

# STATE OF CONNECTICUT

# CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051 Phone: (860) 827-2935 Fax: (860) 827-2950 E-Mail: siting.council@ct.gov Web Site: portal.ct.gov/csc

### VIA ELECTRONIC MAIL

November 4, 2021

Jeffery Barbadora
Site Acquisition Specialist
Crown Castle
1800 W. Park Drive
Westborough, MA 01581
Jeff.Barbadora@crowncastle.com

RE: **EM-T-MOBILE-057-210915** - T-Mobile notice of intent to modify an existing telecommunications facility located at 1081 North Street, Greenwich, Connecticut.

Dear Mr. Barbadora:

The Connecticut Siting Council (Council) is in receipt of your correspondence of November 1, 2021 submitted in response to the Council's October 29, 2021 notification of an incomplete request for exempt modification with regard to the above-referenced matter.

The submission renders the request for exempt modification complete and the Council will process the request in accordance with the Federal Communications Commission 60-day timeframe.

Thank you for your attention and cooperation.

Sincerely,

Melanie Bachman Executive Director

MAB/FOC/laf

From: Barbadora, Jeff < Jeff.Barbadora@crowncastle.com>

**Sent:** Monday, November 1, 2021 9:08 AM **To:** Fontaine, Lisa <Lisa.Fontaine@ct.gov>

**Cc:** CSC-DL Siting Council <Siting.Council@ct.gov>

Subject: RE: EM-T-MOBILE-057-210915- T-Mobile 1081 North Street, Greenwich incomplete ltr

EXTERNAL EMAIL: This email originated from outside of the organization. Do not click any links or open any attachments unless you trust the sender and know the content is safe.

Good morning,

Please see attached CD's as requested. A hard copy is being overnighted to your office for tomorrow morning delivery.

Thanks,

Jeffrey Barbadora

Site Acquisition Specialist 781-970-0053

Crown Castle 1800 W. Park Drive Westborough, MA 01581

# - - Mobile - -

T-MOBILE SITE NUMBER: CT11091A

T-MOBILE SITE NAME:

SITE TYPE:

TOWER HEIGHT:

GREENWICH - NORTH\_2 MONOPOLE

175'-0"

BUSINESS UNIT #:807132

**1081 NORTH STREET** SITE ADDRESS: GREENWICH, CT 06831

**FAIRFIELD COUNTY:** 

CONNECTICUT SITING COUNCIL JURISDICTION:

# T-MOBILE ANCHOR SITE CONFIGURATION: 67D5A998E OUTDOOR

# SITE INFORMATION

BRG 133 943050

GREENWICH, CT 06831

CROWN CASTLE USA INC. SITE NAME:

SITE ADDRESS: 1081 NORTH STREET

COUNTY: FAIRFIELD MAP/PARCEL#: AREA OF CONSTRUCTION: **EXISTING** LATITUDE: 41.139306°

LONGITUDE: -73.641817° NAD83 LAT/LONG TYPE: 507 FT GROUND ELEVATION:

**RA-4 SINGLE FAMILY CURRENT ZONING:** CONNECTICUT SITING COUNCIL

**JURISDICTION:** OCCUPANCY CLASSIFICATION: U

TYPE OF CONSTRUCTION:

A.D.A. COMPLIANCE:

FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION

PROPERTY OWNER: CROWN ATLANTIC COMPANY LLC

4017 WASHINGTON ROAD MCMURRAY, PA 15317

TOWER OWNER: CROWN CASTLE

2000 CORPORATE DRIVE CANONSBURG, PA 15317

CARRIER/APPLICANT:

A&E FIRM:

CROWN CASTLE

CONTACTS:

USA INC. DISTRICT

T-MOBILE 35 GRIFFIN ROAD BLOOMFIELD, CT 06002

**PROJECT TEAM** 

3 CORPORATE PARK DRIVE, SUITE 101

ELECTRIC PROVIDER: THE UNITED ILLUMINATING COMPANY

B+T GROUP

1717 S. BOULDER AVE.

marvin.phillips@btgrp.com

CLIFTON PARK, NY 12065

PRIOR TO ACCESSING/ENTERING THE SITE YOU MUST CONTACT THE

CROWN NOC AT (800) 788-7011 & CROWN CONSTRUCTION MANAGER.

TULSA, OK 74119 MARVIN PHILLIPS

TELCO PROVIDER: VERIZON

# **DRAWING INDEX**

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ATTACHED	MOUNT SPECS

ALL DRAWINGS CONTAINED HEREIN ARE FORMATTED FOR FULL SIZE. CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.

# PROJECT DESCRIPTION

THE PURPOSE OF THIS PROJECT IS TO ENHANCE BROADBAND CONNECTIVITY AND CAPACITY TO THE EXISTING ELIGIBLE WIRELESS FACILITY.

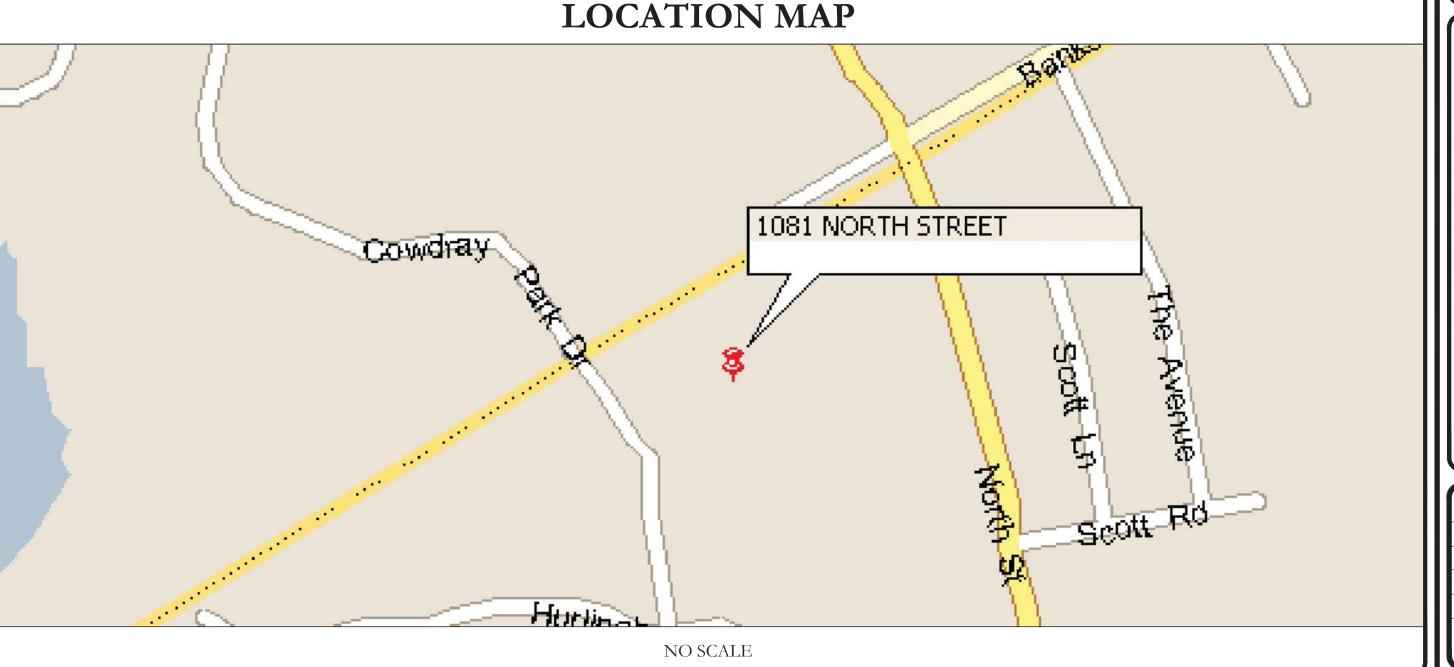
TOWER SCOPE OF WORK:

- REMOVE (6) RADIOS
- REMOVE (1) HYBRID CABLE (9X18)
- REMOVE (1) RING MOUNT
- INSTALL (1) SITE PRO1 RMQP-496 PLATFORM MOUNT W/HANDRAIL KIT PER MOUNT REPLACEMENT ANALYSIS BY TRYLON DATED JULY 21, 2021
- INSTALL (3) ANTENNAS
- INSTALL (3) RADIOS
- INSTALL (2) HYBRID CABLES (6X24)

# GROUND SCOPE OF WORK:

- REMOVE (1) DUW30 FROM RBS 6131 CABINET
- INSTALL (1) PAD EXTENSION (1'-6" x 8'-0")
- INSTALL (1) 6160 SSC CABINET
- INSTALL (1) B160 BATTERY CABINET • INSTALL (1) BB6648 IN 6160 SSC CABINET
- INSTALL (1) PSU 4813 VOLTAGE BOOSTER IN 6160 SSC
- INSTALL (1) CSR IXRE V2 TRANSPORT SYSTEM IN 6160 SSC CABINET

THE POWER DESIGN FOR ANY AC ELECTRICAL POWER CHANGES IS TO BE PERFORMED BY OTHERS AND IS SHOWN HERE FOR REFERENCE PURPOSES ONLY. T-MOBILE IS SOLELY RESPONSIBLE FOR THE ELECTRICAL POWER DESIGN.



# 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 CODE 2015 IBC W/AMENDMENTS BUILDING **MECHANICAL** 2015 IMC W/AMENDMENTS 2017 NEC

REFERENCE DOCUMENTS:

ELECTRICAL

STRUCTURAL ANALYSIS: PAUL J. FORD & COMPANY

DATED: 7/29/21 MOUNT REPLACEMENT ANALYSIS: TRYLON

DATED: 7/21/21

AC ELECTRICAL POWER DESIGN: BY OTHERS DATED:

> RFDS REVISION: 8 DATED: 6/23/21ORDER ID: 575116 REVISION: 0

> > CALL CONNECTICUT ONE CALL (800) 922-4455 CBYD.COM CALL 2 WORKING DAYS BEFORE YOU DIG!

# **APPROVALS**

**APPROVAL** DATE SIGNATURE PROPERTY OWNER OR REP. LAND USE PLANNER T-MOBILE **OPERATIONS** NETWORK BACKHAUL CONSTRUCTION MANAGER

THE PARTIES ABOVE HEREBY APPROVE AND ACCEPT THESE DOCUMENTS AND AUTHORIZE THE CONTRACTOR TO PROCEED WITH THE CONSTRUCTION DESCRIBED HEREIN. ALL CONSTRUCTION DOCUMENTS ARE SUBJECT TO REVIEW BY THE LOCAL BUILDING DEPARTMENT AND ARE SUBJECT TO REVIEW BY THE LOCAL BUILDING DEPARTMENT AND ANY CHANGES AND MODIFICATIONS THEY MAY IMPOSE.

CLIFTON PARK, NY 12065

35 GRIFFIN ROAD BLOOMFIELD, CT 06002



B+T GRP 1717 S. BOULDER SUITE 300 TULSA, OK 74119

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

T-MOBILE SITE NUMBER: CT11091A

> BU #: **807132** BRG 133 943050

1081 NORTH STREET GREENWICH, CT 06831

EXISTING 175'-0" MONOPOLE

	ISSUED FOR:							
REV	DATE	DRWN	DESCRIPTION	DES./QA				
0	8/23/21	MA/AY	CONSTRUCTION	JHW				



B&T ENGINEERING, INC. PEC.0001564 Expires 2/10/22

IT IS A VIOLATION OF LAW FOR ANY PERSON, INLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

**SHEET NUMBER:** 

### 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.
- 2. "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 TAGGED 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 SURFACE 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: CONTRACTOR: GENERAL CONTRACTOR RESPONSIBLE FOR CONSTRUCTION CARRIFR: T-MOBILE
- 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 WHO HAVE A WORKING KNOWLEDGE OF THE APPLICABLE CODE STANDARDS AND REQUIREMENTS AND OF INDUSTRY
- ASSUMED THAT THE WORK DEPICTED WILL BE PERFORMED BY AN EXPERIENCED CONTRACTOR AND/OR WORKPEOPLE 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. 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. 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 ...
- 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 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
- 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.
- 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 SHALL BE BONDED TO THE EXISTING GROUNDING SYSTEM, THE BUILDING STEEL COLUMNS, LIGHTNING PROTECTION SYSTEM, AND BUILDING MAIN WATER LINE (FERROUS OR NONFERROUS METAL PIPING ONLY).

## **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. WIRING, RACEWAY AND SUPPORT METHODS AND MATERIALS SHALL COMPLY WITH THE REQUIREMENTS OF THE NEC.
- ALL CIRCUITS SHALL BE SEGREGATED AND MAINTAIN MINIMUM CABLE SEPARATION AS REQUIRED BY THE NEC. 4.1. 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.
- 6. 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
- $\Theta$ . 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 SPECIFIÉD.
- 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.

APWA UNIFORM COLOR CODE:

PROPOSED EXCAVATION

GASEOUS MATERIALS

POTABLE WATER

SLURRY LINES

TEMPORARY SURVEY MARKINGS

LECTRIC POWER LINES, CABLES,

CONDUIT, AND LIGHTING CABLES

GAS, OIL, STEAM, PETROLEUM, OR

RECLAIMED WATER, IRRIGATION, AND

SEWERS AND DRAIN LINES

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

- 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 "T-MOBILE".
- 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 VOLTAGE	NEG (-)	BLACK**				

COMPLICTOR COLOR CORE

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

ANTENNA **EXISTING** 

**ABBREVIATIONS** 

FACILITY INTERFACE FRAME

GEN GENERATOR GPS GLOBAL POSITIONING SYSTEM GLOBAL SYSTEM FOR MOBILE

GSM LONG TERM EVOLUTION MGB MASTER GROUND BAR

MW MICROWAVE NFW NATIONAL ELECTRIC CODE

PROPOSED POWER PLANT QTY QUANTITY RECTIFIER

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

REMOTE RADIO HEAD RRU REMOTE RADIO UNIT SIAD SMART INTEGRATED DEVICE

TOWER MOUNTED AMPLIFIER TYP TYPICAL UMTS UNIVERSAL MOBILE TELECOMMUNICATIONS SYSTEM WORK POINT W.P.

35 GRIFFIN ROAD BLOOMFIELD, CT 06002



CLIFTON PARK, NY 12065

B+T GRP

1717 S. BOULDER

TULSA, OK 74119

PH: (918) 587-4630

www.btgrp.com

SUITE 300



T-MOBILE SITE NUMBERS CT11091A

> BU #: **807132** BRG 133 943050

1081 NORTH STREET GREENWICH, CT 06831

> EXISTING 175'-0" MONOPOLE

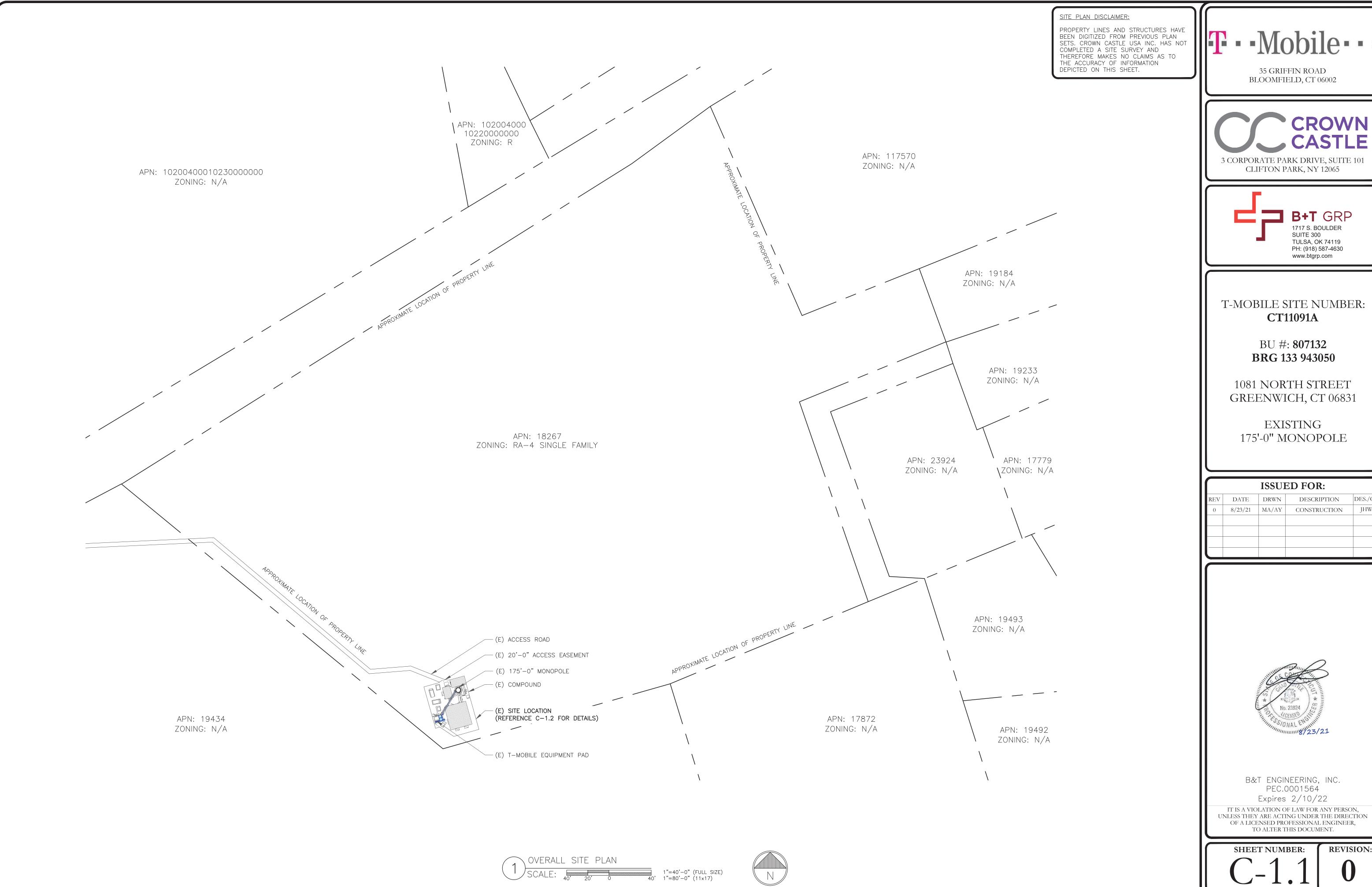
$\bigcap$		ISSU	ED FOR:	
REV	DATE	DRWN	DESCRIPTION	DES./Q
0	8/23/21	MA/AY	CONSTRUCTION	JHW



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**SHEET NUMBER:** 



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CROWN

CLIFTON PARK, NY 12065



B+T GRP

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T-MOBILE SITE NUMBER: CT11091A

> BU #: **807132** BRG 133 943050

1081 NORTH STREET GREENWICH, CT 06831

EXISTING 175'-0" MONOPOLE

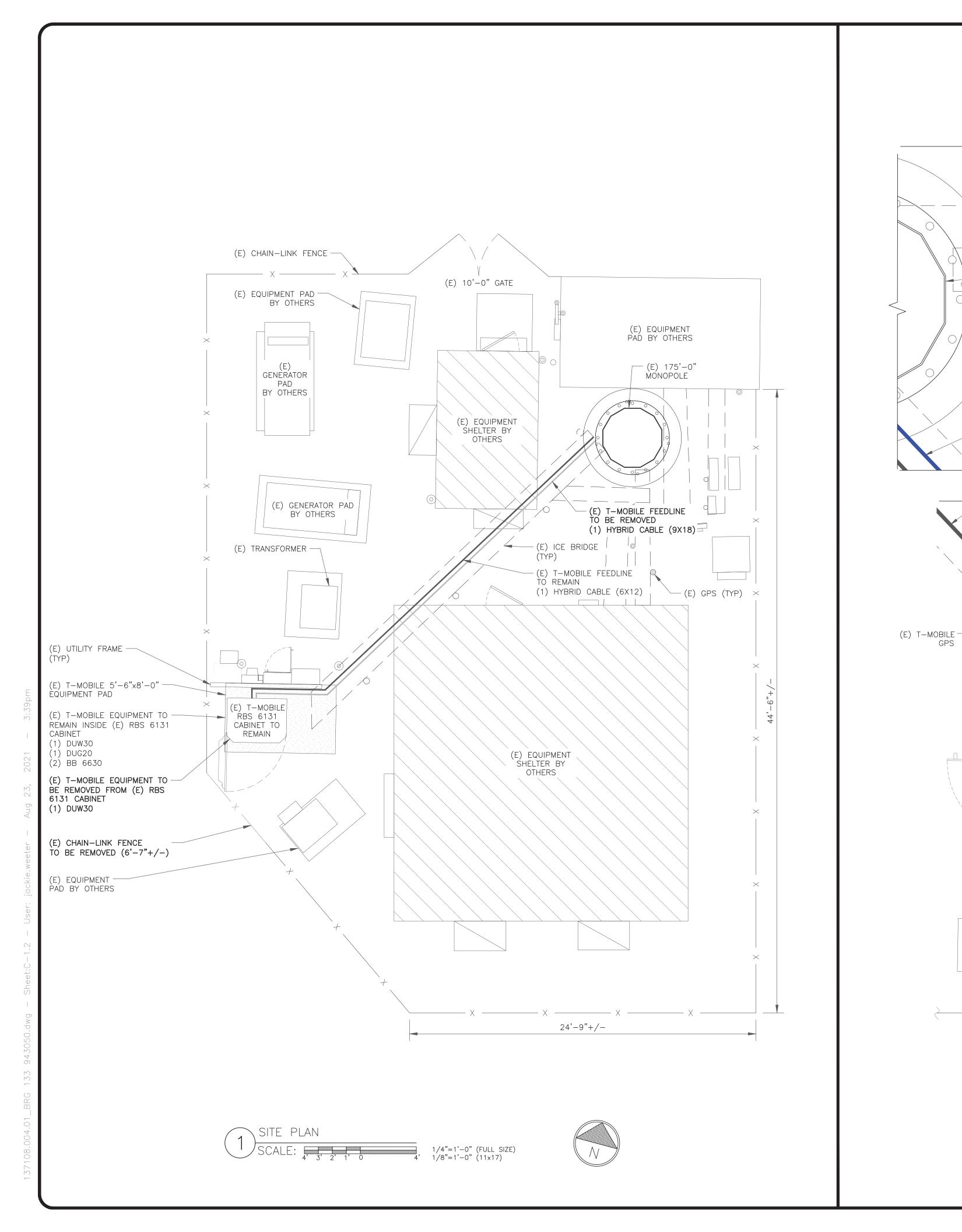
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SHEET NUMBER:



NOTES:

NEW T-MOBILE EQUIPMENT TO BE INSTALLED IN NEW 6160 CABINET

(1) PSU 4813 VOLTAGE BOOSTER

NEW (1) 2" RGS CONDUIT FROM 6160 TO PPC FOR 100A CIRCUIT

NEW T-MOBILE 1'-6"x8'-0"

- (E) T-MOBILE EQUIPMENT TO BE INSTALLED (E) SSC

NEW CHAIN LINK FENCE -

5'-0"±

EQUIPMENT PAD

\(1) DUW30 \(1) DUG20 (2) BB 6630

(1) CSR IXRE V2 TRANSPORT SYSTEM

(1) BB 6648



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T-MOBILE SITE NUMBER: CT11091A

> BU #: **807132** BRG 133 943050

1081 NORTH STREET GREENWICH, CT 06831

EXISTING 175'-0" MONOPOLE

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**REVISION:** 

ENLARGED SITE PLAN

SCALE: 1, 6, 0 1, 3/4, =1, -0, (FULL SIZE)
3/8, =1, -0, (11×17)

(E) T-MOBILE 5'-6"x8'-0" — EQUIPMENT PAD

(E) T-MOBILE RBS 6131

CABINET

- (E) 175'-0" MONOPOLE

NEW T-MOBILE FEEDLINES

— (E) T-MOBILE FEEDLINE (1) HYBRID CABLES (6X12)

-(E) T-MOBILE ICE BRIDGE ±29'-0"

NEW T-MOBILE

B160 BATTERY

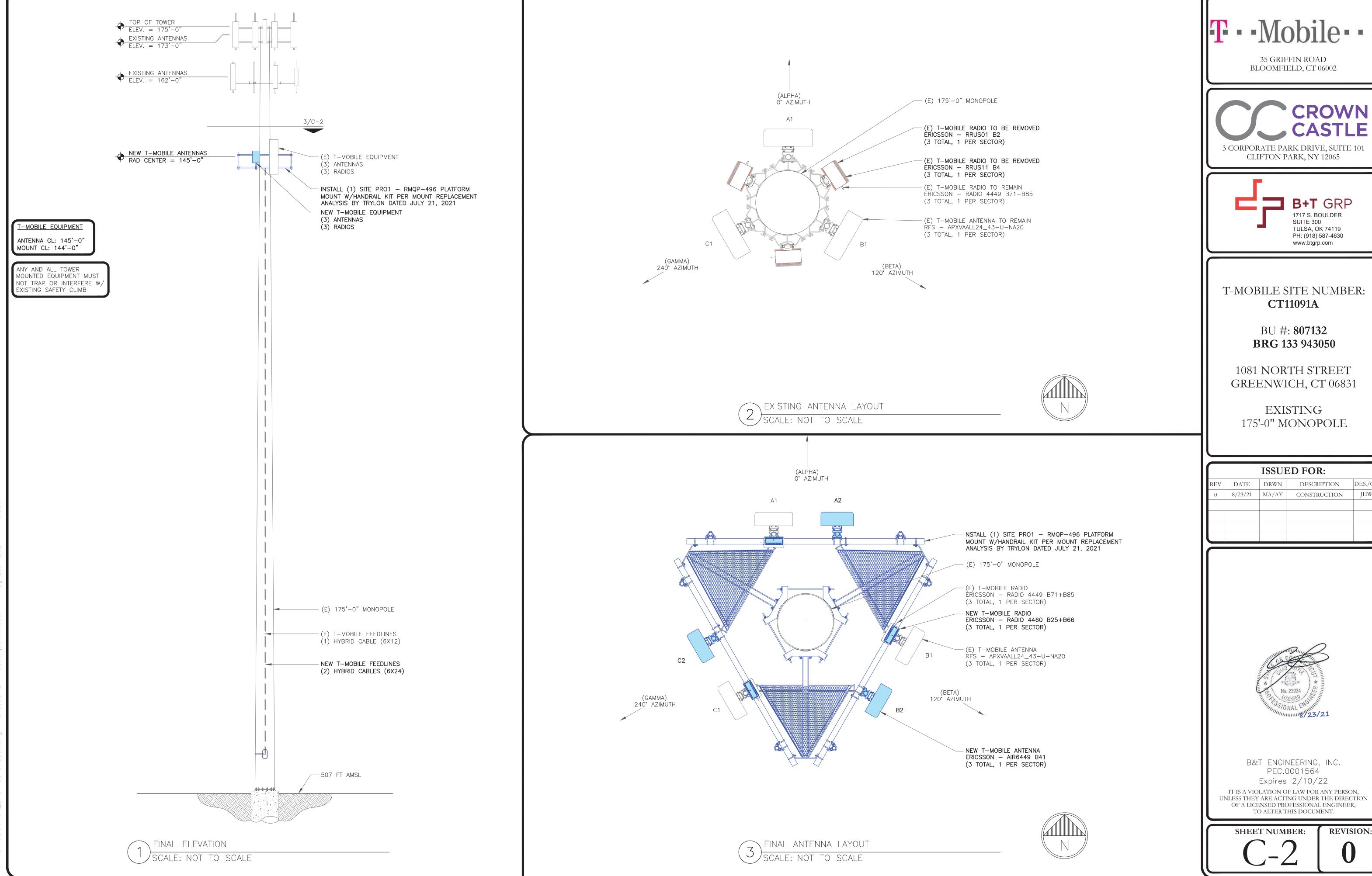
CABINET

T-MOBILE

6160 CABINET

(2) HYBRID CABLES (6X24)









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BRG 133 943050

1081 NORTH STREET GREENWICH, CT 06831

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UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

	RF SYSTEM SCHEDULE									
SECTOR	ANTENNA	TECH	MANUFACTURER	ANTENNA MODEL	AZIMUTH	M-TILT	E-TILT	RAD CENTER	TMA/RRU	FEEDLINE TYPE
ALPHA	A1	L700/L600/N600/ L1900/G1900/ L2100/U2100	RFS	APXVAALL24_43-U-NA20	O°	O°	2°/2°/2°/2°	145'-0"	(1) ERICSSON - 4449 B71+B85 (1) ERICSSON - 4460 B25+B66	(1) 6x12 HYBRID
	A2	L2500/N2500	ERICSSON	AIR6449 B41	0.	0°	2°/2°	145'-0"	_	_
BETA	B1	L700/L600/N600/ L1900/G1900/ L2100/U2100	RFS	APXVAALL24_43-U-NA20	120°	O°	2°/2°/2°/2°	145'-0"	(1) ERICSSON — 4449 B71+B85 (1) ERICSSON — 4460 B25+B66	(1) 6X24 HYBRID
	B2	L2500/N2500	ERICSSON	AIR6449 B41	120°	0°	2*/2*	145'-0"	-	_
GAMMA	C1	L700/L600/N600/ L1900/G1900/ L2100/U2100	RFS	APXVAALL24_43-U-NA20	240°	O°	2°/2°/2°/2°	145'-0"	(1) ERICSSON - 4449 B71+B85 (1) ERICSSON - 4460 B25+B66	(1) 6X24 HYBRID
	C2	L2500/N2500	ERICSSON	AIR6449 B41	240°	0°	2°/2°	145'-0"	_	_

ANTENNA AND CABLE SCHEDULE

SCALE: NOT TO SCALE

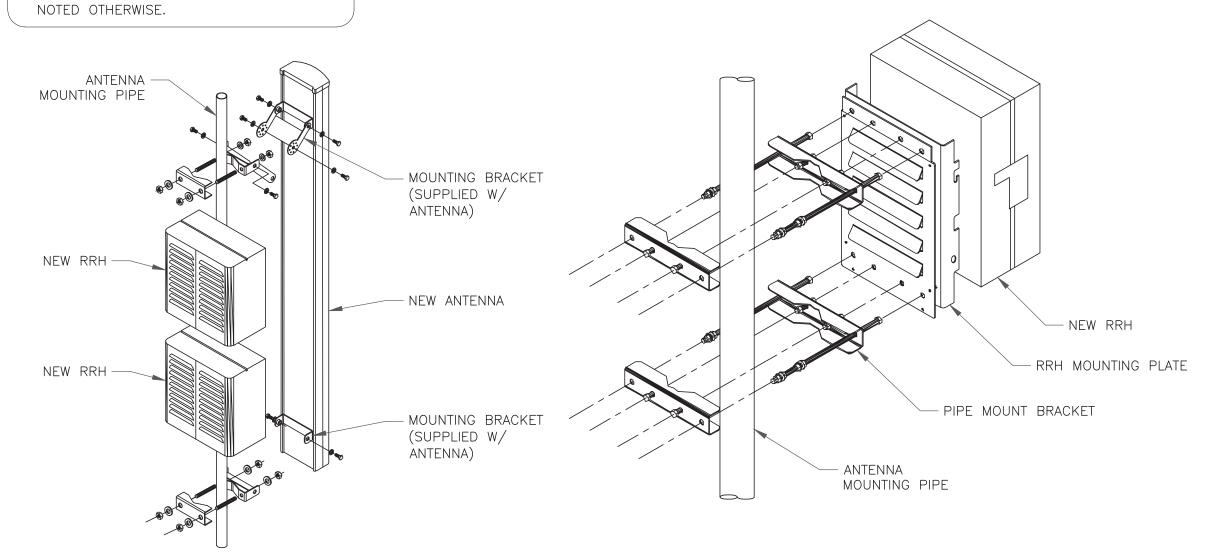
INSTALLER NOTES:

1. 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



ANTENNA WITH RRHs MOUNTING DETAIL

SCALE: NOT TO SCALE

T - Mobile - -

35 GRIFFIN ROAD BLOOMFIELD, CT 06002



3 CORPORATE PARK DRIVE, SUITE CLIFTON PARK, NY 12065



B+T GRP

1717 S. BOULDER
SUITE 300

1717 S. BOULDER SUITE 300 TULSA, OK 74119 PH: (918) 587-4630 www.btgrp.com

T-MOBILE SITE NUMBER: **CT11091A** 

BU #: **807132 BRG 133 943050** 

1081 NORTH STREET GREENWICH, CT 06831

> EXISTING 175'-0" MONOPOLE

	ISSUED FOR:							
REV	V DATE DRWN DESCRIPTION DES./C							
0	8/23/21	MA/AY	CONSTRUCTION	JHW				



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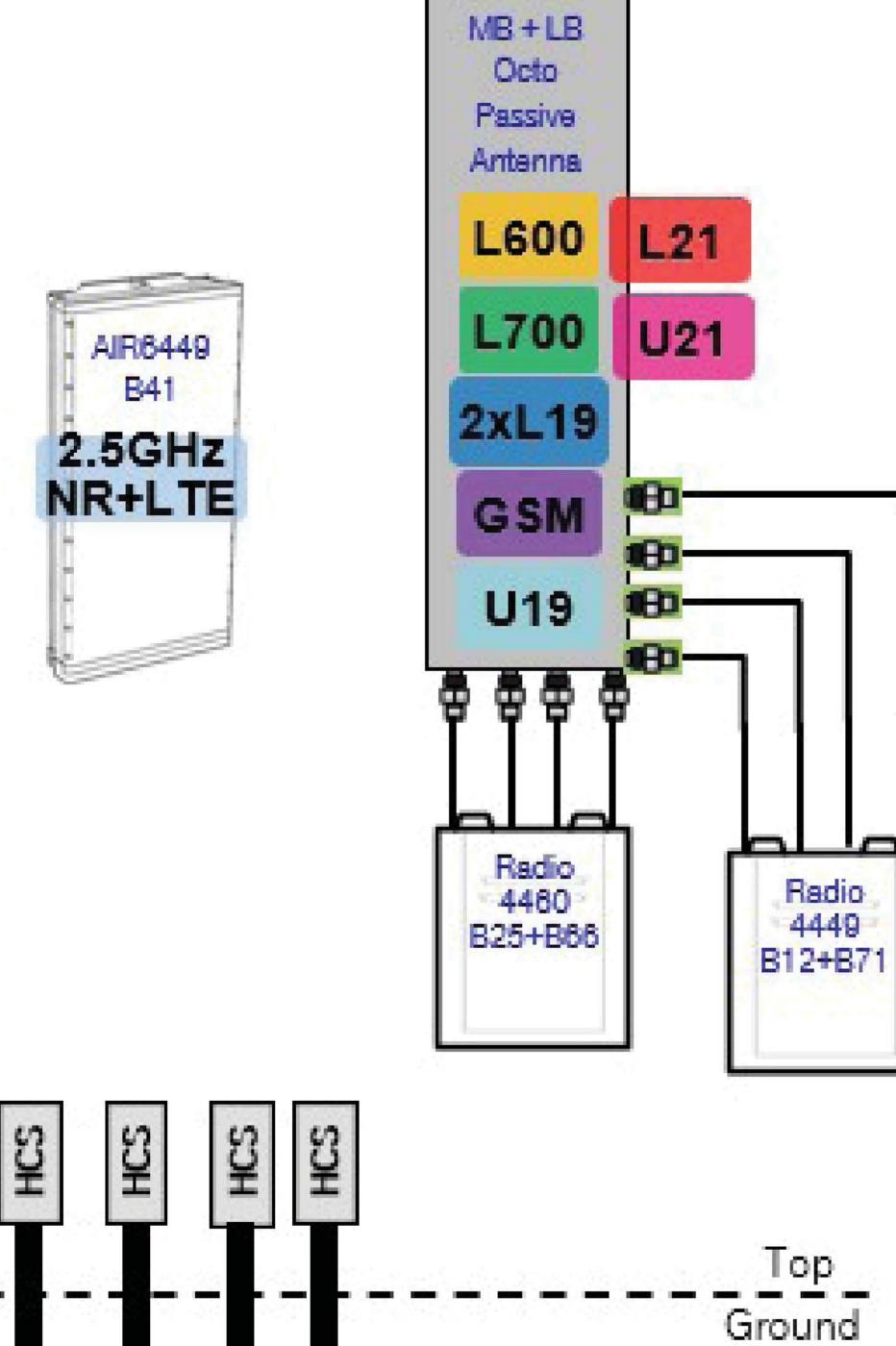
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SHEET NUMBER:

C-3

0

# Final Config: 67D5A998E





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3 CORPORATE PARK DRIVE, SUITE 1 CLIFTON PARK, NY 12065



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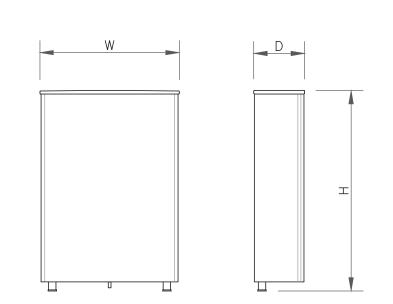
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REVISION:

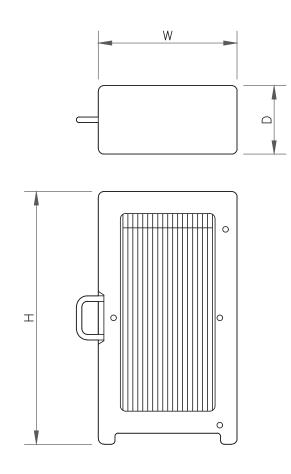
PLUMBING DIAGRAM

SCALE: NOT TO SCALE



ANTE	NNA SPECS
MANUFACTURER	ERICSSON
MODEL #	AIR6449 B41
WIDTH	20.51"
DEPTH	8.54"
HEIGHT	33.11"
WEIGHT	114.63 LBS

ANTENNA SPECS SCALE: NOT TO SCALE



# RRU SPECIFICATIONS

MANUFACTURER	ERICSSON
MODEL #	4460 B25+B66
WIDTH	15.10"
DEPTH	11.90"
HEIGHT	17.0"
WEIGHT	109.0 LBS
	· · · · · · · · · · · · · · · · · · ·

2 RRU SPECS
SCALE: NOT TO SCALE



SCALE: NOT TO SCALE



	TTERY CABINET PECIFICATIONS	
MODEL#	B160	
MANUF.	ERICSSON	P
HEIGHT	63"	
WIDTH	26"	
DEPTH	26"	
WEIGHT		

ERICSSON B160 BATTERY CABINET (4) SCALE: NOT TO SCALE



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EXISTING 175'-0" MONOPOLE

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SHEET NUMBER:

**REVISION:** 

SCALE: NOT TO SCALE

NOT USED

SCALE: NOT TO SCALE

NOT USED

SCALE: NOT TO SCALE

8 NOT USED
SCALE: NOT TO SCALE

		FINAL	PANE	L SCH	EDULE		
LOAD	POLES	AMDS	ВІ	JS	AMDS	POLES	LOAD
LOAD	POLES	AMPS	L1	L2	AMPS	PULES	LOAD
C171	2	904	1	2	15A	1	GFCI
6131	2	80A	3	4	30A	1	VERIZON CAB.
6160	2	1004	5	6	20A	1	FIBER
6160	2	2   100A	7	8	20A	1	LED LIGHT
B160	1	20A	9	10			
			11	12			
			13	14			
			15	16			

 RATED VOLTAGE:
 ■120/240
 □ \_\_\_\_\_\_.
 1 PHASE, 3 WIRE BRANCH POLES:
 ■12 □ 24 □ 30 □ 42 APPROVED MF'RS

 RATED AMPS:
 □100
 ■200
 □400
 □ \_\_\_\_\_.
 CABINET:
 ■SURFACE
 □FLUSH
 NEMA
 □1
 ■3R

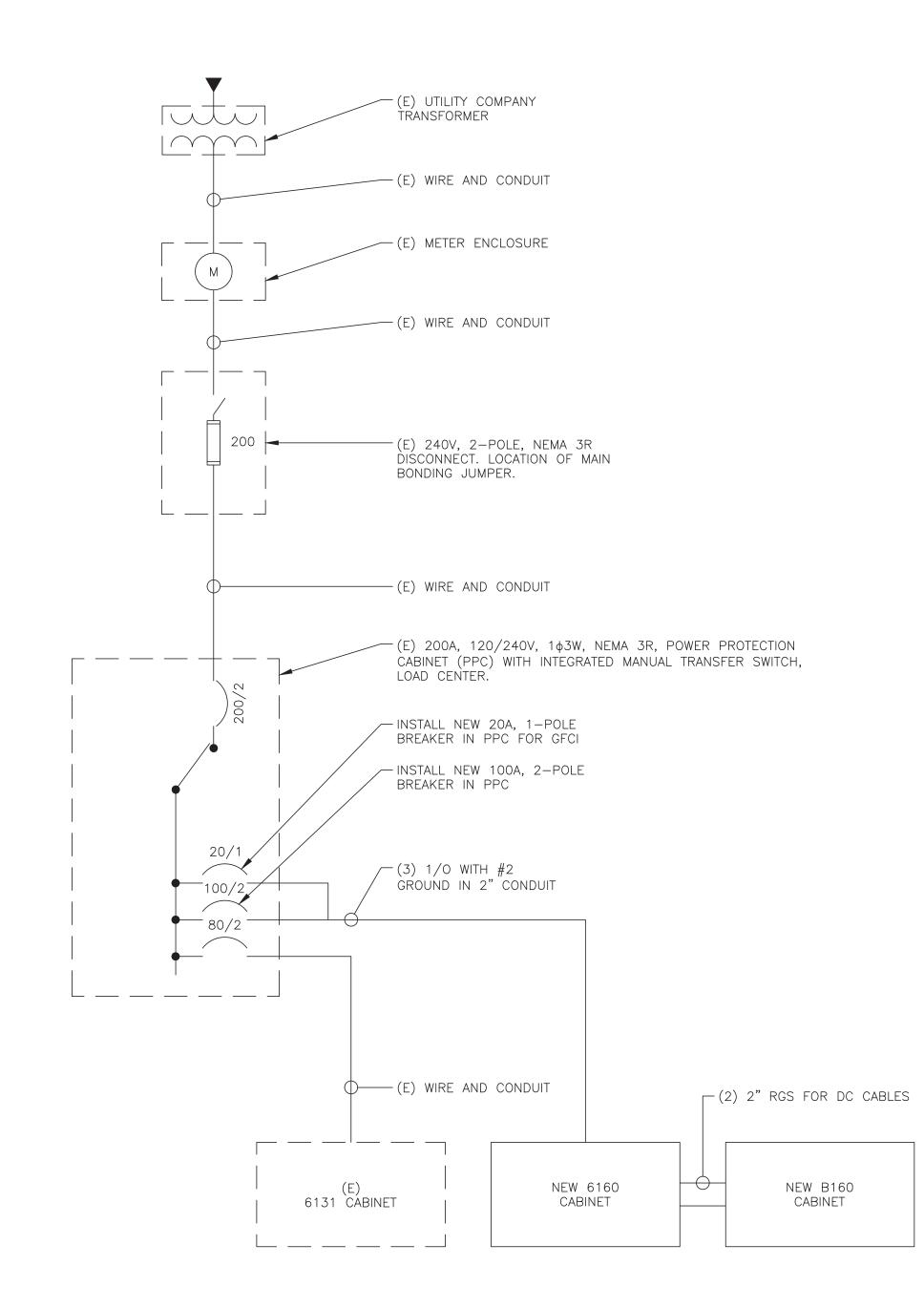
 NEMA □1 ■3R □4X □MAIN LUGS ONLY MAIN 200 AMPS ■BREAKER □FUSED SWITCH ■HINGED DOOR ■KEYED DOOR LATCH □FUSED ■CIRCUIT BREAKER BRANCH DEVICES □ \_\_\_\_\_ TO BE GFCI BREAKERS FULL NEUTRAL BUS GROUND BAR ALL BREAKERS MUST BE RATED TO INTERRUPT A SHORT CIRCUIT ISC OF 10,000 AMPS SYMMETRICAL

REPLACE EXISTING BREAKER IN POSITION 5 AND 7 WITH A NEW 2P 100A BREAKER REPLACE EXISTING BREAKER IN POSITION 9 WITH A NEW 1P 20A BREAKER

REPLACE EXISTING WIRES FOR NEW 6160 CABINET WITH (3) 1/0 AWG THWN (COPPER) AND (1) #2G AWG. MINIMUM CONDUIT SIZE TO BE 2".

IF 100A BREAKER WILL NOT PROPERLY FIT IN EXISTING PANEL, REPLACE (E) PANEL WITH SQUARE D PANEL Q012040M200RB (OR APPROVED EQUAL). UPGRADE FEEDER WIRES TO MEET AMPACITY IF NEW PANEL IS REQUIRED.

FINAL PANEL DESIGN AND CALCULATIONS FOR WIRE SIZE WERE BASED OFF OF EXISTING PHOTOS



- 1. ALL NEW CONDUCTORS TO BE INSTALLED SHALL BE COPPER. ALL CONDUCTORS SHALL BE THHW, THWN, THWN-2, XHHW, XHHW-2, THW, THW-2, RHW, OR RHW-2 UNLESS NOTED OTHERWISE.
- 2. CONTRACTOR IS TO FIELD VERIFY ALL EXISTING ITEMS SHOWN ON THE ELECTRICAL ONE-LINE DIAGRAM AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES.
- 3. ALL GROUNDING AND BONDING PER THE NEC.





35 GRIFFIN ROAD BLOOMFIELD, CT 06002



CLIFTON PARK, NY 12065



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> BU #: **807132** BRG 133 943050

1081 NORTH STREET GREENWICH, CT 06831

> **EXISTING** 175'-0" MONOPOLE

ISSUED FOR:						
REV	DATE	DRWN	DESCRIPTION	DES./QA		
0	8/23/21	MA/AY	CONSTRUCTION	JHW		



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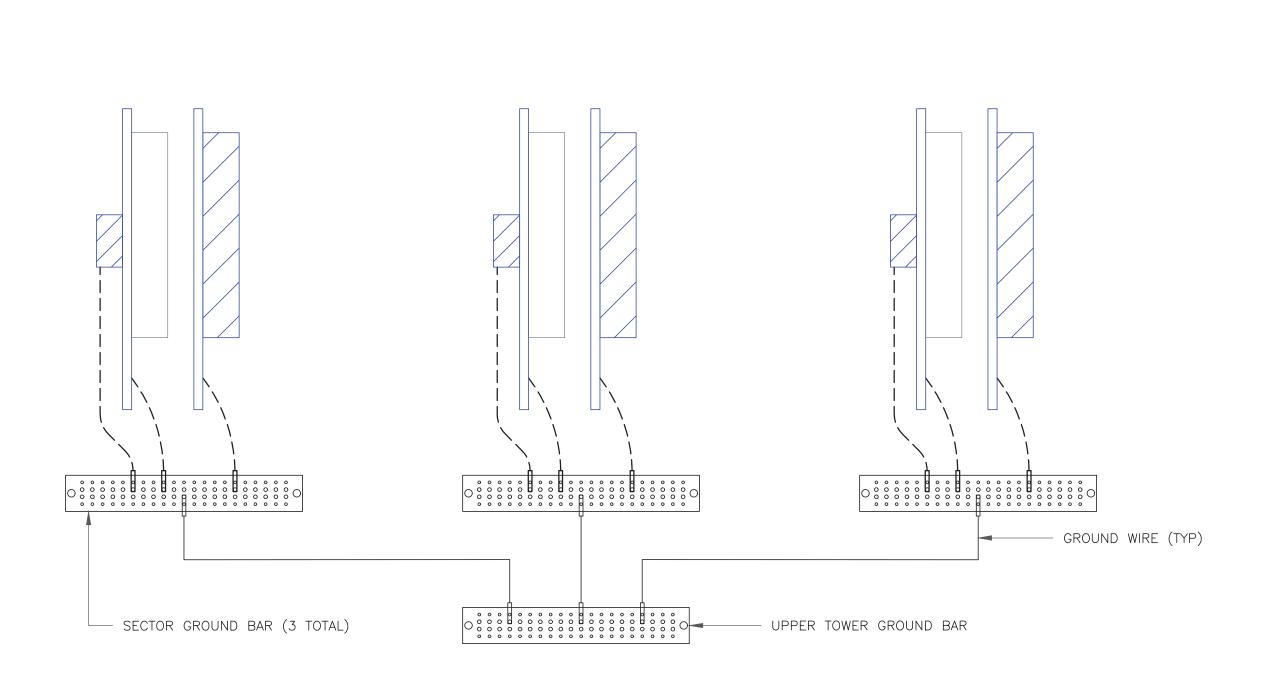
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**SHEET NUMBER:** 

**REVISION:** 

FINAL T-MOBILE PANEL DETAIL

SCALE: NOT TO SCALE



<u>BETA</u>

<u>ALPHA</u>

NOTE:

<u>GAMMA</u>

ALL NEW GROUNDS TO BE #6 STRANDED COPPER WITH GREEN INSULATION UNLESS NOTED OTHERWISE.

1 ANTENNA GROUNDING DIAGRAM
SCALE: NOT TO SCALE



35 GRIFFIN ROAD BLOOMFIELD, CT 06002



CORPORATE PARK DRIVE, SUITE 10 CLIFTON PARK, NY 12065



# B+T GRP

1717 S. BOULDER SUITE 300 TULSA, OK 74119 PH: (918) 587-4630 www.btgrp.com

# T-MOBILE SITE NUMBER: **CT11091A**

BU #: **807132 BRG 133 943050** 

1081 NORTH STREET GREENWICH, CT 06831

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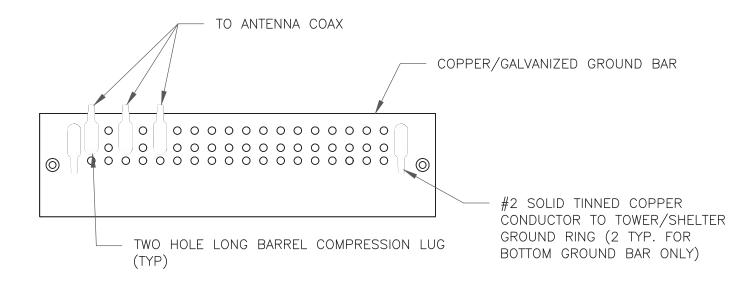
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# NOTES:

- 1. DOUBLING UP "OR STACKING" OF CONNECTIONS IS NOT PERMITTED.
- 2. 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.

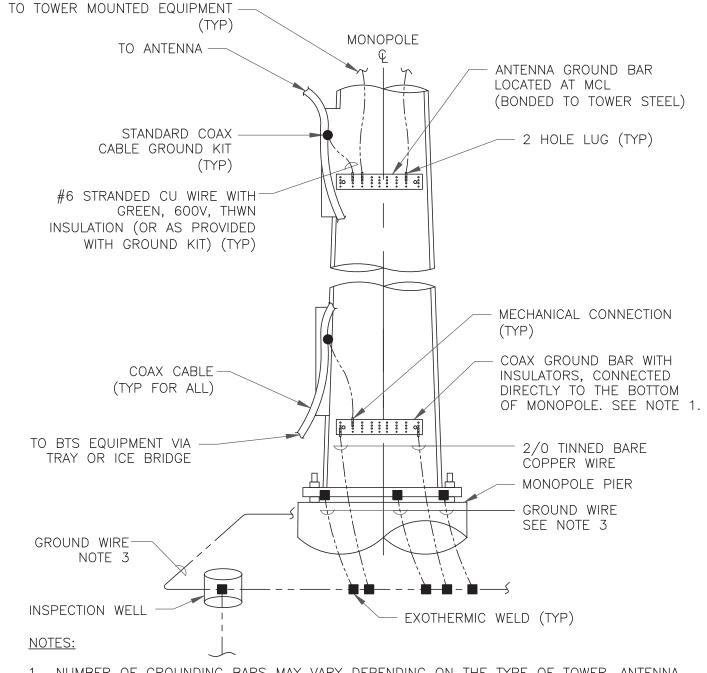




### NOTES:

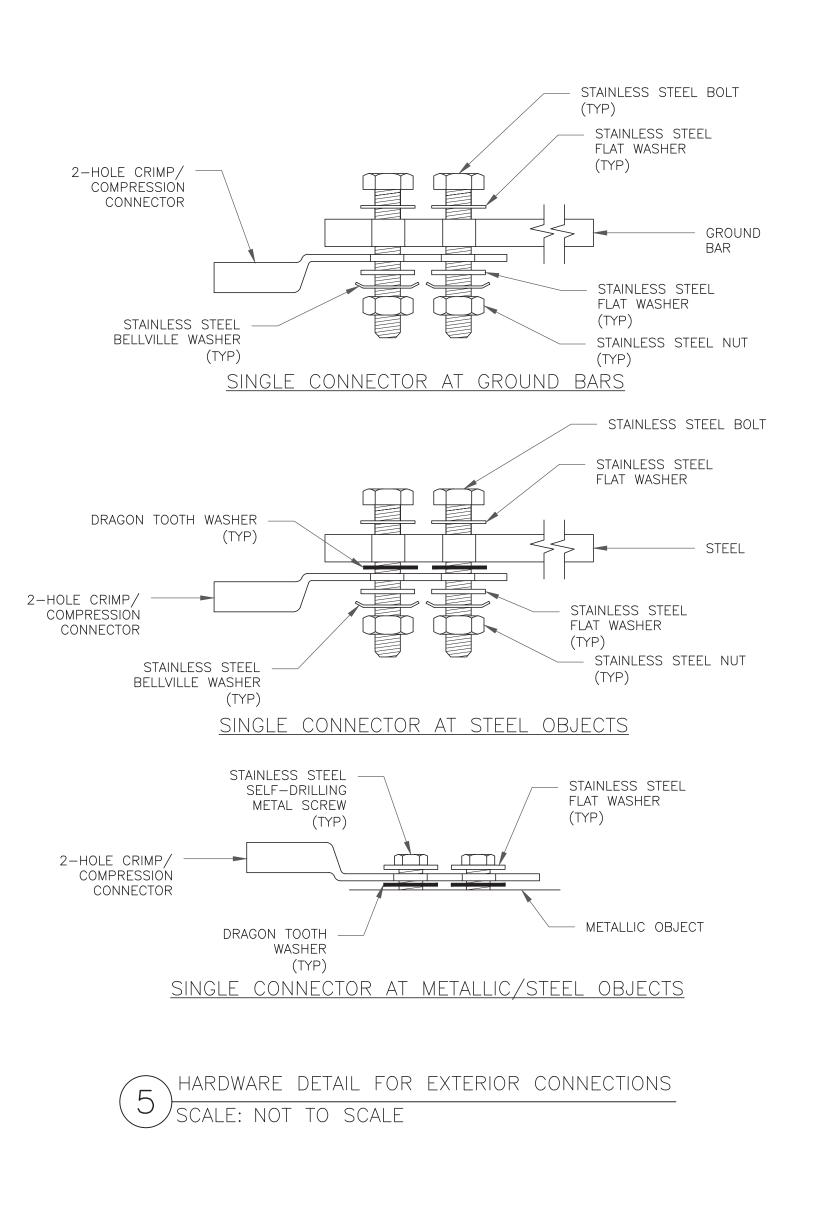
- 1. EXTERIOR ANTIOXIDANT JOINT COMPOUND TO BE USED ON ALL EXTERIOR CONNECTIONS.
- 2. GROUND BAR SHALL NOT BE ISOLATED FROM TOWER. MOUNT DIRECTLY TO TOWER STEEL (TOWER ONLY).
- 3. GROUND BAR SHALL BE ISOLATED FROM BUILDING OR SHELTER.

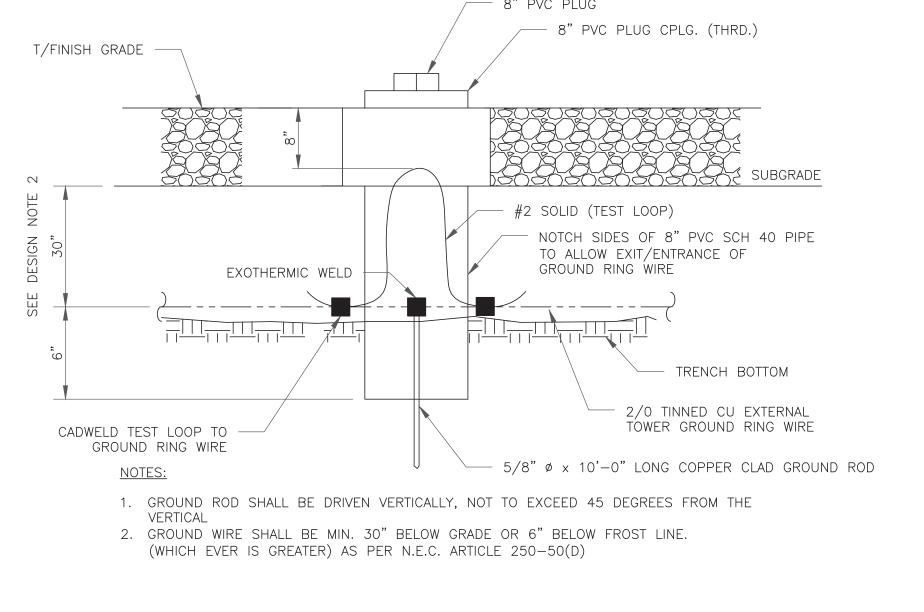




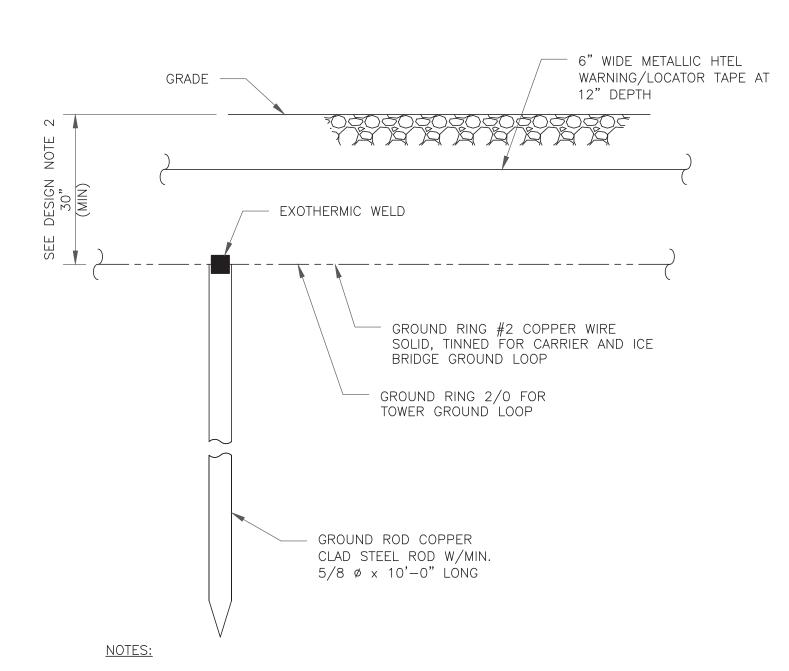
- 1. NUMBER OF GROUNDING BARS MAY VARY DEPENDING ON THE TYPE OF TOWER, ANTENNA LOCATIONS AND CONNECTION ORIENTATION. COAXIAL CABLES EXCEEDING 200 FEET ON THE TOWER SHALL HAVE GROUND KITS AT THE MIDPOINT. PROVIDE AS REQUIRED.
- 2. ONLY MECHANICAL CONNECTIONS ARE ALLOWED TO BE MADE TO CROWN CASTLE USA INC. TOWERS. ALL MECHANICAL CONNECTIONS SHALL BE TREATED WITH AN ANTI-OXIDANT COATING.
- 3. ALL TOWER GROUNDING SYSTEMS SHALL COMPLY WITH THE REQUIREMENTS OF THE RECOGNIZED EDITION OF ANSI/TIA 222 AND NFPA 780.







INSPECTION WELL DETAIL SCALE: NOT TO SCALE



- 1. GROUND ROD SHALL BE DRIVEN VERTICALLY, NOT TO EXCEED 45 DEGREES FROM THE
- 2. GROUND WIRE SHALL BE MIN. 30" BELOW GRADE OR 6" BELOW FROST LINE. (WHICH EVER IS GREATER) AS PER N.E.C. ARTICLE 250-50(D)







CLIFTON PARK, NY 12065

BLOOMFIELD, CT 06002



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www.btgrp.com

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1081 NORTH STREET GREENWICH, CT 06831

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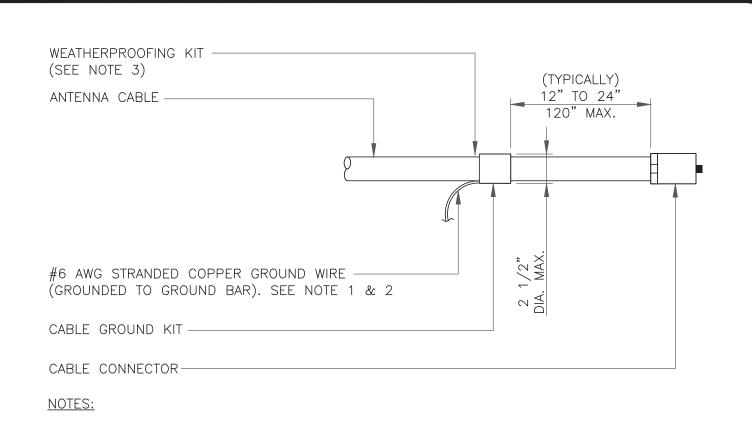
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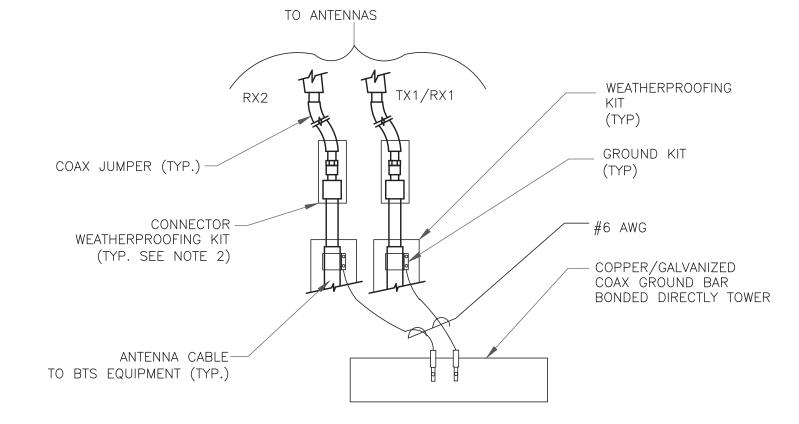
# NOTE:

- 1. ERICO EXOTHERMIC "MOLD TYPES" SHOWN HERE ARE EXAMPLES. CONSULT WITH CONSTRUCTION MANAGER FOR SPECIFIC
- MOLDS TO BE USED FOR THIS PROJECT. 2. MOLD TYPE ONLY TO BE USED BELOW GRADE WHEN CONNECTING GROUND RING TO GROUND ROD.

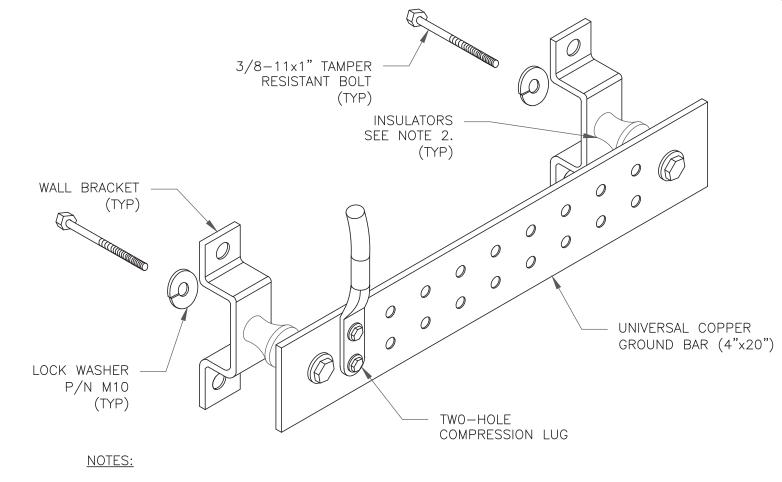
CADWELD GROUNDING CONNECTIONS SCALE: NOT TO SCALE



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



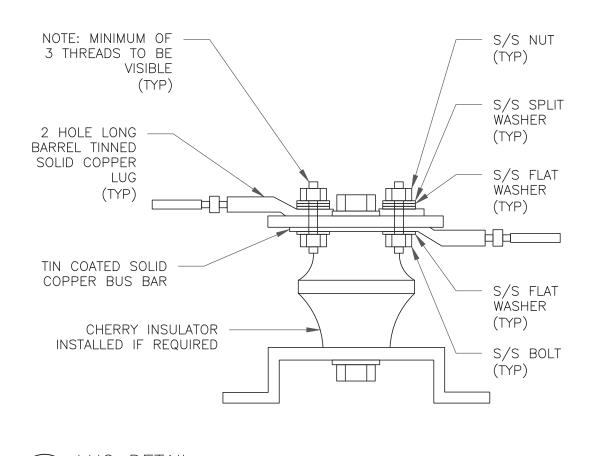
- 1. DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO ANTENNA GROUND BAR.
- 2. WEATHER PROOFING SHALL BE TWO-PART TAPE KIT. COLD SHRINK SHALL NOT BE
- GROUND CABLE CONNECTION SCALE: NOT TO SCALE



1. DOWN LEAD (HOME RUN) CONDUCTORS ARE NOT 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.

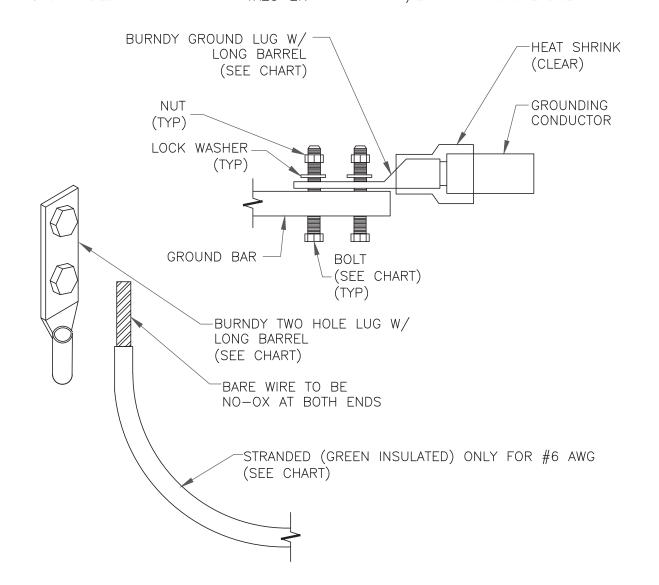
2. OMIT INSULATOR WHEN MOUNTING TO TOWER STEEL OR PLATFORM STEEL USE INSULATORS WHEN ATTACHING TO BUILDING OR SHELTERS.

GROUND BAR DETAIL SCALE: NOT TO SCALE



LUG DETAIL SCALE: NOT TO SCALE

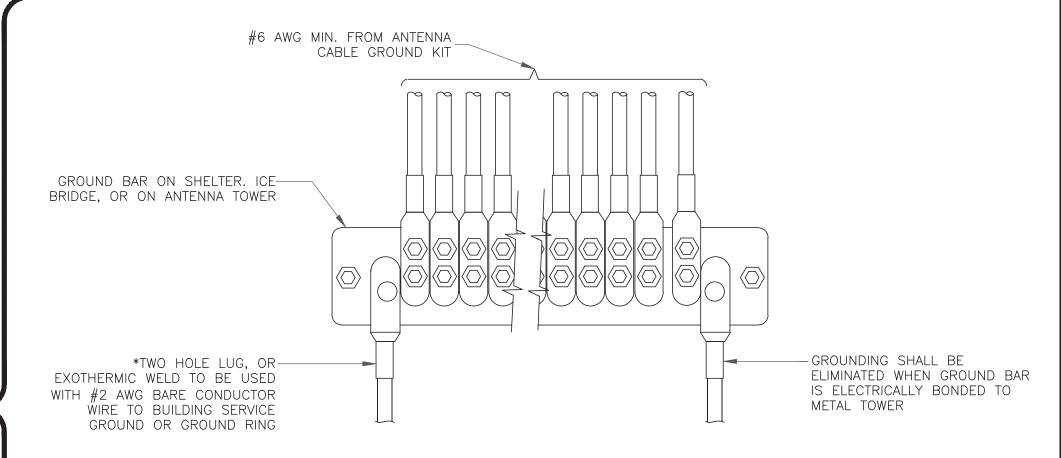
WIRE SIZE BURNDY LUG BOLT SIZE #6 AWG GREEN INSULATED YA6C-2TC38 3/8" - 16 NC S 2 BOLT 3/8" - 16 NC S 2 BOLT #2 AWG SOLID TINNED YA3C-2TC38 #2 AWG STRANDED YA2C-2TC38 3/8" - 16 NC S 2 BOLT 3/8" - 16 NC S 2 BOLT #2/0 AWG STRANDED YA26-2TC38 #4/0 AWG STRANDED YA28-2N 1/2" - 16 NC S 2 BOLT



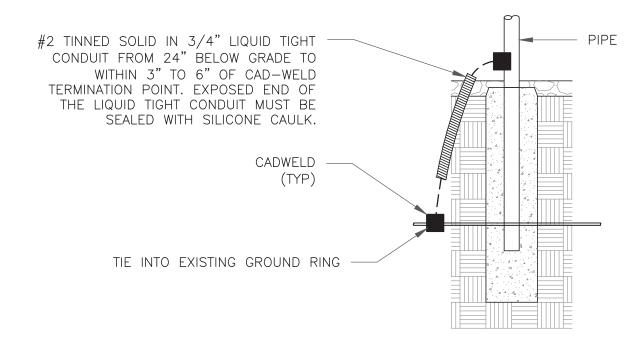
NOTES:

1. ALL GROUNDING LUGS ARE TO BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS. ALL HARDWARE BOLTS, NUTS, LOCK WASHERS SHALL BE STAINLESS STEEL. ALL HARDWARE ARE TO BE AS FOLLOWS: BOLT, FLAT WASHER, GROUND BAR, GROUND LUG, FLAT WASHER AND NUT.

MECHANICAL LUG CONNECTION SCALE: NOT TO SCALE



GROUNDWIRE INSTALLATION SCALE: NOT TO SCALE



TRANSITIONING GROUND DETAIL SCALE: NOT TO SCALE

35 GRIFFIN ROAD

BLOOMFIELD, CT 06002



CLIFTON PARK, NY 12065



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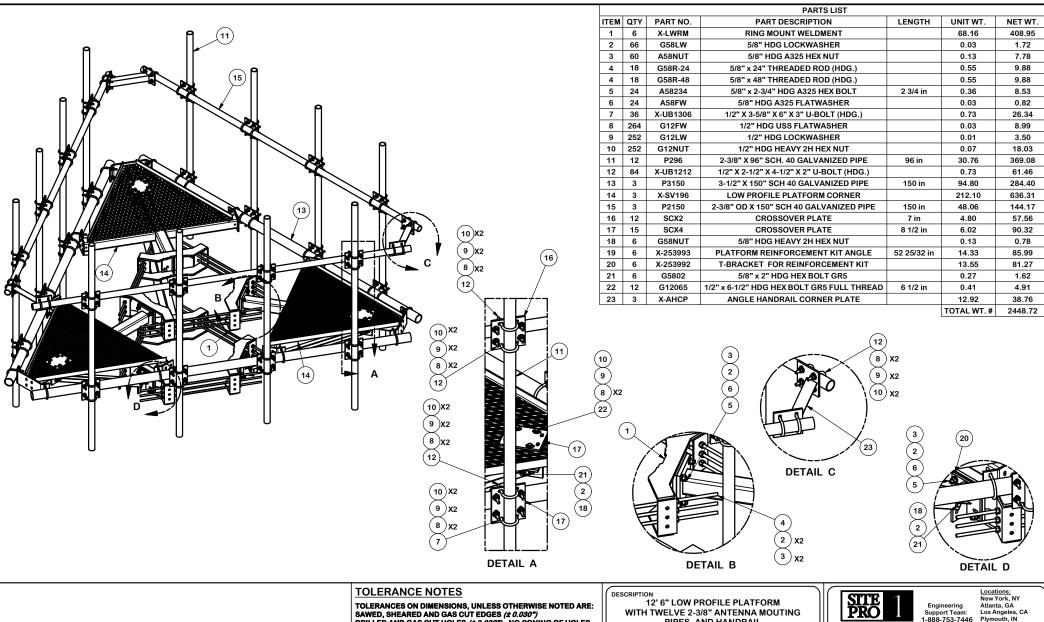
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DRILLED AND GAS CUT HOLES (± 0.030") - NO CONING OF HOLES LASER CUT EDGES AND HOLES (± 0.010") - NO CONING OF HOLES BENDS ARE ± 1/2 DEGREE ALL OTHER MACHINING (± 0.030") ALL OTHER ASSEMBLY (± 0.060")

PROPRIETARY NOTE: THE DATA AND TODNIQUES CONTAINED IN THIS DRAWING ARE PROPRIETARY INFORMATION OF VALIDORY INDUSTRIES AND CONDIDERED A TRADE SECRET. ANY USE OR DISCLOSURE WITHOUT THE CONSENT OF VALIDORY INDUSTRIES IS STRICTLY PROPRIETED.

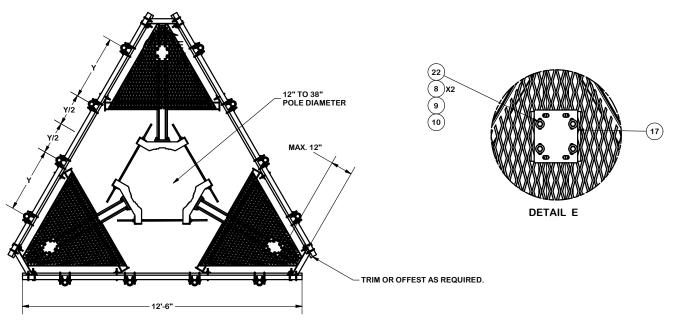
WITH TWELVE 2-3/8" ANTENNA MOUTING PIPES, AND HANDRAIL

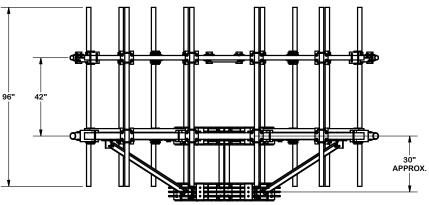


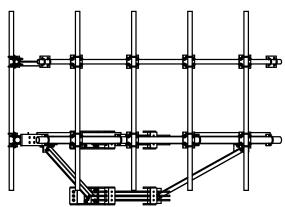
Engineering Support Team: 1-888-753-7446

Plymouth, IN

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### **TOLERANCE NOTES**

TOLERANCES ON DIMENSIONS, UNLESS OTHERWISE NOTED ARE: SAWED, SHEARED AND GAS CUT EDGES (\$ 0.030") - NO CONING OF HOLES LASER CUT EDGES AND HOLES (\$ 0.030") - NO CONING OF HOLES

BENDS ARE ± 1/2 DEGREE

ALL OTHER MACHINING (± 0.030") ALL OTHER ASSEMBLY (± 0.060")

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# DESCRIPTION 12' 6" LOW PROFILE PLATFORM WITH TWELVE 2-3/8" ANTENNA MOUTING

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PIPES, AND HANDRAIL

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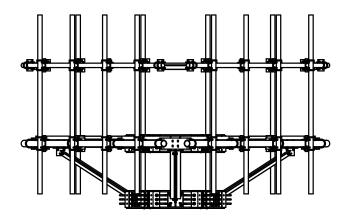
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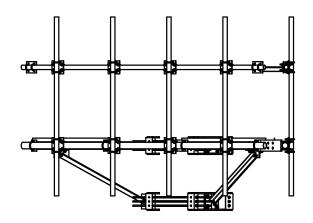


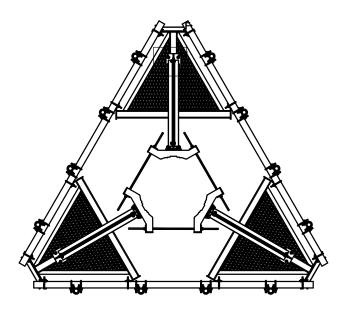
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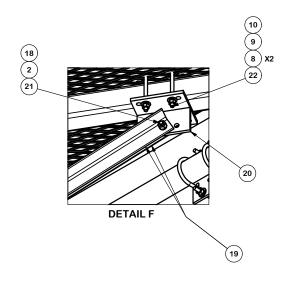
PART NO. RMQP-496-HK PAGE OF 3 DWG. NO. RMQP-496-HK

Engineering Atlanta, GA
Support Team: Locations:
New York, NY
Atlanta, GA
1-888-753-7446
Plymouth, IN
Salem, OR
Dallas, TX









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### DESCRIPTION

CPD NO.

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CLASS SUB

12' 6" LOW PROFILE PLATFORM
WITH TWELVE 2-3/8" ANTENNA MOUTING PIPES, AND HANDRAIL



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CUSTOMER	BMC 7/14/2014	RMQP-496-HK	

Locations:
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Engineering Atlanta, GA
Support Team: Los Angeles, CA
Plymouth, IN
Salem, OR
Dallas, TX