



750 West Center Street, Floor 3 / Suite 301 West Bridgewater, MA 02379 Corporate Headquarters





Centerline Communications Mark Appleby 750 West Center Street, Floor 3 West Bridgewater, MA 02379 860-209-4694 mappleby@clinellc.com

October 22, 2021

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

Notice of Exempt Modification 150 Willow Street, Hamden, CT 06410 Latitude: 41.449392

Longitude: -72.904572

T-Mobile Site#: CTNH442A_ Hardening

Dear Ms. Bachman:

T-Mobile currently maintains nine (9) antennas at the 137-foot level of the existing 157-foot monopole tower at 150 Willow Street, Hamden, CT 06410. The 157-foot tower is owned by Vertical Bridge and property is owned by Hamden Fish & Game Protective. T-Mobile now intends to add a 25Kw Generator to its existing concrete pad within the existing compound. No modifications to the tower, antennas or equipment are proposed.

Planned Modifications

Ground:

Install new:

(1) Generac RD025 25Kw AC Diesel Generator-240 gallon double walled self- containing tank with fuel sensor Requires (2) 12- minute run cycles bi-weekly

This facility was approved by the CT Siting Council Docket No.324 on May 10, 2007- 150 Willow Street Hamden, CT with conditions. We used the information from the previous filing. 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 Mayor Curt B. Leng, Elected Official and Erik Johnson Acting Town Planner for the Town of Hamden, as well as the property owner and the tower owner. 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.





- 781.713.4725
- **617.249.0819**
- 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 proposed modifications will not cause a change or alteration in the physical or environmental characteristics of the site.

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,

Mark Appleby

Mobile: 860-209-4694 Fax: 508-819-3017

Office: 90 Hamilton Ave Southington CT, CT 06489

Email: mappleby@clinellc.com

Attachments

cc: Mayor Curt B. Leng, Town of Hamden -chief elected official Erik Johnson Acting Town Planner for the Town of Hamden Vertical Bridge - tower owner Hamden Fish & Game Protective- property owner

Exhibit A

Original Facility Approval



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 Internet: ct.gov/csc

May 10, 2007

Thomas J. Regan, Esq. Brown Rudnick Berlack Israels LLP CityPlace I, 185 Asylum Street Hartford, CT 06103

RE: DOCKET NO. 324 – Sprint Nextel Corporation application for a Certificate of Environmental Compatibility and Public Need for the construction, maintenance and operation of a wireless telecommunications facility at 150 Willow Street, Hamden, Connecticut.

Dear Attorney Regan:

By its Decision and Order dated May 1, 2007, the Connecticut Siting Council (Council) granted a Certificate of Environmental Compatibility and Public Need (Certificate) for the construction, maintenance and operation of a wireless telecommunications facility at 150 Willow Street, Hamden, Connecticut.

Enclosed are the Council's Certificate, Findings of Fact, Opinion, and Decision and Order.

Very truly yours,

I Nevel Phelproc

S. Derek Phelps Executive Director

SDP/MP/laf

Enclosures (4)





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 Internet: ct.gov/csc

May 10, 2007

TO:

Parties and Intervenors

FROM:

S. Derek Phelps, Executive Director

RE:

DOCKET NO. 324 – Sprint Nextel Corporation application for a Certificate of Environmental Compatibility and Public Need for the construction, maintenance and operation of a wireless telecommunications facility at 150 Willow Street,

Hamden, Connecticut.

By its Decision and Order dated May 1, 2007, the Connecticut Siting Council granted a Certificate of Environmental Compatibility and Public Need (Certificate) for the construction, maintenance and operation of a wireless telecommunications facility at 150 Willow Street, Hamden, Connecticut.

Enclosed are the Council's Findings of Fact, Opinion, and Decision and Order.

SDP/MP/laf

Enclosures (3)

c: State Documents Librarian



STATE OF CONNECTICUT)
ss. New Britain, Connecticut	:
COUNTY OF HARTFORD)

I hereby certify that the foregoing is a true and correct copy of the Findings of Fact, Opinion, and Decision and Order issued by the Connecticut Siting Council, State of Connecticut.

ATTEST:

Fred O. Cunliffe
Supervising Siting Analyst
Connecticut Siting Council

I certify that a copy of the Findings of Fact, Opinion, and Decision and Order in Docket No. 324 has been forwarded by Certified First Class Return Receipt Requested mail on May 10, 2007, to all parties and intervenors of record as listed on the attached service list, dated November 3, 2006.

ATTEST:

Lisa A. Fontaine
Administrative Assistant
Connecticut Siting Council

Exhibit B

Property Card

150 WILLOW ST

Location 150 WILLOW ST **Mblu** 3430/001///

Acct# Owner HAMDEN FISH & GAME

PROTECTIVE AS

Assessment \$367,450 **Appraisal** \$1,028,200

PID 18077 Building Count 1

Current Value

Appraisal						
Valuation Year Building Extra Features Outbuildings Land Total						
2020	\$188,100	\$7,500	\$18,600	\$814,000	\$1,028,200	
		Assessmen	t			
Valuation Year	Building	Extra Features	Outbuildings	Land	Total	
2020	\$131,670	\$5,250	\$13,020	\$217,510	\$367,450	

Owner of Record

Owner HAMDEN FISH & GAME PROTECTIVE AS Sale Price \$0

Co-Owner

 Address
 P O BOX 5619
 Book & Page
 0232/0049

HAMDEN, CT 06518-0619 Sale Date 10/10/1945

Instrument 00

Certificate

Ownership History

Ownership History					
Owner Sale Price Certificate Book & Page Instrument Sale I					
HAMDEN FISH & GAME PROTECTIVE AS	\$0		0232/0049	00	10/10/1945

Building Information

Building 1: Section 1

Year Built: 1900 Living Area: 3,081 Building Percent Good: 60

Building A	Attributes
Field	Description

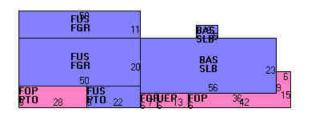
Chila	Clube/Ladway
Style:	Clubs/Lodges
Model	Comm/Ind
Grade	С
Stories:	2
Occupancy	1.00
Exterior Wall 1	Vinyl Siding
Exterior Wall 2	
Roof Structure	Gable/Hip
Roof Cover	Asphalt
Interior Wall 1	K PINE/A WD
Interior Wall 2	
Interior Floor 1	Vinyl/Asphalt
Interior Floor 2	
Heating Fuel	Oil
Heating Type	Forced Air-Duc
AC Type	06
Struct Class	
Bldg Use	FISH&GAME
Total Rooms	
Total Bedrms	
Total Baths	
1st Floor Use:	
Heat/AC	NONE
Frame Type	WOOD FRAME
Baths/Plumbing	NONE
Ceiling/Wall	TYPICAL
Rooms/Prtns	LIGHT
Wall Height	8.00
% Comn Wall	

Building Photo



 $3430\text{-}001\text{-}00\text{-}0000 \quad 04/23/2015 \\ \text{(http://images.vgsi.com/photos/HamdenCTPhotos//00\04\38\68.JPG)}$

Building Layout



 $(http://images.vgsi.com/photos/HamdenCTPhotos//Sketches/18077_18077$

	Building Sub-Areas (sq ft)		<u>Legend</u>
Code	Code Description		Living Area
FUS	Upper Story, Finished	1,748	1,748
BAS	First Floor	1,333	1,333
FGR	Garage	1,550	0
FOP	Porch, Open	600	0
PTO	Patio	450	0
SLB	Slab	1,333	0
UEP	Enclosed Porch, Unfinished	78	0
		7,092	3,081

Extra Features

Extra Features Lege					
Code	Description	Size	Value	Bldg #	
FPL1	FIREPLACE AVG	1.00 UNITS	\$2,200	1	

A/C	AIR CONDITIONING	1288.00 S.F.	\$3,300	1	
FPL	FIREPLACE	1.00 UNITS	\$2,000	1	

Land

Land Use		Land Line Valua	tion
Use Code	3850	Size (Acres)	85.58
Description	FISH&GAME	Frontage	0
Zone	T1	Depth	0
Neighborhood	130	Assessed Value	\$217,510
Alt Land Appr	No	Appraised Value	\$814,000
Category			

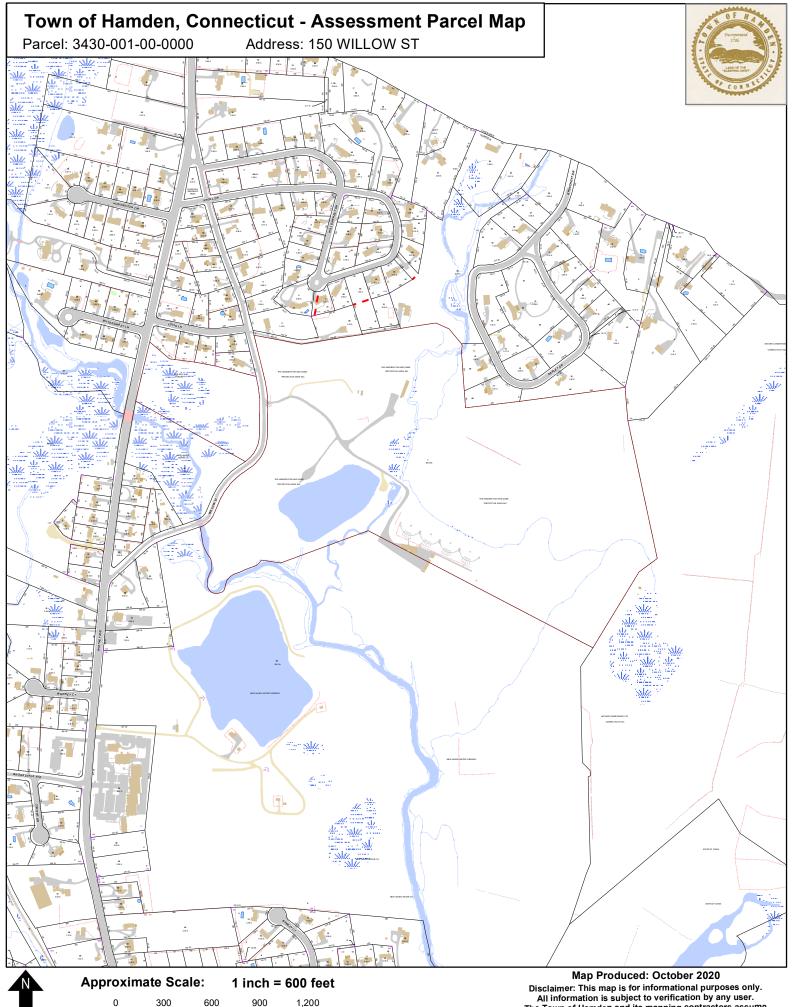
Outbuildings

	Outbuildings <u>I</u>						
Code	Description	Sub Code	Sub Description	Size	Value	Bldg #	
SHD1	SHED FRAME			740.00 S.F.	\$4,600	1	
SHD6	SHED COM MAS			64.00 S.F.	\$700	1	
SHD6	SHED COM MAS			360.00 S.F.	\$3,800	1	
FGR4	W/LOFT-AVG			576.00 S.F	\$9,500	1	

Valuation History

Appraisal						
Valuation Year Building Extra Features Outbuildings Land Total						
2019	\$164,900	\$5,300	\$17,000	\$1,172,000	\$1,359,200	
2018	\$164,900	\$5,300	\$17,000	\$1,172,000	\$1,359,200	
2017	\$164,900	\$5,300	\$17,000	\$1,172,000	\$1,359,200	

Assessment					
Valuation Year Building Extra Features Outbuildings Land Total					
2019	\$115,430	\$3,710	\$11,900	\$288,530	\$419,570
2018	\$115,430	\$3,710	\$11,900	\$288,530	\$419,570
2017	\$115,430	\$3,710	\$11,900	\$288,530	\$419,570



Feet

All information is subject to verification by any user. The Town of Hamden and its mapping contractors assume no legal responsibility for the information contained herein.

Exhibit C

Construction Drawings

PROJECT INFORMATION

B&T ENGINEERING INC. C/O MIKE OAKES 1717 S. BOULDER STE. 300 TULSA, OK 74119 TOWER OWNER:

SITE NUMBER CTNH442A

SITE ADDRESS:

SITE NAME: TMO CTNH442A

150 WILLOW STREET

HAMDEN, CT 06518

LATITUDE: N 41°26'57.80" (41.44939°) (NAD83)

LONGITUDE: W 72°54'16.45" (-72.90457°) (NAD83)

STRUCTURE HEIGHT: 157'-0"± AGL ANTENNA CENTER: 137'-0"± AGL

ZONING JURISDICTION: TOWN OF HAMDEN

COUNTY: NEW HAVEN DESCRIPTION OF WORK: HARDENING

PROJECT DIRECTORY

ENGINEERING FIRM: CENTERLINE COMMUNICATIONS 750 WEST CENTER ST, SUITE 301 WEST BRIDGEWATER, MA 02379 DEREK CREASER (617) 306-3034

T-MOBILE NORTHEAST, LLC. 35 GRIFFIN RD S BLOOMFIELD, CT 06002 PHONE: (860) 692-1700

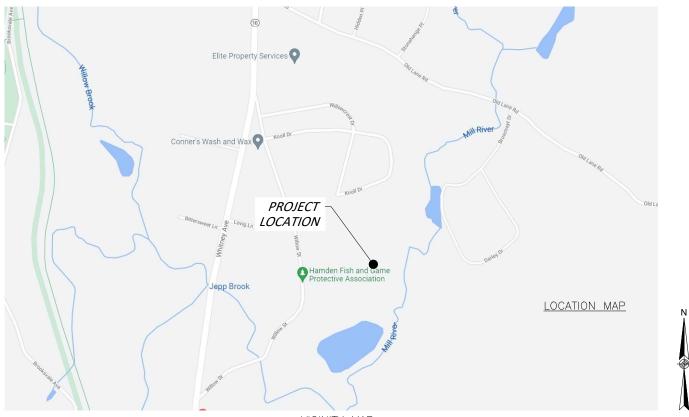


SITE NAME: TMO CTNH442A

> **150 WILLOW STREET HAMDEN, CT 06518**

T - Mobile NORTHEAST LLC

SITE ID: CTNH442A MODIFICATION: HARDENING



VICINITY MAP NOT TO SCALE

GENERAL NOTES

- 1. THIS DOCUMENT IS THE CREATION, DESIGN, PROPERTY AND COPYRIGHTED WORK OF T-MOBILE. ANY DUPLICATION OR USE WITHOUT EXPRESS WRITTEN CONSENT IS STRICTLY PROHIBITED. DUPLICATION AND USE BY GOVERNMENT AGENCIES FOR THE PURPOSE 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 T-MOBILE REPRESENTATIVE IN WRITING OF DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.

NO.	DESCRIPTION	
T-1	TITLE SHEET	
GN-1	GENERAL NOTES	
A-1	COMPOUND & EQUIPMENT PLAN	
A-2	GENERATOR DETAIL	
A-3	ATS SPEC SHEET	
E-1	ELECTRICAL PLAN & DETAILS	
G-1	-1 GROUNDING PLAN	
•		



T-MOBILE NORTHEAST, LLC. 35 GRIFFIN RD S BLOOMFIELD, CT 06002 PHONE: (860) 629-1700



750 W CENTER ST, SUITE 301 WEST BRIDGEWATER, MA 02379 PHONE: 781.713.4725

	REVISIONS		
0	10/05/21	ISSUED FOR CONSTRUCTION	SS
Α	10/01/21	ISSUED FOR REVIEW	RL
REV	DATE	DESCRIPTION	BY
DE	SIGNED BY:	APPROVED BY:	

RL	WRD
	ONNEC CREATER AND ALL ENGINEERS

DATE: 10/05/2021

ITE	NAME:	

TMO CTNH442A

SITE ID: CTNH442A

SITE ADDRESS:

150 WILLOW STREET HAMDEN, CT 06518 **NEW HAVEN COUNTY**

TITLE SHEET

T-1

GENERAL NOTES

- FOR THE PURPOSE OF CONSTRUCTION DRAWING, THE FOLLOWING DEFINITIONS SHALL APPLY:
 - **CONTRACTOR CENTERLINE COMMUNICATIONS** SUBCONTRACTOR - GENERAL CONTRACTOR (CONSTRUCTION)
- PRIOR TO THE SUBMISSION OF BIDS, THE BIDDING SUBCONTRACTOR SHALL VISIT THE CELL SITE TO FAMILIABIZE 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.
- 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 BUILES 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
- DRAWINGS PROVIDED HERE ARE NOT TO BE SCALED AND ARE INTENDED TO SHOW OUTLINE ONLY
- UNLESS NOTED OTHERWISE. THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES, AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
- "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
- THE SUBCONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE
- 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
- 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
- THE SUBCONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT SUBCONTRACTOR'S EXPENSE TO THE SATISFACTION
- 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.
- 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 (Fv = 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. TOUCHUP ALL SCRATCHES AND OTHER MARKS IN THE FIELD AFTER STEEL IS ERECTED USING A COMPATIBLE ZINC
- 16. CONSTRUCTION SHALL COMPLY WITH SPECIFICATIONS AND "GENERAL CONSTRUCTION SERVICES FOR CONSTRUCTION OF T-MOBILE MOBILITY
- 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 RE 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 2015 & CONNECTICUT STATE BUILDING CODE 2018 ELECTRICAL CODE: 2017 NATIONAL ELECTRICAL CODE LIGHTNING 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-G, STRUCTURAL STANDARDS FOR STEEL

ANTENNA TOWER AND ANTENNA SUPPORTING STRUCTURES: REFER TO ELECTRICAL DRAWINGS FOR SPECIFIC ELECTRICAL STANDARDS.

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

RF NOTES

- ACTUAL LENGTHS SHALL BE DETERMINED PER SITE CONDITION BY SUBCONTRACTOR
- 2. THE DESIGN IS BASED ON RF DATA SHEETS, SIGNED AND APPROVED.
- RADIO SIGNAL CABLE AND RACEWAY SHALL COMPLY WITH THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE (NEC, NFPA 70),
- ALL SPECIFIED MATERIAL FOR EACH LOCATION (E.G. OUT DOORS-OCCUPIED, INDOORS-UNOCCUPIED, PLENUMS, RISER SHAFTS, ETC.) SHALL BE APPROVED, LISTED, OR LABELED AS REQUIRED BY THE NEC.
- RADIO SIGNAL CABLE SHALL BE SUPPORTED AT MINIMUM OF EVERY THREE (3) FEET EXCEPT INSIDE MONOPOLES OR MONOPOLES WHERE CABLE AND CONNECTOR MANUFACTURERS SUPPORT RECOMMENDATIONS SHALL BE FOLLOWED, MANUFACTURER RECOMMENDATION CARLES SUPPORT ACCESSORIES SHALL BE USED.
- THE OUTDOOR CABLE SUPPORT SYSTEM SHALL BE PROVIDED WITH AN ICE SHIELD TO SUPPORT AND PROTECT ANTENNA CABLE RUNS
- DRIP LOOPS SHALL BE REQUIRED ON ALL OUTSIDE CABLES. CABLES SHALL BE SLOPED AWAY FROM BUILDING OR OUTDOOR BTS CABINETS TO PREVENT WATER FROM ENTERING THROUGH THE COAXIAL CABLE PORT
- ALL FEEDER LINE AND JUMPER CONNECTORS SHALL BE 7/16 DIN CABLE CONNECTORS THAT MEET IP68 STANDARDS
- 7/16 DIN CONNECTORS REQUIRE NO ADDITIONAL WEATHER PROOFING IN INDOOR APPLICATIONS IF INSTALLED AND TORQUED PROPERLY. IN OUTDOOR APPLICATIONS WEATHER PROOFING IS REQUIRED AND THE FOLLOWING PROCEDURE SHOULD BE FOLLOWED.
- 10. USING WEATHERPROOFING KIT APPROVED BY CABLE MANUFACTURER AND CONTRACTOR START TAPE APPROXIMATELY 5 INCHES FROM THE CONNECTOR, AND WRAP 2 INCHES TOWARD THE CONNECTOR, THEN REVERSE THE TAPE SO THAT THE STICKY SIDE IS UP. TAPE OVER THE CONNECTOR OR SURGE ARRESTOR UNTIL THREE (3) TO FOUR (4) INCHES BEYOND THE CONNECTOR AND REVERSE AGAIN WITH THE STICKY SIDE DOWN FOR ANOTHER INCH OR TWO. PASS THE BUTYL RUBBER AND FINISH WITH A FINAL LAYER OF TAPE
- ANTENNAS SHALL BE PAINTED, WHEN REQUIRED, BY THE LANDLORD OR AUTHORITY OF HAVING JURISDICTION IN ACCORDANCE WITH ANTENNA MANUFACTURERS' SURFACES PREPARATION AND PAINTING REQUIREMENTS.
- 12. CABLE SHIELDS AND TOWER CONDUITS SHALL BE GROUNDED AT THE TOP OF THE TOWER WITHIN 10 FEET OF THEIR CONNECTORS, AND AT THE BOTTOM OF THE TOWER ABOUT 6 INCHES BEFORE THEY TURN TOWARD THE FACILITY THEY SHALL BE GROUNDED AT THE MIDPOINT OF THE TOWERS THAT ARE BETWEEN 60 FEET AND 200 FEET HIGH, AND AT INTERVALS OF 60 FEET OR LESS ON TOWERS THAT ARE HIGHER THAN 200 FEET.

ANTENNA CABLE AND SCHEDULING NOTES

- SUBCONTRACTOR SHALL VERIFY THE ACTUAL LENGTH IN THE FIELD BEFORE
- TAG AND COLOR CODE ALL MAIN CABLES AT LOCATIONS PER T-MOBILE ANTENNA CABLE MARKING STANDARD:
- TOP OF TOWER END OF MAIN COAX
- BOTTOM OF TOWER END OF MAIN COAX DIRECTLY BEFORE AND AFTER RF EQUIPMENT
- END OF JUMPERS AT BTS EQUIPMENT
- ANTENNAS SHALL BE PROCURED AND INSTALLED WITH DOWN TILT MOUNTING BRACKETS SUPPLIED BY ANTENNA MANUFACTURER
- PRIOR APPROVAL IS REQUIRED BEFORE PERFORMING ANY WORK ON EXISTING CELL SITE EQUIPMENT.

T-MOBILE NORTHEAST, LLC. 35 GRIFFIN RD S BLOOMFIELD, CT 06002 PHONE: (860) 629-1700



750 W CENTER ST, SUITE 301 WEST BRIDGEWATER MA 02379 PHONE: 781.713.4725

	F	REVISIONS	
0	10/05/21	ISSUED FOR CONSTRUCTION	SS
Α	10/01/21	ISSUED FOR REVIEW	RL
REV	DATE	DESCRIPTION	BY
100		Lippours ov	$\overline{}$

THE OF CONNECTION AND ADDRESS OF THE PROPERTY CENSE DE SIGNAL ENGLISTE

DATE: 10/05/2021

SITE ID:

TMO CTNH442A

CTNH442A

SITE ADDRESS:

150 WILLOW STREET HAMDEN, CT 06518 **NEW HAVEN COUNTY**

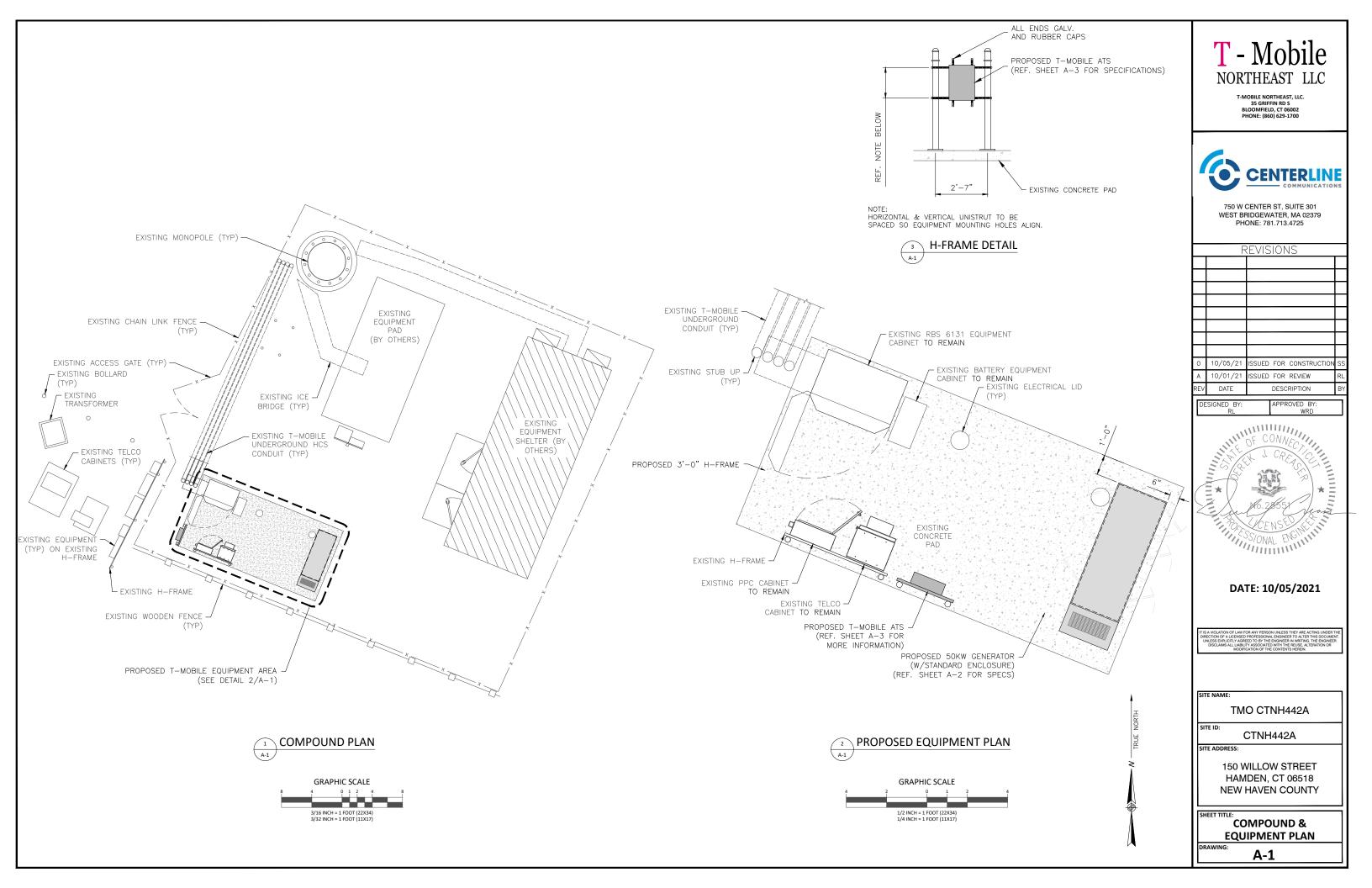
SHEET TITLE:

GENERAL NOTES

GN-1

ABBREVIATIONS

ABOVE GRADE LEVEL G.C. GENERAL CONTRACTOR RADIO FREQUENCY AGL AWG AMERICAN WIRE GAUGE MGB MASTER GROUND BUS BCW BARE COPPER WIRE MIN MINIMUM TBD TO BE DETERMINED BTS BASE TRANSCEIVER STATION PROPOSED NEW TBR TO BE REMOVED **TBRR** TO BE REMOVED **EXISTING EXISTING** N.T.S NOT TO SCALE AND REPLACED FG FOLIPMENT GROUND RFF REFERENCE TYPICAL TYP EGR **EQUIPMENT GROUND RING** REQ REQUIRED





Series

GENERAC

Protector** Series Protector™

1 of 12 2 of 12



Diesel Generator Set

INCLUDES:

- Two Line LCD Multilingual Digital Evolution™ Controller (English/Spanish/French/ Portuguese) with external viewing window for easy indication of generator status and breaker position.
- · Isochronous Electronic Governor
- Sound Attenuated Aluminum Enclosure
- · Smart Battery Charger
- UV/Ozone Resistant Hoses
- ±1% Voltage Regulation
- Integrated Base Tank Provides Up to 40 Hours of Run Time
- 5 Year Limited Warranty*
- UL 2200 / UL142 / ULC S601 Listed
- · Meets code requirements for External Vent and Fill

Standby Power Rating

Model RD015 - 15 kW 60 Hz Model RD020 - 20 kW 60 Hz Model RD030 - 30 kW 60 Hz

Model RD048 - 48 kW 60 Hz (single phase only) Model RD050 - 50 kW 60 Hz (three phase only)



Meets EPA Emission Regulations CA/MA Emissions Compliant

* 5 year warranty applicable to U.S. and Territories/Canada. International warranty is 3 year limited.

FEATURES

- O INNOVATIVE DESIGN & PROTOTYPE TESTING are key components of O SOLID-STATE, FREQUENCY COMPENSATED VOLTAGE REGULATION. GENERAC'S success in "IMPROVING POWER BY DESIGN." But it doesn't stop there. Total commitment to component testing, reliability testing, environmental testing, destruction and life testing, plus testing to applicable CSA, NEMA, EGSA, and other standards, allows you to choose GENERAC POWER SYSTEMS with the confidence that these systems will provide superior performance.
- O TEST CRITERIA:
 - PROTOTYPE TESTED
 - NEMA MG1-22 EVALUATION **√** SYSTEM TORSIONAL TESTED **V** MOTOR STARTING ABILITY
- This state-of-the-art power maximizing regulation system is standard on all Generac models. It provides optimized FAST RESPONSE to changing load conditions and MAXIMUM MOTOR STARTING CAPABILITY by electronically torque-matching the surge loads to the engine. Digital voltage regulation at $\pm 1\%$.
- O SINGLE SOURCE SERVICE RESPONSE from Generac's extensive dealer network provides parts and service know-how for the entire unit, from the engine to the smallest electronic component.
- O GENERAC TRANSFER SWITCHES. Long life and reliability are synonymous with GENERAC POWER SYSTEMS. One reason for this confidence is that the GENERAC product line includes its own transfer systems and controls for total system compatibility.







15 • 20 • 30 • 48 • 50 kW

application & engineering data

GENERATOR SPECIFICATIONS

Туре	Synchronous
Rotor Insulation Class	H (15 & 20 kW) or F (30, 48 & 50 kW)
Stator Insulation Class	Н
Telephone Interference Factor (TIF)	<50
Alternator Output Leads 1-Phase	3 wire
Alternator Output Leads 3-Phase	6 wire
Bearings	Single Sealed Cartridge
Coupling	Direct, Flexible Disc
Excitation System	Direct

VOLTAGE REGULATION

Туре	Electronic
Sensing	Single Phase
Regulation	± 1%
Features	Adjustable Voltage & Gain

GOVERNOR SPECIFICATIONS

Туре	Electronic Isochronous
Steady State Regulation	± 0.25%

ELECTRICAL SYSTEM

POLICE CONTROL OF THE		
Battery Charge Alternator	50 Amp (15 & 20 kW) or 70 Amp (30, 48 & 50 kW)	
Smart Battery Charger	2 Amp	
Recommended Battery (battery not included)	Group 27F, 700 CCA	
System Voltage	12 Volts	

GENERATOR FEATURES

Revolving field heavy duty generator Directly connected to the engine Operating temperature rise 120°C above a 40°C ambient Class H insulation is NEMA rated Class F insulation is NEMA rated All models fully prototype tested

ENCLOSURE FEATURES

Aluminum weather protective enclosure	Ensures protection against mother nature. Electrostatically applied textured epoxy paint for added durability.
Enclosed critical grade muffler	Quiet, critical grade muffler is mounted inside the unit to prevent injuries and maximize sound dampening.
Small, compact, attractive	Makes for an easy, eye appealing installation.
SAE	Sound attenuated enclosure ensures quiet operation.

(All ratings in accordance with BS5514, ISO3046, ISO8528, SAE J1349 and DIN6271)

T - Mobile NORTHEAST LLC

T-MOBILE NORTHEAST, LLC. 35 GRIFFIN RD S BLOOMFIELD, CT 06002 PHONE: (860) 629-1700



750 W CENTER ST, SUITE 301 WEST BRIDGEWATER, MA 02379 PHONE: 781.713.4725

	F	REVISIONS	
0	10/05/21	ISSUED FOR CONSTRUCTION	SS
Α	10/01/21	ISSUED FOR REVIEW	RL
REV	DATE	DESCRIPTION	BY
DE	CICNED DV.	ARREOVED BY:	$\overline{}$

OF CONNECTION AND A CRESSIONAL ENGINEERS	RL	WRD
	* \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	* Han

DATE: 10/05/2021

TMO CTNH442A

SITE ID:

CTNH442A

SITE ADDRESS:

150 WILLOW STREET HAMDEN, CT 06518 **NEW HAVEN COUNTY**

GENERATOR DETAIL

A-2





Service and non-Service rated Automatic Smart Transfer Switches Automatic Transfer Switches

Automatic Transfer Switches

100-400 Amps, Single Phase



GENERAC

Functions

All timing and sensing functions originate in the generator controller

Utility voltage drop-out	<65%
Timer to generator start	
Engine warm up delay	
Standby voltage sensor	
Utility voltage pickup	>80%
Re-transfer time delay	
Engine cool-down timer	
Exerciser	

The transfer switch can be operated manually without power applied.

*When used in conjunction with units utilizing Evolution™ controls **Adjustable via the controller

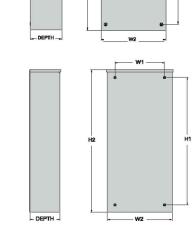
Specifications

Dimensions

Model	RXSC100A3	RXSC200A3
Amps	100	200
Voltage	120/240, 1ø	120/240, 1ø
Load Transition Type (Automatic)	Open Transition	Open Transition
Endosure Type	NEMA/UL3R	NEMA/UL3R
UL Rating	UL/CUL	UL/CUL
Withstand Rating (Amps)	10,000	10,000
Lug Range	1/0 - #14	250 MCM -#6

rice rated switches

Model		RXSC100A3	RXSC200A3
Height (in./mm)	н	17.24/437.9	17.24/437.9
	H2	20/508	20/508
Width (in./mm)	WI	12.5/317.5	12.5/317.5
	W2	14.6/370.8	14.6/370.8
Depth (in./mm)		7.09/180.1	7.09/180.1
Weight (lbs./kilos)		20/9.07	20/9.07





GENERAC

Generac Power Systems, Inc. • \$45 W29290 HWY. 59, Waukesha, Wt 53189 • generac.com

100 - 400 Amps, Single Phase







*CUL only applies to non-service rated switches

Description

Generac Automatic Transfer Switches are designed for use with single phase generators that utilize an Evolution™ or Nexus™ Controller. The 100, 200, and 400 amp open transition switches are available in single phase in both service equipment rated and non-service equipment rated configurations. The 150 and 300 amp open transition switches are only available in a service rated equipment configuration.

Standard Features

Service rated (RXSW) Generac Automatic Transfer Switches are housed in an aluminum NEMA/UL Type 3R enclosure*, with electrostatically applied and baked powder paint. The Heavy Duty Generac Contactor is a UL recognized device, designed for years of service. The controller at the generator handles all the timing, sensing, exercising functions, and transfer commands. All switches are covered by a 5 year limited warranty.

 $*Non-service\ rated\ (RXSC)\ switches\ are\ housed\ in\ a\ steel\ enclosure.$

DPM Technology

Through the use of digital power technology (DPM), these switches have the capability to manage up to 4 individual HVAC (24 VAC controlled) loads with no additional hardware. When used in tandem with Smart Management Modules, up to 8 more loads can be managed as well, providing the most installation efficient power management options available.



T - Mobile

T-MOBILE NORTHEAST, LLC. 35 GRIFFIN RD S BLOOMFIELD, CT 06002 PHONE: (860) 629-1700



750 W CENTER ST, SUITE 301 WEST BRIDGEWATER, MA 02379 PHONE: 781.713.4725

	R	EVISIONS	
0	10/05/21	ISSUED FOR CONSTRUCTION	SS
Α	10/01/21	ISSUED FOR REVIEW	RL
REV	DATE	DESCRIPTION	BY

RL	WRD
* AGESSION	ONNECT CREATER TO THE PROPERTY OF THE PROPERTY

DATE: 10/05/2021

IT IS A VIOLATION OF LAW FOR ANY PERSON UNLESS THEY ARE ACTING UNDER TO DIRECTION OF A LICENSEEP PROFESSIONAL ENGINEER TO ALTER THIS DOCUME! UNLESS EXPLICITLY AGREED TO BY THE ENGINEER IN WRITING, THE ENGINEER DISCLAIMS ALL LIABILITY ASSOCIATED WITH THE REUSE, ALTERATION OR MODIFICATION OF THE CONTENTS HEREIN.

ITE NAME:

TMO CTNH442A

SITE ID: CTNH442A

SITE ADDRESS

150 WILLOW STREET HAMDEN, CT 06518 NEW HAVEN COUNTY

SHEET TITLE

ATS SPEC SHEET

DRAWING:

A-3

ELECTRICAL NOTES

- SUBMITTAL OF BID INDICATES THAT THE CONTRACTOR IS COGNIZANT OF ALL JOB SITE CONDITIONS AND WORK TO BE PERFORMED UNDER THIS CONTRACT
- CONTRACTOR SHALL PERFORM ALL VERIFICATIONS, OBSERVATION TESTS, AND 7 EXAMINATION WORK PRIOR TO ORDERING OF ANY FOLIPMENT AND THE ACTUAL CONSTRUCTION, CONTRACTOR SHALL ISSUE A WRITTEN NOTICE OF ALL FINDINGS TO THE PROJECT MANAGER LISTING ALL MALFUNCTIONS, FAULTY EQUIPMENT AND
- THESE PLANS ARE DIAGRAMMATIC ONLY, FOLLOW AS CLOSELY AS POSSIBLE.
- CONTRACTOR SHALL COORDINATE ALL WORK BETWEEN TRADES AND ALL OTHER SCHEDULING AND PROVISIONARY CIRCUMSTANCES SURROUNDING THE
- CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS, INSURANCE, EQUIPMENT, INSTALLATION CONSTRUCTION TOOLS, TRANSPORTATION, ETC., FOR COMPLETE AND FUNCTIONALLY OPERATING SYSTEMS ENERGIZED AND READY FOR USE THROUGHOUT AS INDICATED ON DRAWINGS, AS SPECIFIED HEREIN AND/OR AS OTHERWISE REQUIRED
- ALL MATERIALS AND EQUIPMENT SHALL BE NEW AND IN PERFECT CONDITION WHEN INSTALLED AND SHALL BE OF THE BEST GRADE AND OF THE SAME MANUFACTURER THROUGHOUT FOR EACH CLASS OR GROUP OF EQUIPMENT ELECTRICAL MATERIALS SHALL BE LISTED AND APPROVED BY UNDERWRITER'S LABORATORIES AND SHALL BEAR THE INSPECTION LABEL "J" WHERE SUBJECT TO

RING AND/OR BUILDING

STEEL

ONE LINE DIAGRAM

SUCH APPROVAL. MATERIALS SHALL MEET WITH APPROVAL OF ALL GOVERNING BODIES HAVING JURISDICTION OVER THE CONSTRUCTION. MATERIALS SHALL BE MANUFACTURED IN ACCORDANCE WITH ALL CURRENT APPLICABLE STANDARDS ESTABLISHED BY ANSI, NEMA AND NBFU. ALL MATERIALS AND EQUIPMENT SHALL BE WITH THE NATIONAL ELECTRICAL CODE; ARTICLES 250 & 810 AND THE UTILITY APPROVED FOR THEIR INTENDED USE AND LOCATION.

- ALL WORK SHALL COMPLY WITH ALL APPLICABLE GOVERNING STATE, COUNTY 14. CONDUIT: AND CITY CODES AND OSHA, NFPA, NEC & ASHRAE REQUIREMENTS.
- ENTIRE JOB SHALL BE GUARANTEED FOR A PERIOD OF ONE (1) YEAR AFTER THE DATE OF JOB ACCEPTANCE, ALL WORK, MATERIAL AND EQUIPMENT FOUND TO BE FAULTY DURING THAT PERIOD SHALL BE CORRECTED AT ONCE, UPON WRITTEN NOTIFICATION, AT THE EXPENSE OF THE CONTRACTOR.
- PROPERLY SEAL ALL PENETRATIONS. PROVIDE UL LISTED FIRE-STOPS WHERE PENETRATIONS ARE MADE THROUGH FIRE-RATED ASSEMBLIES. WATER-TIGHT USING SILICONE SEALANT
- 10. DELIVER ALL BROCHURES, OPERATING MANUALS, CATALOGS AND SHOP DRAWINGS TO THE PROJECT MANAGER AT JOB COMPLETION. PROVIDE MAINTENANCE MANUALS FOR MECHANICAL EQUIPMENT. AFFIX MAINTENANCE LABELS TO MECHANICAL EQUIPMENT.
- ALL CONDUCTORS SHALL BE COPPER. MINIMUM CONDUCTOR SIZE SHALL BE #12 AWG., UNLESS OTHERWISE NOTED. CONDUCTORS SHALL BE TYPE THHW, RATED IN ACCORDANCE WITH NEC 110-14(C).
- 12 ALL CIRCUIT BREAKERS FUSES AND FLECTRICAL FOUIPMENT SHALL HAVE AN INTERRUPTING RATING NOT LESS THE MAXIMUM INTERRUPTING CURRENT TO WHICH

EXTERNAL EARTH GROUND FIELD (BURIED GROUND RING) (#2)

GROUND WIRE SCHEDULE

METALLIC COLD WATER PIPE (IF AVAILABLE) (#2)

BUILDING STEEL (IF AVAILABLE) (#2)

√ E-1

THEY MAY BE SUBJECTED.

13. THE ENTIRE ELECTRICAL INSTALLATION SHALL BE GROUNDED IN ACCORDANCE COMPANY STANDARDS.

- RIGID CONDUIT SHALL BE U.L. LABEL GALVANIZED ZINC COATED WITH ZINC REQUIRED BY CODE TO FOLLOW A DIFFERENT SCHEME. INTERIOR AND SHALL BE USED WHEN INSTALLED IN OR UNDER CONCRETE SLABS. IN CONTACT WITH THE EARTH. UNDER PUBLIC ROADWAYS. IN MASONRY WALLS OR EXPOSED ON BLILLDING EXTERIOR, RIGID CONDUIT IN CONTACT WITH EARTH SHALL BE 1/2 LAPPED WRAPPED WITH HUNTS WRAP
- ELECTRICAL METALLIC TUBING SHALL HAVE U.L. LABEL, FITTINGS SHALL BE GLAND RING COMPRESSION TYPE. EMT SHALL BE USED ONLY FOR INTERIOR 19.
- C. LIQUID-TIGHT FLEXIBLE METAL CONDUIT SHALL BE U.L. LISTED AND SHALL BE USED AT FINAL CONNECTIONS TO MECHANICAL EQUIPMENT & RECTIFIERS AND WHERE PERMITTED BY CODE. ALL CONDUIT IN EXCESS OF SIX FEET IN LENGTH SHALL CONTAIN A FULL-SIZE GROUND CONDUCTOR.
- CONDUIT RUNS SHALL BE SURFACE MOUNTED ON CEILINGS OR WALLS UNLESS NOTED OTHERWISE. ALL CONDUIT SHALL RUN PARALLEL OR PERPENDICULAR TO WALLS FLOOR CEILING OR BEAMS VERIEV EXACT ROUTING OF ALL EXPOSED CONDUIT WITH THE PROJECT MANAGER PRIOR TO INSTALLING

E. PVC CONDUIT MAY BE PROVIDED ONLY WHERE SHOWN, OR IN UNDERGROUND INSTALLATIONS, PROVIDE UV-RESISTANT CONDUIT WHERE EXPOSED TO THE ATMOSPHERE, PROVIDE GROUND CONDUCTOR IN ALL PVC RUNS: EXCEPT WHERE PERMITTED BY CODE TO OMIT

17. ALL ELECTRICAL EQUIPMENT SHALL BE LABELED WITH PERMANENT ENGRAVED PLASTIC LABELS. BACKGROUND SHALL BE BLACK WITH WHITE LETTERS; EXCEPT AS

UPON COMPLETION OF WORK, CONDUCT CONTINUITY, SHORT CIRCUIT, AND FALL OF POTENTIAL GROUNDING TESTS FOR APPROVAL. SUBMIT TEST REPORTS TO PROJECT MANAGER, GROUNDING SYSTEM RESISTANCE SHALL NOT EXCEED 5 OHMS IF THE RESISTANCE VALUE IS EXCEEDED, NOTIFY THE PROJECT MANAGER FOR FURTHER INSTRUCTION ON METHODS FOR REDUCING THE RESISTANCE VALUE.

CLEAN PREMISES OF ALL DEBRIS RESULTING FROM WORK AND LEAVE WORK A COMPLETE AND UNDAMAGED CONDITION. LEGALLY DISPOSE OF ALL REMOVED, UNUSED AND EXCESS MATERIAL GENERATED BY THE WORK OF THIS CONTRACT. DELIVER ITEMS INDICATED ON THE DRAWINGS TO THE OWNER IN GOOD CONDITION OBTAIN SIGNED RECEIPT UPON DELIVERY.

COORDINATE WITH UTILITY COMPANY FOR CONNECTION OF TEMPORARY AND PERMANENT POWER TO THE SITE. THE TEMPORARY POWER AND ALL HOOKUP COSTS SHALL BE PAID BY THE CONTRACTOR

VERIFY ALL EXISTING CIRCUITRY PRIOR TO REMOVAL AND NEW WORK MAINTAIN POWER TO ALL OTHER AREAS & CIRCUITS NOT SCHEDULED FOR REMOVAL

(site pro 1 P/N MG41860-K

OR APPROVED EQUAL)

GROUND BAR DETAIL

22. RED LINED AS-BUILT PLANS SHALL BE PROVIDED TO THE CONSTRUCTION

SSUED FOR CONSTRUCTION 10/05/21 10/01/ SUED FOR REVIEW DATE DESCRIPTION APPROVED BY

T-MOBILE NORTHEAST, LLC. 35 GRIFFIN RD S BLOOMFIELD, CT 06002 PHONE: (860) 629-1700

750 W CENTER ST, SUITE 301

WEST BRIDGEWATER MA 02379

PHONE: 781.713.4725

REVISIONS

THE CONNECTOR CENSE ENGINEERS

DATE: 10/05/2021

SITE ID:

TMO CTNH442A

CTNH442A

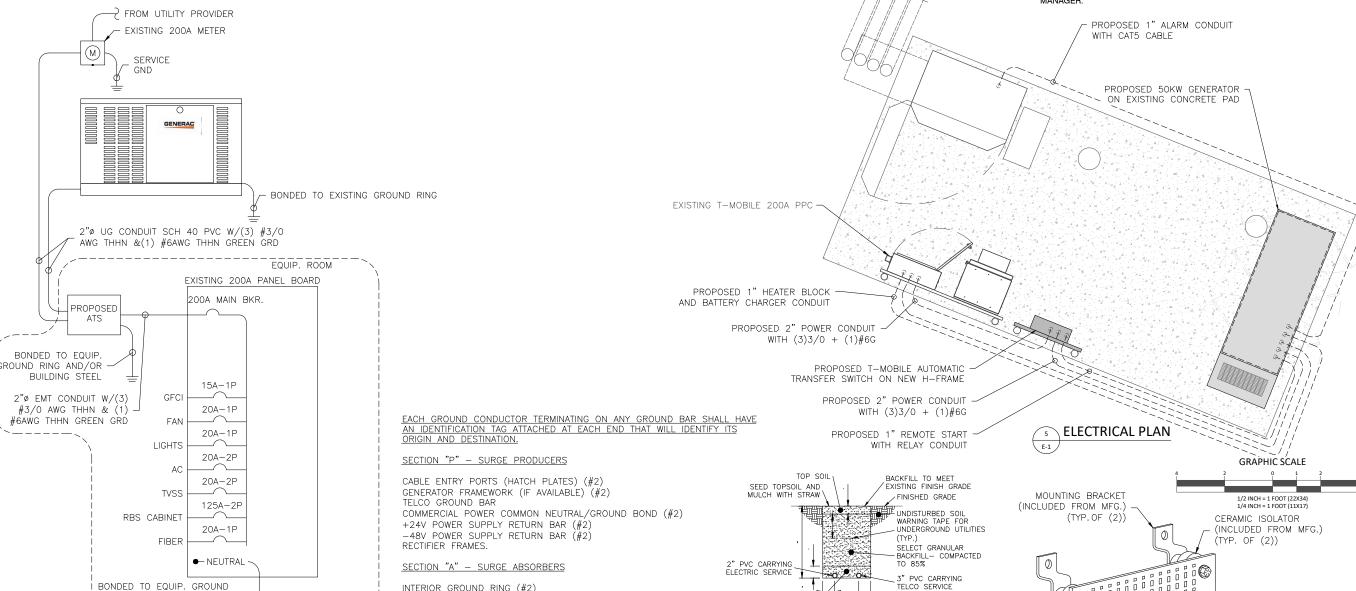
SITE ADDRESS:

150 WILLOW STREET HAMDEN, CT 06518 **NEW HAVEN COUNTY**

SHEET TITLE:

ELECTRICAL PLAN & DETAILS

E-1

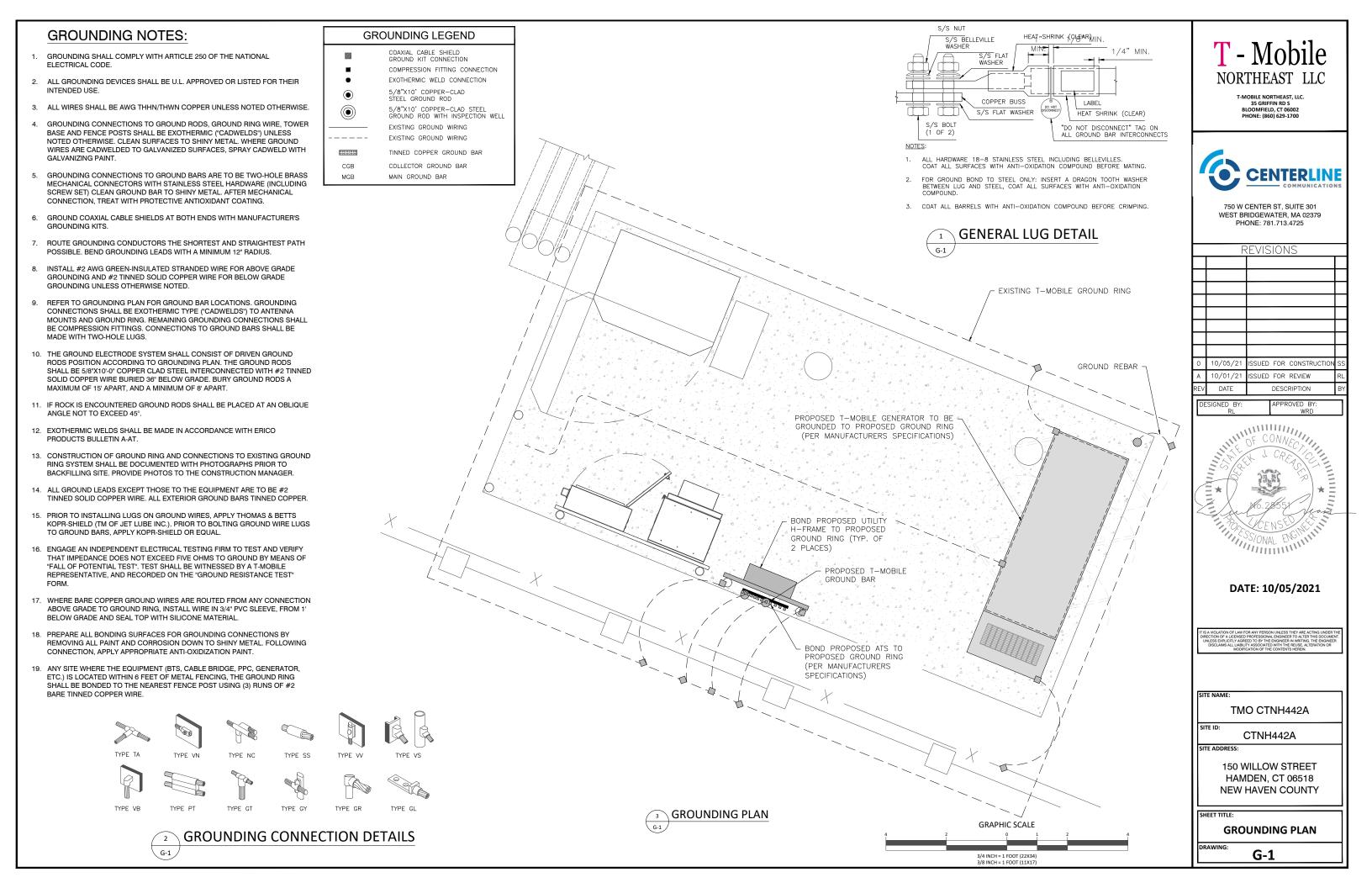


SAND BEDDING

E-1

NOTE: EXCAVATE EXISTING SUBGRADE AS REQUIRED TO INSTALL CONDUITS IN ACCORDANCE WITH OSHA AND ALL APPLICABLE CODES.

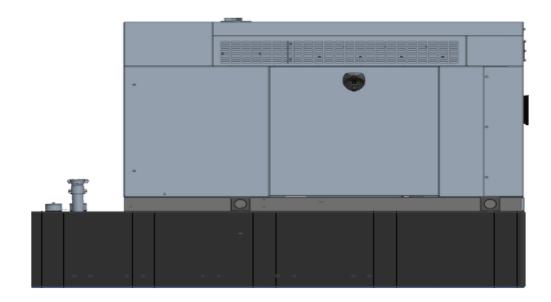
TYPICAL TRENCH DETAIL



T··Mobile· Engineering & Operations

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		
Template URL:	D) to find the location of the master document. http://docs.eng.t-mobile.com/InfoRouter/docs/~D423750 Slightly updated 1/2011		



Table of Contents

1	Introduction / Project Summary	3
1.1	Purpose of Project	3
1.2	Feature Description	3
1.3	Dimensions	3
2	Fuel Tanks	4
3	RXSC200A3 ATS/ Controller	4
3.1	Hardware	4
4	Architecture/Alarms	7
4.1	Interfaces and Alarming	7
5	Regulatory Requirements	9
6	Configuration/Diagrams	9
7	Maintenance	14



1 Introduction / Project Summary

1.1 Purpose of Project

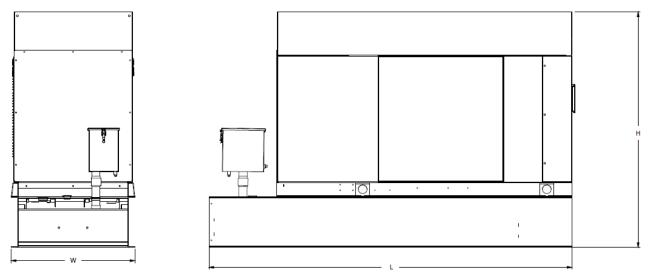
T-Mobile's nationwide cell site hardening plan is providing a refuellable backup power system capable of powering a site for a minimum of 48 hours before refueling is required. The purpose of this project is to give T-Mobile customers reliable service during power outages and provide a sufficient layer 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 \times W \times 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.



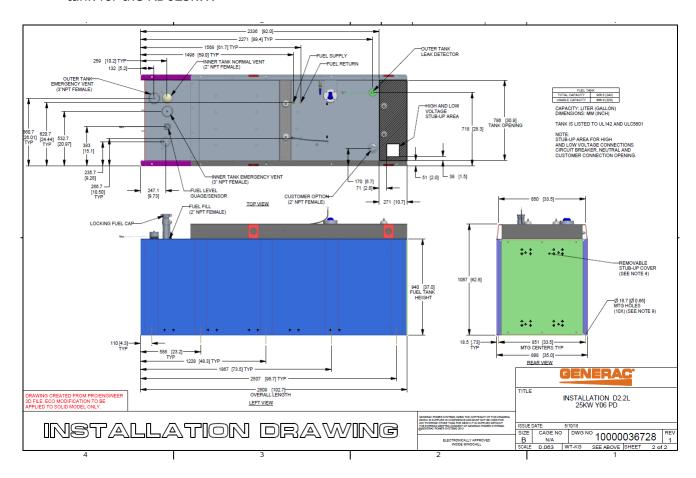
Weights and Dimensions

U	nit 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



2 Fuel Tanks

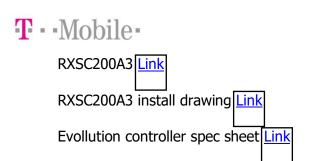
The RD025 has a 102.7" 240 Gallon Double-Wall UL142 Base tank to provide 98 hours of backup power at full load deployed on site. Below is the Install drawing for the 240-gallon tank for the RD025kW.

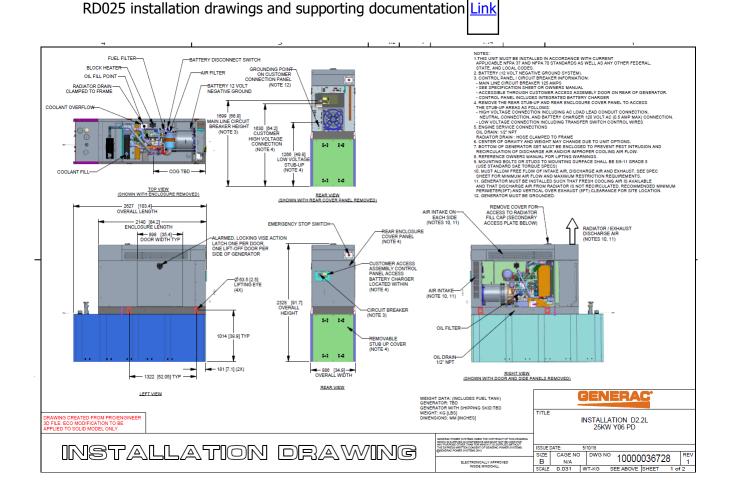


3 RXSC200A3 ATS/ Controller

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





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

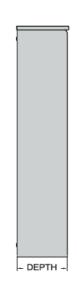
Rev. 1.0 5/14/2018

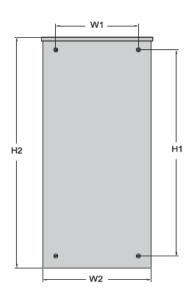
5 of 15



RXSC200A3 Dimensions

Model		RXSC200A3
Height	HI	17.24/437.9
(in./mm)	H2	20/508
Width	WI	12.5/317.5
(in./mm)	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 Link (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 link

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.

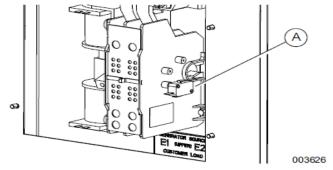


Figure 3-4. Auxiliary Contact

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.

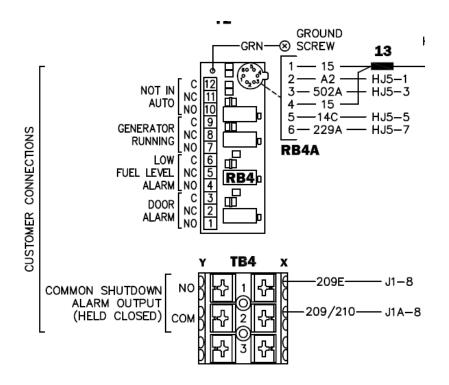
▲CAUTION

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)



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.

Customer Connections Inside the RD025



Ericsson UTOVP- ALM8EXP





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.

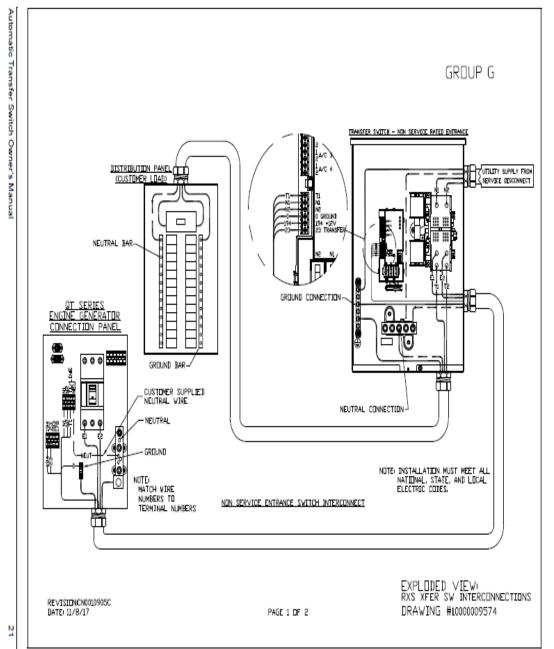
6 Configuration/Diagrams

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.

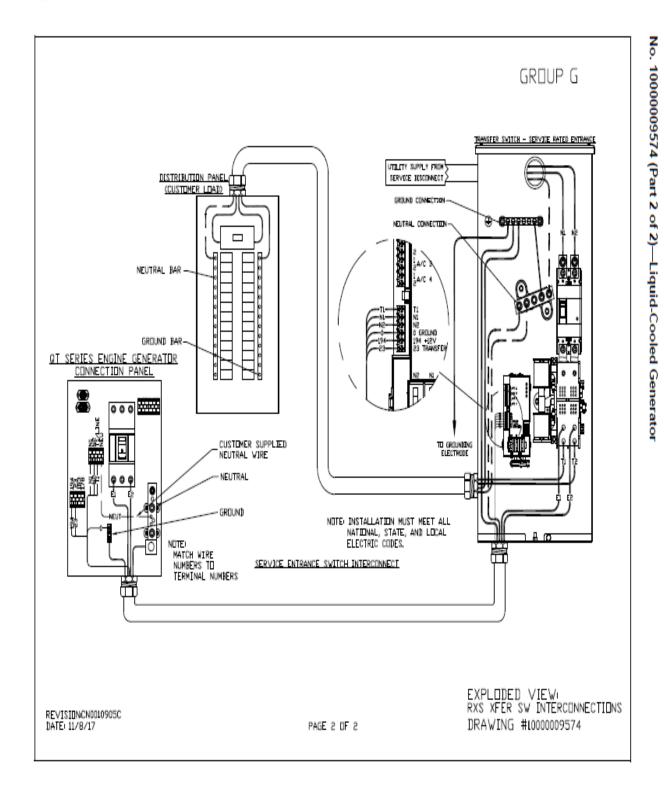


Commercial Power Connection Points On The RXSC200A3



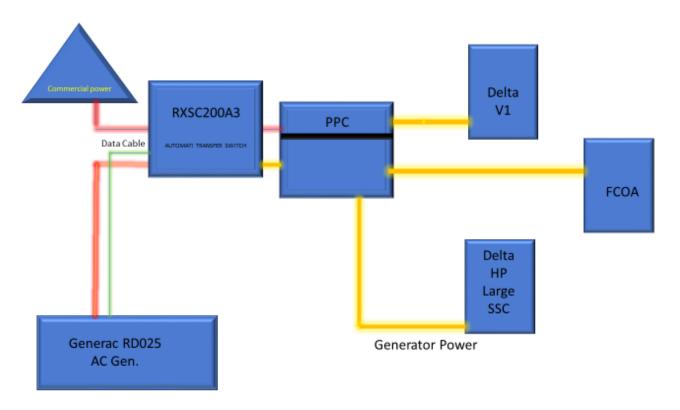








Compound Diagram:





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.



- 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.

Rev. 1.0 5/14/2018

- 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 D

Proof of Postage

UPS CampusShip: View/Print Label

- 1. Ensure there are no other shipping or tracking labels attached to your package. Select the Print button on the print dialog box that appears. Note: If your browser does not support this function select Print from the File menu to print the label.
- 2. **Fold the printed label at the solid line below.** Place the label in a UPS Shipping Pouch. If you do not have a pouch, affix the folded label using clear plastic shipping tape over the entire label.

3. GETTING YOUR SHIPMENT TO UPS

Customers with a Daily Pickup

Your driver will pickup your shipment(s) as usual.

Customers without a Daily Pickup

Take your package to any location of The UPS Store®, UPS Access Point(TM) location, UPS Drop Box, UPS Customer Center, Staples® or Authorized Shipping Outlet near you. Items sent via UPS Return Services(SM) (including via Ground) are also accepted at Drop Boxes. To find the location nearest you, please visit the Resources area of CampusShip and select UPS Locations.

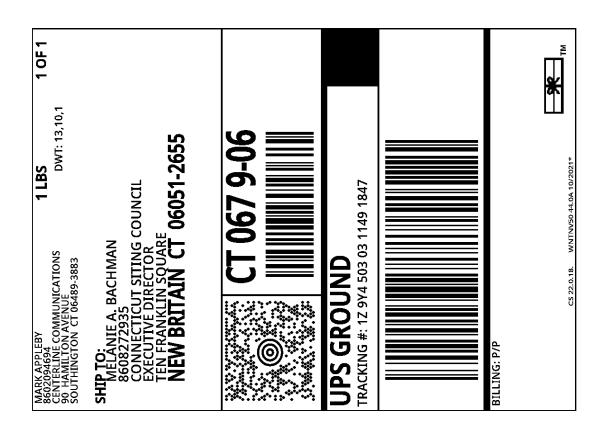
Schedule a same day or future day Pickup to have a UPS driver pickup all your CampusShip packages. Hand the package to any UPS driver in your area.

UPS Access PointTM
CVS STORE # 1060
326 MAIN ST
SOUTHINGTON ,CT 06489

UPS Access PointTM
MICHAELS STORE # 1279
99 EXECUTIVE BLVD
SOUTHINGTON ,CT 06489

UPS Access PointTM
ADVANCE AUTO PARTS STORE 8525
151 QUEEN ST
SOUTHINGTON ,CT 06489

FOLD HERE



Shipment Receipt

Transaction Date: 25 Oct 2021

Tracking Number:

1Z9Y45030311491847

1) Address Information

Ship To:

Connecticut Siting Council Melanie A. Bachman Ten Franklin Square Executive Director NEW BRITAIN CT 060512655

Telephone:18608272935

Ship From:

Centerline Communications Mark Appleby 90 Hamilton Avenue SOUTHINGTON CT 064893883 Telephone:8602094694 email.mappleby@clinellc.com Residential Return Address:

Centerline Communications Mark Appleby 90 Hamilton Avenue SOUTHINGTON CT 064893883

Telephone:8602094694 email:mappleby@clinellc.com

Residential

2 Package Information

Weight	Dimensions / Packaging	Declared Value	Reference Numbers
1. 0.7 lbs (1.0 lbs billable)	13 x 10 x 1in. Other Packaging		

3 UPS Shipping Service and Shipping Options

Service:

UPS Ground Service

Guaranteed By:

End of Day Tuesday, Oct 26, 2021

Shipping Fees Subtotal:

9.61 USD

Additional Shipping Options

Transportation

8.76 USD Quantum View Notify E-mail Notifications:

No Charge

Fuel Surcharge

0.85 USD

1 mappleby@clinellc.com: Delivery

Payment Information

Bill Shipping Charges to: Shipper's Account 9Y4503

Shipping Charges: 9.61 USD
Subtotal Shipping Charges: 9.61 USD
Total Charged: 9.61 USD

Note: This document is not an invoice. Your final invoice may vary from the displayed reference rates.

* For delivery and guarantee information, see the UPS Service Guide ({0}). To speak to a customer service representative, call 1-800-PICK-UPS for domest services and 1-800-782-7892 for international services.

UPS CampusShip: View/Print Label

- 1. Ensure there are no other shipping or tracking labels attached to your package. Select the Print button on the print dialog box that appears. Note: If your browser does not support this function select Print from the File menu to print the label.
- 2. **Fold the printed label at the solid line below.** Place the label in a UPS Shipping Pouch. If you do not have a pouch, affix the folded label using clear plastic shipping tape over the entire label.

3. GETTING YOUR SHIPMENT TO UPS

Customers with a Daily Pickup

Your driver will pickup your shipment(s) as usual.

Customers without a Daily Pickup

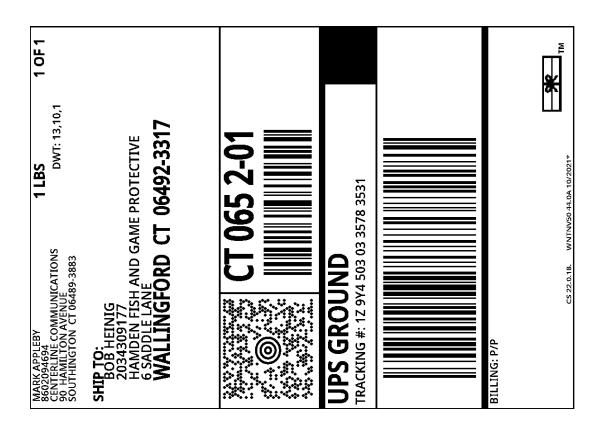
Take your package to any location of The UPS Store®, UPS Access Point(TM) location, UPS Drop Box, UPS Customer Center, Staples® or Authorized Shipping Outlet near you. Items sent via UPS Return Services(SM) (including via Ground) are also accepted at Drop Boxes. To find the location nearest you, please visit the Resources area of CampusShip and select UPS Locations.

Schedule a same day or future day Pickup to have a UPS driver pickup all your CampusShip packages. Hand the package to any UPS driver in your area.

UPS Access PointTM CVS STORE # 1060 326 MAIN ST SOUTHINGTON ,CT 06489 UPS Access PointTM
MICHAELS STORE # 1279
99 EXECUTIVE BLVD
SOUTHINGTON ,CT 06489

UPS Access PointTM
ADVANCE AUTO PARTS STORE 8525
151 QUEEN ST
SOUTHINGTON ,CT 06489

FOLD HERE





Transaction Date: 25 Oct 2021 1Z9Y45030335783531 **Tracking Number:**

Address Information

Hamden Fish and Game Protective

Ship To:

Bob Heinig 6 Saddle Lane WALLINGFORD CT 064923317 Telephone:2034309177

Ship From: Centerline Communications Mark Appleby 90 Hamilton Avenue SOUTHINGTON CT 064893883

Telephone:8602094694 email:mappleby@clinellc.com

Return Address:

Centerline Communications Mark Appleby 90 Hamilton Avenue SOUTHINGTON CT 064893883

Telephone:8602094694 email:mappleby@clinellc.com

Package Information

	Weight	Dimensions / Packaging	Declared Value	Reference Numbers	
1.	0.1 lbs (1.0 lbs billable)	13 x 10 x 1in. Other Packaging			

UPS Shipping Service and Shipping Options

Service: **UPS Ground Service**

Guaranteed By: End of Day Tuesday, Oct 26, 2021

Shipping Fees Subtotal: 14.50 USD

> Transportation 8.76 USD 1.29 USD Fuel Surcharge 4.45 USD

Residential Surcharge

Payment Information

Bill Shipping Charges to: Shipper's Account 9Y4503

Shipping Charges: 14.50 USD

14.50 USD **Subtotal Shipping Charges:**

Total Charged: 14.50 USD

Note: This document is not an invoice. Your final invoice may vary from the displayed reference rates.

^{*} For delivery and guarantee information, see the UPS Service Guide ({0}). To speak to a customer service representative, call 1-800-PICK-UPS for domest services and 1-800-782-7892 for international services.

UPS CampusShip: View/Print Label

- 1. Ensure there are no other shipping or tracking labels attached to your package. Select the Print button on the print dialog box that appears. Note: If your browser does not support this function select Print from the File menu to print the label.
- 2. **Fold the printed label at the solid line below.** Place the label in a UPS Shipping Pouch. If you do not have a pouch, affix the folded label using clear plastic shipping tape over the entire label.

3. GETTING YOUR SHIPMENT TO UPS

Customers with a Daily Pickup

Your driver will pickup your shipment(s) as usual.

Customers without a Daily Pickup

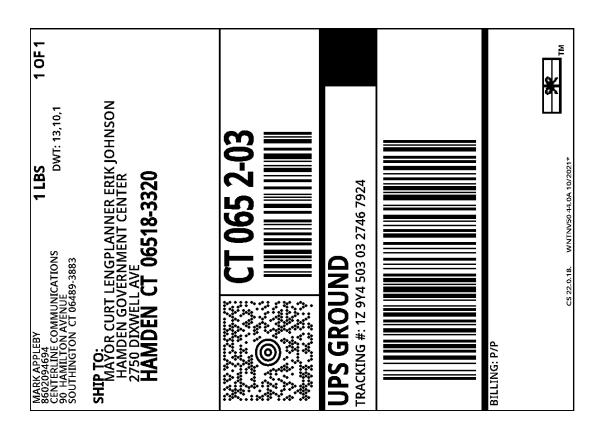
Take your package to any location of The UPS Store®, UPS Access Point(TM) location, UPS Drop Box, UPS Customer Center, Staples® or Authorized Shipping Outlet near you. Items sent via UPS Return Services(SM) (including via Ground) are also accepted at Drop Boxes. To find the location nearest you, please visit the Resources area of CampusShip and select UPS Locations.

Schedule a same day or future day Pickup to have a UPS driver pickup all your CampusShip packages. Hand the package to any UPS driver in your area.

UPS Access PointTM CVS STORE # 1060 326 MAIN ST SOUTHINGTON ,CT 06489 UPS Access PointTM
MICHAELS STORE # 1279
99 EXECUTIVE BLVD
SOUTHINGTON ,CT 06489

UPS Access PointTM
ADVANCE AUTO PARTS STORE 8525
151 QUEEN ST
SOUTHINGTON ,CT 06489

FOLD HERE





Transaction Date: 25 Oct 2021 **Tracking Number:** 1Z9Y45030327467924

1 Address Information

Ship To:
HAMDEN GOVERNMENT
CENTER
MAYOR CURT LENGPLANNER

MAYOR CURT LENGPLANNER ERIK JOHNSON 2750 DIXWELL AVE HAMDEN CT 065183320 Ship From:
CENTERLINE
COMMUNICATIONS
MARK APPLEBY
90 HAMILTON AVENUE
SOUTHINGTON CT 064893883

Telephone:8602094694

Return Address:

CENTERLINE COMMUNICATIONS MARK APPLEBY 90 HAMILTON AVENUE SOUTHINGTON CT 064893883 Telephone:8602094694

2 Package Information

	Weight	Dimensions / Packaging	Declared Value	Reference Numbers	
1.	0.1 lbs (1.0 lbs billable)	13 x 10 x 1in. Other Packaging			

3 UPS Shipping Service and Shipping Options

ervice: UPS Ground Service

Guaranteed By: End of Day Tuesday, Oct 26, 2021

Shipping Fees Subtotal: 9.61 USD

 Transportation
 8.76 USD

 Fuel Surcharge
 0.85 USD

4 Payment Information

Bill Shipping Charges to: Shipper's Account 9Y4503

Shipping Charges: 9.61 USD

Subtotal Shipping Charges: 9.61 USD

Total Charged: 9.61 USD

Note: This document is not an invoice. Your final invoice may vary from the displayed reference rates.

^{*} For delivery and guarantee information, see the UPS Service Guide ({0}). To speak to a customer service representative, call 1-800-PICK-UPS for domest services and 1-800-782-7892 for international services.

UPS CampusShip: View/Print Label

- 1. Ensure there are no other shipping or tracking labels attached to your package. Select the Print button on the print dialog box that appears. Note: If your browser does not support this function select Print from the File menu to print the label.
- 2. **Fold the printed label at the solid line below.** Place the label in a UPS Shipping Pouch. If you do not have a pouch, affix the folded label using clear plastic shipping tape over the entire label.

3. GETTING YOUR SHIPMENT TO UPS

Customers with a Daily Pickup

Your driver will pickup your shipment(s) as usual.

Customers without a Daily Pickup

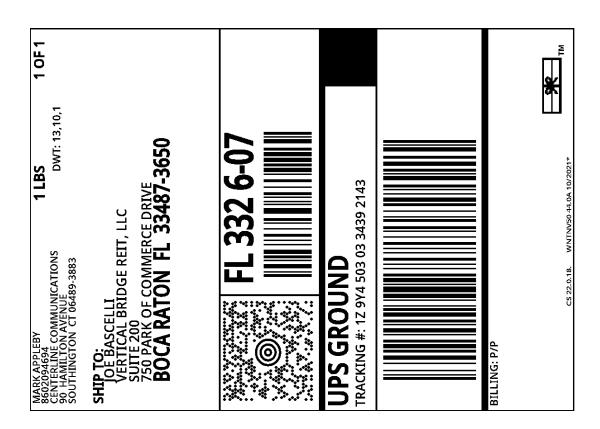
Take your package to any location of The UPS Store®, UPS Access Point(TM) location, UPS Drop Box, UPS Customer Center, Staples® or Authorized Shipping Outlet near you. Items sent via UPS Return Services(SM) (including via Ground) are also accepted at Drop Boxes. To find the location nearest you, please visit the Resources area of CampusShip and select UPS Locations.

Schedule a same day or future day Pickup to have a UPS driver pickup all your CampusShip packages. Hand the package to any UPS driver in your area.

UPS Access PointTM CVS STORE # 1060 326 MAIN ST SOUTHINGTON ,CT 06489 UPS Access PointTM
MICHAELS STORE # 1279
99 EXECUTIVE BLVD
SOUTHINGTON ,CT 06489

UPS Access PointTM
ADVANCE AUTO PARTS STORE 8525
151 QUEEN ST
SOUTHINGTON ,CT 06489

FOLD HERE





Transaction Date: 25 Oct 2021 1Z9Y45030334392143 **Tracking Number:**

Return Address:

Address Information

Ship To: Vertical Bridge REIT, LLC

Joe Bascelli 750 Park of Commerce Drive Suite 200

BOCA RATON FL 334873650

Centerline Communications Mark Appleby 90 Hamilton Avenue SOUTHINGTON CT 064893883 Telephone:8602094694

Ship From:

Centerline Communications Mark Appleby 90 Hamilton Avenue

SOUTHINGTON CT 064893883 $Telephone: 8602094694\ email: mapple by @clinellc.com$

email:mappleby@clinellc.com Residential

Package Information

Weight	D	Dimensions / Packaging	Declared Value	Reference Numbers	
1. 0.1 lbs (1.0 lbs billable)		13 x 10 x 1in. Other Packaging			

UPS Shipping Service and Shipping Options

Service: **UPS Ground Service**

Guaranteed By: End of Day Thursday, Oct 28, 2021

Shipping Fees Subtotal: 11.75 USD

> Transportation 10.71 USD 1.04 USD Fuel Surcharge

Payment Information

Bill Shipping Charges to: Shipper's Account 9Y4503

Shipping Charges: 11.75 USD

Subtotal Shipping Charges: 11.75 USD

11.75 USD **Total Charged:**

Note: This document is not an invoice. Your final invoice may vary from the displayed reference rates.

^{*} For delivery and guarantee information, see the UPS Service Guide ({0}). To speak to a customer service representative, call 1-800-PICK-UPS for domest services and 1-800-782-7892 for international services.