

July 22, 2024

Melanie A. Bachman, Esq.
Executive Director/Staff Attorney
Connecticut Siting Council
10 Franklin Square
New Britain, CT 06051

Re: **Docket No. 494 – Cellco Partnership d/b/a Verizon Wireless Certificate of Environmental Compatibility and Public Need for the construction, maintenance and operation of a telecommunications facility located south of Chestnut Hill Road at the intersection of Grilley Road and Lyman Road (Parcel No. 104-1-5B), Wolcott, Connecticut**

Request for AT&T's final emergency backup generator and fuel tank configuration

Dear Attorney Bachman:

Enclosed please find AT&T's final emergency backup generator specifications and a revised Compound and Equipment Plan showing AT&T's final fuel tank configuration for the proposed Wolcott South facility. This information is submitted in response to Condition No. 1 of the Council's May 27, 2022 D&M Plan approval.

Please let me know if you have questions or require additional information.

Sincerely,



Kenneth C. Baldwin

Copy to:

AJ DeSantis, Vertical Bridge
Dan Bilezekian, SAI



20 kW LPG Generator in Vertical Enclosure POLAR Model Number: V020PFB360TEB

All APUs include:

- Powder coated aluminum enclosure
- 8-alarm relay board
- Jump Start Kit
- IOT device for remote monitoring

Options available:

- Oil refining kit
- Coastal Coating

Standards:

- UL STD 2200
- EPA Compliant

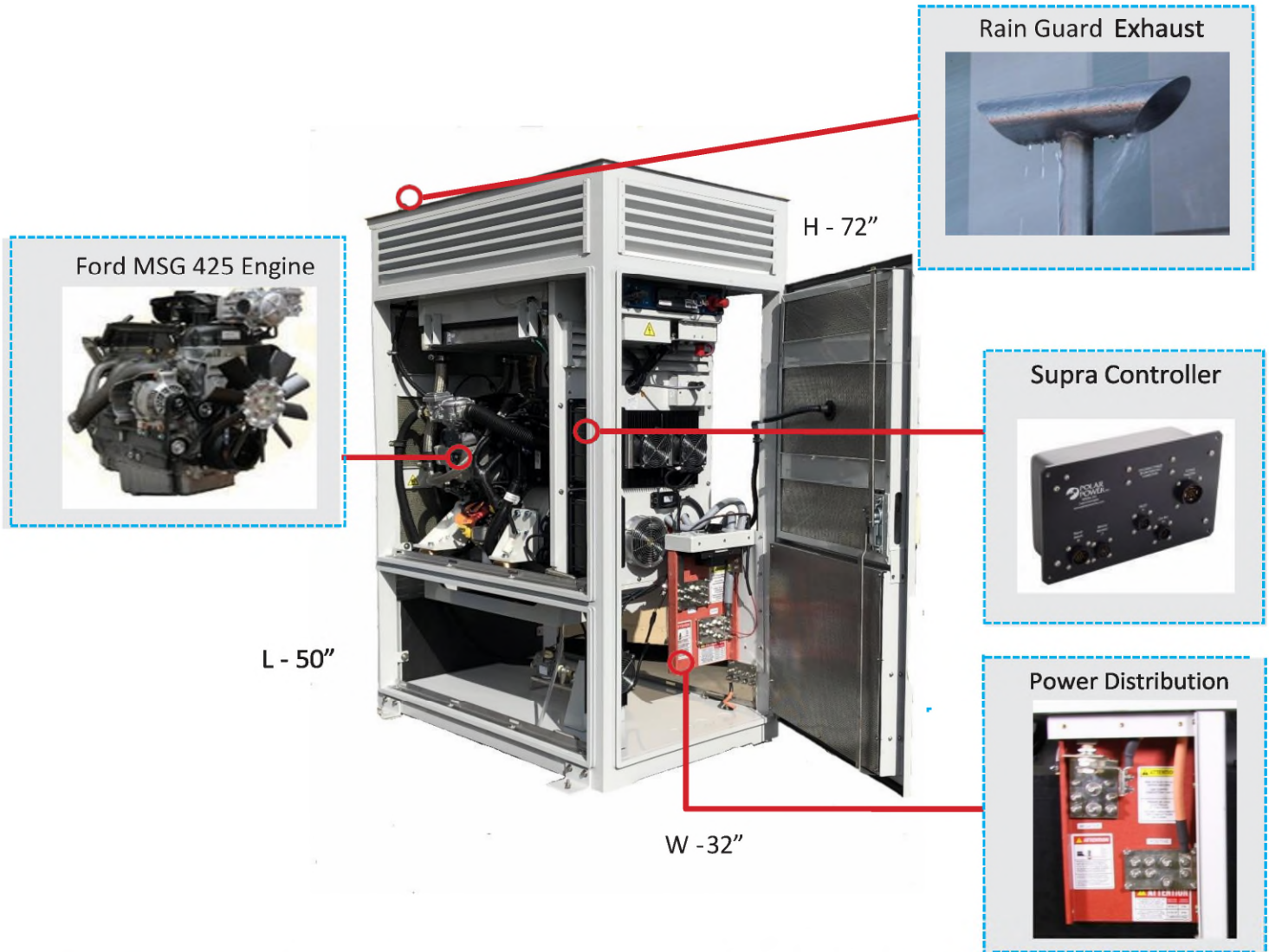


Founded in 1979 Polar Power specialized in solar photovoltaic systems, solar air conditioning and refrigeration. We developed and provided photovoltaic charging controls for telecommunications in the 1980s along with DC generators for the military. In 1994 we were first to provide DC generators with remote control and monitoring to the telecommunications industry.

Polar's success is based on engineering generators to meet the very specific needs of each application. Telecom site optimization is best met with the DC generator technology as the loads and batteries are DC. It makes no sense to install an AC generator and convert the output to DC. The AC generators are designed for a wide range of applications and they are not specifically produced for telecom applications so there are issues with reliability, space, and fuel efficiency.

Polar can save you considerable time and cost in permitting, installing, purchasing, and maintaining a backup generator. We reduce CAPEX and OPEX costs while improving backup reliability.

MAIN FEATURES: V020PFB360TEB



SMALL FOOTPRINT, LIGHT WEIGHT. Polar's vertical 500amp -48V DC generator is the lightest weight, most compact power source on the market for either prime or backup power applications. This 27kw model is sized to support growing telecom power needs associated with 5G or sites with multiple tenants. It fits where traditional generators won't.

GREATLY REDUCED INSTALLATION COST. This generator is light weight and compact enough to be moved up to the roof in the elevator then up the stairs to the roof, saving the cost of a crane rental and long delays in crane permitting and street closures. The light weight also reduces or eliminates the need for structure or roof reinforcements. The Polar generator requires no ATS, saving on purchase, installation and reliability costs.

LOW ACOUSTIC NOISE. <66.0 dBA @ 7 meters (@ max load), and low vibration so as not to disturb the local residents or building landlords.

LOW MAINTENANCE COST. Serving long utility outages without maintenance breaks.

RODENT RESISTANT. Small animals can quickly destroy a generator set by gnawing on wires, fuel lines, radiator

hoses, etc. Cooling air inlets and outlets have perforated aluminum screens to keep small rodents and large insects out. Stainless steel wire braid is placed over fuel and radiator lines to prevent damage.

LONG LIFE. Controls and wire harnesses are designed to exceed a 20 year life. Higher grade, longer life electrical wire (UL 3173), weather tight connectors, gold plated connector pins on signal circuits. No transfer switches are required.

CORROSION RESISTANT. All-aluminum enclosure with stainless hardware for low maintenance, and long service life.

FUEL EFFICIENT. Up to 85% fuel savings due to smaller engine displacement, high efficiency alternator, and variable speed operation.

ADVANCED MONITORING. Included IoT device that provides secure real time data monitoring and remote diagnostics via CANBUS, RS232, and Edge compute abilities.

SPECIFICATIONS: V020PFB360TEB

Engine

Engine Model	Ford MSG 425
Cylinders	Inline Type 4-Cylinder
Displacement (liters)	2.5
Bore (in./mm)	3.5/89
Stroke (in./mm)	3.94/100
Intake Air System	Naturally Aspirated
Engine HP	60 at 2500RPM
Emissions	U.S. EPA Tier 4 Interim
Emissions Compliance	EPA and CARB Certified
Variable RPM	Up to 2500

Engine lubrication system

Oil Filter Type	Full flow spin-on canister
Oil Capacity (L)	6.6
Oil Pressure Switch (standard)	Yes
Oil Pressure Transducer	Optional

Fuel Flow Requirement

Output (kW)	Flow Rate in Ga/hr
20KW at 2000RPM	3.4

Engine cooling system

Type	Pressurized Aluminum Radiator
Water Pump	Belt Driven, Pre-Lubed, Self-Sealing
Fan Type	Electric Fans
Airflow CFM	2354
Fan Mode	Puller
Temperature Sensor	Yes

Environmental

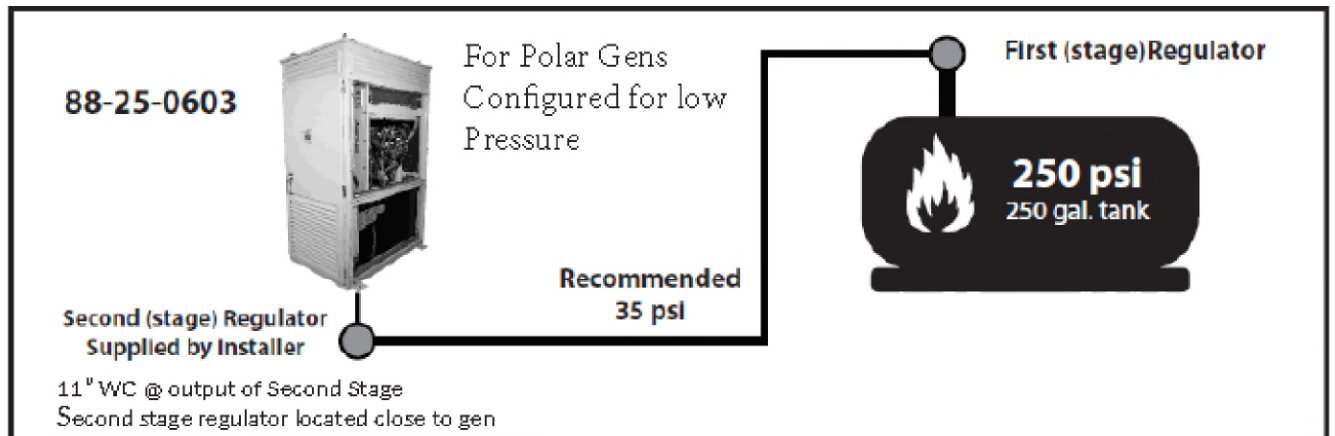
Operating Temperature (°C/°F)	-23 to 50/-10 to 122
Operating Humidity %	100

Power adjustment for conditions

Temperature Deration	2% derate for every 5.6 °C (10 °F) above 25 °C (77 °F)
Altitude Deration	4% derate for every 300 m (1000ft) above 91 m (300 ft)

Fuel system

Type	NG
Fuel Pump Type	Fuel Solenoids
Fuel Tank/Line	Fuel tank N/A/ Line 1 st & 2 nd stage regulator supplied by customer



**POLAR 27kW GENERATOR WITH FORD MODEL MSG-425 ENGINE
VAPOR FUEL ONLY**

INLET PRESSURE REQUIREMENTS FOR NATURAL GAS

Rev 0 020722

Minimum Dynamic Pressure	Recommended Dynamic Pressure	Maximum Static Pressure
2.0 in H2O	4.0 in H2O	11.0 in H2O
.072 PSI	.145 PSI	.397 PSI
4.98 mbar	9.96 mbar	27.40 mbar

Size Regulator and Fuel Lines for 352,000 Btu/hr or 3.4 gal/hr

- **Maximum Static Pressure** is measured just before the Shut off Valve (SOV) with the engine NOT running.
 - The measurement is taken and verified after the Dynamic Pressure measurements. Exceeding this pressure will damage the SOV and the Demand Regulator with the potential of causing fire or explosion.
- **Recommended Dynamic Pressure** is measured with the generator operating at full load.
 - Too small of a regulator on the gas line or too much restriction in the fuel line may prevent the gas pressure from reaching the recommended pressure.
- **Minimum Dynamic Pressure** is measured with the generator operating at full load. Below this value the generator output will begin to drop. Much below this value the generator may not start.
- The Regulator and/or the gas line may be too small if the Maximum Static Pressure is exceeded to reach the Recommended Dynamic Pressure.
- Please read the Installation manual before running the unit.

Engine cooling

System coolant capacity (gal/L)	2.5/9.5
---------------------------------	---------

Alternator

Alternator Model	8342
Type	Permanent Magnets, NdFeB
Weight (lb/kg)	46.5/21
Regulation Type	Variable engine speed
Stator	6 phase/32 poles
Overcurrent Protection (A)	20 kW – 360Amps
Disconnect Means	450Amp Fuse
Voltage Range (VDC)	44 to 60
Alternator Exhaust Flow (cfm/cmm)	130 to 180 / 3.68 to 5.1
MTBF (hr)	100,000+

Enclosure

Model	88-25-0603
Type	Weather Protective
Materials	Powder coated aluminum
Door Hardware	Three Point with Padlock Hasp, and Removable Side Panels
Mounting	Secure Mounting Tabs
Dims.	L 50" x W 32" x H 72"

Weight

Total Weight (lb/kg) Including oil and coolant:	1165/529
--	----------

Starter Supercapacitor

Model	20-16-0001
Storage Rating (Ah)	500
Voltage (VDC)	13-14.4
Weight (lb/kg)	12.1/5.5
Operating Temperature (°C/°F)	-40 to 65 / -40 to 149
Service Life (year)	10 to 15

Charger

Model	00-10-0015
Input Voltage (VDC)	37 to 62
Output Voltage (VDC)	14 to 14.4
Recharge time from 0 VDC (min)	10
Recharge time from 8 VDC (min)	2
Weight (lb/kg)	2.2/1

Standards

	Intertek 400376
UL Listing	UL STD 2200
Standards	CSA STD C22.2 No. 100

Controller features

Controller Type	Supra Model 250
4-Line Plain Text OLED Display.....	Simple user interface for ease of operation
Engine Run Hours Indication.....	Standard
Programmable Start Delay	Standard
Run/Alarm/Maintenance Logs	Standard
Engine Start SequenceCyclic cranking: 5 sec on, 30 sec rest (6 attempts maximum)
Starter Supercapacitor Charger	Standard
Automatic Voltage Regulation with Over and Under Voltage Protection	Standard
Automatic Low Oil Pressure/High Oil Temperature Shutdown	Standard
Overcrank/Overspeed.....	Standard
Automatic High Engine Temperature Shutdown.....	Standard
Field Upgradeable Firmware.....	Standard
Engine Start Delay.....	Adjustable, Set at 30 sec
Return to Utility Delay.....	Adjustable, Set at 30 sec
Engine Cool-down.....	Adjustable, Set at 30 sec
Exerciser	Programmable

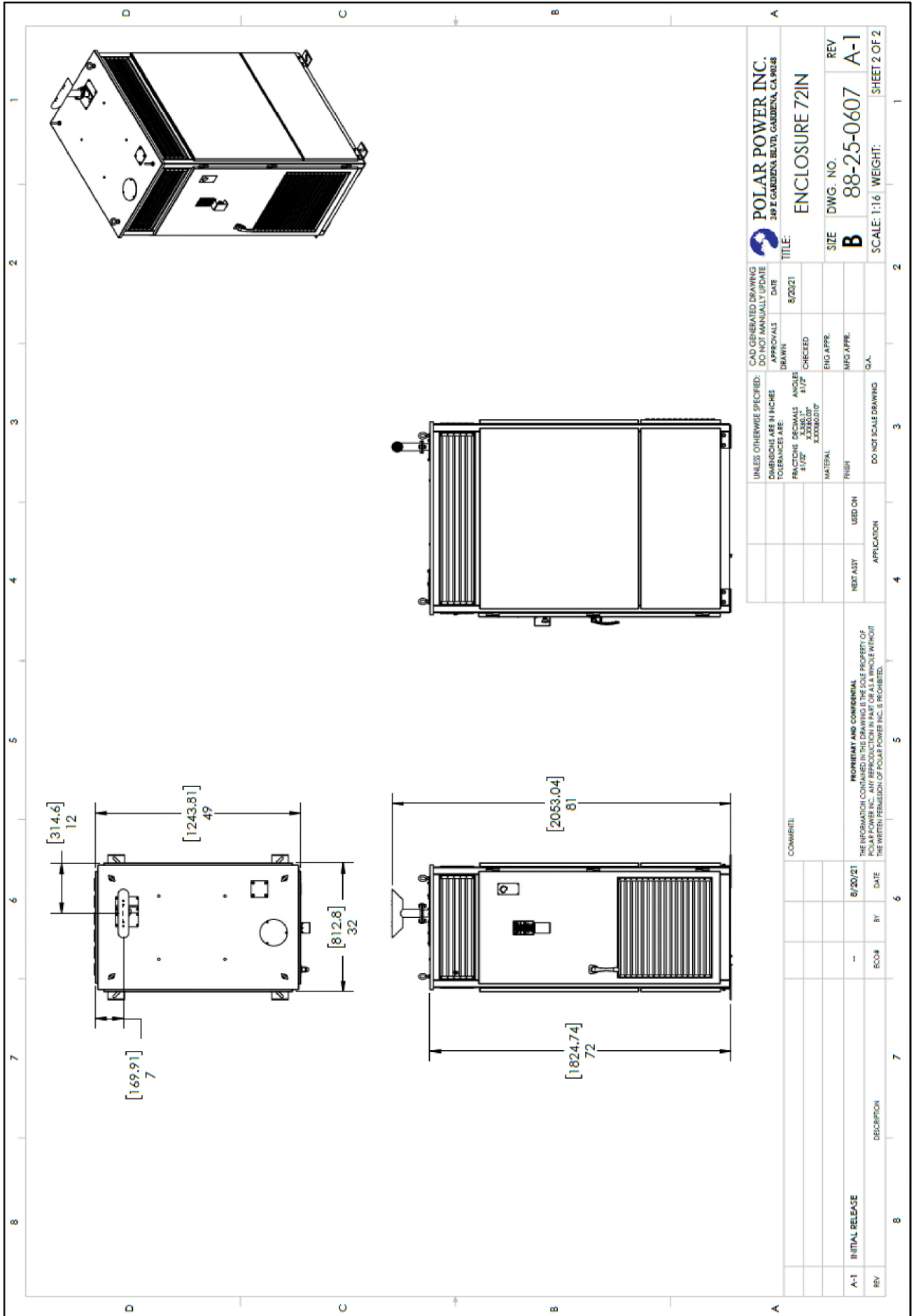
Monitoring

Alarm monitoring and remote control through Ethernet.

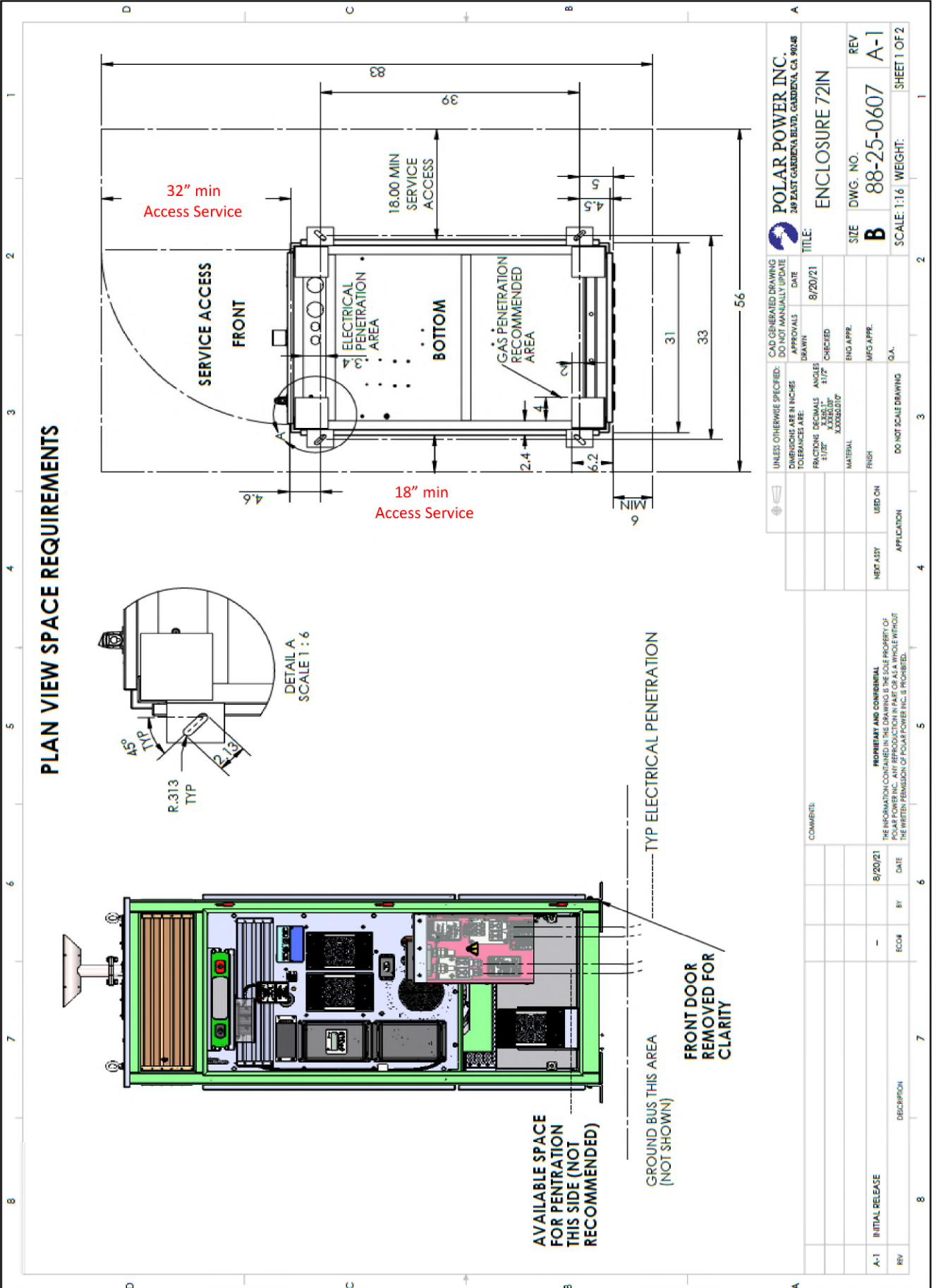
Contact closure alarm board

Shutdown Alarm	Standard
Warning Alarm.....	Standard
Engine Run.....	Standard
E-Stop Depressed	Standard

DIMENSION DRAWING FOR: V020PFB360TEB



PLAN VIEW SPACE REQUIREMENTS



CAD GENERATED DRAWING DO NOT MANUALLY UPDATE		APPROVALS DATE: 8/20/21		POLAR POWER INC. 289 EAST GARDENA BLVD., GARDENA, CA 90248	
DIMENSIONS ARE IN INCHES TOLERANCES ARE:		DRAWN: [] CHECKED: []		TITLE: ENCLOSURE 72IN	
FRACTIONS: 3/32, 1/16, 1/8, 3/16, 1/4, 3/8, 1/2, 5/8, 3/4, 7/8, 1		ANGLES: 45, 90, 120, 135, 180		SIZE: B DWG. NO.: 88-25-0607 SCALE: 1:16 WEIGHT:	
MATERIAL:		ENG APPR:		REV: A-1	
FINISH:		MFG APPR:		SHEET 1 OF 2	
DO NOT SCALE DRAWING		Q.A.:		SCALE: 1:16 WEIGHT:	
NEXT ASSY:		USED ON:		APPLICATION:	
PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF POLAR POWER INC. AND IS TO BE USED ONLY FOR THE PROJECT AND SITE WITHOUT THE WRITTEN PERMISSION OF POLAR POWER INC. IS PROHIBITED.		DATE: 8/20/21		BY: ECOM	
INITIAL RELEASE		DESCRIPTION:		8	



249 E. Gardena Blvd., Gardena, CA 90248
Tel.: +1(310)8309153 • Fax: +1(310)7192385
info@polarpowerinc.com • www.polarpower.com

PROJECT INFORMATION

SCOPE OF WORK: TELECOMMUNICATIONS FACILITY (NSB A EXISTING 120'-0" A.G.L. TALL MONOPOLE, PROPOSED WALK-IN CABINET, AND GENERATOR WILL BE INSTALLED AT GRADE INSIDE A PROPOSED FENCED-IN COMPOUND. PROPOSED SIX PANEL ANTENNAS AND ASSOCIATED EQUIPMENT WILL BE INSTALLED AT A HEIGHT OF 105'-0" A.G.L.):

SITE ADDRESS: CHESTNUT HILL ROAD
WOLCOTT, CT 06716

APPLICANT: AT&T
429 OLD CONNECTICUT PATH SUITE #210
FRAMINGHAM, MA 01701

SITE OWNER: PAL PROPERTIES LLC
1141 WOLCOTT RD
WOLCOTT, CT 06716

LATITUDE: 41.59008 N, 41° 35' 24.28" N

LONGITUDE: 73.00861 W, 73° 00' 31.02" W

TYPE OF SITE: MONOPOLE/ WALK-IN CABINET

TOWER HEIGHT: 120'-0"±

RAD CENTER: 105'-0"±



SITE NUMBER: CT1432

SITE NAME: WOLCOTT CAPACITY

FA CODE:15253680

**PACE ID: MRCTB046415, MRCTB049194, MRCTB049196,
MRCTB049197, MRCTB049200**

PROJECT: NSB

DRAWING INDEX

SHEET NO.	DESCRIPTION	REV.
T-1	TITLE SHEET	6
GN-1	GENERAL NOTES	6
SN-1	SPECIAL INSPECTIONS NOTES	6
C-1	SITE PLAN	6
A-1	COMPOUND & EQUIPMENT PLANS	6
A-2	ANTENNA LAYOUT & ELEVATION	6
A-3	DETAILS	6
A-4	EQUIPMENT DETAILS	6
A-5	PROPANE TANK DETAILS	6
E-1	ELECTRICAL NOTES & ONE-LINE DIAGRAM	6
G-1	GROUNDING DETAILS	6
G-2	GROUNDING PLAN	6
G-3	GROUNDING PLAN	6
RF-1	RF PLUMBING DIAGRAM	6

VICINITY MAP

DIRECTIONS TO SITE:

HEAD NORTHEAST ON OLD CONNECTICUT PATH TOWARD SEALTEST DR. TURN RIGHT ONTO SPEEN ST. TURN RIGHT ONTO MA-30 / COCHITUATE RD. TAKE THE RAMP ON THE RIGHT FOR I-90 EAST / I-84 WEST AND HEAD TOWARD BOSTON / SPRINGFIELD. AT EXIT 78, HEAD RIGHT ON THE RAMP FOR I-84 TOWARD HARTFORD / NEW YORK CITY. KEEP STRAIGHT TO STAY ON I-84 W. KEEP RIGHT TO GET ONTO CT-72 W. CONTINUE ON PINE ST. KEEP LEFT TO GET ONTO SOUTH ST. TURN LEFT ONTO WILLIS ST. KEEP STRAIGHT TO GET ONTO LONG SWAMP RD. TURN LEFT ONTO CT-69 / WOLCOTT RD. TURN RIGHT ONTO POTUCCOS RING RD. TURN RIGHT ONTO LYMAN RD. TURN LEFT ONTO CHESTNUT HILL RD. TURN RIGHT TO STAY ON CHESTNUT HILL RD. CHESTNUT HILL RD, WOLCOTT, CT 06716 WILL BE ON THE LEFT.



GENERAL NOTES

1. THIS DOCUMENT IS THE CREATION, DESIGN, PROPERTY AND COPYRIGHTED WORK OF AT&T. ANY DUPLICATION OR USE WITHOUT EXPRESS WRITTEN CONSENT IS STRICTLY PROHIBITED. DUPLICATION AND USE BY GOVERNMENT AGENCIES FOR THE PURPOSES OF CONDUCTING THEIR LAWFULLY AUTHORIZED REGULATORY AND ADMINISTRATIVE FUNCTIONS IS SPECIFICALLY ALLOWED.
2. THE FACILITY IS AN UNMANNED PRIVATE AND SECURED EQUIPMENT INSTALLATION. IT IS ONLY ACCESSED BY TRAINED TECHNICIANS FOR PERIODIC ROUTINE MAINTENANCE AND THEREFORE DOES NOT REQUIRE ANY WATER OR SANITARY SEWER SERVICE. THE FACILITY IS NOT GOVERNED BY REGULATIONS REQUIRING PUBLIC ACCESS PER ADA REQUIREMENTS.
3. CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE AT&T MOBILITY REPRESENTATIVE IN WRITING OF DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.
4. CONSTRUCTION DRAWINGS ARE VALID FOR SIX MONTHS AFTER ENGINEER OF RECORD'S STAMPED AND SIGNED SUBMITTAL DATE LISTED HEREIN.

72 HOURS



CALL BEFORE YOU DIG



CALL TOLL FREE 1-800-922-4455
OR CALL 811

UNDERGROUND SERVICE ALERT



SITE NUMBER: CT1432
SITE NAME: WOLCOTT CAPACITY

CHESTNUT HILL ROAD
WOLCOTT, CT 06716
NEW HAVEN COUNTY



429 OLD CONNECTICUT PATH SUITE #210
FRAMINGHAM, MA 01701

6	07/17/24	REVISED FOR CONSTRUCTION	RB	JC	DPH
5	05/22/24	REVISED FOR CONSTRUCTION	TR	JC	DPH
4	04/12/24	ISSUED FOR CONSTRUCTION	TR	JC	DPH
3	11/17/22	ISSUED FOR PERMITTING	CJ	JC	DPH
2	07/28/22	ISSUED FOR REVIEW	MJ	JC	DPH
NO.	DATE	REVISIONS	BY	CHK	APP'D
SCALE: AS SHOWN		DESIGNED BY: JC	DRAWN BY: TR		

AT&T		
TITLE SHEET (NSB)		
SITE NUMBER	DRAWING NUMBER	REV
CT1432	T-1	6

GROUNDING NOTES

1. THE SUBCONTRACTOR SHALL REVIEW AND INSPECT THE EXISTING FACILITY GROUNDING SYSTEM AND LIGHTNING PROTECTION SYSTEM (AS DESIGNED AND INSTALLED) FOR STRICT COMPLIANCE WITH THE NEC (AS ADOPTED BY THE AHJ), THE SITE-SPECIFIC (UL, LPI, OR NFPA) LIGHTNING PROTECTION CODE, AND GENERAL COMPLIANCE WITH TELCORDIA AND TIA GROUNDING STANDARDS. THE SUBCONTRACTOR SHALL REPORT ANY VIOLATIONS OR ADVERSE FINDINGS TO THE CONTRACTOR FOR RESOLUTION.
2. 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.
3. THE SUBCONTRACTOR SHALL PERFORM IEEE FALL-OF-POTENTIAL RESISTANCE TO EARTH TESTING (PER IEEE 1100 AND 81 STANDARDS) FOR NEW GROUND ELECTRODE SYSTEMS. THE SUBCONTRACTOR SHALL FURNISH AND INSTALL SUPPLEMENTAL GROUND ELECTRODES AS NEEDED TO ACHIEVE A TEST RESULT OF 5 OHMS OR LESS.
4. 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.
5. EACH BTS CABINET FRAME SHALL BE DIRECTLY CONNECTED TO THE MASTER GROUND BAR WITH GREEN INSULATED SUPPLEMENTAL EQUIPMENT GROUND WIRES, #6 AWG STRANDED COPPER OR LARGER FOR INDOOR BTS AND #2 AWG STRANDED COPPER FOR OUTDOOR BTS.
6. EXOTHERMIC WELDS SHALL BE USED FOR ALL GROUNDING CONNECTIONS BELOW GRADE.
7. APPROVED ANTIOXIDANT COATINGS (I.E., CONDUCTIVE GEL OR PASTE) SHALL BE USED ON ALL COMPRESSION AND BOLTED GROUND CONNECTIONS.
8. ICE BRIDGE BONDING CONDUCTORS SHALL BE EXOTHERMICALLY BONDED OR BOLTED TO GROUND BAR.
9. ALUMINUM CONDUCTOR OR COPPER CLAD STEEL CONDUCTOR SHALL NOT BE USED FOR GROUNDING CONNECTIONS.
10. MISCELLANEOUS ELECTRICAL AND NON-ELECTRICAL METAL BOXES, FRAMES AND SUPPORTS SHALL BE BONDED TO THE GROUND RING, IN ACCORDANCE WITH THE NEC.
11. METAL CONDUIT SHALL BE MADE ELECTRICALLY CONTINUOUS WITH LISTED BONDING FITTINGS OR BY BONDING ACROSS THE DISCONTINUITY WITH #6 AWG COPPER WIRE UL APPROVED GROUNDING TYPE CONDUIT CLAMPS.
12. ALL NEW STRUCTURES WITH A FOUNDATION AND/OR FOOTING HAVING 20 FT. OR MORE OF 1/2 IN. OR GREATER ELECTRICALLY CONDUCTIVE REINFORCING STEEL MUST HAVE IT BONDED TO THE GROUND RING USING AN EXOTHERMIC WELD CONNECTION USING #2 AWG SOLID BARE TINNED COPPER GROUND WIRE, PER NEC 250.50

GENERAL NOTES

1. FOR THE PURPOSE OF CONSTRUCTION DRAWING, THE FOLLOWING DEFINITIONS SHALL APPLY:
 CONTRACTOR – SAI
 SUBCONTRACTOR – GENERAL CONTRACTOR (CONSTRUCTION)
 OWNER – AT&T MOBILITY
2. PRIOR TO THE SUBMISSION OF BIDS, THE BIDDING SUBCONTRACTOR 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 CONTRACTOR.
3. ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES. SUBCONTRACTOR 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.
4. DRAWINGS PROVIDED HERE ARE NOT TO BE SCALED AND ARE INTENDED TO SHOW OUTLINE ONLY.
5. UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES, AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
6. "KITTING LIST" SUPPLIED WITH THE BID PACKAGE IDENTIFIES ITEMS THAT WILL BE SUPPLIED BY CONTRACTOR. ITEMS NOT INCLUDED IN THE BILL OF MATERIALS AND KITTING LIST SHALL BE SUPPLIED BY THE SUBCONTRACTOR.
7. THE SUBCONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
8. IF THE SPECIFIED EQUIPMENT CANNOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE SUBCONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION SPACE FOR APPROVAL BY THE CONTRACTOR.
9. SUBCONTRACTOR SHALL DETERMINE ACTUAL ROUTING OF CONDUIT, POWER AND T1 CABLES, GROUNDING CABLES AS SHOWN ON THE POWER, GROUNDING AND TELCO PLAN DRAWING. SUBCONTRACTOR SHALL UTILIZE EXISTING TRAYS AND/OR SHALL ADD NEW TRAYS AS NECESSARY. SUBCONTRACTOR SHALL CONFIRM THE ACTUAL ROUTING WITH THE CONTRACTOR.
10. THE SUBCONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT SUBCONTRACTOR'S EXPENSE TO THE SATISFACTION OF OWNER.
11. SUBCONTRACTOR 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.
12. SUBCONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION.
13. ALL CONCRETE REPAIR WORK SHALL BE DONE IN ACCORDANCE WITH AMERICAN CONCRETE INSTITUTE (ACI) 301.

14. ANY NEW CONCRETE NEEDED FOR THE CONSTRUCTION SHALL BE AIR-ENTRAINED AND SHALL HAVE 4000 PSI STRENGTH AT 28 DAYS. ALL CONCRETE WORK SHALL BE DONE IN ACCORDANCE WITH ACI 318 CODE REQUIREMENTS.
15. ALL STRUCTURAL STEEL WORK SHALL BE DETAILED, FABRICATED AND ERECTED IN ACCORDANCE WITH AISC SPECIFICATIONS. ALL STRUCTURAL STEEL SHALL BE ASTM A36 (Fy = 36 ksi) UNLESS OTHERWISE NOTED. PIPES SHALL BE ASTM A53 TYPE E (Fy = 36 ksi). ALL STEEL EXPOSED TO WEATHER SHALL BE HOT DIPPED GALVANIZED. TOUCH UP ALL SCRATCHES AND OTHER MARKS IN THE FIELD AFTER STEEL IS ERECTED USING A COMPATIBLE ZINC RICH PAINT.
16. CONSTRUCTION SHALL COMPLY WITH SPECIFICATIONS AND "GENERAL CONSTRUCTION SERVICES FOR CONSTRUCTION OF AT&T SITES."
17. SUBCONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS PRIOR TO COMMENCING ANY WORK. ALL DIMENSIONS OF EXISTING CONSTRUCTION SHOWN ON THE DRAWINGS MUST BE VERIFIED. SUBCONTRACTOR SHALL NOTIFY THE CONTRACTOR OF ANY DISCREPANCIES PRIOR TO ORDERING MATERIAL OR PROCEEDING WITH CONSTRUCTION.
18. THE EXISTING CELL SITE IS IN FULL COMMERCIAL OPERATION. ANY CONSTRUCTION WORK BY SUBCONTRACTOR SHALL NOT DISRUPT THE EXISTING NORMAL OPERATION. ANY WORK ON EXISTING EQUIPMENT MUST BE COORDINATED WITH CONTRACTOR. ALSO, WORK SHOULD BE SCHEDULED FOR AN APPROPRIATE MAINTENANCE WINDOW USUALLY IN LOW TRAFFIC PERIODS AFTER MIDNIGHT.
19. SINCE THE CELL SITE IS ACTIVE, ALL SAFETY PRECAUTIONS MUST BE TAKEN WHEN WORKING AROUND HIGH LEVELS OF ELECTROMAGNETIC RADIATION. EQUIPMENT SHOULD BE SHUTDOWN PRIOR TO PERFORMING ANY WORK THAT COULD EXPOSE THE WORKERS TO DANGER. PERSONAL RF EXPOSURE MONITORS ARE ADVISED TO BE WORN TO ALERT OF ANY DANGEROUS EXPOSURE LEVELS.
20. **APPLICABLE BUILDING CODES:**
 SUBCONTRACTOR'S WORK SHALL COMPLY WITH ALL APPLICABLE NATIONAL, STATE, AND LOCAL CODES AS ADOPTED BY THE LOCAL AUTHORITY HAVING JURISDICTION (AHJ) FOR THE LOCATION. THE EDITION OF THE AHJ ADOPTED CODES AND STANDARDS IN EFFECT ON THE DATE OF CONTRACT AWARD SHALL GOVERN THE DESIGN.

**BUILDING CODE: IBC 2021 WITH 2022 CT STATE BUILDING CODE AMENDMENTS
 ELECTRICAL CODE: 2017 NATIONAL ELECTRICAL CODE (NFPA 70-2017)**

SUBCONTRACTOR'S WORK SHALL COMPLY WITH THE LATEST EDITION OF THE FOLLOWING STANDARDS:

AMERICAN CONCRETE INSTITUTE (ACI) 318; BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE;

AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) MANUAL OF STEEL CONSTRUCTION, ASD, FOURTEENTH EDITION;

TELECOMMUNICATIONS INDUSTRY ASSOCIATION (TIA) 222-H, STRUCTURAL STANDARDS FOR STEEL

FOR ANY CONFLICTS BETWEEN SECTIONS OF LISTED CODES AND STANDARDS REGARDING MATERIAL, METHODS OF CONSTRUCTION, OR OTHER REQUIREMENTS, THE MOST RESTRICTIVE REQUIREMENT SHALL GOVERN. WHERE THERE IS CONFLICT BETWEEN A GENERAL REQUIREMENT AND A SPECIFIC REQUIREMENT, THE SPECIFIC REQUIREMENT SHALL GOVERN.

ABBREVIATIONS

AGL	ABOVE GRADE LEVEL	EQ	EQUAL	REQ	REQUIRED
AWG	AMERICAN WIRE GAUGE	GC	GENERAL CONTRACTOR	RF	RADIO FREQUENCY
BBU	BATTERY BACKUP UNIT	GRC	GALVANIZED RIGID CONDUIT	TBD	TO BE DETERMINED
BTCW	BARE TINNED SOLID COPPER WIRE	MGB	MASTER GROUND BAR	TBR	TO BE REMOVED
BGR	BURIED GROUND RING	MIN	MINIMUM	TBRR	TO BE REMOVED AND REPLACED
BTS	BASE TRANSCEIVER STATION	P	PROPOSED	TYP	TYPICAL
E	EXISTING	NTS	NOT TO SCALE	UG	UNDER GROUND
EGB	EQUIPMENT GROUND BAR	RAD	RADIATION CENTER LINE (ANTENNA)	VIF	VERIFY IN FIELD
EGR	EQUIPMENT GROUND RING	REF	REFERENCE		



SITE NUMBER: CT1432
 SITE NAME: WOLCOTT CAPACITY

CHESTNUT HILL ROAD
 WOLCOTT, CT 06716
 NEW HAVEN COUNTY



492 OLD CONNECTICUT PATH SUITE #210
 FRAMINGHAM, MA 01701

6	07/17/24	REVISED FOR CONSTRUCTION	RB	JC	DPH
5	05/22/24	REVISED FOR CONSTRUCTION	TR	JC	DPH
4	04/12/24	ISSUED FOR CONSTRUCTION	TR	JC	DPH
3	11/17/22	ISSUED FOR PERMITTING	CJ	JC	DPH
2	07/28/22	ISSUED FOR REVIEW	MJ	JC	DPH
NO.	DATE	REVISIONS	BY	CHK	APP'D
SCALE: AS SHOWN		DESIGNED BY: JC	DRAWN BY: TR		

AT&T		
GENERAL NOTES (NSB)		
SITE NUMBER	DRAWING NUMBER	REV
CT1432	GN-1	6

STRUCTURAL NOTES:

- DESIGN REQUIREMENTS ARE PER STATE BUILDING CODE AND APPLICABLE SUPPLEMENTS, INTERNATIONAL BUILDING CODE, EIA/TIA-222-H STRUCTURAL STANDARDS FOR STEEL ANTENNA, TOWERS AND ANTENNA SUPPORTING STRUCTURES.
- CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS IN THE FIELD PRIOR TO FABRICATION AND ERECTION OF ANY MATERIAL. ANY UNUSUAL CONDITIONS SHALL BE REPORTED TO THE ATTENTION OF THE CONSTRUCTION MANAGER AND ENGINEER OF RECORD.
- DESIGN AND CONSTRUCTION OF STRUCTURAL STEEL SHALL CONFORM TO THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION "SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS".
- STRUCTURAL STEEL SHALL CONFORM TO ASTM A992 (Fy=50 ksi), MISCELLANEOUS STEEL SHALL CONFORM TO ASTM A36 UNLESS OTHERWISE INDICATED.
- STEEL PIPE SHALL CONFORM TO ASTM A500 "COLD-FORMED WELDED & SEAMLESS CARBON STEEL STRUCTURAL TUBING", GRADE B, OR ASTM A53 PIPE STEEL BLACK AND HOT-DIPPED ZINC-COATED WELDED AND SEAMLESS TYPE E OR S, GRADE B. PIPE SIZES INDICATED ARE NOMINAL. ACTUAL OUTSIDE DIAMETER IS LARGER.
- STRUCTURAL CONNECTION BOLTS SHALL BE HIGH STRENGTH BOLTS (BEARING TYPE) AND CONFORM TO ASTM A325 TYPE-X "HIGH STRENGTH BOLTS FOR STRUCTURAL JOINTS, INCLUDING SUITABLE NUTS AND PLAIN HARDENED WASHERS". ALL BOLTS SHALL BE 3/4" DIA UN.
- ALL STEEL MATERIALS SHALL BE GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH ASTM A123 "ZINC (HOT-DIP GALVANIZED) COATINGS ON IRON AND STEEL PRODUCTS", UNLESS OTHERWISE NOTED.
- ALL BOLTS, ANCHORS AND MISCELLANEOUS HARDWARE SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 "ZINC-COATING (HOT-DIP) ON IRON AND STEEL HARDWARE", UNLESS OTHERWISE NOTED.
- FIELD WELDS, DRILL HOLES, SAW CUTS AND ALL DAMAGED GALVANIZED SURFACES SHALL BE REPAIRED WITH AN ORGANIC ZINC REPAIR PAINT COMPLYING WITH REQUIREMENTS OF ASTM A780. GALVANIZING REPAIR PAINT SHALL HAVE 65 PERCENT ZINC BY WEIGHT, ZIRP BY DUNCAN GALVANIZING, GALVA BRIGHT PREMIUM BY CROWN OR EQUAL. THICKNESS OF APPLIED GALVANIZING REPAIR PAINT SHALL BE NOT LESS THAN 4 COATS (ALLOW TIME TO DRY BETWEEN COATS) WITH A RESULTING COATING THICKNESS REQUIRED BY ASTM A123 OR A153 AS APPLICABLE.
- CONTRACTOR SHALL COMPLY WITH AWS CODE FOR PROCEDURES, APPEARANCE AND QUALITY OF WELDS, AND FOR METHODS USED IN CORRECTING WELDING. ALL WELDERS AND WELDING PROCESSES SHALL BE QUALIFIED IN ACCORDANCE WITH AWS "STANDARD QUALIFICATION PROCEDURES". ALL WELDING SHALL BE DONE USING E70XX ELECTRODES AND WELDING SHALL CONFORM TO AISC AND D.I. WHERE FILLET WELD SIZES ARE NOT SHOWN, PROVIDE THE MINIMUM SIZE PER TABLE J2.4 IN THE AISC "STEEL CONSTRUCTION MANUAL", 14TH EDITION.
- INCORRECTLY FABRICATED, DAMAGED OR OTHERWISE MISFITTING OR NON-CONFORMING MATERIALS OR CONDITIONS SHALL BE REPORTED TO THE CONSTRUCTION MANAGER PRIOR TO REMEDIAL OR CORRECTIVE ACTION. ANY SUCH ACTION SHALL REQUIRE CONSTRUCTION MANAGER APPROVAL.
- UNISTRUT SHALL BE FORMED STEEL CHANNEL STRUT FRAMING AS MANUFACTURED BY UNISTRUT CORP., WAYNE, MI OR EQUAL. STRUT MEMBERS SHALL BE 1 5/8"x1 5/8"x12GA, UNLESS OTHERWISE NOTED, AND SHALL BE HOT-DIP GALVANIZED AFTER FABRICATION.
- EPOXY ANCHOR ASSEMBLY SHALL CONSIST OF STAINLESS STEEL ANCHOR ROD WITH NUTS & WASHERS. AN INTERNALLY THREADED INSERT, A SCREEN TUBE AND A EPOXY ADHESIVE. THE ANCHORING SYSTEM SHALL BE THE HILTI-HIT HY-270 AND OR HY-200 SYSTEMS (AS SPECIFIED IN DWG.) OR ENGINEERS APPROVED EQUAL.
- EXPANSION BOLTS SHALL CONFORM TO FEDERAL SPECIFICATION FF-S-325, GROUP II, TYPE 4, CLASS I, HILTI KWIK BOLT III OR APPROVED EQUAL. INSTALLATION SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
- LUMBER SHALL COMPLY WITH THE REQUIREMENTS OF THE AMERICAN INSTITUTE OF TIMBER CONSTRUCTION AND THE NATIONAL FOREST PRODUCTS ASSOCIATION'S NATIONAL DESIGN SPECIFICATION FOR WOOD CONSTRUCTION. ALL LUMBER SHALL BE PRESSURE TREATED AND SHALL BE STRUCTURAL GRADE NO. 2 OR BETTER.
- WHERE ROOF PENETRATIONS ARE REQUIRED, THE CONTRACTOR SHALL CONTACT AND COORDINATE RELATED WORK WITH THE BUILDING OWNER AND THE EXISTING ROOF INSTALLER. WORK SHALL BE PERFORMED IN SUCH A MANNER AS TO NOT VOID THE EXISTING ROOF WARRANTY. ROOF SHALL BE WATERTIGHT.
- ALL FIBERGLASS MEMBERS USED ARE AS MANUFACTURED BY STRONGWELL COMPANY OF BRISTOL, VA 24203. ALL DESIGN CRITERIA FOR THESE MEMBERS IS BASED ON INFORMATION PROVIDED IN THE DESIGN MANUAL. ALL REQUIREMENTS PUBLISHED IN SAID MANUAL MUST BE STRICTLY ADHERED TO.
- NO MATERIALS TO BE ORDERED AND NO WORK TO BE COMPLETED UNTIL SHOP DRAWINGS HAVE BEEN REVIEWED AND APPROVED IN WRITING.
- SUBCONTRACTOR SHALL FIREPROOF ALL STEEL TO PRE-EXISTING CONDITIONS.

SPECIAL INSPECTIONS (REFERENCE IBC CHAPTER 17):

GENERAL: WHERE APPLICATION IS MADE FOR CONSTRUCTION, THE OWNER OR THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE ACTING AS THE OWNER'S AGENT SHALL EMPLOY ONE OR MORE APPROVED AGENCIES TO PERFORM INSPECTIONS DURING CONSTRUCTION ON THE TYPES OF WORK LISTED IN THE INSPECTION CHECKLIST ABOVE.

THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE AND ENGINEERS OF RECORD INVOLVED IN THE DESIGN OF THE PROJECT ARE PERMITTED TO ACT AS THE APPROVED AGENCY AND THEIR PERSONNEL ARE PERMITTED TO ACT AS THE SPECIAL INSPECTOR FOR THE WORK DESIGNED BY THEM, PROVIDED THOSE PERSONNEL MEET THE QUALIFICATION REQUIREMENTS.

STATEMENT OF SPECIAL INSPECTIONS: THE APPLICANT SHALL SUBMIT A STATEMENT OF SPECIAL INSPECTIONS PREPARED BY THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE IN ACCORDANCE WITH SECTION 107.1 AS A CONDITION FOR ISSUANCE. THIS STATEMENT SHALL BE IN ACCORDANCE WITH SECTION 1705.

REPORT REQUIREMENT: SPECIAL INSPECTORS SHALL KEEP RECORDS OF INSPECTIONS. THE SPECIAL INSPECTOR SHALL FURNISH INSPECTION REPORTS TO THE BUILDING OFFICIAL, AND TO THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE. REPORTS SHALL INDICATE THAT WORK INSPECTED WAS OR WAS NOT COMPLETED IN CONFORMANCE TO APPROVED CONSTRUCTION DOCUMENTS. DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION. IF THEY ARE NOT CORRECTED, THE DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE BUILDING OFFICIAL AND TO THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE. A FINAL REPORT DOCUMENTING REQUIRED SPECIAL INSPECTIONS SHALL BE SUBMITTED.

NOTES:

- ALL CONNECTIONS TO BE SHOP WELDED & FIELD BOLTED USING 3/4"Ø A325-X BOLTS, UNLESS OTHERWISE NOTIFIED.
- SHOP DRAWING ENGINEER REVIEW & APPROVAL REQUIRED BEFORE ORDERING MATERIAL.
- SHOP DRAWING ENGINEER REVIEW & APPROVAL REQUIRED PRIOR TO STEEL FABRICATION.
- VERIFICATION OF EXISTING ROOF CONSTRUCTION IS REQUIRED PRIOR TO THE INSTALLATION OF THE ROOF PLATFORM. ENGINEER OF RECORD IS TO APPROVE EXISTING CONDITIONS IN ORDER TO MOVE FORWARD.
- CENTERLINE OF PROPOSED STEEL PLATFORM SUPPORT COLUMNS TO BE CENTRALLY LOCATED OVER THE EXISTING BUILDING COLUMNS.
- EXISTING BRICK MASONRY COLUMNS/BEARING TO BE REPAIRED/REPLACED AT ALL PROPOSED PLATFORM SUPPORT POINTS. ENGINEER OF RECORD TO REVIEW AND APPROVE.

NOTES:

- REQUIRED FOR ANY NEW SHOP FABRICATED FRP OR STEEL.
- PROVIDED BY MANUFACTURER, REQUIRED IF HIGH STRENGTH BOLTS OR STEEL.
- PROVIDED BY GENERAL CONTRACTOR; PROOF OF MATERIALS.
- HIGH WIND ZONE INSPECTION CATB 120MPH OR CAT C,D 110MPH INSPECT FRAMING OF WALLS, ANCHORING, FASTENING SCHEDULE.
- ADHESIVE FOR REBAR AND ANCHORS SHALL HAVE BEEN TESTED IN ACCORDANCE WITH ACI 355.4 AND ICC-ES AC308 FOR CRACKED CONCRETE AND SEISMIC APPLICATIONS. DESIGN ADHESIVE BOND STRENGTH HAS BEEN BASED ON ACI 355.4 TEMPERATURE CATEGORY B WITH INSTALLATIONS INTO DRY HOLES DRILLED USING A CARBIDE BIT INTO CRACKED CONCRETE THAT HAS CURED FOR AT LEAST 21 DAYS. ADHESIVE ANCHORS REQUIRING CERTIFIED INSTALLATIONS SHALL BE INSTALLED BY A CERTIFIED ADHESIVE ANCHOR INSTALLER PER ACI 318-11 D.9.2.2. INSTALLATIONS REQUIRING CERTIFIED INSTALLERS SHALL BE INSPECTED PER ACI 318-11 D.8.2.4.
- AS REQUIRED; FOR ANY FIELD CHANGES TO THE ITEMS IN THIS TABLE.

SPECIAL INSPECTION CHECKLIST

BEFORE CONSTRUCTION

CONSTRUCTION/INSTALLATION INSPECTIONS AND TESTING REQUIRED (COMPLETED BY ENGINEER OF RECORD)	REPORT ITEM
N/A	ENGINEER OF RECORD APPROVED SHOP DRAWINGS ¹
N/A	MATERIAL SPECIFICATIONS REPORT ²
N/A	FABRICATOR NDE INSPECTION
N/A	PACKING SLIPS ³

ADDITIONAL TESTING AND INSPECTIONS:

DURING CONSTRUCTION

CONSTRUCTION/INSTALLATION INSPECTIONS AND TESTING REQUIRED (COMPLETED BY ENGINEER OF RECORD)	REPORT ITEM
REQUIRED	STEEL INSPECTIONS
N/A	HIGH STRENGTH BOLT INSPECTIONS
N/A	HIGH WIND ZONE INSPECTIONS ⁴
N/A	FOUNDATION INSPECTIONS
N/A	CONCRETE COMP. STRENGTH, SLUMP TESTS AND PLACEMENT
N/A	POST INSTALLED ANCHOR VERIFICATION ⁵
N/A	GROUT VERIFICATION
N/A	CERTIFIED WELD INSPECTION
N/A	EARTHWORK: LIFT AND DENSITY
N/A	ON SITE COLD GALVANIZING VERIFICATION
N/A	GUY WIRE TENSION REPORT

ADDITIONAL TESTING AND INSPECTIONS:

AFTER CONSTRUCTION

CONSTRUCTION/INSTALLATION INSPECTIONS AND TESTING REQUIRED (COMPLETED BY ENGINEER OF RECORD)	REPORT ITEM
REQUIRED	MODIFICATION INSPECTOR REDLINE OR RECORD DRAWINGS ⁶
N/A	POST INSTALLED ANCHOR PULL-OUT TESTING
REQUIRED	PHOTOGRAPHS

ADDITIONAL TESTING AND INSPECTIONS:



SITE NUMBER: CT1432
SITE NAME: WOLCOTT CAPACITY

CHESTNUT HILL ROAD
WOLCOTT, CT 06716
NEW HAVEN COUNTY



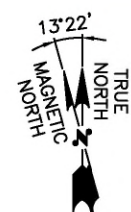
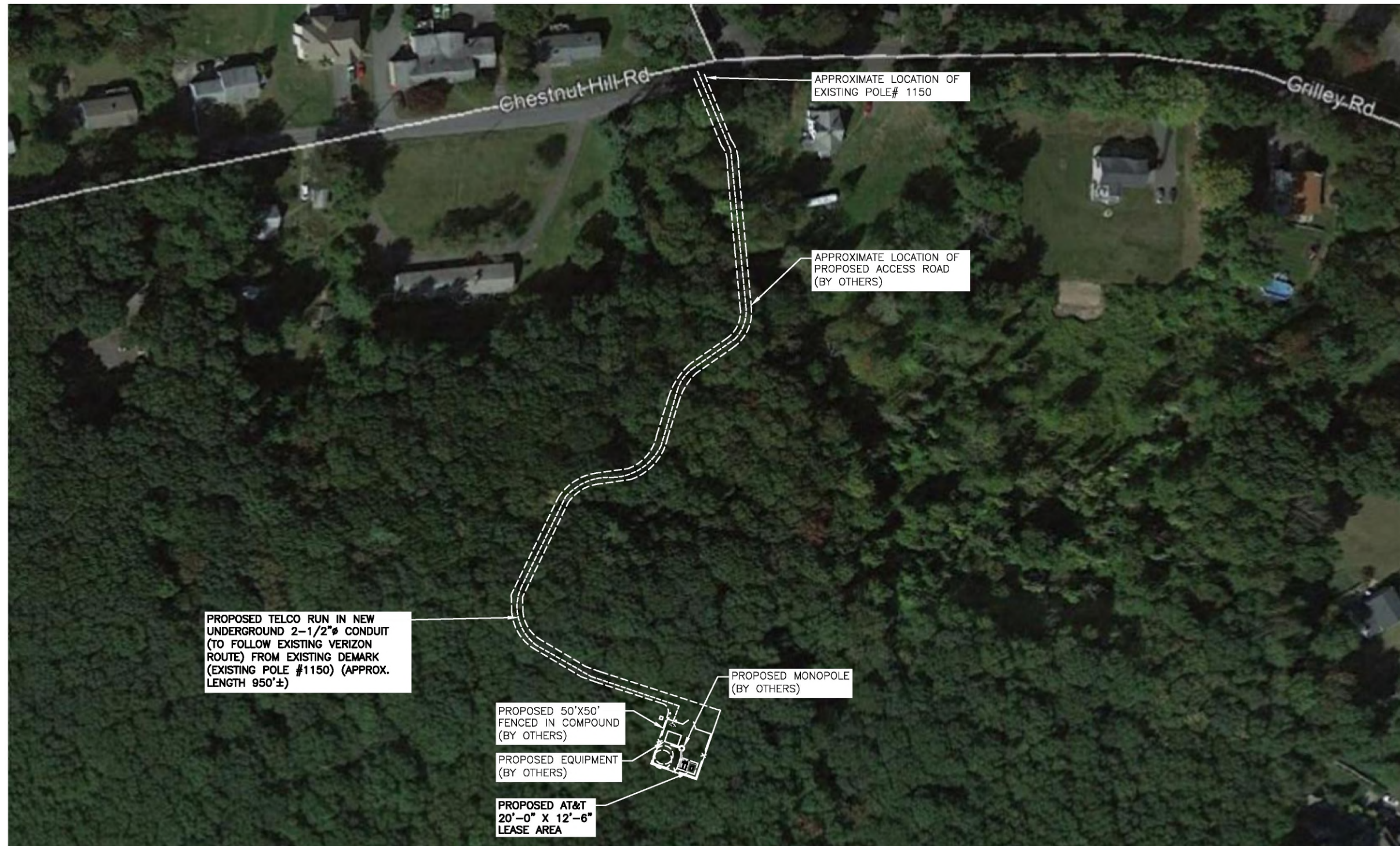
492 OLD CONNECTICUT PATH SUITE #210
FRAMINGHAM, MA 01701

6	07/17/24	REVISED FOR CONSTRUCTION	RB	JC	DPH
5	05/22/24	REVISED FOR CONSTRUCTION	TR	JC	DPH
4	04/12/24	ISSUED FOR CONSTRUCTION	TR	JC	DPH
3	11/17/22	ISSUED FOR PERMITTING	CJ	JC	DPH
2	07/28/22	ISSUED FOR REVIEW	MJ	JC	DPH
NO.	DATE	REVISIONS	BY	CHK	APP'D
SCALE: AS SHOWN		DESIGNED BY: JC	DRAWN BY: TR		

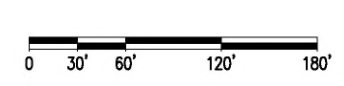
AT&T

SPECIAL INSPECTIONS NOTES
(NSB)

SITE NUMBER	DRAWING NUMBER	REV
CT1432	SN-1	6



SITE PLAN
 22x34 SCALE: 1"=60'
 11x17 SCALE: 1"=120'



TEP
 NORTHEAST
 TEP OPGO, LLC.
 45 BEECHWOOD DRIVE, NORTH ANDOVER, MA 01845
 TEL: (978) 557-5553

SAI
 12 INDUSTRIAL WAY
 SALEM, NH 03079

SITE NUMBER: CT1432
 SITE NAME: WOLCOTT CAPACITY
 CHESTNUT HILL ROAD
 WOLCOTT, CT 06716
 NEW HAVEN COUNTY

AT&T
 492 OLD CONNECTICUT PATH SUITE #210
 FRAMINGHAM, MA 01701

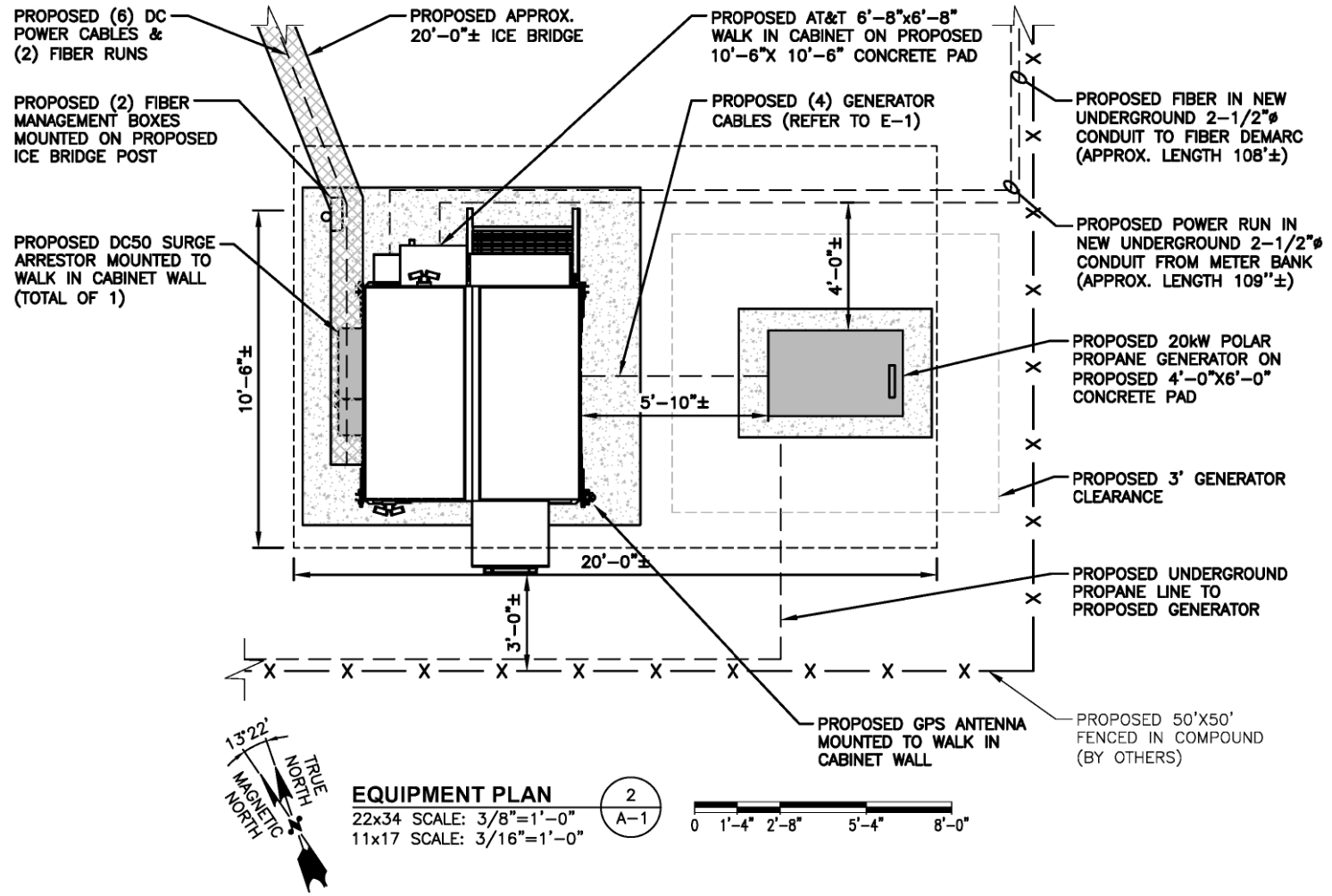
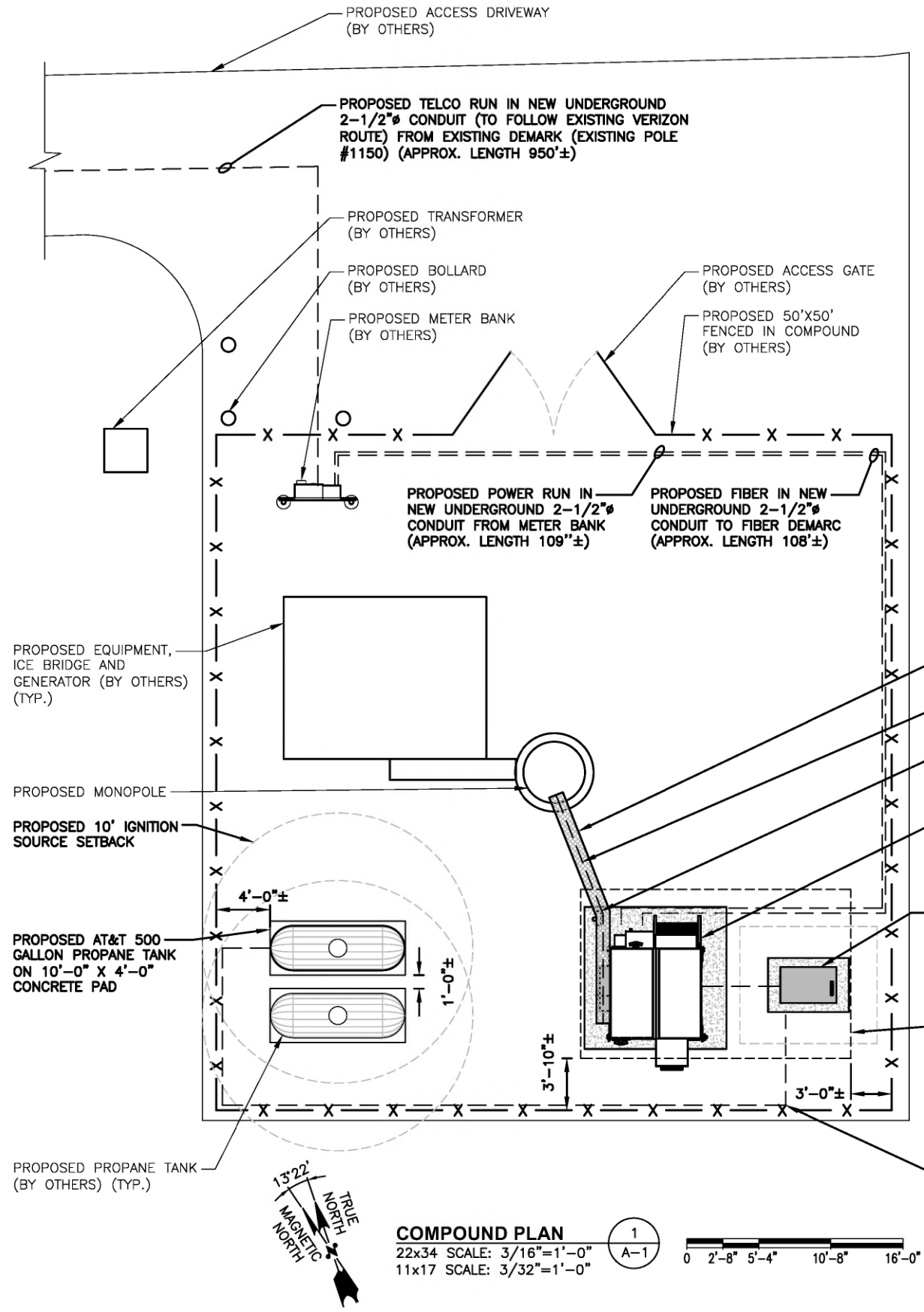
NO.	DATE	REVISIONS	BY	CHK	APP'D
6	07/17/24	REVISED FOR CONSTRUCTION	RB	JC	DPH
5	05/22/24	REVISED FOR CONSTRUCTION	TR	JC	DPH
4	04/12/24	ISSUED FOR CONSTRUCTION	TR	JC	DPH
3	11/17/22	ISSUED FOR PERMITTING	CJ	JC	DPH
2	07/28/22	ISSUED FOR REVIEW	MJ	JC	DPH

SCALE: AS SHOWN DESIGNED BY: JC DRAWN BY: TR

AT&T		
SITE PLAN (NSB)		
SITE NUMBER	DRAWING NUMBER	REV
CT1432	C-1	6

NOTE:
AN ANALYSIS OF THE CAPACITY OF THE EXISTING STRUCTURE TO SUPPORT THE PROPOSED LOADING HAS BEEN COMPLETED BY VERTICAL BRIDGE ENGINEERING LLC. DATED: JUNE 27, 2024

NOTE:
REFER TO THE FINAL RF DATA SHEET FOR FINAL ANTENNA SETTINGS.



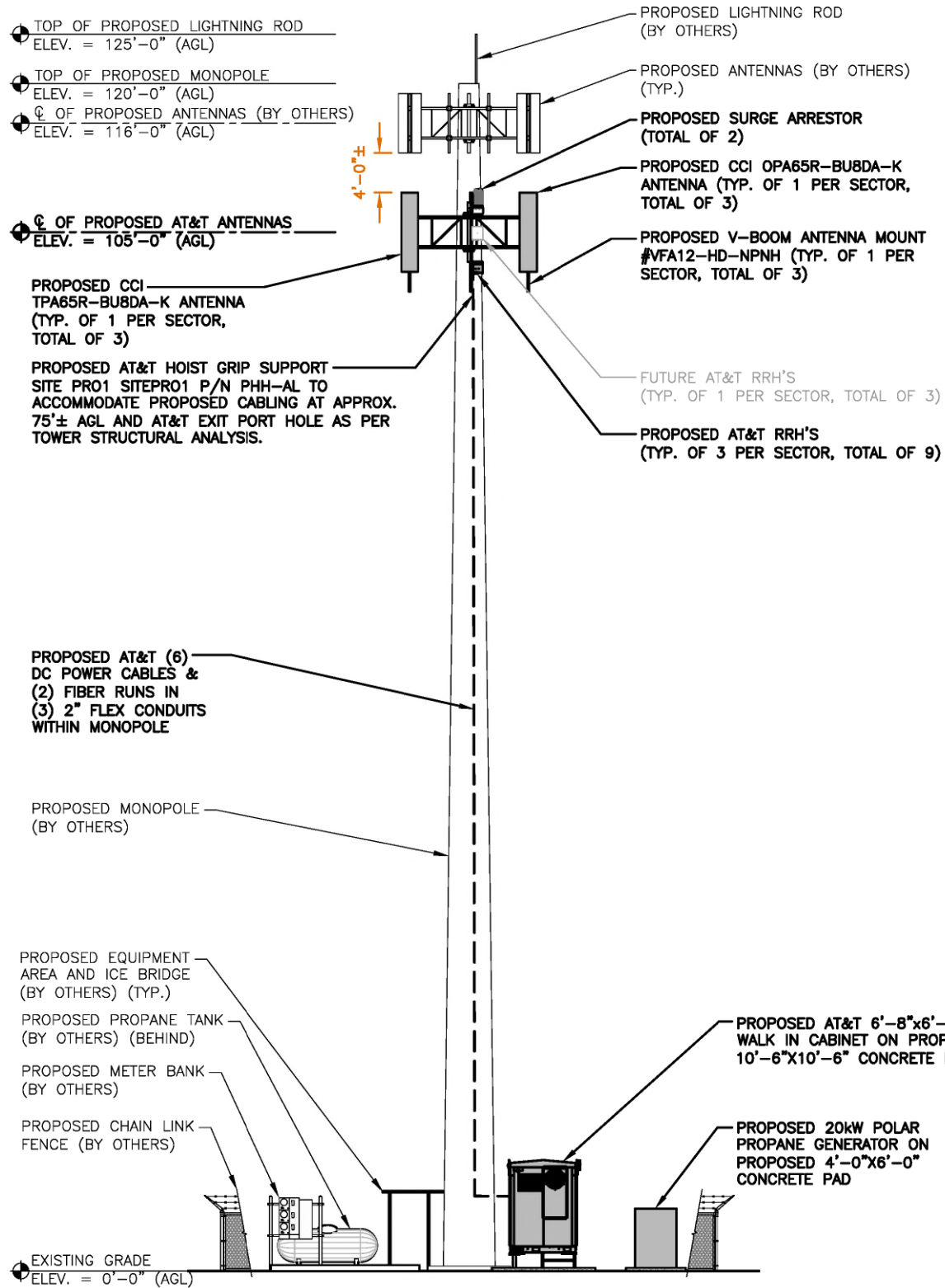
SITE NUMBER: CT1432
SITE NAME: WOLCOTT CAPACITY

CHESTNUT HILL ROAD
WOLCOTT, CT 06716
NEW HAVEN COUNTY



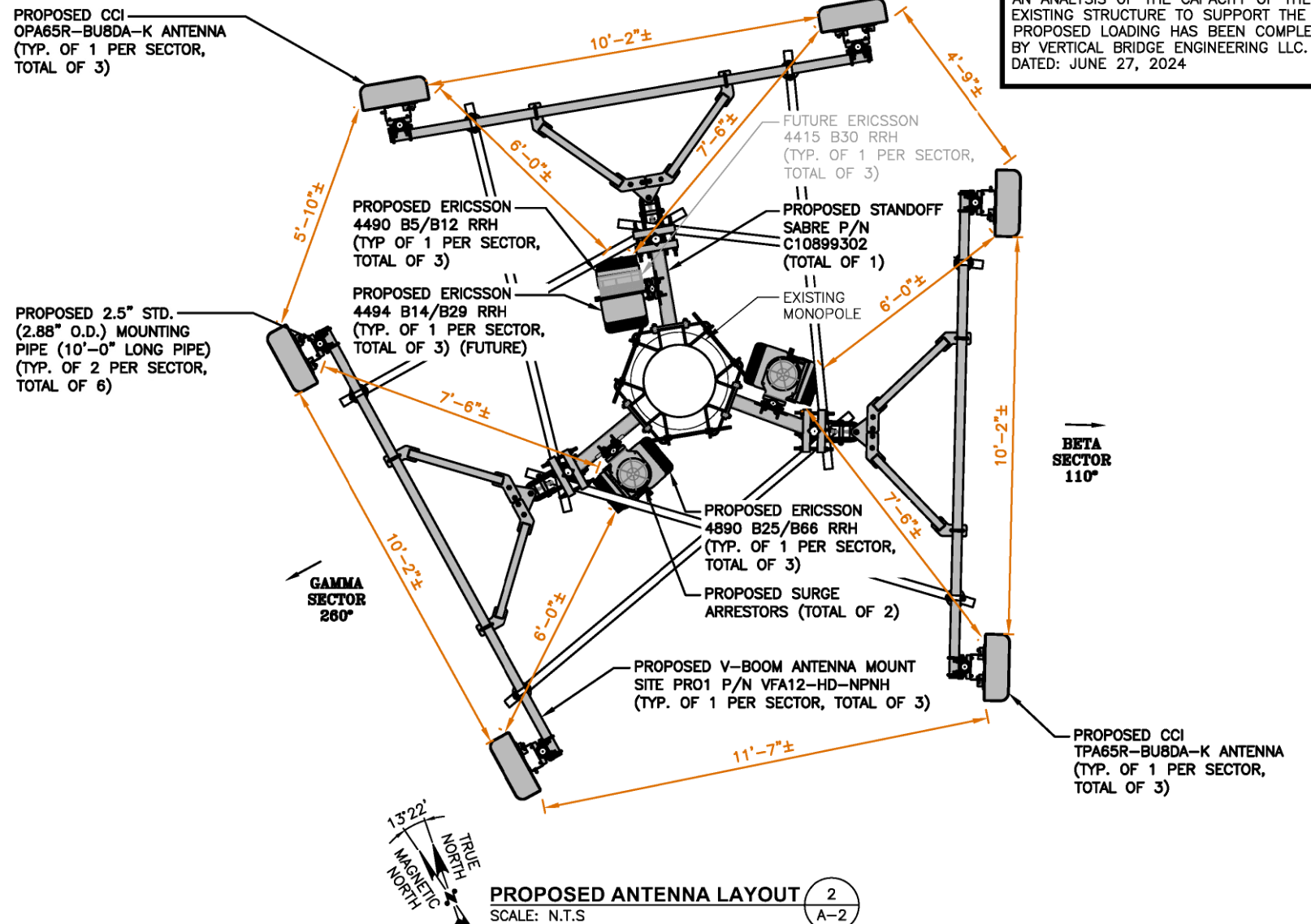
6	07/17/24	REVISED FOR CONSTRUCTION	RB	JC	DPH
5	05/22/24	REVISED FOR CONSTRUCTION	TR	JC	DPH
4	04/12/24	ISSUED FOR CONSTRUCTION	TR	JC	DPH
3	11/17/22	ISSUED FOR PERMITTING	CJ	JC	DPH
2	07/28/22	ISSUED FOR REVIEW	MJ	JC	DPH
NO.	DATE	REVISIONS	BY	CHK	APP'D
SCALE: AS SHOWN		DESIGNED BY: JC	DRAWN BY: TR		

AT&T		
COMPOUND & EQUIPMENT PLANS (NSB)		
SITE NUMBER	DRAWING NUMBER	REV
CT1432	A-1	6



SOUTHWEST ELEVATION 1
 22x34 SCALE: 1/8"=1'-0"
 11x17 SCALE: 1/16"=1'-0"
 A-2

NOTE:
 REFER TO THE FINAL RF DATA SHEET FOR FINAL ANTENNA SETTINGS.



PROPOSED ANTENNA LAYOUT 2
 SCALE: N.T.S. A-2

NOTE:
 AN ASSESSMENT FOR THE CAPACITY OF THE PROPOSED ANTENNA MOUNT TO SUPPORT THE PROPOSED LOADING HAS BEEN COMPLETED BY: TEP NORTHEAST DATED: JUNE 17, 2024 (REV. 2)

NOTE:
 AN ANALYSIS OF THE CAPACITY OF THE EXISTING STRUCTURE TO SUPPORT THE PROPOSED LOADING HAS BEEN COMPLETED BY VERTICAL BRIDGE ENGINEERING LLC. DATED: JUNE 27, 2024



SITE NUMBER: CT1432
SITE NAME: WOLCOTT CAPACITY

 CHESTNUT HILL ROAD
 WOLCOTT, CT 06716
 NEW HAVEN COUNTY



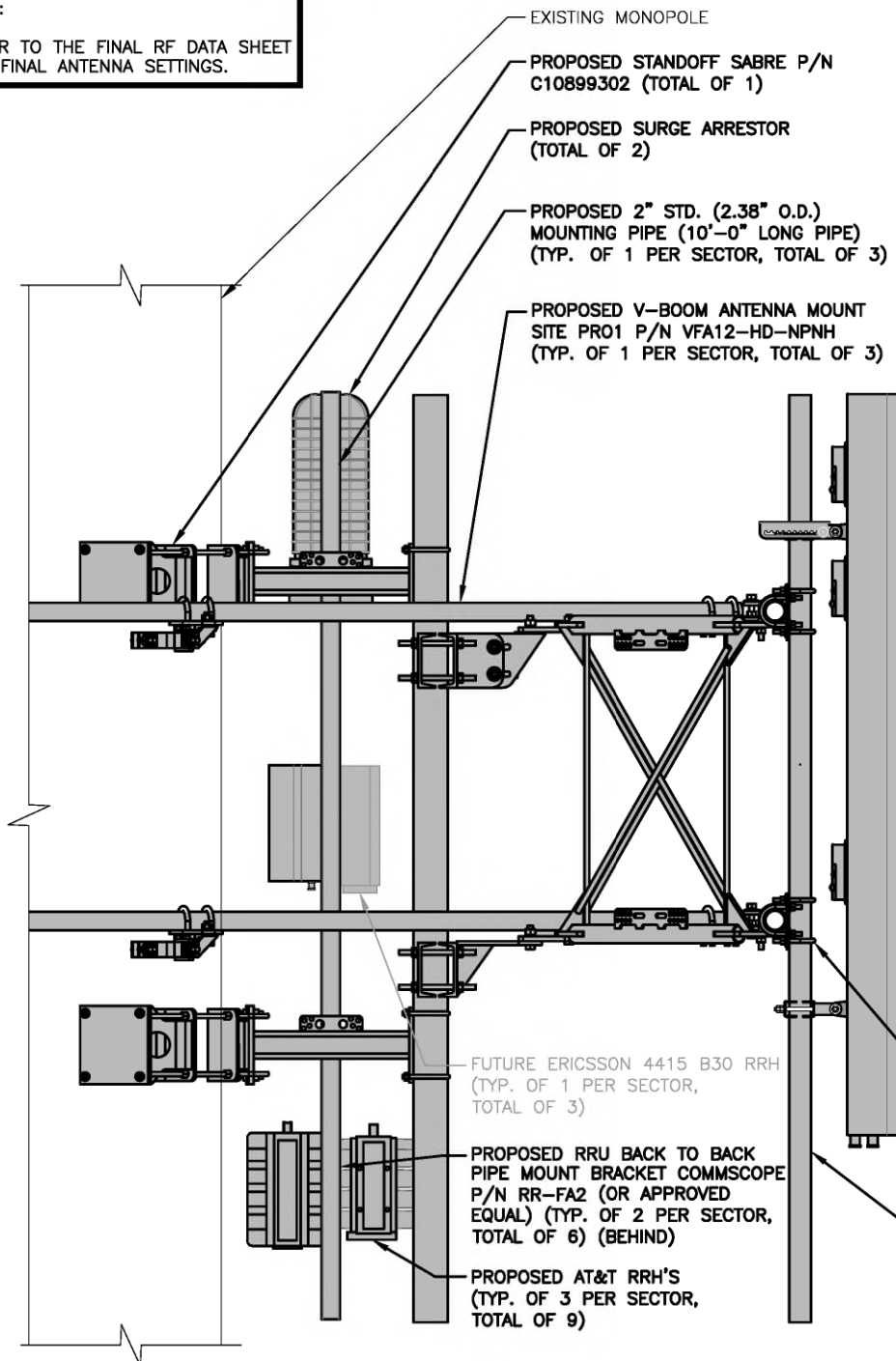
6	07/17/24	REVISED FOR CONSTRUCTION	RB	JC	DPH
5	05/22/24	REVISED FOR CONSTRUCTION	TR	JC	DPH
4	04/12/24	ISSUED FOR CONSTRUCTION	TR	JC	DPH
3	11/17/22	ISSUED FOR PERMITTING	CJ	JC	DPH
2	07/28/22	ISSUED FOR REVIEW	MJ	JC	DPH
NO.	DATE	REVISIONS	BY	CHK	APP'D
SCALE: AS SHOWN		DESIGNED BY: JC	DRAWN BY: TR		

AT&T		
ANTENNA LAYOUT & ELEVATION (NSB)		
SITE NUMBER	DRAWING NUMBER	REV
CT1432	A-2	6

NOTE:
AN ASSESSMENT FOR THE CAPACITY OF THE PROPOSED ANTENNA MOUNT TO SUPPORT THE PROPOSED LOADING HAS BEEN COMPLETED BY: TEP NORTHEAST DATED: JUNE 17, 2024 (REV. 2)

NOTE:
AN ANALYSIS OF THE CAPACITY OF THE EXISTING STRUCTURE TO SUPPORT THE PROPOSED LOADING HAS BEEN COMPLETED BY VERTICAL BRIDGE ENGINEERING LLC. DATED: JUNE 27, 2024

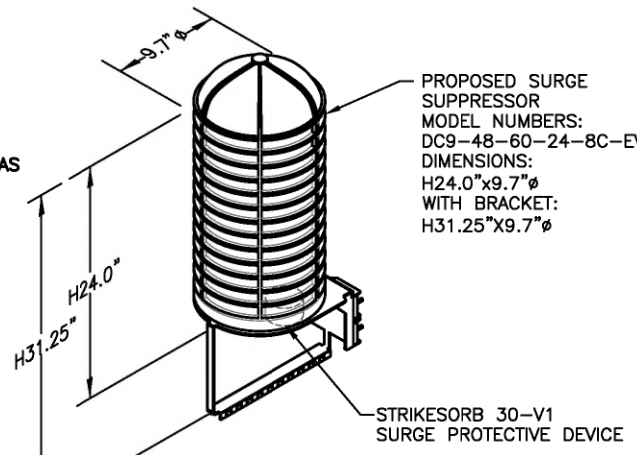
NOTE:
REFER TO THE FINAL RF DATA SHEET FOR FINAL ANTENNA SETTINGS.



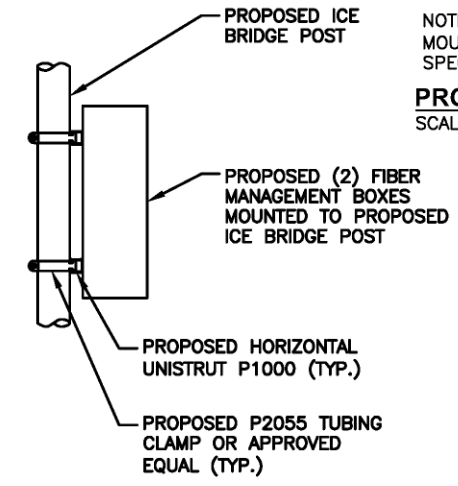
PROPOSED SECTOR FRAME, ANTENNA, SURGE SUPPRESSOR & RRH'S MOUNTING DETAIL
SCALE: N.T.S. (2) A-3

NOTE:
SEE RFDS FOR RRH FREQUENCY AND MODEL NUMBER

☉ OF PROPOSED AT&T ANTENNAS
ELEV. = 105'-0"± A.G.L.



DC SURGE SUPPRESSOR DETAIL
SCALE: N.T.S. (3) A-3



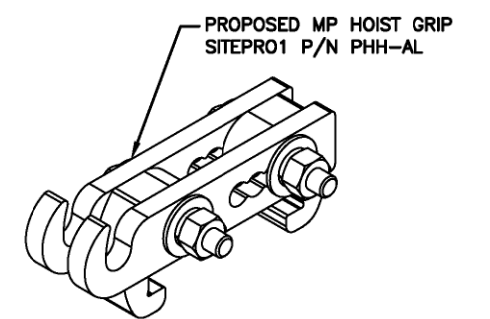
PROPOSED FIBER MANAGEMENT BOX MOUNTING DETAIL
SCALE: N.T.S. (4) A-3

NOTE:
SEE RFDS FOR RRH FREQUENCY AND MODEL NUMBER

PROPOSED RRU REFER TO THE FINAL RFDS AND CHART FOR QUANTITY, MODEL AND DIMENSIONS

NOTE:
MOUNT PER MANUFACTURER'S SPECIFICATIONS.

PROPOSED RRUS DETAIL
SCALE: N.T.S. (5) A-3



PROPOSED CABLE HOIST DETAIL
SCALE: N.T.S. (6) A-3

ANTENNA SCHEDULE										
SECTOR	EXISTING/PROPOSED	BAND	ANTENNA	SIZE (INCHES) (L x W x D)	ANTENNA ☉ HEIGHT	AZIMUTH	RRU	SIZE (INCHES) (L x W x D)	FEEDER	RAYCAP
A1	PROPOSED	LTE 700 BC/850/FUTURE	OPA65R-BU8DA-K	96X20.7X7.7	105'-0"	0°	(P) (1) 4490 B5/B12 (F) (1) 4415 B30	17.5X15.1X6.8 16.5X13.4X5.9	(P) (2) FIBER TRUNK (P) (6) DC TRUNKS	(P) (2) RAYCAP DC9-48-60-24-8C-EV
A2	-	-	-	-	-	-	-	-		
A3	-	-	-	-	-	-	-	-		
A4	PROPOSED	LTE B14/B29/AWS/PCS	TPA65R-BU8DA-K	96X20.7X7.7	105'-0"	0°	(P) (1) 4494 B14/B29 (P) (1) 4890 B25/B66	17.5X15.1X5.6 17.5X15.2X6.9		
B1	PROPOSED	LTE 700 BC/850/FUTURE	OPA65R-BU8DA-K	96X20.7X7.7	105'-0"	110°	(P) (1) 4490 B5/B12 (F) (1) 4415 B30	17.5X15.1X6.8 16.5X13.4X5.9		
B2	-	-	-	-	-	-	-	-		
B3	-	-	-	-	-	-	-	-		
B4	PROPOSED	LTE B14/B29/AWS/PCS	TPA65R-BU8DA-K	96X20.7X7.7	105'-0"	110°	(P) (1) 4494 B14/B29 (P) (1) 4890 B25/B66	17.5X15.1X5.6 17.5X15.2X6.9		
C1	PROPOSED	LTE 700 BC/850/FUTURE	OPA65R-BU8DA-K	96X20.7X7.7	105'-0"	260°	(P) (1) 4490 B5/B12 (F) (1) 4415 B30	17.5X15.1X6.8 16.5X13.4X5.9		
C2	-	-	-	-	-	-	-	-		
C3	-	-	-	-	-	-	-	-		
C4	PROPOSED	LTE B14/B29/AWS/PCS	TPA65R-BU8DA-K	96X20.7X7.7	105'-0"	260°	(P) (1) 4494 B14/B29 (P) (1) 4890 B25/B66	17.5X15.1X5.6 17.5X15.2X6.9		

FINAL ANTENNA SCHEDULE
SCALE: N.T.S. (1) A-3



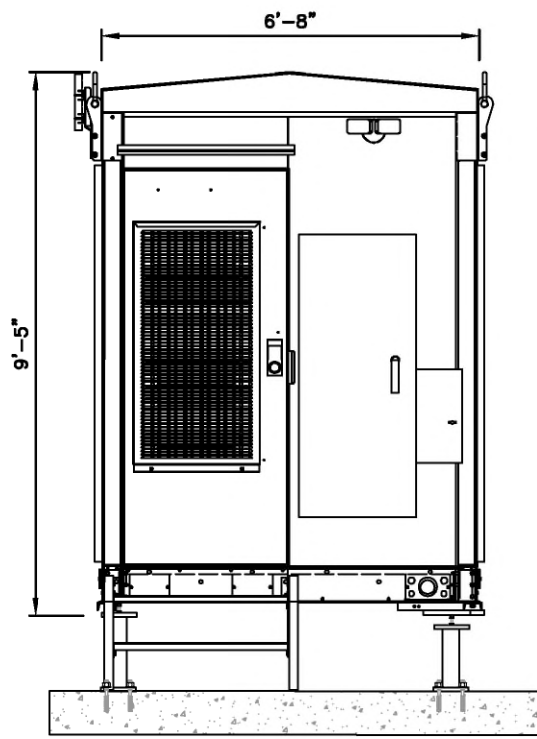
SITE NUMBER: CT1432
SITE NAME: WOLCOTT CAPACITY

CHESTNUT HILL ROAD
WOLCOTT, CT 06716
NEW HAVEN COUNTY

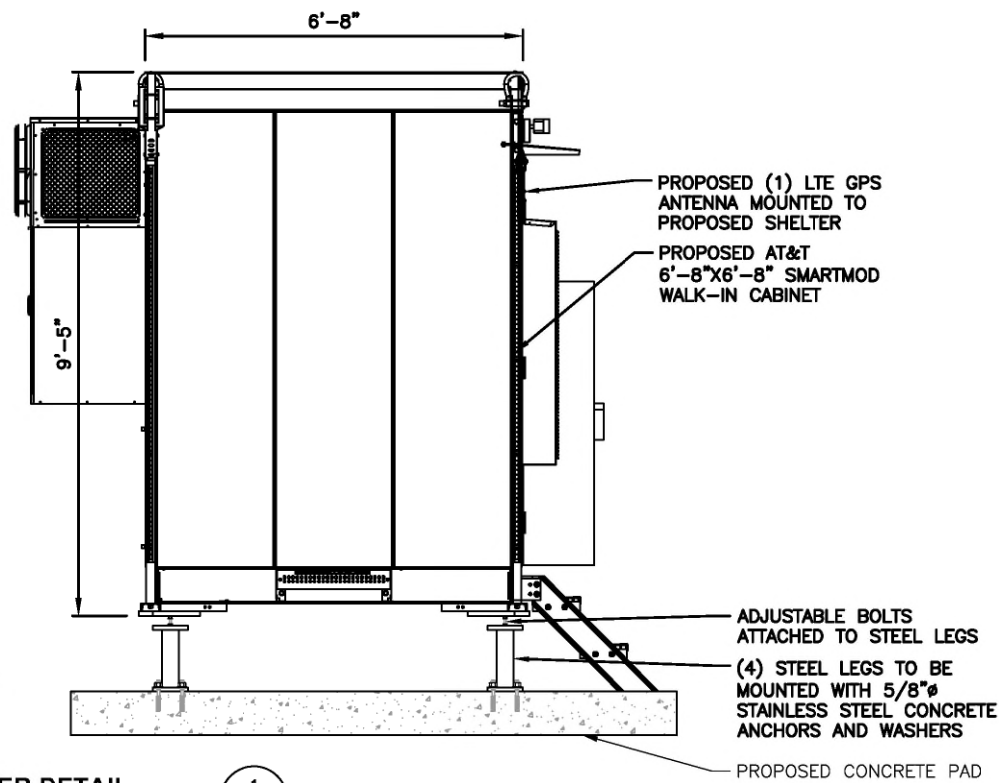


6	07/17/24	REVISED FOR CONSTRUCTION	RB	JC	DPH
5	05/22/24	REVISED FOR CONSTRUCTION	TR	JC	DPH
4	04/12/24	ISSUED FOR CONSTRUCTION	TR	JC	DPH
3	11/17/22	ISSUED FOR PERMITTING	CJ	JC	DPH
2	07/28/22	ISSUED FOR REVIEW	MJ	JC	DPH
NO.	DATE	REVISIONS	BY	CHK	APP'D
SCALE: AS SHOWN			DESIGNED BY: JC	DRAWN BY: TR	

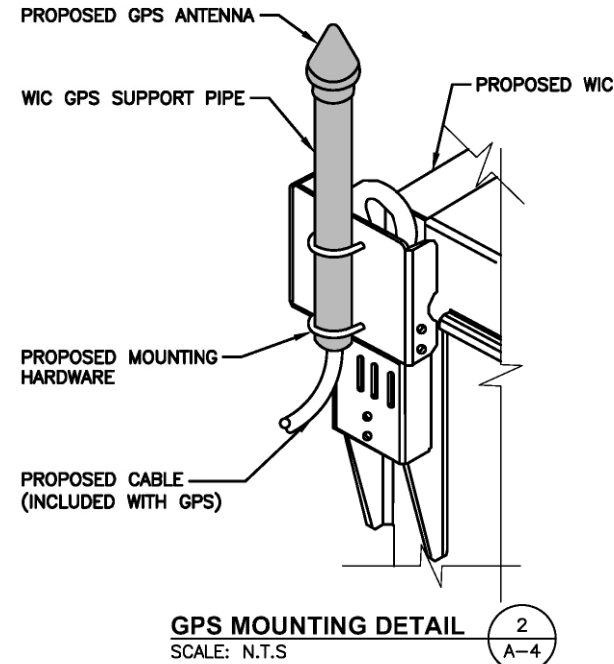
AT&T		
DETAILS (NSB)		
SITE NUMBER	DRAWING NUMBER	REV
CT1432	A-3	6



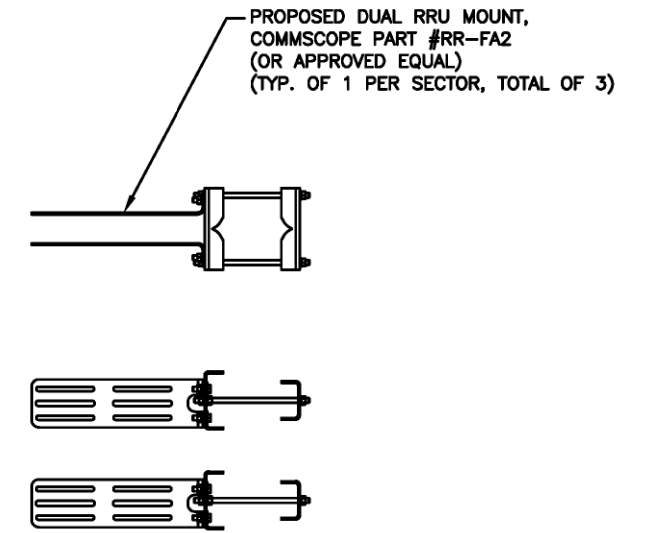
TYPICAL SHELTER DETAIL
SCALE: N.T.S



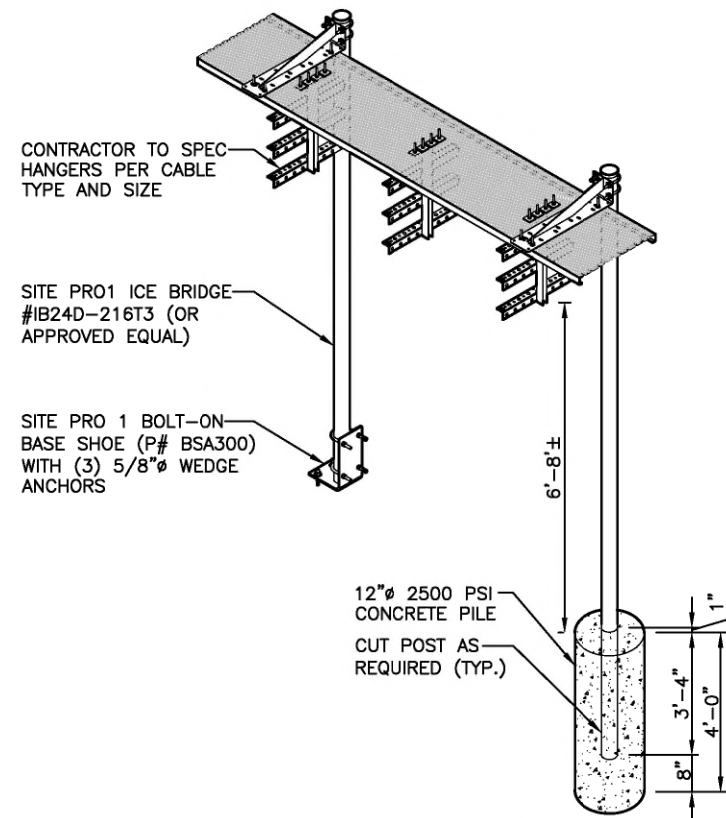
NOTE:
WIC SHALL BE MOUNTED PER
MANUFACTURER'S SPECIFICATIONS.



GPS MOUNTING DETAIL
SCALE: N.T.S



BACK TO BACK RRU MOUNT DETAIL
SCALE: N.T.S



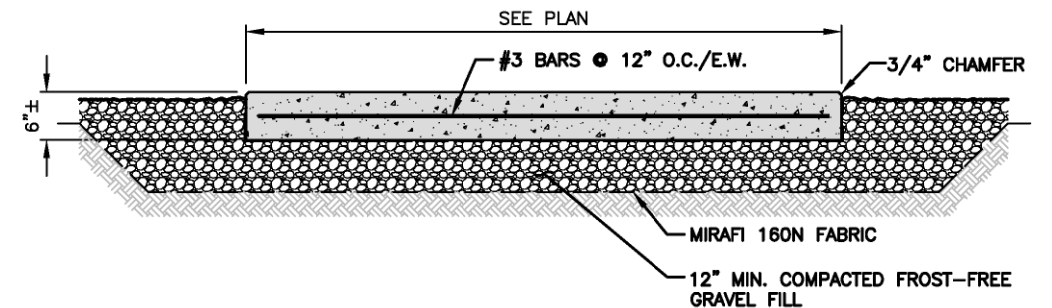
CABLE BRIDGE DETAIL
22x34 SCALE: N.T.S



PROPOSED 20kW PROPANE POLAR GENERATOR
SCALE: N.T.S

FOUNDATION NOTES & CONCRETE SPECIFICATIONS:

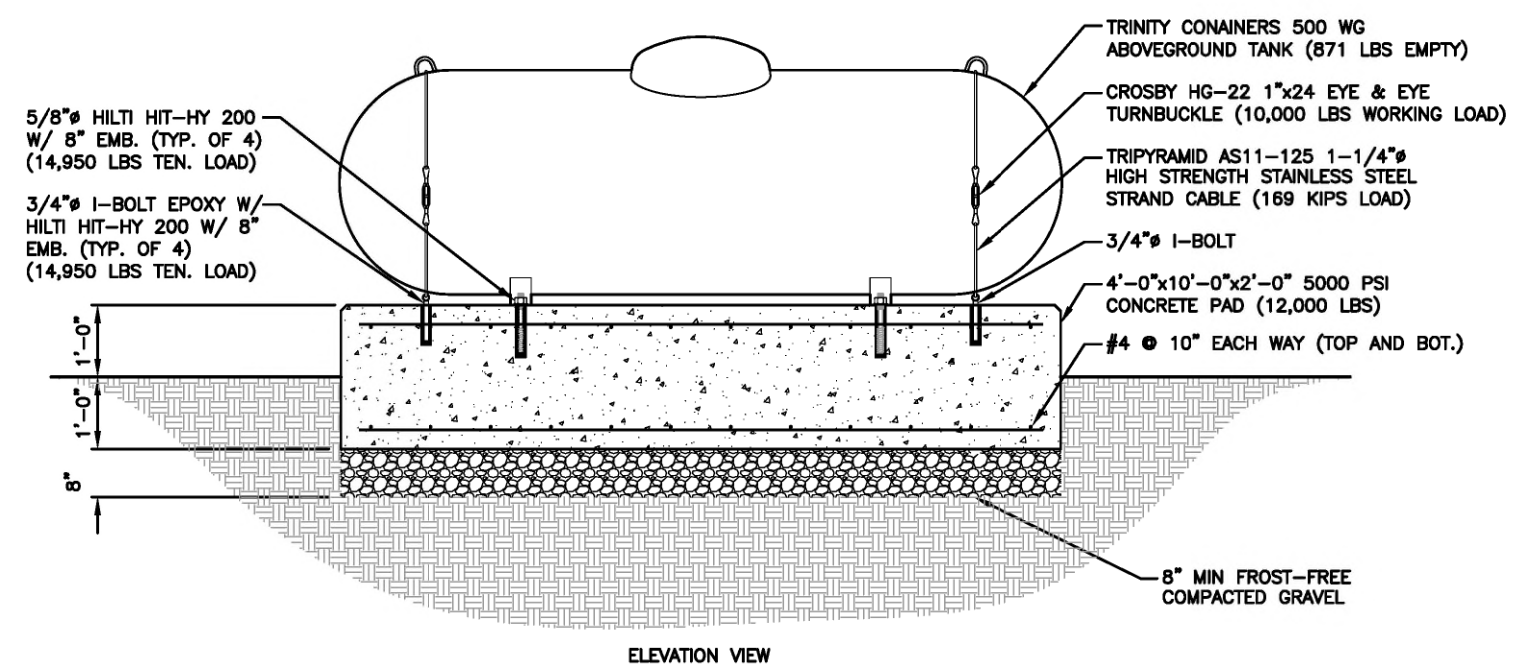
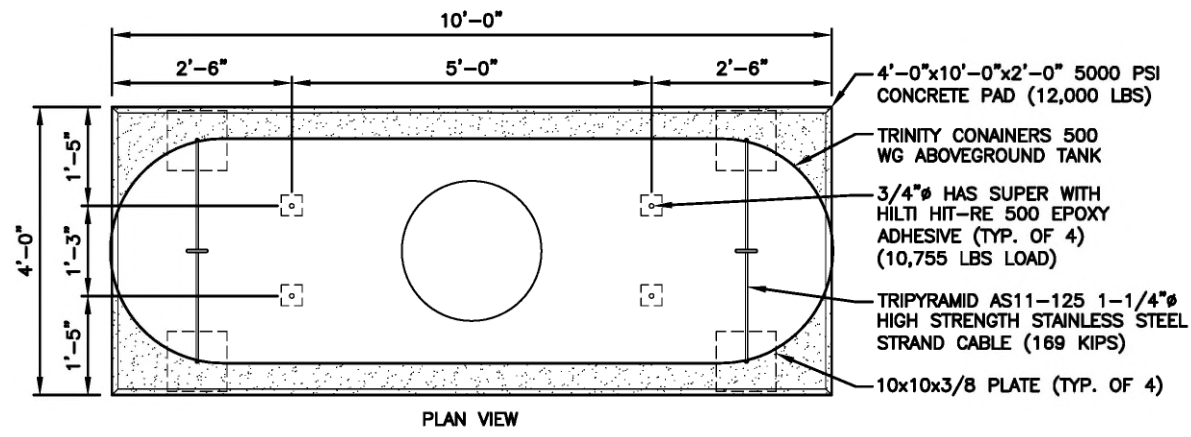
- FOUNDATION AREA SHALL BE EXCAVATED TO THE DEPTH AND DIMENSIONS SHOWN ON THE PLANS. EXISTING LEDGE AND ALL OTHER EXISTING UNSUITABLE MATERIAL SHALL BE REMOVED AND LEGALLY DISPOSED OF OFF-SITE. THE SUBGRADE SHALL BE ROLLED WITH A 1-TON, VIBRATORY, WALK-BEHIND ROLLER AT A SPEED OF LESS THAN 2 FPS, 6 PASSES MINIMUM, TO PROVIDE UNYIELDING SURFACE.
- UNDERCUT SOFT OR "WEAVING" AREAS A MINIMUM OF 12 INCHES DEEP. BACKFILL UNDERCUT AREA WITH FILL MEETING THE SPECIFICATIONS OF STRUCTURAL FILL.
- CONCRETE TO HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH (f'c)=4000 psi. CONCRETE TO BE AIR ENTRAINED, DESIRED AIR CONTENT TO BE 6% (PLUS OR MINUS 2%)
- REINFORCING BAR TO BE ASTM A615 GRADE 60.
- WELDED WIRE FABRIC TO CONFORM TO THE REQUIREMENTS OF ASTM A185. WIRES FOR FABRIC TO CONFORM TO THE REQUIREMENTS OF ASTM A82.
- COORDINATE WITH MANUFACTURER OF PREFABRICATED SHELTER FOR LOCATION OF ATTACHMENTS TO BASE SLAB.
- ALL REINFORCING TO HAVE MINIMUM CONCRETE COVER PER ACI SPECIFICATIONS.
- ALL CONCRETE MATERIALS AND WORKMANSHIP SHALL CONFORM TO LATEST EDITION OF ACI 318 AND APPLICABLE STATE BUILDING CODE.



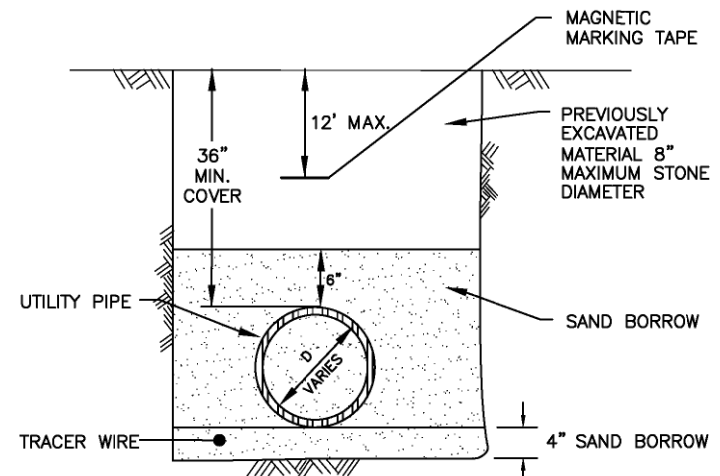
CONCRETE PAD DETAIL
22x34 SCALE: N.T.S

6	07/17/24	REVISED FOR CONSTRUCTION	RB	JC	DPH
5	05/22/24	REVISED FOR CONSTRUCTION	TR	JC	DPH
4	04/12/24	ISSUED FOR CONSTRUCTION	TR	JC	DPH
3	11/17/22	ISSUED FOR PERMITTING	CJ	JC	DPH
2	07/28/22	ISSUED FOR REVIEW	MJ	JC	DPH
NO.	DATE	REVISIONS	BY	CHK	APP'D
SCALE: AS SHOWN		DESIGNED BY: JC	DRAWN BY: TR		

AT&T		
EQUIPMENT DETAILS (NSB)		
SITE NUMBER	DRAWING NUMBER	REV
CT1432	A-4	6



PROPANE TANK MOUNTING 1 A-5
22x34 SCALE: N.T.S.



NOTES: 1 COMPACT ALL BACKFILL MATERIAL WITH VIBRATORY PLATE EQUIPMENT (MINIMUM TWO PASSES) TO A MINIMUM DENSITY OF 95 PERCENT OF THE STANDARD PROCTOR DENSITY AS DETERMINED BY ASTM D698. 2 PLACE BACKFILL MATERIALS IN MAXIMUM ONE FOOT LIFTS.

GAS PIPING TRENCH SECTION 2 A-5
SCALE: N.T.S.



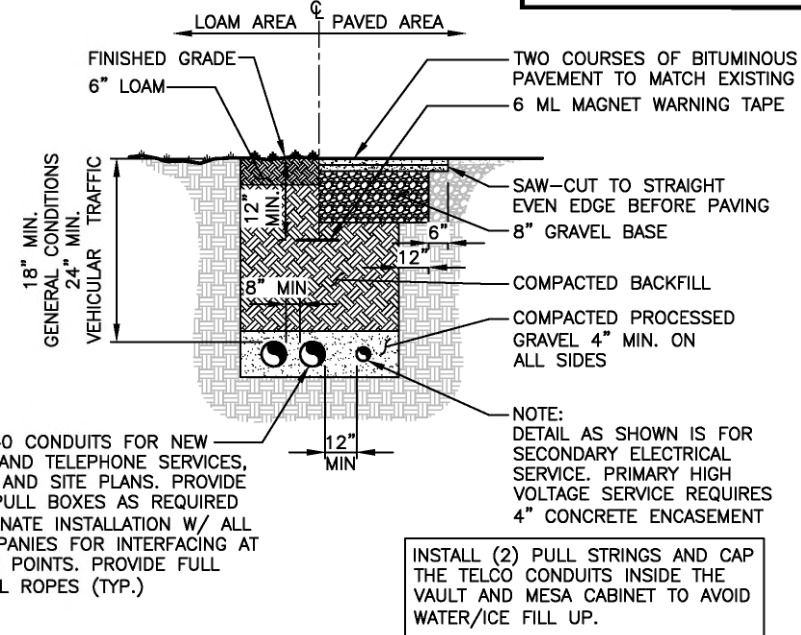
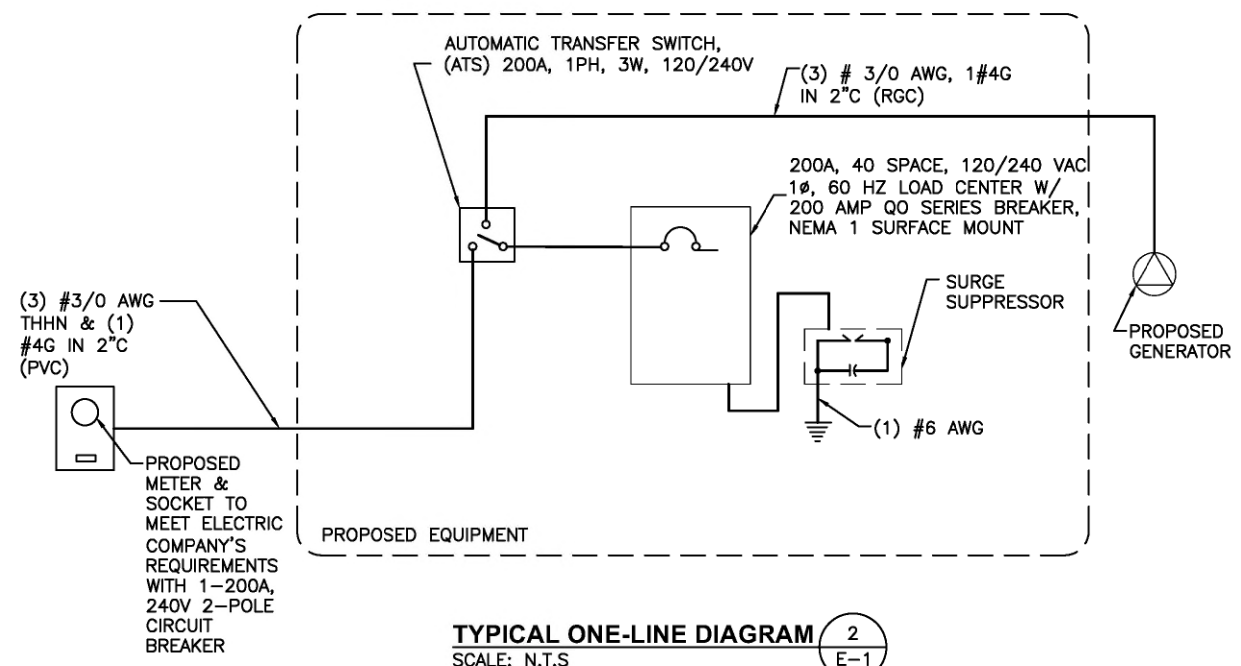
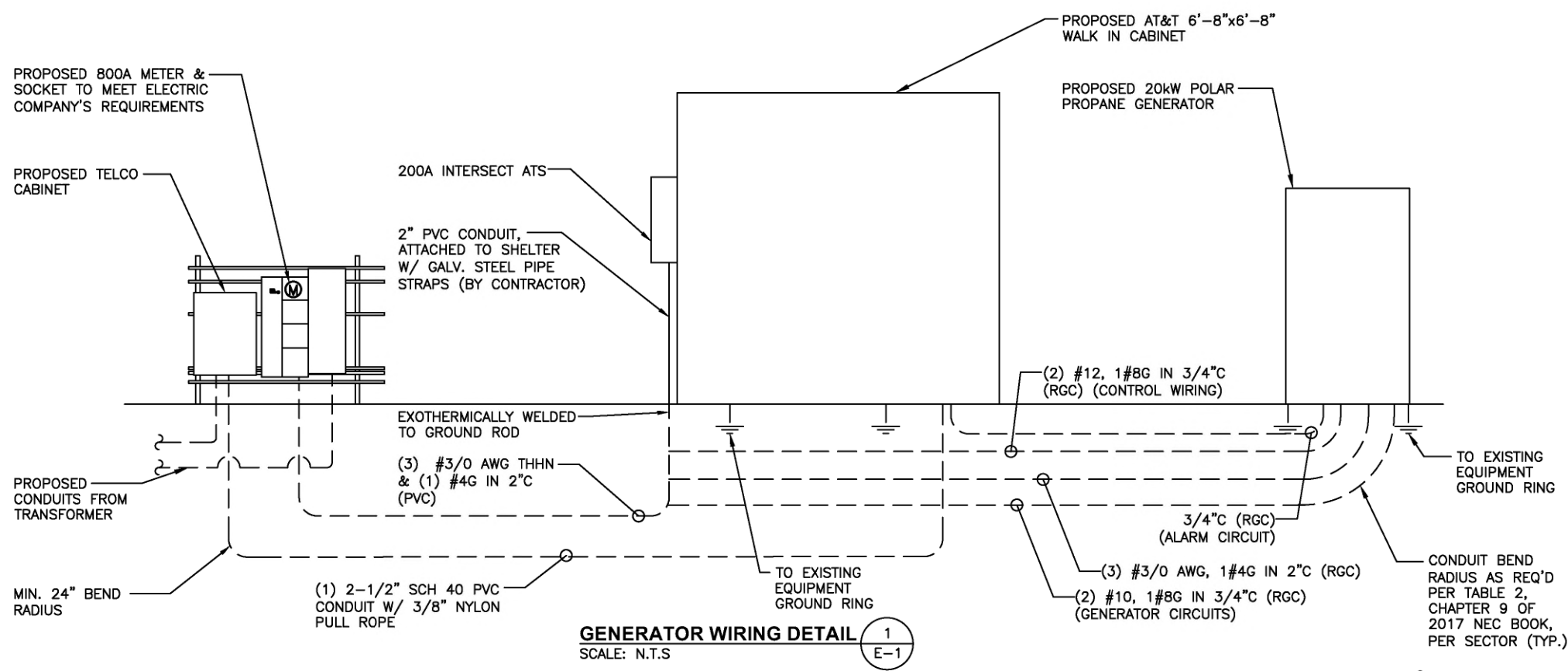
SITE NUMBER: CT1432
SITE NAME: WOLCOTT CAPACITY
CHESTNUT HILL ROAD
WOLCOTT, CT 06716
NEW HAVEN COUNTY



6	07/17/24	REVISED FOR CONSTRUCTION	RB	JC	DPH
5	05/22/24	REVISED FOR CONSTRUCTION	TR	JC	DPH
4	04/12/24	ISSUED FOR CONSTRUCTION	TR	JC	DPH
3	11/17/22	ISSUED FOR PERMITTING	CJ	JC	DPH
2	07/28/22	ISSUED FOR REVIEW	MJ	JC	DPH
NO.	DATE	REVISIONS	BY	CHK	APP'D
SCALE: AS SHOWN		DESIGNED BY: JC	DRAWN BY: TR		

AT&T		
PROPANE TANK DETAILS (NSB)		
SITE NUMBER	DRAWING NUMBER	REV
CT1432	A-5	6

NOTES:
 1. GROUND [ATS] TO EXISTING GROUND BAR
 2. GROUND GENERATOR TO EXISTING GROUND RING WITH (2) #2 AWG GROUND WIRES.



ELECTRICAL LEGEND & ABBREVIATIONS

	NEW PANEL BOARD, SURFACE MOUNTED
	EXISTING PANEL BOARD, SURFACE MOUNTED
	DRY TYPE TRANSFORMER
	METER
	CIRCUIT BREAKER
	NON-FUSIBLE DISCONNECT SWITCH, MOUNTED 54" A.F.F.
	FUSIBLE DISCONNECT SWITCH, MOUNTED 54" A.F.F.
	TRANSIENT VOLTAGE SURGE SUPPRESSOR WITH BUILT-IN FUSES, SURFACE MOUNTED
	DUPLEX OUTLET, SURFACE MOUNTED, 20 AMPS, 125 VOLTS, SINGLE PHASE
	JUNCTION BOX, SURFACE MOUNTED 18" A.F.F.
	EXPOSED WIRING
	HOME RUNS, MINIMUM 2#10 + 1#8G IN 3/4" CONDUIT U.O.N.
A.F.F.	ABOVE FINISHED FLOOR
U.O.N.	UNLESS OTHERWISE NOTED
WP	WEATHERPROOF
GFI	GROUND FAULT INTERRUPTER
A	AMPERE
V	VOLT
KWH	KILOWATT - HOUR
C	CONDUIT
PVC	POLYVINYL CHLORIDE
HZ	HERTZ
PH #	PHASE
W	WATTS
NEC	NATIONAL ELECTRIC CODE
PPC	POWER PROTECTION CABINET
UL	UNDERWRITER LABORATORIES
PTS	POWER TRANSFER SWITCH
QO	QUICK OPEN
GRC	GALVANIZED RIGID CONDUIT
G	GROUND
	GROUND
	MASTER GROUND BAR
	EQUIPMENT GROUND BAR
	GROUND COPPER WIRE, SIZE AS NOTED
	EXPOSED WIRING
	COAXIAL CABLE
	5/8"x8" COPPER CLAD STAINLESS STEEL GROUND ROD
	EXOTHERMIC (CAD WELD) OR MECHANICAL (COMPRESSION TYPE) CONNECTION
	POWER FACTOR

- ### ELECTRICAL AND GROUNDING NOTES
- ALL ELECTRICAL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE (NEC) AS WELL AS APPLICABLE STATE AND LOCAL CODES.
 - ALL ELECTRICAL ITEMS SHALL BE U.L. APPROVED OR LISTED AND PROCURED PER SPECIFICATION REQUIREMENTS.
 - THE ELECTRICAL WORK INCLUDES ALL LABOR AND MATERIAL DESCRIBED BY DRAWINGS AND SPECIFICATION INCLUDING INCIDENTAL WORK TO PROVIDE COMPLETE OPERATING AND APPROVED ELECTRICAL SYSTEM.
 - GENERAL CONTRACTOR SHALL PAY FEES FOR PERMITS, AND IS RESPONSIBLE FOR OBTAINING SAID PERMITS AND COORDINATION OF INSPECTIONS.
 - ELECTRICAL AND TELCO WIRING OUTSIDE A BUILDING AND EXPOSED TO WEATHER SHALL BE IN WATER TIGHT GALVANIZED RIGID STEEL CONDUITS OR SCHEDULE 80 PVC (AS PERMITTED BY CODE) AND WHERE REQUIRED IN LIQUID TIGHT FLEXIBLE METAL OR NONMETALLIC CONDUITS.
 - BURIED CONDUIT SHALL BE SCHEDULE 40 PVC.
 - ELECTRICAL WIRING SHALL BE COPPER WITH TYPE XHHW, THWN, OR THININSULATION.
 - RUN ELECTRICAL CONDUIT OR CABLE BETWEEN ELECTRICAL UTILITY DEMARCATION POINT AND PROJECT OWNER CELL SITE PPC AS INDICATED ON THIS DRAWING. PROVIDE FULL LENGTH PULL ROPE. COORDINATE INSTALLATION WITH UTILITY COMPANY.
 - RUN TELCO CONDUIT OR CABLE BETWEEN TELEPHONE UTILITY DEMARCATION POINT AND PROJECT OWNER CELL SITE TELCO CABINET AND BTS CABINET AS INDICATED ON THIS DRAWING. PROVIDE FULL LENGTH PULL ROPE IN INSTALLED TELCO CONDUIT. PROVIDE GREENLEE CONDUIT MEASURING TAPE AT EACH END.
 - WHERE CONDUIT BETWEEN BTS AND PROJECT OWNER CELL SITE PPC AND BETWEEN BTS AND PROJECT OWNER CELL SITE TELCO SERVICE CABINET ARE UNDERGROUND USE PVC, SCHEDULE 40 CONDUIT. ABOVE THE GROUND PORTION OF THESE CONDUITS SHALL BE PVC CONDUIT.
 - ALL EQUIPMENT LOCATED OUTSIDE SHALL HAVE NEMA 3R ENCLOSURE.
 - PPC SUPPLIED BY PROJECT OWNER.
 - GROUNDING SHALL COMPLY WITH NEC ART. 250.
 - GROUND COAXIAL CABLE SHIELDS MINIMUM AT BOTH ENDS USING MANUFACTURERS COAX CABLE GROUNDING KITS SUPPLIED BY PROJECT OWNER.
 - USE #6 COPPER STRANDED WIRE WITH GREEN COLOR INSULATION FOR ABOVE GRADE GROUNDING (UNLESS OTHERWISE SPECIFIED) AND #2 SOLID TINNED BARE COPPER WIRE FOR BELOW GRADE GROUNDING AS INDICATED ON THE DRAWING.
 - ALL GROUND CONNECTIONS TO BE BURNDY HYGROUND COMPRESSION TYPE CONNECTORS OR CADWELD EXOTHERMIC WELD. DO NOT ALLOW BARE COPPER WIRE TO BE IN CONTACT WITH GALVANIZED STEEL.
 - ROUTE GROUNDING CONDUCTORS ALONG THE SHORTEST AND STRAIGHTEST PATH POSSIBLE, EXCEPT AS OTHERWISE INDICATED. GROUNDING LEADS SHOULD NEVER BE BENT AT RIGHT ANGLE. ALWAYS MAKE AT LEAST 12" RADIUS BENDS. #6 WIRE CAN BE BENT AT 6" RADIUS WHEN NECESSARY. BOND ANY METAL OBJECTS WITHIN 6 FEET OF PROJECT OWNER EQUIPMENT OR CABINET TO MASTER GROUND BAR OR GROUNDING RING.
 - CONNECTIONS TO GROUND BARS SHALL BE MADE WITH TWO HOLE COMPRESSION TYPE COPPER LUGS. APPLY OXIDE INHIBITING COMPOUND TO ALL LOCATIONS.
 - APPLY OXIDE INHIBITING COMPOUND TO ALL COMPRESSION TYPE GROUND CONNECTIONS.
 - BOND ANTENNA MOUNTING BRACKETS, COAXIAL CABLE GROUND KITS, AND ALNA TO EGB PLACED NEAR THE ANTENNA LOCATION.
 - BOND ANTENNA EGB'S AND MGB TO GROUND RING.
 - CONTRACTOR SHALL TEST COMPLETED GROUND SYSTEM AND RECORD RESULTS FOR PROJECT CLOSE-OUT DOCUMENTATION. 5 OHMS MINIMUM RESISTANCE REQUIRED.
 - CONTRACTOR SHALL CONDUCT ANTENNA, COAX, AND LNA RETURN-LOSS AND DISTANCE-TO-FAULT MEASUREMENTS (SWEEP TESTS) AND RECORD RESULTS FOR PROJECT CLOSE OUT.
 - ALL NEW STRUCTURES WITH A FOUNDATION AND/OR FOOTING HAVING 20 FT. OR MORE OF 1/2" OR GREATER ELECTRICALLY CONDUCTIVE REINFORCING STEEL, MUST HAVE IT BONDED TO THE GROUND RING USING AN EXOTHERMIC WELD CONNECTION USING #2 AWG SOLID BARE TINNED COPPER GROUND WIRE, PER NEC 250.50.

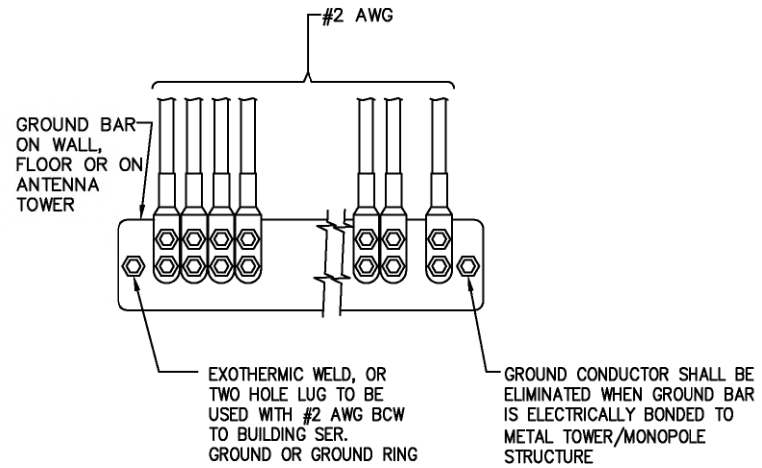


SITE NUMBER: CT1432
 SITE NAME: WOLCOTT CAPACITY
 CHESTNUT HILL ROAD
 WOLCOTT, CT 06716
 NEW HAVEN COUNTY



6	07/17/24	REVISED FOR CONSTRUCTION	RB	JC	DPH
5	05/22/24	REVISED FOR CONSTRUCTION	TR	JC	DPH
4	04/12/24	ISSUED FOR CONSTRUCTION	TR	JC	DPH
3	11/17/22	ISSUED FOR PERMITTING	CJ	JC	DPH
2	07/28/22	ISSUED FOR REVIEW	MJ	JC	DPH
NO.	DATE	REVISIONS	BY	CHK	APP'D
SCALE: AS SHOWN		DESIGNED BY: JC	DRAWN BY: TR		

AT&T		
ELECTRICAL NOTES & ONE-LINE DIAGRAM (NSB)		
SITE NUMBER	DRAWING NUMBER	REV
CT1432	E-1	6



INSTALLATION OF GROUND WIRE TO GROUND BAR

SCALE: N.T.S

1
G-1

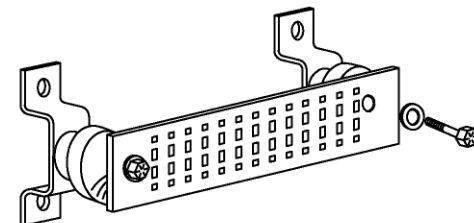
EACH GROUND CONDUCTOR TERMINATING ON ANY GROUND BAR SHALL HAVE AN IDENTIFICATION TAG ATTACHED AT EACH END THAT WILL IDENTIFY ITS ORIGIN AND DESTINATION.

SECTION "P" - SURGE PRODUCERS

- CABLE ENTRY PORTS (HATCH PLATES) (#2 AWG)
- GENERATOR FRAMEWORK (IF AVAILABLE) (#2 AWG)
- TELCO GROUND BAR
- COMMERCIAL POWER COMMON NEUTRAL/GROUND BOND (#2 AWG)
- +24V POWER SUPPLY RETURN BAR (#2 AWG)
- 48V POWER SUPPLY RETURN BAR (#2 AWG)
- RECTIFIER FRAMES.

SECTION "A" - SURGE ABSORBERS

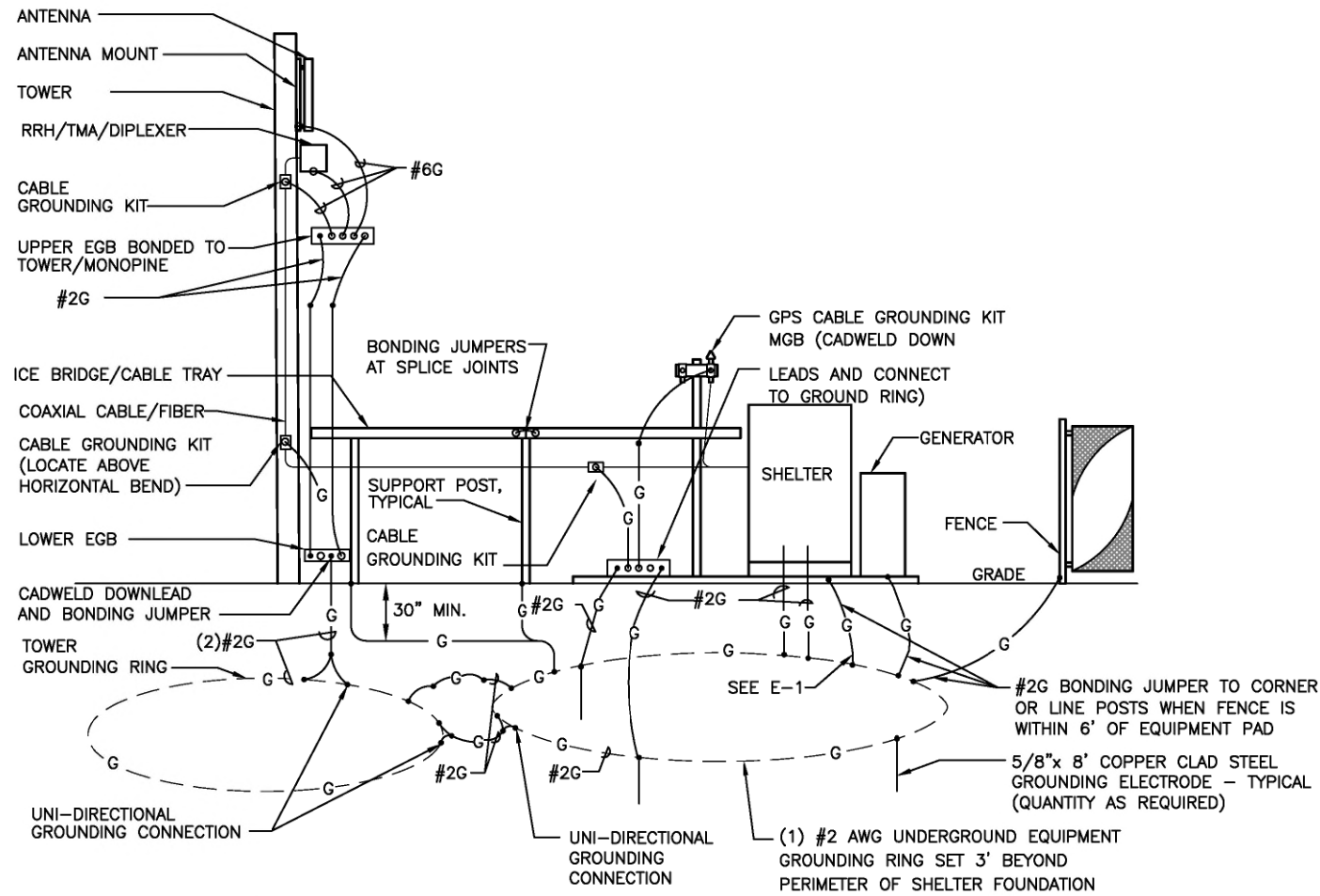
- INTERIOR GROUND RING (#2 AWG)
- EXTERNAL EARTH GROUND FIELD (BURIED GROUND RING) (#2 AWG)
- METALLIC COLD WATER PIPE (IF AVAILABLE) (#2 AWG)
- BUILDING STEEL (IF AVAILABLE) (#2 AWG)



GROUND BAR - DETAIL

SCALE: N.T.S

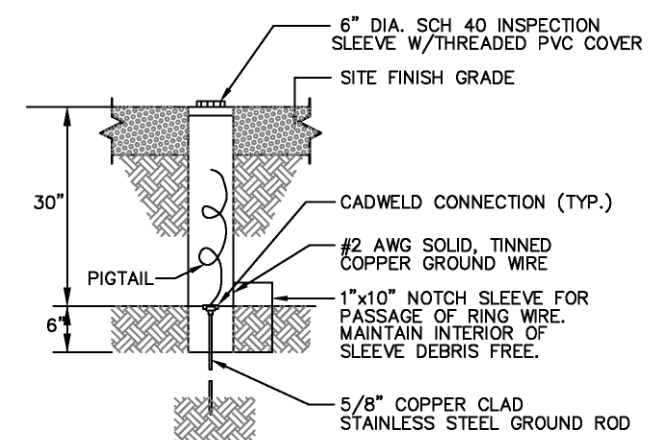
2
G-1



GROUNDING ONE-LINE DIAGRAM

SCALE: N.T.S

3
G-1



GROUND ROD TEST WELL DETAIL

SCALE: N.T.S

4
G-1



SITE NUMBER: CT1432
SITE NAME: WOLCOTT CAPACITY

CHESTNUT HILL ROAD
WOLCOTT, CT 06716
NEW HAVEN COUNTY



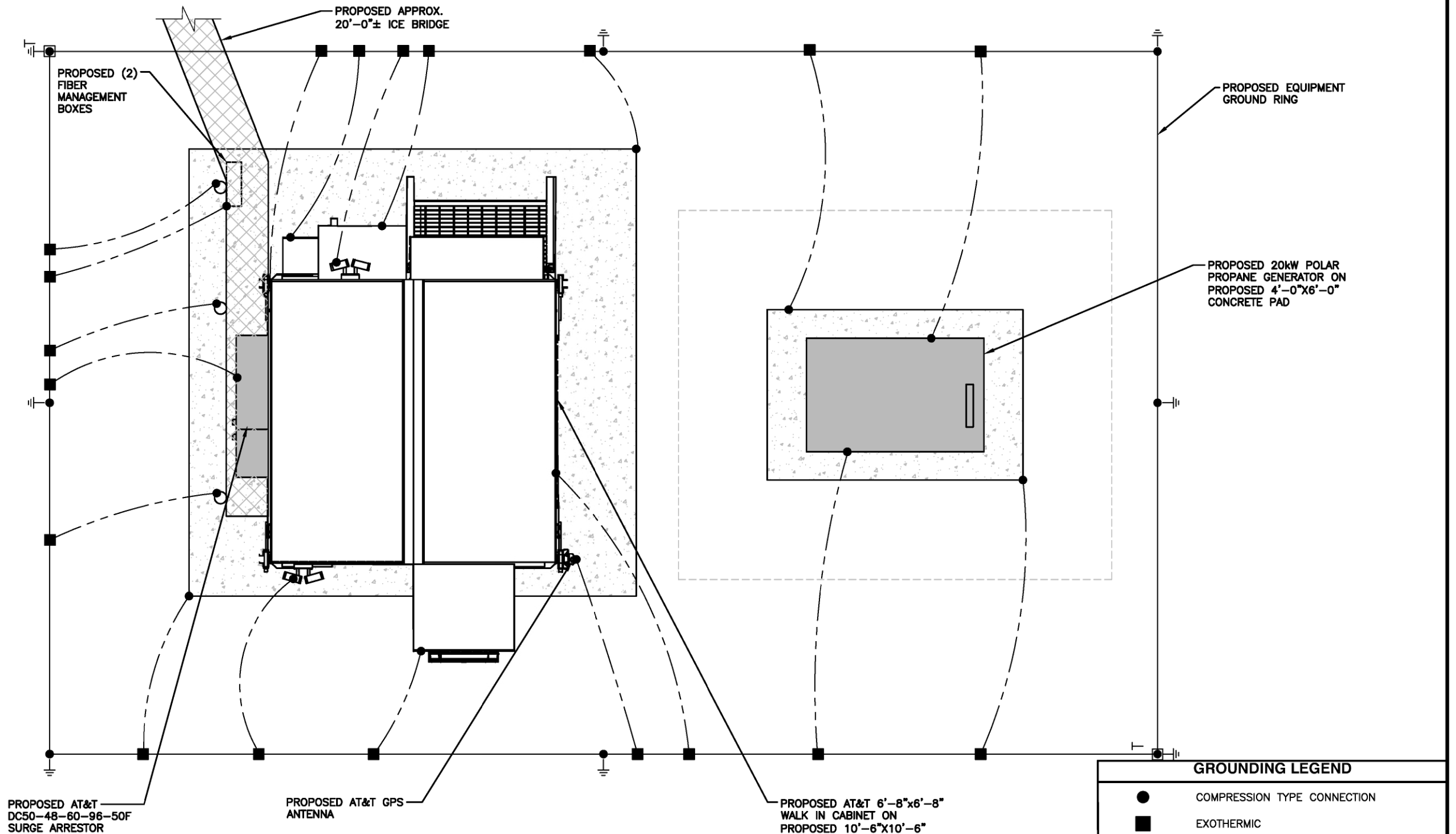
492 OLD CONNECTICUT PATH SUITE #210
FRAMINGHAM, MA 01701

6	07/17/24	REVISED FOR CONSTRUCTION	RB	JC	DPH
5	05/22/24	REVISED FOR CONSTRUCTION	TR	JC	DPH
4	04/12/24	ISSUED FOR CONSTRUCTION	TR	JC	DPH
3	11/17/22	ISSUED FOR PERMITTING	CJ	JC	DPH
2	07/28/22	ISSUED FOR REVIEW	MJ	JC	DPH
NO.	DATE	REVISIONS	BY	CHK	APP'D
SCALE: AS SHOWN		DESIGNED BY: JC	DRAWN BY: TR		

AT&T		
GROUNDING DETAILS (NSB)		
SITE NUMBER	DRAWING NUMBER	REV
CT1432	G-1	6

GROUNDING NOTES

1. ALL GROUND WIRE SHALL BE BARE COPPER #2 AWG UNLESS OTHERWISE NOTED.
2. ALL GROUND WIRES SHALL PROVIDE A STRAIGHT, DOWNWARD PATH TO GROUND WITH GRADUAL BENDS AS REQUIRED. GROUND WIRES SHALL NOT BE LOOPED OR SHARPLY BENT.
3. ELECTRICAL CONTRACTOR SHALL COORDINATE INSTALLATION OF GROUND RODS AND GROUND RING WITH FOUNDATION AND UNDERGROUND CONDUIT.
4. EACH EQUIPMENT CABINET SHALL BE CONNECTED TO THE MASTER ISOLATION GROUND BAR (MIGB) WITH #2 AWG INSULATED STRANDED COPPER WIRE. EQUIPMENT CABINETS SHALL EACH HAVE (2) CONNECTIONS.
5. PROVIDE DEDICATED #2 AWG COPPER GROUND WIRE FROM EACH ANTENNA MOUNTING PIPE TO ASSOCIATED CIGBE (TYPICAL FOR FOUR MOUNTING PIPES PER SECTOR).
6. ANTENNA GROUND KITS SHALL BE FURNISHED AND INSTALLED BY ELECTRICAL CONTRACTOR.
7. COORDINATE NEW LICENSEE GROUND SYSTEM WITH EXISTING SITE GROUND SYSTEM.
8. EACH SECTION OF CABLE TRAY, ICE BRIDGE AND ICE SHIELD SHALL BE CONNECTED IN A FASHION TO PROVIDE A CONTINUOUS GROUND.
9. AT ALL TERMINATIONS AT EQUIPMENT ENCLOSURES, PANELS AND FRAMES OF EQUIPMENT, AND WHERE EXPOSED FOR GROUNDING, CONDUCTOR TERMINATION SHALL BE PERFORMED UTILIZING TWO HOLE BOLTED TONGUE COMPRESSION TYPE WITH STAINLESS STEEL SELF-TAPPING SCREWS.
10. ALL CLAMPS AND SUPPORTS USED TO SUPPORT THE GROUNDING SYSTEM CONDUCTORS AND PVC CONDUITS SHALL BE PVC TYPE (NON CONDUCTIVE). DO NOT USE METAL BRACKETS OR SUPPORTS WHICH WOULD FORM A COMPLETE RING AROUND ANY GROUNDING CONDUCTOR.
11. ALL GROUNDING CONNECTIONS SHALL BE COATED WITH A COPPER SHIELD ANTI-CORROSIVE AGENT SUCH AS T&B KOPR SHIELD. VERIFY PRODUCT WITH LICENSEE PROJECT MANAGER.
12. ALL BOLTS, WASHERS, AND NUTS USED ON GROUNDING CONNECTIONS SHALL BE STAINLESS STEEL.
13. INSTALL GROUND BUSHINGS ON ALL METALLIC CONDUITS AND BOND TO THE EQUIPMENT GROUND BUS IN THE PANELBOARD.
14. GROUND ANTENNA BASES, FRAMES, CABLE RACKS AND OTHER METALLIC COMPONENTS WITH #2 AWG GROUNDING CONDUCTORS AND CONNECT TO INSULATED SURFACE MOUNTED GROUND BARS. CONNECTION DETAILS SHALL FOLLOW MANUFACTURER'S SPECIFICATIONS FOR GROUNDING.
15. GROUND COAXIAL SHIELD AT BOTH ENDS USING MANUFACTURER'S GUIDELINES.
16. REINFORCEMENT IN EQUIPMENT SLAB TO BE WELDED AND REINFORCEMENT TO BE BONDED TO GROUNDING RING.
17. CONCRETE-ENCASED ELECTRODES GREATER THAN 20 S.F. OF SURFACE AREA & 1/2" OR GREATER REINFORCING STEEL MUST BE BONDED TO THE GROUNDING RING PER NEC 250.50.
18. ALL GROUND BARS SHALL BE GALVANIZED WITH ANTI-THEFT HARDWARE.



GROUNDING PLAN
 22x34 SCALE: 3/4"=1'-0"
 11x17 SCALE: 3/8"=1'-0"

GROUNDING LEGEND	
	COMPRESSION TYPE CONNECTION
	EXOTHERMIC
	CHEMICAL ELECTROLYTIC GROUNDING SYSTEM
	5/8" X 10'-0" COPPER CLAD GROUND ROD
	TEST 5/8" X 10'-0" COPPER CLAD GROUND ROD WITH INSPECTION SLEEVE
	EXOTHERMIC WITH INSPECTION SLEEVE
	#2 SOLID TINNED COPPER WIRE UNLESS OTHERWISE NOTED GROUNDING CONDUCTOR
	GROUNDING BAR
	PIGTAIL GROUND CONDUCTOR



SITE NUMBER: CT1432
 SITE NAME: WOLCOTT CAPACITY
 CHESTNUT HILL ROAD
 WOLCOTT, CT 06716
 NEW HAVEN COUNTY



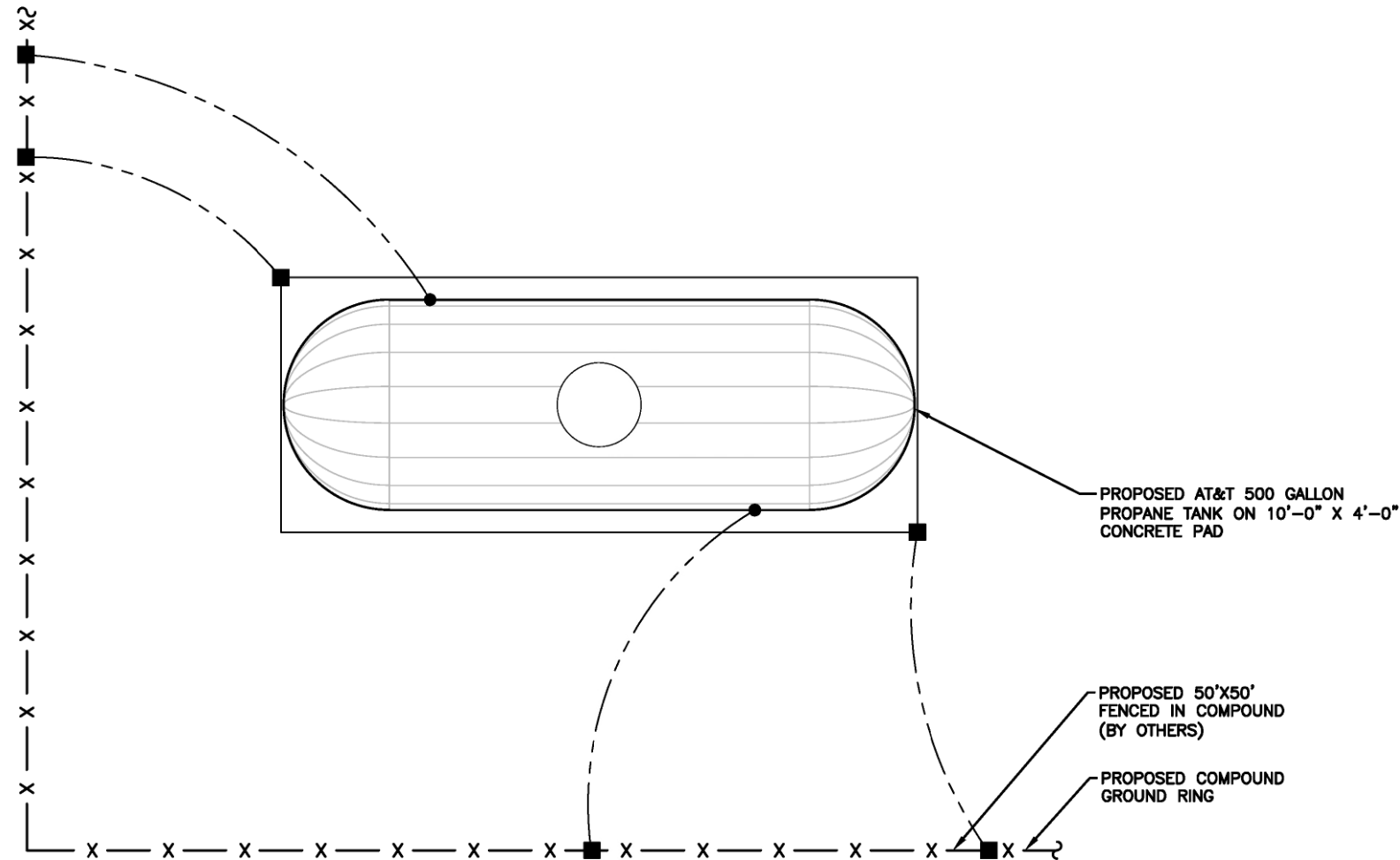
NO.	DATE	REVISIONS	BY	CHK	APP'D
6	07/17/24	REVISED FOR CONSTRUCTION	RB	JC	DPH
5	05/22/24	REVISED FOR CONSTRUCTION	TR	JC	DPH
4	04/12/24	ISSUED FOR CONSTRUCTION	TR	JC	DPH
3	11/17/22	ISSUED FOR PERMITTING	CJ	JC	DPH
2	07/28/22	ISSUED FOR REVIEW	MJ	JC	DPH

SCALE: AS SHOWN DESIGNED BY: JC DRAWN BY: TR

AT&T		
GROUNDING PLAN (NSB)		
SITE NUMBER	DRAWING NUMBER	REV
CT1432	G-2	6

GROUNDING NOTES

1. ALL GROUND WIRE SHALL BE BARE COPPER #2 AWG UNLESS OTHERWISE NOTED.
2. ALL GROUND WIRES SHALL PROVIDE A STRAIGHT, DOWNWARD PATH TO GROUND WITH GRADUAL BENDS AS REQUIRED. GROUND WIRES SHALL NOT BE LOOPED OR SHARPLY BENT.
3. ELECTRICAL CONTRACTOR SHALL COORDINATE INSTALLATION OF GROUND RODS AND GROUND RING WITH FOUNDATION AND UNDERGROUND CONDUIT.
4. EACH EQUIPMENT CABINET SHALL BE CONNECTED TO THE MASTER ISOLATION GROUND BAR (MIGB) WITH #2 AWG INSULATED STRANDED COPPER WIRE. EQUIPMENT CABINETS SHALL EACH HAVE (2) CONNECTIONS.
5. PROVIDE DEDICATED #2 AWG COPPER GROUND WIRE FROM EACH ANTENNA MOUNTING PIPE TO ASSOCIATED CIGBE (TYPICAL FOR FOUR MOUNTING PIPES PER SECTOR).
6. ANTENNA GROUND KITS SHALL BE FURNISHED AND INSTALLED BY ELECTRICAL CONTRACTOR.
7. COORDINATE NEW LICENSEE GROUND SYSTEM WITH EXISTING SITE GROUND SYSTEM.
8. EACH SECTION OF CABLE TRAY, ICE BRIDGE AND ICE SHIELD SHALL BE CONNECTED IN A FASHION TO PROVIDE A CONTINUOUS GROUND.
9. AT ALL TERMINATIONS AT EQUIPMENT ENCLOSURES, PANELS AND FRAMES OF EQUIPMENT, AND WHERE EXPOSED FOR GROUNDING, CONDUCTOR TERMINATION SHALL BE PERFORMED UTILIZING TWO HOLE BOLTED TONGUE COMPRESSION TYPE WITH STAINLESS STEEL SELF-TAPPING SCREWS.
10. ALL CLAMPS AND SUPPORTS USED TO SUPPORT THE GROUNDING SYSTEM CONDUCTORS AND PVC CONDUITS SHALL BE PVC TYPE (NON CONDUCTIVE). DO NOT USE METAL BRACKETS OR SUPPORTS WHICH WOULD FORM A COMPLETE RING AROUND ANY GROUNDING CONDUCTOR.
11. ALL GROUNDING CONNECTIONS SHALL BE COATED WITH A COPPER SHIELD ANTI-CORROSIVE AGENT SUCH AS T&B KOPR SHIELD. VERIFY PRODUCT WITH LICENSEE PROJECT MANAGER.
12. ALL BOLTS, WASHERS, AND NUTS USED ON GROUNDING CONNECTIONS SHALL BE STAINLESS STEEL.
13. INSTALL GROUND BUSHINGS ON ALL METALLIC CONDUITS AND BOND TO THE EQUIPMENT GROUND BUS IN THE PANELBOARD.
14. GROUND ANTENNA BASES, FRAMES, CABLE RACKS AND OTHER METALLIC COMPONENTS WITH #2 AWG GROUNDING CONDUCTORS AND CONNECT TO INSULATED SURFACE MOUNTED GROUND BARS. CONNECTION DETAILS SHALL FOLLOW MANUFACTURER'S SPECIFICATIONS FOR GROUNDING.
15. GROUND COAXIAL SHIELD AT BOTH ENDS USING MANUFACTURER'S GUIDELINES.
16. REINFORCEMENT IN EQUIPMENT SLAB TO BE WELDED AND REINFORCEMENT TO BE BONDED TO GROUNDING RING.
17. CONCRETE-ENCASED ELECTRODES GREATER THAN 20 S.F. OF SURFACE AREA & 1/2" OR GREATER REINFORCING STEEL MUST BE BONDED TO THE GROUNDING RING PER NEC 250.50.
18. ALL GROUND BARS SHALL BE GALVANIZED WITH ANTI-THEFT HARDWARE.



GROUNDING PLAN 1
 22x34 SCALE: 3/4"=1'-0"
 11x17 SCALE: 3/8"=1'-0"
 G-3

GROUNDING LEGEND

- COMPRESSION TYPE CONNECTION
- EXOTHERMIC
- ⊗ CHEMICAL ELECTROLYTIC GROUNDING SYSTEM
- ||● 5/8" X 10'-0" COPPER CLAD GROUND ROD
- ||■T TEST 5/8" X 10'-0" COPPER CLAD GROUND ROD WITH INSPECTION SLEEVE
- EXOTHERMIC WITH INSPECTION SLEEVE
- #2 SOLID TINNED COPPER WIRE UNLESS OTHERWISE NOTED GROUNDING CONDUCTOR
- GROUNDING BAR
- PIGTAIL GROUND CONDUCTOR



SITE NUMBER: CT1432
 SITE NAME: WOLCOTT CAPACITY

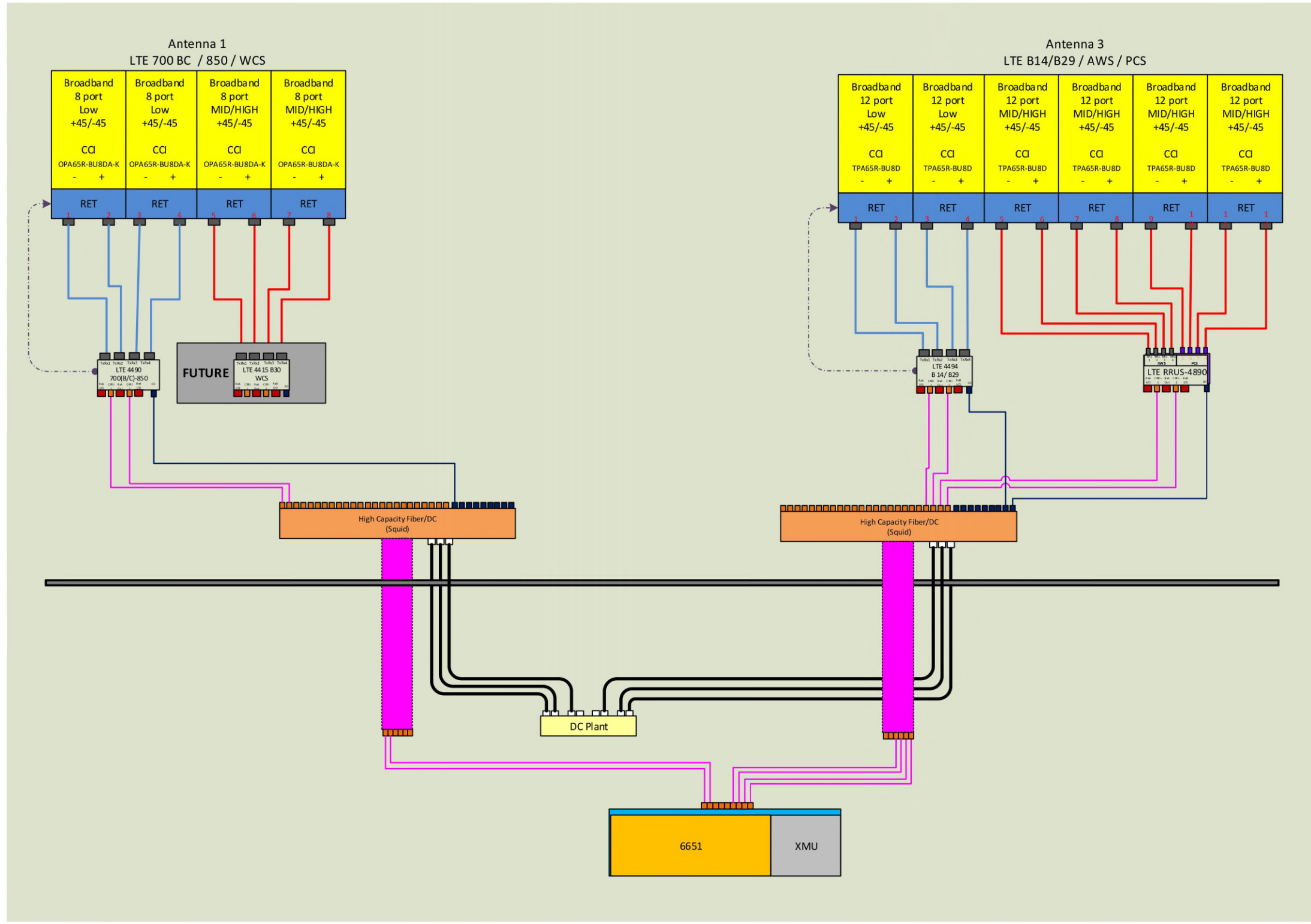
CHESTNUT HILL ROAD
 WOLCOTT, CT 06716
 NEW HAVEN COUNTY



492 OLD CONNECTICUT PATH SUITE #210
 FRAMINGHAM, MA 01701

6	07/17/24	REVISED FOR CONSTRUCTION	RB	JC	DPH
5	05/22/24	REVISED FOR CONSTRUCTION	TR	JC	DPH
4	04/12/24	ISSUED FOR CONSTRUCTION	TR	JC	DPH
3	11/17/22	ISSUED FOR PERMITTING	CJ	JC	DPH
2	07/28/22	ISSUED FOR REVIEW	MJ	JC	DPH
NO.	DATE	REVISIONS	BY	CHK	APP'D
SCALE: AS SHOWN		DESIGNED BY: JC	DRAWN BY: TR		

AT&T		
GROUNDING PLAN (NSB)		
SITE NUMBER	DRAWING NUMBER	REV
CT1432	G-3	6



RF PLUMBING DIAGRAM 1
SCALE: N.T.S. RF-1

NOTE:
1. CONTRACTOR TO CONFIRM ALL PARTS.
2. INSTALL ALL EQUIPMENT TO MANUFACTURER'S RECOMMENDATIONS

NOTE:
REFER TO THE FINAL RF DATA SHEET FOR FINAL ANTENNA SETTINGS.



SITE NUMBER: CT1432
SITE NAME: WOLCOTT CAPACITY

CHESTNUT HILL ROAD
WOLCOTT, CT 06716
NEW HAVEN COUNTY



NO.	DATE	REVISIONS	BY	CHK	APP'D
6	07/17/24	REVISED FOR CONSTRUCTION	RB	JC	DPH
5	05/22/24	REVISED FOR CONSTRUCTION	TR	JC	DPH
4	04/12/24	ISSUED FOR CONSTRUCTION	TR	JC	DPH
3	11/17/22	ISSUED FOR PERMITTING	CJ	JC	DPH
2	07/28/22	ISSUED FOR REVIEW	MJ	JC	DPH

SCALE: AS SHOWN DESIGNED BY: JC DRAWN BY: TR

AT&T		
RF PLUMBING DIAGRAM (NSB)		
SITE NUMBER	DRAWING NUMBER	REV
CT1432	RF-1	6