

Creve Coeur, MO 63141

Phone: (314) 513-0147

www.crowncastle.com

July 22nd, 2022

Melanie A. Bachman **Executive Director** Connecticut Siting Council 10 Franklin Square New Britain, CT 06051

RE: **Notice of Exempt Modification for AT&T** 

Crown Site ID#842859; AT&T Site ID#CT05833

371 Terryville Avenue, Bristol, CT 06010 Latitude: 41.679919 / Longitude: -72.96255

Dear Ms. Bachman:

AT&T currently maintains (12) antennas at the 168-foot mounts on the existing 168.5-foot Monopole Tower located at 371 Terryville Avenue, Bristol. The property is owned by Laviero Realty LLC and the Tower by Crown Castle. AT&T now intends to replace six (9) antennas. This modification/proposal includes hardware that is both 4G(LTE) and 5G capable through remote software configuration and either or both services may be turned on or off at various times.

#### **Planned Modifications:**

#### **Tower:**

#### REMOVE AND REPLACE

- (3) Kathrein 800-10121 antennas (REMOVE), (2) CCI TPA-65-LCUUUU-H8 Antennas (REMOVE), (1) Kathrein 800-10965 Antenna (REMOVE), (3) Ericsson – AIR6449 B77D (**REPLACE**), (3) Ericsson – AIR6419 B77G (antennas stacked) (**REPLACE**)
- (2) Kathrein 800-10966 antennas (REMOVE), (2) Quintel QD8616-7 antennas (REPLACE)
- (1) CCI DMP 65R-BU8DA antennas (**REMOVE**), (1) Quintel QD6616-7 antennas (**REPLACE**)
- (1) Kathrein 800-10798 antenna (REMOVE), (1) Matsing MS-MBA-3.2-H4.I4 antenna (REPLACE)
- (1) Raycap DC6-48-60-0-8F Squid (**REMOVE**) (1) Raycap DC9-48-60-24-8C-EV Squid (REPLACE)
- (3) Ericsson RRUS-32-B2 (REMOVE) (3) Ericsson 8843 B2/B66A RRUs (REPLACE)
- (1) Ericsson 4426 B66 RRU (**REMOVE**)
- (1) Ericsson 4415 B25 RRU (**REMOVE**)
- (6) Powerwave LGP21401 TMAs (REMOVE), (5) Kaelus DBC0051F3V51-2 Diplexers
- (6) 1-5/8" Coax Cables (REMOVE) (3) 6AWG DC Cables 7/8" (REPLACE), (1) 24 Pair fiber cable 3/8" (REPLACE)

#### RELOCATE

- (3) Ericsson 4449 B5/B12 RRUs
- (3) Ericsson 4478 B14 RRUs

The Foundation for a Wireless World. CrownCastle.com

1 Cityplace Dr, Suite 490

Creve Coeur, MO 63141

Phone: (314) 513-0147

www.crowncastle.com

- (3) Erisson RRUS-32 B30 RRUs
- (3) Ericsson 4415 B30 RRUs
- (2) Ericsson 4415 B25 RRUs
- (1) CCI DMP65R-BU8DA Antenna
- (1) CCI DMP65R-BU6DA Antenna

#### **INSTALL**

- (1) Raycap DC9-48-60-24-8C-EV Squid
- (7) Y Cables

#### Ground:

#### **REMOVE:**

- (3) Ericsson RRUS 12 B25
- (3) Ericsson RRUW
- (1) DC6 Squid
- (1) Netsure 701 Power Plant

#### **INSTALL:**

- (1) Netsure 5100 PP
- (10) Rectifiers
- (1) OD Flex Cabinet
- (1) DC12-48-60-0-25E Squid
- (1) 6648 (+ Xcede)
- (1) 6675
- (1) 4-way GPS Splitter
- (1) New Purcell Cabinet

The facility was approved by Connecticut Siting Council by way of a Certificate of Environmental Compatibility on October 14th, 2003.

Please accept this letter as notification pursuant to Regulations of Connecticut State Agencies §16-50j-73, for construction that constitutes an exempt modification pursuant to R.C.S.A. §16-50j-72(b)(2). In accordance with R.C.S.A. §16-50j-73, a copy of this letter is being sent to Ellen Zoppo-Sassu, Mayor of the City of Bristol and Robert M. Flanagan, City Planner for the City of Bristol, and property owner, Laviero Realty LLC.

- 1. The proposed modifications will not result in an increase in the height of the existing tower.
- 2. The proposed modifications will not require the extension of the site boundary.
- 3. The proposed modification will not increase noise levels at the facility by six decibels or more, or to levels that exceed state and local criteria.
- 4. The operation of the replacement antennas will not increase radio frequency emissions at the facility to a level at or above the Federal Communication Commission safety standard.



1 Cityplace Dr, Suite 490

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- 5. The proposed modifications will not cause a change or alteration in the physical or environmental characteristics of the site.
- 6. The existing structure and its foundation can support the proposed loading.

For the foregoing reasons, AT&T respectfully submits that the proposed modifications to the above-reference telecommunications facility constitutes an exempt modification under R.C.S.A. §16-50j-72(b)(2).

Sincerely,

Katie Adams Crown Castle, Agent for AT&T kadams@nbcllc.com (781) 392-7547

cc:

Ellen Zoppo-Sassu, Mayor (Via Federal Express) Mayor's Office 3rd Floor 111 North Main St. Bristol, CT 06010 860.584.6250

Robert M. Flanagan, City Planner (Via Federal Express) Land Use Department 111 North Main St. Bristol, CT 06010 (860) 584-6225

Laviero Realty LLC (Via Federal Express) 70 Maureen Dr Bristol, CT 06010

#### **Katie Adams**

From: TrackingUpdates@fedex.com
Sent: Tuesday, August 2, 2022 1:36 PM

**To:** Katie Adams

**Subject:** FedEx Shipment 777539359287: Your package has been delivered



# Hi. Your package was delivered Tue, 08/02/2022 at 1:32pm.



Delivered to 111 N MAIN ST, BRISTOL, CT 06010 Received by R.ROGER

#### **OBTAIN PROOF OF DELIVERY**

**TRACKING NUMBER** <u>777539359287</u>

FROM NB+C

100 Apollo Drive

Suite 303

CHELMSFORD, MA, US, 01824

TO Robert M. Flanagan, City Planner

111 North Main Street
Land Use Department
BRISTOL, CT, US, 06010

REFERENCE 100788 - CSC

1

SHIPPER REFERENCE 100788 - CSC

**SHIP DATE** Mon 8/01/2022 06:12 PM

**DELIVERED TO** Receptionist/Front Desk

PACKAGING TYPE FedEx Pak

ORIGIN CHELMSFORD, MA, US, 01824

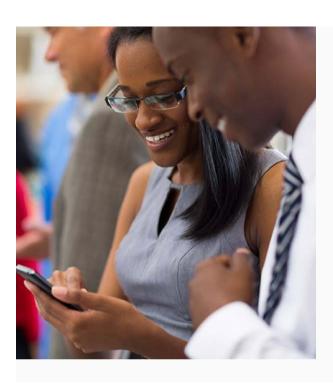
**DESTINATION** BRISTOL, CT, US, 06010

SPECIAL HANDLING Deliver Weekday

NUMBER OF PIECES 1

TOTAL SHIPMENT WEIGHT 2.00 LB

SERVICE TYPE FedEx Standard Overnight



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#### **Katie Adams**

From: TrackingUpdates@fedex.com
Sent: Tuesday, August 2, 2022 12:26 PM

**To:** Katie Adams

**Subject:** FedEx Shipment 777539383330: Your package has been delivered



# Hi. Your package was delivered Tue, 08/02/2022 at 12:25pm.



Delivered to 70 MAUREEN DR, BRISTOL, CT 06010

#### **OBTAIN PROOF OF DELIVERY**

**TRACKING NUMBER** 777539383330

FROM NB+C

100 Apollo Drive

Suite 303

CHELMSFORD, MA, US, 01824

TO Laviero Realty LLC

70 Maureen Dr

BRISTOL, CT, US, 06010

REFERENCE 100788 - CSC

SHIPPER REFERENCE 100788 - CSC

**SHIP DATE** Mon 8/01/2022 06:12 PM

**DELIVERED TO** Residence

PACKAGING TYPE FedEx Pak

ORIGIN CHELMSFORD, MA, US, 01824

**DESTINATION** BRISTOL, CT, US, 06010

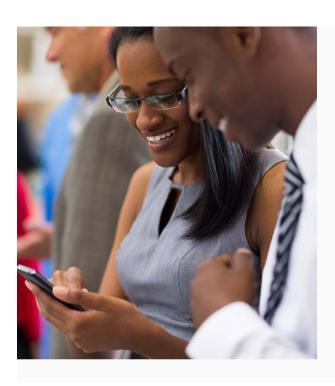
SPECIAL HANDLING Deliver Weekday

Residential Delivery

NUMBER OF PIECES 1

TOTAL SHIPMENT WEIGHT 1.00 LB

SERVICE TYPE FedEx Standard Overnight



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All weights are estimated.

#### **Katie Adams**

From: TrackingUpdates@fedex.com
Sent: Tuesday, August 2, 2022 10:19 AM

**To:** Katie Adams

**Subject:** FedEx Shipment 777539319489: Your package has been delivered



# Hi. Your package was delivered Tue, 08/02/2022 at 10:15am.



Delivered to 111 N MAIN ST, BRISTOL, CT 06010 Received by G.KRISTEN

#### **OBTAIN PROOF OF DELIVERY**

**TRACKING NUMBER** <u>777539319489</u>

FROM NB+C

100 Apollo Drive

Suite 303

CHELMSFORD, MA, US, 01824

TO Ellen Zoppo-Sassu, Mayor

111 North Main Street
Mayors Office, 3rd Floor
BRISTOL, CT, US, 06010

REFERENCE 100788 - CSC

1

SHIPPER REFERENCE 100788 - CSC

**SHIP DATE** Mon 8/01/2022 06:12 PM

**DELIVERED TO** Receptionist/Front Desk

PACKAGING TYPE FedEx Pak

ORIGIN CHELMSFORD, MA, US, 01824

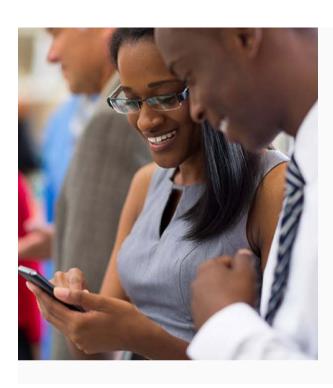
**DESTINATION** BRISTOL, CT, US, 06010

SPECIAL HANDLING Deliver Weekday

NUMBER OF PIECES 1

TOTAL SHIPMENT WEIGHT 1.00 LB

SERVICE TYPE FedEx Standard Overnight



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## Exhibit A

**Original Facility Approval** 

## Connecticut Siting Council (/CSC)

CT.gov Home (/) Connecticut Siting Council (/CSC) DO 250 Bristol

<u>Decisions (/CSC/Decisions/Decisions)</u>	>
Meetings and Minutes (/CSC/Common-Elements/v4-template/Council-Activity)	>
Pending Matters (/CSC/1_Applications-and-Other-Pending-Matters/Pending-Matters)	>
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**DOCKET NO. 250** - AT&T Wireless PCS, LLC d/b/a AT&T Wireless application for a Certificate of Environmental Compatibility and Public Need for the construction, maintenance and operation of a wireless telecommunications facility at 371 Terryville Avenue or 522 Terryville Avenue, Bristol, Connecticut.

- Connecticut
- } Siting
- } Council
- } October 14, 2003

#### **Decision and Order**

Pursuant to the foregoing Findings of Fact and Opinion, the Connecticut Siting Council (Council) finds that the effects associated with the construction, operation, and maintenance of a wireless telecommunications facility including effects on the natural environment; ecological integrity and balance; public health and safety; scenic, historic, and recreational values; forests and parks; air and water purity; and fish and wildlife are not disproportionate either alone or cumulatively with other effects when compared to need, are not in conflict with the policies of the State concerning such effects, and are not sufficient reason to deny the application and therefore directs that a Certificate of Environmental Compatibility and Public Need, as provided by General Statutes § 16-50k, be issued to AT&T Wireless PCS, LLC d/b/a AT&T Wireless (AT&T) for the construction, maintenance and operation of a wireless telecommunications facility at 371 Terryville Avenue (Site A), Bristol, Connecticut. The Council denies certification of Site B located at 522 Terryville Avenue, Bristol, Connecticut.

The facility shall be constructed, operated, and maintained substantially as specified in the Council's record in this matter, and subject to the following conditions:

- 1. The tower shall be constructed as a monopole, no taller than necessary to provide the proposed telecommunications services, sufficient to accommodate the antennas of Sprint and other entities, both public and private, but such tower shall not exceed a height of 170 feet above ground level.
- 2. The facility shall be relocated down gradient from the originally proposed Site A location, approximately 20 to 30 feet to the east onto a flat area.

- 3. The access road shall be relocated to use the existing driveway and parking lot on the property.
- 4. The Certificate Holder shall prepare a D&M Plan for this site in compliance with Sections 16-50j-75 through 16-50j-77 of the Regulations of Connecticut State Agencies. The D&M Plan shall be submitted to and approved by the Council prior to the commencement of facility construction and shall include:
- a. a final site plan(s) of site development to include specifications for the tower, tower location, tower foundation, antennas, equipment building, access road, utility line, and landscaping; and
- b. construction plans for site clearing, water drainage, and erosion and sedimentation control consistent with the <u>2002</u> <u>Connecticut Guidelines for Soil Erosion and Sediment Control</u>, as amended.
- 4. The Certificate Holder shall, prior to the commencement of operation, provide the Council worst-case modeling of electromagnetic radio frequency power densities of all proposed entities' antennas at the closest point of uncontrolled access to the tower base, consistent with Federal Communications Commission, Office of Engineering and Technology, Bulletin No. 65, August 1997. The Certificate Holder shall provide a recalculated report of electromagnetic radio frequency power density if and when circumstances in operation cause a change in power density above the levels calculated and provided pursuant to this Decision and Order.
- 5. Upon the establishment of any new State or federal radio frequency standards applicable to frequencies of this facility, the facility granted herein shall be brought into compliance with such standards.
- 6. The Certificate Holder shall permit public or private entities to share space on the proposed tower for fair consideration, or shall provide any requesting entity with specific legal, technical, environmental, or economic reasons precluding such tower sharing. The Certificate Holder shall provide space on the tower for no compensation for any municipal antennas, provided such antennas are compatible with the structural integrity of the tower.
- 7. If the facility does not initially provide wireless services within one year of completion of construction or ceases to provide wireless services for a period of one year, this Decision and Order shall be void, and the Certificate Holder shall dismantle the tower and remove all associated equipment or reapply for any continued or new use to the Council before any such use is made.
- 8. Any antenna that becomes obsolete and ceases to function shall be removed within 60 days after such antenna becomes obsolete and ceases to function.
- 9. Unless otherwise approved by the Council, this Decision and Order shall be void if the facility authorized herein is not operational within one year of the effective date of this Decision and Order or within one year after all appeals to this Decision and Order have been resolved.

Pursuant to General Statutes § 16-50p, we hereby direct that a copy of the Findings of Fact, Opinion, and Decision and Order be served on each person listed below, and notice of issuance shall be published in <u>The Hartford Courant</u>, and The Bristol Press.

By this Decision and Order, the Council disposes of the legal rights, duties, and privileges of each party named or admitted to the proceeding in accordance with Section 16-50j-17 of the Regulations of Connecticut State Agencies.

The parties and intervenors to this proceeding are:

### <u>Applicant</u>

AT&T Wireless PCS, LLC d/b/a AT&T Wireless

#### <u>Intervenor</u>

Sprint Spectrum, L.P. d/b/a Sprint PCS

#### **Its Representative**

Lucia Chiocchio, Esq. Cuddy & Feder LLP 90 Maple Avenue White Plains, NY 10601

#### **Its Representative**

Thomas J. Regan, Esquire Brown Rudnick Berlack Israels LLP CityPlace I, 38<sup>th</sup> Floor 185 Asylum Street Hartford, CT 06103-3402

# Exhibit B

**Property Card** 

#### **TERRYVILLE AVE**

Location TERRYVILLE AVE Mblu 61/ / 67-3/ /

Acct# 0272831 Owner LAVIERO REALTY LLC

**Assessment** \$150,290 Appraisal \$214,700

> **Building Count** 1 PID 101154

#### **Current Value**

Appraisal						
Valuation Year	Improvements	Land	Total			
2017	\$107,900	\$106,800	\$214,700			
	Assessment					
Valuation Year	Improvements	Land	Total			
2017	\$75,530	\$74,760	\$150,290			

#### **Owner of Record**

Owner LAVIERO REALTY LLC Sale Price \$0

Co-Owner Certificate

Address 70 MAUREEN DR Book & Page 1564/0795 BRISTOL, CT 06010 Sale Date 06/08/2004

Instrument 06

#### **Ownership History**

Ownership History					
Owner Sale Price Certificate Book & Page Instrument Sale Date					Sale Date
LAVIERO REALTY LLC	\$0		1564/0795	06	06/08/2004

#### **Building Information**

#### **Building 1: Section 1**

Year Built:

Living Area: 0 Replacement Cost: \$0

**Building Percent Good:** 

**Replacement Cost** 

**Less Depreciation:** \$0

**Building Attributes** 

Field	Description
Style:	Outbuildings
Model	
Grade:	
Stories:	
Occupancy	
Exterior Wall 1	
Exterior Wall 2	
Roof Structure:	
Roof Cover	
Interior Wall 1	
Interior Wall 2	
Interior Flr 1	
Interior Flr 2	
Heat Fuel	
Heat Type:	
AC Type:	
Total Bedrooms:	
Total Bthrms:	
Total Half Baths:	
Total Xtra Fixtrs:	
Total Rooms:	
Bath Style:	
Kitchen Style:	
Num Kitchens	
Attic	
Bsmt	
Bsmt Gar	
Fireplaces_2	
Fin Bsmt	
Fin Bsmt Qual	
Num Park	
Fireplaces	
MHP	
Fndtn Cndtn	
Basement	

#### **Building Photo**



(http://images.vgsi.com/photos2/BristolCTPhotos///0053/DSC04022\_53632

#### **Building Layout**

Building Layout (ParcelSketch.ashx?pid=101154&bid=40915)

Building Sub-Areas (sq ft)	<u>Legend</u>
No Data for Building Sub-Areas	

#### **Extra Features**

Extra Features <u>Legend</u>

#### No Data for Extra Features

#### Land

Land Use Land Line Valuation

**Use Code** 302 **Size (Acres)** 0.63

DescriptionInd Vac LndFrontageZoneIDepth

NeighborhoodAssessed Value\$74,760Alt Land ApprNoAppraised Value\$106,800

Category

#### Outbuildings

Outbuildings					<u>Legend</u>	
Code	Description	Sub Code	Sub Description	Size	Value	Bldg #
CB3	PreCastConcCel			290.00 S.F.	\$0	1
FN4	Fence 8'			290.00 L.F.	\$2,900	1
CELL	Cell Tower/Site			1.00 UNITS	\$105,000	1

#### **Valuation History**

Appraisal				
Valuation Year	Improvements	Land	Total	
2020	\$107,900	\$106,800	\$214,700	
2019	\$107,900	\$106,800	\$214,700	
19	\$107,900	\$106,800	\$214,700	

Assessment				
Valuation Year	Improvements	Land	Total	
2020	\$75,530	\$74,760	\$150,290	
2019	\$75,530	\$74,760	\$150,290	
19	\$75,530	\$74,760	\$150,290	

## Exhibit C

**Construction Drawings** 



AT&T SITE NUMBER: CTL05833

**AT&T SITE NAME: BRISTOL CENTER** 

AT&T FA CODE: 10070954

SITE INFORMATION

BRISTOL CENTER

BRISTOL, CT 06010

HARTFORD

61-67-3

**EXISTING** 

41.679919

-72.96255 NAD83

I - INDUSTRIAL

**HUMAN HABITATION** 

LAVIERO REALTY LLC

CROWN CASTLE USA INC

2000 CORPORATE DRIVE

CANONSBURG, PA 15317

575 MOROSGO DRIVE ATLANTA, GA 30324-3300

AT&T TOWER ASSET GROUP

70 MAUREEN DR BRISTOL, CT 06010

531'

371 TERRYVILLE AVENUE

CONNECTICUT SITING COUNCIL

FACILITY IS UNMANNED AND NOT FOR

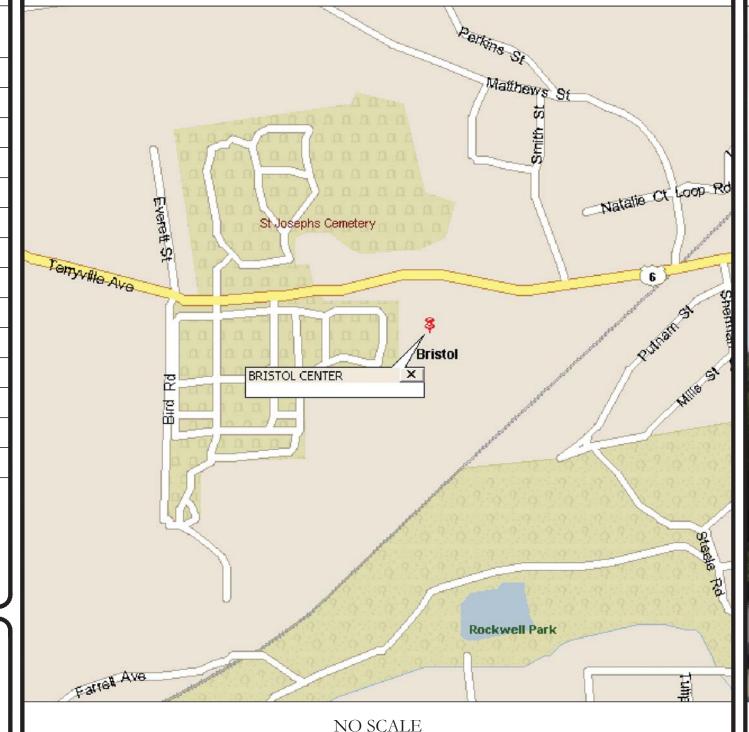
AT&T PACE NUMBER: MRCTB054912, MRCTB055826, MRCTB053470, MRCTB053265,

MRCTB054651, MRCTB052892

AT&T PROJECT: 5G NR 1SR CBAND, BBU RECONFIGURATION WITH NEW IDS, 5G

NR ACTIVATION, SPLIT SECTOR - LTE

## **LOCATION MAP**



#### **MONOPOLE** SITE TYPE: 168'-6" **TOWER HEIGHT:**

**SITE PHOTO** 

371 TERRYVILLE AVENUE

HARTFORD

BRISTOL, CT 06010

BUSINESS UNIT #: 842859

**SITE ADDRESS:** 

**COUNTY:** 

CLIFTON PARK, NY 12065 B+T GRP

> AT&T SITE NUMBER: CTL05833

ATLANTA, GA 30324-3300

**CROWN** 

PH: (918) 587-4630 www.btgrp.com

BU #: **842859 BRISTOL CENTER** 

371 TERRYVILLE AVENUE BRISTOL, CT 06010

> EXISTING 168'-6" MONOPOLE

	ISSUED FOR:				
REV	DATE	DRWN	DESCRIPTION	DES./QA	
А	3/25/22	JHW	PRELIMINARY REVIEW	KT	
0	6/17/22	MEH	CONSTRUCTION	MTJ	

B&T ENGINEERING, INC. PEC.0001564

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER,

**SHEET NUMBER:** 

**REVISION:** 

Expires 2/10/23

TO ALTER THIS DOCUMENT.

**APPLICABLE CODES/** REFERENCE DOCUMENTS

ALL WORK SHALL BE PERFORMED AND MATERIALS 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 THESE CODES:

CODE TYPE

2018 CONNECTICUT SBC/2015 IBC BUILDING **MECHANICAL** 2018 CONNECTICUT SBC/2015 IMC ELECTRICAL 2018 CONNECTICUT SBC/2017 NEC

REFERENCE DOCUMENTS:

STRUCTURAL ANALYSIS: BLACK & VEATCH CORP.

DATED: 2/15/22

MOUNT ANALYSIS: INFINIGY ENGINEERING, PLLC DATED: 12/6/21

RFDS REVISION: FINAL DATED: 6/7/22

ORDER ID: 586265 REVISION: 0

## **DRAWING INDEX**

SHEET#	SHEET DESCRIPTION
T-1	TITLE SHEET
T-2	GENERAL NOTES
C-1.1	SITE PLAN
C-1.2	EXISTING & FINAL EQUIPMENT PLANS
C-2	FINAL ELEVATION & ANTENNA PLANS
C-3	FINAL EQUIPMENT SCHEDULE
C-4	EQUIPMENT MOUNTING DETAILS
C-5.1	EQUIPMENT SPECS
C-5.2	EQUIPMENT SPECS
G-1	GROUNDING SCHEMATIC
G-2	GROUNDING DETAILS
ATTACHED	PLUMBING DIAGRAM

XISTING DIMENSIONS AND CONDITIONS ON THE JOB SIT AND SHALL IMMEDIATELY NOTIFY THE ENGINEER IN VRITING OF ANY DISCREPANCIES BEFORE PROCEEDING





WITH THE WORK OR BE RESPONSIBLE FOR SAME.



CALL CONNECTICUT ONE CALL (800) 922-4455 CBYD.COM CALL 2 WORKING DAYS

# BEFORE YOU DIG!

## **PROJECT TEAM**

**EVERSOURCE** 

800-592-2000

LIGHTOWER

(855) 91-FIBER

B+T GROUP 1717 S. BOULDER AVE. TULSA, OK 74119 MARVIN PHILLIPS marvin.phillips@btgrp.com

CROWN CASTLE USA INC. DISTRICT CONTACTS:

CROWN CASTLE USA INC.

AREA OF CONSTRUCTION:

SITE NAME:

COUNTY:

LATITUDE:

LONGITUDE:

LAT/LONG TYPE:

JURISDICTION:

GROUND ELEVATION: **CURRENT ZONING:** 

TYPE OF CONSTRUCTION:

A.D.A. COMPLIANCE:

PROPERTY OWNER:

TOWER OWNER:

CARRIER/APPLICANT:

ELECTRIC PROVIDER:

TELCO PROVIDER:

A&E FIRM:

OCCUPANCY CLASSIFICATION: U

SITE ADDRESS:

MAP/PARCEL #:

3530 TORINGDON WAY, SUITE 300 CHARLOTTE, NC 28277

PAUL PEDICONE - PROJECT MANAGER PAUL.PEDICONE@CROWNCASTLE.COM

JASON D'AMICO - CONSTRUCTION MANAGER JASON.DAMICO@CROWNCASTLE.COM

CONNECTIVITY AND CAPACITY TO THE EXISTING ELIGIBLE WIRELESS

- REMOVE (2) KATHREIN 800-10966 ANTENNAS
- REMOVE (1) CCI DMP65R-BU8DA ANTENNAS
- REMOVE (1) KATHREIN 800-10965 ANTENNAS

- REMOVE (3) ERICSSON RRUS-32 B2
- REMOVE (6) COAX CABLES (1-5/8")
- ANTENNAS WITH INTEGRATED RADIO
- INSTALL (1) QUINTEL QD6616-7 ANTENNA
- INSTALL (5) KAELUS DBC0051F3V51-2 DIPLEXERS
- INSTALL (1) RAYCAP DC9-48-60-24-8C-EV SQUID
- INSTALL (7) Y-CABLES

THE PURPOSE OF THIS PROJECT IS TO ENHANCE BROADBAND FACILITY.

- TOWER SCOPE OF WORK:
- REMOVE (3) KATHREIN 800-10121 ANTENNAS
- REMOVE (2) CCI TPA-65R-LCUUUU-H8 ANTENNAS
- REMOVE (1) KATHREIN 800-10798 ANTENNAS
- REMOVE (1) ERICSSON 4426 B66 RADIO • REMOVE (1) ERICSSON - 4415 B25 RADIO
- REMOVE (6) POWERWAVE TECHNOLOGIES LGP21401 TMAs
- RELOCATE ALL EXISTING RADIOS TO T-ARMS
- INSTALL (6) ERICSSON AIR6449 B77D+AIR6419 B77G STACKED
- INSTALL (2) QUINTEL QD8616-7 ANTENNAS
- INSTALL (1) MATSING MS-MBA-3.2-H4-L4 ANTENNA
- INSTALL (3) ERICSSON 8843 B2/B66A RADIOs ON SECTOR SPLIT
- INSTALL (3) 6AWG DC CABLES (7/8")

# PROJECT DESCRIPTION

• INSTALL (1) ERICSSON - 4449 RADIO ON SECTOR SPLIT • INSTALL (6) 2-3/8" O.D. (SCH 40) X 8'-0" LONG MOUNT PIPES

- REMOVE (3) RRUS12 B25
- REMOVE (3) RRUW
- INSTALL (10) RECTIFIERS
- INSTALL (1) DC12-48-60-0-25E
- INSTALL (1) 6648 (+XCEDE)
- INSTALL (1) 6675
- INSTALL NEW PURCELL CABINET

## GROUND SCOPE OF WORK:

- REMOVE (1) DC6
- REMOVE (1) NETSURE 701 PP • INSTALL (1) NETSURE 5100 PP
- INSTALL (1) OD FLEX CABINET
- INSTALL (1) 4-WAY GPS SPLITTER

PRIOR TO ACCESSING/ENTERING THE SITE YOU MUST CONTACT THE CROWN NOC AT (800) 788-7011 & CROWN CONSTRUCTION MANAGER.

• INSTALL (1) 24 PAIR FIBER CABLE (3/8")

#### CROWN CASTLE USA INC. SITE ACTIVITY REQUIREMENTS:

- 1. NOTICE TO PROCEED— NO WORK SHALL COMMENCE PRIOR TO CROWN CASTLE USA INC. WRITTEN NOTICE TO PROCEED (NTP) AND THE ISSUANCE OF A PURCHASE ORDER. PRIOR TO ACCESSING/ENTERING THE SITE YOU MUST CONTACT THE CROWN CASTLE USA INC. NOC AT 800-788-7011 & THE CROWN CASTLE USA INC. CONSTRUCTION MANAGER.
- "LOOK UP" CROWN CASTLE USA INC. SAFETY CLIMB REQUIREMENT
- THE INTEGRITY OF THE SAFETY CLIMB AND ALL COMPONENTS OF THE CLIMBING FACILITY SHALL BE CONSIDERED DURING ALL STAGES OF DESIGN, INSTALLATION, AND INSPECTION. TOWER MODIFICATION, MOUNT REINFORCEMENTS, AND/OR EQUIPMENT INSTALLATIONS SHALL NOT COMPROMISE THE INTEGRITY OR FUNCTIONAL USE OF THE SAFETY CLIMB OR ANY COMPONENTS OF THE CLIMBING FACILITY ON THE STRUCTURE. THIS SHALL INCLUDE. BUT NOT BE LIMITED TO: PINCHING OF THE WIRE ROPE. BENDING OF THE WIRE ROPE FROM ITS SUPPORTS, DIRECT CONTACT OR CLOSE PROXIMITY TO THE WIRE ROPE WHICH MAY CAUSE FRICTIONAL WEAR, IMPACT TO THE ANCHORAGE POINTS IN ANY WAY, OR TO IMPEDE/BLOCK ITS INTENDED USE. ANY COMPROMISED SAFETY CLIMB, INCLUDING EXISTING CONDITIONS MUST BE TÁGGED OUT AND REPORTED TO YOUR CROWN CASTLE USA INC. POC OR CALL THE NOC TO GENERATE A SAFETY CLIMB MAINTENANCE AND CONTRACTOR NOTICE TICKET.
- PRIOR TO THE START OF CONSTRUCTION, ALL REQUIRED JURISDICTIONAL PERMITS SHALL BE OBTAINED. THIS INCLUDES, BUT IS NOT LIMITED TO, BUILDING, ELECTRICAL, MECHANICAL, FIRE, FLOOD ZONE, ENVIRONMENTAL, AND ZONING. AFTER ONSITE ACTIVITIES AND CONSTRUCTION ARE COMPLETED, ALL REQUIRED PERMITS SHALL BE SATISFIED AND CLOSED OUT ACCORDING TO LOCAL JURISDICTIONAL **REQUIREMENTS**
- ALL CONSTRUCTION MEANS AND METHODS; INCLUDING BUT NOT LIMITED TO, ERECTION PLANS, RIGGING PLANS, CLIMBING PLANS, AND RESCUE PLANS SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR RESPONSIBLE FOR THE EXECUTION OF THE WORK CONTAINED HEREIN, AND SHALL MEET ANSI/ASSE A10.48 (LATEST EDITION); FEDERAL, STATE, AND LOCAL REGULATIONS; AND ANY APPLICABLE INDUSTRY CONSENSUS STANDARDS RELATED TO THE CONSTRUCTION ACTIVITIES BEING PERFORMED. ALL RIGGING PLANS SHALL ADHERE TO ANSI/ASSE A10.48 (LATEST EDITION) AND CROWN CASTLE USA INC. STANDARD CED-STD-10253, INCLUDING THE REQUIRED INVOLVEMENT OF A QUALIFIED ENGINEER FOR CLASS IV CONSTRUCTION, TO CERTIFY THE SUPPORTING STRUCTURE(S) IN ACCORDANCE WITH ANSI/TIA-322 (LATEST EDITION)
- 5. ALL SITE WORK TO COMPLY WITH QAS-STD-10068 "INSTALLATION STANDARDS FOR CONSTRUCTION ACTIVITIES ON CROWN CASTLE USA INC. TOWER SITE," CED-STD-10294 "STANDARD FOR INSTALLATION OF MOUNTS AND APPURTENANCES," AND LATEST VERSION OF ANSI/TIA-1019-A-2012 "STANDARD FOR INSTALLATION, ALTERATION, AND MAINTENANCE OF ANTENNA SUPPORTING STRUCTURES AND ANTENNAS.
- IF THE SPECIFIED EQUIPMENT CAN NOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION FOR APPROVAL BY CROWN CASTLE USA INC. PRIOR TO PROCEEDING WITH ANY SUCH CHANGE OF INSTALLATION.
- ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES. CONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.
- THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
- THE CONTRACTOR SHALL CONTACT UTILITY LOCATING SERVICES PRIOR TO THE START OF CONSTRUCTION.
- 10. ALL EXISTING ACTIVE SEWER, WATER, GAS, ELECTRIC AND OTHER UTILITIES WHERE ENCOUNTERED IN THE WORK, SHALL BE PROTECTED AT ALL TIMES AND WHERE REQUIRED FOR THE PROPER EXECUTION OF THE WORK, SHALL BE RELOCATED AS DIRECTED BY CONTRACTOR. EXTREME CAUTION SHOULD BE USED BY THE CONTRACTOR WHEN EXCAVATING OR DRILLING PIERS AROUND OR NEAR UTILITIES. CONTRACTOR SHALL PROVIDE SAFETY TRAINING FOR THE WORKING CREW. THIS WILL INCLUDE BUT NOT BE LIMITED TO A) FALL PROTECTION B) CONFINED SPACE C) ELECTRICAL SAFETY D) TRENCHING AND EXCAVATION E) CONSTRUCTION SAFETY PROCEDURES.
- 11. ALL SITE WORK SHALL BE AS INDICATED ON THE STAMPED CONSTRUCTION DRAWINGS AND PROJECT SPECIFICATIONS, LATEST APPROVED REVISION.
- 12. CONTRACTOR SHALL KEEP THE SITE FREE FROM ACCUMULATING WASTE MATERIAL, DEBRIS, AND TRASH AT THE COMPLETION OF THE WORK. IF NECESSARY, RUBBISH, STUMPS, DEBRIS, STICKS, STONES AND OTHER REFUSE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF LEGALLY
- 13. ALL EXISTING INACTIVE SEWER, WATER, GAS, ELECTRIC AND OTHER UTILITIES, WHICH INTERFERE WITH THE EXECUTION OF THE WORK, SHALL BE REMOVED AND/OR CAPPED. PLUGGED OR OTHERWISE DISCONTINUED AT POINTS WHICH WILL NOT INTERFERE WITH THE EXECUTION OF THE WORK, SUBJECT TO THE APPROVAL OF CONTRACTOR, TOWER OWNER, CROWN CASTLE USA INC., AND/OR LOCAL UTILITIES
- 14. THE CONTRACTOR SHALL PROVIDE SITE SIGNAGE IN ACCORDANCE WITH THE TECHNICAL SPECIFICATION FOR SITE SIGNAGE REQUIRED BY LOCAL JURISDICTION AND SIGNAGE REQUIRED ON INDIVIDUAL PIECES OF EQUIPMENT, ROOMS, AND SHELTERS.
- 15. THE SITE SHALL BE GRADED TO CAUSE SURFACE WATER TO FLOW AWAY FROM THE CARRIER'S EQUIPMENT AND TOWER AREAS.
- 16. THE SUB GRADE SHALL BE COMPACTED AND BROUGHT TO A SMOOTH UNIFORM GRADE PRIOR TO FINISHED JRFACE APPLICATION.
- 17. THE AREAS OF THE OWNERS PROPERTY DISTURBED BY THE WORK AND NOT COVERED BY THE TOWER. EQUIPMENT OR DRIVEWAY, SHALL BE GRADED TO A UNIFORM SLOPE, AND STABILIZED TO PREVENT EROSION AS SPECIFIED ON THE CONSTRUCTION DRAWINGS AND/OR PROJECT SPECIFICATIONS.
- 18. CONTRACTOR SHALL MINIMIZE DISTURBANCE TO EXISTING SITE DURING CONSTRUCTION. EROSION CONTROL MEASURES, IF REQUIRED DURING CONSTRUCTION, SHALL BE IN CONFORMANCE WITH THE LOCAL GUIDELINES FOR EROSION AND SEDIMENT CONTROL.
- 19. THE CONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE TO THE SATISFACTION
- 20. CONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS SUCH AS COAXIAL CABLES AND OTHER ITEMS REMOVED FROM THE EXISTING FACILITY. ANTENNAS REMOVED SHALL BE RETURNED TO THE OWNER'S DESIGNATED LOCATION.
- 21. CONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION. TRASH AND DEBRIS SHOULD BE REMOVED FROM SITE ON A DAILY BASIS.
- 22. NO FILL OR EMBANKMENT MATERIAL SHALL BE PLACED ON FROZEN GROUND. FROZEN MATERIALS, SNOW OR ICE SHALL NOT BE PLACED IN ANY FILL OR EMBANKMENT.

### GENERAL NOTES:

- FOR THE PURPOSE OF CONSTRUCTION DRAWING, THE FOLLOWING DEFINITIONS SHALL APPLY: GENERAL CONTRACTOR RESPONSIBLE FOR CONSTRUCTION CONTRACTOR:
- CARRIFR: TOWER OWNER: CROWN CASTLE USA INC.
- THESE DRAWINGS HAVE BEEN PREPARED USING STANDARDS OF PROFESSIONAL CARE AND COMPLETENESS NORMALLY EXERCISED UNDER SIMILAR CIRCUMSTANCES BY REPUTABLE ENGINEERS IN THIS OR SIMILAR LOCALITIES. IT IS ASSUMED THAT THE WORK DEPICTED WILL BE PERFORMED BY AN EXPERIENCED CONTRACTOR AND/OR WORKPEOPLE WHO HAVE A WORKING KNOWLEDGE OF THE APPLICABLE CODE STANDARDS AND REQUIREMENTS AND OF INDUSTRY ACCEPTED STANDARD GOOD PRACTICE. AS NOT EVERY CONDITION OR ELEMENT IS (OR CAN BE) EXPLICITLY SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL USE INDUSTRY ACCEPTED STANDARD GOOD PRACTICE FOR MISCELLANEOUS WORK NOT EXPLICITLY SHOWN.
- THESE DRAWINGS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE MEANS OR METHODS OF CONSTRUCTION. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES. THE CONTRACTOR SHALL PROVIDE ALL MEASURES NECESSARY FOR PROTECTION OF LIFE AND PROPERTY DURING CONSTRUCTION. SUCH MEASURES SHALL INCLUDE, BUT NOT BE LIMITED TO, BRACING, FORMWORK, SHORING, ETC. SITE VISITS BY THE ENGINEER OR HIS REPRESENTATIVE WILL NOT INCLUDE INSPECTION OF THESE ITEMS AND IS FOR STRUCTURAL OBSERVATION OF THE FINISHED STRUCTURE ONLY.
- NOTES AND DETAILS IN THE CONSTRUCTION DRAWINGS SHALL TAKE PRECEDENCE OVER GENERAL NOTES AND TYPICAL DETAILS. WHERE NO DETAILS ARE SHOWN, CONSTRUCTION SHALL CONFORM TO SIMILAR WORK ON THE PROJECT, AND/OR AS PROVIDED FOR IN THE CONTRACT DOCUMENTS. WHERE DISCREPANCIES OCCUR BETWEEN PLANS, DETAILS, GENERAL NOTES, AND SPECIFICATIONS, THE GREATER, MORE STRICT REQUIREMENTS, SHALL GOVERN. IF FURTHER CLARIFICATION IS REQUIRED CONTACT THE ENGINEER OF RECORD.
- SUBSTANTIAL EFFORT HAS BEEN MADE TO PROVIDE ACCURATE DIMENSIONS AND MEASUREMENTS ON THE DRAWINGS TO ASSIST IN THE FABRICATION AND/OR PLACEMENT OF CONSTRUCTION ELEMENTS BUT IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VERIFY THE DIMENSIONS, MEASUREMENTS, AND/OR CLEARANCES SHOWN IN THE CONSTRUCTION DRAWINGS PRIOR TO FABRICATION OR CUTTING OF ANY NEW OR EXISTING CONSTRUCTION ELEMENTS. IF IT IS DETERMINED THAT THERE ARE DISCREPANCIES AND/OR CONFLICTS WITH THE CONSTRUCTION DRAWINGS THE ENGINEER OF RECORD IS TO BE NOTIFIED AS SOON AS POSSIBLE.
- PRIOR TO THE SUBMISSION OF BIDS, THE BIDDING CONTRACTOR SHALL VISIT THE CELL SITE TO FAMILIARIZE WITH THE EXISTING CONDITIONS AND TO CONFIRM THAT THE WORK CAN BE ACCOMPLISHED AS SHOWN ON THE CONSTRUCTION DRAWINGS. ANY DISCREPANCY FOUND SHALL BE BROUGHT TO THE ATTENTION OF CROWN CASTLE
- ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES, CONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.
- UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
- THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE
- 10. IF THE SPECIFIED EQUIPMENT CAN NOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION FOR APPROVAL BY THE CARRIER AND CROWN CASTLE PRIOR TO PROCEEDING
- WITH ANY SUCH CHANGE OF INSTALLATION. 11. CONTRACTOR IS TO PERFORM A SITE INVESTIGATION AND IS TO DETERMINE THE BEST ROUTING OF ALL CONDUITS FOR POWER, AND TELCO AND FOR GROUNDING CABLES AS SHOWN IN THE POWER, TELCO, AND GROUNDING PLAN
- DRAWINGS 12. THE CONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY
- DAMAGED PART SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE TO THE SATISFACTION OF CROWN CASTLE USA INC. 13. CONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS SUCH AS COAXIAL CABLES AND OTHER ITEMS REMOVED FROM THE EXISTING FACILITY. ANTENNAS REMOVED SHALL BE RETURNED TO THE OWNER'S DESIGNATED LOCATION.
- 14. CONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION. TRASH AND DEBRIS SHOULD BE REMOVED FROM SITE ON A DAILY BASIS.

### CONCRETE, FOUNDATIONS, AND REINFORCING STEEL:

- ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE ACI 301, ACI 318, ACI 336, ASTM A184, ASTM A185 AND THE DESIGN AND CONSTRUCTION SPECIFICATION FOR CAST-IN-PLACE CONCRETE. 2. UNLESS NOTED OTHERWISE, SOIL BEARING PRESSURE USED FOR DESIGN OF SLABS AND FOUNDATIONS IS ASSUMED
- TO BE 1000 psf. 3. ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH (f'c) OF 3000 psi AT 28 DAYS, UNLESS NOTED OTHERWISE. NO MORE THAN 90 MINUTES SHALL ELAPSE FROM BATCH TIME TO TIME OF PLACEMENT UNLESS APPROVED BY THE ENGINEER OF RECORD. TEMPERATURE OF CONCRETE SHALL NOT EXCEED 90°f AT TIME OF
- CONCRETE EXPOSED TO FREEZE-THAW CYCLES SHALL CONTAIN AIR ENTRAINING ADMIXTURES. AMOUNT OF AIR ENTRAINMENT TO BE BASED ON SIZE OF AGGREGATE AND F3 CLASS EXPOSURE (VERY SEVERE). CEMENT USED TO BE TYPE II PORTLAND CEMENT WITH A MAXIMUM WATER-TO-CEMENT RATIO (W/C) OF 0.45.
- ALL STEEL REINFORCING SHALL CONFORM TO ASTM A615. ALL WELDED WIRE FABRIC (WWF) SHALL CONFORM TO ASTM A185. ALL SPLICES SHALL BE CLASS "B" TENSION SPLICES, UNLESS NOTED OTHERWISE. ALL HOOKS SHALL BE STANDARD 90 DEGREE HOOKS, UNLESS NOTED OTHERWISE. YIELD STRENGTH (Fy) OF STANDARD DEFORMED BARS ARE AS FOLLOWS:
- #4 BARS AND SMALLER..... #5 BARS AND LARGER.... ..60 ksi
- THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCING STEEL UNLESS SHOWN OTHERWISE ON DRAWINGS: CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH...
- CONCRETE EXPOSED TO EARTH OR WEATHER: #6 BARS AND LARGER...
- #5 BARS AND SMALLER.. .1-1/2" CONCRETE NOT EXPOSED TO EARTH OR WEATHER:
- SLAB AND WALLS.... BEAMS AND COLUMNS ..
- 7. A TOOLED EDGE OR A 3/4" CHAMFER SHALL BE PROVIDED AT ALL EXPOSED EDGES OF CONCRETE, UNLESS NOTED OTHERWISE, IN ACCORDANCE WITH ACI 301 SECTION 4.2.4.

## GREENFIELD GROUNDING NOTES:

- ALL GROUND ELECTRODE SYSTEMS (INCLUDING TELECOMMUNICATION, RADIO, LIGHTNING PROTECTION AND AC POWER GES'S) SHALL BE BONDED TOGETHER AT OR BELOW GRADE, BY TWO OR MORE COPPER BONDING CONDUCTORS IN ACCORDANCE WITH THE NEC.
- THE CONTRACTOR SHALL PERFORM IEEE FALL—OF—POTENTAL RESISTANCE TO EARTH TESTING (PER IEEE 1100 AND 81) FOR GROUND ELECTRODE SYSTEMS, THE CONTRACTOR SHALL FURNISH AND INSTALL SUPPLEMENTAL GROUND ELECTRODES AS NEEDED TO ACHIEVE A TEST RESULT OF 5 OHMS OR LESS
- THE CONTRACTOR IS RESPONSIBLE FOR PROPERLY SEQUENCING GROUNDING AND UNDERGROUND CONDUIT INSTALLATION AS TO PREVENT ANY LOSS OF CONTINUITY IN THE GROUNDING SYSTEM OR DAMAGE TO THE CONDUIT AND PROVIDE
- 4. METAL CONDUIT AND TRAY SHALL BE GROUNDED AND MADE ELECTRICALLY CONTINUOUS WITH LISTED BONDING FITTINGS OR BY BONDING ACROSS THE DISCONTINUITY WITH #6 COPPER WIRE UL APPROVED GROUNDING TYPE CONDUIT CLAMPS
- METAL RACEWAY SHALL NOT BE USED AS THE NEC REQUIRED EQUIPMENT GROUND CONDUCTOR. STRANDED COPPER CONDUCTORS WITH GREEN INSULATION, SIZED IN ACCORDANCE WITH THE NEC, SHALL BE FURNISHED AND INSTALLED WITH THE POWER CIRCUITS TO BTS EQUIPMENT.
- EACH CABINET FRAME SHALL BE DIRECTLY CONNECTED TO THE MASTER GROUND BAR WITH GREEN INSULATED SUPPLEMENTAL EQUIPMENT GROUND WIRES, #6 STRANDED COPPER OR LARGER FOR INDOOR BTS; #2 BARE SOLID TINNED COPPER FOR OUTDOOR BTS.
- CONNECTIONS TO THE GROUND BUS SHALL NOT BE DOUBLED UP OR STACKED BACK TO BACK CONNECTIONS ON OPPOSITE SIDE OF THE GROUND BUS ARE PERMITTED.
- ALL EXTERIOR GROUND CONDUCTORS BETWEEN EQUIPMENT/GROUND BARS AND THE GROUND RING SHALL BE #2 SOLID TINNED COPPER UNLESS OTHERWISE INDICATED. ALUMINUM CONDUCTOR OR COPPER CLAD STEEL CONDUCTOR SHALL NOT BE USED FOR GROUNDING CONNECTIONS.
- USE OF 90° BENDS IN THE PROTECTION GROUNDING CONDUCTORS SHALL BE AVOIDED WHEN 45° BENDS CAN BE ADEQUATELY SUPPORTED. 11. EXOTHERMIC WELDS SHALL BE USED FOR ALL GROUNDING CONNECTIONS BELOW GRADE.
- 12. ALL GROUND CONNECTIONS ABOVE GRADE (INTERIOR AND EXTERIOR) SHALL BE FORMED USING HIGH PRESS CRIMPS. 13. COMPRESSION GROUND CONNECTIONS MAY BE REPLACED BY EXOTHERMIC WELD CONNECTIONS.

LIGHTNING PROTECTION SYSTEM, AND BUILDING MAIN WATER LINE (FERROUS OR NONFERROUS METAL PIPING ONLY).

- 14. ICE BRIDGE BONDING CONDUCTORS SHALL BE EXOTHERMICALLY BONDED OR BOLTED TO THE BRIDGE AND THE TOWER GROUND BAR.
- 15. APPROVED ANTIOXIDANT COATINGS (i.e. CONDUCTIVE GEL OR PASTE) SHALL BE USED ON ALL COMPRESSION AND BOLTED GROUND CONNECTIONS. 16. ALL EXTERIOR GROUND CONNECTIONS SHALL BE COATED WITH A CORROSION RESISTANT MATERIAL.
- 17. MISCELLANEOUS ELECTRICAL AND NON-ELECTRICAL METAL BOXES, FRAMES AND SUPPORTS SHALL BE BONDED TO THE GROUND RING, IN ACCORDANCE WITH THE NEC.
- 18. BOND ALL METALLIC OBJECTS WITHIN 6 ft OF MAIN GROUND RING WITH (1) #2 BARE SOLID TINNED COPPER GROUND CONDUCTOR.
- 19. GROUND CONDUCTORS USED FOR THE FACILITY GROUNDING AND LIGHTNING PROTECTION SYSTEMS SHALL NOT BE ROUTED THROUGH METALLIC OBJECTS THAT FORM A RING AROUND THE CONDUCTOR, SUCH AS METALLIC CONDUITS, METAL SUPPORT CLIPS OR SLEEVES THROUGH WALLS OR FLOORS. WHEN IT IS REQUIRED TO BE HOUSED IN CONDUIT TO MEET CODE REQUIREMENTS OR LOCAL CONDITIONS, NON-METALLIC MATERIAL SUCH AS PVC CONDUIT SHALL BE USED. WHERE USE OF METAL CONDUIT IS UNAVOIDABLE (i.e., NONMETALLIC CONDUIT PROHIBITED BY LOCAL CODE) THE GROUND CONDUCTOR SHALL BE BONDED TO EACH END OF THE METAL CONDUIT.
- 20. ALL GROUNDS THAT TRANSITION FROM BELOW GRADE TO ABOVE GRADE MUST BE #2 BARE SOLID TINNED COPPER IN 3/4" NON-METALLIC, FLEXIBLE CONDUIT FROM 24" BELOW GRADE TO WITHIN 3" TO 6" OF CAD-WELD TERMINATION POINT. THE EXPOSED END OF THE CONDUIT MUST BE SEALED WITH SILICONE CAULK. (ADD TRANSITIONING GROUND STANDARD DETAIL AS WELL).
- 21. BUILDINGS WHERE THE MAIN GROUNDING CONDUCTORS ARE REQUIRED TO BE ROUTED TO GRADE, THE CONTRACTOR SHALL ROUTE TWO GROUNDING CONDUCTORS FROM THE ROOFTOP, TOWERS, AND WATER TOWERS GROUNDING RING, TO THE EXISTING GROUNDING SYSTEM, THE GROUNDING CONDUCTORS SHALL NOT BE SMALLER THAN 2/0 COPPER. ROOFTOP GROUNDING RING SHALL BE BONDED TO THE EXISTING GROUNDING SYSTEM, THE BUILDING STEEL COLUMNS,

### **ELECTRICAL INSTALLATION NOTES:**

- ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS, NEC AND ALL APPLICABLE FEDERAL, STATE, AND LOCAL CODES/ORDINANCES.
- CONDUIT ROUTINGS ARE SCHEMATIC. CONTRACTOR SHALL INSTALL CONDUITS SO THAT ACCESS TO EQUIPMENT IS NOT BLOCKED
- AND TRIP HAZARDS ARE ELIMINATED. 3. WIRING, RACEWAY AND SUPPORT METHODS AND MATERIALS SHALL COMPLY WITH THE REQUIREMENTS OF THE NEC.
- 4. ALL CIRCUITS SHALL BE SEGREGATED AND MAINTAIN MINIMUM CABLE SEPARATION AS REQUIRED BY THE NEC. ALL EQUIPMENT SHALL BEAR THE UNDERWRITERS LABORATORIES LABEL OF APPROVAL, AND SHALL CONFORM TO
- REQUIREMENT OF THE NATIONAL ELECTRICAL CODE. ALL OVERCURRENT DEVICES SHALL HAVE AN INTERRUPTING CURRENT RATING THAT SHALL BE GREATER THAN THE SHORT CIRCUIT CURRENT TO WHICH THEY ARE SUBJECTED, 22,000 AIC MINIMUM. VERYIFY AVAILABLE SHORT CIRCUIT CURRENT DOES NOT EXCEED THE RATING OF ELECTRICAL EQUIPMENT IN ACCORDANCE WITH ARTICLE 110.24 NEC OR THE MOST CURRENT
- ADOPTED CODE PRE THE GOVERNING JURISDICTION. EACH END OF EVERY POWER PHASE CONDUCTOR, GROUNDING CONDUCTOR, AND TELCO CONDUCTOR OR CABLE SHALL BE LABELED WITH COLOR-CODED INSULATION OR ELECTRICAL TAPE (3M BRAND, 1/2" PLASTIC ELECTRICAL TAPE WITH UV
- PROTECTION, OR EQUAL). THE IDENTIFICATION METHOD SHALL CONFORM WITH NEC AND OSHA. ALL ELECTRICAL COMPONENTS SHALL BE CLEARLY LABELED WITH LAMICOID TAGS SHOWING THEIR RATED VOLTAGE, PHASE CONFIGURATION, WIRE CONFIGURATION, POWER OR AMPACITY RATING AND BRANCH CIRCUIT ID NUMBERS (i.e. PANEL BOARD AND CIRCUIT ID'S).
- PANEL BOARDS (ID NUMBERS) SHALL BE CLEARLY LABELED WITH PLASTIC LABELS 8. ALL TIE WRAPS SHALL BE CUT FLUSH WITH APPROVED CUTTING TOOL TO REMOVE SHARP EDGES.
- ALL POWER AND EQUIPMENT GROUND WIRING IN TUBING OR CONDUIT SHALL BE SINGLE COPPER CONDUCTOR (#14 OR LARGER) WITH TYPE THHW, THWN, THWN-2, XHHW, XHHW-2, THW, THW-2, RHW, OR RHW-2 INSULATION UNLESS OTHERWISE SPECIFIED.
- 10. SUPPLEMENTAL EQUIPMENT GROUND WIRING LOCATED INDOORS SHALL BE SINGLE COPPER CONDUCTOR (#6 OR LARGER) WITH
- TYPE THHW, THWN, THWN-2, XHHW, XHHW-2, THW, THW-2, RHW, OR RHW-2 INSULATION UNLESS OTHERWISE SPECIFIED. 11. POWER AND CONTROL WIRING IN FLEXIBLE CORD SHALL BE MULTI-CONDUCTOR, TYPE SOOW CORD (#14 OR LARGER) UNLESS
- OTHERWISE SPECIFIED. 12. POWER AND CONTROL WIRING FOR USE IN CABLE TRAY SHALL BE MULTI-CONDUCTOR, TYPE TC CABLE (#14 OR LARGER), WITH
- TYPE THHW, THWN, THWN-2, XHHW, XHHW-2, THW, THW-2, RHW, OR RHW-2 INSULATION UNLESS OTHERWISE SPECIFIED. 13. ALL POWER AND GROUNDING CONNECTIONS SHALL BE CRIMP-STYLE, COMPRESSION WIRE LUGS AND WIRE NUTS BY THOMAS AND
- BETTS (OR EQUAL). LUGS AND WIRE NUTS SHALL BE RATED FOR OPERATION NOT LESS THAN 75°C (90°C IF AVAILABLE). 14. RACEWAY AND CABLE TRAY SHALL BE LISTED OR LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE
- 15. ELECTRICAL METALLIC TUBING (EMT), INTERMEDIATE METAL CONDUIT (IMC), OR RIGID METAL CONDUIT (RMC) SHALL BE USED FOR
- EXPOSED INDOOR LOCATIONS
- 16. ELECTRICAL METALLIC TUBING (EMT) OR METAL—CLAD CABLE (MC) SHALL BE USED FOR CONCEALED INDOOR LOCATIONS. 17. SCHEDULE 40 PVC UNDERGROUND ON STRAIGHTS AND SCHEDULE 80 PVC FOR ALL ELBOWS/90s AND ALL APPROVED ABOVE
- GRADE PVC CONDUIT 18. LIQUID-TIGHT FLEXIBLE METALLIC CONDUIT (LIQUID-TITE FLEX) SHALL BE USED INDOORS AND OUTDOORS, WHERE VIBRATION
- OCCURS OR FLEXIBILITY IS NEEDED. 19. CONDUIT AND TUBING FITTINGS SHALL BE THREADED OR COMPRESSION-TYPE AND APPROVED FOR THE LOCATION USED. SET
- SCREW FITTINGS ARE NOT ACCEPTABLE. 20. CABINETS, BOXES AND WIRE WAYS SHALL BE LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE AND
- 21. WIREWAYS SHALL BE METAL WITH AN ENAMEL FINISH AND INCLUDE A HINGED COVER, DESIGNED TO SWING OPEN DOWNWARDS
- (WIREMOLD SPECMATE WIREWAY). 22. SLOTTED WIRING DUCT SHALL BE PVC AND INCLUDE COVER (PANDUIT TYPE E OR EQUAL).
- 23. CONDUITS SHALL BE FASTENED SECURELY IN PLACE WITH APPROVED NON-PERFORATED STRAPS AND HANGERS. EXPLOSIVE DEVICES (i.e. POWDER-ACTUATED) FOR ATTACHING HANGERS TO STRUCTURE WILL NOT BE PERMITTED. CLOSELY FOLLOW THE
- LINES OF THE STRUCTURE, MAINTAIN CLOSE PROXIMITY TO THE STRUCTURE AND KEEP CONDUITS IN TIGHT ENVELOPES. CHANGES IN DIRECTION TO ROUTE AROUND OBSTACLES SHALL BE MADE WITH CONDUIT OUTLET BODIES. CONDUIT SHALL BE INSTALLED IN A NEAT AND WORKMANLIKE MANNER. PARALLEL AND PERPENDICULAR TO STRUCTURE WALL AND CEILING LINES. ALL CONDUIT SHALL BE FISHED TO CLEAR OBSTRUCTIONS. ENDS OF CONDUITS SHALL BE TEMPORARILY CAPPED FLUSH TO FINISH GRADE TO PREVENT CONCRETE, PLASTER OR DIRT FROM ENTERING. CONDUITS SHALL BE RIGIDLY CLAMPED TO BOXES BY GALVANIZED MALLEABLE IRON BUSHING ON INSIDE AND GALVANIZED MALLEABLE IRON LOCKNUT ON OUTSIDE AND INSIDE
- 24. EQUIPMENT CABINETS, TERMINAL BOXES, JUNCTION BOXES AND PULL BOXES SHALL BE GALVANIZED OR EPOXY-COATED SHEET STEEL. SHALL MEET OR EXCEED UL 50 AND BE RATED NEMA 1 (OR BETTER) FOR INTERIOR LOCATIONS AND NEMA 3R (OR
- METAL RECEPTACLE, SWITCH AND DEVICE BOXES SHALL BE GALVANIZED, EPOXY—COATED OR NON—CORRODING; SHALL MEET OR EXCEED UL 514A AND NEMA OS 1 AND BE RATED NEMA 1 (OR BETTER) FOR INTERIOR LOCATIONS AND WEATHER PROTECTED (WP OR BETTER) FOR EXTERIOR LOCATIONS.
- 26. NONMETALLIC RECEPTACLE, SWITCH AND DEVICE BOXES SHALL MEET OR EXCEED NEMA OS 2 (NEWEST REVISION) AND BE RATED NEMA 1 (OR BETTER) FOR INTERIOR LOCATIONS AND WEATHER PROTECTED (WP OR BETTER) FOR EXTERIOR LOCATIONS.
- 27. THE CONTRACTOR SHALL NOTIFY AND OBTAIN NECESSARY AUTHORIZATION FROM THE CARRIER AND/OR CROWN CASTLE USA INC. BEFORE COMMENCING WORK ON THE AC POWER DISTRIBUTION PANELS.
- 28. THE CONTRACTOR SHALL PROVIDE NECESSARY TAGGING ON THE BREAKERS, CABLES AND DISTRIBUTION PANELS IN ACCORDANCE WITH THE APPLICABLE CODES AND STANDARDS TO SAFEGUARD LIFE AND PROPERTY. 29. INSTALL LAMICOID LABEL ON THE METER CENTER TO SHOW "AT&T".
- 30. ALL EMPTY/SPARE CONDUITS THAT ARE INSTALLED ARE TO HAVE A METERED MULE TAPE PULL CORD INSTALLED.

CONDUCTOR COLOR CODE				
SYSTEM	CONDUCTOR	COLOR		
	A PHASE	BLACK		
   120/240V, 1Ø	B PHASE	RED		
120/2400, 10	NEUTRAL	WHITE		
	GROUND	GREEN		
	A PHASE	BLACK		
	B PHASE	RED		
120/208V, 3Ø	C PHASE	BLUE		
	NEUTRAL	WHITE		
	GROUND	GREEN		
	A PHASE	BROWN		
	B PHASE	ORANGE OR PURPLE		
277/480V, 3Ø	C PHASE	YELLOW		
	NEUTRAL	GREY		
	GROUND	GREEN		
DC VOLTAGE	POS (+)	RED**		
DC VOLIAGE	NEG (-)	BLACK**		

\* SEE NEC 210.5(C)(1) AND (2) \*\* POLARITY MARKED AT TERMINATION

## ABBREVIATIONS:

ANTENNA EXISTING FACILITY INTERFACE FRAME GEN GENERATOR

MASTER GROUND BAR

GPS GLOBAL POSITIONING SYSTEM GSM GLOBAL SYSTEM FOR MOBILE LONG TERM EVOLUTION

MICROWAVE MW NEC NATIONAL ELECTRIC CODE PROPOSED

POWER PLANT QTY QUANTITY RECT RECTIFIER

MGB

W.P.

RBS RADIO BASE STATION RET REMOTE ELECTRIC TILT RFDS RADIO FREQUENCY DATA SHEET

WORK POINT

REMOTE RADIO HEAD RRU REMOTE RADIO UNIT SMART INTEGRATED DEVICE SIAD

TMA TOWER MOUNTED AMPLIFIER TYP TYPICAL UMTS UNIVERSAL MOBILE TELECOMMUNICATIONS SYSTEM <u>APWA UNIFORM COLOR CODE:</u>

WHITE PROPOSED EXCAVATION

LECTRIC POWER LINES, CABLES, CONDUIT, AND LIGHTING CABLES GAS, OIL, STEAM, PETROLEUM, OR

GASEOUS MATERIALS COMMUNICATION, ALARM OR SIGNAL LINES, CABLES, OR CONDUIT AND TRAFFIC LOOPS

EMPORARY SURVEY MARKINGS

POTABLE WATER ECLAIMED WATER, IRRIGATION, AND

SEWERS AND DRAIN LINES

SLURRY LINES





CLIFTON PARK, NY 12065

ATLANTA, GA 30324-3300



AT&T SITE NUMBER: CTL05833

BU #: **842859 BRISTOL CENTER** 

371 TERRYVILLE AVENUE BRISTOL, CT 06010

EXISTING

168'-6" MONOPOLE

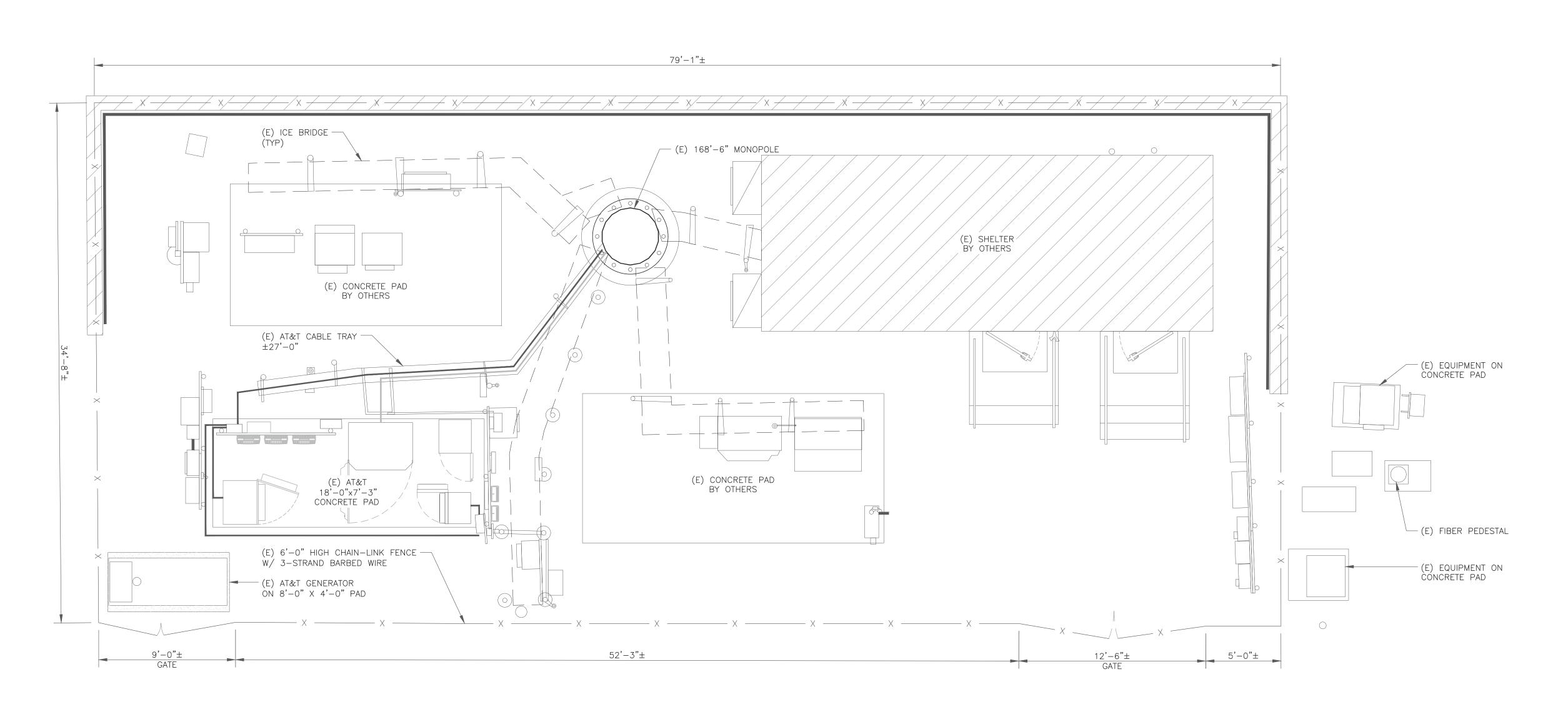
ISSUED FOR:				
REV	DATE	DRWN	DESCRIPTION	DES./Q
Α	3/25/22	JHW	PRELIMINARY REVIEW	KT
0	6/17/22	MEH	CONSTRUCTION	MTJ



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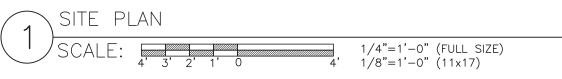
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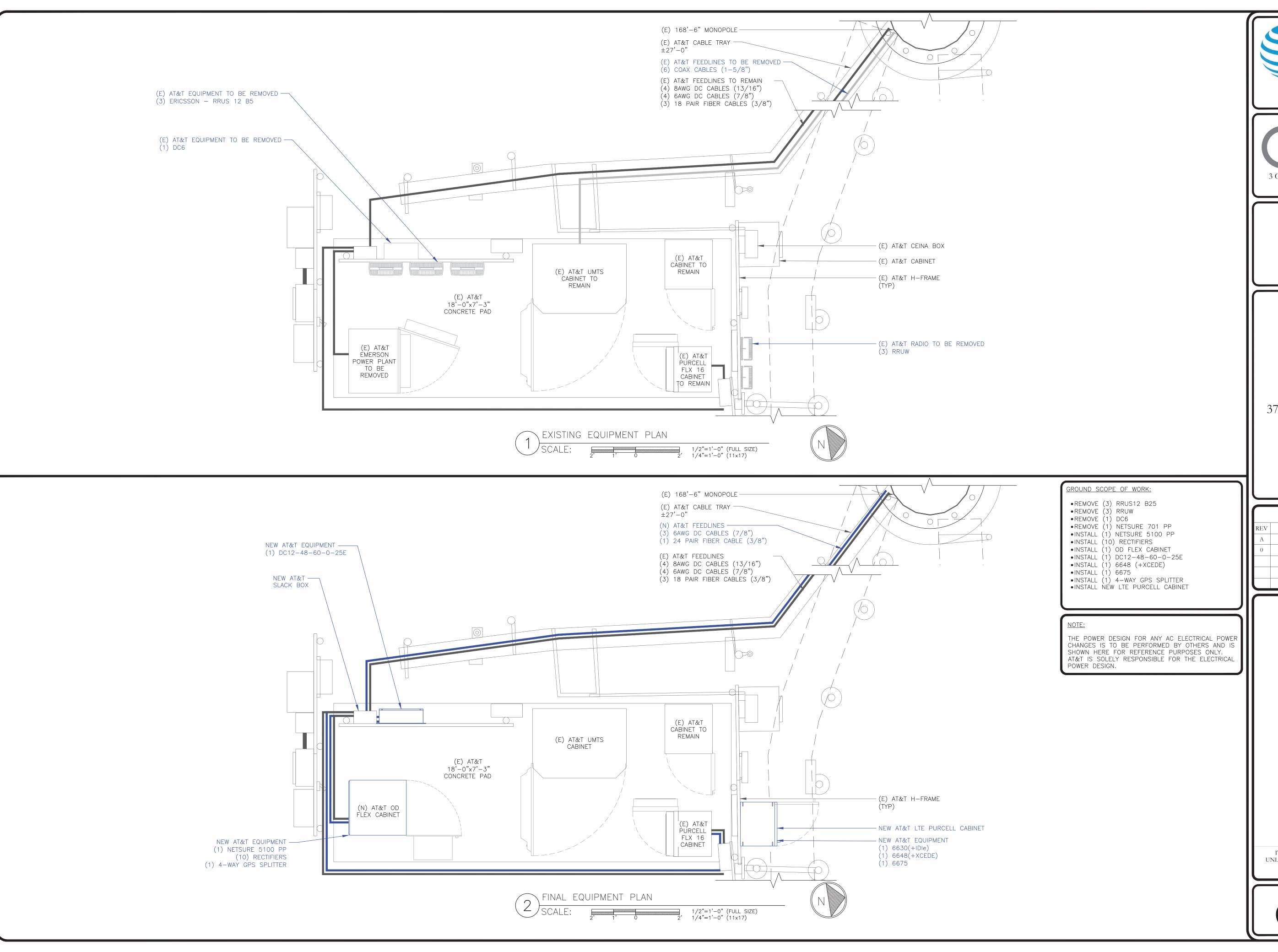
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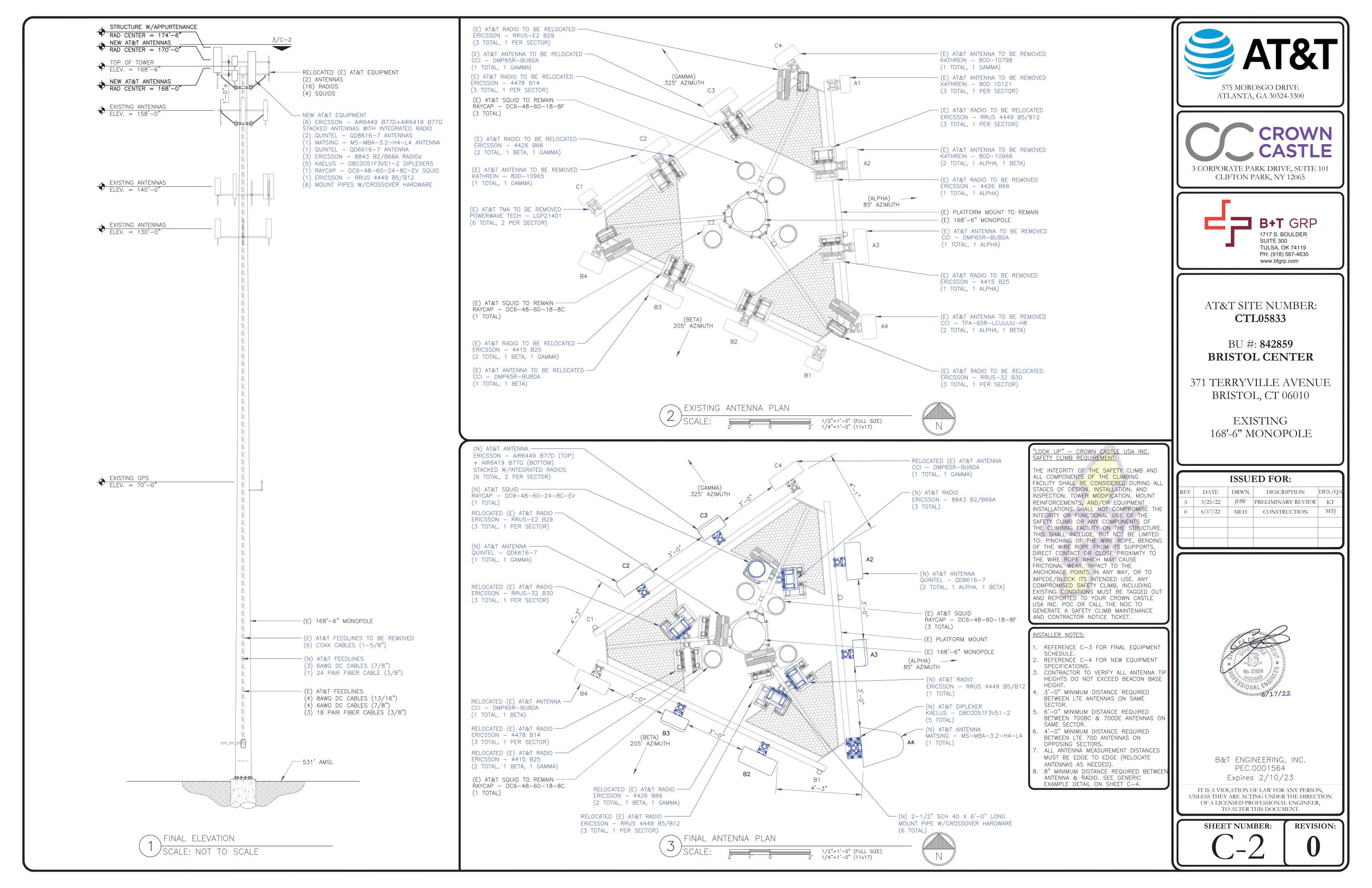
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REV	DATE	DRWN	DESCRIPTION	DES./QA				
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SHEET NUMBER:



NOTE: RFDS BEING USED DATED 6/7/22 V FINAL

						FI	NAL ANTENN	AAN	ID FE	ED	LINE	SCHEDULE								
POS.	ТЕСН	STATUS	AZIMUTH	ANTENNA TYPE	ANTENNA RAD CENTER	A MECHANICAL DOWNTILT	ELECTRICAL DOWNTILT	MAIN COAX SIZE	MAIN COAX LENGTH	COAX QTY	TMA QTY AND MODEL	SURGE PROTECTION	DC/FIBER CABLES	RRHs QTY & MODEL ON TOWER	LOCATION		DIPLEXER ON GROUND	CARI		
ALPHA S	SECTOR																			
A1	_	_	_	_	_	_	_	_	_	_	_			_	_	N	Ν	N		
A2	LTE	NEW	85°	QUINTEL — QD8616—7	168'-0"	O°	0°/0°	_	_	_	_	(1) (E) (4) EDC6-48-60-18-8F (1)	(1) (E) DC6-48-60-18-8F (1) (E) DC6-48-60-18-8C (4) (E) 13/16 8AWG DC (1) (E) 3/8" 18 PAIR FIBER		(1) (E) ERICSSON - 4478 B14 (1) (E) ERICSSON - RRUS-32 B30 (1) (E) ERICSSON - RRUS-E2 B29	TOWER	N	Ν	N	
А3	5G	NEW	85°	ERICSSON — AIR6419 B77G ERICSSON — AIR6449 B77D STACKED	171'-8" 168'-3"		0°/3°/3°	_	_	_	_	DC6-48-60-18-8C (1) (N) DC9-48-60-24-8C-EV	(1) (N) 3/8" 24 PAIR FIBER	INTEGRATED RADIO	TOWER	N	N	N		
A4	LTE/5G	NEW	85°	MATSING - MS-MBA-3.2-H4-L	4 170'-0"	O°	0°/2°/7°/7°/0°/2°/7°/7°/ 7°/7°/7°/7°/7°/7°/7°/	_	_	_	_		(3) (N) 7/8" 6AWG DC	(1) ERICSSON - RRUS 4449 B5/B12 (3) (N) ERICSSON - 8843 B2/B66A (1) (N) ERICSSON - RRUS 4449 B5/B12	TOWER	Y	Ν	N		
BETA SE	ECTOR							_										_		
B1	_	_	_	_	_	_	_	_	_	_	_			_	_	N	Ν	N		
B2	LTE/5G	NEW	205°	QUINTEL - QD8616-7	170'-0"	0°	0°/3°/2°/2°/2°/2°/2°	_	_	_	_	(1) (E) (2) (E) 6AWG DC	(1) ERICSSON - 4478 B14 (1) ERICSSON - 4415 B25 (1) ERICSSON - 4426 B66 (1) ERICSSON - RRUS-E2 B29	TOWER	N	Ν	N			
B3	5G	NEW	205°	ERICSSON - AIR6419 B77G ERICSSON - AIR6449 B77D STACKED	169'-8" 166'-3"		0°/0°	_	_	_	_	DC6-48-60-18-8F	(1) (E) 3/8" 18 PAIR FIBER	INTEGRATED RADIO	TOWER	N	N	N		
B4	LTE/5G	EXISTING	205°	CCI — DMP65R—BU8DA	170'-0"	O°	0°/2°/3°	_	_	_	_			(1) ERICSSON - RRUS 4449 B5/B12 (1) ERICSSON - RRUS-32 B30	TOWER	N	Ν	N		
GAMMA	SECTOR																			
C1	_	_	_	_	_	_	_	_	_	_	_			_	_	N	Ν	N		
C2	LTE/5G	NEW	325°	QUINTEL - QD8616-7	170'-0"	O°	2°/3°/6°/6°/6°/6°/6°	_	_	_	_	(1) (E) DC6-48-60-18-8F  (2) (E) 7/8 <sup>3</sup> 6AWG DC (1) (E) 3/8 <sup>3</sup> 18 PAIR FIBE	(2) (E) 7/8"	(1) ERICSSON - 4478 B14 (1) ERICSSON - 4415 B25 (1) ERICSSON - 4426 B66 (1) ERICSSON - RRUS-E2 B29	TOWER	N	N	N		
С3	5G	NEW	325 <b>°</b>	ERICSSON — AIR6419 B77G ERICSSON — AIR6449 B77D STACKED	169'-8" 166'-3"		0°/0°	_	_	_	_		DC6-48-60-18-8F	DC6-48-60-18-8F (	(1) (E) 3/8" 18 PAIR FIBER	INTEGRATED RADIO	TOWER	N	N	N
C4	LTE/5G	EXISTING	325°	CCI — DMP65R—BU6DA	170'-0"	0°	2°/2°/3°	_	-	_	-			(1) ERICSSON - RRUS 4449 B5/B12 (1) ERICSSON - RRUS-32 B30	TOWER	N	N	N		

NOTE: BOLD DENOTES NEW EQUIPMENT







AT&T SITE NUMBER: CTL05833

BU #: **842859** BRISTOL CENTER

371 TERRYVILLE AVENUE BRISTOL, CT 06010

> **EXISTING** 168'-6" MONOPOLE

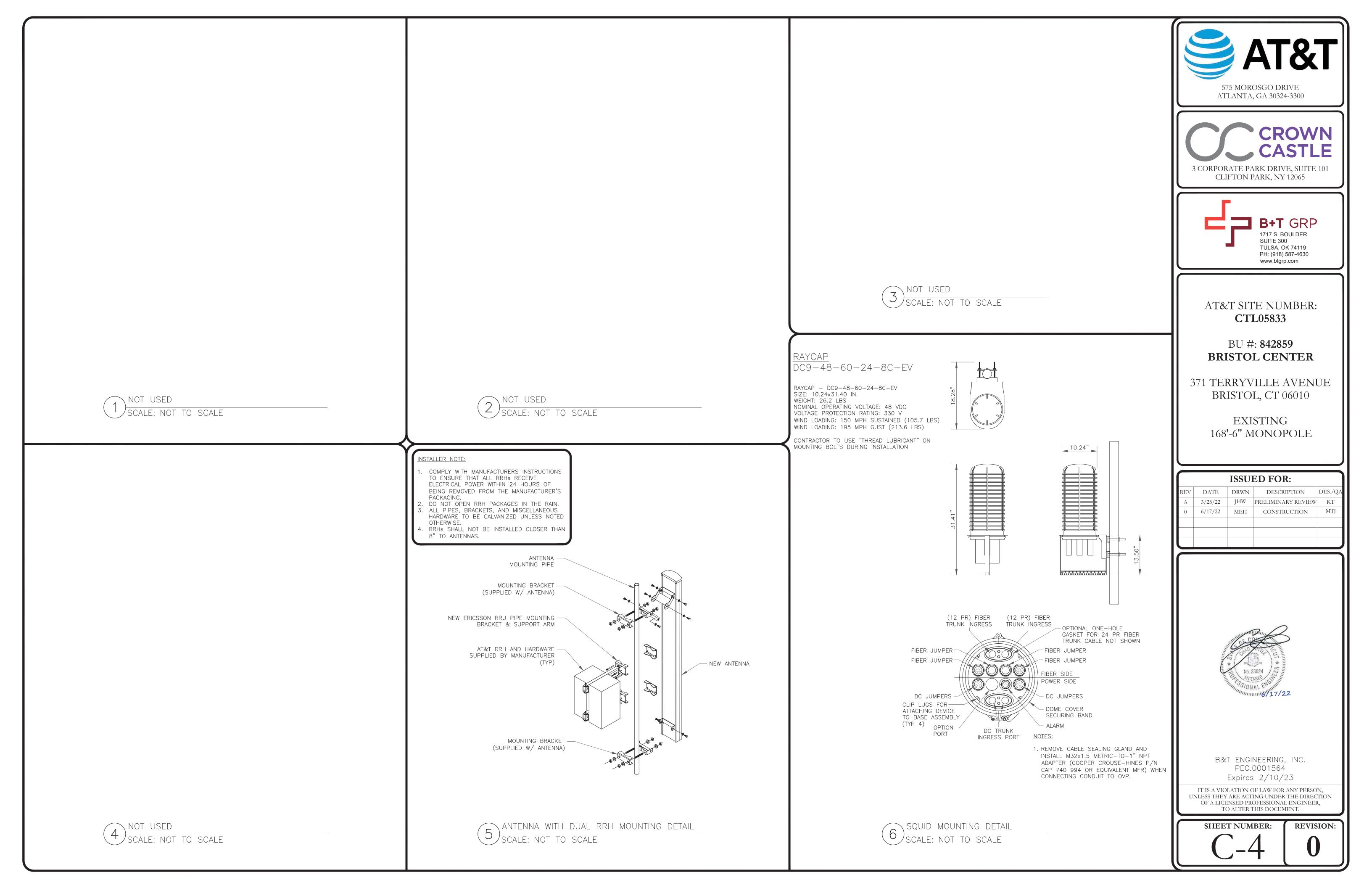
П	ISSUED FOR:							
	REV	DATE	DRWN	DESCRIPTION	DES./QA			
	A	3/25/22	JHW	PRELIMINARY REVIEW	KT			
Ш	0	6/17/22	MEH	CONSTRUCTION	MTJ			
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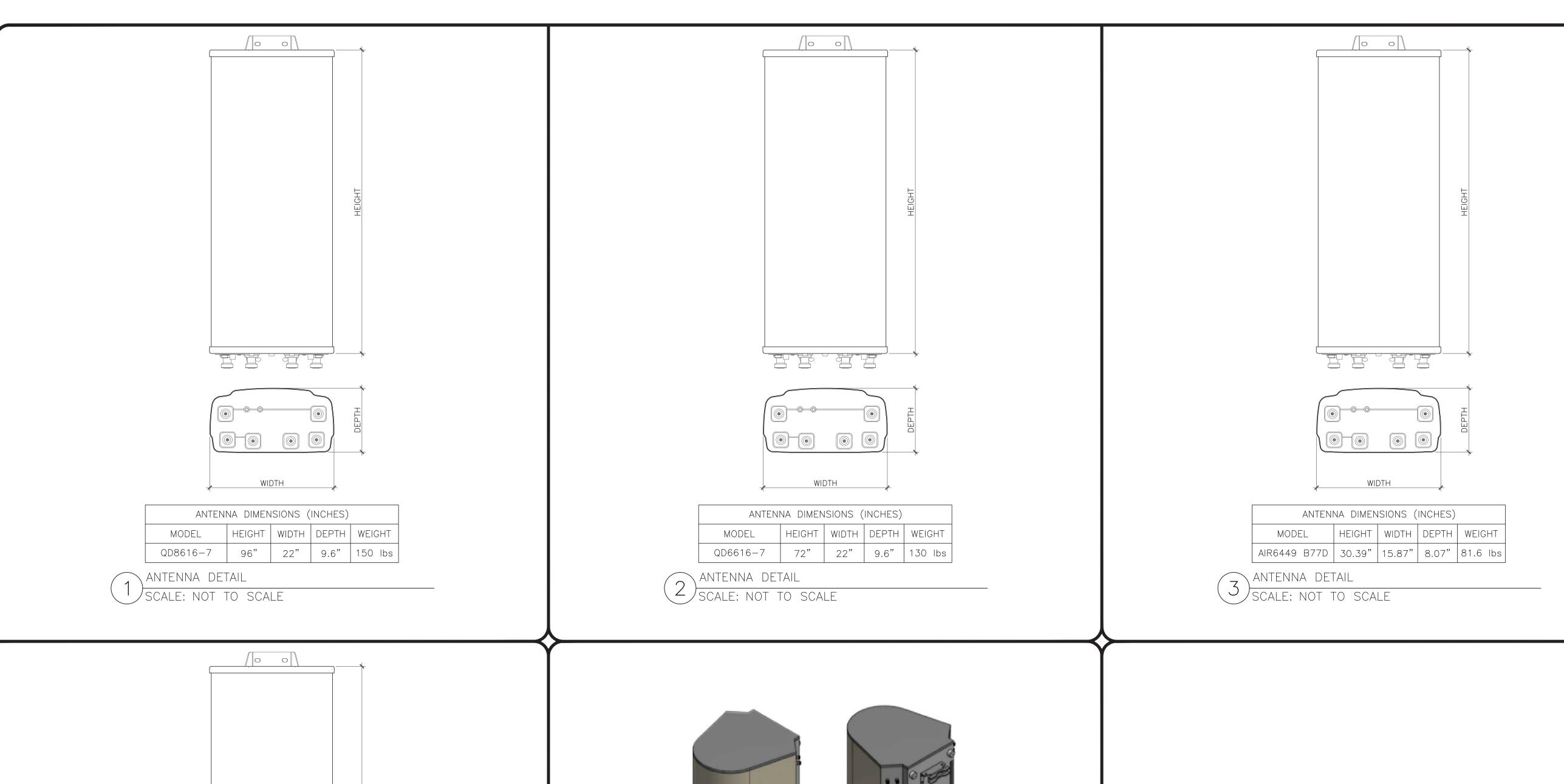


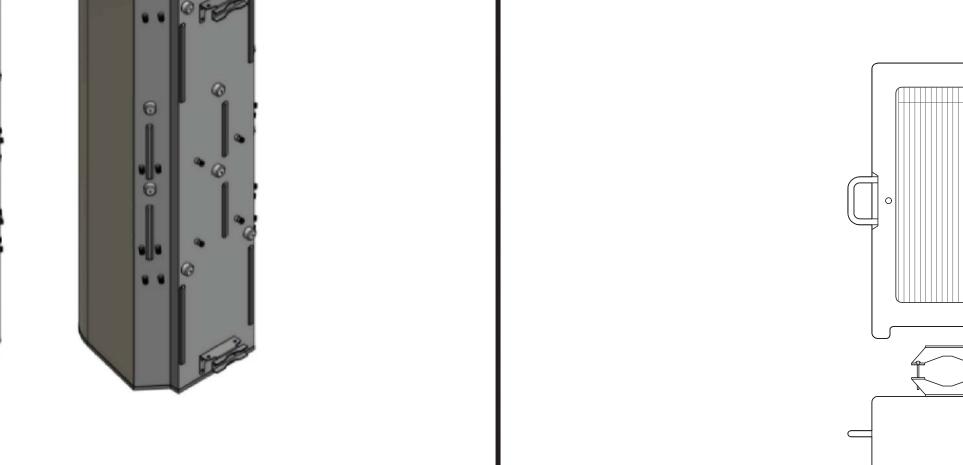
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SHEET NUMBER:







ERICSSON — 8843 B2/B66A WEIGHT (FULLY EQUIPPED): 72 LBS SIZE (HxWxD): 14.9x13.2x10.9 IN. CONNECTOR TYPE: 4.3—10 FEMALE (4 TOTAL PORTS)

RRH DETAIL
SCALE: NOT TO SCALE





CLIFTON PARK, NY 12065



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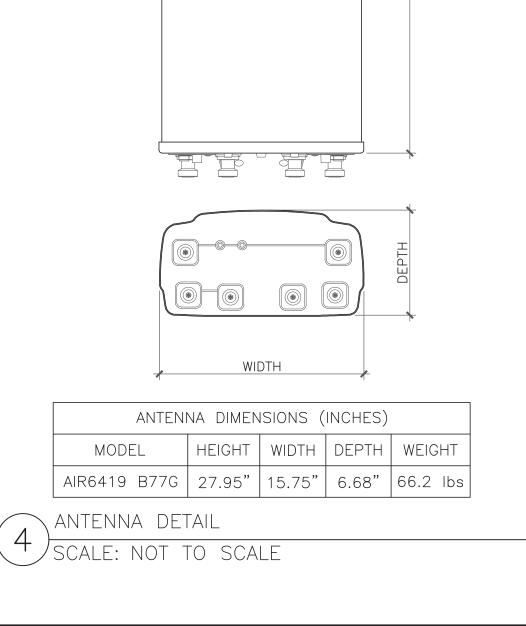
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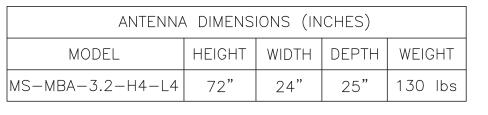
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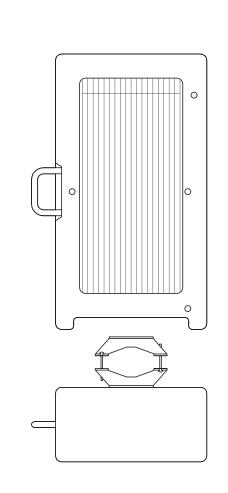
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**REVISION:** 





5 ANTENNA DETAIL
SCALE: NOT TO SCALE



ERICSSON — RRUS 4449 B5/B12 WEIGHT (FULLY EQUIPPED): 71 LBS SIZE (HxWxD): 17.9x13.19x9.44 IN. CONNECTOR TYPE: 4.3—10 FEMALE (4 TOTAL PORTS)

ERICSSON - RRUS 4449 B5/B12 SCALE: NOT TO SCALE



DIPLEXER DIMENSIONS (INCHES)							
MODEL	HEIGHT	WIDTH DEPTH		WEIGHT			
DBC0051F3V51-2	8"	6.2"	4.4"	12.4 lbs			

SCALE: NOT TO SCALE

NOT USED

SCALE: NOT TO SCALE





CLIFTON PARK, NY 12065



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**REVISION:** 

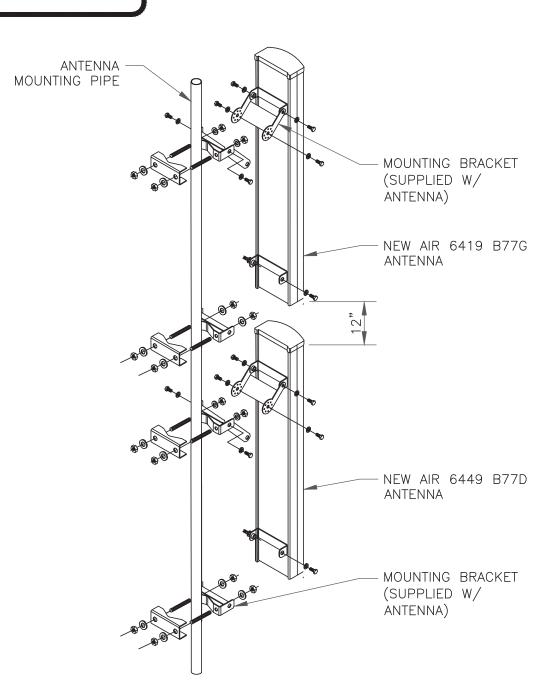
INSTALLER NOTES:

. COMPLY WITH MANUFACTURERS
INSTRUCTIONS TO ENSURE THAT ALL RRHS
RECEIVE ELECTRICAL POWER WITHIN 24
HOURS OF BEING REMOVED FROM THE

MANUFACTURER'S PACKAGING.

2. DO NOT OPEN RRH PACKAGES IN THE RAIN.

3. ALL PIPES, BRACKETS, AND MISCELLANEOUS HARDWARE TO BE GALVANIZED UNLESS NOTED OTHERWISE.

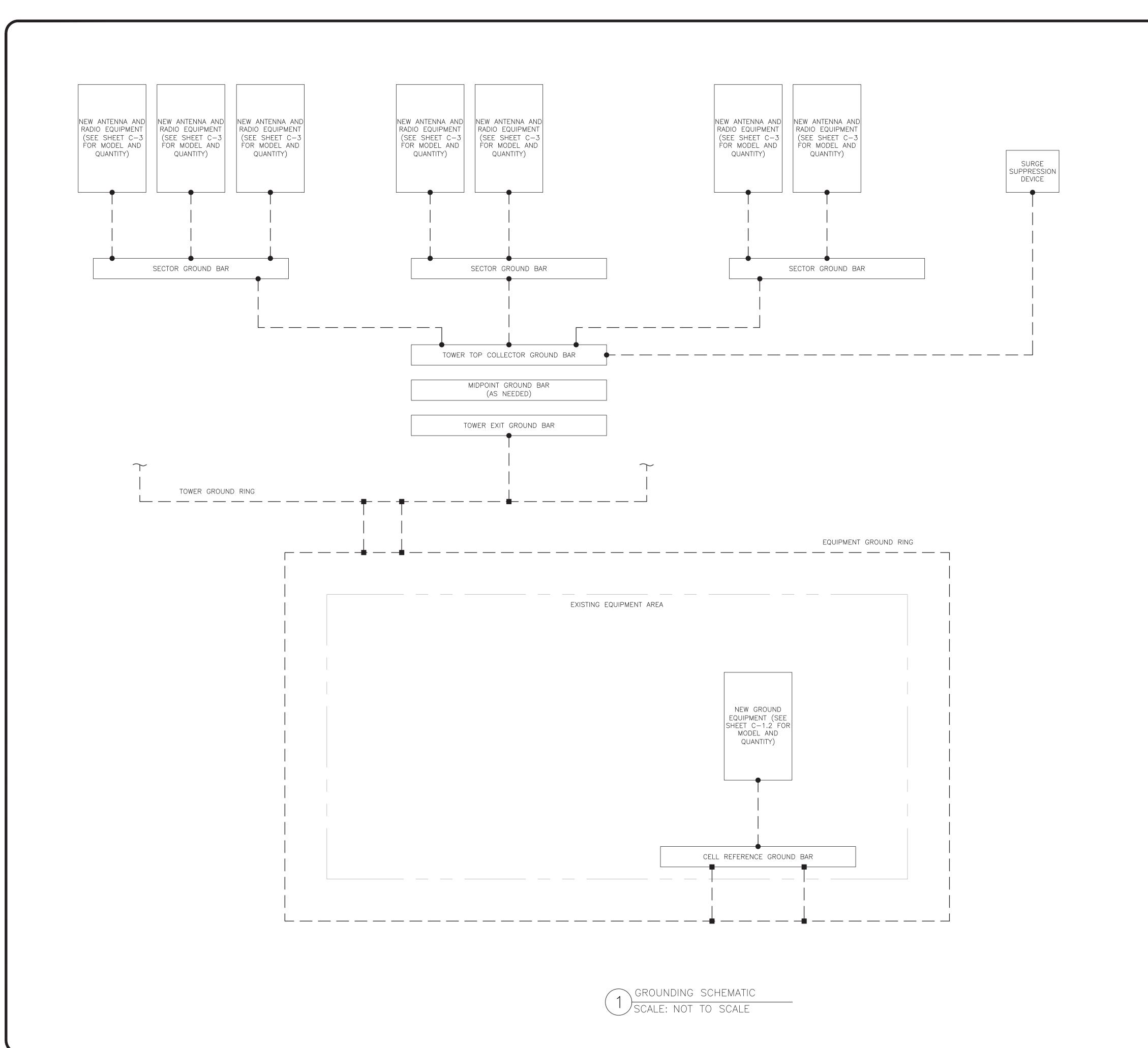


STACKED ANTENNA MOUNTING DETAIL 4) SCALE: NOT TO SCALE

NOT USED

SCALE: NOT TO SCALE

6 NOT USED
SCALE: NOT TO SCALE



**GROUNDING PLAN LEGEND:** 

--- GROUND WIRE

© COPPER GROUND ROD

■ EXOTHERMIC WELD

CONDUCTORS.

REQUIREMENTS.

MECHANICAL CONNECTION

CONDUITS (ATT-TP-76416 7.6.7).

CELL REFERENCE GROUND BAR: POINT OF GROUND

FRAMES. ALL BONDS ARE MADE WITH #2 STRANDED

GREEN INSULATED COPPER CONDUCTORS. BOND TO

GROUND RING WITH (2) #2 SOLID TINNED COPPER

HATCH PLATE GROUND BAR: BOND TO THE INTERIOR

HATCH-PLATE AND A CELL REFERENCE GROUND BAR ARE BOTH PRESENT, THE CELL SITE REFERENCE GROUND BAR MUST BE CONNECTED TO THE

HATCH-PLATE AND TO THE INTERIOR GROUND RING USING (2) #2 STRANDED GREEN INSULATED COPPER

BUILDING. BOND TO GROUND RING WITH A #2 SOLID

TINNED COPPER CONDUCTORS WITH AN EXOTHERMIC

DURING ALL DC POWER SYSTEM CHANGES INCLUDING DC SYSTEM CHANGE OUTS, RECTIFIER REPLACEMENTS

CONTRACTORS VERIFY ALL DC POWER SYSTEMS ARE

EQUIPPED WITH MASTER DC SYSTEM RETURN GROUND
CONDUCTOR FROM THE DC POWER SYSTEM COMMON
RETURN BUS DIRECTLY CONNECTED TO THE CELL

GROUND RING WITH (2) #2 STRANDED GREEN

EXTERIOR CABLE ENTRY PORT GROUND BARS: LOCATED AT THE ENTRANCE TO THE CELL SITE

WELD AND INSPECTION SLEEVE (ATT-TP-76416

OR ADDITIONS, BREAKER DISTRIBUTION CHANGES, BATTERY ADDITIONS, BATTERY REPLACEMENTS AND

INSTALLATIONS OR CHANGES TO DC CONVERTER SYSTEMS IT SHALL BE REQUIRED THAT SERVICES

SITE REFERENCE GROUND BAR PER TP76300

SECTION H 6 AND TP76416 FIGURE 7-11

INSULATED COPPER CONDUCTORS. WHEN A

REFERENCE FOR ALL COMMUNICATIONS EQUIPMENT

S GROUND ROD W/ TEST WELL

W/ TEST WELL 575 MOROSGO DRIVE



ATLANTA, GA 30324-3300

CLIFTON PARK, NY 12065



AT&T SITE NUMBER: CTL05833

www.btgrp.com

BU #: 842859 BRISTOL CENTER

371 TERRYVILLE AVENUE BRISTOL, CT 06010

> EXISTING 168'-6" MONOPOLE

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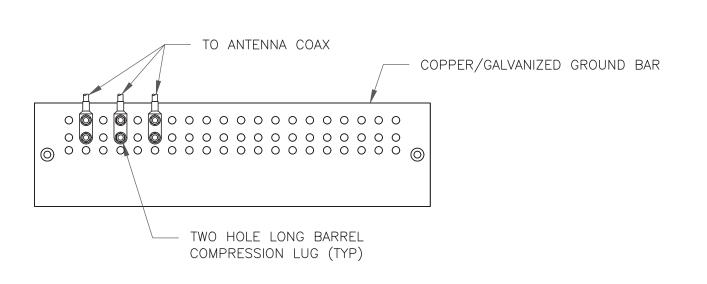
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SHEET NUMBER:

T-1

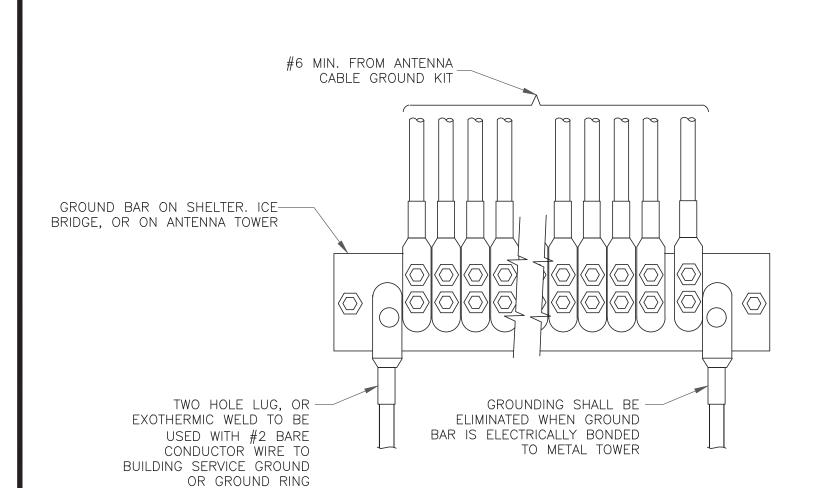
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## NOTES:

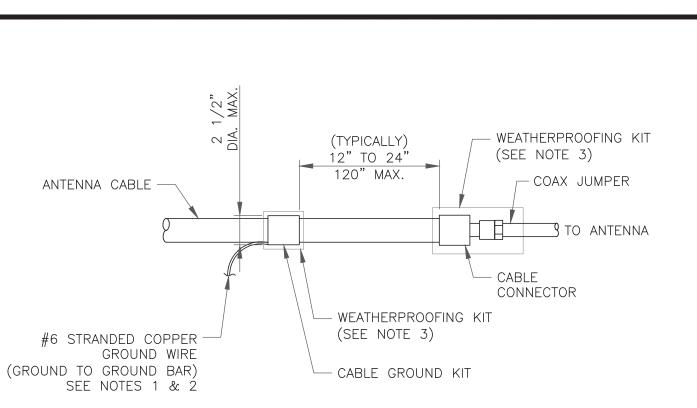
- 1. DOUBLING UP "OR STACKING" OF CONNECTIONS IS NOT PERMITTED.
- EXTERIOR ANTIOXIDANT JOINT COMPOUND TO BE USED ON ALL EXTERIOR CONNECTIONS. 3. GROUND BAR SHALL NOT BE ISOLATED FROM TOWER. MOUNT DIRECTLY TO ANTENNA MOUNT STEEL.

## ANTENNA SECTOR GROUND BAR DETAIL SCALE: NOT TO SCALE



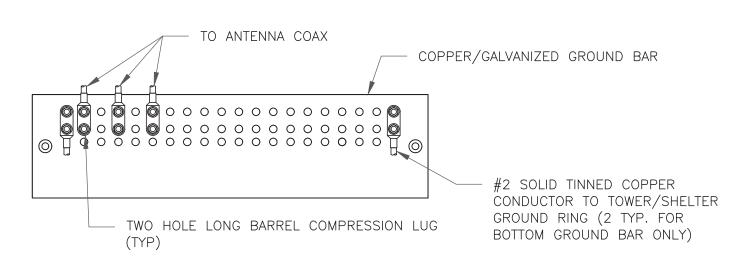
## GROUNDWIRE INSTALLATION

CALE: NOT TO SCALE



- 1. DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND
- WIRE DOWN TO GROUND BAR. 2. GROUNDING KIT SHALL BE TYPE AND PART NUMBER AS SUPPLIED OR
- RECOMMENDED BY CABLE MANUFACTURER. 3. WEATHER PROOFING SHALL BE TWO-PART TAPE KIT, COLD SHRINK SHALL NOT BE

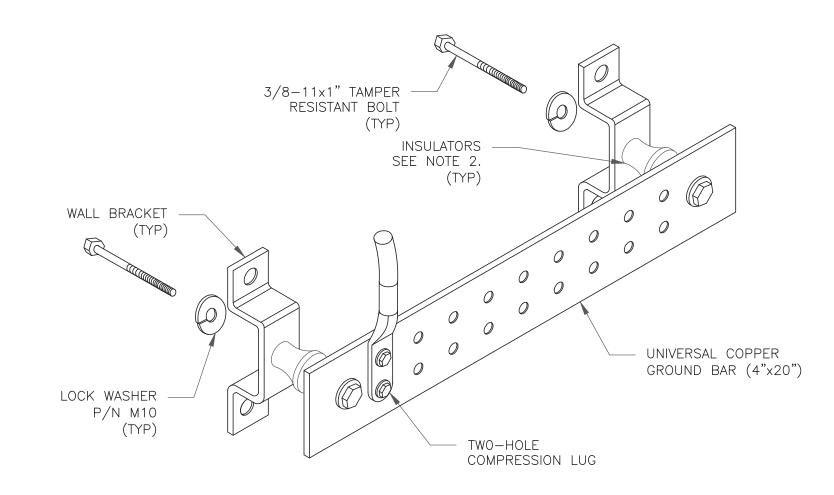
CABLE GROUND KIT CONNECTION CALE: NOT TO SCALE



### NOTES:

- 1. EXTERIOR ANTIOXIDANT JOINT COMPOUND TO BE USED ON ALL EXTERIOR CONNECTIONS.
- 2. GROUND BAR SHALL NOT BE ISOLATED FROM TOWER. MOUNT DIRECTLY TO TOWER STEEL (TOWER ONLY). 3. GROUND BAR SHALL BE ISOLATED FROM BUILDING OR SHELTER.

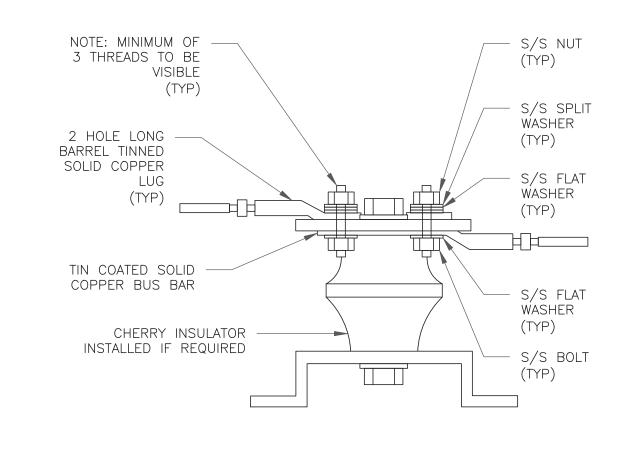
## TOWER/SHELTER GROUND BAR DETAIL SCALE: NOT TO SCALE



## NOTES:

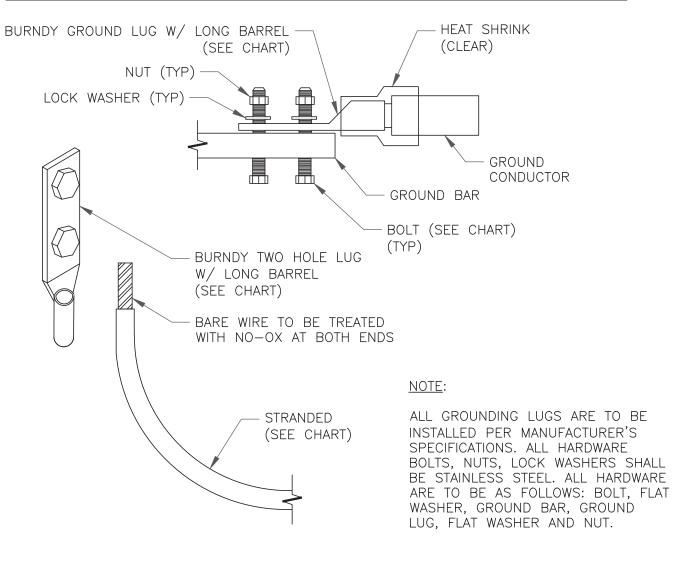
- 1. DOWN LEAD (HOME RUN) CONDUCTORS ARE <u>NOT</u> TO BE INSTALLED ON CROWN CASTLE USA INC. TOWER, PER THE GROUNDING DOWN CONDUCTOR POLICY QAS—STD—10091. NO MODIFICATION OR DRILLING TO TOWER STEEL IS ALLOWED IN ANY FORM OR FASHION, CAD-WELDING ON THE TOWER AND/OR IN THE AIR ARE NOT PERMITTED.
- 2. OMIT INSULATOR WHEN MOUNTING TO TOWER STEEL OR PLATFORM STEEL USE INSULATORS WHEN ATTACHING TO BUILDING OR SHELTERS.



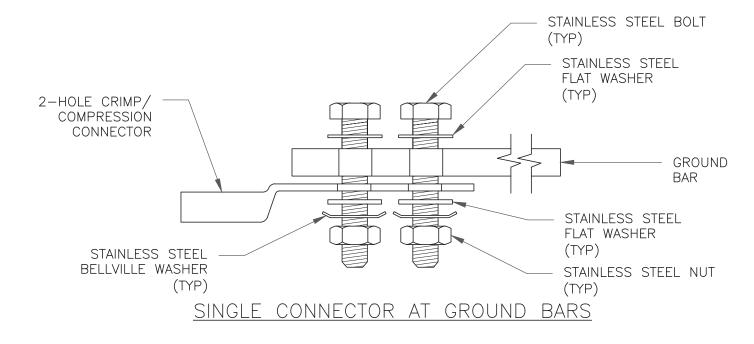


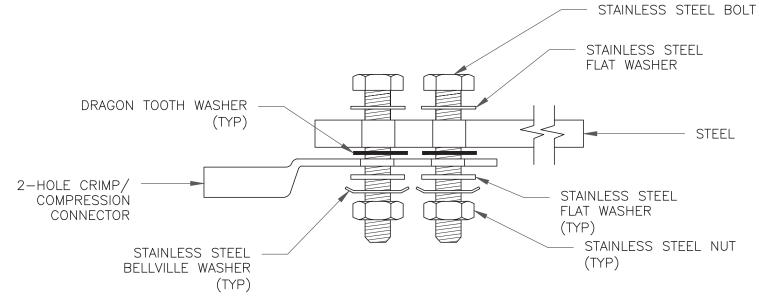


WIRE SIZE	BURNDY LUG	BOLT SIZE			
#6 GREEN INSULATED	YA6C-2TC38	3/8" - 16 NC SS 2 BOLT			
#2 SOLID TINNED	YA3C-2TC38	3/8" - 16 NC SS 2 BOLT			
#2 STRANDED	YA2C-2TC38	3/8" - 16 NC SS 2 BOLT			
#2/0 STRANDED	YA26-2TC38	3/8" - 16 NC SS 2 BOLT			
#4/0 STRANDED	YA28-2N	1/2" - 16 NC SS 2 BOLT			

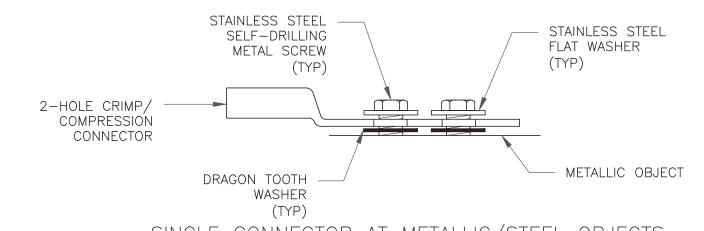








SINGLE CONNECTOR AT STEEL OBJECTS



SINGLE CONNECTOR AT METALLIC/STEEL OBJECTS

HARDWARE DETAIL FOR EXTERIOR CONNECTIONS SCALE: NOT TO SCALE







AT&T SITE NUMBER: CTL05833

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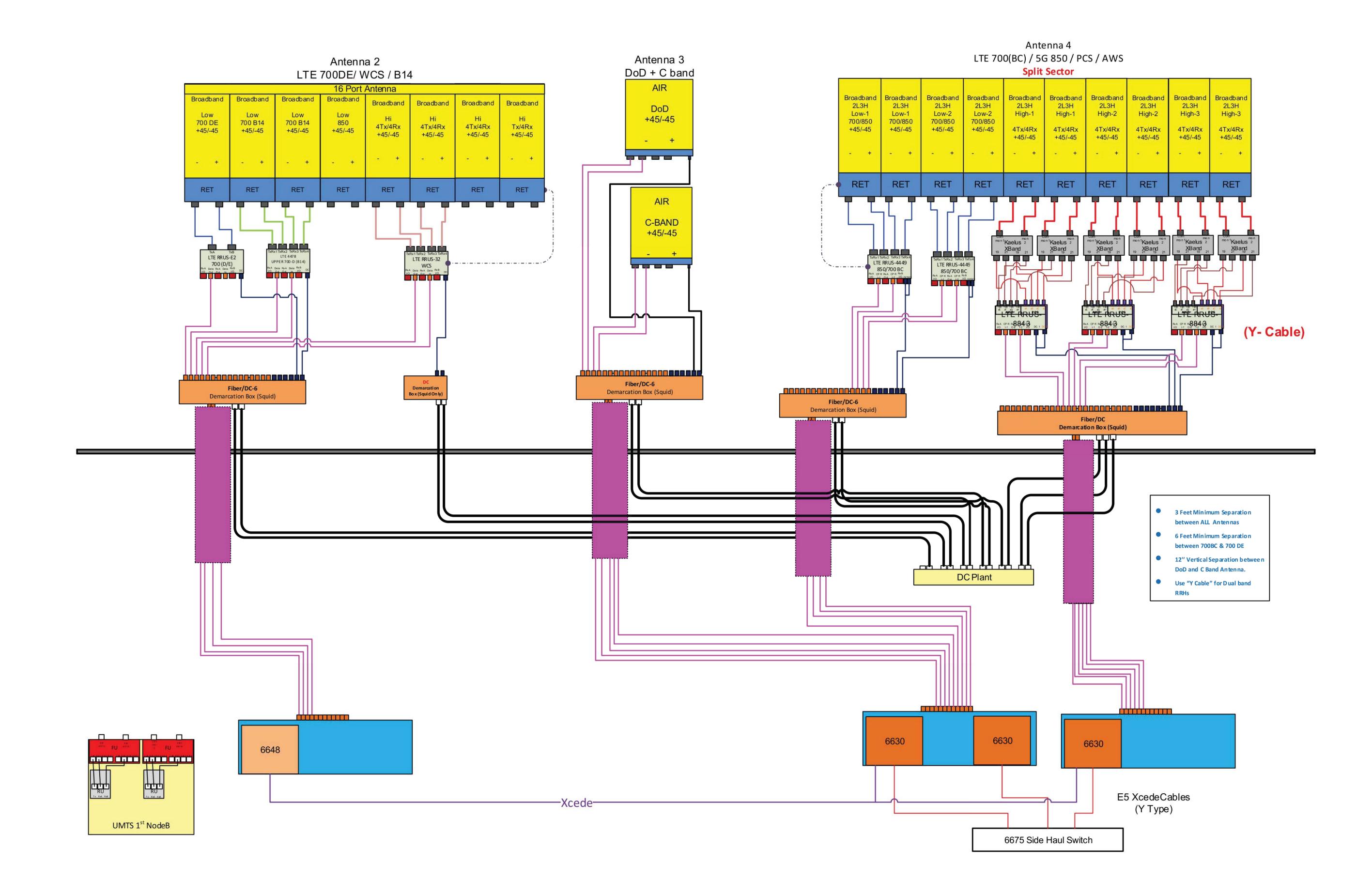
Comments: Important Note: For detailed radio to antenna wiring refer to the latest field notice - Antenna\_Radio Connection Drawings Playbook v6.0\_Ericsson

CONNECTICUT

Market -

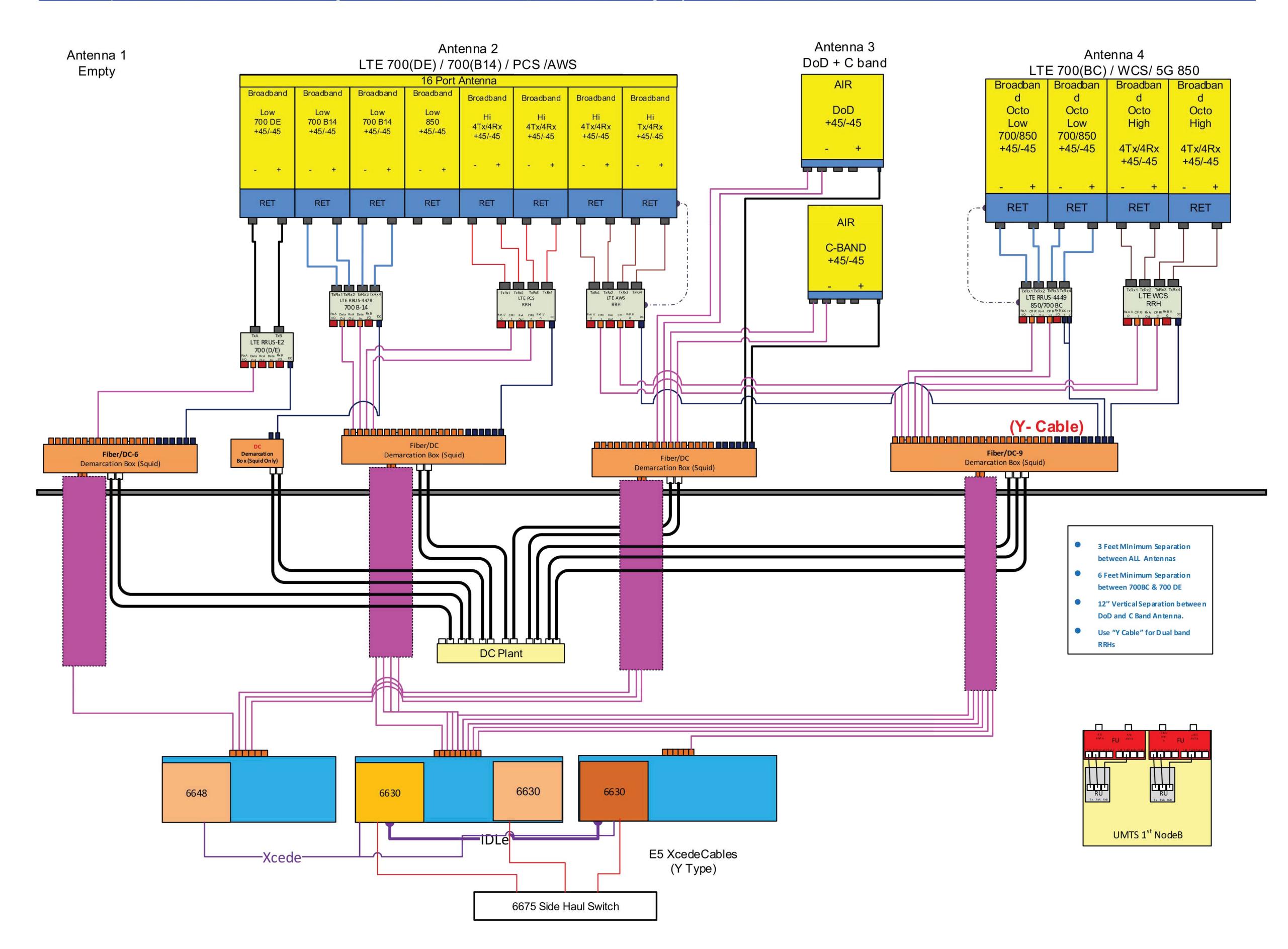
Market Cluster -

NEW ENGLAND



Atoll Site Name - CT5833 Location Name - BRISTOL CENTER Market - CONNECTICUT

Comments: Important Note: For detailed radio to antenna wiring refer to the latest field notice - Antenna\_Radio Connection Drawings Playbook v6.0\_Ericsson

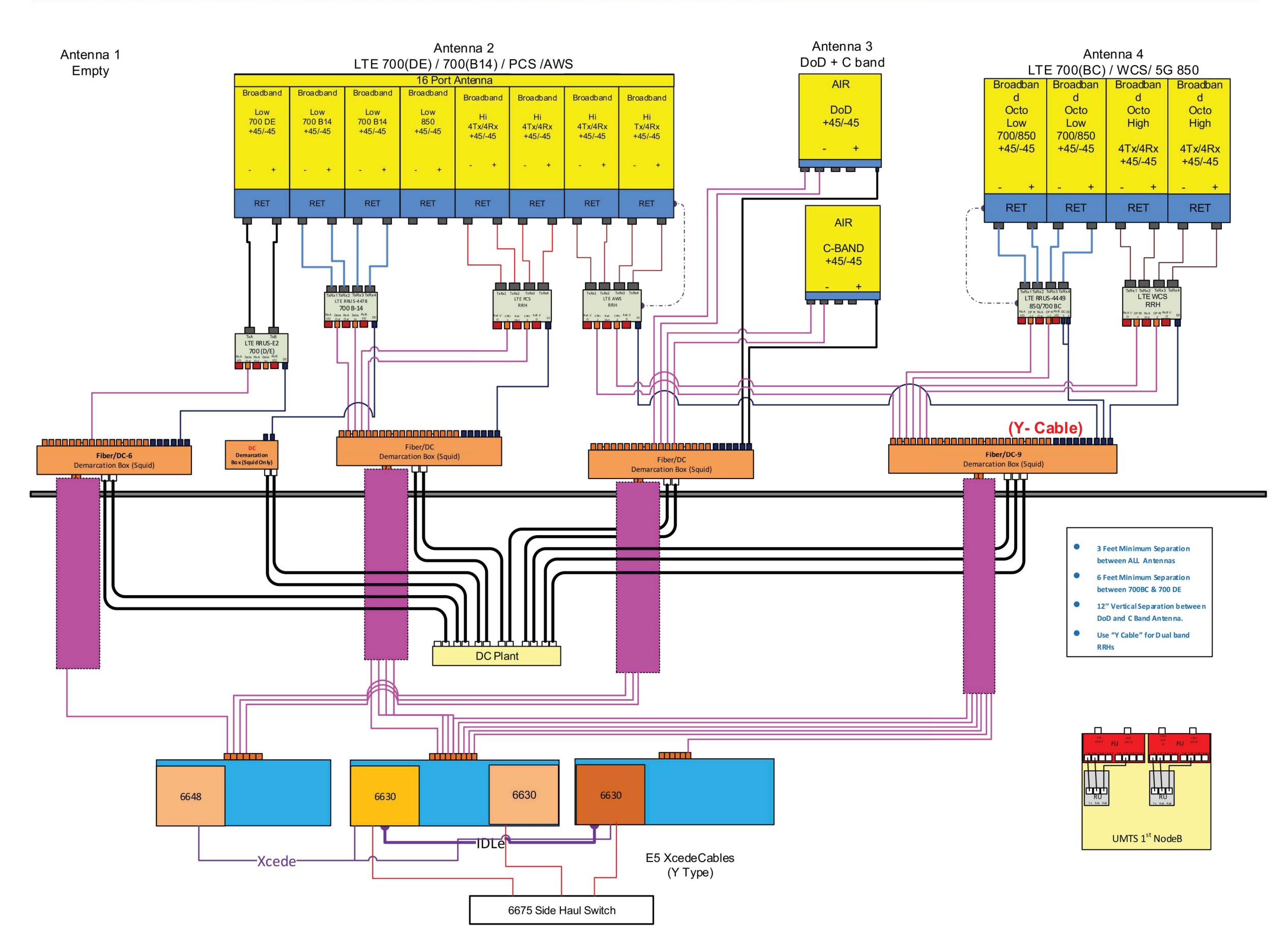


**NEW ENGLAND** 

Market Cluster -

Atoll Site Name - CT5833 Location Name - BRISTOL CENTER Market -

Comments: Important Note: For detailed radio to antenna wiring refer to the latest field notice - Antenna\_Radio Connection Drawings Playbook v6.0\_Ericsson



CONNECTICUT

Market Cluster -

NEW ENGLAND