

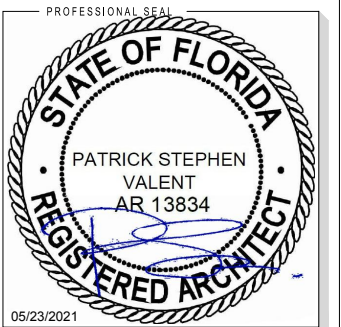


SITE NAME: NAPLES  
 SITE NUMBER: NAP005  
 STRUCTURE: NEW METAL POLE  
 PROJECT: SMALL CELL - FLORIDA

PREPARED BY  
**VALENT  
 TELECOM  
 DESIGN  
 GROUP**

7480 FAIRWAY DRIVE, SUITE # 206  
 MIAMI LAKES, FLORIDA 33014  
 (305) 439-6266  
 FL CA #AA26003007

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PREPARED FOR  
  
**CROWN  
 CASTLE**  
 CROWN CASTLE FIBER LLC  
 8517 SOUTHPARK CIRCLE  
 SUITE 150  
 ORLANDO, FL 32819

PROJECT INFORMATION  
**NAP005**  
 LAT.: 26.131704°  
 LONG.: -81.805403°  
 PROJECT #:  
 CROWN.NAP005.019

ISSUED DATES	
0 ISSUED FOR PERMIT	08.28.20
1 PER CITY COMMENTS	10.01.20
2 PER CITY COMMENTS	10.28.20
3 ELECTRICAL REVISION	02.19.21
4 PER CITY COMMENTS	05.23.21

SHEET NAME  
**COVER**  
 SHEET NUMBER  
**T-1**

LOCATION MAP	CONTACT INFORMATION	SITE INFORMATION	LIST OF DRAWINGS
	<p><b>APPLICANT:</b>            CROWN CASTLE FIBER LLC            8517 SOUTHPARK CIRCLE            SUITE 150            ORLANDO, FL 32819            PM: MELISSA GARMANY            CM: WES VALIM</p> <p><b>ARCHITECTURAL:</b>            VALENT TELECOM DESIGN GROUP            7480 FAIRWAY DRIVE, SUITE # 206            MIAMI LAKES, FL 33014            PATRICK VALENT, RA            PH: 305.439.6266            PATRICK@VALENTTDG.COM</p>	<p>LATITUDE: 26° 07' 54.12" NORTH (NAD 83)            26.131704°</p> <p>LONGITUDE: 81°48' 19.41" WEST (NAD 83)            -81.805403°</p> <p>JURISDICTION: CITY OF NAPLES</p> <p>SITE NEAREST: 60 12TH AVE S            NAPLES, 34102</p>	<p><b>GENERAL</b></p> <p>T-1 COVER            S-1 SURVEY</p> <p><b>ARCHITECTURAL/ CIVIL PLANS</b></p> <p>C-1 SITE PLAN            C-1.1 LANDSCAPE MITIGATION PLAN            C-2 POLE ELEVATION AND EQUIPMENT PLAN            C-2.1 FEMA MAP            C-3 EQUIPMENT DETAILS            C-4 PHOTO RENDERINGS</p> <p><b>ELECTRICAL PLANS</b></p> <p>E-1 ELECTRICAL PLAN AND DETAILS            E-2 DIRECTIONAL BORE DETAILS</p> <p>M-1 MOT PLAN            GN-1 NOTES            GN-2 ELECTRICAL NOTES</p>
AERIAL MAP	CONSTRUCTION NOTES	SCOPE OF WORK	APPLICABLE CODES
	<p>ANY CONSTRUCTION AT THE SITE WILL USE BEST MANAGEMENT PRACTICES INCLUDING SOIL EROSION CONTROL MEASURES, AS ALSO REQUIRED BY LOCAL JURISDICTION, AND NOTED ON THE CONSTRUCTION DRAWING.</p> <p>NOTES:            CONTRACTOR SHALL RESTORE AND REPAIR ANY DAMAGED AREAS CAUSED BY CONSTRUCTION TO ORIGINAL OR BETTER CONDITION            ALL NEW WORK TO BE PERFORMED PER LATEST ROW STANDARDS &amp; SPECIFICATIONS</p>	<p>INSTALLATION OF PROPOSED SMALL CELL EQUIPMENT TO PROPOSED NEW METAL POLE:</p> <p>A. ADD (1) OMNI ANTENNA            B. ADD (1) RADIO MOUNTED IN 21 CU. FT. POLE-MOUNTED SHROUD ENCLOSURE            C. ADD (1) RADIO MOUNTED IN ANTENNA BRACKET            D. ADD (1) METER AND (1) DISCONNECT</p>	<p>BUILDING CODE: FLORIDA BUILDING CODE (FBC), 7TH EDITION (2020)            NATIONAL ELECTRICAL SAFETY CODE: 2020 EDITION            ELECTRICAL CODE: NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) 70            MECHANICAL CODE: MECHANICAL CODE, 5TH EDITION            LIFE SAFETY CODE: NFPA-101-2012            DEPARTMENT OF TRANSPORTATION ADA STANDARDS FOR TRANSPORTATION FACILITIES            AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO)            ASCE 74-10, 3RD EDITION</p> <p>THE FOLLOWING DESIGN CRITERIA APPLY:            ASCE 7-16 WIND DATA IS USED            ULTIMATE WIND SPEED: 170 MPH            RISK CATEGORY: II            EXPOSURE CATEGORY: D            TOPOGRAPHIC CATEGORY: 1</p>
	<p><b>SITE DIRECTIONS</b></p> <p>From US-41 &amp; SR-84 (Naples):</p> <ol style="list-style-type: none"> <li>Head northwest on 5th Ave S/Tamiami Trail toward Davis Blvd (go 0.7 mi)</li> <li>Turn left onto 10th St S (go 0.4 mi)</li> <li>Turn right onto 10th Ave S (go 0.8 mi)</li> <li>Turn left onto Gulf Shore Blvd S (go 0.2 mi)</li> <li>Turn right at the 3rd cross street onto 12th Ave S (go 236 ft)</li> <li>Destination will be on the left</li> </ol>		



# SPECIAL PURPOSE SURVEY

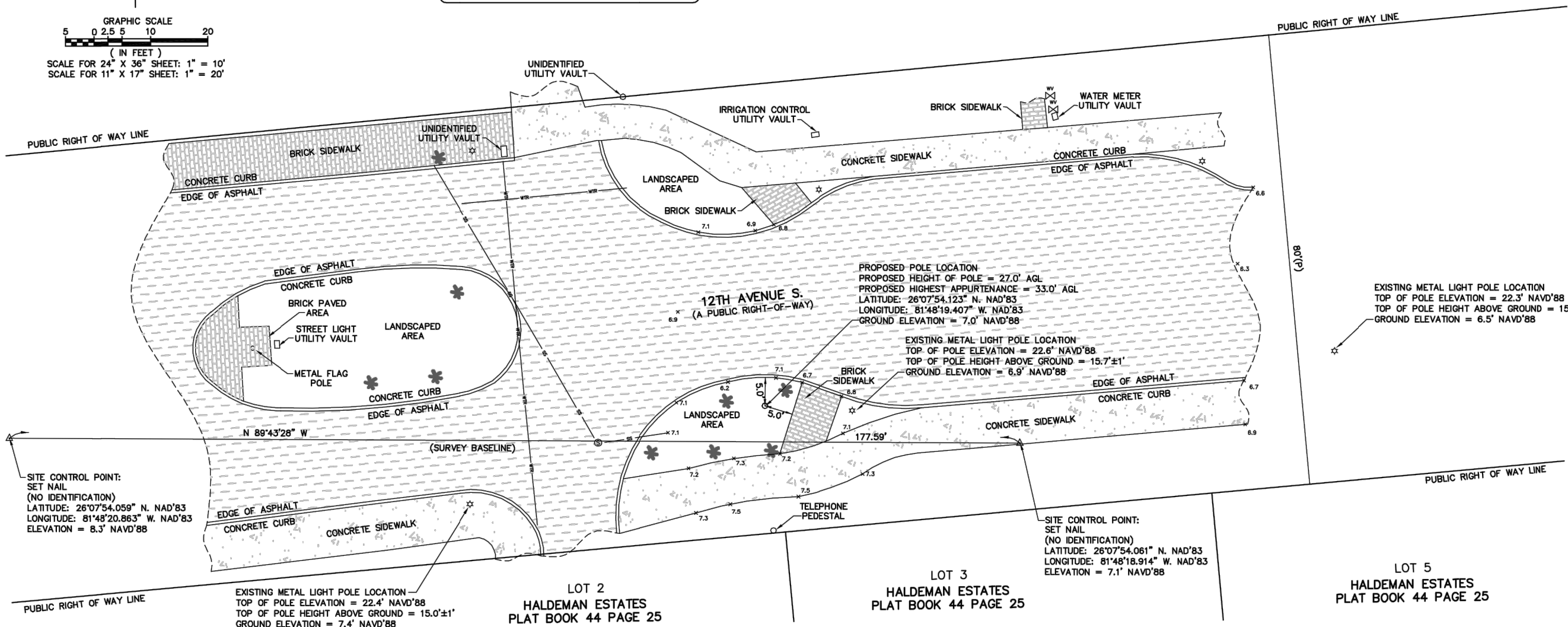
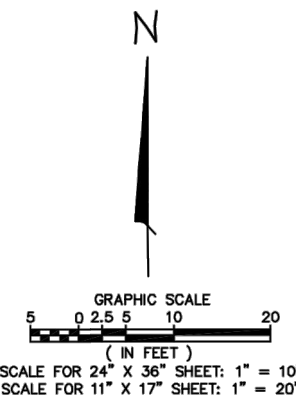
SECTION 9, TOWNSHIP 50 SOUTH, RANGE 25 EAST  
COLLIER COUNTY, FLORIDA  
FOR: CBVR



SUNSHINE STATE ONE CALL  
TICKET: 312803731

**PROPOSED POLE LOCATION INFORMATION:**  
 NAD 83  
 LATITUDE = 26°07'54.12" N ±50'  
 LONGITUDE = 81°48'19.41" W ±50'  
 NAD 27  
 LATITUDE = 26°07'52.79" N ±50'  
 LONGITUDE = 81°48'20.09" W ±50'  
 PROPOSED HEIGHT OF POLE = 27.0' AGL  
 PROPOSED HIGHEST APPURTENANCE = 33.0' AGL  
 GROUND ELEVATION = 7.0' ± 20' NAVD'88  
 GROUND ELEVATION = 8.3' ± 20' NGVD'29

**FLOOD NOTE**  
 ACCORDING TO MY INTERPRETATION OF COMMUNITY PANEL NUMBER 125130 0393 H OF THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) NATIONAL FLOOD INSURANCE PROGRAM (NFIP) FLOOD INSURANCE RATE MAP (FIRM) FOR THE CITY OF NAPLES, COLLIER COUNTY, FLORIDA, DATED 5/16/2012, THE SUBJECT PROPERTY IS IN FLOOD ZONE "AE", "SPECIAL FLOOD HAZARD AREAS (SFHAS) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD, BASE FLOOD ELEVATIONS DETERMINED".  
 THE BASE FLOOD ELEVATION DEPICTED ON THE COMMUNITY PANEL FOR THE LOCATION OF THE SUBJECT TOWER PARCEL IS 12' NAVD'88.



- SURVEYOR'S NOTES**
- BEARINGS HEREON ARE REFERENCED TO GRID NORTH AS ESTABLISHED BY THE FLORIDA STATE PLANE COORDINATE SYSTEM, FLORIDA EAST ZONE, NAD'83 ADJUSTMENT, AS EVIDENCED BY THE BEARING OF NORTH 89°43'28" WEST ALONG THE SURVEY BASELINE AS ESTABLISHED.
  - UNDERGROUND UTILITY LINES DEPICTED HEREON ARE BASED UPON OBSERVED DELINEATIONS MADE BY UTILITY LOCATION PERSONNEL RESPONDING TO A UTILITY LOCATION REQUEST MADE BY THIS OFFICE TO THE SUNSHINE STATE ONE-CALL 811 UTILITY LOCATION SERVICE, TICKET # 312803731. ADDITIONAL BURIED UTILITIES MAY EXIST WITHIN THE PROJECT AREA, THAT WERE NOT DELINEATED AS A RESULT OF OUR UTILITY LOCATION REQUEST, AND ARE NOT DEPICTED HEREON. NO ADDITIONAL SUB-SURFACE INVESTIGATIONS WERE MADE BY THIS OFFICE AS A PART OF THIS SURVEY.
  - THE SPECIAL PURPOSE SURVEY SHOWN HEREON IS BASED ON ACTUAL FIELD MEASUREMENTS AND OBSERVATIONS DATED NOVEMBER 14, 2018.
  - REPRODUCTIONS OF THIS SKETCH ARE NOT VALID WITHOUT THE ORIGINAL SIGNATURE AND THE RAISED SEAL OF A FLORIDA LICENSED SURVEYOR.
  - THE PURPOSE OF THIS SURVEY IS TO ESTABLISH THE LOCATION OF A PROPOSED UTILITY POLE.
  - LATITUDE, LONGITUDE AND ELEVATIONS DEPICTED HEREON ARE BASED UPON GPS OBSERVATIONS MADE WITH AN EGPS REAL TIME KINEMATIC GPS SYSTEM INCORPORATING A CHAMPION TKO GPS RECEIVER.
  - ELEVATIONS DEPICTED HEREON ARE REFERENCED TO THE NAVD'88 DATUM.
  - SYMBOLS SHOWN HEREON ARE NOT TO SCALE.

SITE CONTROL POINT:  
SET NAIL  
(NO IDENTIFICATION)  
LATITUDE: 26°07'54.059" N, NAD'83  
LONGITUDE: 81°48'20.863" W, NAD'83  
ELEVATION = 8.3' NAVD'88

EXISTING METAL LIGHT POLE LOCATION  
TOP OF POLE ELEVATION = 22.4' NAVD'88  
TOP OF POLE HEIGHT ABOVE GROUND = 15.0' ±1'  
GROUND ELEVATION = 7.4' NAVD'88

PROPOSED POLE LOCATION  
PROPOSED HEIGHT OF POLE = 27.0' AGL  
PROPOSED HIGHEST APPURTENANCE = 33.0' AGL  
LATITUDE: 26°07'54.123" N, NAD'83  
LONGITUDE: 81°48'19.407" W, NAD'83  
GROUND ELEVATION = 7.0' NAVD'88

EXISTING METAL LIGHT POLE LOCATION  
TOP OF POLE ELEVATION = 22.6' NAVD'88  
TOP OF POLE HEIGHT ABOVE GROUND = 15.7' ±1'  
GROUND ELEVATION = 6.9' NAVD'88

SITE CONTROL POINT:  
SET NAIL  
(NO IDENTIFICATION)  
LATITUDE: 26°07'54.061" N, NAD'83  
LONGITUDE: 81°48'18.914" W, NAD'83  
ELEVATION = 7.1' NAVD'88

VICINITY MAP  
NOT TO SCALE



LOCATION MAP  
NOT TO SCALE



- LEGEND**
- △ INDICATES SET NAIL (NO IDENTIFICATION)
  - ss — INDICATES UNDERGROUND SANITARY SEWER LINE
  - wr — INDICATES UNDERGROUND WATER LINE
  - (P) INDICATES PER RECORDED PLAT DESCRIPTION
  - ⊙ INDICATES WOOD UTILITY POLE
  - ☆ INDICATES METAL LIGHT POLE
  - ⊗ INDICATES WATER VALVE
  - X 7.7 INDICATES TOPOGRAPHIC SPOT ELEVATION
  - ⊙ INDICATES SANITARY SEWER MANHOLE
  - ▨ INDICATES ASPHALT
  - ▩ INDICATES CONCRETE
  - ▧ INDICATES BRICK
  - ✿ INDICATES 12" PALM TREE
- TREE NOTE: INDICATED TREE SIZE IS TRUNK DIAMETER IN INCHES, 4-5 FOOT ABOVE GROUND

NAVD'88 = NORTH AMERICAN VERTICAL DATUM, 1988 ADJUSTMENT.  
 NGVD'29 = NATIONAL GEODETIC VERTICAL DATUM, 1929 ADJUSTMENT.  
 NAD'83 = INDICATES NORTH AMERICAN DATUM, 1983 ADJUSTMENT.  
 NAD'27 = INDICATES NORTH AMERICAN DATUM, 1927 ADJUSTMENT.

GEOLINE SURVEYING, INC., LB 7082  
 DAVID G. SHORT  
 FLORIDA PROFESSIONAL SURVEYOR AND MAPPER  
 CERTIFICATE OF REGISTRATION NO. 5022

**GEOLINE SURVEYING, INC.**  
 Professional Land Surveyors  
 13490 NW 104th Terrace, Suite A  
 Alachua, Florida 32615  
 (386)418-0500 Fax (386)462-9986  
 geoline@geolineinc.com

DESIGNED	KEITH BARTON	SCALE	AS SHOWN
DRAWN	KEITH BARTON	DATE	NOVEMBER 14, 2018
CHECKED	DAVE SHORT	PROJECT #	354-25

**NAP005 SITE, COLLIER COUNTY, FLORIDA**  
**ADDRESS: 12TH AVENUE SOUTH, NAPLES, FL.34102**

REVISED 8/12/2020 PROPOSED POLE LOCATION  
 REVISED 2/13/2019 PROPOSED POLE LOCATION

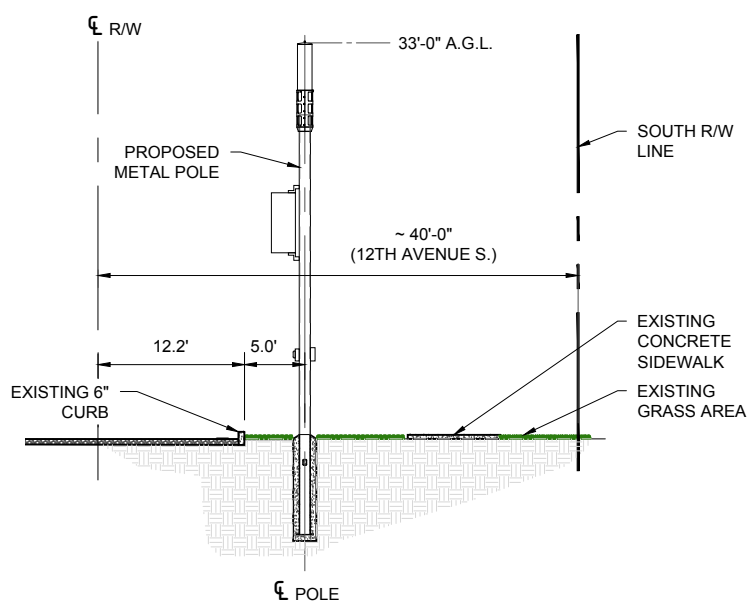
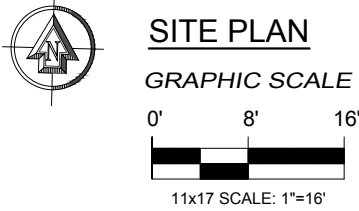
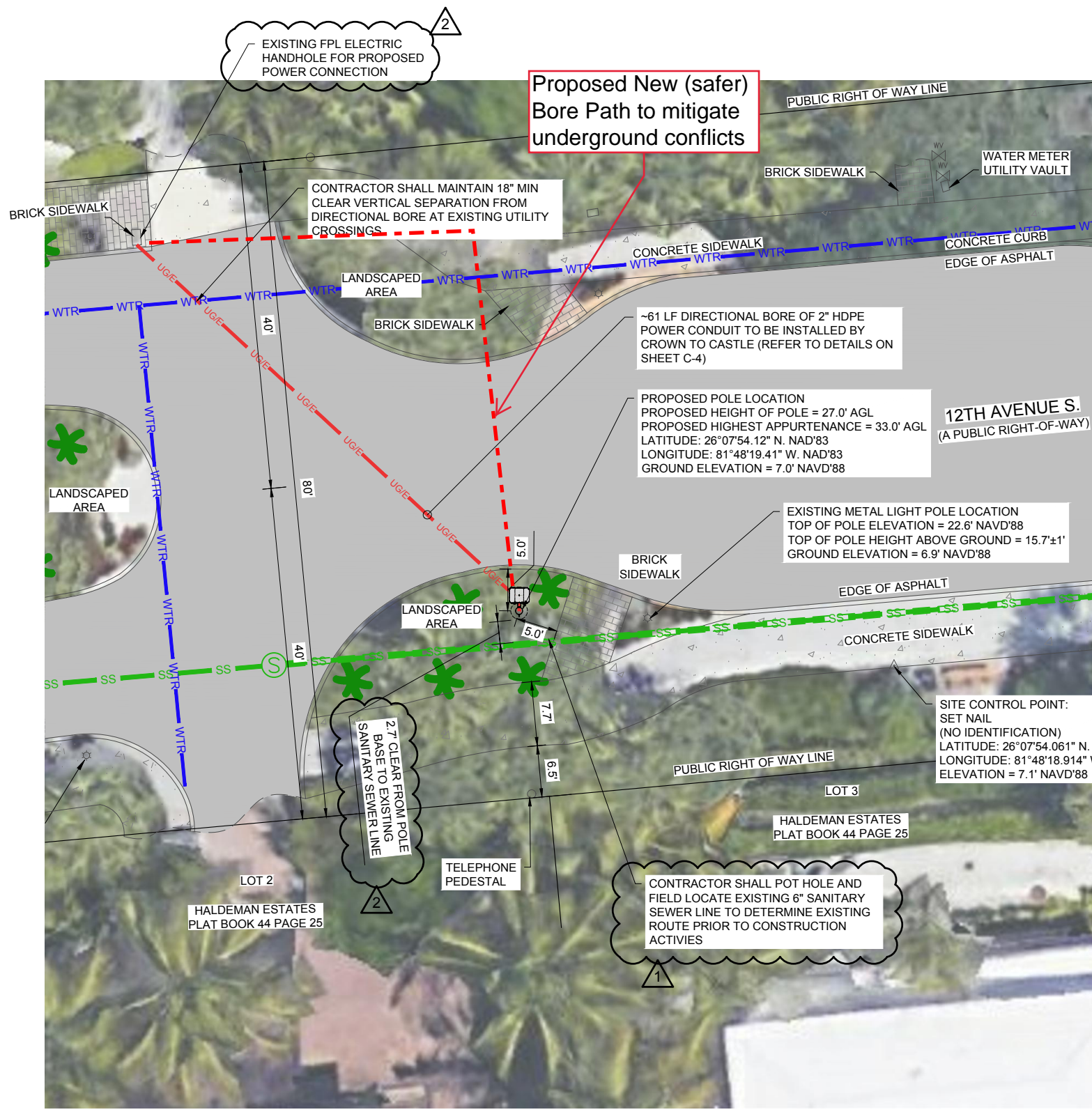
DRAWING# 354-25 SHEET# 1 OF 1

**SYMBOL LEGEND**

- MANHOLE
- HYDRANT
- EXISTING/REPLACEMENT UTILITY POLE
- PROPOSED WOOD UTILITY POLE
- PROPOSED METAL UTILITY POLE
- OVERHEAD UTILITIES
- CENTERLINE OF ROAD
- POWER CONDUIT
- TELCO CONDUIT
- FIBER OPTIC CABLE
- GAS LINE
- FENCE LINE
- WATER LINE
- SANITARY SEWER LINE
- STORM PIPE
- PROPOSED UNDERGROUND POWER CONDUIT
- REPRESENT DETAIL #  
REPRESENT SHEET#

**NOTES**

- NOTES:**
1. CONTRACTOR SHALL MAINTAIN UNINTERRUPTED ACCESS TO ALL DRIVEWAYS, SIDE STREETS AND WALKWAYS AT ALL TIMES UNLESS OTHERWISE PERMITTED.
  2. CONTRACTOR SHALL PREPARE A MAINTENANCE OF TRAFFIC (M.O.T) PLAN FOR PEDESTRIAN TRAFFIC AND WORK WITHIN THE RIGHT-OF-WAY, INCLUDING VEHICLE PARKING AND EQUIPMENT STAGING.
  3. CONTRACTOR SHALL RESTORE ANY DISTURBED AREAS TO ORIGINAL CONDITION OR BETTER, INCLUDING BUT NOT LIMITED TO, LANDSCAPING, SOD, PAVING, SIDEWALK REPAIR AND OR FENCE REPAIR.
  4. LOCATE AND MARK ANY AND ALL UTILITIES PRIOR TO START OF CONSTRUCTION.
  5. REMOVE/ REPLACE SIDEWALK TO NEAREST CONTROL OR EXPANSION JOINT.



**1 PROFILE**  
SCALE: 1/16" = 1'-0"

POSTED SPEED LIMIT: 25 MPH

PREPARED BY

**VALENT TELECOM DESIGN GROUP**

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PROFESSIONAL SEAL

PATRICK STEPHEN VALENT  
AR 13834

05/23/2021

PREPARED FOR

**CROWN CASTLE**

CROWN CASTLE FIBER LLC  
8517 SOUTHPARK CIRCLE  
SUITE 150  
ORLANDO, FL 32819

PROJECT INFORMATION

**NAP005**

LAT.: 26.131704°  
LONG.: -81.805403°

PROJECT #:  
CROWN.NAP005.019

ISSUED DATES

0	ISSUED FOR PERMIT	08.28.20
1	PER CITY COMMENTS	10.01.20
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4	PER CITY COMMENTS	05.23.21

SHEET NAME

**SITE PLAN**

SHEET NUMBER

**C-1**

# SYMBOL LEGEND

- (MH) MANHOLE
- (HD) HYDRANT
- (X) EXISTING/REPLACEMENT UTILITY POLE
- (●) PROPOSED WOOD UTILITY POLE
- (○) PROPOSED METAL UTILITY POLE
- OH — OVERHEAD UTILITIES
- — — CENTERLINE OF ROAD
- E — POWER CONDUIT
- T — TELCO CONDUIT
- FOC — FIBER OPTIC CABLE
- GAS — GAS LINE
- X — FENCE LINE
- WTR — WATER LINE
- SS — SANITARY SEWER LINE
- ST — STORM PIPE
- UG/E — PROPOSED UNDERGROUND POWER CONDUIT
- (1) REPRESENT DETAIL #
- (A-2) REPRESENT SHEET#

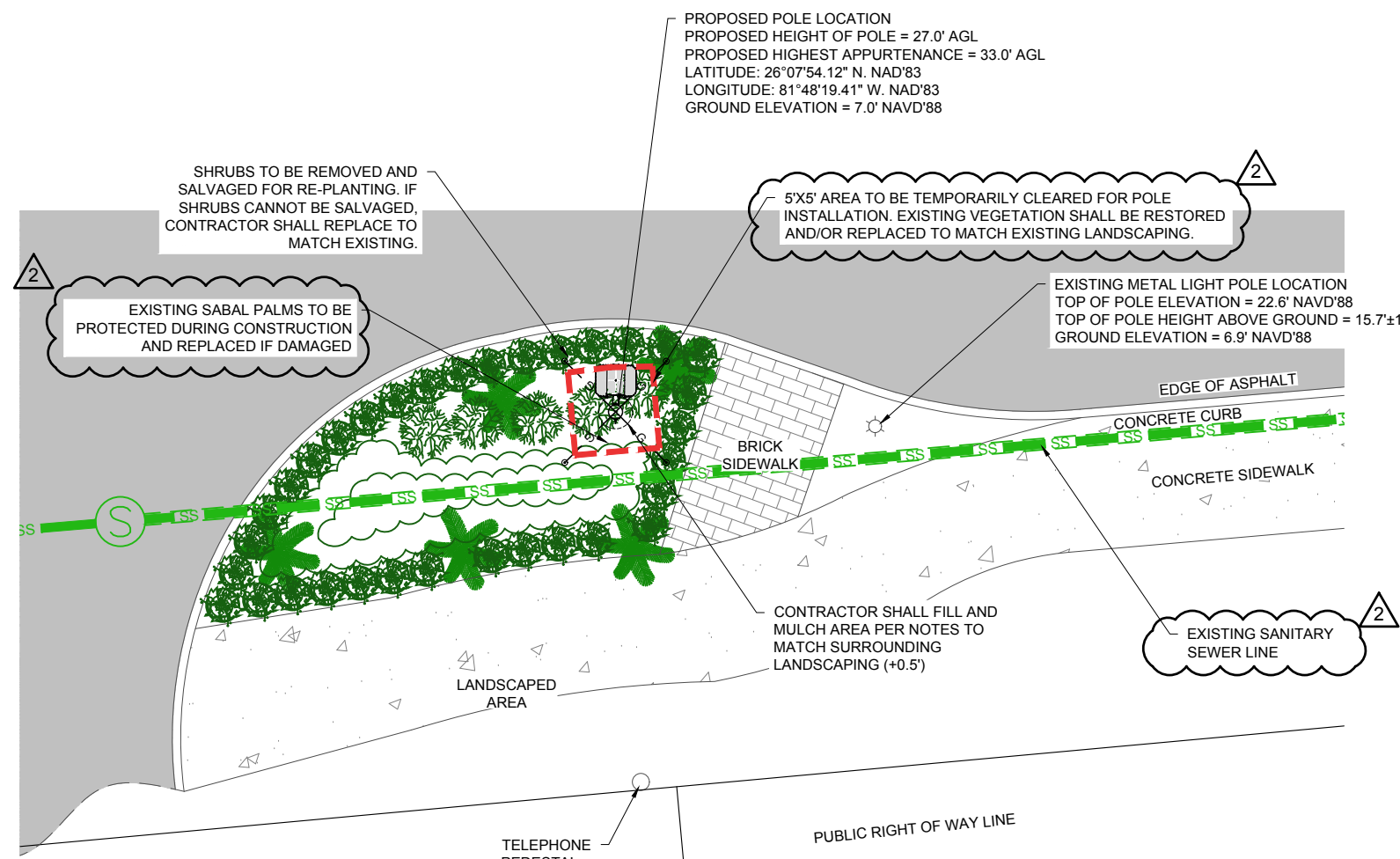
# LANDSCAPE NOTES

1. ALL PLANT MATERIAL SHALL BE IN ACCORDANCE WITH THE AMERICAN STANDARDS FOR NURSERY STOCK, LATEST EDITION, AND SHALL BE FLORIDA GRADE #1 OR BETTER.
2. ALL PLANTS SHALL BE WELL SHAPED, FULLY BRANCHED, HEALTHY, VIGOROUS, FREE OF PESTS AND DISEASE.
3. ALL PLANTS SHALL BE NURSERY GROWN IN CONTAINERS WITH HEALTHY ROOT SYSTEMS. DO NOT PRUNE BEFORE DELIVERY.
4. EACH PLANT SHALL BE LABELED WITH A WATER-PROOF TAG, BEARING LEGIBLE NAMES CONFORMING TO THE PLANS.
5. INVESTIGATE TO DETERMINE THE LOCATION OF UNDERGROUND UTILITIES, INCLUDING IRRIGATION, BEFORE EXCAVATION TO MINIMIZE DISTURBANCE. PROPERLY REPAIR ANY DAMAGE.
6. THE PLANTING HOLE SHALL BE 1 1/2 TIMES THE BALL/CONTAINER DIAMETER. PLACE PLANT IN PIT, WITH TOP OF ROOT BALL AT OR SLIGHTLY ABOVE EXISTING GRADE.
7. BACKFILL PLANTING HOLES WITH MATERIAL CONSISTING OF 50% EXCAVATED MATERIAL, FREE OF CONSTRUCTION MATERIAL AND LARGE STONES AND OTHER NON-ORGANIC DEBRIS, AND 50% COMPOST OR HUMUS.
8. WHEN PIT IS APPROXIMATELY 1/2 FULL, WATER THOROUGHLY, THEN COMPLETE BACKFILLING, AND COMPACT, ASSURING THERE ARE NO AIR POCKETS AROUND THE ROOT BALL.
9. REPAIR IRRIGATION DAMAGED BY WORK, IF PRESENT. IF IRRIGATION IS PRESENT, ADJUST TO PROVIDE IRRIGATION FOR EXISTING AND REPLACEMENT MATERIAL.
10. PLANTING AREAS TO BE MULCHED WITH MINIMUM 3" DEPTH MULCH TO MATCH EXISTING TYPE OF MATERIAL. IF NONE PRESENT, PROVIDE SHREDDED HARDWOOD.



# TREE PROTECTION:

BEFORE BEGINNING WORK, PROVIDE TREE PROTECTION ON THE SIDE OF EXISTING PALMS ADJACENT TO CONSTRUCTION, WITHIN THE WORK AREA, OR AS DIRECTED BY LOCAL REGULATIONS. INSTALL 4' HIGH BLAZE ORANGE FENCING, SECURED TO WOOD OR METAL POSTS AT THE CANOPY DRIPLINE, OR A MINIMUM OF 2 FOOT FROM THE TRUNK OF THE TREE. NO SOIL, CONSTRUCTION MATERIALS, OR OTHER MATERIAL SHALL BE STORED UNDER THE TREE, AND NO DISTURBANCE SHALL BE PERMITTED BETWEEN THE FENCING AND THE TREE TRUNK. TAKE PRECAUTIONS TO PREVENT WORK ACTIVITIES AND EQUIPMENT FROM DAMAGING TREE TRUNKS. REMOVE THE PROTECTIVE FENCING AND POSTS UPON COMPLETION OF CONSTRUCTION, BACKFILL HOLES, AND TOP DRESS WITH MULCH PER THE NOTES.



# LANDSCAPE MITIGATION PLAN

GRAPHIC SCALE

0' 5' 10'



11x17 SCALE: 1"=10'

PLANTING CHART			
SYMBOL	NAME	SIZE	COMMENTS
	WHEELER'S DWARF (PITTIOSPORUM TOBIRA)	3 GAL.	CONT. 3' O.C.
	DWARF UMBRELLA TREE (SCHEFFLERA ARBORICOLA)	3 GAL.	CONT. 3' O.C.
	SABAL MINOR	3 GAL.	CONT. 4' O.C.

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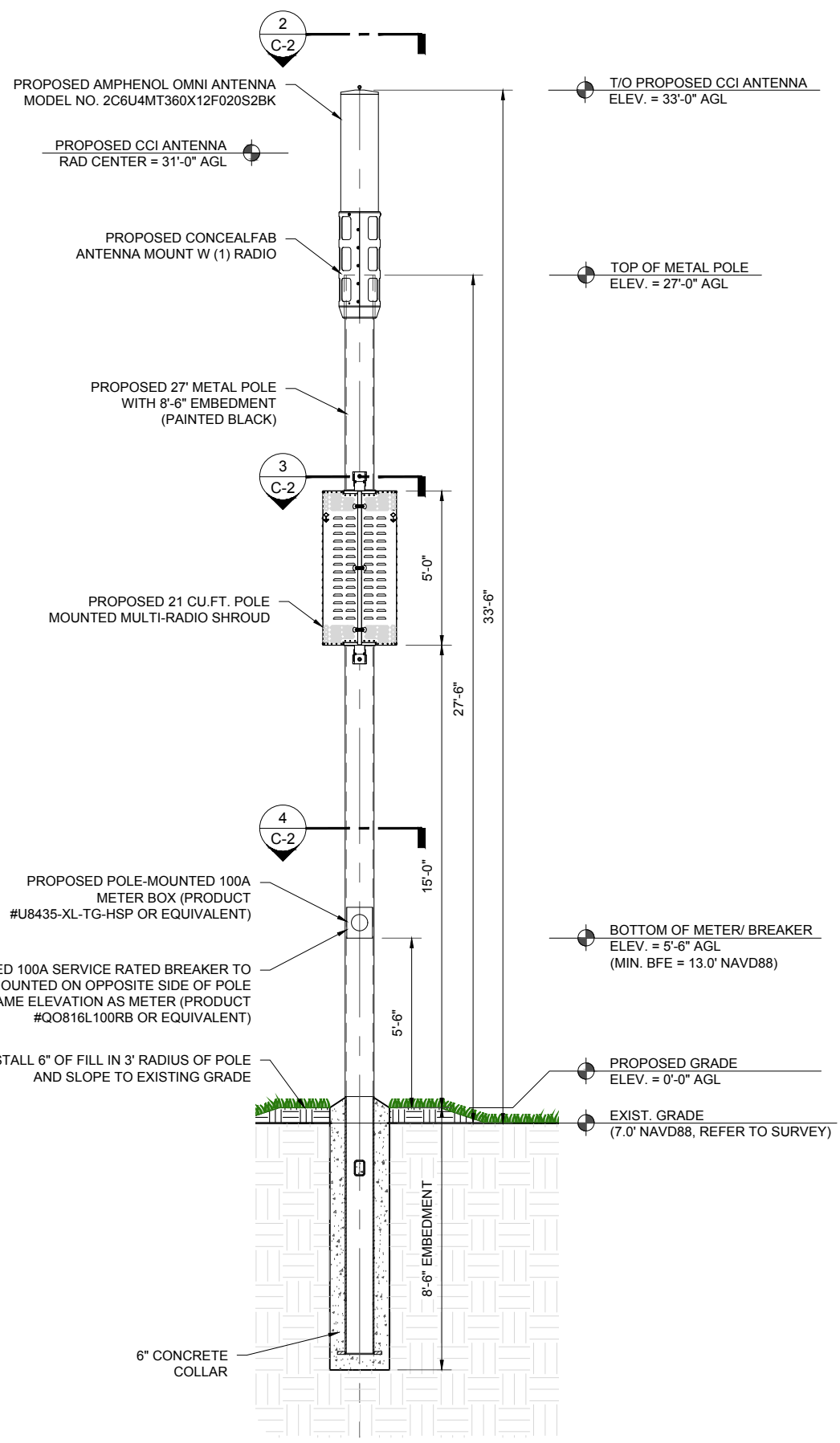
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SHEET NAME

# LANDSCAPE MITIGATION PLAN

SHEET NUMBER

# C-1.1



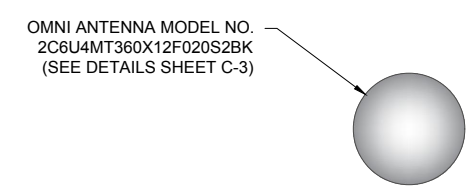
**1 POLE ELEVATION**  
SCALE: 1"=5'

**NOTE:**  
POLE, ANTENNA, ENCLOSURES AND CONNECTIONS SHALL HAVE MATCHING BLACK FINISH

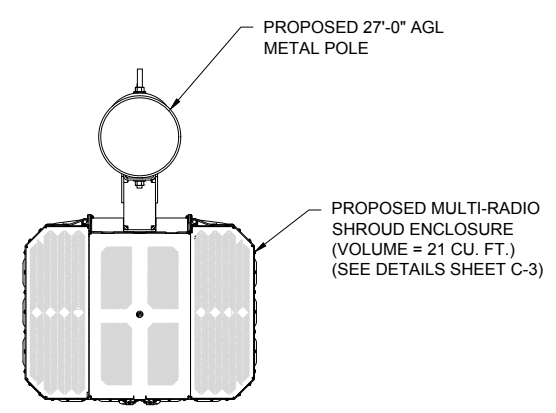
ATTACHMENT VOLUME:	
ANTENNA	4.7 CF
ANTENNA MOUNT	4.8 CF
SHROUD	21.0 CF
POWER ENCLOSURE	3.3 CF

**NOTE:**  
SITE IS LOCATED IN FLOOD ZONE "AE" WHERE MINIMUM FLOODPLAIN ELEVATION FOR SPECIAL FLOOD HAVARD AREA IS 12.0' NAVD88. REQUIRED HEIGHT UNDER FLOOD DESIGN CLASS 3 IS MINIMUM BFE + 1', THEREFORE MINIMUM HEIGHT OF EQUIPMENT SHALL NOT BE LOWER THAN 13.0' NAVD88. REFER TO SHEET C-2.1.

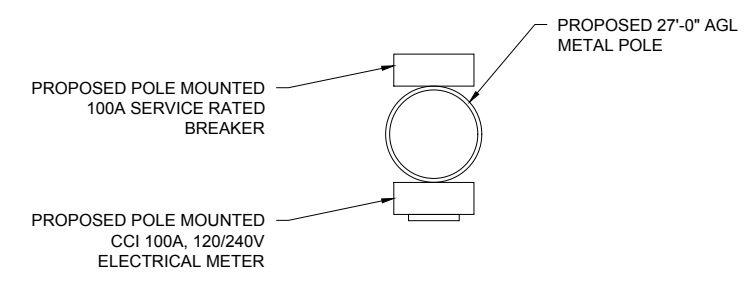
- NOTE:**
- CONTRACTOR TO FIELD VERIFY ANTENNA MOUNT CONFIGURATION AND PROVIDE MOUNTS OR ADDITIONAL HARDWARE IF REQUIRED TO SUPPORT PROPOSED EQUIPMENT.
  - ALL EQUIPMENT AND MOUNTING HARDWARE SHALL CONFORM TO DESIGN REQUIREMENTS PER FLORIDA BUILDING CODE (6TH EDITION, 2017) AND ANSI/ TIA-222-G STRUCTURAL STANDARD FOR ANTENNA SUPPORTING STRUCTURES AND ANTENNAS; BASIC WIND SPEED 108 MPH, 3 SECOND GUST.
  - TAPE DROP REQUIRED TO CONFIRM POLE HEIGHT PRIOR TO CONSTRUCTION START.



**2 ANTENNA LAYOUT**  
SCALE: N.T.S.



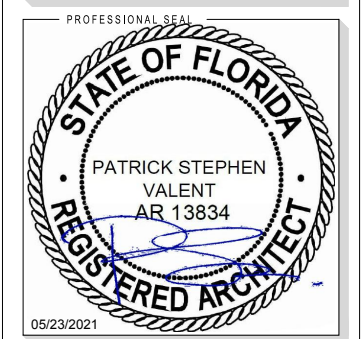
**3 CABINET LAYOUT**  
SCALE: 1"=2'



**4 EQUIPMENT LAYOUT**  
SCALE: 1"=2'

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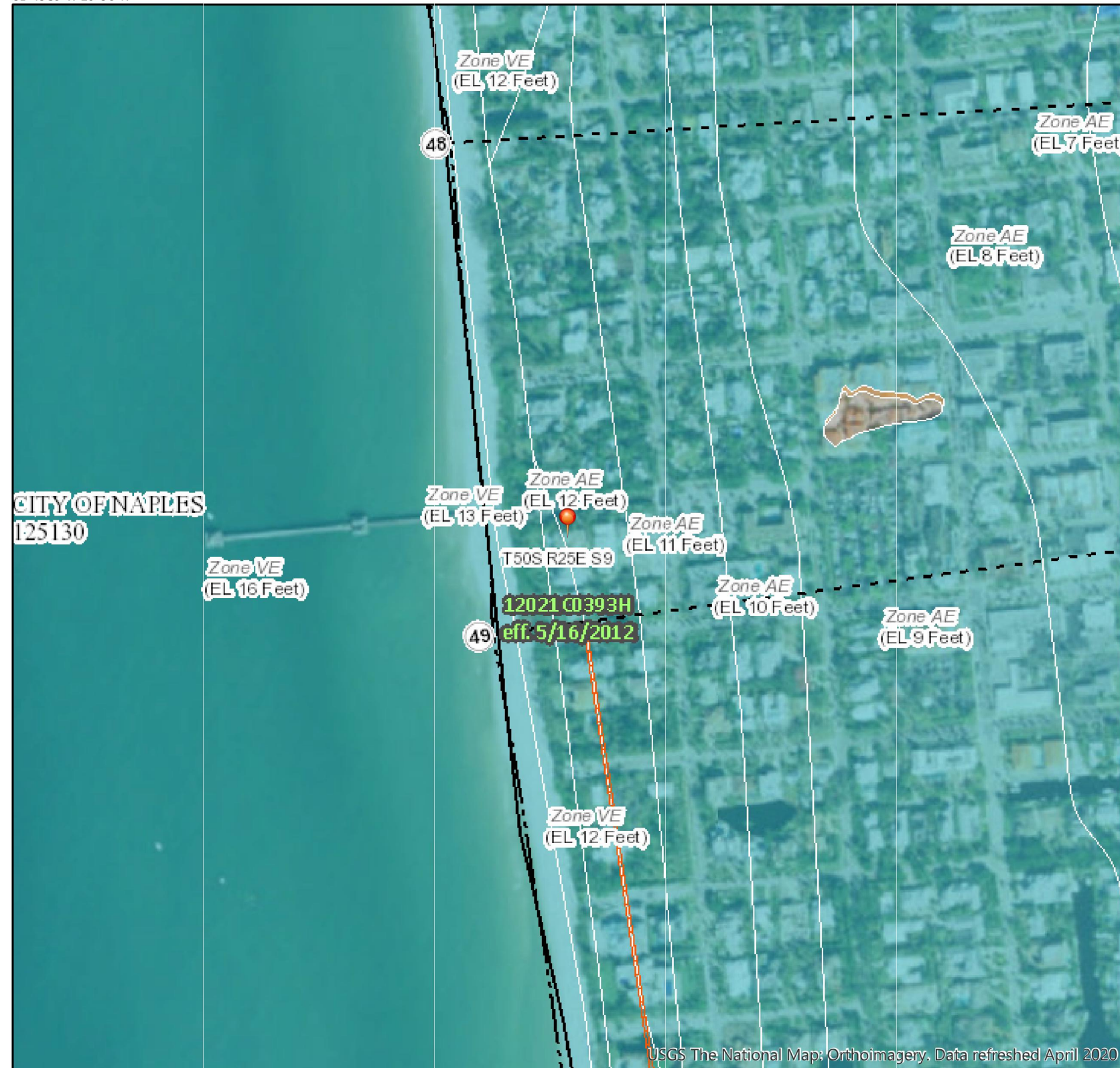
SHEET NAME  
**POLE ELEVATION AND EQUIPMENT DETAILS**

SHEET NUMBER  
**C-2**

# National Flood Hazard Layer FIRMette



81°48'39"W 26°8'9"N



USGS The National Map: Orthoimagery. Data refreshed April 2020  
81°48'1"W 26°7'37"N

## Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

- SPECIAL FLOOD HAZARD AREAS**
- Without Base Flood Elevation (BFE) Zone A, V, A99
  - With BFE or Depth Zone AE, AO, AH, VE, AR
  - Regulatory Floodway
- OTHER AREAS OF FLOOD HAZARD**
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
  - Future Conditions 1% Annual Chance Flood Hazard Zone X
  - Area with Reduced Flood Risk due to Levee. See Notes. Zone X
  - Area with Flood Risk due to Levee Zone D
- OTHER AREAS**
- Area of Minimal Flood Hazard Zone X
  - Effective LOMRs
  - Area of Undetermined Flood Hazard Zone D
- GENERAL STRUCTURES**
- Channel, Culvert, or Storm Sewer
  - Levee, Dike, or Floodwall
- OTHER FEATURES**
- Cross Sections with 1% Annual Chance Water Surface Elevation (20.2, 17.5)
  - Coastal Transect
  - Base Flood Elevation Line (BFE)
  - Limit of Study
  - Jurisdiction Boundary
  - Coastal Transect Baseline
  - Profile Baseline
  - Hydrographic Feature
- MAP PANELS**
- Digital Data Available
  - No Digital Data Available
  - Unmapped

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

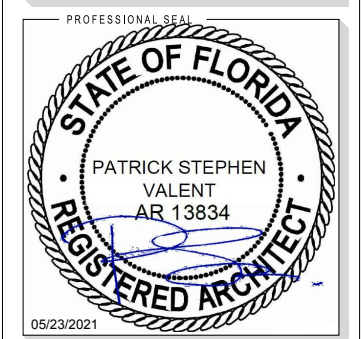
The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 7/17/2020 at 1:34 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.



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MIAMI LAKES, FLORIDA 33014  
(305) 439-6266  
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PREPARED FOR

**CROWN CASTLE**  
CROWN CASTLE FIBER LLC  
8517 SOUTHPARK CIRCLE  
SUITE 150  
ORLANDO, FL 32819

PROJECT INFORMATION

**NAP005**

LAT.: 26.131704°  
LONG.: -81.805403°

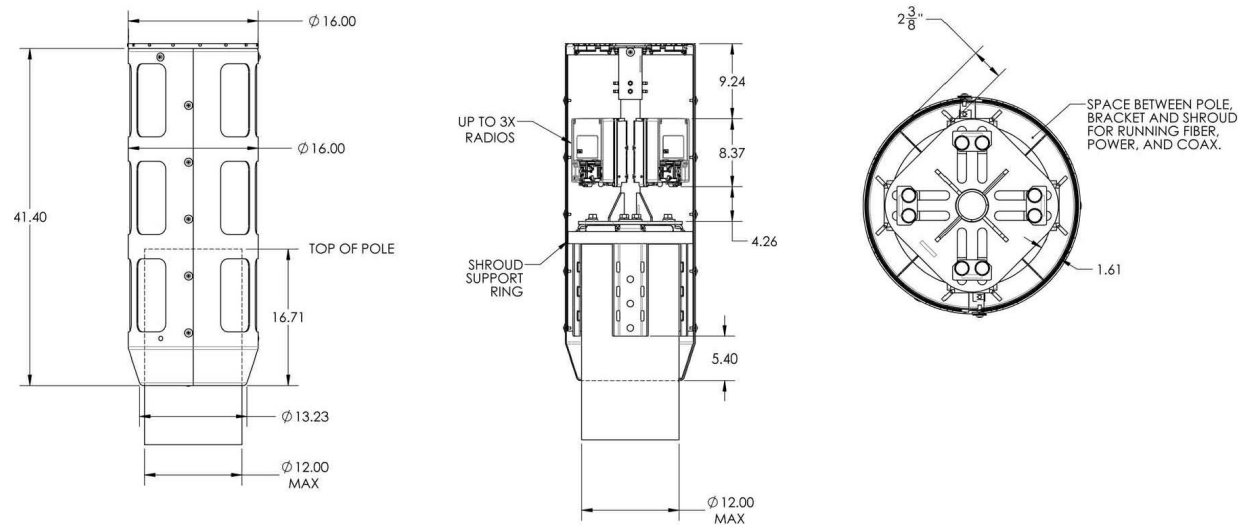
PROJECT #:  
CROWN.NAP005.019

ISSUED DATES

0	ISSUED FOR PERMIT	08.28.20
1	PER CITY COMMENTS	10.01.20
2	PER CITY COMMENTS	10.28.20
3	ELECTRICAL REVISION	02.19.21
4	PER CITY COMMENTS	05.23.21

SHEET NAME  
**FEMA MAP**

SHEET NUMBER  
**C-2.1**



**1** ANTENNA MOUNT DETAIL  
SCALE: N.T.S.



2C6U4MT360X12F020S2BK

Antenna Dimensions (Height x Diam)	1219 x 371 mm	48.0 x 14.6 in
Weight without Mounting Bracket Kit	< 24.9 kg	< 55 lbs
Antenna Volume	0.13 m <sup>3</sup>	4.7 ft <sup>3</sup>
Survival Wind Speed	241 km/hr	150 mph
Wind Area	0.47 m <sup>2</sup>	5.0 ft <sup>2</sup>
Wind Load (160 km/hr or 100 mph)	391 N	88 lbf

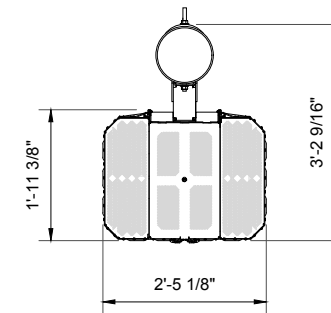
**2** ANTENNA SPECIFICATIONS  
SCALE: N.T.S.

**QWIKSITE, INC MULTI-RADIO SHROUD**

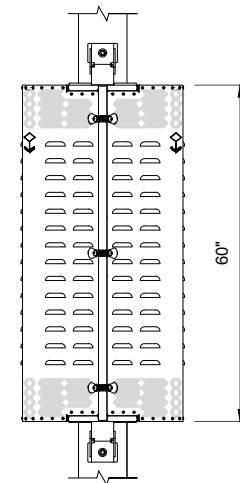
PART NO. QW-MRS-17-BLK  
DIMENSIONS (HxWxD) 60" x 29.13" x 23.38"  
CUBIC FEET 21.0 CU. FT.  
WEIGHT SEE STRUCTURAL ANALYSIS BY MANUFACTURER

HEAVY DUTY WOOD POLE MOUNTING BRACKETS 4X

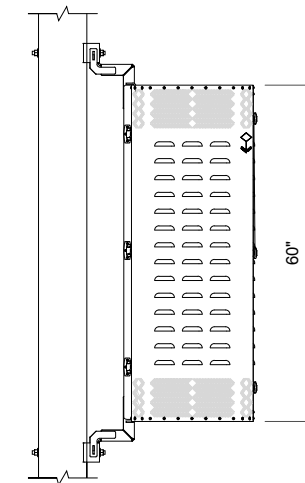
21 CU FT QUBE MULTI-RADIO SHROUD



TOP VIEW



FRONT VIEW



SIDE VIEW

**3** RADIO ENCLOSURE SPECIFICATIONS  
SCALE: N.T.S.

PREPARED BY

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PROFESSIONAL SEAL

**STATE OF FLORIDA**

PATRICK STEPHEN VALENT  
AR 13834

REGISTERED ARCHITECT

05/23/2021

PREPARED FOR

**CROWN CASTLE**

CROWN CASTLE FIBER LLC  
8517 SOUTHPARK CIRCLE  
SUITE 150  
ORLANDO, FL 32819

PROJECT INFORMATION

**NAP005**

LAT.: 26.131704°  
LONG.: -81.805403°

PROJECT #:  
CROWN.NAP005.019

ISSUED DATES

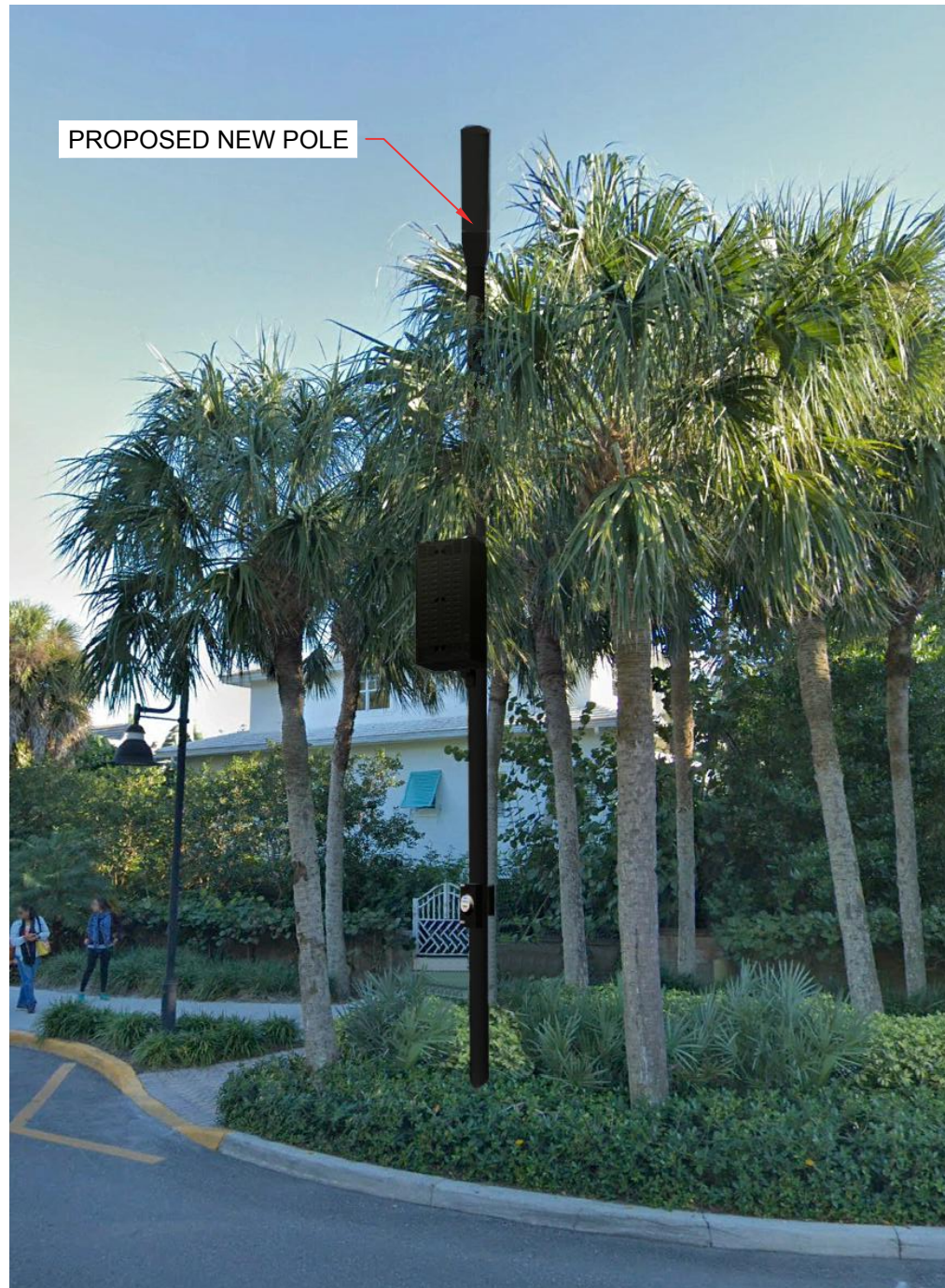
0 ISSUED FOR PERMIT	08.28.20
1 PER CITY COMMENTS	10.01.20
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3 ELECTRICAL REVISION	02.19.21
4 PER CITY COMMENTS	05.23.21

SHEET NAME  
**EQUIPMENT DETAILS**

SHEET NUMBER  
**C-3**



EXISTING AREA



PROPOSED 27' AGL POLE

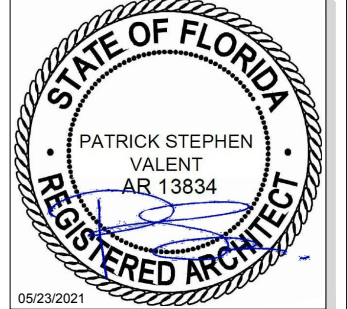
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05/23/2021

PREPARED FOR



**CROWN  
CASTLE**  
CROWN CASTLE FIBER LLC  
8517 SOUTHPARK CIRCLE  
SUITE 150  
ORLANDO, FL 32819

PROJECT INFORMATION

**NAP005**

LAT.: 26.131704°  
LONG.: -81.805403°

PROJECT #:  
CROWN.NAP005.019

ISSUED DATES

NO.	DESCRIPTION	DATE
0	ISSUED FOR PERMIT	08.28.20
1	PER CITY COMMENTS	10.01.20
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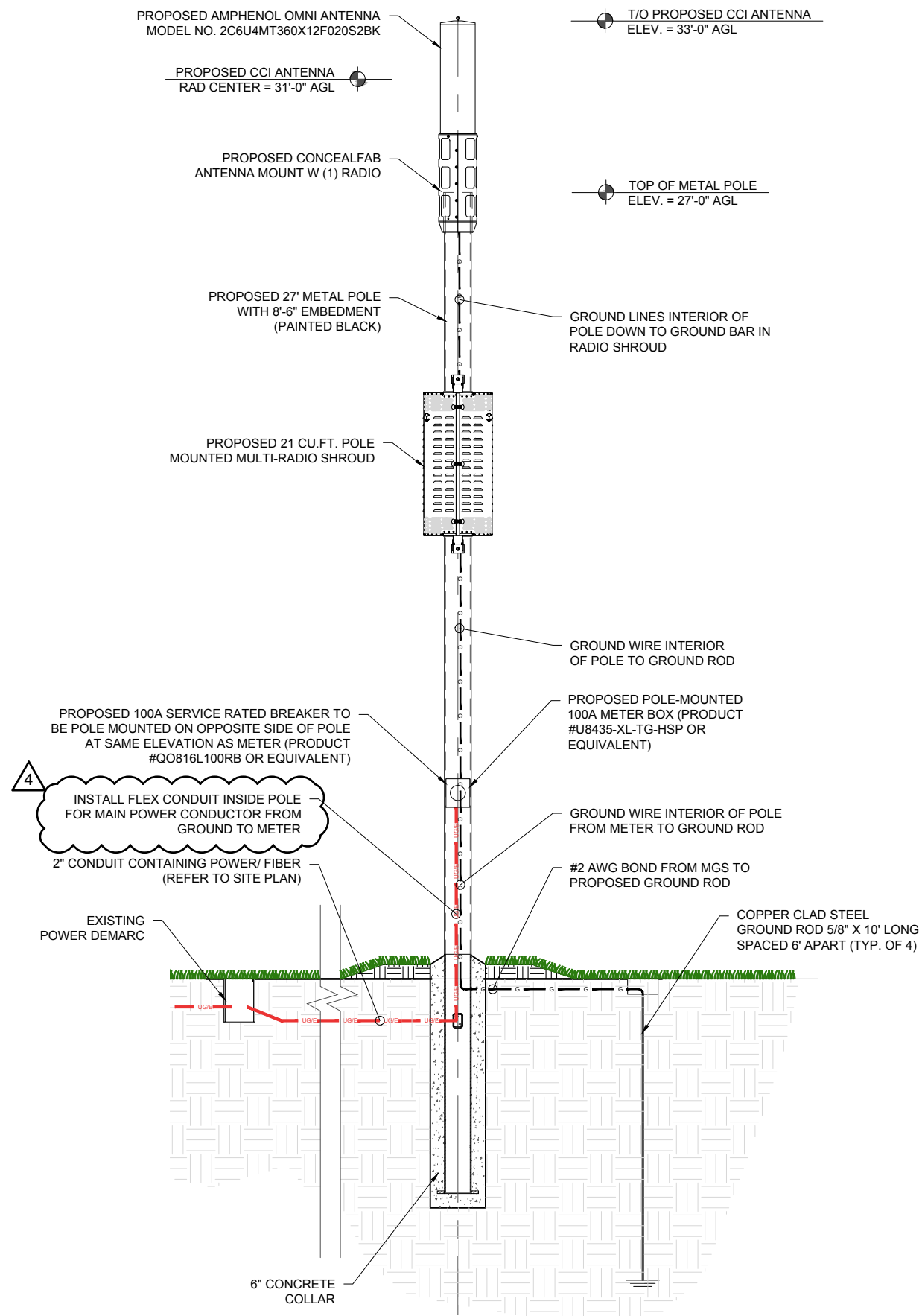
SHEET NAME

**PHOTO  
RENDERINGS**

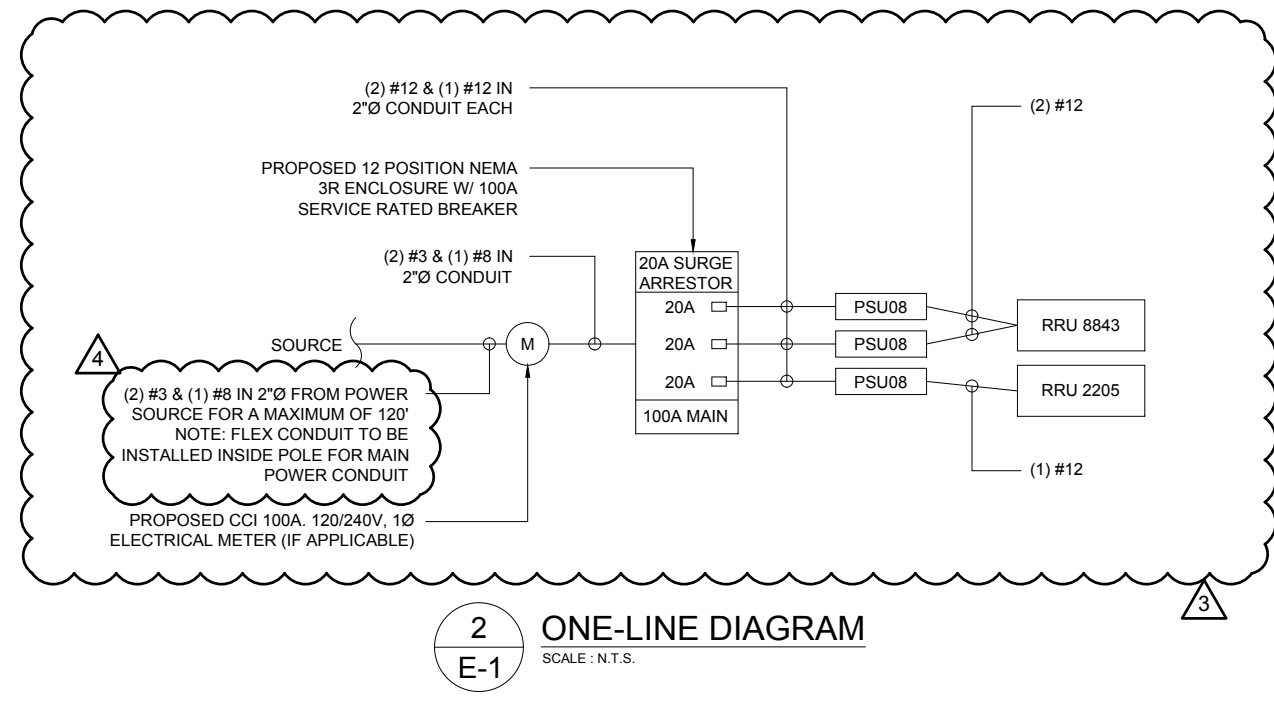
SHEET NUMBER

**C-4**

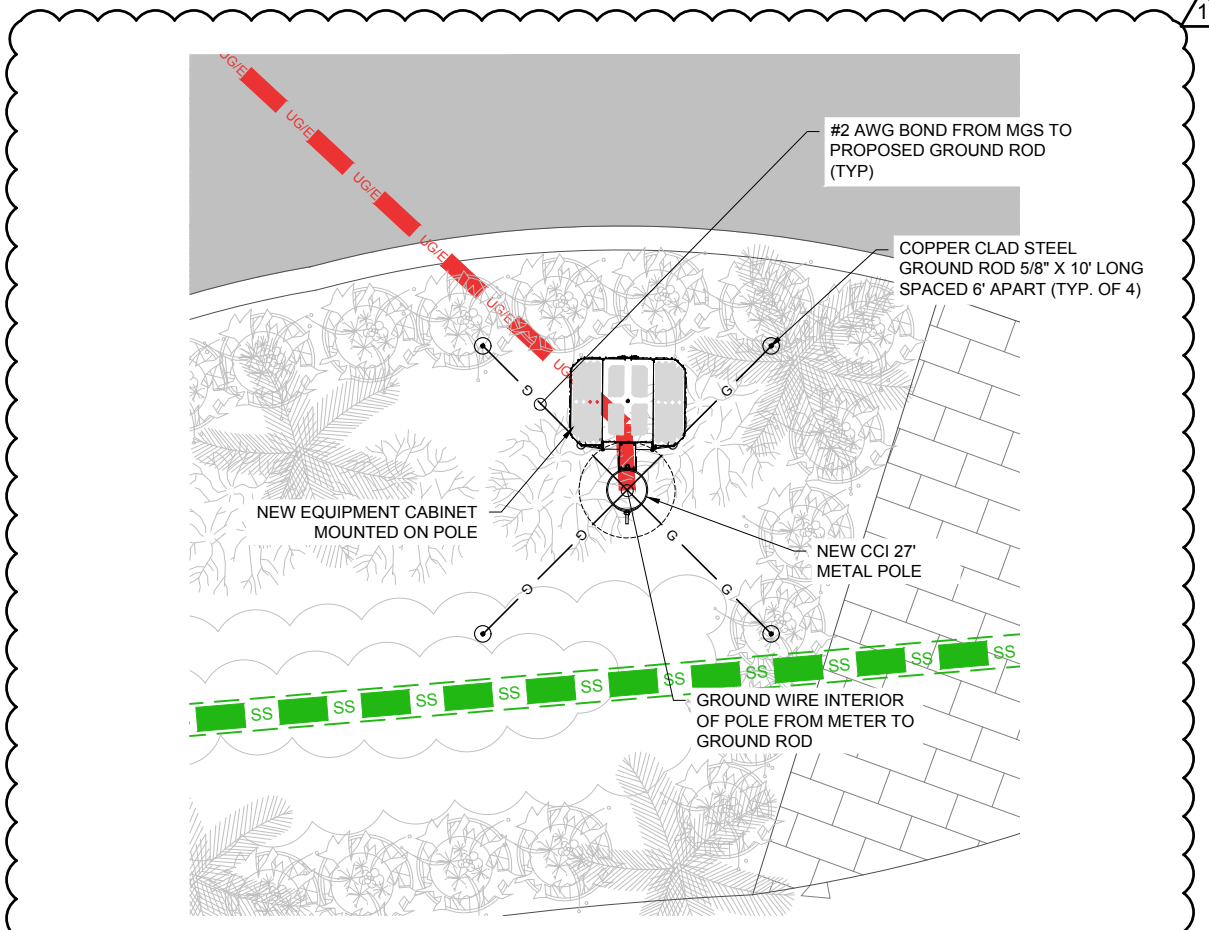




**1**  
E-1  
**UTILITY ROUTING**  
SCALE: 1" = 5'



**2**  
E-1  
**ONE-LINE DIAGRAM**  
SCALE: N.T.S.



**1**  
E-1  
**GROUNDING PLAN**  
SCALE: 1/4" = 1'-0"

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**STATE OF FLORIDA**  
PATRICK STEPHEN VALENT  
REGISTERED ARCHITECT  
AR 13834

05/23/2021

PREPARED FOR

**CROWN CASTLE**

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8517 SOUTH PARK CIRCLE  
SUITE 150  
ORLANDO, FL 32819

PROJECT INFORMATION

**NAP005**

LAT.: 26.131704°  
LONG.: -81.805403°

PROJECT #:  
CROWN.NAP005.019

ISSUED DATES

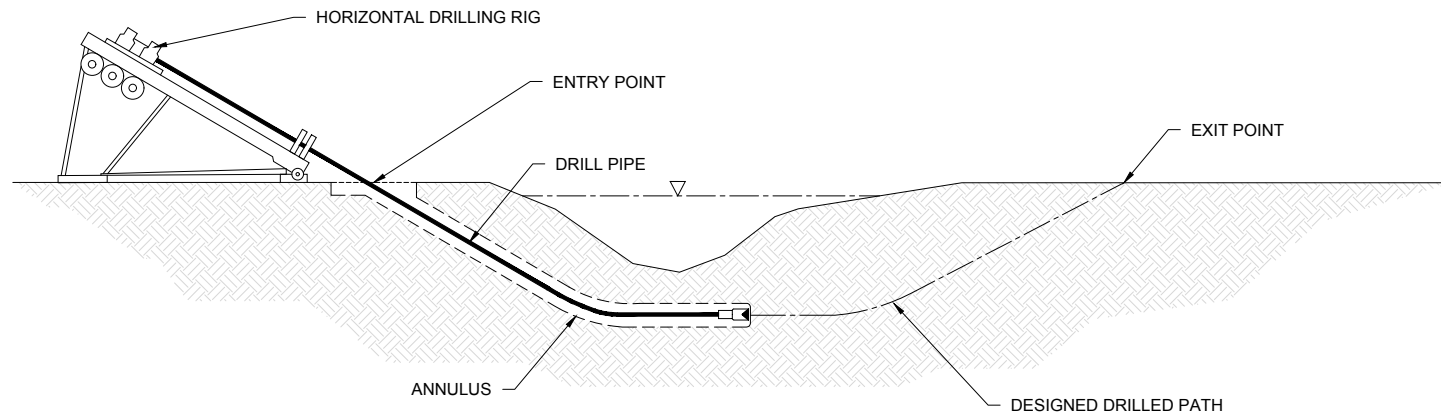
0	ISSUED FOR PERMIT	08.28.20
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2	PER CITY COMMENTS	10.28.20
3	ELECTRICAL REVISION	02.19.21
4	PER CITY COMMENTS	05.23.21

SHEET NAME

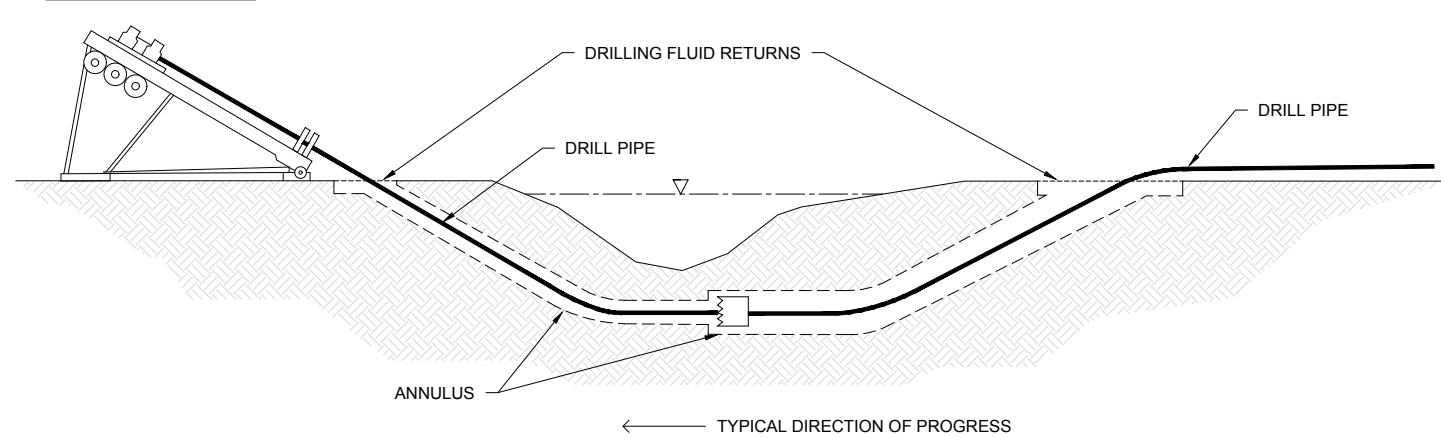
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**E-1**

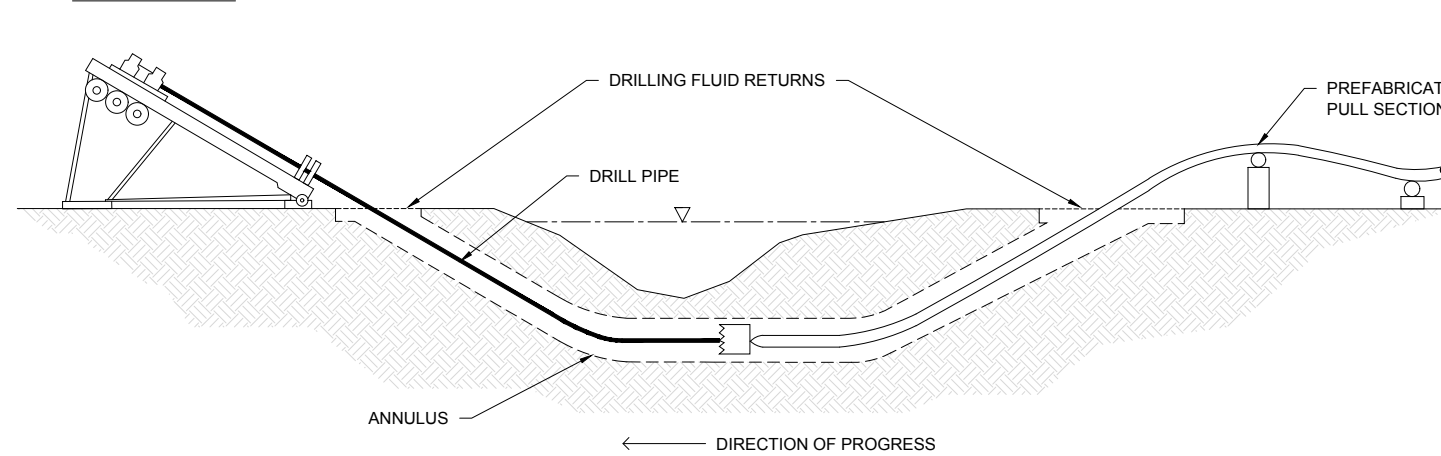
**PILOT HOLE**



**PREREAMING**



**PULLBACK**



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PROJECT INFORMATION

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LAT.: 26.131704°  
LONG.: -81.805403°

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CROWN.NAP005.019

ISSUED DATES

0	ISSUED FOR PERMIT	08.28.20
1	PER CITY COMMENTS	10.01.20
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4	PER CITY COMMENTS	05.23.21

SHEET NAME  
**DIRECTIONAL  
BORE DETAILS**

SHEET NUMBER  
**E-2**

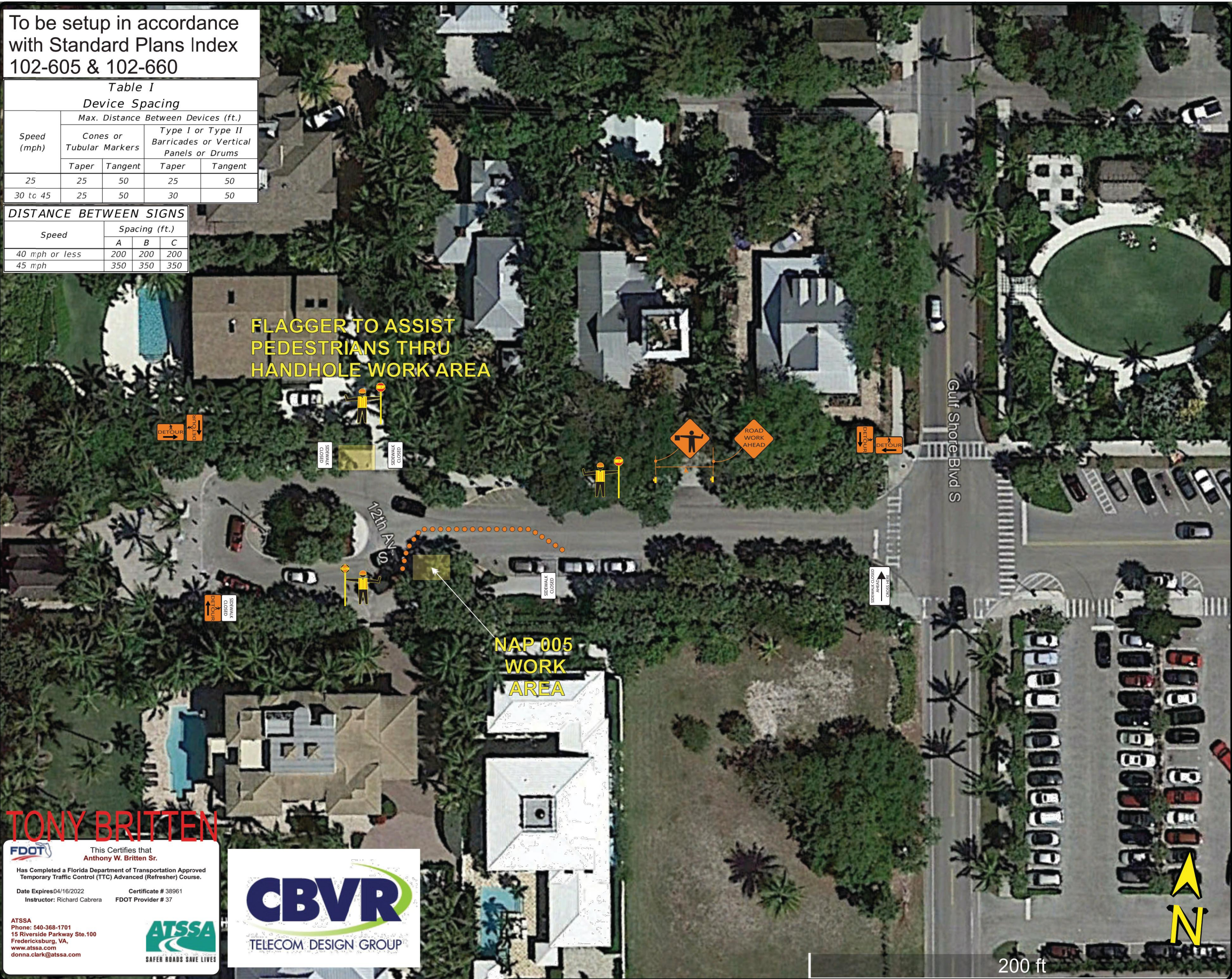
To be setup in accordance with Standard Plans Index 102-605 & 102-660

**Table 1**  
**Device Spacing**

Speed (mph)	Max. Distance Between Devices (ft.)			
	Cones or Tubular Markers		Type I or Type II Barricades or Vertical Panels or Drums	
	Taper	Tangent	Taper	Tangent
25	25	50	25	50
30 to 45	25	50	30	50

**DISTANCE BETWEEN SIGNS**

Speed	Spacing (ft.)		
	A	B	C
40 mph or less	200	200	200
45 mph	350	350	350



ENGINEERING

DATE: 2/14/2019

DESIGNER: MAM

DRAWN BY: MAM

CHECKED BY: MAM

631 NE 45 Street  
Oakland Park, FL 33334

MOT Plans

MOT Plan

PREPARED BY

**VALENT**  
**TELECOM**  
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MIAMI LAKES, FLORIDA 33014  
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PROFESSIONAL SEAL

PATRICK STEPHEN  
VALENT  
AR 13834

05/23/2021

PREPARED FOR

**CROWN**  
**CASTLE**

CROWN CASTLE FIBER LLC  
8517 SOUTH PARK CIRCLE  
SUITE 150  
ORLANDO, FL 32819

PROJECT INFORMATION

**NAP005**

LAT.: 26.131704°  
LONG.: -81.805403°

PROJECT #:  
CROWN.NAP005.019

ISSUED DATES

NO.	ISSUED FOR PERMIT	DATE
0	ISSUED FOR PERMIT	08.28.20
1	PER CITY COMMENTS	10.01.20
2	PER CITY COMMENTS	10.28.20
3	ELECTRICAL REVISION	02.19.21
4	PER CITY COMMENTS	05.23.21

SHEET NAME

**MOT PLAN**

SHEET NUMBER

**M-1**

**TONY BRITTEN**

FDOT

This Certifies that  
**Anthony W. Britten Sr.**

Has Completed a Florida Department of Transportation Approved  
Temporary Traffic Control (TTC) Advanced (Refresher) Course.

Date Expires 04/16/2022 Certificate # 38961  
Instructor: Richard Cabrera FDOT Provider # 37

ATSSA  
Phone: 540-368-1701  
15 Riverside Parkway Ste.100  
Fredericksburg, VA,  
www.atssa.com  
donna.clark@atssa.com

SAFER ROADS SAVE LIVES

**CBVR**  
TELECOM DESIGN GROUP

## GENERAL NOTES:

1. 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 AND/OR COUNTY IN WHICH IT IS TO BE PERFORMED.
2. ALL MATERIALS AND EQUIPMENT FURNISHED SHALL BE PROPOSED 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.
3. 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.
4. ALL DIMENSIONS SHALL BE VERIFIED WITH THE PLANS (LATEST REVISION) PRIOR TO COMMENCING CONSTRUCTION. NOTIFY THE OWNER IMMEDIATELY IF DISCREPANCIES ARE DISCOVERED.
5. ALL MATERIALS AND WORKMANSHIP SHALL BE WARRANTED FOR ONE (1) YEAR FROM DATE OF ACCEPTANCE.

## STRUCTURAL NOTE:

1. DESIGN REQUIREMENTS PER FLORIDA BUILDING CODE (6TH EDITION, 2017) AND THE EIA/TIA-222-G.2 STRUCTURAL STANDARDS FOR STEEL ANTENNA TOWERS AND ANTENNA SUPPORTING STRUCTURES. BASIC WIND SPEED AND ULTIMATE DESIGN WIND SPEED AS LISTED ON SHEET T-1.

## EXISTING CONDITIONS AND STRUCTURES:

1. SHOULD ANY ERROR OR INCONSISTENCY APPEAR IN THE DRAWINGS OR SPECIFICATIONS, THE CONTRACTOR BEFORE PROCEEDING WITH THE WORK MUST MAKE MENTION OF THE SAME TO THE ENGINEER AND OWNER FOR PROPER ADJUSTMENT AND IN NO CASE PROCEED WITH THE WORK IN UNCERTAINTY OR WITH INSUFFICIENT DRAWINGS.
2. THE CONTRACTOR AND EACH SUBCONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF ALL MEASUREMENTS AT THE SITE BEFORE ORDERING ANY MATERIALS OR DOING ANY WORK. NO EXTRA CHARGE OR CONSIDERATION SHALL BE ALLOWED DUE TO DIFFERENCE BETWEEN ACTUAL DIMENSIONS AND DIMENSIONS INDICATED ON THE CONSTRUCTION DRAWINGS. ANY DISCREPANCY IN DIMENSIONS WHICH MAY BE FOUND SHALL BE SUBMITTED TO THE ENGINEER AND THE OWNER REPRESENTATIVE FOR CONSIDERATION BEFORE THE CONTRACTOR PROCEEDS WITH THE WORK IN THE AFFECTED AREAS. THE CONTRACTOR'S WORK SHALL NOT VARY FROM THE PLANS WITHOUT THE EXPRESSED APPROVAL OF THE OWNER OR ITS REPRESENTATIVE.
3. PRIOR TO STARTING CONSTRUCTION, THE CONTRACTOR SHALL PROTECT ALL AREAS FROM DAMAGES WHICH MAY OCCUR DURING CONSTRUCTION. ANY DAMAGES TO NEW OR EXISTING SURFACES, STRUCTURES OR EQUIPMENT SHALL BE IMMEDIATELY REPAIRED OR REPLACED TO THE SATISFACTION OF THE PROPERTY OWNER. THE CONTRACTOR SHALL BEAR THE COST OF REPAIRING OR REPLACING ANY DAMAGES AREAS.
4. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONARY MEASURES AND EFFORTS TO PROTECT THE STRUCTURAL INTEGRITY OF EXISTING STRUCTURES. WHEN WORK IS PERFORMED IN THE VICINITY OF EXISTING STRUCTURE, THE STRUCTURAL INTEGRITY AND STABILITY SHALL BE MONITORED AT ALL TIMES DURING EVERY PHASE OF THE CONSTRUCTION.
5. THE PLANS SHOW SOME KNOWN SUBSURFACE STRUCTURES, ABOVE-GROUND STRUCTURES AND/OR UTILITIES BELIEVED TO EXIST IN THE WORKING AREA, EXACT LOCATION OF WHICH MAY VARY FROM THE LOCATIONS INDICATED, IN PARTICULAR, THE CONTRACTOR IS WARNED THAT THE EXACT OR EVEN APPROXIMATE LOCATION OF SUCH PIPELINES, SUBSURFACE STRUCTURES AND/OR UTILITIES IN THE AREA MAY BE SHOWN OR MAY NOT BE SHOWN; AND IT SHALL BE HIS RESPONSIBILITY TO PROCEED WITH GREAT CARE IN EXECUTING ANY WORK. BEFORE YOU DIG, DRILL OR BLAST, CALL THE UNDERGROUND SERVICES ALERT NUMBER ON SHEET T1 AT THE REQUIRED TIME.
6. THE CONTRACTOR SHALL RESTORE ALL PUBLIC OR PRIVATE PROPERTY DAMAGED OR REMOVED TO AT LEAST AS GOOD OF CONDITION AS BEFORE DISTURBED AS DETERMINED BY THE OWNER OR OWNER'S REPRESENTATIVE.
7. PROTECT FINISHED SURFACES INCLUDING JAMBS AND HEADS OF OPENINGS USED AS PASSAGEWAYS THROUGH WHICH EQUIPMENT AND LATERALS WILL PASS.
8. MAINTAIN FINISHED SURFACES CLEAN, UNARMED AND SUITABLY PROTECTED UNTIL JOB SITE IS ACCEPTED BY THE OWNER.

## ACCESS:

1. USE MOST DIRECT ROUTE FROM PUBLIC STREET AS AGREED TO BY COMPOUND OR BUILDING OWNER. FOR ACCESS TO AN EXISTING BUILDING INTERIOR, USE LOADING DOCK AS AGREED TO BY BUILDING OWNER.
2. COORDINATE WITH SITE OWNER CONSTRUCTION SCHEDULE & SITE ACCESS. ENSURE THAT THE OWNER OF PARENT PARCEL IS NOTIFIED IN WRITING OF CONSTRUCTION ACTIVITIES.
3. A LIST OF WORKERS INVOLVED IN THIS PROJECT SHALL BE PROVIDED TO THE PROPERTY OWNER OR ITS REPRESENTATIVE.
4. THE CONTRACTOR SHALL COORDINATE ALL SPECIAL CONSIDERATIONS OF CONSTRUCTION SUCH AS NOISY OPERATION, INTERRUPTION OF ANY MECHANICAL AND/OR ELECTRICAL SERVICES, MATERIAL DELIVERIES AND STORAGE, STAGING AREA, CRANE LIFTS WITH THE OWNER PRIOR TO THE START OF THE WORK.
5. CONTRACTOR SHALL COORDINATE WITH AN OWNER REPRESENTATIVE, THE TEMPORARY REMOVAL OF FENCE, LANDSCAPING & ANY EXPECTED DAMAGE TO ACCESS ROAD OR ADJACENT REPAIR OF PROPERTY PRIOR TO COMMENCING THE WORK.
6. THE CONTRACTOR SHALL COORDINATE WORK HOURS & STAGING AREAS WITH OWNER.
7. CONTRACTOR TO NOTIFY PROPERTY OWNER OF CONSTRUCTION START DATE WELL IN ADVANCE OF CONSTRUCTION.

## DEMOLITION SPECIFICS:

1. GENERAL CONTRACTOR IS TO DEMOLISH AND REMOVE FROM SITE (AND DISPOSE OF APPROPRIATELY) ALL ITEMS NOTED FOR DEMOLITION IN THE ARCHITECTURAL, CIVIL, ELECTRICAL AND/OR STRUCTURAL DRAWINGS, INCLUDING BELOW GRADE FOUNDATION AND STRUCTURES. CONTRACTOR SHALL COORDINATE WITH THE OWNER REPRESENTATIVE THE DISPOSAL OF EQUIPMENT & MATERIALS.

2. GENERAL CONTRACTOR IS TO EXERCISE UTMOST CARE DURING DEMOLITION AND PROMPTLY INFORM THE ENGINEER OF ANY DEVIATION TO THE EXISTING STRUCTURE FROM WHAT IS SHOWN IN THESE PLANS PRIOR TO PROCEEDING WITH THE WORK.

3. GENERAL CONTRACTOR IS SOLELY RESPONSIBLE FOR THE SHORING, BRACING, PROVIDING LATERAL SUPPORT, AND FOR MAINTAINING THE INTEGRITY OF THE EXISTING STRUCTURE DURING ALL PHASES OF THE DEMOLITION AND CONSTRUCTION AND SHALL PROVIDE, IF REQUIRED, SIGNED & SEALED SHOP DRAWINGS, BY A REGISTERED PROFESSIONAL ENGINEER, FOR THE SHORING OF ALL WALLS, BEAMS, SLABS, ROOF JOISTS, OR OTHER ELEVATED STRUCTURAL ITEMS, THAT ARE HAVING THE SUPPORT BELOW NOTED FOR DEMOLITION.

## CUTTING AND PATCHING:

1. MAKE OPENINGS OF PROPER SIZE FOR CONDUIT, DUCTS, PIPES AND OTHER ITEMS PASSING THROUGH OPENINGS. MAKE SURE ALL NEW HOLES OR OPENINGS BE WEATHER TIGHT OR ARE SAFE AS REQUIRED BY LOCAL BUILDING CODES & ORDINANCES.
2. PREPARE, SUBMIT AND RECEIVE APPROVAL OF SLEEVES AND OPENING DRAWINGS BEFORE LOCATING SLEEVES AND OPENINGS IN NEW CONSTRUCTION AND BEFORE DRILLING EXISTING STRUCTURE. SHOW EACH OPENING AND SLEEVE IN THE ENTIRE PROJECT.

## CLEARING AND GRUBBING:

1. CLEARING OF TREES AND VEGETATION ON THE SITE SHOULD BE HELD TO A MINIMUM. ONLY THE TREES NECESSARY FOR THE CONSTRUCTION OF THE FACILITY SHALL BE REMOVED. ANY DAMAGES TO PROPERTY OUTSIDE THE CONSTRUCTION UNIT SHALL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE. OBTAIN PERMIT FOR TREE REMOVAL, IF REQUIRED.
2. THE CONTRACTOR SHALL PROTECT EXISTING TREES, VEGETATION, LANDSCAPING MATERIALS AND SITE IMPROVEMENTS NOT SCHEDULED FOR CLEARING OR REMOVAL WHICH MIGHT BE DAMAGED BY CONSTRUCTION ACTIVITIES.
3. TRIM EXISTING TREES AND VEGETATION AS RECOMMENDED BY THE ARBOR& FOR PROTECTION DURING CONSTRUCTION.

## EXCAVATION AND BACKFILL:

1. ALL SUITABLE BORROW MATERIAL FOR BACK ALL OF THE SITE SHALL BE INCLUDED IN THE BID. EXCESS TOPSOIL AND UNSUITABLE MATERIAL SHALL BE DISPOSED OF OFF SITE AT LOCATION APPROVED BY GOVERNING AGENCIES PRIOR TO DISPOSAL.
2. ALL SITE FILL SHALL MEET SELECTED FILL STANDARDS AS DEFINED BY THE LOCAL OR STATE PUBLIC ROAD REQUIREMENTS, AS APPLICABLE, OWNER'S REPRESENTATIVE OR GEOTECHNICAL REPORT RECOMMENDATIONS WHICHEVER IS MORE STRINGENT.
3. THIS PROJECT INCLUDES:
  - EXCAVATION, TRENCHING, FILLING, COMPACTING AND GRADING FOR SITE IMPROVEMENTS AND UTILITIES.
  - ALL MATERIALS FOR SUBBASE, DRAINAGE FILL, BACK FILL AND GRAVEL FOR SLABS, PAVEMENT AND IMPROVEMENTS.
  - ROCK EXCAVATION WITHOUT BLASTING.
  - SUPPLY OF ADDITIONAL MATERIALS FROM OFF SITE AS REQUIRED.
  - REMOVAL AND LEGAL DISPOSAL OF EXCAVATED MATERIALS AS REQUIRED.
4. ALL LAYERS THAT REQUIRE COMPACTION SHALL HAVE A MAXIMUM THICKNESS OF 6 INCHES.
5. THE COMPACTING UNDER STRUCTURES, PAVEMENT AND WALKWAYS SHALL BE 95% MAXIMUM DENSITY, ASTM D-1557, IN EACH OF THE COMPACTING LAYERS AT EACH COMPACTING SITE, OR AT LEAST IN EACH 100CU. PER YARDS OF MATERIAL VOLUME UNLESS OTHERWISE REQUIRED BY APPLICABLE LOCAL ROAD CONSTRUCTION STANDARDS.
6. THE COMPACTING UNDER LAWNS OR UNPAVED AREAS SHALL BE 85% MAXIMUM DENSITY, ASTM D1557.
7. AREAS THAT DO NOT MEET ASTM D-1557 REQUIREMENTS MUST BE RECOMPACTED AT THE CONTRACTOR'S EXPENSES.
8. ALL TRENCH EXCAVATIONS AND ANY REQUIRED SHEETING AND SHORING SHALL BE DONE IN ACCORDANCE WITH OSHA REGULATIONS FOR CONSTRUCTION.

## DRAINAGE:

1. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING POSITIVE DRAINAGE AWAY FROM BUILDING AND EQUIPMENT ON THE SITE AT ALL TIMES. SILT AND EROSION CONTROL SHALL BE MAINTAINED ON THE SITE AT ALL TIMES. ANY DAMAGE TO ADJACENT PROPERTIES WILL BE CORRECTED AT THE CONTRACTOR'S EXPENSES. SEDIMENT CONTROL MEASURES SHALL BE REMOVED AND THE SITE AREA RESTORED PRIOR TO COMPLETION OF WORK, UPON APPROVAL OF THE PERMIT INSPECTOR.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DEWATERING AND THE MAINTENANCE OF SURFACE DRAINAGE DURING THE COURSE OF WORK.
3. ANY DRAIN, FIELD TILE OR DRAINAGE STRUCTURE ENCOUNTERED DURING CONSTRUCTION SHALL BE RETURNED TO ITS ORIGINAL OR BETTER CONDITIONS AFTER CONSTRUCTION AND BE NOTED ON THE RECORD DOCUMENTS.

## INSPECTIONS:

1. DURING AND UPON COMPLETION OF WORK, ARRANGE AND PAY ALL ASSOCIATED INSPECTIONS OF ALL WORK INSTALLED UNDER THIS CONTRACT AND IN ACCORDANCE WITH THE CONDITIONS OF THE CONTRACT.
2. INSPECTIONS REQUIRED: AS PER THE LAWS AND REGULATIONS OF THE LOCAL AND/OR STATE AGENCIES HAVING JURISDICTION AT THE PROJECT SITE.
3. INSPECTION AGENCY: APPROVED BY THE LOCAL MUNICIPALITY/OR STATE AGENCIES HAVING JURISDICTION AT THE PROJECT SITE.

## PROJECT INFORMATION:

1. THIS IS AN UNMANNED FACILITY AND WILL BE USED FOR THE TRANSMISSION OF RADIO SIGNALS FOR THE PURPOSE OF PROVIDING PUBLIC CELLULAR SERVICE.
2. THIS EQUIPMENT FACILITY WILL BE SERVICED ONLY BY CROWN CASTLE EMPLOYEES AND SUBCONTRACTORS AND THE WORK ASSOCIATED WITH ANY EQUIPMENT CANNOT BE PERFORMED BY HANDICAPPED PERSONS. THIS FACILITY WILL ONLY BE FREQUENTED ONLY BY SERVICE PERSONNEL FOR REPAIR PURPOSES ONLY.
3. NO POTABLE WATER SUPPLY IS TO BE PROVIDED AT THIS LOCATION.
4. NO WASTEWATER WILL BE GENERATED AT THIS LOCATION.
5. NO SOLID WASTE WILL BE GENERATED AT THIS LOCATION.

PREPARED BY		
<b>VALENT TELECOM DESIGN GROUP</b>		
7480 FAIRWAY DRIVE, SUITE # 206 MIAMI LAKES, FLORIDA 33014 (305) 439-6266 FL CA # AA26003007		
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PROFESSIONAL SEAL		
		
05/23/2021		
PREPARED FOR		
 <b>CROWN CASTLE</b>		
CROWN CASTLE FIBER LLC 8517 SOUTHPARK CIRCLE SUITE 150 ORLANDO, FL 32819		
PROJECT INFORMATION		
<b>NAP005</b>		
LAT.: 26.131704° LONG.: -81.805403°		
PROJECT #: CROWN.NAP005.019		
ISSUED DATES		
0	ISSUED FOR PERMIT	08.28.20
1	PER CITY COMMENTS	10.01.20
2	PER CITY COMMENTS	10.28.20
3	ELECTRICAL REVISION	02.19.21
4	PER CITY COMMENTS	05.23.21
SHEET NAME		
<b>NOTES</b>		
SHEET NUMBER		
<b>GN-1</b>		

## GENERAL ELECTRICAL NOTES

- ALL ELECTRICAL WORK SHALL CONFORM TO THE NATIONAL ELECTRICAL CODE (EDITION ADOPTED BY LOCAL JURISDICTION) AND APPLICABLE LOCAL CODES.
- GROUNDING SHALL COMPLY WITH ARTICLE 250 OF THE NATIONAL ELECTRIC CODE.
- ALL ELECTRICAL EQUIPMENT AND ACCESSORIES SHALL BE U.L. APPROVED OR LISTED.
- ALL POWER WIRING SHALL BE STRANDED COPPER, TYPE THHN/THHW. AND 90 DEGREES C RATED.
- GROUNDING ELECTRODE CONDUCTORS SHALL BE BARE. TIN COATED COPPER AND EQUIPMENT GROUND CONDUCTORS SHALL BE GREEN INSULATED. UNLESS OTHERWISE NOTED.
- ALL POWER WIRING SHALL BE INSTALLED IN GALVANIZED RIGID STEEL CONDUIT. PVC. OR FLEXIBLE LIQUID TIGHT CONDUIT. AS INDICATED.
- CONTRACTOR SHALL OBTAIN ALL PERMITS. PAY PERMIT FEES. AND SCHEDULE INSPECTIONS.
- CONTRACTOR SHALL APPLY FOR ELECTRICAL SERVICE AS SOON AS POSSIBLE AND COORDINATE REQUIREMENTS. SERVICE ROUTING. AND METER SOCKET TYPE WITH LOCAL POWER COMPANY.
- CONTRACTOR SHALL APPLY FOR TELEPHONE SERVICE AS SOON AS POSSIBLE AND COORDINATE REQUIREMENTS AND SERVICE ROUTING WITH TELEPHONE COMPANY.
- PROVIDE ALL LABOR AND MATERIAL DESCRIBED ON THIS DRAWING. AND ALL ITEMS INCIDENTAL TO COMPLETING AND PRESENTING THIS PROJECT AS FULLY OPERATIONAL.
- WHERE LONG POWER CABLE RUNS PREVAIL. CONTRACTOR SHALL CALCULATE THE VOLTAGE DROP AND SIZE WIRES AND CONDUIT ACCORDINGLY.
- WHERE TRANSFORMER IS REQUIRED FOR ELECTRICAL SERVICE. TRANSFORMER SECONDARY SHALL BE GROUNDED PER N.E.C.. ARTICLE 250-26.
- REFER TO SITE SPECIFIC DRAWINGS FOR ELEVATIONS.
- ALL ELECTRICAL DEVICES EXPOSED TO WEATHER SHALL BE OF RAINPROOF CONSTRUCTION AND SHALL REQUIRE WATER TIGHT CONDUIT HUBS. NEMA 3R TYPICAL
- CONTRACTOR SHALL COIL CABLES AT HANDHOLE WITH LENGTHS AS REQUIRED BY ELECTRICAL UTILITY FOR CONNECTION.
- ALL UNDERGROUND SERVICE ENTRANCE POWER CABLES SHALL BE TYPE FOR SUCH USE. CONTRACTOR SHALL CALCULATE VOLTAGE DROP AND RE-SIZE CABLES PER NEC REQUIREMENTS FOR CABLE RUNS EXCEEDING 250 FEET.

## POWER CABLE AND SERVICE

- CONTRACTOR SHALL PROVIDE CONDUIT AND WIRING TO BTS AND VERIFY EXACT CONDUIT ROUTING. RACEWAY SYSTEM MATERIALS AND DEVICES FURNISHED SHALL BE IN ACCORDANCE WITH APPLICABLE STANDARDS OF ANSI. NEMA. AND UL. RACEWAY SYSTEM COMPONENTS SHALL BE INSTALLED IN ACCORDANCE WITH APPLICABLE REQUIREMENTS OF THE N.E.C.
- CONTRACTOR SHALL SEAL AROUND ALL CONDUIT PENETRATIONS THROUGH WALLS, FLOORS AND ROOFS TO PREVENT MOISTURE PENETRATION OR VERMIN INFESTATION.
- CONDUCTORS RUNNING ALONG HORIZONTAL SURFACES (ROOF TOP OR SLAB) SHALL BE INSTALLED IN RIGID CONDUIT SUPPORTED ON ELECTRICAL CONDUIT SUPPORT.
- ALL VERTICAL RUNS OF POWER CABLE EXCEEDING 80 FEET IN LENGTH SHALL BE SUPPORTED PER N.E.C. ARTICLE 300 USING KELLEMS GRIPS OR ACCEPTABLE EQUAL CABLE SUPPORT SYSTEM.
- WHERE A SEPARATE ELECTRICAL SERVICE DROP IS ADDED. CONTRACTOR SHALL INSTALL PERMANENT SERVICE DISCONNECT OR GROUPING THEREOF. DENOTING ALL OTHER SERVICE ENTRANCES. LOCATION OF EACH AND THE AREAS SERVED BY EACH.
- WHERE ELECTRICAL POWER IS TO BE SUB-FED FROM AN EXISTING DISTRIBUTION SYSTEM. THE FOLLOWING SHALL APPLY:
  - CONTRACTOR SHALL PERFORM LOAD TESTING TO DETERMINE MAXIMUM FEEDER DEMAND PER N.E.C. ARTICLE 220-35
  - CONTRACTOR SHALL VERIFY WHETHER EXISTING FEEDER CAPACITY EXCEEDS VALUE CALCULATED PER N.E.C. ARTICLE 220-35
  - EACH BRANCH CIRCUIT PROTECTIVE DEVICE SHALL HAVE SAME INTERRUPTING RATING AS EQUIPMENT SUPPLYING IT.
  - PREFERRED MEANS OF SUPPLY SHALL BE A BRANCH CIRCUIT PROTECTIVE DEVICE LOCATED IN EXISTING PANEL.
  - IF A BRANCH CIRCUIT PROTECTIVE DEVICE CANNOT BE OBTAINED OR SPACE IS NOT AVAILABLE. A BRANCH CIRCUIT MAY BE TAPPED FROM EXISTING FEEDER CONDUCTORS USING AN INSTALLED 2-POLE FUSED DISCONNECT AND METER BASE PER N.E.C. ARTICLE 240-21 WITH TEN FOOT (10) MAXIMUM TAP CONDUCTORS. FUSED DISCONNECT SHALL BE LISTED SAME OR BETTER INTERRUPTING RATING AS EXISTING SOURCE OF SUPPLY.

## RF (COAX) AND LOW VOLTAGE CABLE

- RF CABLES AND LOW VOLTAGE CABLING BETWEEN BTS. LNA OR TMA AND ANTENNA SHALL BE SUPPORTED USING ANDREW "SNAP-IN" HANGERS OR ACCEPTABLE EQUAL.

## IDENTIFICATION

- LOCATE NAMEPLATE. MARKING. OR OTHER IDENTIFICATION MEANS ON OUTSIDE EQUIPMENT OR BOX FRONT COVERS.
- PROVIDE NAMEPLATE ENGRAVED WITH EQUIPMENT DESIGNATION FOR EACH SAFETY SWITCH AND ALL OTHER ELECTRICAL CABINETS, ETC.
- DURING TRENCH BACK-FILLING FOR EACH UNDERGROUND ELECTRICAL, TELEPHONE, SIGNAL AND COMMUNICATIONS LINE, PROVIDE A CONTINUOUS UNDERGROUND WARNING TAPE TWELVE INCHES BELOW FINISHED GRADE.

## GENERAL GROUNDING NOTES

- INSTALLATION OF GROUNDING ELECTRODE SYSTEM SHALL COMPLY WITH ARTICLE 250 OF THE NATIONAL ELECTRIC CODE AND WITH ALL BUILDING COD\* OF AUTHORITIES HAVING JURISDICTION.
- GROUNDING CONDUCTORS SHALL BE (2 AWG TINNED SOLID BARE COPPER BELOW AND ABOVE GRADE. UNLESS OTHERWISE NOTED AND SHALL BE ROUTED IN A DOWNWARD PATH TOWARDS GROUND BARS.
- GROUNDING CONDUCTORS SHALL BE KEPT AS SHORT AND DIRECT AS POSSIBLE WITH MINIMUM BEND RADIUS OF 12 INCHES.
- ALL BELOW GRADE CONNECTIONS SHALL BE CADWELD TYPE CONNECTIONS AND ALL CONNECTIONS TO EQUIPMENT AND GROUND BARS SHALL BE 2-HOLE BRONZE COMPRESSION CONNECTORS UNLESS OTHERWISE NOTED.
- CONTRACTOR SHALL INSTALL NEW GROUNDING SYSTEM PER SPECIFICATIONS AND INTERCONNECT NEW SYSTEMS TO ANY EXISTING GROUNDING SYSTEMS AS REQUIRED BY NFPA 70 AND 780 (THIS APPLIES TO ELECTRICAL POWER DISTRIBUTION GROUNDING SYSTEM, LIGHTNING PROTECTION GROUNDING SYSTEM. COAX CABLE GROUNDING SYSTEM AND ANY OTHER EXISTING GROUNDING SYSTEMS).
- GROUNDING CONDUCTORS SHALL BE BONDED TO ANTENNA FRAM'. AND ANY SUPPORT FRAMES OR RACKS USING CADWELD OR MECHANICAL CONNECTIONS.
- CONTRACTOR SHALL PROVIDE LOCK WASHERS FOR ALL MECHANICAL CONNECTIONS FOR GROUND CONDUCTORS. STAINLESS STEEL HARDWARE SHALL BE USED THROUGHOUT.
- GROUNDING CONDUCTORS EMBEDDED IN CONCRETE OR PENETRATING WALLS AND FLOORS SHALL BE ENCASED IN PVC CONDUIT. NO METALLIC CONDUIT SHALL BE USED FOR GROUNDING CONDUCTORS UNLESS REQUIRED BY LOCAL CODES OR OTHERWISE INDICATED ON DRAWINGS. CONTRACTOR SHALL SEAL AROUND ALL CONDUIT PENETRATIONS TO PREVENT MOISTURE PENETRATION AND VERMIN INFESTATION.
- CONTRACTOR SHALL BOND GROUNDING SYSTEM VIA THE MASTER GROUND BAR TO ALL METAL OBJECTS WITHIN 12 FEET OF EQUIPMENT, CONDUIT AND CABLES.
- BONDING OF GROUNDED CONDUCTOR (NEUTRAL) AND GROUNDING CONDUCTOR SHALL BE AT SERVICE DISCONNECTING MEANS. BONDING JUMPER SHALL BE INSTALLED PER N.E.C. ARTICLE 250-28.
- CONTRACTOR SHALL VERIFY EXACT CONDUIT ROUTING FOR GROUNDING CONDUCTORS WHERE APPLICABLE.
- CONNECTIONS TO CGB SHALL BE ARRANGED IN THE FOLLOWING THREE GROUPS:
  - \* SURGE PRODUCERS (COAXIAL CABLE GROUND KTTs. TELCO CABINET AND POWER PEDESTAL GROUND).
  - \* SURGE ABSORBERS (GROUNDING ELECTRODE RING OR BUILDING STEEL).CONDUCTORS
  - \* NON-SURGING OBJECTS (EGB GROUND IN BTS).
- DOUBLING OR STACKING OF ANY GROUNDING CONNECTIONS IS NOT ACCEPTABLE.
- ALL GROUND BARS SHALL BE INSTALLED WITH STAND OFF INSULATORS.

## PREPARATION

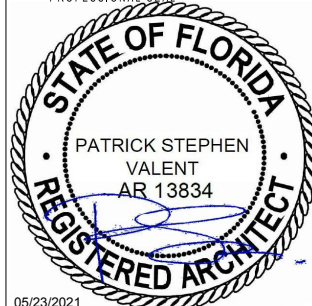

- SURFACES: ALL CONNECTIONS SHALL BE MADE TO BARE METAL. ALL PAINTED SURFACES SHALL BE FIE.D INSPECTED TO ENSURE PROPER CONTACT. ALL GALVANIZED SURFACES ON WHICH GALVANIZING HAS BEEN REMOVED BY CUTTING. DRILLING. OR ANY OTHER OPERATION SHALL BE RE-GALVANIZED IN ACCORDANCE WITH ASTM A780 USING 'ZINC RICH' COATING AS MANUFACTURED BY ZRC CHEMICAL PRODUCTS COMPANY (LOCATED IN QUINCY. MASSACHUSETTS). OR ACCEPTABLE EQUAL. NO WASHERS ARE ALLOWED BETWEEN TTEMs BEING GROUNDED. ALL CONNECTIONS ARE TO HAVE A NON-OXIDIZING AGENT ("COPPER SHIELD") APPLIED PRIOR TO INSTALLATION.
- GROUND BAR: ALL COPPER GROUND BARS SHALL BE CLEANED. POLISHED AND A NON-OXIDIZING AGENT ("COPPER SHIELD") APPLIED. NO FINGER PRINTS OR DISCOLORED COPPER SHALL BE PERMITTED.

## LAND BUILDS AND CO-LOCATE

- THE GROUND ELECTRODE SYSTEM SHALL CONSIST OF DRIVEN GROUND RODS UNIFORMLY SPACED AROUND THE EQUIPMENT FOUNDATION AND AROUND THE PERIMETER OF THE TOWER FOUNDATION. THE GROUND RODS SHALL BE 95" X 10'-0" COPPER CLAD STEEL INTERCONNECTED WITH (2 SOLID TINNED BARE COPPER GROUND CONDUCTOR TO FORM A GROUND RING AT A DEPTH OF 30 INCHES BELOW THE SURFACE OF THE SOIL. A MINIMUM OF 1 FOOT AND A MAXIMUM OF 3 FEET CLEARANCES SHALL BE MAINTAINED FROM FOUNDATIONS. TOWER AND EQUIPMENT GROUND RINGS SHALL BE INTERCONNECTED WITH TWO GROUNDING CONDUCTORS OF EQUAL LENGTH AND MATERIALS.
- GROUND RODS SHALL BE BONDED TO GROUND RINGS AND INTERCONNECTING CONDUCTORS AT EQUAL INTERVALS OF APPROXIMATELY 10 FEET.
- GROUND BARS SHALL BE BONDED TO GROUND RING WITH SINGLE GROUNDING CONDUCTOR.
- BONDS TO ANTENNA MASTS. FENCE POSTS. WAVEGUIDE BRIDGE. TOWER STEEL (UNLESS PROHIBTTED BY TOWER MANUFACTURER) AND THOSE BELOW GRADE SHALL BE EXOTHERMIC TYPE (CADWELD). ALL OTHER BONDS SHALL BE BRONZE 2-HOLE COMPRESSION FITTINGS UNLESS OTHERWISE NOTED.
- GROUNDING CONDUCTORS MAKING A TRANST'ION FROM ABOVE TO BELOW GRADE SHALL BE INSULATED FROM EARTH CONTACT BY PASSING THROUGH PVC CONDUIT. THE CONDUIT SHALL EXTEND AT LEAST 6 INCHES ABOVE AND 12 INCHES BELOW GRADE LEVEL.

## GROUNDING REQUIREMENTS

- CONTRACTOR SHALL INSPECT AND TEST ANY NEW OR EXISTING CCI GROUNDING SYSTEM WITH A BIDDLE-MEGGER TESTER UTILIZING THE FALL OF POTENTIAL METHOD AND CONTACT CONSTRUCTION MANAGER IF RESISTANCE EXCEEDS 5 OHMS AND SHALL FIELD MODIFY GROUNDING SYSTEM AS NECESSARY TO ACHIEVE COMPLIANCE. TEST RESULTS AND CONCLUSIONS SHALL BE RECORDED FOR PROJECT CLOSE-OUT DOCUMENTATION.
- COAX CABLE OUTER CONDUCTORS (SHIELDS) SHALL BE GROUNDED USING COAX GROUNDING KITS AT A MINIMUM OF TWO POINTS. INCLUDING AT ANTENNA AND AT MASTER GROUND BAR. THE COAXIAL CABLE SHALL NOT EXCEED 100 FEET BETWEEN GROUNDING KITS.

PREPARED BY	
	
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PROFESSIONAL SEAL	
	
05/23/2021	
PREPARED FOR	
	
CROWN CASTLE FIBER LLC 8517 SOUTH PARK CIRCLE SUITE 150 ORLANDO, FL 32819	
PROJECT INFORMATION	
<b>NAP005</b>  LAT.: 26.131704° LONG.: -81.805403°  PROJECT #: CROWN.NAP005.019	
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4 PER CITY COMMENTS	05.23.21
SHEET NAME	<b>ELECTRICAL NOTES</b>
SHEET NUMBER	<b>GN-2</b>