

Northeast Site Solutions Victoria Masse 420 Main Street #2, Sturbridge, MA 01566 860-306-2326 victoria@northeastsitesolutions.com

July 18, 2021

Members of the Siting Council Connecticut Siting Council Ten Franklin Square New Britain, CT 06051

RE: Exempt Modification Application 701 Bartholomew Street, Middletown CT 06457 Latitude: 41.52074953 Longitude: -72.60831210 T-Mobile Site#: CT11832C -NHP

Dear Ms. Bachman:

T-Mobile currently maintains three (3) antenna at the 83-foot and of the existing 90-foot utility pole at 701 Bartholomew Street, Middletown CT 06457. The utility pole and property is owned by CL&P d/b/a Eversource. T-Mobile now intends to add a 25Kw generator to a new 4' x 10' concrete pad within an expanded 9'x15' fenced compound.

Planned Modifications:
Ground work only-Install New:
(1) GENERAC RD 25 KW AC DIESEL GENERATOR – 240-gallon double walled self-contained tank with fuel sensor. Requires two (2) 12-minute run cycles by-weekly.
4' x 10' Concrete pad within an expanded 9'x15' fenced compound



This facility was approved by the CT Siting Council. Petition No.606 –on March 11, 2003 AT&T received permission to replace an existing 48-foot wood monopole for a 95-foot wood monopole. On October 6, 2014 Eversource was approved for an Exempt Modification to install T-Mobile equipment at the 83-foot level of the 95-foot pole. Please see attached.

Please accept this letter as notification pursuant to Regulations of Connecticut State Agencies§ 16- SOj-73, for construction that constitutes an exempt modification pursuant to R.C.S.A. § 16-50j-72(b)(2). In accordance with R.C.SA. § 16-SOj-73, a copy of this letter is being sent to The Honorable Benjamin D. Florsheim, Mayor and Joseph Samolis Director of Planning, Conservation and Development of Middletown, as well as the property owner and the tower owner.

The planned modifications to the facility fall squarely within those activities explicitly provided for in R.C.S;A. § 16-50j-72(b)(2).

1. The proposed modifications will not result in an increase in the height of the existing structure.

2. The proposed modifications will not require the extension of the site boundary.

3. The proposed modifications will not increase noise levels at the facility by six decibels or more, or to levels that exceed state and local criteria.

4. The operation of the replacement antennas will not increase radio frequency emissions at the facility to a level at or above the Federal Communications Commission safety standard.

5. The proposed modifications will not cause a change or alteration in the physical or environmental characteristics of the site.

6. The existing structure and its foundation can support the proposed loading.

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

Sincerely,

Victoria Masse Mobile: 860-306-2326 Fax: 413-521-0558 Office: 420 Main Street, Unit 2, Sturbridge MA 01566

54 Main Street Unit 3 | Sturbridge Ma 01566 | f: 413-521-0558 | www.northeastsitesolutions.com



Email: victoria@northeastsitesolutions.com

Attachments

C: The Honorable Benjamin D. Florsheim - Mayor - mayor@middletownCT.gov 245 DeKoven Drive Room 209 Middletown, CT 06457

Joseph Samolis- Director of Planning, Conservation and Development - Joseph Samolis@middletownct.gov 245 DeKoven Drive Suite 202 Middletown, CT 06457

Eversource Energy- as tower owner and property owner 107 Selden Street Berlin, CT 06037

Exhibit A

Petition No. 606 AT&T Wireless PCS, Inc. Staff Report March 11, 2003

On February 6, 2003, Connecticut Siting Council (Council) member Ed Wilensky and Christina Lepage of the Council staff met with AT&T Wireless PCS, Inc. (AT&T) representative Christopher Fisher at Bartholomew Road, Middletown, Connecticut for the inspection of an electric transmission structure. The structure is owned by Connecticut Light and Power (CL&P). AT&T, with the agreement of CL&P, proposes to replace an existing transmission tower and install antennas and associated equipment for telecommunications use and is petitioning the Council for a declaratory ruling that no Certificate of Environmental Compatibility and Public Need (Certificate) is required for the modification.

AT&T proposes to replace an existing 48-foot wood monopole with a 95-foot wood monopole. The proposed site is immediately adjacent to Route 9 and the surrounding area consists of some residences. AT&T is proposing to install six panel antennas at the 93-foot level of the structure, with space available at the 83 foot level for a future carrier.

The proposed equipment would be installed on a 10-foot by 6-foot 6-inch concrete pad that would be located at the base of the proposed structure. An 8-foot high chain link fence would surround the equipment compound.

Access to the site would be via an existing dirt access road, which would be extended for direct access to the equipment compound. An underground conduit from an existing utility pole will provide power and telephone service to the site.

The proposed site is zoned R-60 (residential). The nearest residence to the proposed site is approximately 300 feet to the south. Visibility of the base of the structure would be screened by the topography of the area and existing vegetation.

The calculated cumulative worst case power density would not exceed the applicable standard.

AT&T provided computer simulated photographs depicting the replacement of the utility pole, equipment and their antennas. Views of the proposed site were taken from Bartholomew Road, near residences to the west and southwest of the site. The proposed replacement pole would be slightly visible through the existing vegetation.

AT&T contends that they would not have the need to construct a telecommunications tower to provide coverage to this area of Middletown, and would not cause a substantial adverse environmental effect.

On February 20, 2003, AT&T sent photo simulations of the proposed replacement structure to the two adjacent residents or the site and the City of Middletown, requesting that comments be forwarded to the Council by March 5, 2003. To date, the Council has not received comments from the abutting residents or the City of Middletown.

Exhibit B

245 DEKOVEN DR

Location	245 DEKOVEN DR	Map-Lot	22/ / 0586/ /
Acct#	E30087	Owner	CITY OF MIDDLETOWN
Municipality		Assessment	\$3,337,290
Appraisal	\$4,767,550	PID	46
Building Count	1	Assessing District	

Current Value

Appraisal						
Valuation Year Improvements Land Total						
2018	\$4,284,550	\$483,000	\$4,767,550			
	Assessment					
Valuation Year	Improvements	Land	Total			
2018	\$2,999,190	\$338,100	\$3,337,290			

Parcel Addreses

Additional Addresses
No Additional Addresses available for this parcel

Owner of Record

Owner	CITY OF MIDDLETOWN	Sale Price	\$0
Co-Owne	er CITY HALL	Certificate	
Address	245 DEKOVEN DR	Book & Page	0000/0000
	MIDDLETOWN, CT 06457	Sale Date	01/01/1990
		Instrument	29

Ownership History

Ownership History						
Owner	Sale Price	Certificate	Book & Page	Instrument	Sale Date	
CITY OF MIDDLETOWN	\$0		0000/0000	29	01/01/1990	

Building Information

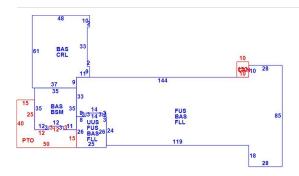
Year Built: Living Area: Replacement Cost: Building Percent Good: Replacement Cost Less Depreciation:	1958 35,866 \$5,971, 71 \$4,239,	
		ttributes
Field		Description
Style		City/Town Hall
Model		Commercial
Grade		В
Stories		2
Occupancy		1.00
Exterior Wall 1		Brick Veneer
Exterior Wall 2		Glass/Thermo.
Roof Structure		Flat
Roof Cover		Tar and Gravel
Interior Wall 1		Minimum
Interior Wall 2		Drywall
Interior Floor 1		Carpet
Interior Floor 2		Linoleum
Heating Fuel		Gas
Heating Type		Forced Air
АС Туре		Central
Struct Class		
Bldg Use		Mun Bldg Com
Cov Parking		
Uncov Parking		
Percent Fin		
1st Floor Use		
Heat/AC		Heat/AC Pkg
Frame Type		Reinforced Cnc
Baths/Plumbing		Average
Ceiling/Walls		Sus Ceil & Wal
Rooms/Prtns		Average
Wall Height		8.00

Building Photo



(http://images.vgsi.com/photos/MiddletownCTPhotos//\00\02\74\68.jpg)

Building Layout



(ParcelSketch.ashx?pid=46&bid=46)

	Building Sub-Areas (sq ft)			
Code	Description	Gross Area	Living Area	
BAS	First Floor	14,590	14,590	
FLL	Finished LL	10,638	10,638	
FUS	Finished Upper Story	10,638	10,638	
BSM	Basement	1,189	0	
CAN	Canopy	130	0	
CRL	Crawl	2,763	0	
РТО	Patio	1,161	0	
UUS	Unfinished Upper Story	692	0	
		41,801	35,866	

Extra Features

Extra Features				
Code	Description	Size	Value	Bldg #

ELV1	Elevator - Passenger	3.00 STOPS	\$30,600	1
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Land

Land Use		Land Line Valuation	
Use Code	922	Size (Acres)	1.61
Description	Mun Bldg Com	Assessed Value	\$338,100
Zone	B-1	Appraised Value	\$483,000
Neighborhood	3150		
Alt Land Appr	No		
Category			

Outbuildings

	Outbuildings						
Code	Description	Sub Code	Sub Description	Size	Value	Bldg #	
PAV1	Paving	AS	Asphalt	12800.00 UNITS	\$14,400	1	

Valuation History

Appraisal						
Valuation Year	Improvements	Land	Total			
2020	\$4,284,550	\$483,000	\$4,767,550			
2019	\$4,284,550	\$483,000	\$4,767,550			
2018	\$4,284,550	\$483,000	\$4,767,550			

Assessment			
Valuation Year	Improvements	Land	Total
2020	\$2,999,190	\$338,100	\$3,337,290
2019	\$2,999,190	\$338,100	\$3,337,290
2018	\$2,999,190	\$338,100	\$3,337,290

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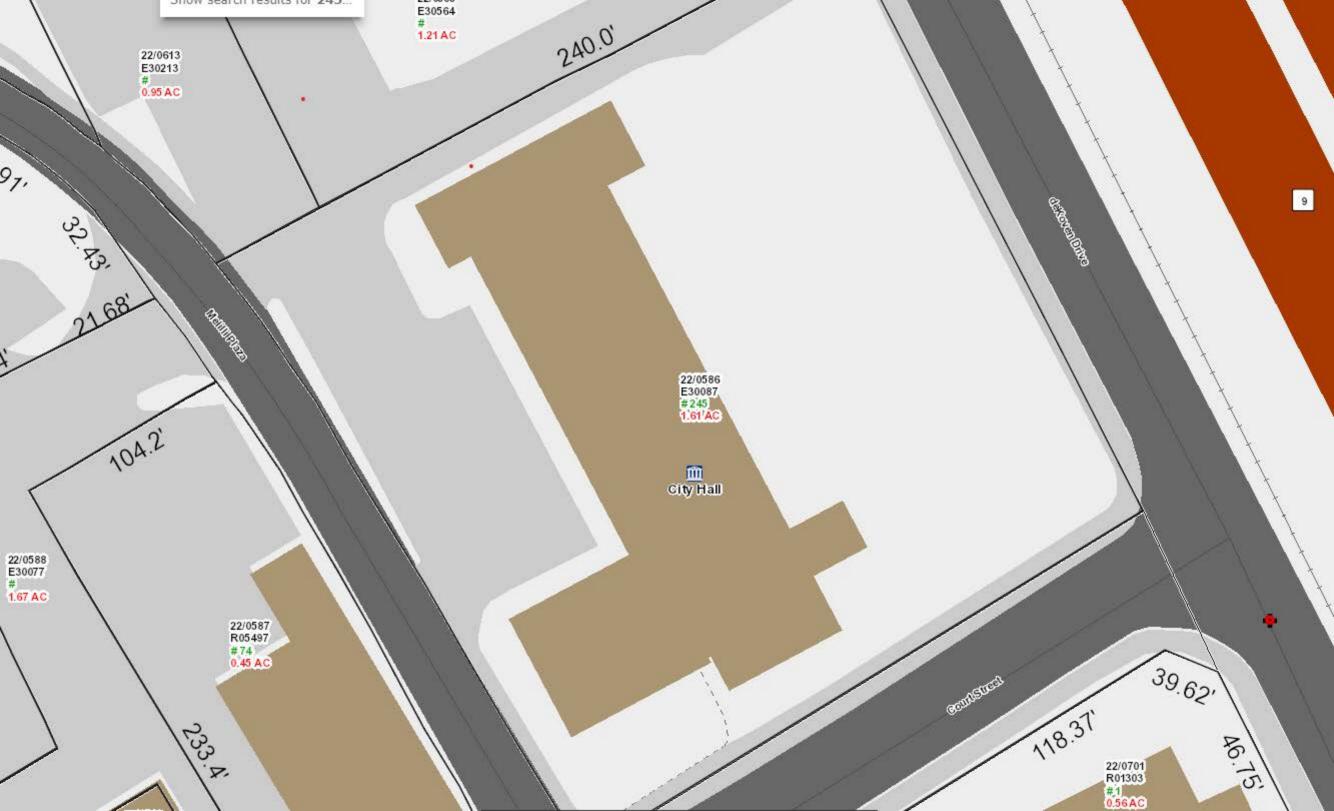


Exhibit C

SITE NUMBER: CT11832C SITE NAME: CT832 / CL&P MIDDLETOWN MIDDLETOWN, CT 06457 CL&P STRUCTURE 14027

PROJECT NOTES:

THIS IS AN UNMANNED TELECOMMUNICATION FACILITY AND NOT FOR HUMAN HABITATION HANDICAPPED ACCESS IS NOT REQUIRED. POTABLE WATER OR SANITARY SERVICE IS NOT REQUIRED. NO OUTDOOR STORAGE OR ANY SOLID WASTE RECEPTACLES REQUIRED.

- CONTRACTOR SHALL VERIFY ALL PLANS, EXISTING DIMENSIONS, AND CONDITIONS ON THE JOB SITE. CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ARCHITECT/ENGINEER IN WRITING OF ANY DISCREPANCIES REFORE PROCEEDING WITH THE WORK FAILURE TO NOTIFY THE ARCHITECT/ENGINEER PLACES THE RESPONSIBILITY ON THE CONTRACTOR TO CORRECT THE DISCREPANCIES AT THE CONTRACTOR'S EXPENSE.
- DEVELOPMENT AND USE OF THE SITE WILL CONFORM TO ALL APPLICABLE CODES, ORDINANCES AND SPECIFICATIONS.

CODE COMPLIANCE:

811 o

Call below.

ALL WORK SHALL COMPLY WITH THE CURRENT NATIONAL AND CONNECTICUT STATE BUILDING AND LIFE SAFETY CODES, SUPPLEMENTS AND AMENDMENTS INCLUDING BUT NOT LIMITED TO THE LATEST EDITION OF

CONNECTICUT STATE BUILDING CODE (CSBC). ANSI/TIA-222-G STRUCTURAL STANDARD FOR ANTENNA SUPPORTING STRUCTURES AND ANTENNAS.

NATIONAL ELECTRICAL CODE (NEC) FOR POWER AND GROUNDING REQUIREMENTS.

OCCUPATIONAL SAFETY AND HEALTH ACT (OSHA).

NFPA - NATIONAL FIRE PROTECTION ASSOCIATION.

Connecticut - Call Before You Dig Advance Notice: Minimum of 2 working days in advance, no 1-800-922-4455

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GENERAL NOTES:

1. THE CONTRACTOR SHALL GIVE ALL NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY, MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS, AND LOCAL AND STATE JURISDICTIONAL CODES BEARING ON THE PERFORMANCE OF THE WORK. THE WORK PERFORMED ON THE PROJECT AND THE MATERIALS INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES.

2. THE ARCHITECT/ENGINEER HAS MADE EVERY EFFORT TO SET FORTH IN THE CONSTRUCTION AND CONTRACT DOCUMENTS THE COMPLETE SCOPE OF WORK. THE CONTRACTOR BIDDING THE JOB IS NEVERTHELESS CAUTIONED THAT MINOR OMISSIONS OR ERRORS IN THE DRAWINGS AND OR SPECIFICATIONS SHALL NOT EXCUSE SAID CONTRACTOR FROM COMPLETING THE PROJECT AND IMPROVEMENTS IN ACCORDANCE WITH THE INTENT OF THESE DOCUMENTS.

3. THE CONTRACTOR OR BIDDER SHALL BEAR THE RESPONSIBILITY OF NOTIFYING (IN WRITING) THE CLIENT'S REPRESENTATIVE OF ANY CONFLICTS, ERRORS, OR OMISSIONS PRIOR TO THE SUBMISSION OF CONTRACTOR'S PROPOSAL OR PERFORMANCE OF WORK.

5. THE CONTRACTOR SHALL VISIT THE JOB SITE PRIOR TO THE SUBMISSION OF BIDS OR PERFORMING WORK TO FAMILIARIZE HIMSELF WITH THE FIELD CONDITIONS AND TO VERIFY THAT THE PROJECT CAN BE CONSTRUCTED IN ACCORDANCE WITH THE CONSTRUCTION DOCUMENTS.

6. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS ACCORDING TO THE MANUFACTURER'S / VENDOR'S SPECIFICATIONS UNLESS NOTED OTHERWISE OR WHERE LOCAL CODES OR ORDINANCES TAKE PRECEDENCE.

7. THE CONTRACTOR SHALL MAKE NECESSARY PROVISIONS TO PROTECT EXISTING IMPROVEMENTS DURING CONSTRUCTION.

8. THE CONTRACTOR SHALL COMPLY WITH ALL PERTINENT SECTIONS OF THE BASIC STATE BUILDING CODE, LATEST EDITION, AND ALL OSHA REQUIREMENTS AS THEY APPLY TO THIS PROJEC

9. THE CONTRACTOR SHALL NOTIFY THE CLIENT'S REPRESENTATIVE IN WRITING WHERE A CONFLICT OCCURS ON ANY OF THE CONTRACT DOCUMENTS. THE CONTRACTOR IS NOT TO ORDER MATERIAL OR CONSTRUCT ANY PORTION OF THE WORK THAT IS IN CONFLICT UNTIL CONFLICT IS RESOLVED BY THE CLIENT'S REPRESENTATIVE.

10. THE WORK SHALL CONFORM TO THE CODES AND STANDARDS OF THE FOLLOWING AGENCIES AS FURTHER CITED HEREIN:

A. ASTM: AMERICAN SOCIETY FOR TESTING AND MATERIALS, AS PUBLISHED IN "COMPILATION OF ASTM STANDARDS BUILDING CODES" OR LATEST EDITION.

B. AWS: AMERICAN WELDING SOCIETY INC. AS PUBLISHED IN "STANDARD D1.1-08, STRUCTURAL WELDING CODE" OR LATEST EDITION.

C. AISC: AMERICAN INSTITUTE FOR STEEL CONSTRUCTION AS PUBLISHED IN "CODE FOR STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES"; "SPECIFICATIONS FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS" (LATEST EDITION).

11. BOLTING:

A. BOLTS SHALL BE CONFORMING TO ASTM A325 HIGH STRENGTH, HOT DIP GALVANIZED WITH ASTM A153 HEAVY HEX TYPE NUTS.

B. BOLTS SHALL BE 3/4"¢ MINIMUM (UNLESS OTHERWISE NOTED)

- C. ALL CONNECTIONS SHALL BE 2 BOLTS MINIMUM.
- 12. FABRICATION:

A. FABRICATION OF STEEL SHALL CONFORM TO THE AISC AND AWS STANDARDS AND CODES (LATEST EDITION).

B. ALL STRUCTURAL STEEL SHALL BE HOT-DIP GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH ASTM A123 (LATEST EDITION), UNLESS OTHERWISE NOTED.

13. ERECTION OF STEEL:

A. PROVIDE ALL ERECTION EQUIPMENT, BRACING, PLANKING, FIELD BOLTS, NUTS, WASHERS, DRIFT PINS, AND SIMILAR MATERIALS WHICH DO NOT FORM A PART OF THE COMPLETED CONSTRUCTION BUT ARE NECESSARY FOR ITS PROPER ERECTION.

B. ERECT AND ANCHOR ALL STRUCTURAL STEEL IN ACCORDANCE WITH AISC REFERENCE STANDARDS. ALL WORK SHALL BE ACCURATELY SET TO ESTABLISHED LINES AND ELEVATIONS AND RIGIDLY FASTENED IN PLACE WITH SUITABLE ATTACHMENTS TO THE CONSTRUCTION OF THE BUILDING.

C. TEMPORARY BRACING, GUYING AND SUPPORT SHALL BE PROVIDED TO KEEP THE STRUCTURE SAFE AND ALIGNED AT ALL TIMES DURING CONSTRUCTION, AND TO PREVENT DANGER TO PERSONS AND PROPERTY. CHECK ALL TEMPORARY LOADS AND STAY WITHIN SAFE CAPACITY OF ALL BUILDING COMPONENTS.

14. ANTENNA INSTALLATION:

A. INSTALL ANTENNAS AS INDICATED ON DRAWINGS AND CLIENT'S REPRESENTATIVE SPECIFICATIONS.

B. INSTALL GALVANIZED STEEL ANTENNA MOUNTS AS INDICATED ON DRAWINGS.

C. INSTALL COAXIAL / FIBER CABLES AND TERMINATIONS BETWEEN ANTENNAS AND EQUIPMENT PER MANUFACTURER'S RECOMMENDATIONS. WEATHERPROOF ALL CONNECTORS BETWEEN THE ANTENNA AND EQUIPMENT PER MANUFACTURER'S REQUIREMENTS.

15. ANTENNA AND COAXIAL / FIBER CABLE GROUNDING:

A. ALL EXTERIOR #6 GREEN GROUND WIRE "DAISY CHAIN" CONNECTIONS ARE TO BE WEATHER SEALED WITH ANDREWS CONNECTOR/SPLICE WEATHERPROOFING KIT TYPE #221213 OR EQUAL.

B. ALL COAXIAL / FIBER CABLE GROUNDING KITS ARE TO BE INSTALLED ON STRAIGHT RUNS OF COAXIAL / FIBER CABLE (NOT WITHIN BENDS).

16. RELATED WORK, FURNISH THE FOLLOWING WORK AS SPECIFIED UNDER CONSTRUCTION DOCUMENTS, BUT COORDINATE WITH OTHER TRADES PRIOR TO BID:

- A. FLASHING OF OPENING INTO OUTSIDE WALLS
- B. SEALING AND CAULKING ALL OPENINGS
- C. PAINTING
- D. CUTTING AND PATCHING
- 17. REQUIREMENTS OF REGULATORY AGENCIES:

A. FURNISH U.L. LISTED EQUIPMENT WHERE SUCH LABEL IS AVAILABLE. INSTALL IN CONFORMANCE WITH U.L. STANDARDS WHERE APPLICABLE.

B. INSTALL ANTENNA, ANTENNA CABLES, GROUNDING SYSTEM IN ACCORDANCE WITH DRAWINGS AND SPECIFICATION IN EFFECT AT PROJECT LOCATION AND RECOMMENDATIONS OF STATE AND LOCAL BUILDING CODES, AND SPECIAL CODES HAVING JURISDICTION OVER SPECIFIC PORTIONS OF WORK. THIS WORK INCLUDES BUT IS NOT LIMITED TO THE FOLLOWING:

C. TIA-EIA - 222 (LATEST EDITION). STRUCTURAL STANDARDS FOR STEEL ANTENNA TOWERS AND ANTENNA SUPPORTING STRUCTURES.

D. FAA - FEDERAL AVIATION ADMINISTRATION ADVISORY CIRCULAR AC 70/7460-IH, OBSTRUCTION MARKING AND LIGHTING.

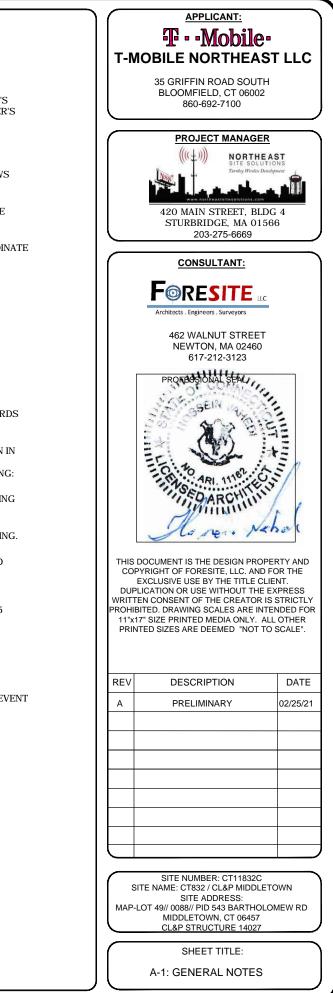
E. FCC - FEDERAL COMMUNICATIONS COMMISSION RULES AND REGULATIONS FORM 715, OBSTRUCTION MARKING AND LIGHTING SPECIFICATION FOR ANTENNA STRUCTURES AND FORM 715A, HIGH INTENSITY OBSTRUCTION LIGHTING SPECIFICATIONS FOR ANTENNA STRUCTURES.

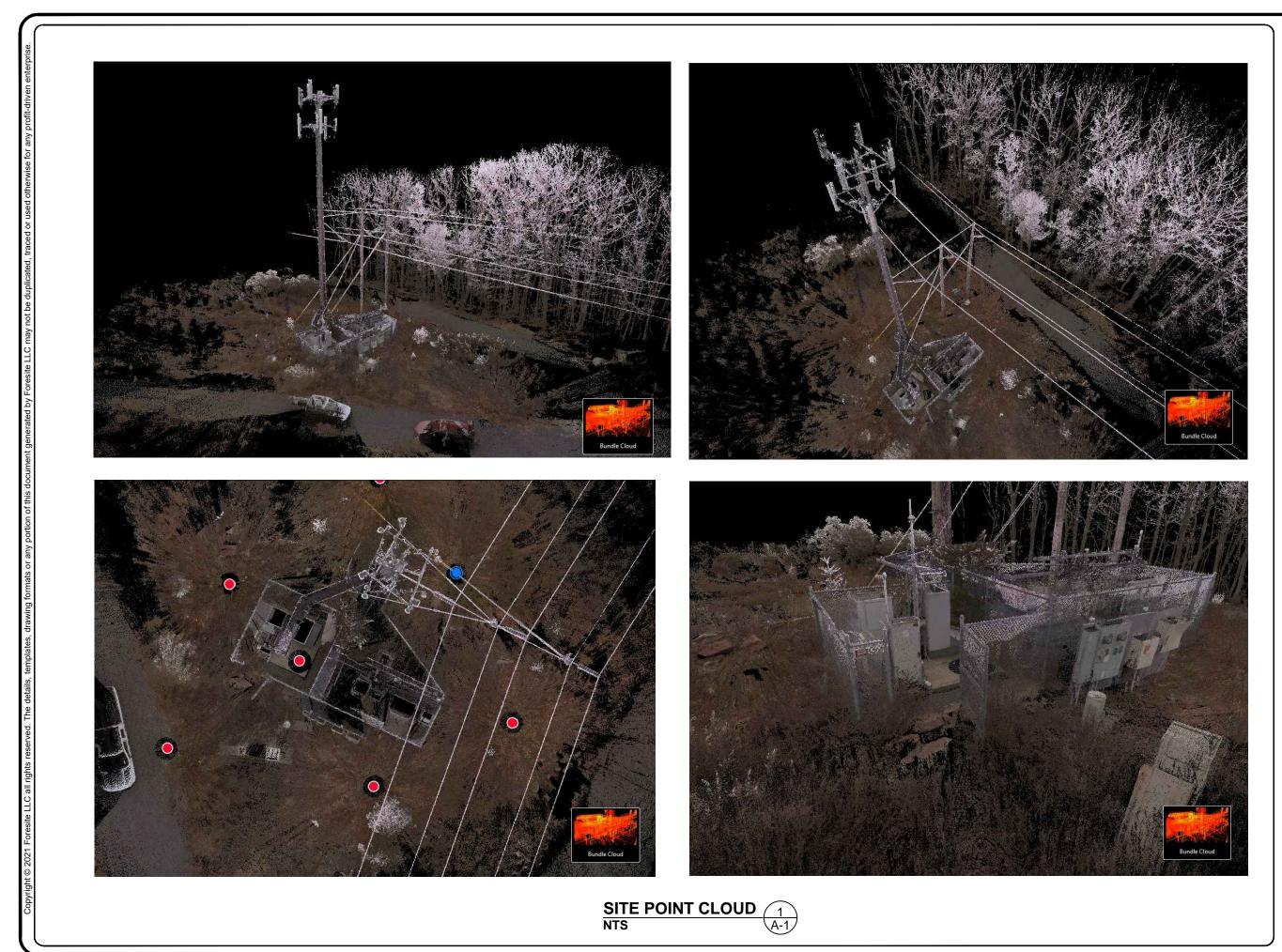
F. AISC - AMERICAN INSTITUTE OF STEEL CONSTRUCTION SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 BOLTS (LATEST EDITION).

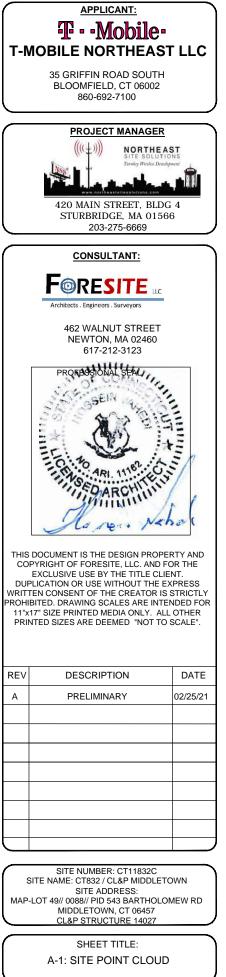
- G. NEC NATIONAL ELECTRICAL CODE ON TOWER LIGHTING KITS.
- H. UL UNDERWRITER'S LABORATORIES APPROVED ELECTRICAL PRODUCTS.

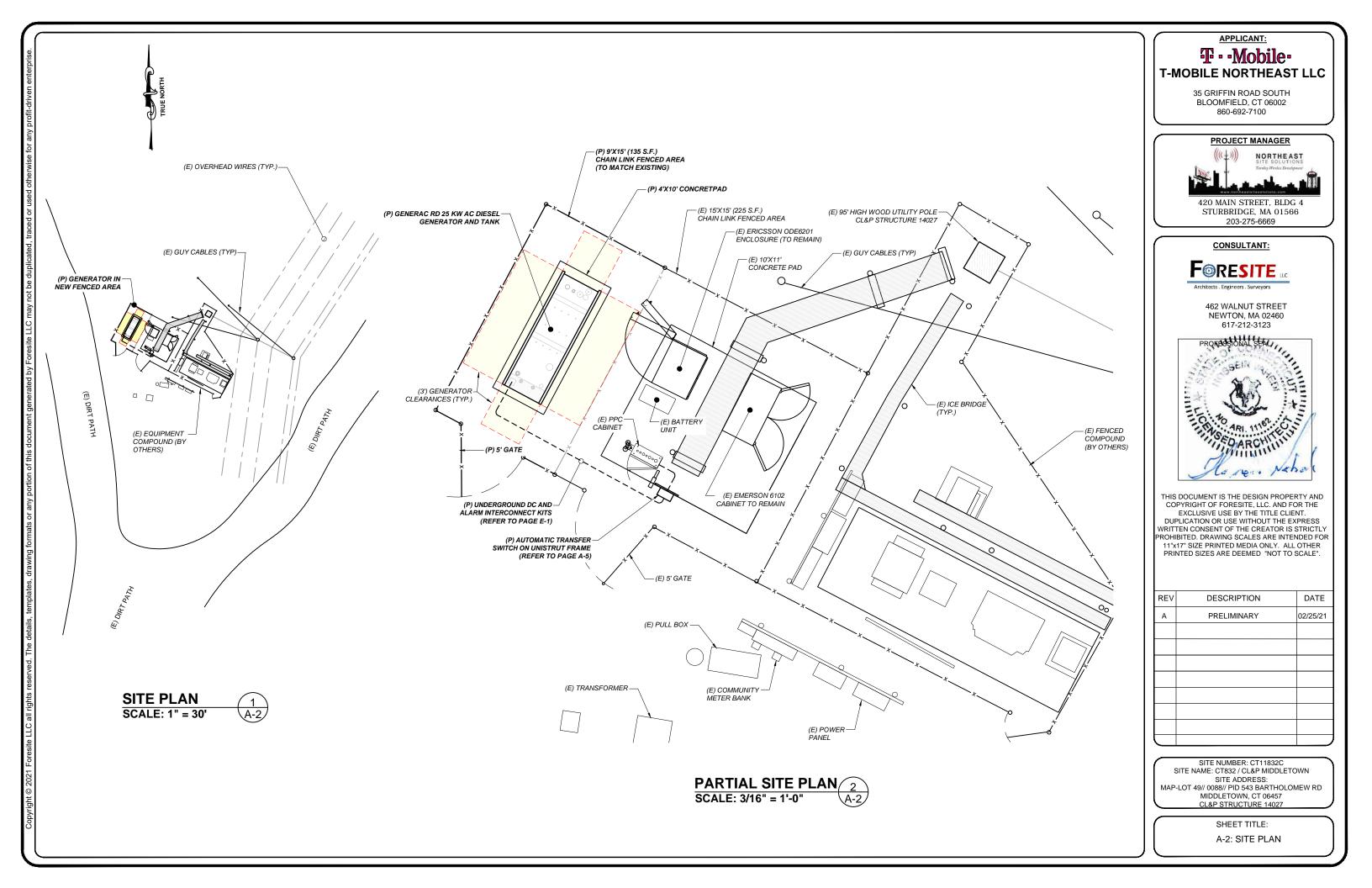
I. IN ALL CASES, PART 77 OF THE FAA RULES AND PARTS 17 AND 22 OF THE FCC RULES ARE APPLICABLE AND IN THE EVENT OF CONFLICT, SUPERSEDE ANY OTHER STANDARDS OR SPECIFICATIONS.

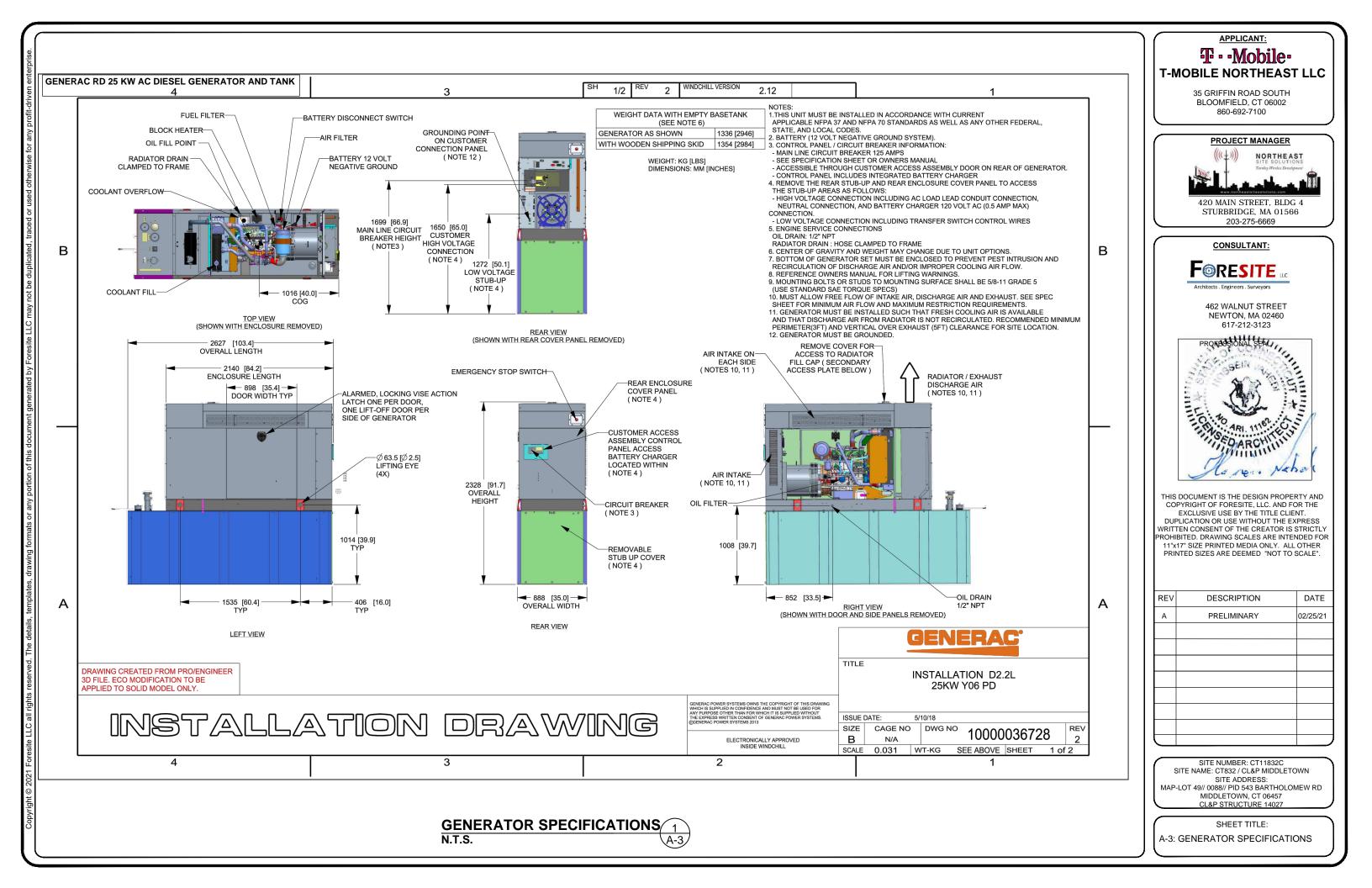
J. 2018 LIFE SAFETY CODE NFPA - 101.

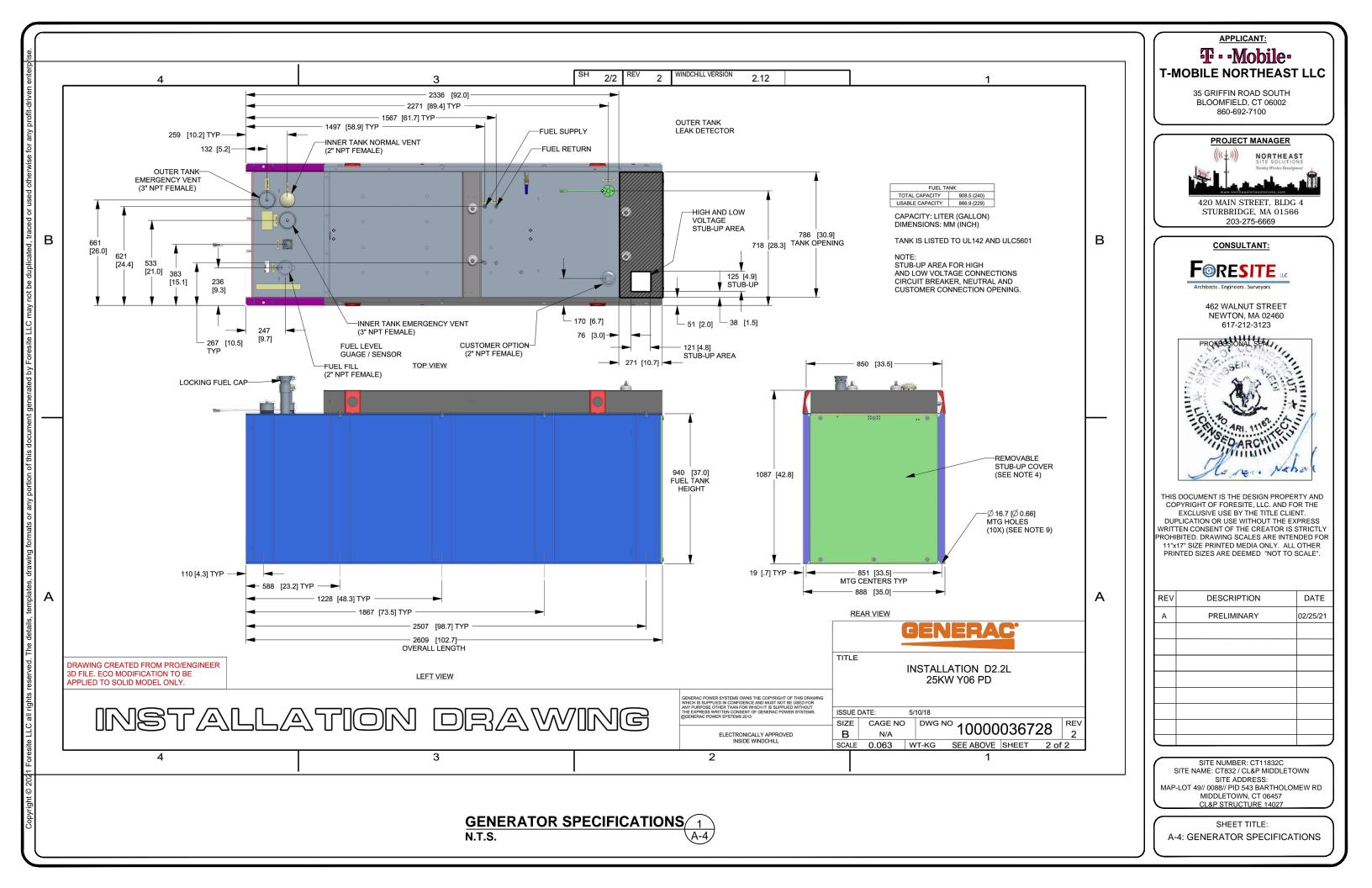


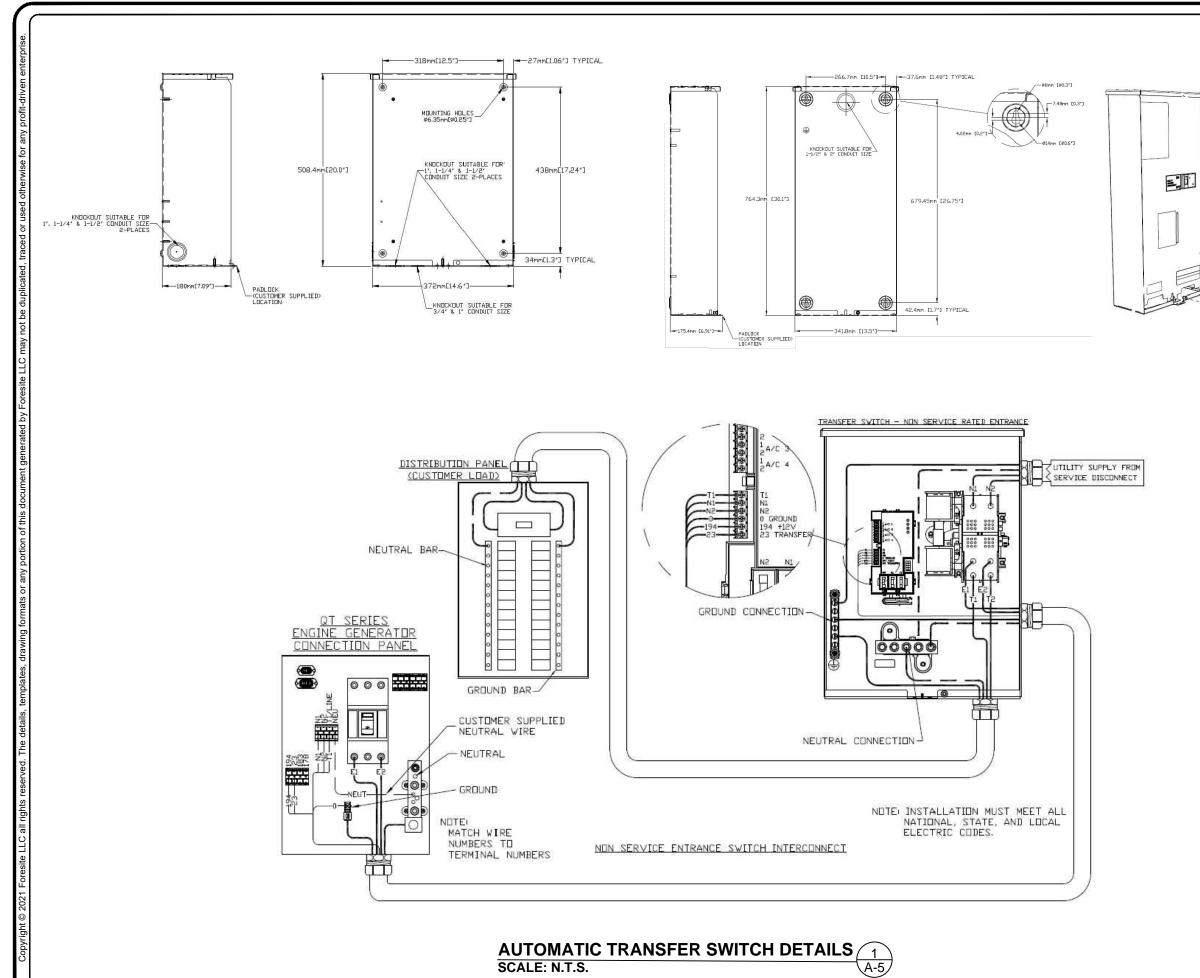




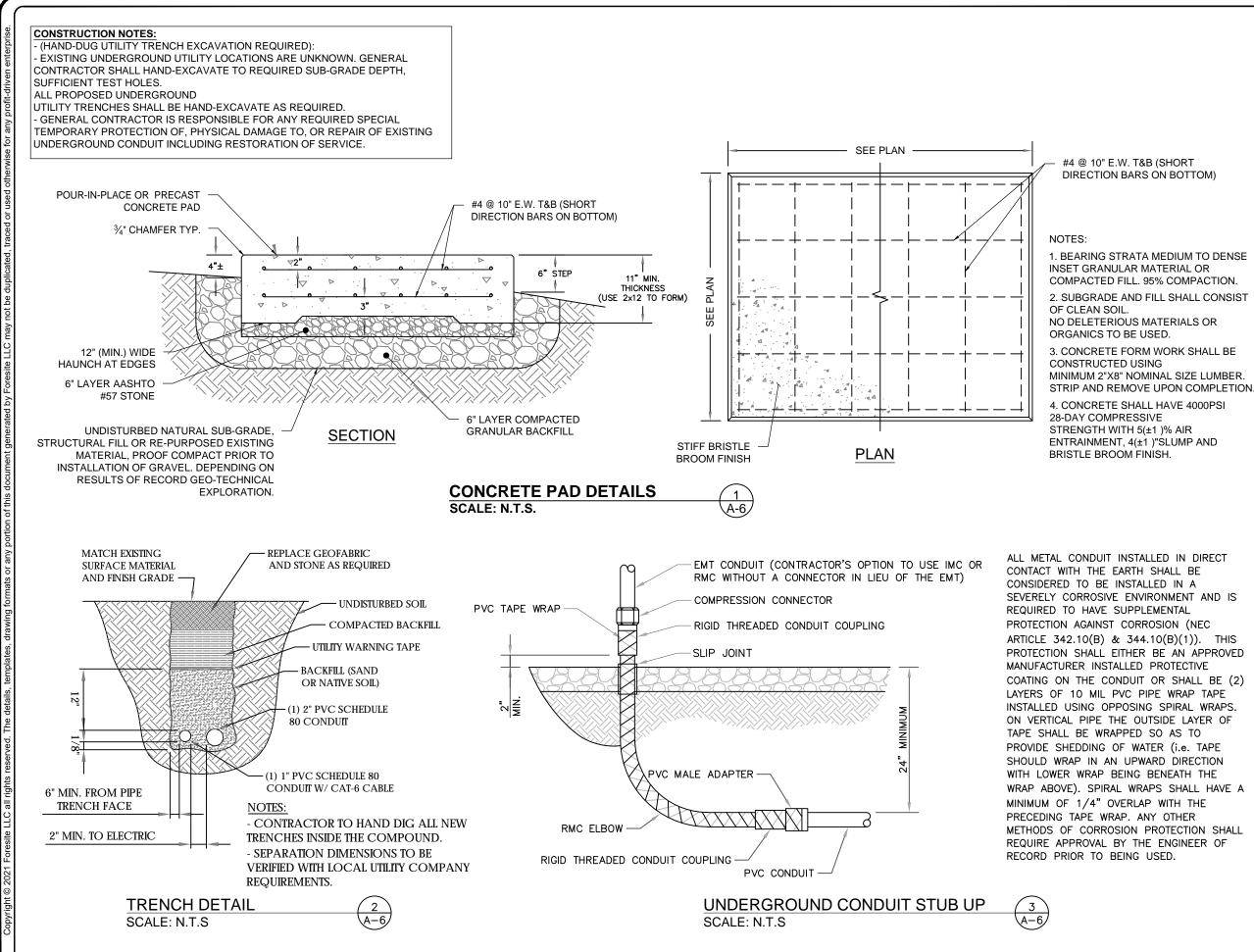


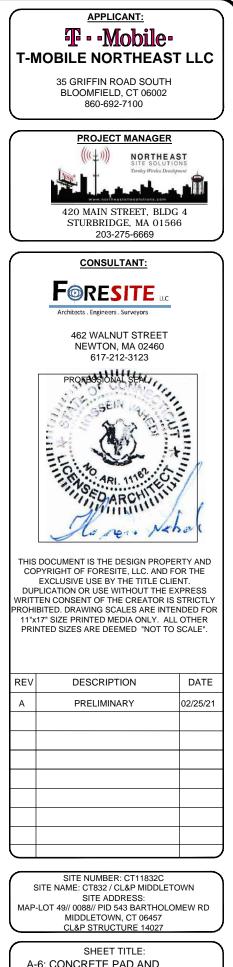






<u>1</u>	Т-М	APPLICANT: T = Mobile OBILE NORTHEA 35 GRIFFIN ROAD SOUT BLOOMFIELD, CT 06002 860-692-7100	ST LLC
		PROJECT MANAGE	DG 4
		CONSULTANT:	
		FORESITE LI Architects . Engineers . Surveyors	c
		462 WALNUT STREE NEWTON, MA 02460 617-212-3123	
	COPY EX DUPLI WRITTE PROHIBI 11"x17	PROFIDESTIONAL SEAL	D FOR THE SLIENT. E EXPRESS IS STRICTLY ITENDED FOR ALL OTHER
	REV	DESCRIPTION	DATE
	A	PRELIMINARY	02/25/21
	\square		
		SITE NUMBER: CT11832C E NAME: CT832 / CL&P MIDDL SITE ADDRESS: DT 49// 0088// PID 543 BARTHO MIDDLETOWN, CT 06457 CL&P STRUCTURE 14027	ETOWN LOMEW RD
		SHEET TITLE: AUTOMATIC TRANSFER ETAILS AND SPECIFICA	





A-6: CONCRETE PAD AND UNDERGROUND CONDUIT DETAILS

GENERAL ELECTRICAL NOTES

1. ALL ELECTRICAL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE (NEC) AS WELL AS APPLICABLE STATE AND LOCAL CODES INCLUDING LATEST EDITIONS OF:

NFPA - NATIONAL FIRE PROTECTION ASSOCIATION **UL - UNDERWRITERS LABORATORIES** NEC - 2017 NATIONAL ELECTRICAL CODE NEMA - NATIONAL ELECTRIC MANUFACTURERS ASSOCIATION

OSHA - OCCUPATIONAL SAFETY AND HEALTH ACT

IBC - 2015 INTERNATIONAL BUILDING CODE

2. ALL ELECTRICAL ITEMS SHALL BE U.L. APPROVED OR LISTED AND PRODUCED PER SPECIFICATION REQUIREMENTS.

3. THE ELECTRICAL WORK INCLUDES ALL LABOR AND MATERIAL DESCRIBED BY DRAWINGS AND SPECIFICATION INCLUDING INCIDENTAL WORK TO PROVIDE COMPLETE OPERATING AND APPROVED ELECTRICAL SYSTEM.

4. GENERAL CONTRACTOR SHALL PAY FEES FOR PERMITS, AND RESPONSIBLE FOR OBTAINING SAID PERMITS AND COORDINATION OF INSPECTIONS.

5. 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) ND WHERE REQUIRED IN LIQUID TIGHT FLEXIBLE METAL OR NONMETALLIC CONDUITS.

6. RIGID STEEL CONDUITS SHALL BE GROUNDED AT BOTH ENDS.

7. ELECTRICAL WIRING SHALL BE COPPER WITH TYPE XHHW, THWN, OR THIN INSULATION.

8. ALL EQUIPMENT LOCATED OUTSIDE SHALL HAVE NAME 3R ENCLOSURE.

9. GROUNDING SHALL COMPLY WITH NEC ART. 250.

10. GROUNDING COAX CABLE SHIELDS MINIMUM AT BOTH ENDS USING MANUFACTURES COAX CABLE GROUNDING KITS SUPPLIED BY PROJECT OWNER

11. USE #6 COPPER STRANDED WIRE WITH GREEN COLOR INSTALLATION FOR ABOVE GRADE GROUNDING (UNLESS OTHERWISE SPECIFIED) AND #2 SOLID TINNED BARE COPPER WIRE FOR BELOW GRADE GROUNDING AS INDICATED ON THE GROUND

12. ALL GROUND CONNECTION TO BE BURNDY HYGROUND COMPRESSION TYPE CONNECTORS OR CADWELD EXOTHERMIC WELD. DO NOT ALLOW BARE COPPER WIRE TO BE IN CONTACT WITH GALVANIZED STEEL.

13. ROUTE GROUNDING CONDUCTORS ALONG THE SHORTEST AND STRAIGHTEST PATH POSSIBLE, EXCEPT AS OTHERWISE INDICATED. GROUNDING LEADS SHOULD NEVER BE BENT AS RIGHT ANGLE. ALWAYS MAKE AT LEAST 12" RADIUS BENDS. #6 WIRE CAN BE BENT AT 6" RADIUS WHEN NECESSARY BOND ANY METER OBJECTS WITHIN 7 FEET OF PROPOSED EQUIPMENT OR CABINET TO MASTER GROUND BAR

14. CONNECTIONS TO MGB SHALL BE ARRANGED IN THREE MAIN GROUPS: SURGE PROCEDURES (COAXIAL CABLE GROUND KITS, TELCO AND POWER PANEL GROUND); (GROUNDING ELECTRODE RING OR BUILDING STEEL); NON-SURGING **OBJECTS (EGB GROUND IN RBS UNIT)**

15. CONNECTIONS TO GROUND BARS SHALL BE MADE WITH TWO HOLE COMPRESSION TYPE COPPER LUGS. APPLY OXIDE INHIBITING COMPOUND TO ALL LOCATIONS.

16. APPLY OXIDE INHIBITING COMPOUND TO ALL COMPRESSION TYPE GROUND CONNECTION.

17. TEST COMPLETED GROUND SYSTEM AND RECORD RESULTS FOR PROJECT CLOSE-OUT DOCUMENTATION.

18. BOND ANY METAL OBJECTS WITHIN 7 FEET OF PROPOSED EQUIPMENT OR CABINET TO MASTER GROUND BAR.

19. VERIFY PROPOSED SERVICE UPGRADE WITH LOCAL UTILITY COMPANY PRIOR TO CONSTRUCTION

20. EXISTING UNDERGROUND UTILITY LOCATIONS ARE UNKNOWN. GENERAL CONTRACTOR SHALL HAND-EXCAVATE TO REQUIRED SUB-GRADE DEPTH, SUFFICIENT TEST HOLES OR AS DIRECTED / REQUIRED BY CONSTRUCTION MANAGER. ALL PROPOSED UNDERGROUND UTILITY TRENCHES SHALL BE HAND-EXCAVATE AS REQUIRED, GENERAL CONTRACTOR IS RESPONSIBLE FOR ANY REQUIRED SPECIAL TEMPORARY PROTECTION OF PHYSICAL DAMAGE TO OR REPAIR OF EXISTING UNDERGROUND CONDUIT INCLUDING RESTORATION OF SERVICE

21. PROVIDE SLIP JOINS WHERE CONDUITS TRANSITION FROM UNDERGROUND TO ABOVE GROUND.

NOTES:

DIAGRAM AS SHOWN, IS A GENERIC ROUTING SCHEMATIC BASED ON AVAILABLE INFORMATION AND MAY NOT REPRESENT ACTUAL FIELD CONDITIONS. CONTRACTOR SHOULD INSTALL THE GENERATOR, FOUIPMENT AND CONNECTIONS BASED ON VERIFIED FLECTRICAL AUDITS AND PER MANUFACTURER'S INSTALLATION GUIDELINES AS WELL AS ALL APPLICABLE LOCAL AND NATIONAL CODES AND REQUIREMENTS.

GROUNDING NOTES:

GROUNDING SHALL COMPLY WITH NEC ART 250 AND MANUFACTURER'S RECOMMENDATIONS. TIE INTO THE EXISTING GROUNDING SYSTEM

2. CONTRACTOR SHALL INSTALL GROUND RODS ON ALL UNDERGROUND GROUNDING RUNS LONGER THAN 10'. GROUND RODS WILL BE INSTALLED ON 20' CENTERS MAXIMUM.

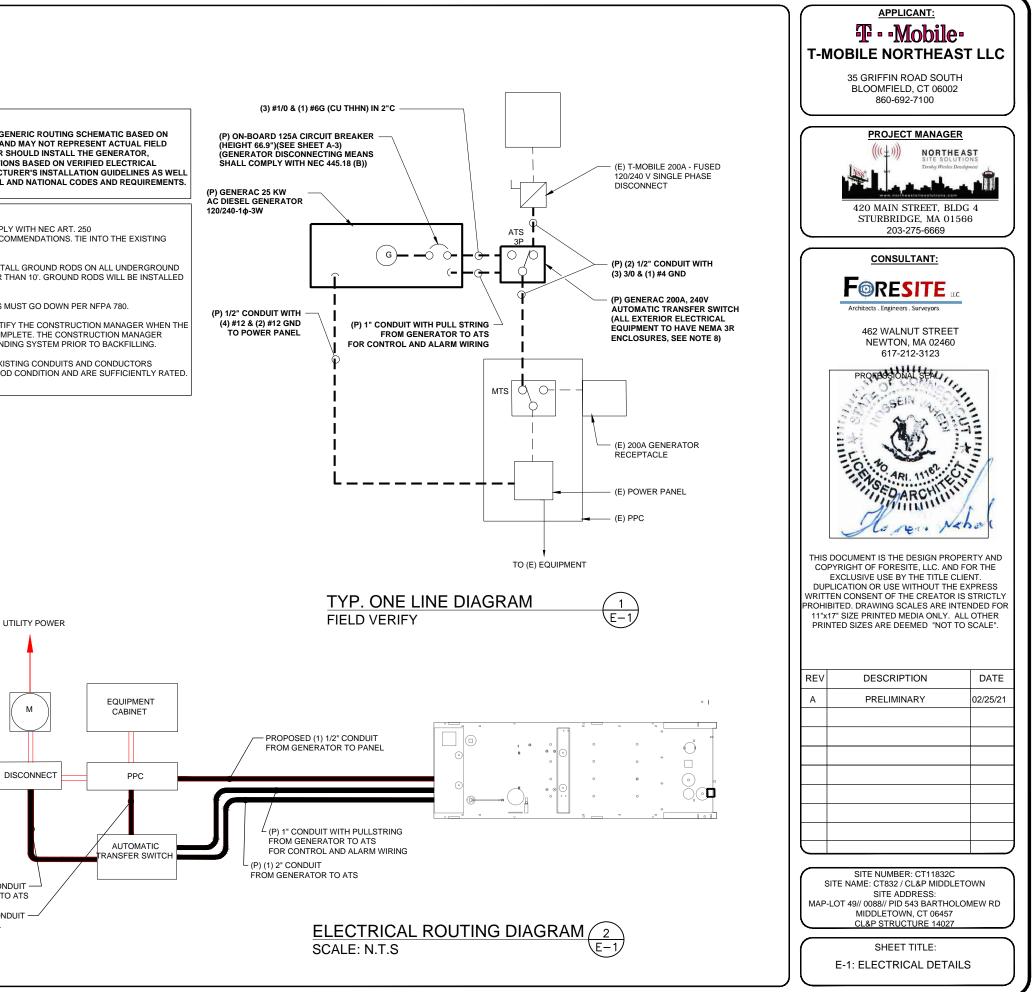
3. ALL DOWN CONDUCTORS MUST GO DOWN PER NFPA 780.

4. CONTRACTOR SHALL NOTIFY THE CONSTRUCTION MANAGER WHEN THE GROUNDING SYSTEM IS COMPLETE. THE CONSTRUCTION MANAGER SHALL INSPECT THE GROUNDING SYSTEM PRIOR TO BACKFILLING.

5. CONTRACTOR MY USE EXISTING CONDUITS AND CONDUCTORS PROVIDED THEY ARE IN GOOD CONDITION AND ARE SUFFICIENTLY RATED

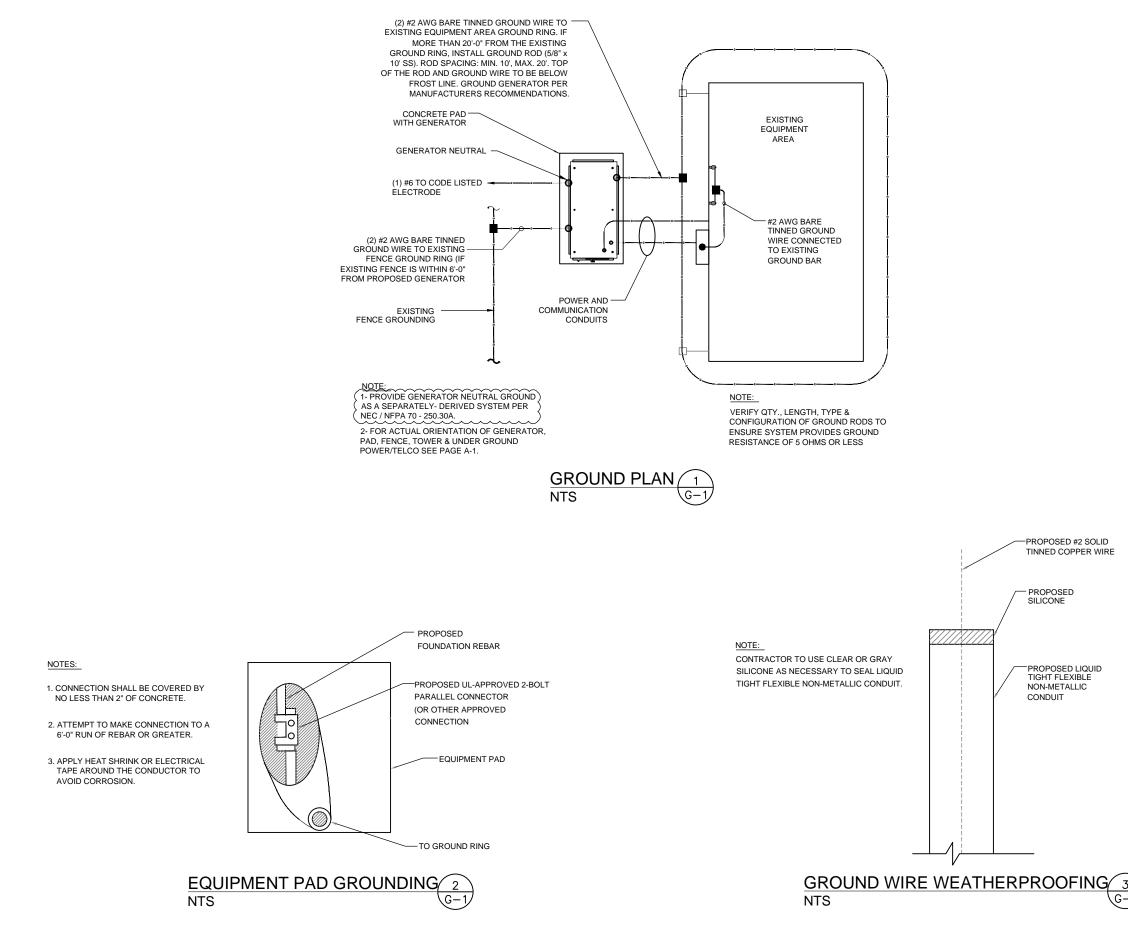
М

DISCONNECT



FROM DISCONNECT TO ATS PROPOSED 2-1/2" CONDUIT FROM ATS TO PANEL

PROPOSED 2-1/2" CONDUIT ·



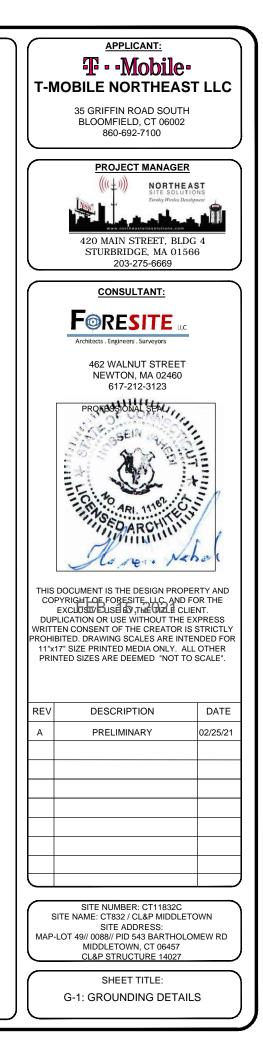
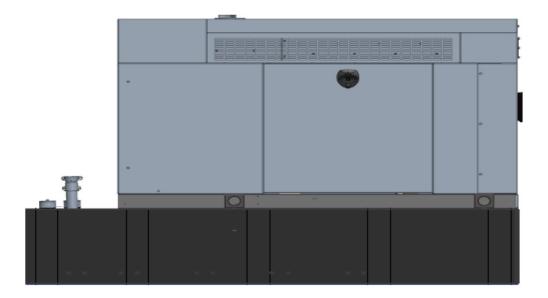


Exhibit D



Generac RD025 Design Document

Diesel, AC, 25kW External Fill Tank Model#7192-0 SKU#33651



The following are responsible for this project document:

Kevin Smith

SR. Engineer (770) 256-3594

Project Design Spec Revision	1.0	Last Date:08/23/2018	5/14/2018
Final doc URL (~Dnnnnn):			
Location	Use the InfoRouter Search (Advanced) putting the Document ID (nnnnnn without the D) to find the location of the master document.		
Template URL:	http://docs.eng.t-mobile.com/InfoRouter/docs/~D423750 Slightly updated 1/2011		

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1 Introduction / Project Summary

1.1 Purpose of Project

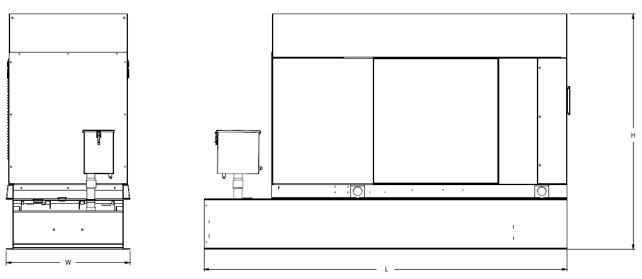
T-Mobile's nationwide cell site hardening plan is providing a refuellable backup power system capable of powering a site for a minimum of 48 hours before refueling is required. The purpose of this project is to give T-Mobile customers reliable service during power outages and provide a sufficient layer of coverage. This design document is for Generac's RD025 model#7192-0, which is a Diesel AC generator with a capacity of 25kW.

1.2 Feature Description

The Generac RD025 is a 25kW AC, diesel generator is one of the generators selected as part of the T-Mobile RFP in support of the nationwide cell site hardening plan. The RD025 has a Level 2 acoustic enclosure, 3 phase sensing, and +-0.25% digital voltage regulation. It is equipped with RS232, RS485 and canbus remote ports and Evolution control panel. It is also equipped with a automatic transfer switch, the RXSC200A3 (Automatic Transfer Switch) Controls the process of transferring commercial AC power and generator power. The RXSC200A3 is a 200Amp, switch that is programmed to perform engine test runs and also has adjustable engine run time capabilities. For RXSC200A3 Owners Manual and full feature descriptions LINK.

1.3 Dimensions

The dimensions of a level 2 Acoustic Enclosure L x W x H in inches $103.4 \times 35 \times 91.7$. T-Mobile requires a 36-inch radius around the generator that will cover the 18'' door swing on the generator.



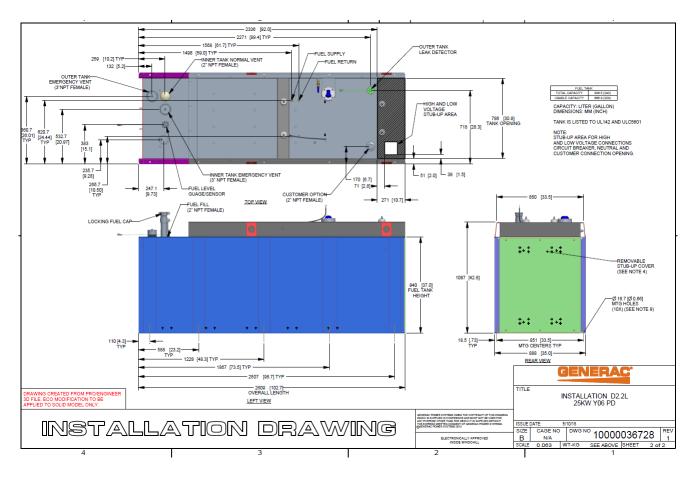
Weights and Dimensions

Unit Weight - Ibs	Unit Weight with Skid - Ibs	Dimensions (L x W x H) - in
2,123	2,161	103.4 x 35.0 x 73.8

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2 Fuel Tanks

The RD025 has a 102.7" 240 Gallon Double-Wall UL142 Base tank to provide 98 hours of backup power at full load deployed on site. Below is the Install drawing for the 240-gallon tank for the RD025kW.



3 RXSC200A3 ATS/ Controller

3.1 Hardware

The RD025 will come with a RXSC200A3 and an Evollution controller. The sites considered for the RD025 should not have a DC power consumption above 20kW

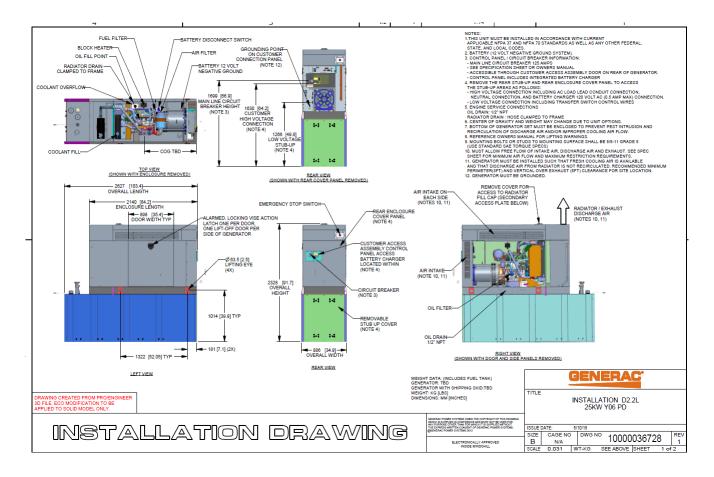


RXSC200A3 Link

RXSC200A3 install drawing Link

Evollution controller spec sheet Link

RD025 installation drawings and supporting documentation Link



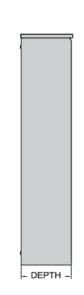
3.2 RXSC200A3 Automatic Transfer Switch

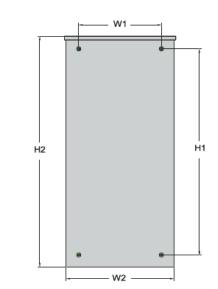
The RXSC200A3 (Automatic Transfer Switch) is equiped with the following functions. Utility voltage drop-out <65%. Timer to Generator start: 10 second factory set, adjustable between 2-1500 seconds. Engine Warm up delay: 5 seconds. Standby Voltage Sensor: 65% for 5 seconds. Utility Voltage Pickup >80%. Re-Transfer Time Delay: 15 seconds. Engine Cool-Down Timer: 60 seconds. Exerciser: 5 or 12 minute adjustable weekly/by-weekly/monthly.The transfer switch can also be operated manually without power applied

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RXSC200A3 Dimensions

Model		RXSC200A3
Height	H1 Height	17.24/437.9
(in./mm)	H2	20/508
Width (in./mm)	WI	12.5/317.5
	W2	14.6/370.8
Depth (in./mm)		7.09/180.1
Weight (lbs./kilos)		20/9.07







4 Architecture/Alarms

4.1 Interfaces and Alarming

The generator will be monitored by external alarms, conduit and cat five cables have to be installed from the Evolution Controllers Low Voltage Box located in the Generac generator to the appropriate cell site equipment. Nokia FSEB or FSEE and in Ericsson the SAU.

At a Nokia site, this connection is at the FSEB or an FSEE module. For the wiring diagram and instructions for the FSEB click the <u>Link</u>. (The FSEE is the Nokia module that will be replacing the FSEB. For details on the FSEE contact: HQNokiaCellsiteDesigns@T-Moblie.com)

Ericsson sites will connect to the SAU module via OVP Expansion Kit for 8 External Alarms. Product number: UTOVP-ALM8EXP. For the wiring diagram and instructions for this click the <u>link</u>.

The RXSC200A3 has auxiliary contacts that will facilitate the *ATS in Emergency position* alarm and will be a Normally Closed contact. Below is the wiring schematic for this contact and it can be found in the RXSC200A3 owners manual.

Auxiliary Contact

See **Figure 3-4**. If desired, there is one normally-closed Auxiliary Contact (A) on the transfer switch to operate customer accessories, remote advisory lights, or remote annunciator devices. A suitable power source must be connected to the common terminal. If needed, an extra auxiliary contact can be added.

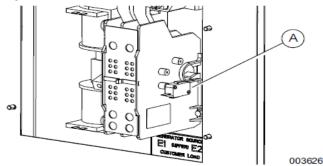


Figure 3-4. Auxiliary Contact

The auxiliary contact is normally closed when the transfer switch is in utility mode. The contacts will open when the transfer switch is in the standby power mode.

NOTE: Auxiliary Contact is rated 10 amps at 125 or 250 volts AC, and 0.6 amps at 125 volts DC.

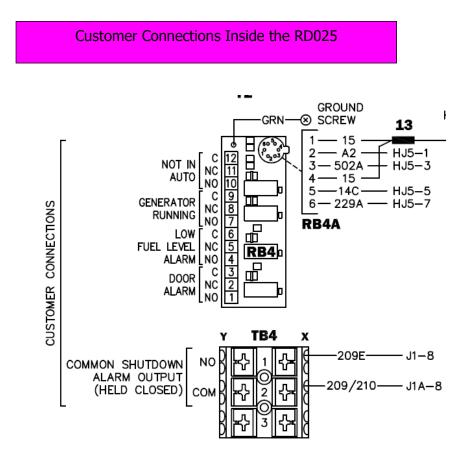
ACAUTION

Equipment damage. Exceeding rated voltage and current will damage the auxiliary contacts. Verify that voltage and current are within specification before energizing this equipment. (000134a)

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T-Mobile has four relays available from the Generac controller that are user-defined. T-Mobile can have four-alarm categories and a limitless number of subcategories. T- Mobile will utilize Normally Closed (NC) dry contacts for alarms in Low Voltage Connection box in the spare outputs section. Ericsson cabinets need to be equipped with the alarm expansion kit (UTOVP-ALM8EXP) to handle external alarms.



Ericsson UTOVP- ALM8EXP



UTOVP-ALM8EXPOVP Expansion Kit for 8 External AlarmsQtyProduct noDenominationUTOVP-ALM8EXPOVP Expansion Kit for 8 External Alarms1NFD30234/08OVERVOLTAGE ARRESTER/OVP-ALM 81RPM777143/01200CABLE WITH CONNECTOR/SIGNAL CABLE2



Evolution Controller Customer		
Connections	Nokia FSEB Alarm Connections 13-24	T-Mobile Standard Alarms
NC#8-Gen Running	NC 4110 grd 4111 pin 13	Generator Running
NC#11-Not In Auto	NC 4110 grd 4111 pin 14	Generator Alarm Critical
NC#2-Door Alarm	NC 4110 grd 4111 pin 15	Generator Alarm NSI
NC#5-Low Fuel	NC 4110 grd 4111 pin 16	Low Fuel
RXSC200A3-Auxiliary Contacts	NC 4110 grd 4111 pin 17	ATS in Emergency Position

Evolution Controller Customer		
Connections	Ericsson Alarm 8expConnections	T-Mobile Standard Alarms
NC#8- Gen. Running	NC - A5	Generator Running
NC#11-Not In Auto	NC - A6	Generator Alarm Critical
NC#2-Door Alarm	NC - A7	Generator Alarm NSI
NC#5-Low Fuel	NC - A8	Low Fuel
RXSC200A3-Auxiliary Contacts	NC - A9	ATS in Emergency Position

5 Regulatory Requirements

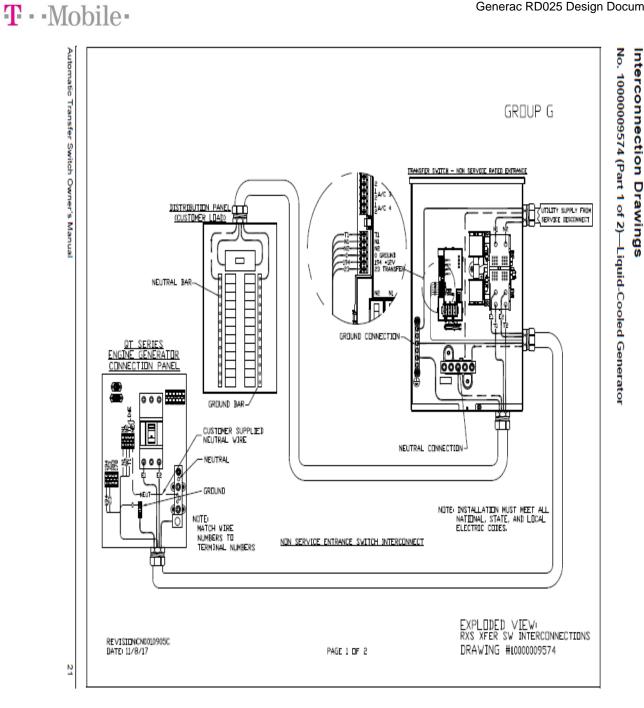
Level 2 Acoustic Enclosure provides a noise level of 67.5dBA. It is EPA certified and meets NFPA 99 and 110 requirements(NFPA National Fire Protection Association). The RD025 generator engines is a tier 4 engine and meets the EPA final standards.

6 Configuration/Diagrams

The physical configuration of the Generator and the RXSC200A3 is, ATS before the PPC to ensure overcurrent protection when commercial power is restored. The RD025 and the RXSC200A3 has to be wired to Commercial AC power.

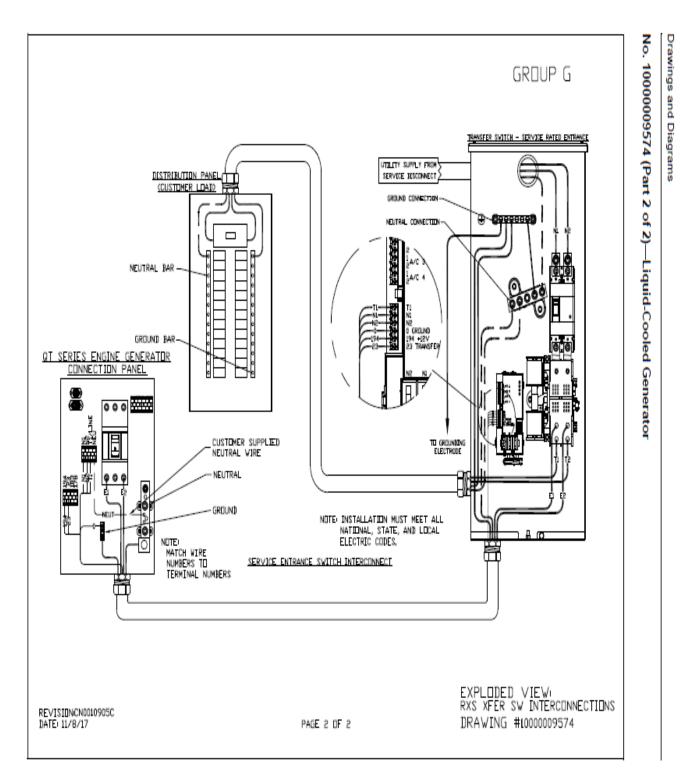


Commercial Power Connection Points On The RXSC200A3



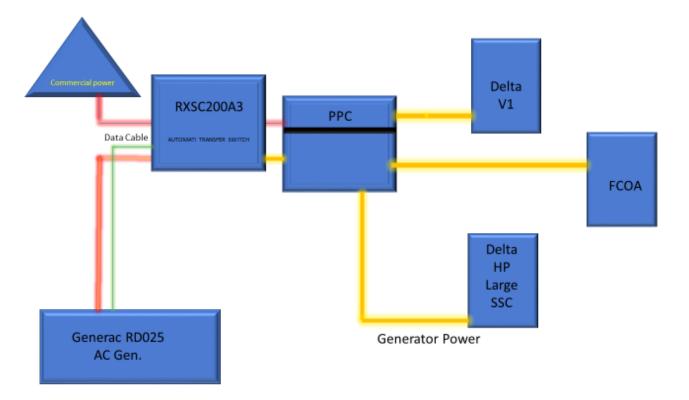
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Generac RD025 Design Document



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Compound Diagram:



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7 Maintenance

T-Mobile is recommending preventive maintenance to be performed every 250 hours of runtime or every 12 months, whichever comes first.

T-Mobile requires this minimum service checklist for the generator engine:

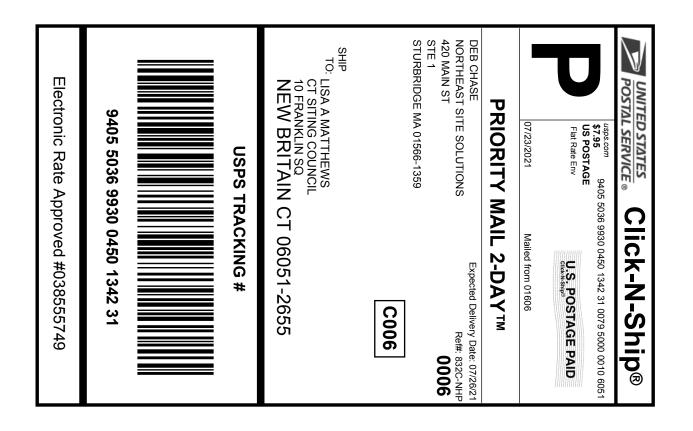
- Check engine mounts and support. Tighten fasteners.
- Check all the engine hoses and clamps for proper fit, and any signs of cracking and fatigue from wear.
- Inspect all belts for signs of cracking and fatigue from wear and adjust for proper tension.
- Inspect the exhaust system for leaks, burns and wet stacking. Drain exhaust line and tighten any clamps and flange bolts.
- Inspect silencer and plumbing for leaks, cracks or any other signs of wear.
- Inspect the system for fuel, oil and coolant leaks and signs of corrosion.
- Replace water separator.
- Replace water filter/ conditioner.
- Check Anti-Freeze (Spector-Analysis).
- Check coolant level and add, if needed.
- Inspect radiator mounting for signs or wear and cracking.
- Inspect/ clean air filter and change per manufacturer specifications.
- Inspect air intakes and outlets and tighten clamps and brackets, if applicable.
- Replace fuel filter.
- Inspect the carburetor fuel injection system, fuel injection pump and choke, if equipped. Adjust to manufacturers specifications.
- Change engine oil, oil filter and record the date on the filter casing.
- Check engine heater operation, if equipped.
- Check and adjust the battery charger operations, and charge rate within the manufacturer's recommended operating specifications.

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- Inspect the battery housing, hardware connections, and cables for corrosion and wear.
- Check the battery electrolyte levels and specific gravity levels.
- Load test generator battery.
- Check, adjust and record generator output voltage, as necessary.
- Check and record the alternator charge rate.
- During inspection run the generator for 30 minutes under load. During this time, and after the engine is at full operational speed and has reached engine operating temperature; determine and record the condition of all inspection points: oil pressure, water/ coolant temperature, Fuel pressure, generator gauge, indicator operations, generator battery.
- Check the engine timing and adjust to manufacturers specifications, if necessary.
- Inspect, adjust and record governor and frequency, if necessary.
- Verify that the low fuel alarm is operational and configured correctly to trigger when the fuel tank reaches 50% of fuel tank capacity.

Check fuel level and refuel the generator during the preventive/ corrective maintenance visit.

Exhibit E



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Instructions

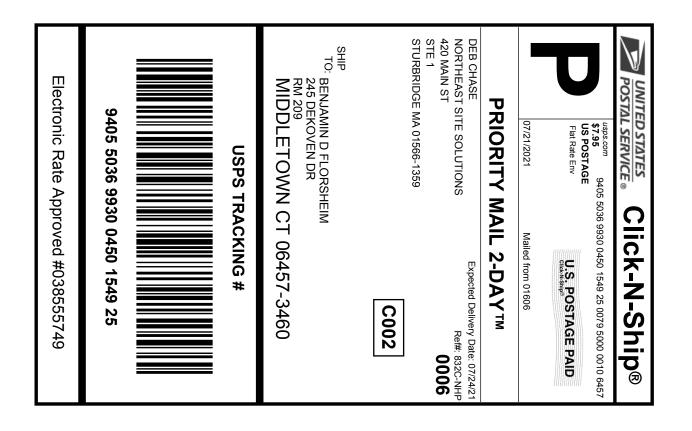
- 1. Each Click-N-Ship® label is unique. Labels are to be used as printed and used only once. DO NOT PHOTO COPY OR ALTER LABEL.
- 2. Place your label so it does not wrap around the edge of the package.
- 3. Adhere your label to the package. A self-adhesive label is recommended. If tape or glue is used, DO NOT TAPE OVER BARCODE. Be sure all edges are secure.
- 4. To mail your package with PC Postage®, you may schedule a Package Pickup online, hand to your letter carrier, take to a Post Office™, or drop in a USPS collection box.
- 5. Mail your package on the "Ship Date" you selected when creating this label.

Click-N-Ship® Label Record



UNITED STATES POSTAL SERVICE Thank you for shipping with the United States Postal Service! Check the status of your shipment on the USPS Tracking® page at usps.com

Exhibit F



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- 3. Adhere your label to the package. A self-adhesive label is recommended. If tape or glue is used, DO NOT TAPE OVER BARCODE. Be sure all edges are secure.
- 4. To mail your package with PC Postage®, you may schedule a Package Pickup online, hand to your letter carrier, take to a Post Office™, or drop in a USPS collection box.
- 5. Mail your package on the "Ship Date" you selected when creating this label.

Click-N-Ship® Label Record



UNITED STATES POSTAL SERVICE Thank you for shipping with the United States Postal Service! Check the status of your shipment on the USPS Tracking® page at usps.com Your item was delivered to the front desk, reception area, or mail room at 10:01 am on July 26, 2021 in MIDDLETOWN, CT 06457.

USPS Tracking Plus[™] Available ∨

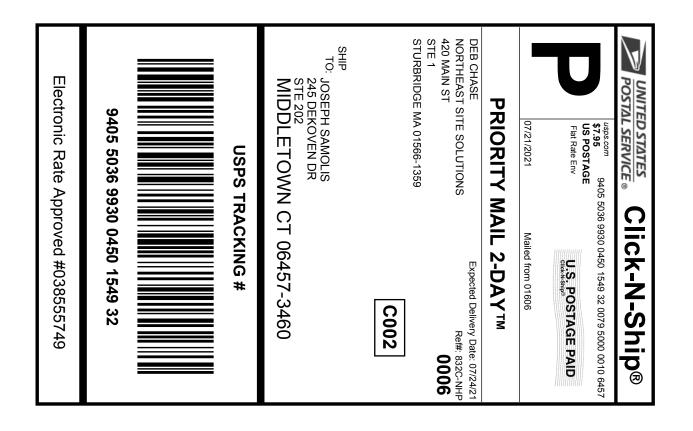
Status

Solution Desk/Reception/Mail Room

July 26, 2021 at 10:01 am MIDDLETOWN, CT 06457

Get Updates 🗸

	Delivered
Text & Email Updates	~
Tracking History	\sim
USPS Tracking Plus™	~
Product Information	\sim



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Instructions

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- 2. Place your label so it does not wrap around the edge of the package.
- 3. Adhere your label to the package. A self-adhesive label is recommended. If tape or glue is used, DO NOT TAPE OVER BARCODE. Be sure all edges are secure.
- 4. To mail your package with PC Postage®, you may schedule a Package Pickup online, hand to your letter carrier, take to a Post Office™, or drop in a USPS collection box.
- 5. Mail your package on the "Ship Date" you selected when creating this label.

Click-N-Ship® Label Record



UNITED STATES POSTAL SERVICE Thank you for shipping with the United States Postal Service! Check the status of your shipment on the USPS Tracking® page at usps.com

Status

Your item was delivered in or at the mailbox at 12:39 pm on July 23, 2021 in MIDDLETOWN, CT 06457.

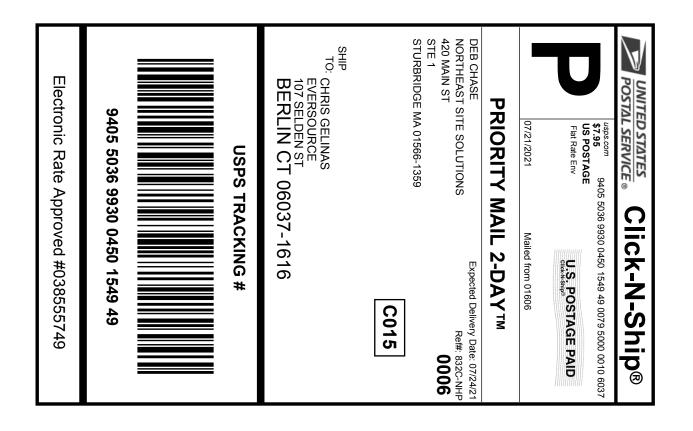
USPS Tracking Plus[™] Available ∨

Scherker Delivered, In/At Mailbox

July 23, 2021 at 12:39 pm MIDDLETOWN, CT 06457

Get Updates 🗸

	Delivered
Text & Email Updates	~
Tracking History	\sim
USPS Tracking Plus™	~
Product Information	\sim



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- 4. To mail your package with PC Postage®, you may schedule a Package Pickup online, hand to your letter carrier, take to a Post Office™, or drop in a USPS collection box.
- 5. Mail your package on the "Ship Date" you selected when creating this label.

Click-N-Ship® Label Record



UNITED STATES POSTAL SERVICE Thank you for shipping with the United States Postal Service! Check the status of your shipment on the USPS Tracking® page at usps.com Your item was delivered to an individual at the address at

9:42 am on July 23, 2021 in BERLIN, CT 06037.

USPS Tracking Plus[™] Available ∨

Status

Solution Delivered, Left with Individual

July 23, 2021 at 9:42 am BERLIN, CT 06037

Get Updates 🗸

	Delivered
Text & Email Updates	~
Tracking History	~
USPS Tracking Plus™	\sim
Product Information	\sim