



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

February 23, 2024

Thomas J. Regan, Esq.
Brown Rudnick LLP
185 Asylum Street
Hartford, CT 06103
tregan@brownrudnick.com

RE: **SUBPETITION NO. 1133-CING-20221107** - New Cingular Wireless PCS, LLC d/b/a AT&T eligible facility request for modifications to an existing telecommunications facility located at 160 Wampus Lane, Milford, Connecticut. **Request for a Project Change and Extension of Construction Time.**

Dear Attorney Regan:

The Connecticut Siting Council (Council) is in receipt of your letter dated February 22, 2024, submitted on behalf of AT&T, regarding a change and extension of construction time for the above-referenced Eligible Facility Request (EFR) that was approved by the Council on November 7, 2022.

Pursuant to Condition No. 1 of the Council's May 2, 2023 approval, your request to install a 20 kW emergency backup power generator in lieu of 15 kW emergency backup power generator is hereby approved.

Additionally, Pursuant to Condition No. 10 of the Council's decision letter dated May 2, 2023, the Council hereby grants an extension of time until May 2, 2025 to submit a notice of completion of construction.

This approval applies only to the project change described in your February 22, 2024 correspondence.

This extension is granted with the understanding that the Council will be notified should AT&T need additional time to submit a notice of completion of construction or decides not to proceed with construction.

Thank you for your attention to this matter.

Sincerely,

Melanie A. Bachman
Executive Director

MAB/ANM/dll

brownrudnick

THOMAS J. REGAN
direct dial: 860.509.6522
fax: 860.509.6622
tregan@brownrudnick.com

February 22, 2024

VIA E-MAIL & OVERNIGHT MAIL

Attorney Melanie Bachman
Executive Director
Connecticut Siting Council
Ten Franklin Square
New Britain, CT 06051

Re: SUBPETITION NO. 1133-CING-20221107 – New Cingular Wireless PCS, LLC d/b/a AT&T (“AT&T”) eligible facility request for modification to an existing telecommunications facility located at 160 Wampus Lane, Milford, Connecticut Request for Extension of Time and Modification to Backup Power Generator

Dear Attorney Bachman:

As you may recall, on May 2, 2023, the Connecticut Siting Council approved the above referenced Subpetition (the “Decision” Attachment A). Condition 9 of the Decision provides that the approval expires on May 2, 2024 but AT&T may file a request for an extension of time provided such request is submitted to the Council not less than 60 days prior to the expiration date. On behalf of AT&T, we hereby request an extension of one year to May 2, 2025. AT&T has not yet installed its wireless facility but plans to do so later this year.

Additionally, AT&T is now installing a 20KW Polar backup power generator (Attachment B) and to, to the extent required, seeks approval to substitute a 20KW Polar backup power generator for the 15KW backup power generator (Attachment C) as approved by the Connecticut Siting Council. We have enclosed the generator specification sheets for both back power generators. You will note that both models contain a 54-gallon fuel tank. Also, the generator remains in the same location as previously proposed (see Attachment D).

Please let us know if you need any further information and we look forward to the Council's determination.

Thank you.

Sincerely,

/s/ Thomas J. Regan
Thomas J. Regan

cc: The Honorable Anthony S. Giannattasio, Mayor, City of Milford (mayor@milfordct.gov)

ATTACHMENT A



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/esc

VIA ELECTRONIC MAIL

May 2, 2023

Thomas J. Regan, Esq.
Brown Rudnick LLP
185 Asylum Street
Hartford, CT 06103
tregan@brownrudnick.com

RE: SUBPETITION NO. 1133-CING-20221107 - New Cingular Wireless PCS, LLC d/b/a AT&T eligible facility request for modifications to an existing telecommunications facility located at 160 Wampus Lane, Milford, Connecticut.

Dear Attorney Regan:

The Connecticut Siting Council (Council) hereby approves your Eligible Facilities Request (EFR) to extend the height of the existing monopole and install antennas and associated equipment at the above-referenced facility pursuant to the Federal Communications Commission Wireless Infrastructure Report and Order, with the following conditions:

1. Approval of any changes be delegated to Council staff;
2. Prior to installation of the tower extension, the proposed structure modifications referenced as TES Job No. 137809 shall be installed in accordance with the Structural Analysis prepared by Tower Engineering Services, dated April 4, 2023 and stamped and signed by Jarryd Tibbetts;
3. Within 45 days following completion of equipment installation, AT&T shall provide documentation certified by a Professional Engineer that its installation complied with the recommendations of the Structural Analysis;
4. RF access restriction and caution signage shall be installed at the site in compliance with FCC guidance;
5. Written notification to the Council at least two weeks prior to the commencement of site construction activities;
6. Deployment of any 5G services must comply with FCC and FAA guidance relative to air navigation, as applicable;
7. Within 45 days after completion of construction, the Council shall be notified in writing that construction has been completed **along with a representative photograph of the facility modification**;
8. Any nonfunctioning antenna and associated antenna mounting equipment, or other equipment at this facility owned and operated by AT&T shall be removed within 60 days of the date the antenna or equipment ceased to function;
9. The validity of this action shall expire one year from the date of this letter; and
10. AT&T may file a request for an extension of time beyond the one year deadline provided that such request is submitted to the Council not less than 60 days prior to the expiration.

This decision is under the exclusive jurisdiction of the Council and is not applicable to any other modification or construction. All work is to be implemented as specified in the EFR dated November 2, 2022 and additional information provided on January 27, 2023 and April 18, 2023. Any changes to the eligible facility request require advance notification and approval.

Thank you for your attention and cooperation.

Sincerely,

A handwritten signature in black ink, appearing to read "Melanie Bachman". The signature is fluid and cursive, with a long horizontal stroke at the end.

Melanie Bachman
Executive Director

MAB/IN/ lm

c: The Honorable Richard Smith, Mayor, City of Milford (mayor@milfordct.gov)

ATTACHMENT B



20 KW DIESEL DC GENERATOR PART NUMBER V020DYA360TEC

All APUs include:

- Powder coated aluminum enclosure
- 8-alarm relay board
- Jump Start Kit
- OPV (Over-Fill Prevention Valve)
- IOT device for remote monitoring

Options available:

- Coastal Coating
- Oil refining kit



Standards:

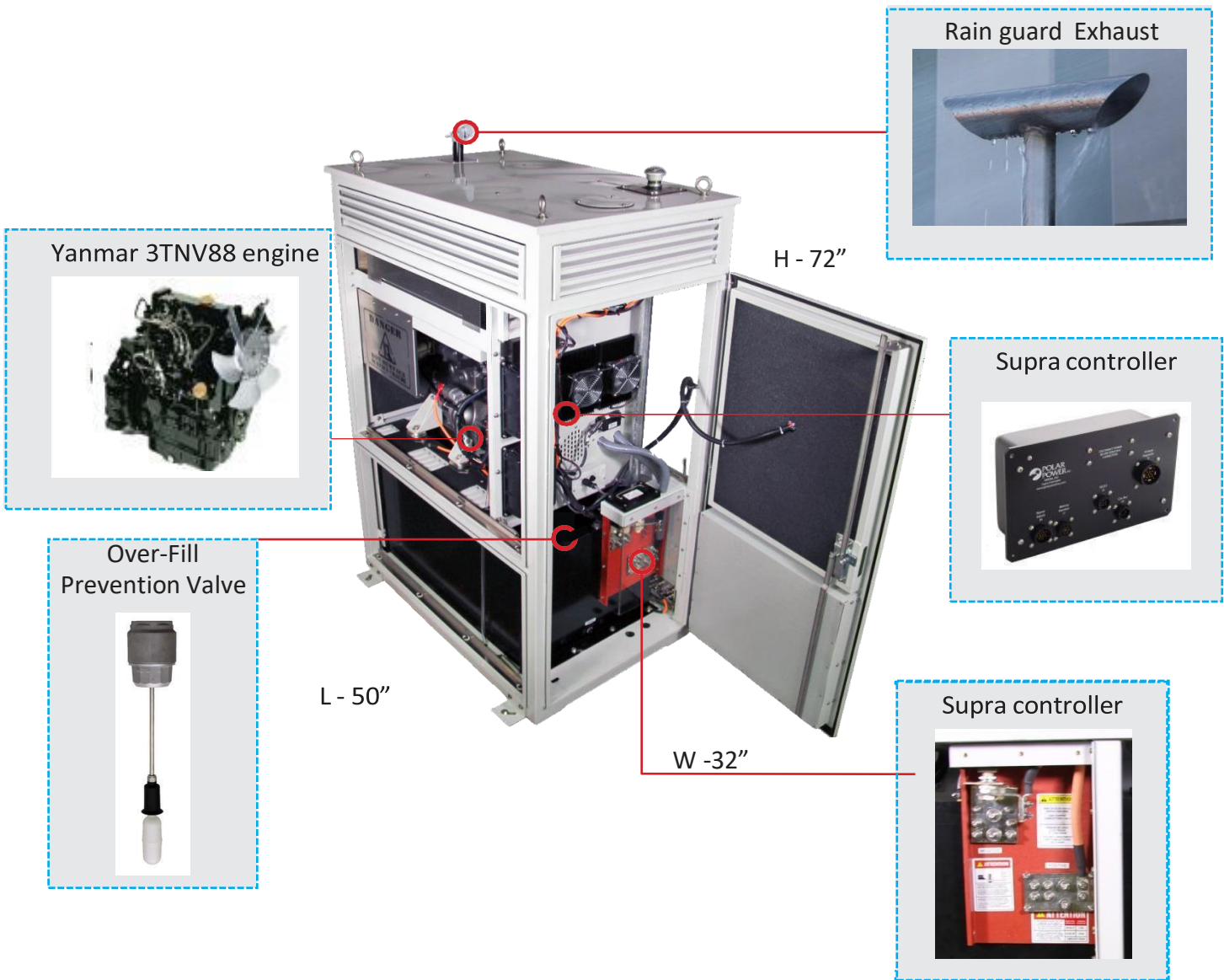
- *UL STD 2200*
- *EPA Compliant*



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.



SMALL FOOTPRINT, LIGHT WEIGHT. Polar's vertical 270amp - 48V DC generator is the lightest weight, most compact power source on the market for either prime or backup power applications. This 15kw 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.

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

OVER-FILL PREVENTION. Modified diesel fuel tank added to retrofit an Over-Fill Prevention Valve. This uses a float within the tank which increases the safety factor by closing the fuel inlet as diesel level rises. Special fill nozzle required.

SPECIFICATIONS PN V020DYA360TEC

Engine

Engine Model	Yanmar 3TNV88-BDSA
Cylinders	3 In-line
Displacement (L)	1.642
Bore (in./mm)	3.4/88
Stroke (in./mm)	3.5/90
Intake Air System	Naturally Aspirated
Engine HP	36 @ 3000RPM
Emissions Compliance	EPA and CARB Certified
Variable RPM	2300 to 3000

Engine lubrication system

Oil Filter Type	Full flow spin-on canister
Oil Capacity (L)	6.7
Oil Pressure Switch (standard)	Yes
Oil Pressure Transducer	Optional

Fuel tank

UL Rated Capacity (gal/L)	54/204
Run Time (hrs) 75% Load	30
Tank Alarms + Visual Gage	Yes
OPV (over-fill prevention valve)	Yes
Catch Basin (gal/L)	5/19
Listings	UL 142 (double wall)

Fuel tank reserve time

Load (kW)	Reserve Time (hrs.)
v3	147
6	97
9	65
10	58
11	57
12	55
13	53
14	52
15	50
20	30

Engine cooling system

Type	Pressurized Aluminum Radiator
Water Pump	Belt-driven, Pre-lubed, self-sealing
Fan Type	Electric Fans
Airflow CFM	1300
Fan Mode	Pusher
Temperature Sensor	Yes

Environmental

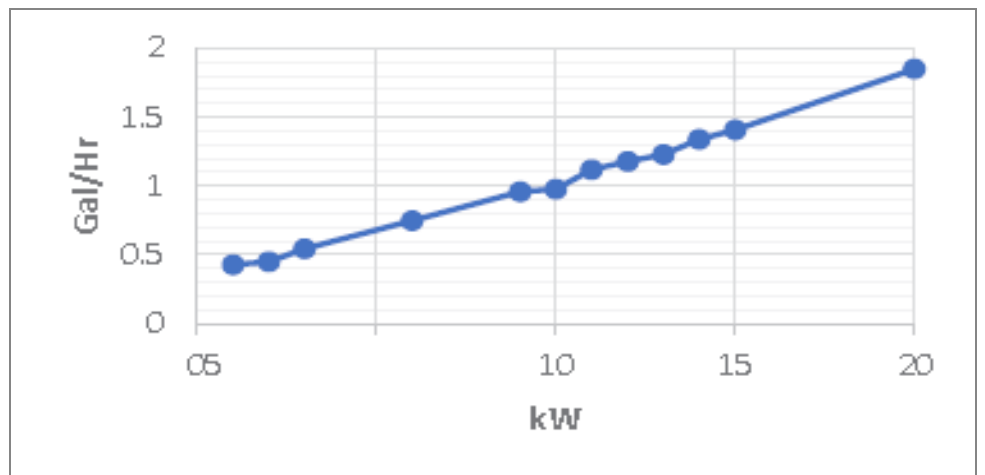
Operating Temperature (°C/°F)	-25 to +45 / -13 to 113
Operating Humidity %	100
Cold Start Aids	Required under -25°C

Power adjustment for conditions

Temperature Deration	1% derate for every 5.6 0C (10 0F) above 25 0C (77 0F)
Altitude Deration	3% derate for every 300 m (1000ft) above 91 m (300 ft)

Diesel Fuel system

Type	Diesel
Fuel Pump Type	Electrical
Injector Type	Mechanical
Fuel Filtering	Paper Element



Engine cooling

System coolant capacity (gal/L)

2.2/8.3

Alternator

Alternator Model	8220
Type	Permanent Magnets, NdFeB
Weight (lb/kg)	46.5/21
Regulation Type	Variable engine speed
Stator	3 phase/32 poles
Overcurrent Protection (A)	15 kW - 350
Disconnect Means	Pull fuse block or Circuit breaker
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

Dry Weight (lb/kg)	1315/597
Including pallet and packaging	1425/647

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

Certification	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 Sequence.....	Cyclic 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
Glow Plug Delay	Adjustable
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

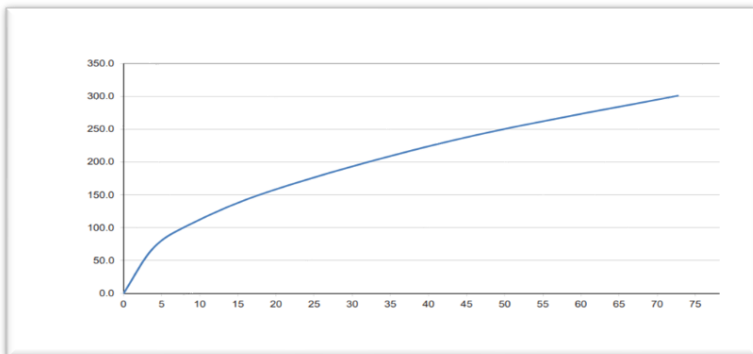
Alarm monitoring and remote control through Ethernet.

Contact closure alarm board

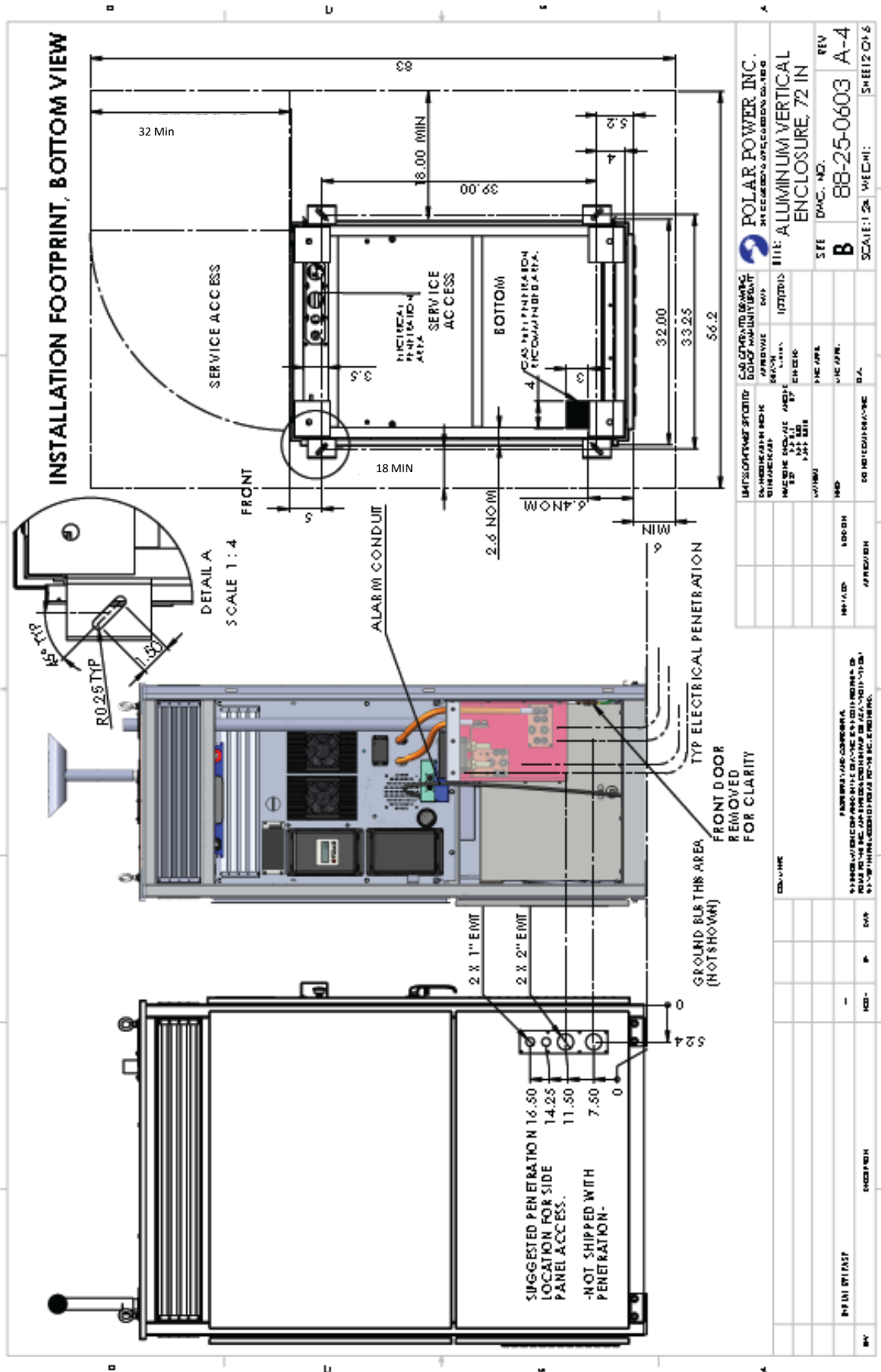
Shutdown Alarm.....	Standard
Warning Alarm	Standard
Engine Run	Standard
E-Stop Depressed.....	Standard

OPV

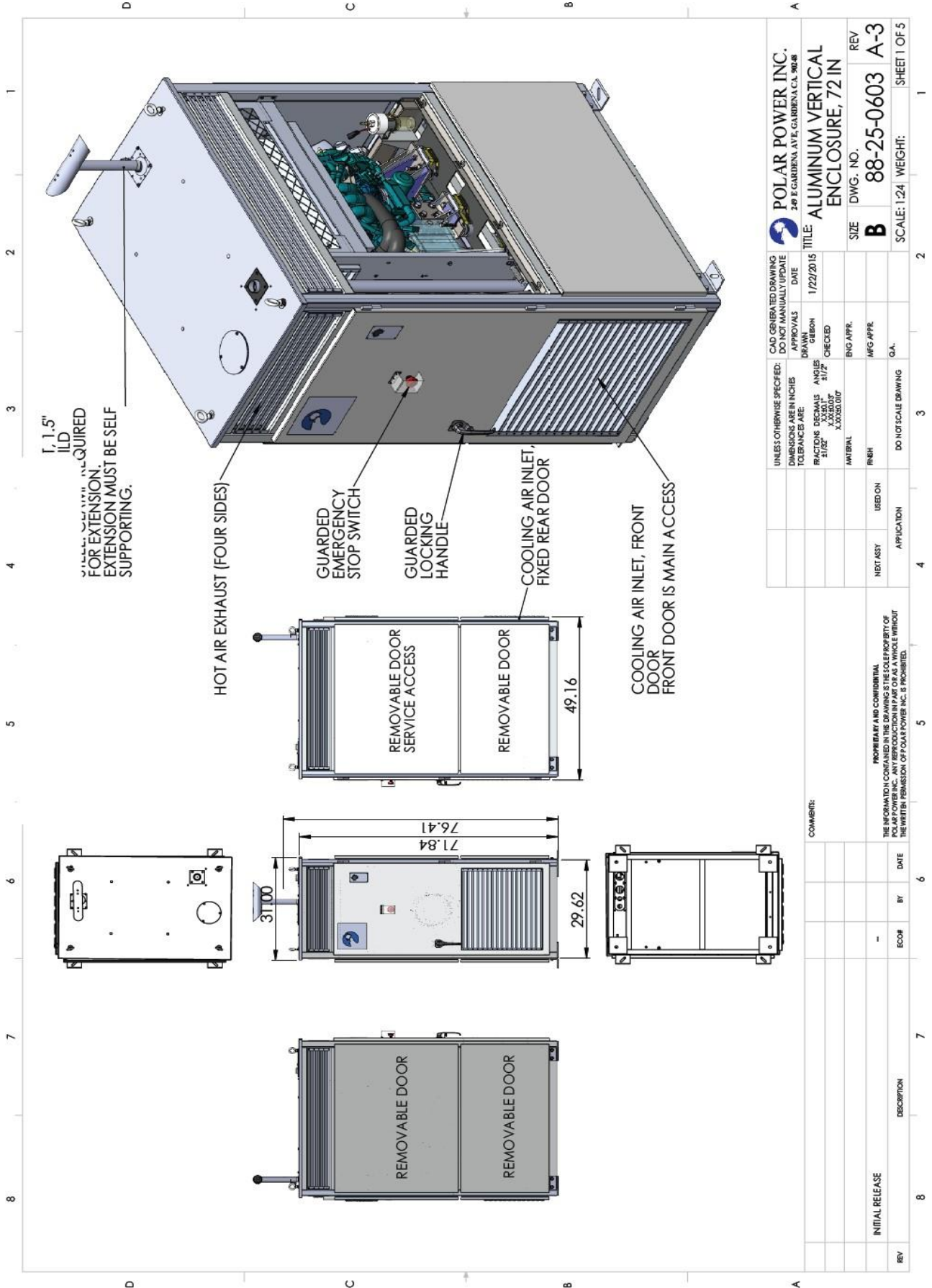
Min / Max Flow Pressure	5 PSI / 100 PSI
Connection	2" Cam Lock
Fluid Compatibility	Diesel, Biodiesel
Standards	ULC-S661-10 / NFPA 30, 30A



20kW DIMENSIONS V020DYA360TEC



V020DYA360TEC 20kW Elevation Drawing



UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN INCHES TOLERANCES ARE FRACTIONS DECIMALS 1/16" 0.0625" 1/32" 0.03125" 3/32" 0.09375" 1/8" 0.125" 1/4" 0.2500" 3/16" 0.1875" 1/2" 0.5000" 5/8" 0.6250" 1" 1.0000" 1 1/2" 1.5000" 2" 2.0000" 3" 3.0000"		CAD GENERATED DRAWING DO NOT MANUALLY UPDATE	APPROVALS DATE	1/22/2015
DRAWN GEBON		CHECKED 1/1/2	ENG APPR.	MFG APPR.
MATERIAL		FINISH	USED ON	APPLICATION
NEXT ASSY		DO NOT SCALE DRAWING		

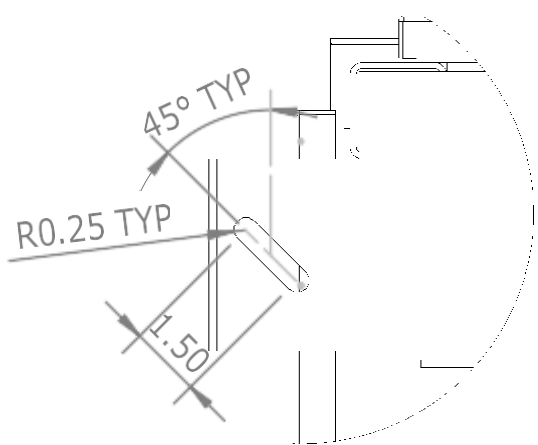
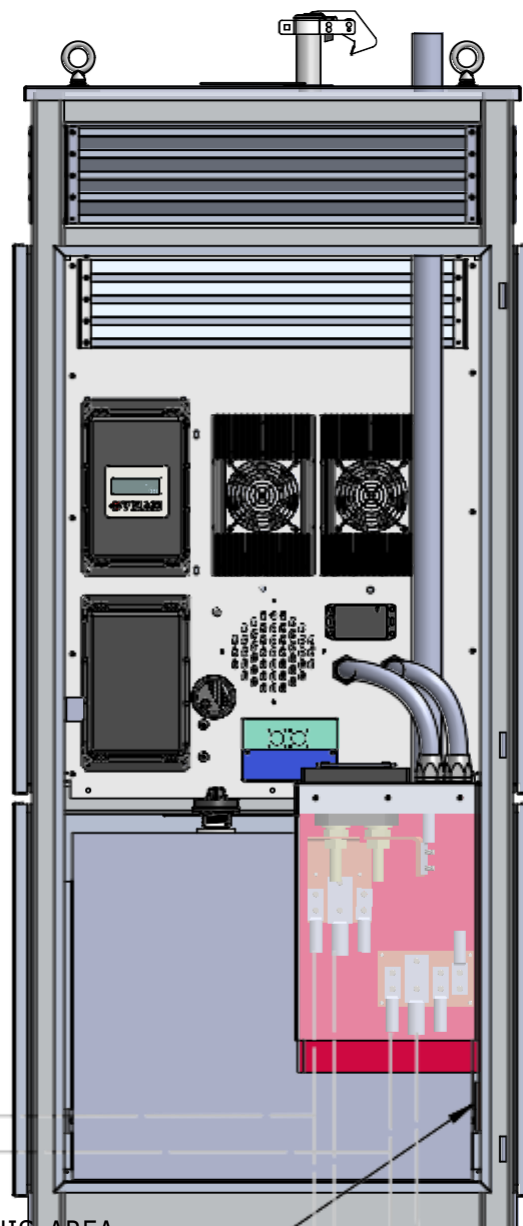
POLAR POWER INC. 249 E GARDENA AVE, GARDENA, CA 90248		REV	A-3
TITLE: ALUMINUM VERTICAL ENCLOSURE, 72 IN		SIZE	B
DWG. NO. 88-25-0603		SCALE	1:24
WEIGHT:		SHEET 1 OF 5	

COMMENTS:

PROPRIETARY AND CONFIDENTIAL
THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF POLAR POWER INC. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF POLAR POWER INC. IS PROHIBITED.

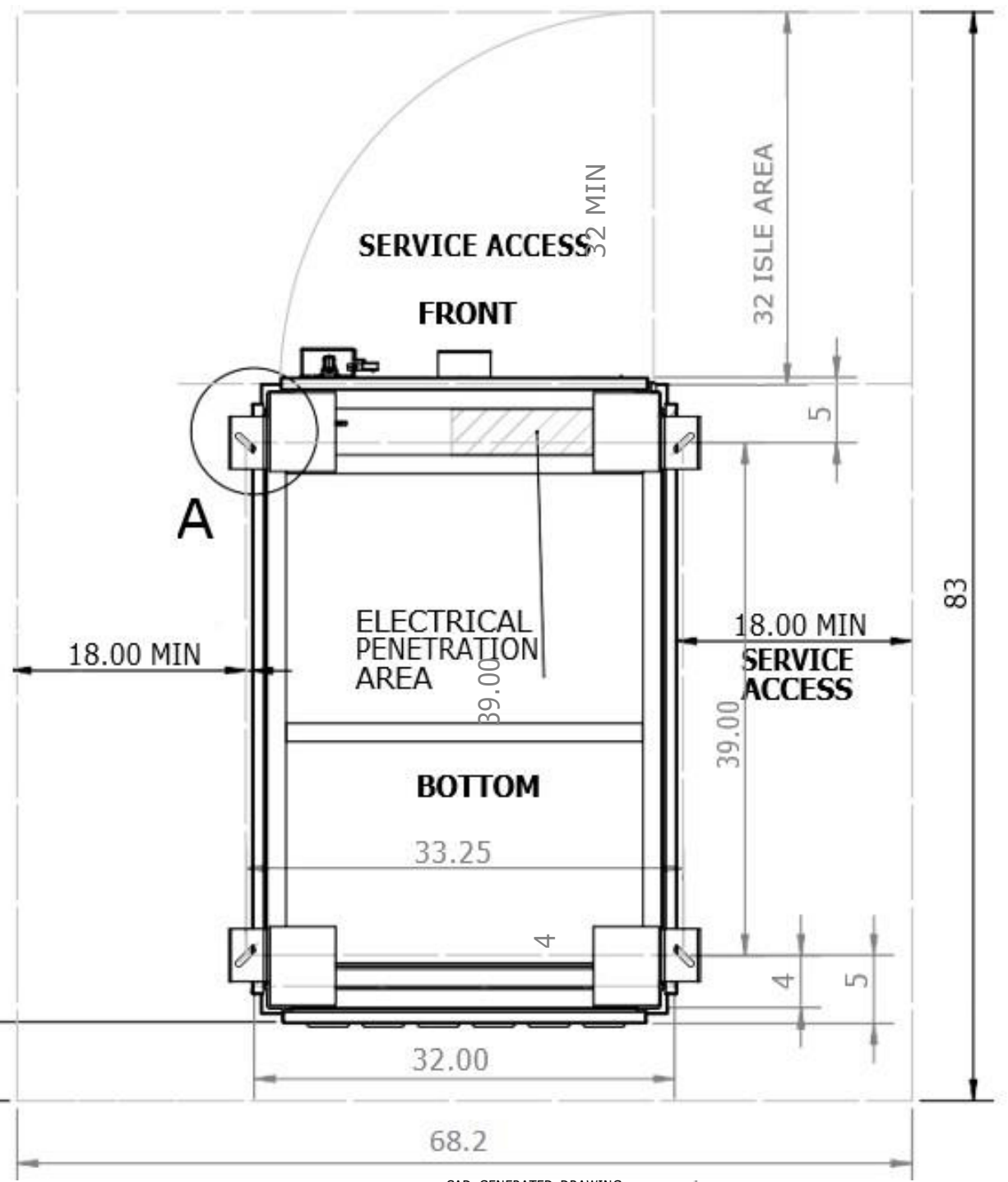
REV	DESCRIPTION	DATE	BY	ECOH
INITIAL RELEASE				

INSTALLATION FOOTPRINT



DETAIL A
SCALE 1 : 4

ELECTCAL PENETRATION AREA



GROUND BUS THIS AREA (NOT SHOWN) TYP ELECTRICAL PENETRATION

FRONT DOOR REMOVED FOR CLARITY

UNLESS OTHERWISE SPECIFIED: CAD GENERATED DRAWING DO NOT MANUALLY UPDATE

POLAR POWER INC.

DIMENSIONS ARE IN INCHES		APPROVALS	DATE
TOLERANCES ARE:		DRAWN	
FRACTIONS	DECIMALS	ANGLES	1/22/2015
±1/32"	X.X±0.1"	±1/2°	
	X.XX±0.03"	CHECKED	
	X.XXX±0.010"	ENG APPR.	
MATERIAL		MFG APPR.	
FINISH			

2520 AVALON BLVD, CARSON, CA 90745

ALUMINUM VERTICAL ENCLOSURE, 72 IN DWG. NO. 88-25-0603

COMMENTS:

INITIAL RELEASE	--
REV	

PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF

NEXT ASSY USED ON

REV

ATTACHMENT C

8220-100 series

RUGGED POWER



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.

Intertek 4003706

Conforms to UL STD 2200

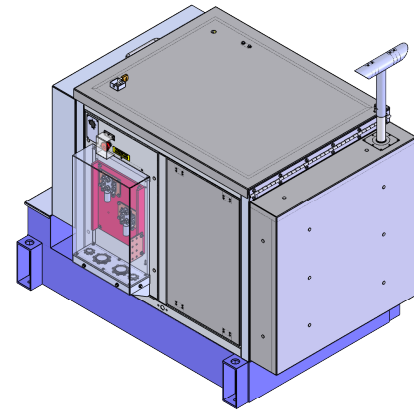
Certified to CSA STD C22.2 No. 100

Meets EPA Emission Regulations
CA/MA Emissions Compliant

2 year standard warranty

Model Number:

8220-100-D-15-03 - Diesel 15 kW -48 VDC



The concepts and features behind Polar's Hybrid application generator for telecommunications include:

SMALL FOOTPRINT. Polar's DC generator is considerably smaller in size than an AC generator. You can now backup sites that could not accommodate an AC generator. Smaller also means less cost for space leasing.

LOW MAINTENANCE. Due to oversized oil sump, and oil/fuel filtration system.

LOW ACOUSTIC NOISE. <62 dBA @ 7 meters for diesel, and low vibration so as not to disturb the local residents or building landlords.

LIGHTWEIGHT. Up to 1/3 the weight of a comparable AC generator.

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.

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.

SUPERCAPACITOR STARTER. Failure to start is the number one problem plaguing generator reliability and typically this is caused by a bad starting battery. Polar unique design has replaced the starting battery with a Super Capacitor. Capacitors are more reliable and last longer than batteries (10-15 year life).

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.

ADVANCED MONITORING. Remote diagnostics, control, and monitoring. Ethernet and RS232 standard, with optional SNMP.



APPLICATION AND ENGINEERING DATA

COMPARING THE COST OF AC vs DC

	AC	DC
Transfer switch required	Yes	No
Rectifier	Yes	No
Permitting costs	\$\$	\$
Shipping to site and installation cost	\$\$	\$
Site preparation/reinforcing structures	\$\$\$	\$
Ethernet/RS232 remote control and monitoring	Extra	Standard

PERMITTING IS FACILITATED

- Small engine horsepower
- DC generator is fully isolated from the utility grid
- Low acoustic noise
- Incorporates all requirements made by local Fire Marshals

8220 ALTERNATOR FEATURES

- No mechanical adjustments
- Very lightweight
- High quality electrical output
- Voltage and current regulation
- Up to 94% efficiency
- -40° to 70° C operational range
- Class 220 C insulation
- Anodized type III process for aluminum parts
- Nickel plating for steel parts
- Stator is varnished

8220 ALTERNATOR SPECIFICATIONS

Type	Permanent Magnets, NdFeB
Weight (lb/kg)	46.5/21
Regulation Type	Variable engine speed operation over 500 RPM range
Stator	3 phase/32 poles
Overcurrent Protection (A)	15 kW - 350
Disconnect Means	Fused Disconnect, sized for each generator size.
Voltage Range (VDC)	44 to 62
Alternator Exhaust Flow (cfm/cmm)	130 to 180 or 3.68 to 5.1
MTBF (hr)	100,000+

STARTER SUPERCAPACITOR SPECIFICATIONS

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

ENCLOSURE

Model	88-25-0100
Type	Weather Protective
Materials	Marine Grade Aluminum
Door Hardware	Pad Locked with Removable Side Panels
Mounting	Secure Mounting Tabs

CHARGER SPECIFICATIONS

Model	00-10-0015
Input Voltage (VDC)	28.8 to 60
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

FUEL TANK SPECIFICATIONS

UL Rated Capacity (gal/L)	54/204
Tank Alarms	Yes
Visual Gages	Yes
Catch Basin (gal/L)	5/19
Listings	UL 142 (double wall)

ENGINE SPECIFICATIONS

Engine Model	Yanmar 3TNV88
Cylinders	3 In-line
Displacement (L)	1.642
Bore (in./mm)	3.4/88
Stroke (in./mm)	3.5/90
Intake Air System	Naturally Aspirated
Engine HP	24
Emissions Compliance	EPA and CARB Certified
Variable RPM	1500 to 1850

ENVIRONMENTAL

Operating Temperature (°C/°F)	-40 to 72 or -40 to 162
Operating Humidity %	100
Cold Start Aids	Glow Plugs

FUEL SYSTEM

Type	Diesel
Fuel Pump Type	Electrical
Injector Type	Mechanical
Fuel Filtering	Paper element

SOUND EMISSIONS

Contact us for current sound data.

POWER ADJUSTMENT FOR AMBIENT CONDITIONS

Temperature Deration	1% derate for every 5.6 °C (10 °F) above 25 °C (77 °F)
Altitude Deration	3% derate for every 300 m (1000 ft) above 91 m (300 ft)

WEIGHTS AND DIMENSIONS

Dry Weight (lb/kg)	1242 / 564
Dimensions (LxWxH) (in/cm)	61 x 40 x 45/155 x 102 x 115

ENGINE LUBRICATION SYSTEM

Oil Filter Type	Full flow spin-on canister
Oil Capacity	6.7 L
Oil Pressure Switch	Yes
Oil Pressure Transducer	Optional

ENGINE COOLING SYSTEM

Type	Pressurized Aluminum Radiator
Water Pump	Belt-driven, Pre-lubed, self-sealing
Fan Type	12 V Electric Fans
Fan Quantity	6
CFM	1300
M ³ /hr.	2200
Fan Mode	Pusher
Temperature Switch	Yes

FUEL CONSUMPTION

	Output (kW)	gal/hr	L/hr
3TNV88	15	1.02	3.86

ENGINE COOLING

System coolant capacity (gal/L)	2.2/8.3
Maximum operation air temperature on radiator (°C/°F)	57/135
Maximum ambient temperature (°C/°F)	60/140

COMBUSTION REQUIREMENTS

Flow at rated power (cfm/cmm)	68/1.92
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EXHAUST

Exhaust flow at rated output (cfm/cmm)	135/3.82
Exhaust temperature at rated output (°C/°F)	480/900

CONTROLLER FEATURES

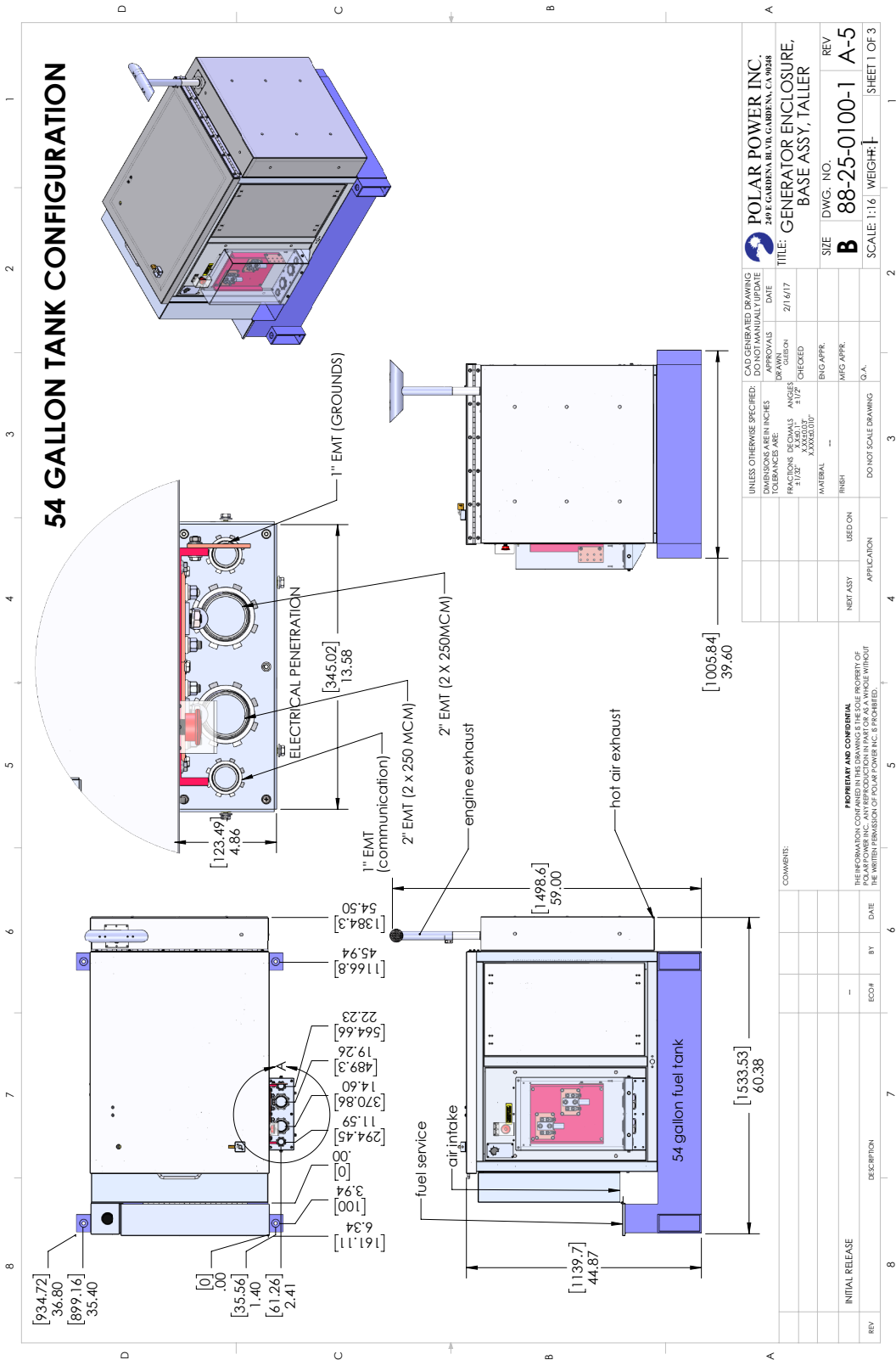
Controller Type.....	Supra Model 250
4-Line Plain Text LCD Display.....	Simple user interface for ease of operation
Engine Run Hours Indication.....	Standard
Programmable Start Delay.....	Standard
Run/Alarm/Maintenance Logs.....	Standard
Engine Start Sequence.....	Cyclic cranking: 5 sec on, 45 sec rest (3 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
Glow Plug Delay	Automatic With Temperature
Engine Start Delay.....	Adjustable, Set at 60 sec
Return to Utility Delay.....	Adjustable, Set at 60 sec
Engine Cooldown.....	Adjustable, Set at 60 sec
Exerciser.....	Programmable, weekly/bi-weekly

WARNING ALARMS

Low Diesel Fuel Level.....	Standard
Diesel Fuel Tank Rapture Basin.....	Standard
Low/High Supercapacitor Voltage.....	Standard
High Water Temperature.....	Standard
Low Oil Pressure.....	Standard

CONTACT CLOSURE FOR REMOTE INDICATION

Shutdown Alarm.....	Standard
Warning Alarm.....	Standard
Engine Run.....	Standard
Low Diesel Fuel Level.....	Standard
Diesel Fuel Leak.....	Standard
E-Stop Depressed.....	Standard
Fuel Level Over 90%.....	Standard



ATTACHMENT D

PROJECT INFORMATION

SCOPE OF WORK: TELECOMMUNICATIONS FACILITY (NSB A EXISTING 120'-0" A.G.L. TALL MONOPOLE WITH PROPOSED 20'-0" MONOPOLE EXTENSION. PROPOSED WALK-IN CABINET, AND GENERATOR WILL BE INSTALLED AT GRADE INSIDE A EXISTING FENCED-IN COMPOUND. PROPOSED TWELVE PANEL ANTENNAS, TWELVE RRH'S & TWO SURGE ARRESTORS WILL BE INSTALLED AT A HEIGHT OF 136'-0" A.G.L.):

SITE ADDRESS: 160 WAMPUS LANE
MILFORD, CT 06460

APPLICANT: AT&T
550 COCHITUATE ROAD
FRAMINGHAM, MA 01701

SITE OWNER: CUTTING EDGE TECHNOLOGY
160 WAMPUS LANE,
MILFORD, CT 06460

LATITUDE: 41.225122 N, 41° 13' 30.44" N

LONGITUDE: 73.042283 W, 73° 02' 32.22" W

TYPE OF SITE: MONOPOLE/ WALK-IN CABINET

EXISTING TOWER HEIGHT: 120'-0"±

PROPOSED TOWER HEIGHT: 140'-0"±

RAD CENTER: 136'-0"±



SITE NUMBER: CT1231

SITE NAME: MILFORD WAMPUS LANE

FA CODE:12712096

**PACE ID: MRCTB051866, MRCTB051858, MRCTB051863,
MRCTB051860, MRCTB048400, MRCTB051857, MRCTB051862**

PROJECT: NSB

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SBA SITE ID #: CT46128

VICINITY MAP

DIRECTIONS TO SITE:
GET ON I-90 W, HEAD SOUTHWEST, TURN RIGHT TOWARD LEGGATT MCCALL CONN, TURN LEFT ONTO LEGGATT MCCALL CONN, CONTINUE ONTO BURR ST, TURN LEFT ONTO COCHITUATE RD, USE THE RIGHT LANE TO MERGE ONTO I-90 W VIA THE RAMP TO SPRINGFIELD, (TOLL ROAD), FOLLOW I-90 W, I-84 AND I-91 S TO US-1 S/BOSTON POST RD IN MILFORD. TAKE EXIT 39A FROM I-95 S, MERGE ONTO I-90 W, (TOLL ROAD), KEEP LEFT TO STAY ON I-90 W, (TOLL ROAD), TAKE EXIT 78 TOWARD I-84 (TOLL ROAD), CONTINUE ONTO I-84, (TOLL ROAD), ENTERING CONNECTICUT, KEEP LEFT TO STAY ON I-84, USE THE LEFT 2 LANES TO TAKE EXIT 57 FOR CT-15 S TOWARD I-91 S/CHARTER OAK BRIDGE/N.Y.CITY, CONTINUE ONTO CT-15 S, CONTINUE ONTO CT-15 S/US-5 S, TAKE EXIT 86 TO MERGE ONTO I-91 S TOWARD NEW HAVEN/N.Y.CITY, TAKE THE EXIT ON THE LEFT ONTO I-95 S TOWARD N.Y. CITY, TAKE EXIT 39A TO MERGE ONTO US-1 S/BOSTON POST RD, TAKE CHERRY ST TO WAMPUS LN, MERGE ONTO US-1 S/BOSTON POST RD, SLIGHT LEFT TOWARD CHERRY ST, CONTINUE ONTO CHERRY ST, TURN LEFT ONTO GULF ST, SLIGHT LEFT ONTO OLD BUCKINGHAM AVE, SLIGHT LEFT ONTO WAMPUS LN, DESTINATION 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: CT1231
SITE NAME: MILFORD WAMPUS LANE**

160 WAMPUS LANE
MILFORD, CT 06460
NEW HAVEN COUNTY



550 COCHITUATE ROAD
FRAMINGHAM, MA 01701

NO.	DATE	REVISIONS	BY	CHK	APP'D
4	02/05/24	ISSUED FOR CONSTRUCTION	CC	JC	DPH
3	04/07/23	ISSUED FOR CONSTRUCTION	MJ	JC	DPH
2	03/02/22	ISSUED FOR CONSTRUCTION	CC	JC	DPH
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0	11/17/21	ISSUED FOR REVIEW	AR	JC	DPH

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

AT&T		
TITLE SHEET (NSB)		
SITE NUMBER	DRAWING NUMBER	REV
CT1231	T-1	4

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) LIGHTING 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: CT1231
SITE NAME: MILFORD WAMPUS LANE

160 WAMPUS LANE
MILFORD, CT 06460
NEW HAVEN COUNTY



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NO.	DATE	REVISIONS	BY	CHK	APP'D
SCALE: AS SHOWN		DESIGNED BY: JC	DRAWN BY: AR		

AT&T		
GENERAL NOTES (NSB)		
SITE NUMBER	DRAWING NUMBER	REV
CT1231	GN-1	4

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 UON.
- 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 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
REQUIRED	ENGINEER OF RECORD APPROVED SHOP DRAWINGS ¹
REQUIRED	MATERIAL SPECIFICATIONS REPORT ²
N/A	FABRICATOR NDE INSPECTION
REQUIRED	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: CT1231
SITE NAME: MILFORD WAMPUS LANE

160 WAMPUS LANE
MILFORD, CT 06460
NEW HAVEN COUNTY



4	02/05/24	ISSUED FOR CONSTRUCTION	CC	JC	DPH
3	04/07/23	ISSUED FOR CONSTRUCTION	MJ	JC	DPH
2	03/02/22	ISSUED FOR CONSTRUCTION	CC	JC	DPH
1	12/15/21	ISSUED FOR REVIEW	CC	JC	DPH
0	11/17/21	ISSUED FOR REVIEW	AR	JC	DPH
NO.	DATE	REVISIONS	BY	CHK	APP'D
SCALE: AS SHOWN		DESIGNED BY: JC	DRAWN BY: AR		

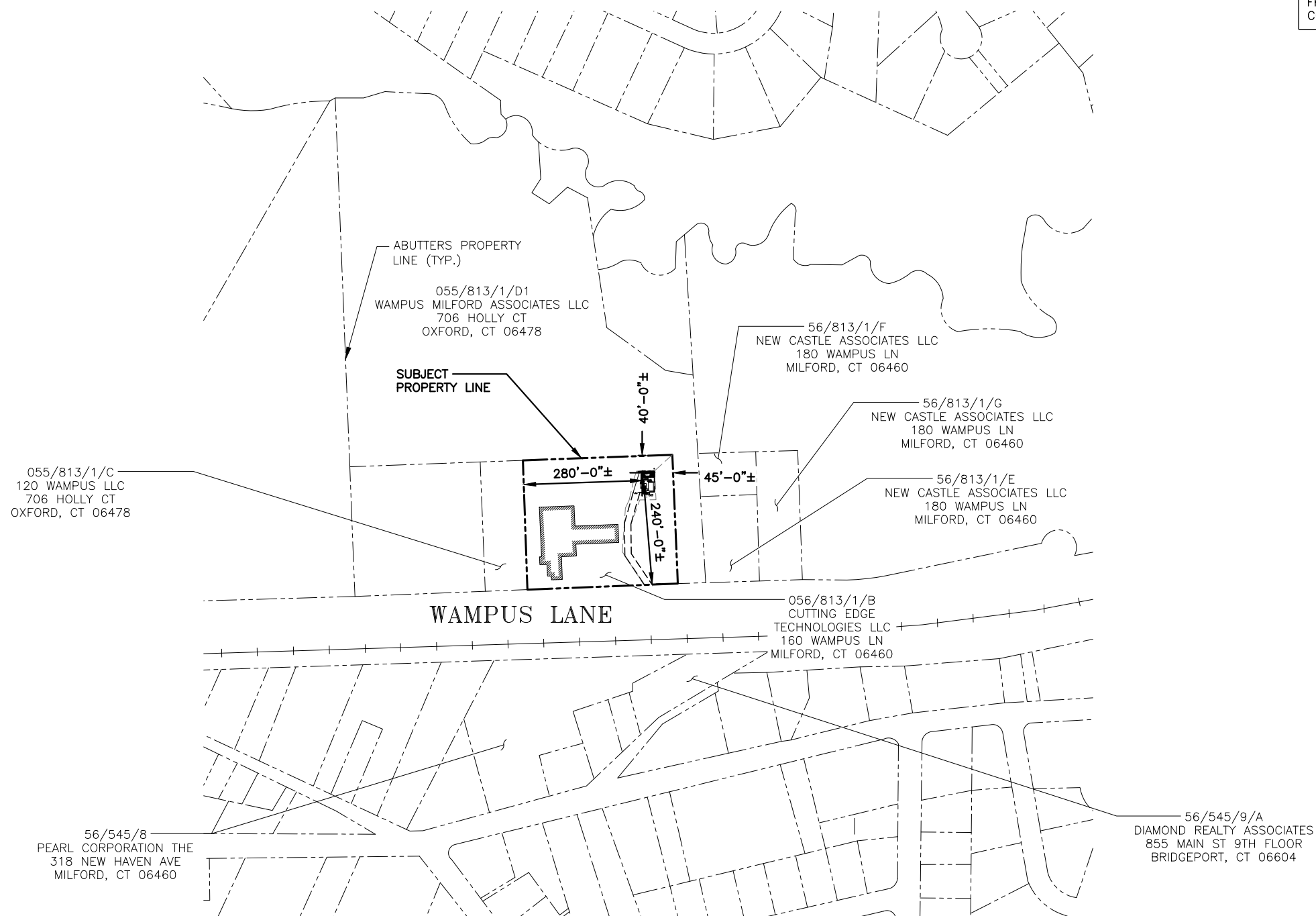
AT&T

STRUCTURAL NOTES
(NSB)

SITE NUMBER	DRAWING NUMBER	REV
CT1231	SN-1	4

INFORMATION TAKEN FROM PLANS BY CONNECTICUT GIS

ZONING INFORMATION		
ZONING DISTRICT:	INDUSTRIAL DISTRICT: ID	
DIMENSIONS REQUIREMENTS:	REQUIRED	PROPOSED
ANTENNA SETBACKS		
FRONT YARD SETBACK:	30'-0"	240'-0"±
SIDE YARD SETBACK:	0'-0"	280'-0"±
SIDE YARD SETBACK:	0'-0"	45'-0"±
REAR YARD SETBACK:	0'-0"	40'-0"±



PLOT PLAN

22x34 SCALE: 1"=80'
11x17 SCALE: 1"=160'



SITE NUMBER: CT1231
SITE NAME: MILFORD WAMPUS LANE

160 WAMPUS LANE
MILFORD, CT 06460
NEW HAVEN COUNTY

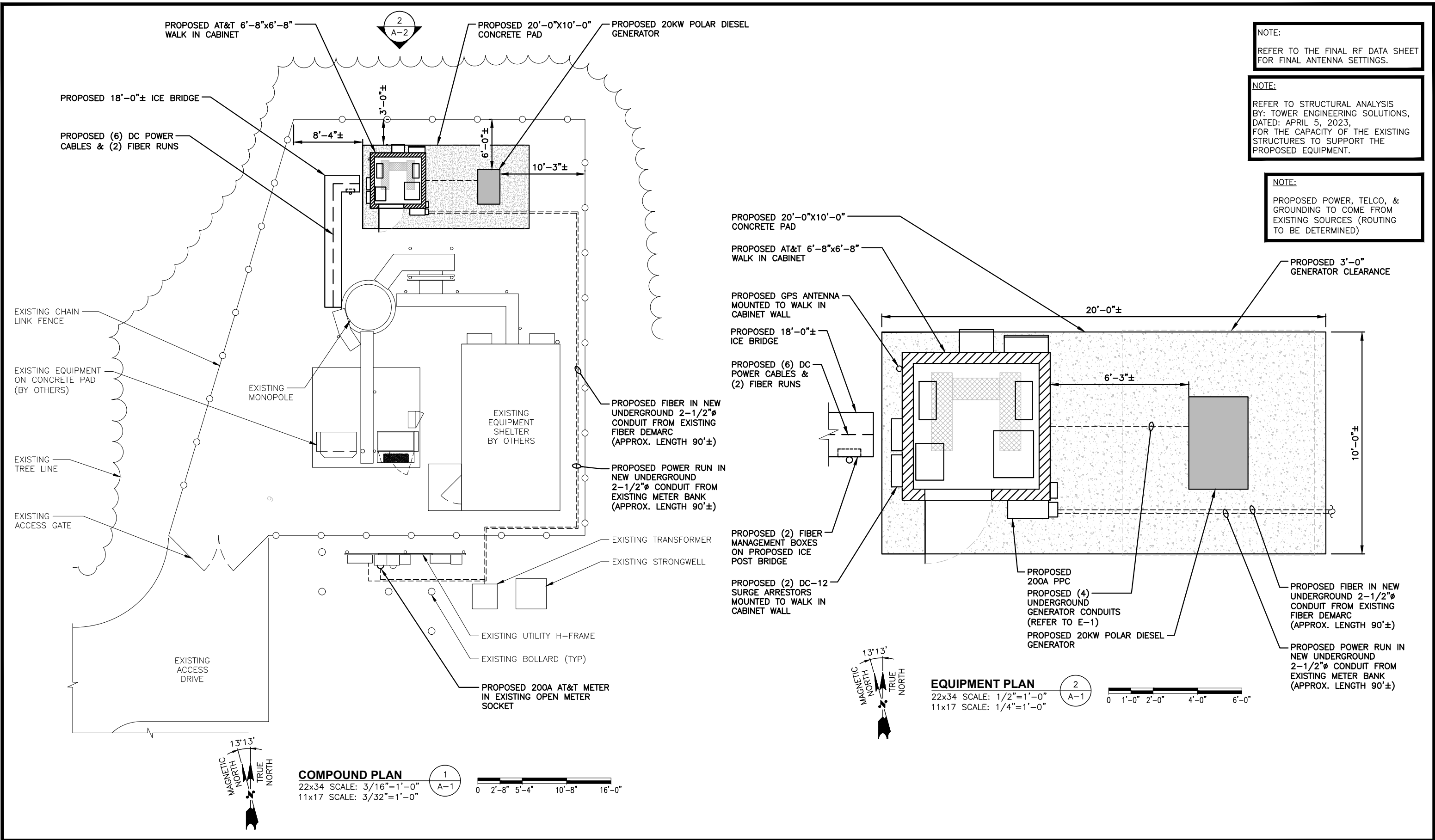


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SCALE: AS SHOWN		DESIGNED BY: JC	DRAWN BY: AR		

AT&T

PLOT PLAN (NSB)

SITE NUMBER	DRAWING NUMBER	REV
CT1231	C-1	4



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

NOTE:
REFER TO STRUCTURAL ANALYSIS BY: TOWER ENGINEERING SOLUTIONS, DATED: APRIL 5, 2023, FOR THE CAPACITY OF THE EXISTING STRUCTURES TO SUPPORT THE PROPOSED EQUIPMENT.

NOTE:
PROPOSED POWER, TELCO, & GROUNDING TO COME FROM EXISTING SOURCES (ROUTING TO BE DETERMINED)

COMPOUND PLAN
22x34 SCALE: 3/16"=1'-0"
11x17 SCALE: 3/32"=1'-0"
1
A-1

EQUIPMENT PLAN
22x34 SCALE: 1/2"=1'-0"
11x17 SCALE: 1/4"=1'-0"
2
A-1



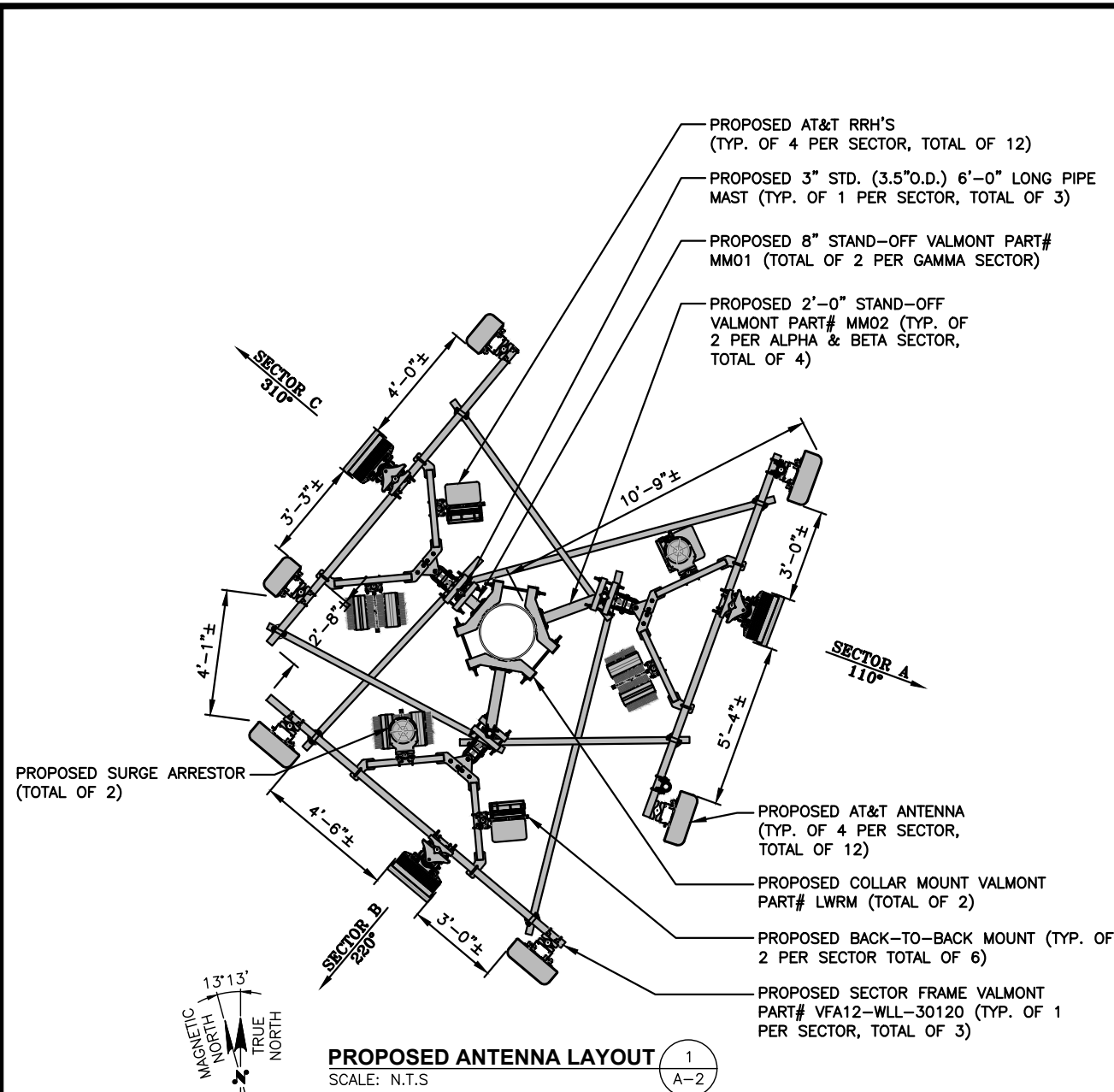
SITE NUMBER: CT1231
SITE NAME: MILFORD WAMPUS LANE

160 WAMPUS LANE
MILFORD, CT 06460
NEW HAVEN COUNTY



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

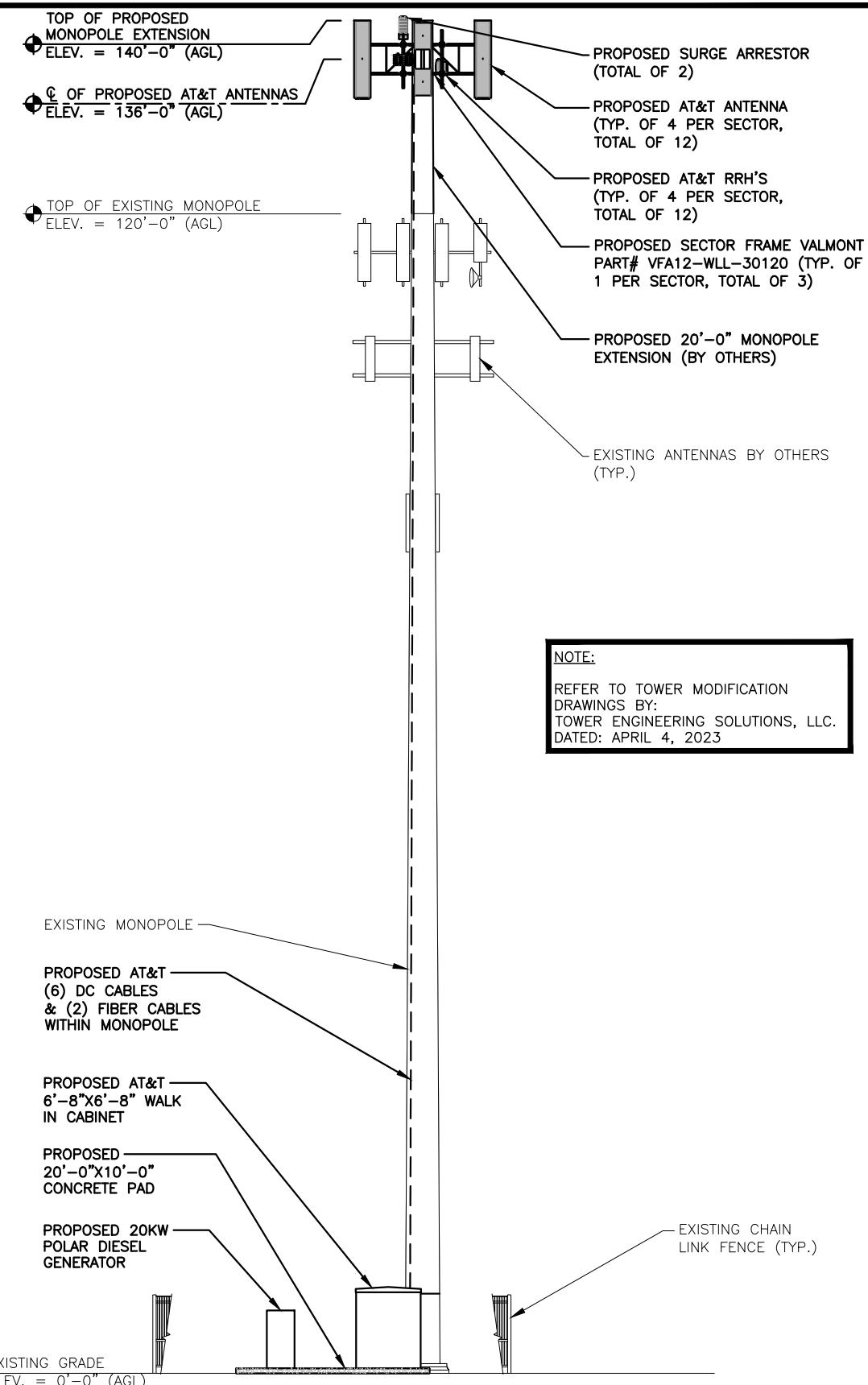
AT&T		
COMPOUND & EQUIPMENT PLANS (NSB)		
SITE NUMBER	DRAWING NUMBER	REV
CT1231	A-1	4



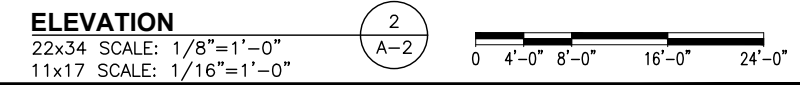
NOTE:
AN ANALYSIS FOR THE CAPACITY OF THE EXISTING ANTENNA MOUNT TO SUPPORT THE PROPOSED LOADING HAS BEEN COMPLETED BY: TEP NORTHEAST, OPCO LLC. DATED: DECEMBER 13, 2022. (REV. 1)

NOTE:
REFER TO STRUCTURAL ANALYSIS BY: TOWER ENGINEERING SOLUTIONS, DATED: APRIL 5, 2023, FOR THE CAPACITY OF THE EXISTING STRUCTURES TO SUPPORT THE PROPOSED EQUIPMENT.

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



NOTE:
REFER TO TOWER MODIFICATION DRAWINGS BY: TOWER ENGINEERING SOLUTIONS, LLC. DATED: APRIL 4, 2023



SITE NUMBER: CT1231
SITE NAME: MILFORD WAMPUS LANE

160 WAMPUS LANE
MILFORD, CT 06460
NEW HAVEN COUNTY



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

AT&T		
ANTENNA LAYOUT & ELEVATION (NSB)		
SITE NUMBER	DRAWING NUMBER	REV
CT1231	A-2	4

NOTE:
AN ANALYSIS FOR THE CAPACITY OF THE EXISTING ANTENNA MOUNT TO SUPPORT THE PROPOSED LOADING HAS BEEN COMPLETED BY: TEP NORTHEAST, OPCO LLC. DATED: DECEMBER 13, 2022. (REV. 1)

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

NOTE:
REFER TO STRUCTURAL ANALYSIS BY: TOWER ENGINEERING SOLUTIONS, DATED: APRIL 5, 2023, FOR THE CAPACITY OF THE EXISTING STRUCTURES TO SUPPORT THE PROPOSED EQUIPMENT.

PROPOSED 2' STAND-OFF VALMONT PART# MM02 (TYP. OF 2 PER BETA & GAMMA SECTORS, TOTAL OF 4)

PROPOSED 8" STAND-OFF VALMONT PART# MM01 (TOTAL OF 2 PER ALPHA SECTOR)

PROPOSED COLLAR MOUNT VALMONT PART# LWRM (TOTAL OF 2)

PROPOSED 3" STD. (3.5" O.D.) 7'-0" LONG PIPE MAST (TYP. OF 1 PER SECTOR, TOTAL OF 3)

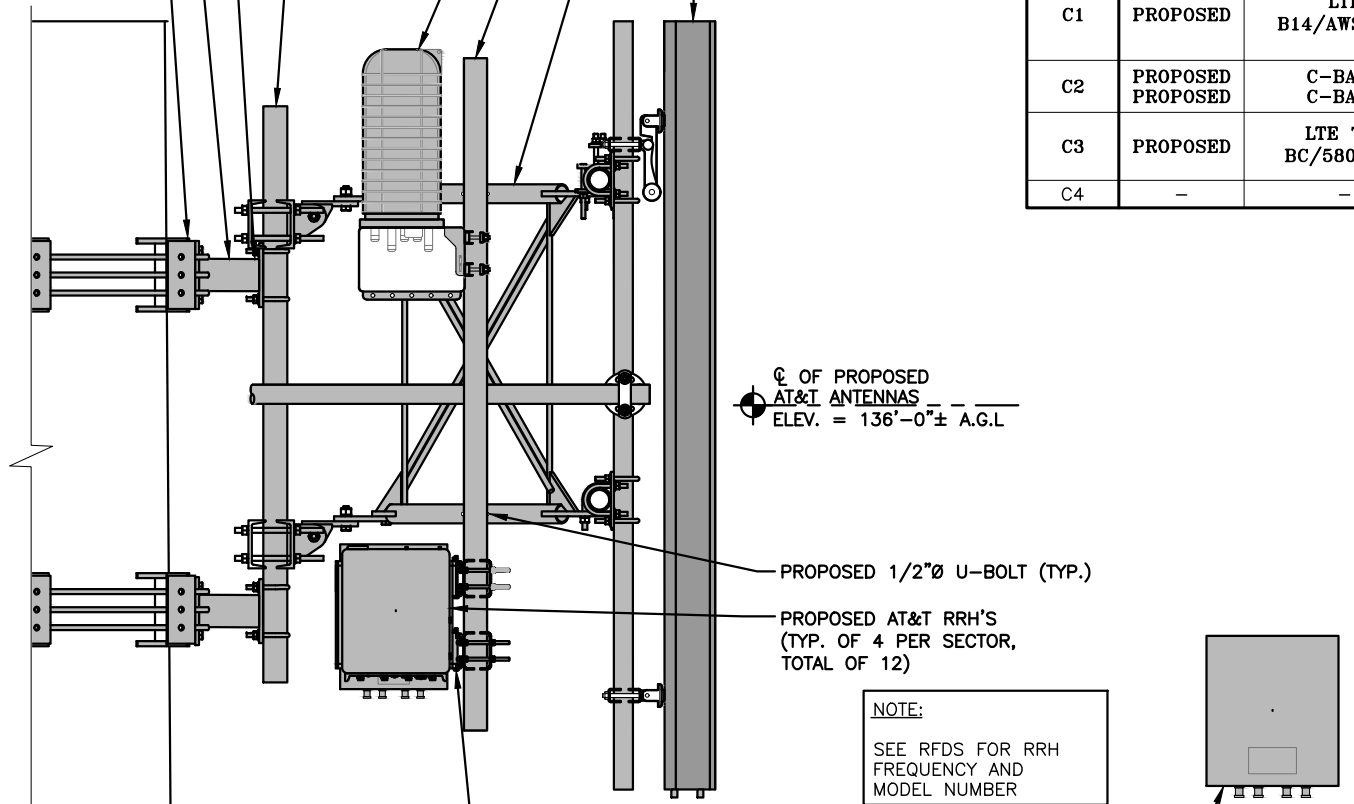
PROPOSED SURGE ARRESTOR (TOTAL OF 2)

PROPOSED 2-1/2" STD. (2.88" O.D.) MOUNTING PIPE (7'-0" LONG PIPE) (TYP. OF 2 PER SECTOR, TOTAL OF 6)

PROPOSED SECTOR FRAME VALMONT PART# VFA12-WLL-30120 (TYP. OF 1 PER SECTOR, TOTAL OF 3)

PROPOSED AT&T ANTENNAS (TYP. OF 4 PER SECTOR, TOTAL OF 12)

ANTENNA SCHEDULE										
SECTOR	EXISTING/PROPOSED	BAND	ANTENNA	SIZE (INCHES) (L x W x D)	ANTENNA ϕ HEIGHT	AZIMUTH	RRU	SIZE (INCHES) (L x W x D)	FEEDER	RAYCAP
A1	PROPOSED	LTE B14/AWS/WCS	TPA65R-BU8DA-K	96X21X7.8	136'-0"	110°	(P) (1) 4478 B14 (P) (1) 4415 B30	18.1X13.4X8.3 16.5X13.4X5.9	(P) (6) DC POWER CABLES (P) (2) FIBER RUN (LENGTH=170'±)	(P) (2) RAYCAP DC9-48-60-24-8C-EV
A2	PROPOSED	C-BAND	AIR6449 B77D	30.4X15.9X8.1	136'-0"	110°	-	-		
A3	PROPOSED	LTE 700 BC/580/PCS	DMP65R-BU8DA-K	96X20.7X7.7	136'-0"	110°	(P) (1) 4449 B5/B12 (P) (1) 8843 B2/B66A	17.9X13.2X9.7 14.9X13.2X10.9		
A4	-	-	-	-	-	-	-	-		
B1	PROPOSED	LTE B14/AWS/WCS	TPA65R-BU8DA-K	96X21X7.8	136'-0"	220°	(P) (1) 4478 B14 (P) (1) 4415 B30	18.1X13.4X8.3 16.5X13.4X5.9		
B2	PROPOSED	C-BAND	AIR6449 B77D	30.4X15.9X8.1	136'-0"	220°	-	-		
B3	PROPOSED	LTE 700 BC/580/PCS	DMP65R-BU8DA-K	96X20.7X7.7	136'-0"	220°	(P) (1) 4449 B5/B12 (P) (1) 8843 B2/B66A	17.9X13.2X9.7 14.9X13.2X10.9		
B4	-	-	-	-	-	-	-	-		
C1	PROPOSED	LTE B14/AWS/WCS	TPA45R-KU8A	98.7X15.4X8.2	136'-0"	310°	(P) (1) 4478 B14 (P) (1) 4415 B30	18.1X13.4X8.3 16.5X13.4X5.9		
C2	PROPOSED	C-BAND	AIR6449 B77D	30.4X15.9X8.1	136'-0"	310°	-	-		
C3	PROPOSED	LTE 700 BC/580/PCS	TPA45R-KU8A	98.7X15.4X8.2	136'-0"	310°	(P) (1) 4449 B5/B12 (P) (1) 8843 B2/B66A	17.9X13.2X9.7 14.9X13.2X10.9		
C4	-	-	-	-	-	-	-	-		



ϕ OF PROPOSED AT&T ANTENNAS
ELEV. = 136'-0"± A.G.L.

PROPOSED 1/2" U-BOLT (TYP.)

PROPOSED AT&T RRH'S (TYP. OF 4 PER SECTOR, TOTAL OF 12)

NOTE:
SEE RFDS FOR RRH FREQUENCY AND MODEL NUMBER

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

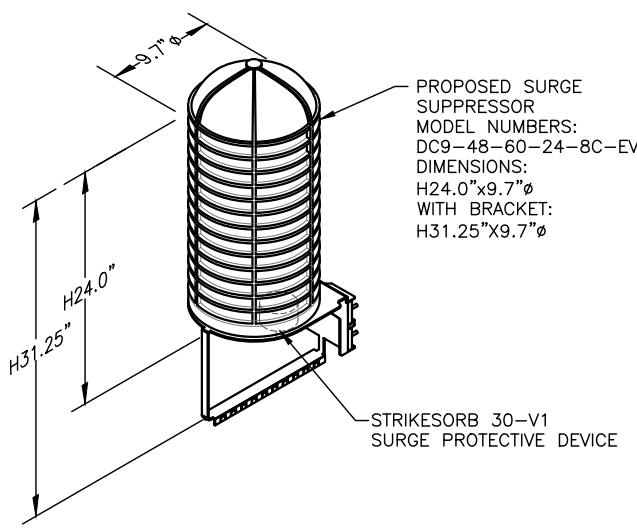
NOTE:
MOUNT PER MANUFACTURER'S SPECIFICATIONS.

PROPOSED RRUS DETAIL 3
SCALE: N.T.S.

NOTE:
SEE RFDS FOR RRH FREQUENCY AND MODEL NUMBER

PROPOSED SECTOR FRAME, ANTENNA, SURGE SUPPRESSOR & RRH'S MOUNTING DETAIL 2
SCALE: N.T.S.

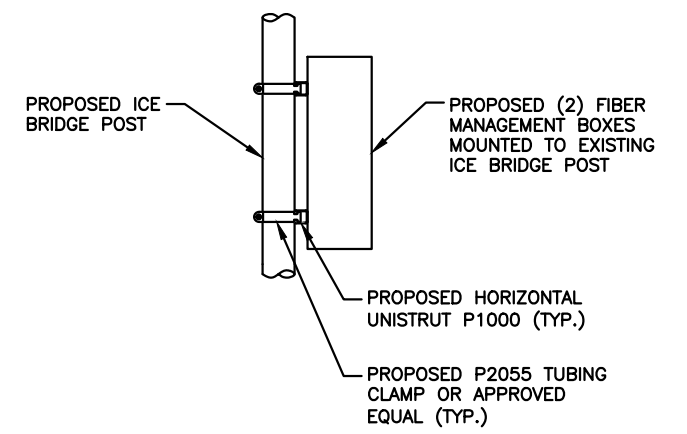
FINAL ANTENNA SCHEDULE 1
SCALE: N.T.S. A-3



PROPOSED SURGE SUPPRESSOR
MODEL NUMBERS: DC9-48-60-24-8C-EV
DIMENSIONS: H24.0"x9.7" ϕ WITH BRACKET: H31.25"x9.7" ϕ

STRIKESORB 30-V1 SURGE PROTECTIVE DEVICE

NOTE:
MOUNT PER MANUFACTURER'S SPECIFICATIONS.
DC SURGE SUPPRESSOR DETAIL 4
SCALE: N.T.S.



PROPOSED FIBER MANAGEMENT BOX MOUNTING DETAIL 5
SCALE: N.T.S. A-3



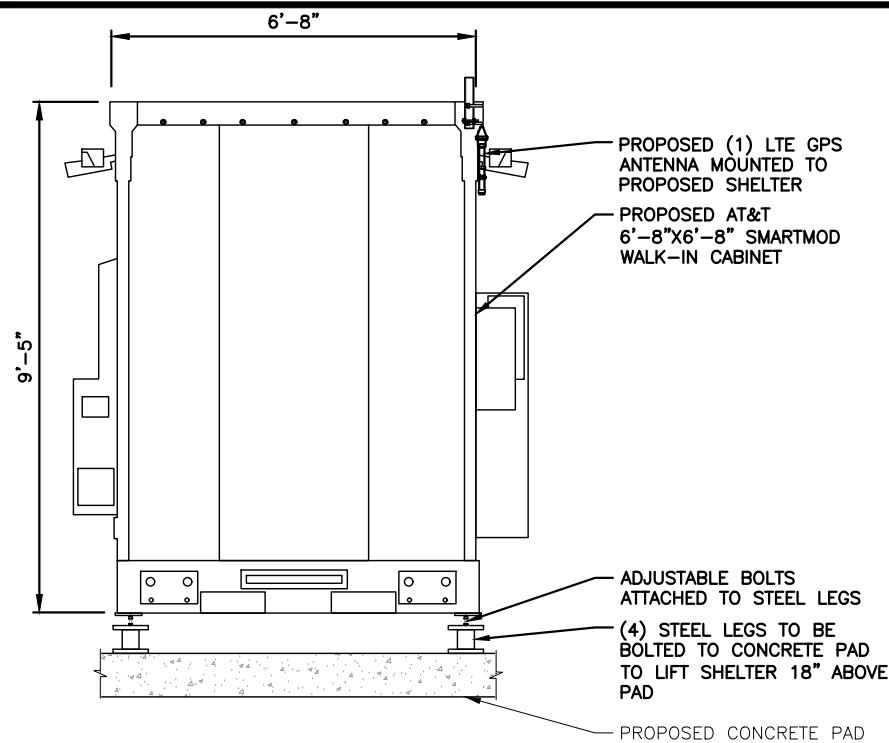
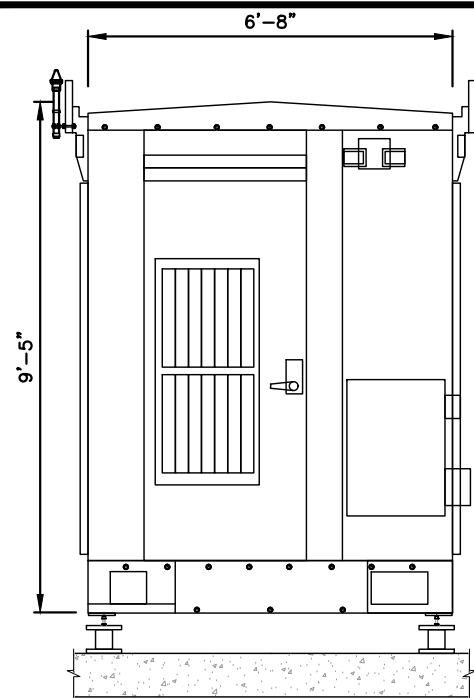
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SITE NAME: MILFORD WAMPUS LANE

160 WAMPUS LANE
MILFORD, CT 06460
NEW HAVEN COUNTY



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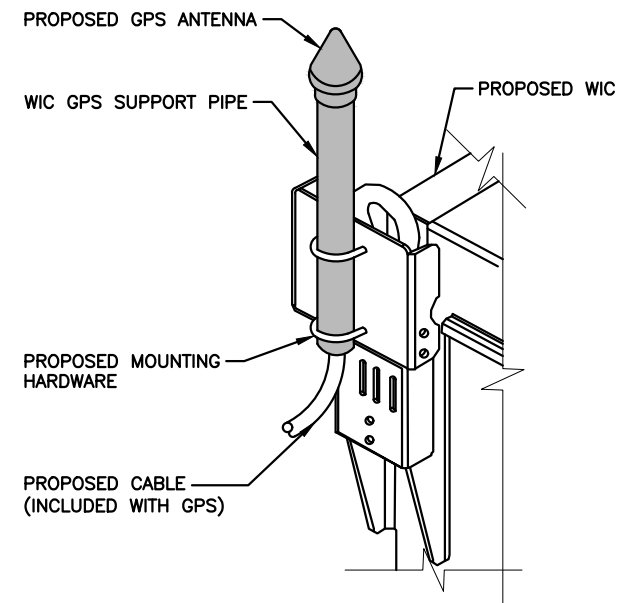
AT&T		
DETAILS (NSB)		
SITE NUMBER	DRAWING NUMBER	REV
CT1231	A-3	4



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

TYPICAL SHELTER DETAIL
SCALE: N.T.S

1
A-4

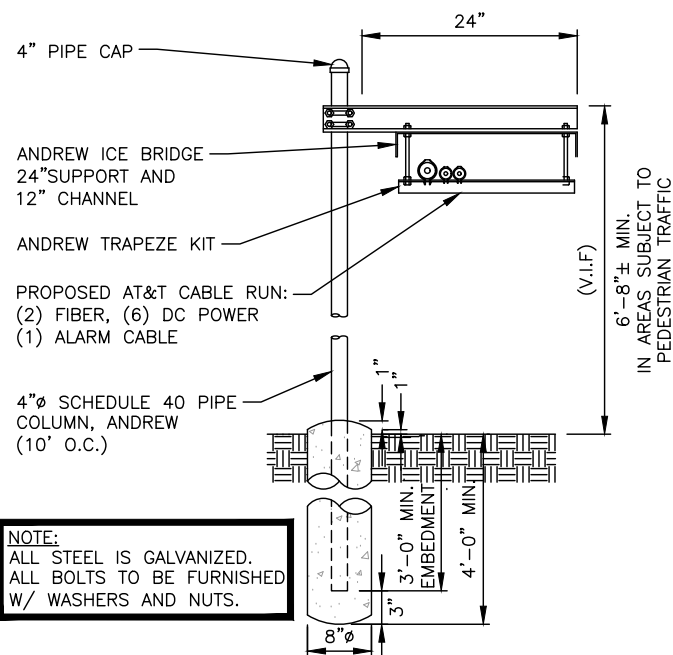


GPS MOUNTING DETAIL
N.T.S

2
A-4

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.



NOTE:
ALL STEEL IS GALVANIZED.
ALL BOLTS TO BE FURNISHED
W/ WASHERS AND NUTS.

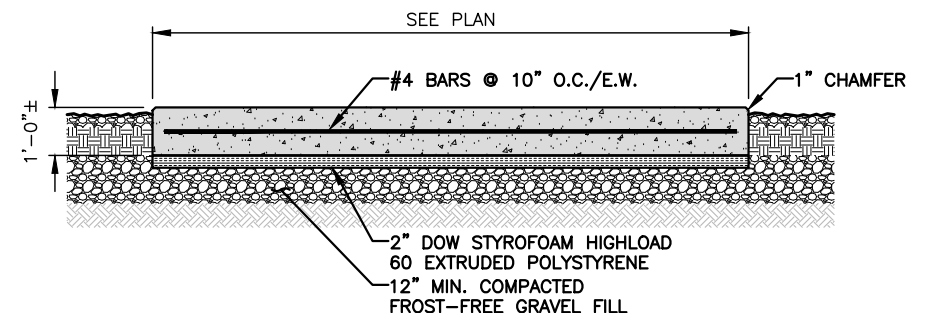
ICE BRIDGE DETAIL
SCALE: N.T.S

3
A-4



PROPOSED 20KW DIESEL POLAR GENERATOR
SCALE: N.T.S

4
A-4



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

5
A-4



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AT&T		
DETAILS (NSB)		
SITE NUMBER	DRAWING NUMBER	REV
CT1231	A-4	4

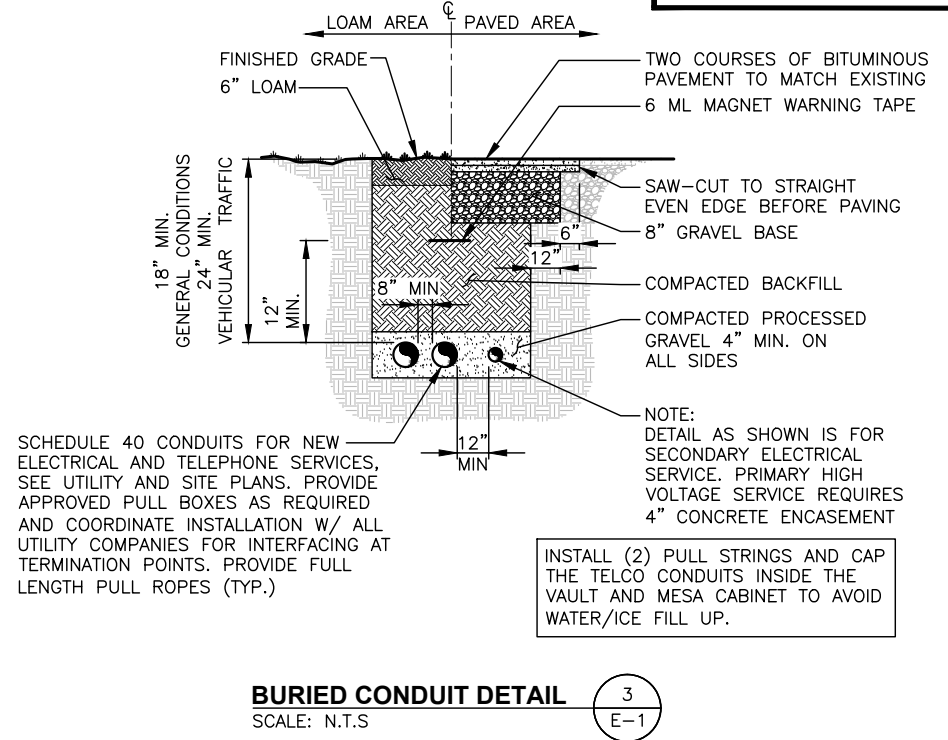
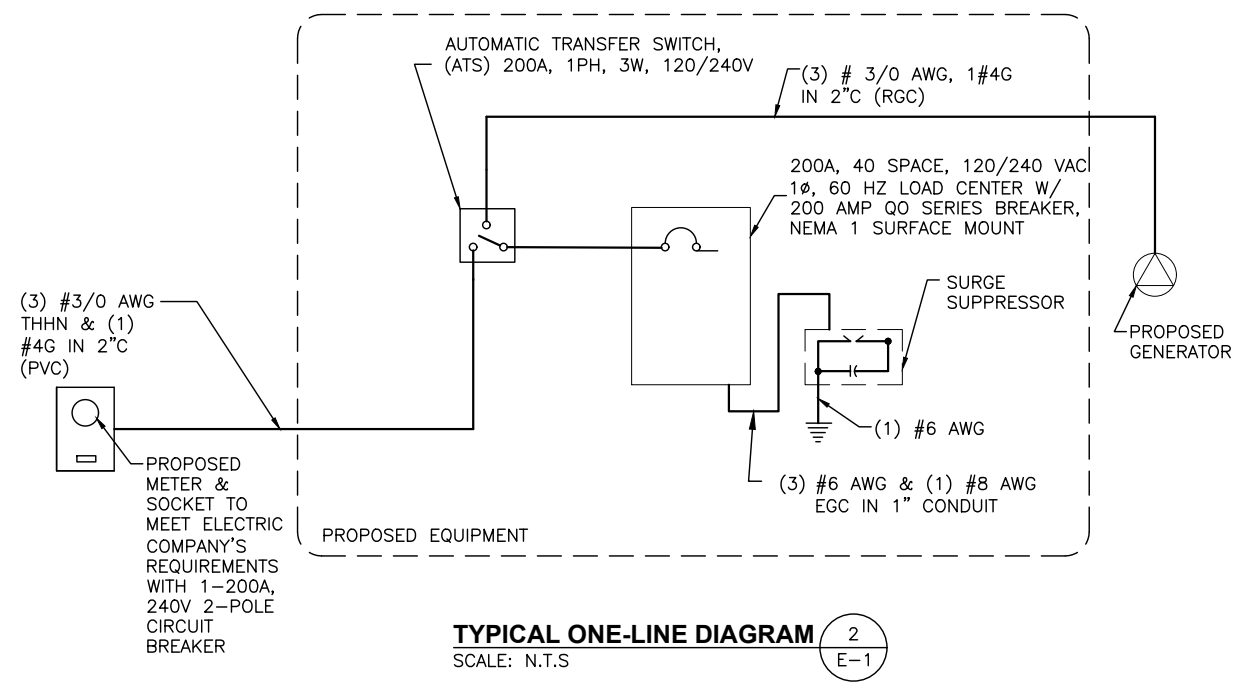
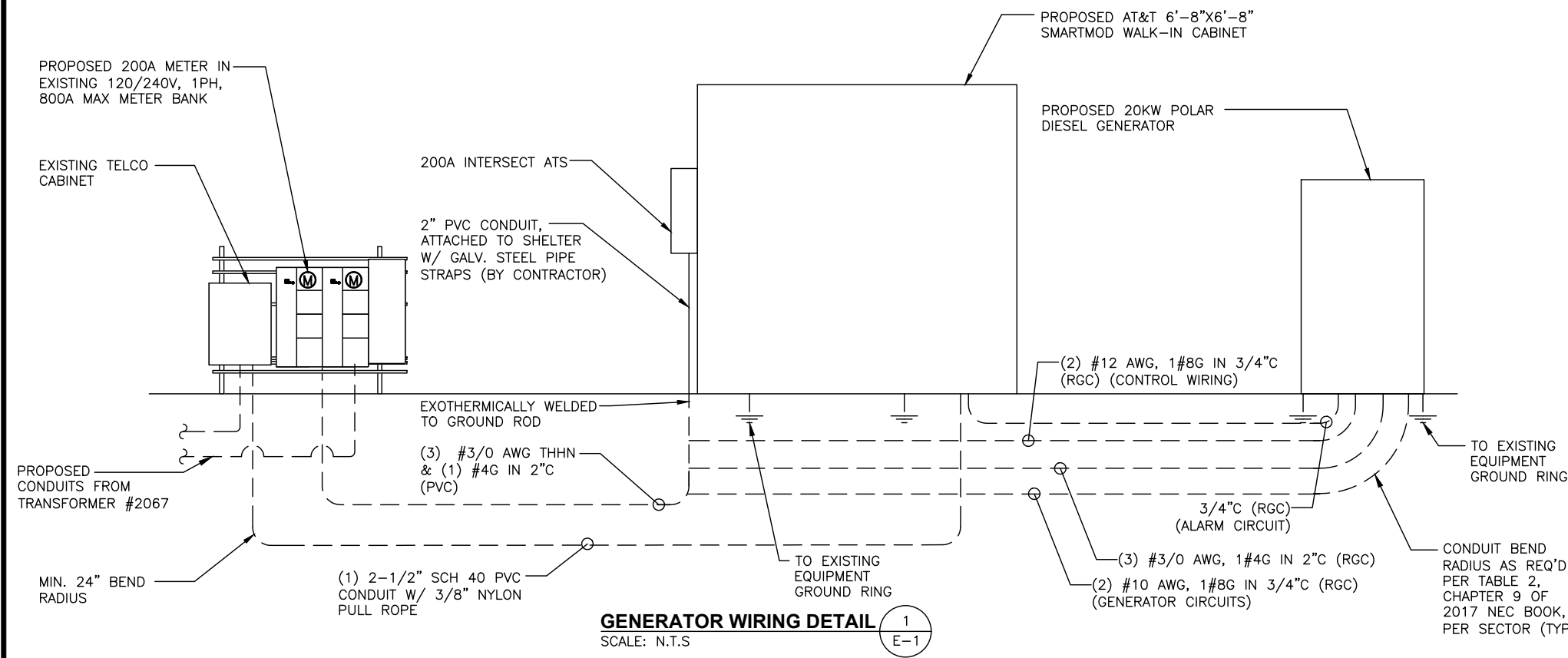
ELECTRICAL LEGEND & ABBREVIATIONS

	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.
	ABOVE FINISHED FLOOR		UNLESS OTHERWISE NOTED
	WEATHERPROOF		GROUND FAULT INTERRUPTER
	AMPERE		VOLT
	KILOWATT - HOUR		CONDUIT
	PHASE		WATTS
	NATIONAL ELECTRIC CODE		POWER PROTECTION CABINET
	UNDERWRITER LABORATORIES		POWER TRANSFER SWITCH
	QUICK OPEN GALVANIZED RIGID CONDUIT		GROUND
	MASTER GROUND BAR		MECHANICAL CONNECTION
	EQUIPMENT GROUND BAR		CADWELD CONNECTION
	GROUND COPPER WIRE, SIZE AS NOTED		EXPOSED WIRING
	COAXIAL CABLE		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 AWG COPPER STRANDED WIRE WITH GREEN COLOR INSULATION FOR ABOVE GRADE GROUNDING (UNLESS OTHERWISE SPECIFIED) AND #2 AWG 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 AWG 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 MAXIMUM 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.

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

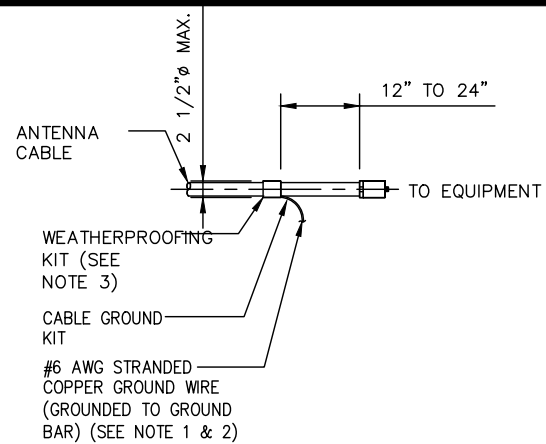


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 NEW HAVEN COUNTY



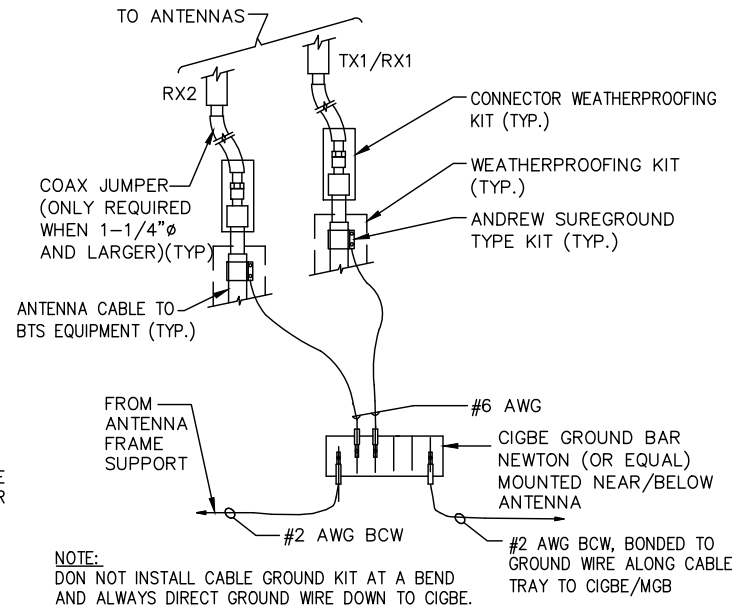
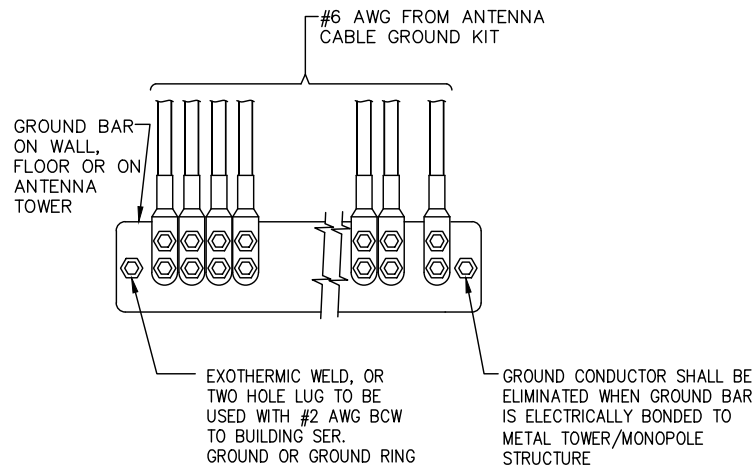
4	02/05/24	ISSUED FOR CONSTRUCTION	CC	JC	DPH
3	04/07/23	ISSUED FOR CONSTRUCTION	MJ	JC	DPH
2	03/02/22	ISSUED FOR CONSTRUCTION	CC	JC	DPH
1	12/15/21	ISSUED FOR REVIEW	CC	JC	DPH
0	11/17/21	ISSUED FOR REVIEW	AR	JC	DPH
NO.	DATE	REVISIONS	BY	CHK	APP'D
SCALE: AS SHOWN		DESIGNED BY: JC	DRAWN BY: AR		

AT&T		
ELECTRICAL NOTES & ONE-LINE DIAGRAM (NSB)		
SITE NUMBER	DRAWING NUMBER	REV
CT1231	E-1	4



NOTES:

- 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 SUPPLIED WITH KIT. COLD SHRINK SHALL NOT BE USED.



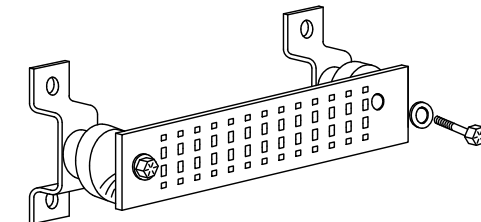
EACH GROUND CONDUCTOR TERMINATING ON ANY GROUND BAR SHALL HAVE AN IDENTIFICATION TAG ATTACHED AT EACH END THAT WILL IDENTIFY ITS ORIGIN AND DESTINATION.

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.

CONNECTION OF CABLE GROUND KIT TO ANTENNA CABLE

SCALE: N.T.S.

1
G-1

INSTALLATION OF GROUND WIRE TO GROUND BAR

SCALE: N.T.S.

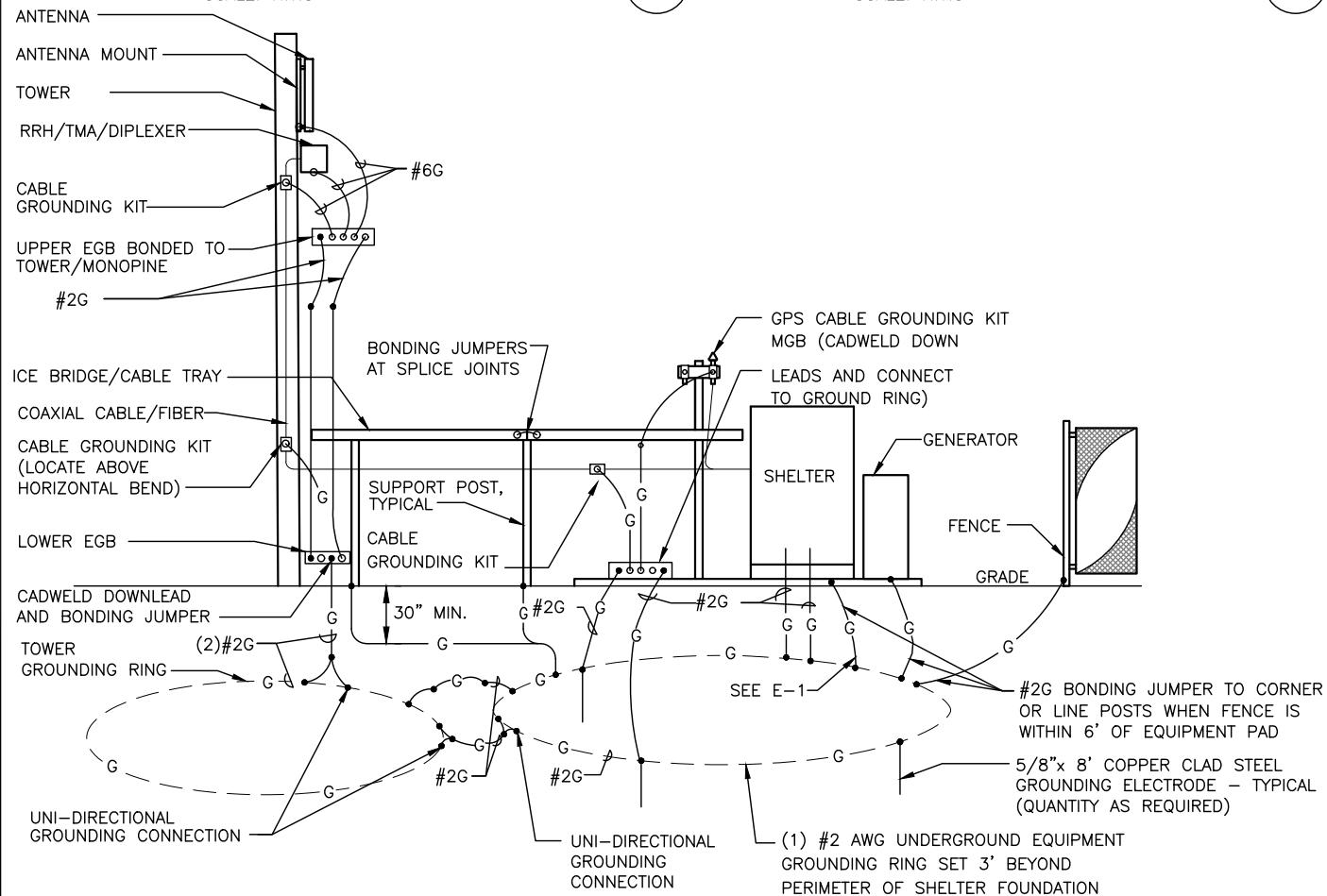
2
G-1

INSTALLATION OF GROUND WIRE TO GROUNDING BAR TOWER

SCALE: N.T.S.

3
G-1

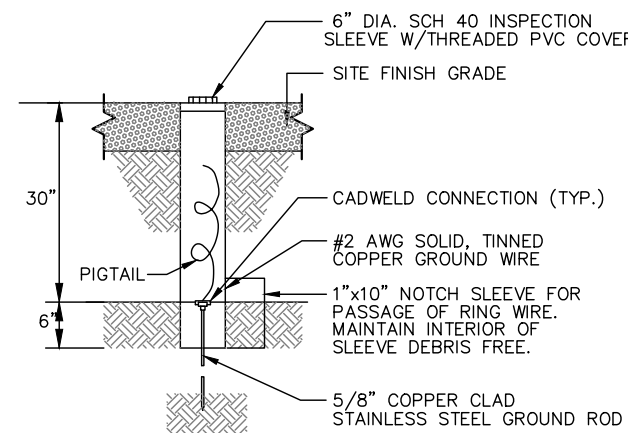
GROUND BAR - DETAIL
SCALE: N.T.S.



GROUNDING ONE-LINE DIAGRAM

SCALE: N.T.S.

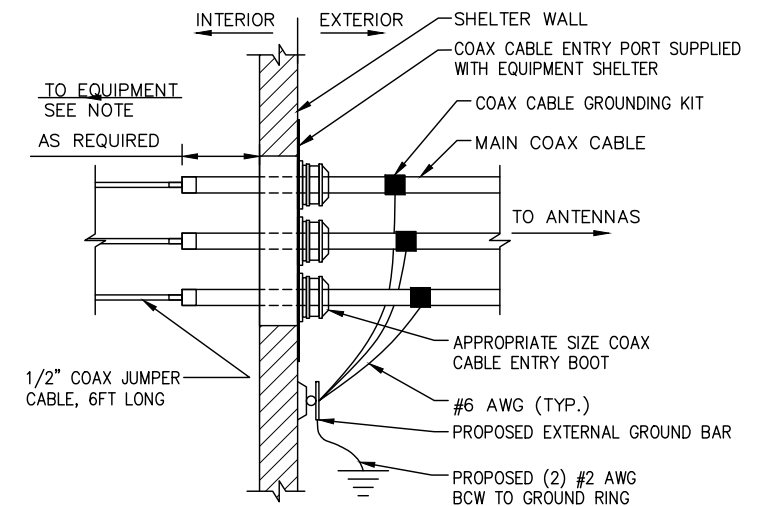
5
G-1



GROUND ROD TEST WELL DETAIL

SCALE: N.T.S.

6
G-1



NOTE:
EXTEND MAIN COAXIAL CABLE AS CLOSE AS POSSIBLE TO BTS EQUIPMENT. MAX LENGTH OF BTS JUMPER IS 6 FT.

INSTALLATION OF GROUND WIRE TO GROUND BAR

SCALE: N.T.S.

7
G-1



SITE NUMBER: CT1231
SITE NAME: MILFORD WAMPUS LANE

160 WAMPUS LANE
MILFORD, CT 06460
NEW HAVEN COUNTY



4	02/05/24	ISSUED FOR CONSTRUCTION	CC	JC	DPH
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SCALE: AS SHOWN		DESIGNED BY: JC	DRAWN BY: AR		

AT&T		
GROUNDING DETAILS (NSB)		
SITE NUMBER	DRAWING NUMBER	REV
CT1231	G-1	4