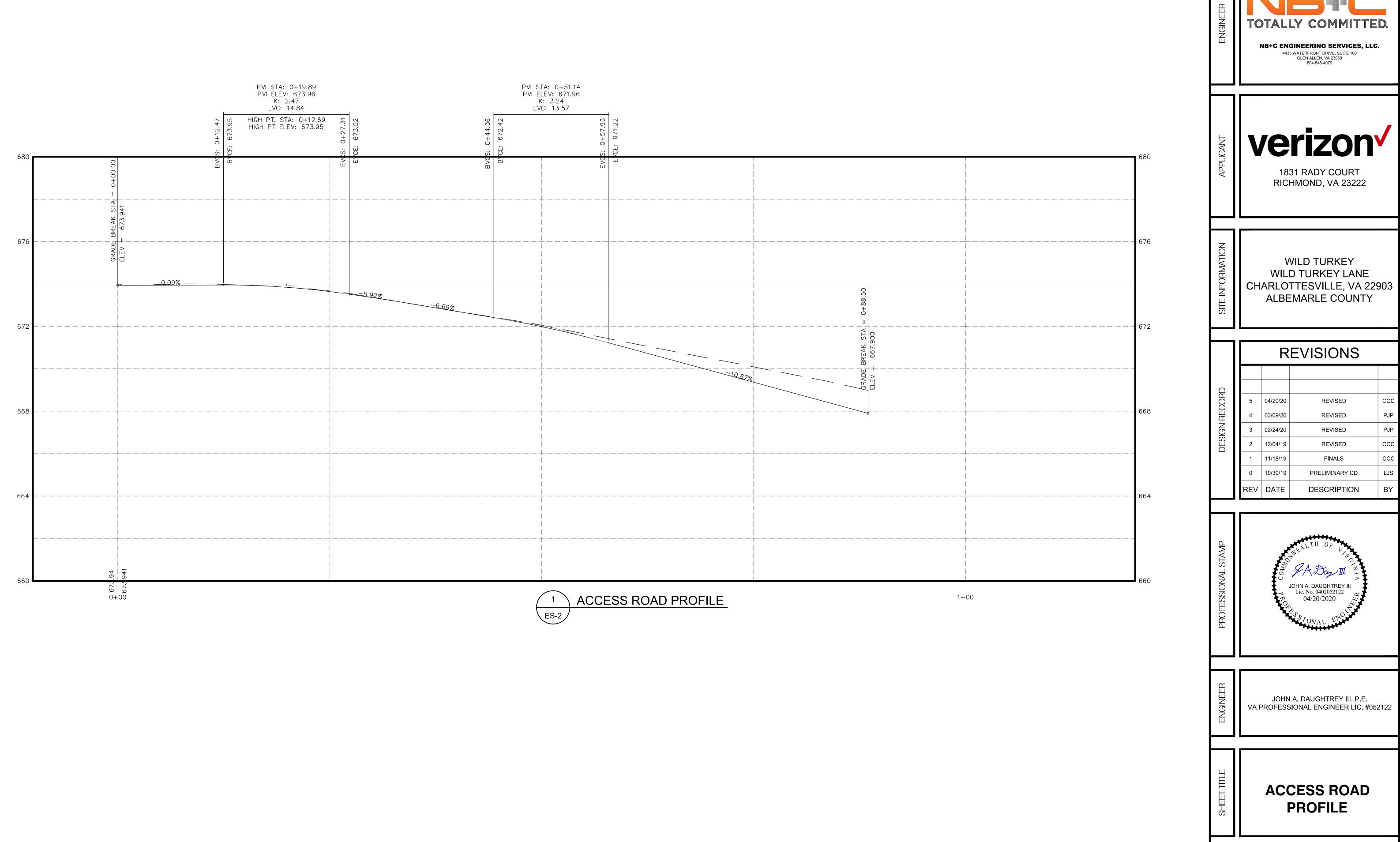
HET TITLE

EROSION &
SEDIMENT CONTROL
DETAILS II

ET NUMBER

ES-5





EROSION AND SEDIMENT CONTROL NARRATIVE

THE PURPOSE OF THIS PROJECT IS THE CONSTRUCTION OF A MONOPOLE TOWER, 90' LONG ACCESS ROAD AND FENCED COMPOUND, ALONG WITH ASSOCIATED UTILITIES, THE LEASE AREA OF THE TOWER IS 900 SF.: THE COMPOUND AREA IS 750 SF.; THE TOTAL DISTURBED AREA IS 3,335 S.F. OF WHICH 1,840 S.F. WILL BE COVERED WITH A GRAVEL SURFACE AND THE REMAINING 1,495 S.F. WILL BE MANAGED TURF.

THE SITE HAS (2) EXISTING MONOPOLES AND ASSOCIATED FACILITIES. THE PROPOSED POLE AND COMPOUND WILL JUST TO THE DISTURBANCE BEGINS WITHIN THE TRIBUTARY AREAS OF THOSE BMPS. SOUTH WEST. THE LAND SLOPES AT DOWN 10% FROM AN EXISTING ACCESS ROAD TO THE PROPOSED LOCATION BEFORE DROPPING OF AT A RATE OF 62% DOWN TO ROCKFISH GAP TURNPIKE. OUR PROPOSED COMPOUND SITS ON TOP OF A SMALL ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE FOLLOWING SEQUENCE. EACH 25' RIDGE ABOVE ROCKFISH GAP TURNPIKE. THE ACCESS ROAD AND COMPOUND IS PRIMARILY OPEN SPACE WITH FEW TREES. STAGE SHALL BE COMPLETED BEFORE ANY FOLLOWING STAGE IS INITIATED. CLEARING AND GRUBBING SHALL BE

THE ADJACENT AREAS ARE MAINLY UNDEVELOPED WOODLANDS, AGRICULTURAL FIELDS AND SINGLE FAMILY RESIDENCES.

ALL ORGANIC MATERIAL, TREE VEGETATION, ROCKS GREATER THAN 12" IN ANY DIRECTION AND EXCESS CUT MATERIAL TO BE HAULED OFF SITE. CONTRACTOR TO ENSURE MATERIAL IS DISPOSED OF AT AN APPROVED AND PERMITTED SOIL DISPOSAL LOCATION.

(36B) HAYEVILLE LOAM - 2% TO 7% SLOPES - HYDROLOGIC SOIL GROUP B (36C) HAYEVILLE LOAM - 7% TO 15% SLOPES - HYDROLOGIC SOIL GROUP B

CRITICAL AREAS
THE PROPOSED PROJECT WILL NOT CREATE ANY CRITICAL AREAS

ESC MEASURES - STRUCTURAL PRACTICES

STRUCTURAL MEASURES TO BE USED ON THE SITE INCLUDE SILT FENCE (VE&SCH SPEC. 3.05), CONSTRUCTION ENTRANCE (VE&SCH SPEC. 3.02), CONSTRUCTION ROAD STABILIZATION (VE&SCH SPEC. 3.03), TEMPORARY STOCK PILE (VE&SCH SPEC. 3.30) AND CONCRETÉ WASHOUT. ALL MEASURES SELECTED ÀRE STANDARD ESC ITEMS FOR THIS APPLICATION. ANY DISTURBED AREA DENUDED FOR SEVEN DAYS THAT IS NOT IN ACTIVE WORK AREA TO BE TEMPORARILY SEEDED.

ESC MEASURES - VEGETATIVE PRACTICES VEGETATION PRACTICES INCLUDE TEMPORARY AND PERMANENT SEEDING (VE&SCH SPEC. 3.31 & 3.32).

PERMANENT STABILIZATION

UNTIL AN ADEQUATE ROOT SYSTEM IS ESTABLISHED AND IN THE ABSENCE OF ADEQUATE RAINFALL. SODDING (OR WHATEVER VEGETATION IS USED) SHALL BE IRRIGATED AS OFTEN AS NECESSARY TO MAINTAIN MOIST SOIL TO A DEPTH OF 4 INCHES. IN GENERAL, WATERING SHALL BE PERFORMED IN ACCORDANCE WITH THE VESCH.

ALL AREAS DISTURBED BY CONSTRUCTION SHALL BE STABILIZED WITH PERMANENT SEEDING IMMEDIATELY FOLLOWING FINISHED GRADING. SEEDING SHALL BE DONE WITH KENTUCKY 31 TALL FESCUE ACCORDING TO STD. AND SPEC. 3.32, PERMANENT SEEDING, OF THE HANDBOOK. EROSION CONTROL BLANKETS WILL BE INSTALLED OVER FILL SLOPES WHICH HAVE BEEN BROUGHT TO FINAL GRADE AND HAVE BEEN SEEDED TO PROTECT THE SLOPES PROPERLY. MULCH (STRAW OR FIBER) WILL BE USED ON RELATIVELY FLAT AREAS. IN ALL SEEDING OPERATIONS, SEED FERTILIZER AND LIME WILL BE APPLIED PRIOR TO MULCHING. FINAL STABILIZATION IS CONSIDERED COMPLETED WHEN 100% OF THE DISTURBED SOIL SURFACE IS UNIFORMLY COVERED IN PERMANENT VEGETATION WITH A DENSITY OF 70% OR GREATER.

STORM WATER RUNOFF CONSIDERATIONS

THE NATURAL DRAINAGE CONDITION FROM THE THE PROPOSED SITE WILL BE MAINTAINED TO THE GREATEST EXTENT POSSIBLE. ALL DRAINAGE FROM THE DISTURBED AREA WILL BE IN SHEET FLOW. THUS SATISFYING MINIMUM STANDARD 19.

- CONSTRUCTION WILL BE SEQUENCED SO THAT GRADING OPERATIONS CAN BEGIN AND END AS QUICKLY AS POSSIBLE. TEMPORARY SEEDING OR OTHER STABILIZATION WILL FOLLOW IMMEDIATELY AFTER GRADING, SEE VA E&SC HANDBOOK 3.31-B.
- FOR SEEDING SPECIFICATION. 2. SEASONAL NURSE CROP MAY BE REQUIRED.
- AREAS WHICH ARE NOT TO BE DISTURBED WILL BE CLEARLY MARKED BY FLAGS, SIGNS, ETC.
- 4. THE JOB SUPERINTENDENT SHALL BE RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF ALL ESC PRACTICES. 5. AFTER ACHIEVING ADEQUATE STABILIZATION THE TEMPORARY ESC MEASURES WILL BE CLEANED UP FROM ACCUMULATED SEDIMENT AND REMOVED, ONLY AFTER APPROVAL OF THE JURISDICTION ESC INSPECTOR.

GENERAL NOTES

GENERAL CONTRACTOR MAY RELOCATE OR REVISE EROSION AND SEDIMENT CONTROLS AS DEEMED NECESSARY DURING CONSTRUCTION TO MAINTAIN PROPER SEDIMENT CONTROL.

2. ALL EXISTING UNDERGROUND AND ABOVE GROUND UTILITIES TO BE RELOCATED AS NECESSARY TO ACCOMMODATE THE PROPOSED IMPROVEMENTS. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING LOCAL UTILITY COMPANIES PRIOR TO CONSTRUCTION.

3. ALL ONSITE DRAINAGE EASEMENTS INCLUDING STORMWATER/B.M.P. DRAINAGE EASEMENTS MUST BE RECORDED PRIOR TO ISSUANCE OF A BUILDING PERMIT FOR THIS PROJECT.

UNDERGROUND UTILITY LINE INSTALLATION:

UNDERGROUND UTILITY LINES SHALL BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING STANDARDS IN ADDITION TO OTHER APPLICABLE CRITERIA:

- 1. NO MORE THAN 500 LINEAR FEET OF TRENCH MAY BE OPENED AT ONE TIME.
- 2. EXCAVATED MATERIAL SHALL BE PLACED ON THE UPHILL SIDE OF TRENCHES. 3. EFFLUENT FROM DEWATERING OPERATIONS SHALL BE FILTERED OR PASSED THROUGH AN APPROVED SEDIMENT TRAPPING DEVICE, OR BOTH, AND DISCHARGED IN A MANNER THAT DOES NOT ADVERSELY AFFECT FLOWING STREAMS OR OFF-SITE PROPERTY. 4. MATERIAL USED FOR BACKFILLING TRENCHES SHALL BE PROPERLY COMPACTED IN ORDER TO MINIMIZE EROSION AND PROMOTE
- STABILIZATION. 5. DESTABILIZATION SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THESE REGULATIONS.
- 6. COMPLY WITH APPLICABLE SAFETY REGULATIONS.

CONSTRUCTION SEQUENCE

AT LEAST 7 DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES, THE OWNER/OPERATOR SHALL INVITE ALL CONTRACTORS INVOLVED IN THOSE ACTIVITIES, THE LANDOWNER, ALL APPROPRIATE MUNICIPAL OFFICIALS, THE EROSION AND SEDIMENT CONTROL PLAN PREPARER. AND THE CONSERVATION DISTRICT TO AN ON-SITE MEETING. ALSO, AT LEAST 3 WORKING DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES, ALL VIRGINIA CONTRACTORS INVOLVED IN THOSE ACTIVITIES SHALL NOTIFY THE VIRGINIA ONE CALL SYSTEM "MISS UTILITY" INCORPORATED AT 811 FOR BURIED UTILITIES LOCATIONS.

EROSION AND SEDIMENT BMPS MUST BE CONSTRUCTED, STABILIZED, AND FUNCTIONAL BEFORE SITE

- LIMITED ONLY TO THOSE AREAS DESCRIBED IN EACH STAGE.
- 1. INSTALL ROCK CONSTRUCTION ENTRANCE AND ALL PERIMETER BMP'S AS SHOWN ON THE PLANS.
- 2. CLEAR TREES AND LIMBS FOR FULL WIDTH OF EASEMENT AND LEASE AREA, GROUND TO SKY.
- STRIP TOPSOIL FOR THE ACCESS DRIVE AND STORE AT DESIGNATED LOCATIONS AS SHOWN ON THE PLANS OR LOCATION AS AGREED UPON WITH THE CONSTRUCTION MANAGER.
- 4. BEGIN GRADING AND INSTALL GRAVEL, ROADSIDE DITCHES, AND CULVERTS WITH OUTLET PROTECTION.
- 5. STRIP TOPSOIL ACROSS COMPOUND AND STORE AT DESIGNATED LOCATIONS AS SHOWN ON THE PLANS OR LOCATION AS AGREED UPON WITH THE CONSTRUCTION MANAGER.
- GRADE COMPOUND SITE AND INSTALL GRAVEL. IMMEDIATELY STABILIZE FILL AND CUT SLOPES WITH EROSION CONTROL MATTING OR ROCK.
- ONCE CONSTRUCTION OF COMPOUND AND ACCESS DRIVE IS COMPLETE, BEGIN CONSTRUCTION OF TOWER AND ASSOCIATED FACILITIES AND UTILITIES AS SHOWN ON THE DRAWINGS.
- 8. IF CONSTRUCTION IS TERMINATED OR SUSPENDED PRIOR TO CONSTRUCTION COMPLETION, ALL EXPOSED

SOIL AREAS SHALL BE SEEDED WITH TEMPORARY SEEDING AND MULCHED IMMEDIATELY.

9. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN ALL SEDIMENT AND EROSION CONTROL FACILITIES IN EFFECTIVE WORKING ORDER DURING CONSTRUCTION AND UNTIL ALL EXPOSED SOIL AREAS HAVE BEEN STABILIZED.

IMMEDIATELY AFTER EARTH DISTURBANCE ACTIVITIES CEASE. THE O/RP SHALL STABILIZE ANY AREAS DISTURBED BY THE ACTIVITIES. DURING NON-GERMINATING PERIODS, MULCH MUST BE APPLIED AT THE SPECIFIED RATES. DISTURBED AREAS WHICH ARE NOT AT FINISHED GRADE AND WHICH WILL BE REDISTURBED WITHIN 1 YEAR MUST BE STABILIZED IN ACCORDANCE WITH THE TEMPORARY VEGETATIVE STABILIZATION SPECIFICATIONS. DISTURBED AREAS WHICH ARE AT FINISHED GRADE OR WHICH WILL NOT BE REDISTURBED WITHIN 1 YEAR MUST BE STABILIZED IN ACCORDANCE WITH THE PERMANENT VEGETATIVE STABILIZATION SPECIFICATIONS.

AN AREA SHALL BE CONSIDERED TO HAVE ACHIEVED FINAL STABILIZATION WHEN IT HAS A MINIMUM UNIFORM 70% PERENNIAL VEGETATIVE COVER OR OTHER PERMANENT NON-VEGETATIVE COVER WITH A DENSITY SUFFICIENT TO RESIST ACCELERATED SURFACE EROSION AND SUBSURFACE CHARACTERISTICS SUFFICIENT TO RESIST SLIDING AND OTHER MOVEMENTS.

AFTER FINAL SITE STABILIZATION HAS BEEN ACHIEVED, TEMPORARY EROSION AND SEDIMENT BMPS MUST BE REMOVED. AREAS DISTURBED DURING REMOVAL OF THE BMPS MUST BE STABILIZED IMMEDIATELY.

MAINTENANCE

. THE CONTRACTOR SHALL INSPECT ALL EROSION CONTROL MEASURES PERIODICALLY AND AFTER EACH RUNOFF PRODUCING RAINFALL EVENT. ANY NECESSARY REPAIRS OR CLEANUP TO MAINTAIN THE EFFECTIVENESS OF THE EROSION CONTROL DEVICES SHALL BE MADE IMMEDIATELY. THE FOLLOWING ITEMS WILL BE CHECKED, IN PARTICULAR:

2. THE SILT FENCE BARRIER WILL BE CHECKED REGULARLY FOR UNDERMINING OR DETERIORATION OF THE FABRIC. SEDIMENT SHALL BE REMOVED WHEN THE LEVEL OF SEDIMENT DEPOSITION REACHES HALF WAY TO THE TOP OF THE BARRIER.

3. THE SEEDED AREAS WILL BE CHECKED REGULARLY TO ENSURE THAT A GOOD STAND IS MAINTAINED. AREAS SHOULD BE FERTILIZED AND RE-SEEDED AS NEEDED.

4. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ECS CONTROLS DURING CONSTRUCTION.

5. INSPECTION TO BE CONDUCTED SHALL BE PER CARROLL COUNTY STANDARDS AND REQUIREMENTS. CONTRACTOR IS RESPONSIBLE FOR SCHEDULING ALL INSPECTIONS.

6. SILT FENCE SHALL BE CHECKED AFTER EACH MAJOR STORM EVENT OR ONCE EVERY FIVE DAYS. SEDIMENT SHALL BE REMOVED AFTER IT BECOMES 1/3 HEIGHT OF SILT FENCE.

7. ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL WILL BE CONSTRUCTED ACCORDING TO THE STANDARDS AND SPECIFICATIONS OF THE VIRGINIA SEDIMENT AND EROSION CONTROL HANDBOOK, 3RD ED,

GENERAL EROSION AND SEDIMENT CONTROL NOTES:

- 1. THE OWNER/DEVELOPER MUST NOTIFY THE ALBEMARLE COUNTY AT LEAST 24 HOURS PRIOR TO THE START OF THE CONSTRUCTION IN ACCORDANCE WITH APPLICABLE ALBEMARLE COUNTY ORDINANCES AND POLICIES.
- 2. THE OWNER/DEVELOPER GRANTS THE RIGHT-OF-ENTRY ON TO THIS PROPERTY TO THE DESIGNATED ALBEMARLE COUNTY PERSONNEL FOR THE PURPOSE OF INSPECTING AND MONITORING FOR COMPLIANCE WITH TITLE 10.01, CHAPTER 5, ARTICLE 4 OF THE CODE OF VIRGINIA. EROSION AND SEDIMENT CONTROL LAW AND THE DESIGN AND CONSTRUCTION STANDARDS MANUAL SECTION 750.04.
- 3. ALL EROSION CONTROL MEASURES SHOWN ON THE APPROVED PLAN MUST BE IN PLACE AND INSPECTED AND APPROVED BY THE DEPARTMENT PF PUBLIC WORKS PRIOR TO CLEARING, STRIPPING OF TOPSOIL OR GRADING. 4. A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN AND PERMIT SHALL BE KEPT ON THE SITE
- AT ALL TIMES. THE DEVELOPER/DEVELOPERS'S REPRESENTATIVE IS RESPONSIBLE FOR THE INSTALLATION OF ANY ADDITIONAL EROSION CONTROL MEASURES NECESSARY TO PREVENT EROSION AND SEDIMENTATION AS DETERMINED BY THE
- 6. ALL DISTRIBUTED AREAS ARE TO DRAIN TO APPROVED SEDIMENT CONTROL MEASURES AT ALL TIMES DURING LAND DISTURBING ACTIVITIES AND DURING SITE DEVELOPMENT UNTIL COMPLETE AND ADEQUATE STABILIZATION IS
- . WATER MUST BE PUMPED INTO AN APPROVED FILTERING DEVICE DURING DEWATERING OPERATIONS. ALL EROSION AND SEDIMENT CONTROL PRACTICES MUST BE CONSTRUCTED AND MAINTAINED ACCORDING TO THE MINIMUM STANDARDS AND SPECIFICATIONS OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK AND THE VIRGINIA REGULATIONS VR 625-02-00 EROSION AND SEDIMENT CONTROL REGULATIONS AND TO ALBEMARLE COUNTY DESIGN AND CONSTRUCTION STANDARDS MANUAL. THE DEVELOPER/DEVELOPER'S REPRESENTATIVE WILL BE RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF ALL EROSION AND
- THE DEVELOPERS/ DEVELOPER'S REPRESENTATIVE SHALL INSPECT ALL EROSION AND SEDIMENT CONTROL MEASURES DAILY AND AFTER EACH SIGNIFICANT RAINFALL THE FOLLOWING ITEMS WILL BE CHECKED IN PARTICULAR:
 - a. SILT FENCE BARRIERS WILL BE CHECKED REGULARLY FOR UNDERMINING OR DETERIORATION OF THE FABRIC. SEDIMENT SHALL BE REMOVED WHEN THE LEVEL OF SEDIMENT DEPOSITION REACHES HALF WAY TO THE TOP OF THE BARRIER.
- b. SEEDED AREAS WILL BE CHECKED REGULARLY TO ENSURE THAT A GOOD STAND IS MAINTAINED. AREAS SHOULD BE FERTILIZED AND RE-SEEDED AS NEEDED.
- 10. SEDIMENT TRAPPING MEASURES WILL BE INSTALLED AS A FIRST STEP IN GRADING AND WILL BE SEEDED AND
- MULCHED IMMEDIATELY FOLLOWING INSTALLATION. 11. PERMANENT SOIL STABILIZATION SHALL BE APPLIED TO DENUDED AREAS WITHIN SEVEN (7) DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE. TEMPORARY SOIL STABILIZED SHALL BE APPLIED WITH IN
- SEVEN (7) DAYS TO DENUDED AREAS THAT MAY NOT BE AT FINAL GRADE BUT WILL REMAIN UNDISTURBED FOR LONGER THAN FOURTEEN (14) DAYS. SEEDING AND SELECTION OF THE SEED MIXTURE SHALL BE IN ACCORDANCE WITH VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK STANDARD AND SPECIFICATION 3.32. ROADS AND PARKING AREAS SHALL BE STABILIZED WITH SEVEN (7) DAYS AFTER FINAL GRADE IS REACHED. 12. ELECTRIC POWER, TELEPHONE, CABLE T.V. AND GAS SUPPLY TRENCHES SHALL BE COMPACTED, SEEDED AND
- MULCHED WITHIN FIVE DAYS AFTER BACKFILL 13. ALL TEMPORARY EARTH BERMS, DIVERSIONS AND SILT DAMS SHALL BE MULCHED WITHIN FIVE DAYS AFTER
- GRADING. STRAW OR HAY MULCH IS REQUIRED.
- 14. DURING CONSTRUCTION, ALL STORM SEWER INLETS SHALL BE PROTECTED BY INLET PROTECTION MAINTAINED AN MODIFIED DURING CONSTRUCTION AS REQUIRED.
- 15. AT THE COMPLETION OF ANY PROJECT CONSTRUCTION AND PRIOR TO BOND RELEASE, ALL TEMPORARY SEDIMENT CONTROL MEASURES SHALL BE REMOVED.
- 16. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES WILL BE REMOVED WITHIN 30 DAYS AFTER ADEQUATE SITE STABILIZATION AND AFTER THE TEMPORARY MEASURES ARE NO LONGER NEEDED, AS AUTHORIZED BY THE ALBEMARLE COUNTY INSPECTORS. TRAPPED SEDIMENT AND THE DISTURBED SOIL AREAS RESULTING FROM THE DISPOSITION OF TEMPORARY MEASURES WILL BE PERMANENTLY STABILIZED TO PREVENT FURTHER EROSION AND SEDIMENTATION.
- 17. WHEN SEDIMENT IS TRANSPORTED ONTO A PAVED ROAD SURFACE, THE ROAD WILL BE CLEANED THOROUGHLY AT THE END OF EACH DAY. SEDIMENT WILL BE REMOVED FROM THE ROADS BY SHOVELING OR SWEEPING AND TRANSPORTED TO A SEDIMENT CONTROL DISPOSAL AREA. STREET WASHING WILL BE ALLOWED ONLY AFTER SEDIMENT IS REMOVED IN THIS MANNER.
- 18. AREAS WHICH ARE NOT TO BE DISTURBED WILL BE CLEARLY MARKED BY FLAGS, SIGNS, ETC. 19. RPA AND FLOOD PLAIN LIMITS SHALL BE CLEARLY MARKED IN THE FIELD BY FLAGS, SIGNS. ETC.
- 20. TREE SAVE AREAS SHALL BE CLEARLY MARKED IN THE FIELD BY ORANGE SAFETY FENCE. APPROPRIATE TREE PRESERVATIONS SIGNS (WATERPROOF) TO IDENTIFY TREE PRESERVATION AREA SHALL BE LOCATED ON TREE PROTECTIONS FENCING (INCLUDES SÚPER SILT FENCING) AND SHOULD BE LOCATED ALTERNATE BETWEEN FNGLISH AND SPANISH EVERY 30 FEET.
- 21. ORANGE SAFETY FENCE MUST BE INSTALLED AROUND ALL SILT TRAPS AND SEDIMENT BASINS

GRADING NOTES

ACHIEVED.

SEDIMENT CONTROL PRACTICES AT ALL TIMES.

- 1. SOILS USED FOR ROADWAY SUBGRADE MUST BE COMPACTED SO THAT THE MINIMUM DRY DENSITY ACHIEVED EXCEEDS 95% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY. THE CONTRACTOR MAY ONLY USE CUT MATERIAL AS FILL IF IT CAN BE COMPACTED TO 95% OF ITS STANDARD PROCTOR MAXIMUM DRY DENSITY. PROCTOR READING MUST BE INSPECTED AND APPROVED BY A THIRD PARTY DURING ROADWAY CONSTRUCTION.
- 2. NATIVE TOPSOIL SHALL BE SAVED, STOCKPILED, MULCHED, AND REUSED AS MUCH AS POSSIBLE ON THE SITE. SILTATION FENCE SHALL BE INSTALLED AT THE BASE OF STOCKPILES AT THE DOWNHILL LIMIT TO PROTECT AGAINST EROSION. STOCKPILES WILL BE STABILIZED BY SEEDING AND MULCHING UPON FORMATION OF THE PILES. UPHILL OF THE STOCKPILES, STABILIZED DITCHES AND/OR BERMS WILL BE CONSTRUCTED TO DIVERT STORMWATER RUNOFF AWAY FROM THE PILES. EXCESS CUT SOIL NOT REUSED AS FILL SHALL BE HAULED OFF SITE TO AN APPROVED AND PERMITTED SOIL DISPOSAL SITE AS SOON AS FINAL GRADE HAS BEEN ESTABLISHED.
- 3. FOR AN EARTH DISTURBANCE ACTIVITY OR ANY STAGE OR PHASE OF AN ACTIVITY TO BE CONSIDERED PERMANENTLY STABILIZED. THE DISTURBED AREAS SHALL BE COVERED BY A MINIMUM UNIFORM 70% PERENNIAL VEGETATIVE COVER OR OTHER PERMANENT NON-VEGETATIVE COVER WITH A DENSITY SUFFICIENT TO RESIST ACCELERATED EROSION AND SUBSURFACE CHARACTERISTICS SUFFICIENT TO RESIST SLIDING AND OTHER MOVEMENTS.
- 4. ALL EARTHEN FILLS SHALL BE PLACED IN COMPACTED LAYERS NOT TO EXCEED 8 INCHES IN THICKNESS.
- 5. FILL MATERIALS SHALL BE FREE OF FROZEN PARTICLES, BRUSH, ROOTS, SOD, OR ORGANIC MATERIAL THAT WOULD INTERFERE WITH OR PREVENT CONSTRUCTION OF SATISFACTORY FILLS. ANY ROCK GREATER THAN 12" IN ANY DIRECTION SHOULD BE DISPOSED OF AND NOT USED AS FILL. FILL SHALL NOT BE PLACED ON SATURATED OR FROZEN SURFACES.
- 6. PLOW, SCARIFY, BENCH, OR BREAK UP SLOPED SURFACES STEEPER THAN 1 VERTICAL TO 4 HORIZONTAL SO FILL MATERIAL WILL BOND WITH EXISTING MATERIAL. IF FILL EXCEEDS 4' IN HEIGHT FROM TOE TO CREST, FILL MUST BE BENCHED AND KEYED IN. SEE DETAIL 4/ES-7 FOR DETAILS.
- 7. PLACE SOIL FILL ON SUB-GRADES FREE OF ORGANIC MATERIAL, MUD, FROST, SNOW, OR ICE
- 8. PLACE BACKFILL AND FILL MATERIALS IN LAYERS NOT MORE THAN 8 INCHES THICK IN LOOSE DEPTH COMPACTED BY HEAVY COMPACTION EQUIPMENT, AND NOT MORE THAN 4 INCHES IN LOOSE DEPTH FOR MATERIAL COMPACTED BY HAND OPERATED TAMPERS.
- 9. UNDER ACCESS ROADS WITH MARGINAL TO EXCESSIVE SLOPES AND MARGINAL SUBGRADE, CLEAR, GRUB AND SCARIFY ROAD AREA. INSTALL ONE LAYER OF GEO-TEXTILE FABRIC (US 160 NW OR EQUIVALENT) AND PIN TO SUBGRADE. INSTALL BASE LAYER, AND TRACK IN WITH A BULLDOZER OR SHEEPSFOOT ROLLER, INSTALL SURFACE LAYER, DRESS ROAD AS REQUIRED AFTER CONSTRUCTION WITH MOTOR GRADER AND COMPACT WITH A VIBRATORY ROAD ROLLER.

HAY BALE AND PLASTIC WASHOUT PIT

HAY BALE AND PLASTIC WASHOUT PIT TO BE BUILT ABOVE GRADE. THE PLASTIC LINING SHOULD BE MINIMUM 10 MIL THICKNESS, FREE OF TEARS OR HOLES THAT WOULD ALLOW THE WASHWATER TO ESCAPE. AFTER THE PIT IS USED TO WASH DOWN THE CHUTES OF MULTIPLE READY MIXED TRUCKS AND THE WASHWATER HAS EVAPORATED OR HAS BEEN VACUUMED OFF, THE REMAINING HARDENED SOLIDS CAN BE BROKEN UP AND REMOVED FROM THE PIT. THIS PROCESS MAY DAMAGE THE HAY BALES AND PLASTIC LINING. IF DAMAGE OCCURS, THE PIT WILL NEED TO BE REPAIRED AND RELINED WITH NEW PLASTIC. WHEN THE HARDENED SOLIDS ARE REMOVED FROM THE PIT. THE WASTE MATERIAL MUST BE RECYCLED OR DISPOSED OF AT AN APPROVE WASTE FACILITY.



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

RICHMOND, VA 23222

1831 RADY COURT

WILD TURKEY WILD TURKEY LANE CHARLOTTESVILLE, VA 22903 ALBEMARLE COUNTY

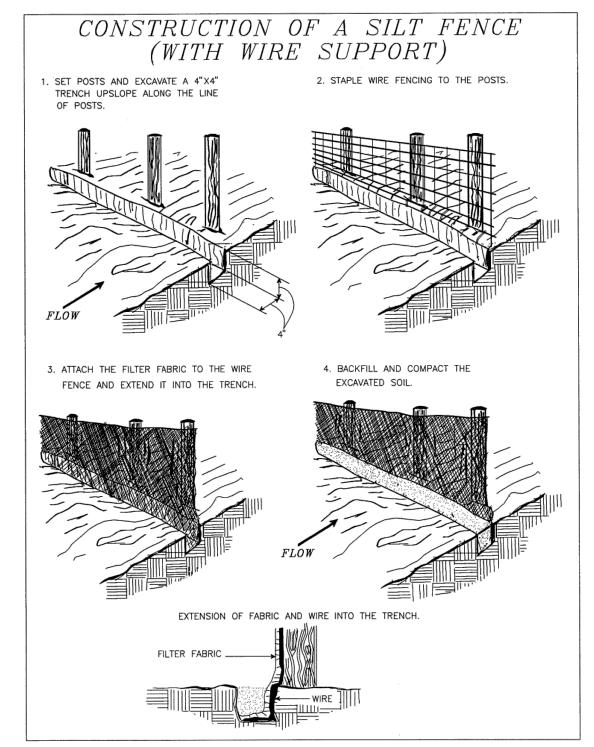
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	1	11/18/19	FINALS	ССС
	0	10/30/19	PRELIMINARY CD	LJS
	REV	DATE	DESCRIPTION	BY

JOHN A. DAUGHTREY III Lic. No. 0402052122 04/20/2020

JOHN A. DAUGHTREY III. P.E. VA PROFESSIONAL ENGINEER LIC. #052122

EROSION

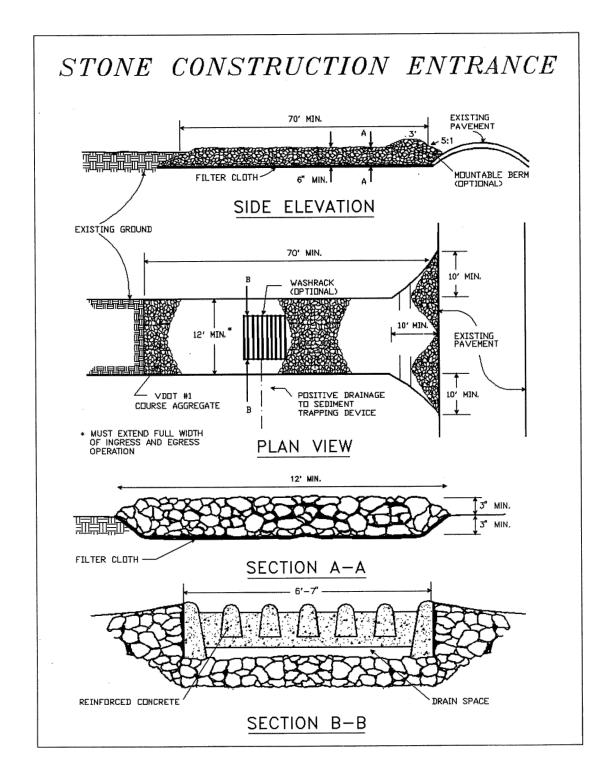
SEDIMENT CONTROL NOTES



NOTE: ALL SILT FENCES ARE TO USE 36 INCH FABRIC AND STAKED WITH 2"X2" HARDWOOD STAKES ON 6' CENTERS

VESCH 3.05 SILT FENCE

STANDARD FILTER FABRIC FENCE



VESCH 3.02 TEMPORARY CONSTRUCTION ENTRANCE

ROCK CONSTRUCTION ENTRANCE

TABLE 3.32-C SITE SPECIFIC SEEDING MIXTURES FOR APPALACHIAN/MOUNTAIN AREA

Total Lbs
200-250 lbs 90-1009 0-109 0-109
125 lbs
128 lb 2 lb <u>20 lb</u> 150 lb
150 10
108 lb 2 lb 20 lb 20 lb 150 lb
emperatures that
s stated below: Annual Ry Foxtail Mill Annual Ry Winter Ry

VESCH 3.32 PERMANENT SEEDING

maintenance mixture during warmer seeding periods; add 10-20 lbs/acre in mixes.

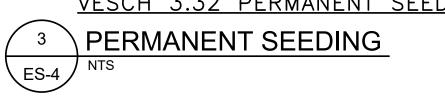


TABLE 3.31-B

ACCEPTABLE TEMPORARY SEEDING PLANT MATERIALS

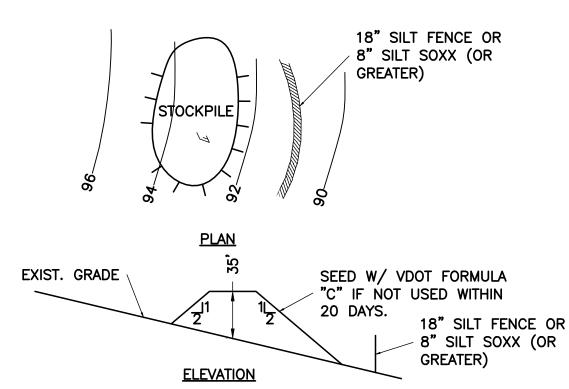
"QUICK REFERENCE FOR ALL REGIONS"

Planting Dates	<u>Species</u>	Rate (lbs./acre)
Sept. 1 - Feb. 15	50/50 Mix of Annual Ryegrass (Lolium multi-florum) & Cereal (Winter) Rye (Secale cereale)	50 - 100
Feb. 16 - Apr. 30	Annual Ryegrass (Lolium multi-florum)	60 - 100
May 1 - Aug 31	German Millet (Setaria italica)	50

VESCH 3.31 TEMPORARY SEEDING







1. INSTALL SILT FENCE DOWNSLOPE OF AREA OF STOCKPILE. 2. PLACE STOCKPILE IN AREAS SHOWN ON EROSION CONTROL PLAN WITHOUT BLOCKING

NATURAL DRAINAGE PATTERNS. 3. FOLLOW DIMENSIONS SHOWN ABOVE. HEIGHT SHOULD NOT EXCEED 35 FT. SIDE SLOPES SHOULD NOT BE STEEPER THAN 2(H):1(V).

4. SEED IMMEDIATELY IF MATERIAL IS NOT TO BE USED WITHIN 20 DAYS. FOLLOW "SEEDING, FERTILIZATION SCHEDULE & SPECIFICATIONS."

5. LOCATION(S) AND SIZE(S) OF SOIL STOCKPILES ARE APPROXIMATE AND SHALL BE ADJUSTED PER FIELD AND CONSTRUCTION SEQUENCE CONDITIONS. CONTRACTOR SHALL VERIFY REQUIRED SIZE(S). REQUIREMENTS FROM THE STANDARDS DETAIL MUST BE FOLLOWED FOR



TOPSOIL SPECIFICATIONS

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THE CONTRACTOR SHALL FURNISH ALL LABOR, SUPERVISION, MATERIAL (EXCEPT AS HEREIN PROVIDED), TOOLS EQUIPMENT, SUPPLIES, AND SERVICES; AND, SHALL PERFORM ALL WORK NECESSARY FOR PROVIDING (TYPE B AS NECESSARY) AND APPLYING TOPSOIL IN ACCORDANCE WITH THE REQUIREMENTS OF THESE SPECIFICATIONS AND IN CONFORMITY TO THE DEPTHS AND LIMITS SHOWN ON THE DRAWINGS OR AS ESTABLISHED BY THE OWNER. PRIOR TO USE OR PLACEMENT, THE CONTRACTOR SHALL SUBMIT CERTIFICATIONS OF SOIL TESTS FOR APPROVAL. SOIL TESTS SHALL BE PROVIDED AT THE RATE OF ONE TEST PER 10,000 SQUARE FEET OF DISTURBED AREA.

C. UNLESS OTHERWISE DIRECTED BY THE OWNER, AREAS DESIGNATED TO RECEIVE TOPSOIL SHALL BE GRADED, SHAPED, AND THEN SCARIFIED OR TILLED BY DISKING, HARROWING, OR OTHER APPROVED METHODS TO A DEPTH OF APPROXIMATELY 2". TOPSOIL SHALL BE APPLIED ONLY WHEN THE SUBSOIL IS IN A LOOSE, FRIABLE CONDITION.

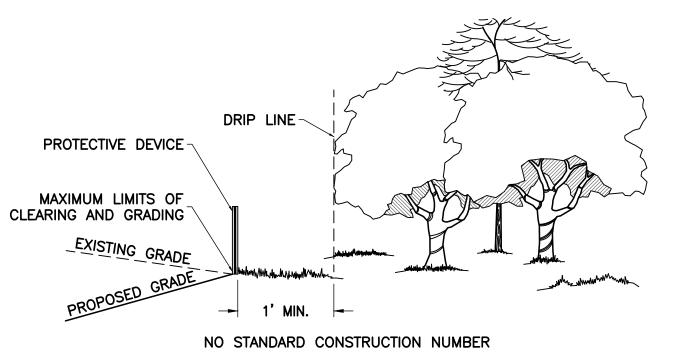
D. THE CONTRACTOR SHALL PROTECT BENCHMARKS, UTILITIES, AND EXISTING TREES, SHRUBS, AND OTHER LANDSCAPE FEATURES DESIGNATED FOR PRESERVATION WITH TEMPORARY FENCING OR BARRICADES SATISFACTORY TO THE OWNER.

E. SUBSOIL ON SLOPES THAT HAVE BEEN HORIZONTALLY GROOVED IN ACCORDANCE WITH THE DRAWINGS SHALL NOT BE LOOSENED.

F. THE LOOSE DEPTH OF THE CLASS OF TOPSOIL SHALL BE NO LESS THAN 4" (NOT LESS THAN 6" IN MEDIANS: AND SHALL BE SUFFICIENT TO ALLOW THE AREA TO CONFORM TO THE ELEVATIONS SHOWN ON THE DRAWINGS AFTER TOPSOIL SETTLES. IN NO CASE SHALL THE CONSOLIDATED FINISH ELEVATION OF TOPSOIL EXCEED THE ELEVATION OF ADJACENT STRUCTURES. CONSOLIDATED ELEVATION SHALL BE FLUSH WITH THE ADJACENT STRUCTURES.

G. AFTER TOPSOIL HAS BEEN APPLIED, LARGE CLODS, HARD LUMPS, AND STONES MORE THAN 1" IN THE GREATEST DIMENSION, BRUSH, ROOTS, STUMPS, LITTER, AND FOREIGN MATERIAL SHALL BE REMOVED FROM THE AREA. WHEN THE OPERATION IS COMPLETE. THE AREA SHALL BE IN A CONDITION TO RECEIVE SEED, SOD, OR PLANTS WITHOUT FURTHER SOIL

PREPARATION. AREAS SHALL BE STABILIZED WITHIN 15 DAYS AFTER TOPSOIL IS APPLIED. H. THE CONTRACTOR SHALL BE REQUIRED TO BACKFILL ALONG EDGES OF CURBS, SIDEWALKS AND ENTRANCES WHERE SETTLEMENT HAS OCCURRED AND RESHAPE AND RESLOPE, WHERE DIRECTED, PRIOR TO PLACEMENT OF TOPSOIL AS WELL AS TO ADD ADDITIONAL TOPSOIL AS REQUIRED DUE TO SETTLEMENT OR EROSION AT NO ADDITIONAL COST TO THE OWNER.



CONSTRUCTION.

- 1. THE TREE PROTECTIVE BARRIER MUST CONSIST OF ORANGE SAFETY FENCING, NOT LESS
- THAN THREE FEET HIGH AND SUPPORTED BY WOOD/METAL POLES. 2. THE TREE PROTECTIVE BARRIER WILL NEED TO REMAIN IN PLACE THROUGHOUT
- 3. APPROVAL OF TREE PROTECTIVE BARRIER WOULD NEED TO OCCUR PRIOR TO THE ISSUANCE OF A BUILDING PERMIT AND FINAL SITE PLAN APPROVAL.

VESCH 3.38 TREE PRESERVATION AND PROTECTION





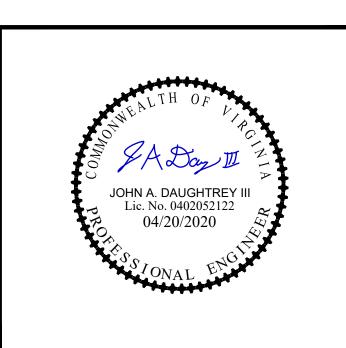


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REVISIONS 04/20/20 REVISED 03/09/20 REVISED 02/24/20 REVISED 12/04/19 REVISED 11/18/19 10/30/19 PRELIMINARY CD REV DATE **DESCRIPTION**



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EROSION ||SEDIMENT CONTROL **DETAILS I**