

0 INDUSTRIAL AVE,
SUITE 3
LAHWAH NJ 07430

PHONE: 201.684.0055
FAX: 201.684.0066



August 12, 2021

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

RE: Notice of Exempt Modification
38 Lower Road, North Canaan, CT 06018
Latitude: 42.01472200
Longitude: -73.32639000
T-Mobile Site#: CTNH550A - Hardening

Dear Ms. Bachman:

T-Mobile currently maintains twelve (12) antennas at the 125-foot level of the existing 195-foot lattice tower at 38 Lower Road, North Canaan, CT. The 195-foot lattice tower and property is owned and operated by Litchfield County Dispatch Inc. T-Mobile now intends to add a 25Kw generator to a proposed 10'x4' concrete pad within the existing compound.

Planned Modifications:

Ground:

Install New:

- (1) Generac RD025 25 Kw AC Diesel Generator - 240 gallon double walled self-contained tank with fuel sensor. Requires (2) 12-minute run cycles by-weekly.
- (1) 10' x 4' Concrete Pad

Remove:

Existing generator, propane tank, and concrete pad

This facility was approved by the Town of North Canaan, which issued a Building Permit for the construction of a 195-foot tower on April 24, 1998. Since no modifications to the overall facility or tower height are proposed, this modification complies with the aforementioned approval.

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.S.A. § 16-50j-73, a copy of this letter is being sent to First Selectman Charles Perotti, Elected Official, and Steven Allyn, Chairman of the Planning and Zoning Commission, as well as the tower and property 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,

Eric Breun

Transcend Wireless

Cell: 201-658-7728

Email: ebreun@transcendwireless.com

Attachments

cc: Charles Perotti - First Selectman of North Canaan
Steven Allyn Chairman of the Planning and Zoning Commission
Litchfield County Dispatch Inc - Tower Owner

ERIC BREUN
2016587728
10 INDUSTRIAL AVE
MAHWAH NJ 07430

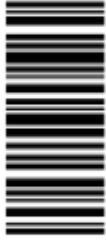
1 LBS

1 OF 1

SHIP TO:
CHARLES PEROTTI
100 PEASE STREET
CANAAN CT 06018

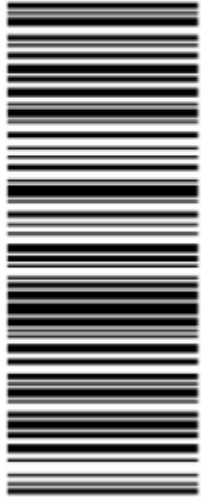


CT 067 9-02



UPS GROUND

TRACKING #: 1Z V25 742 03 9509 5017



BILLING: P/P

Reference #1: CTNH550A

XOL 21.07.05 NV45 31.0A 07/2021*



TM

ERIC BREUN
2016587728
10 INDUSTRIAL AVE
MAHWAH NJ 07430

1 LBS

1 OF 1

SHIP TO:
CHAIRMAN P&Z COMMISSION
STEVEN ALLYN
100 PEASE STREET
CANAAN CT 06018



CT 067 9-02



UPS GROUND

TRACKING #: 1Z V25 742 03 9506 5004



BILLING: P/P

Reference #1: CTNH550A

XOL 21.07.05 NV45 31.0A 07/2021*



TM

ERIC BREUN
2016587728
10 INDUSTRIAL AVE
MAHWAH NJ 07430

1 LBS

1 OF 1

SHIP TO:
LITCHFIELD COUNTY DISPATCH
452 BANTAM ROAD
LITCHFIELD CT 06759



CT 067 9-02



UPS GROUND

TRACKING #: 1Z V25 742 03 9514 5025



BILLING: P/P

Reference #1: CTNH550A

XOL 21.07.05 NV45 31.04.07/2021*



TM

Hello, your package has been delivered.

Delivery Date: Tuesday, 08/10/2021

Delivery Time: 12:36 PM

Left At: INSIDE DELIV

Signed by: EMILY

TRANSCEND WIRELESS

Tracking Number: [1ZV257420395065004](#)

Ship To: STEVEN ALLYN
100 PEASE STREET
CANAAN, CT 06018
US

Number of Packages: 1

UPS Service: UPS Ground

Package Weight: 1.0 LBS

Reference Number: [CTNH550A](#)

Hello, your package has been delivered.

Delivery Date: Tuesday, 08/10/2021

Delivery Time: 12:36 PM

Left At: INSIDE DELIV

Signed by: EMILY

TRANSCEND WIRELESS

Tracking Number: [1ZV257420395095017](#)

Ship To: CHARLES PEROTTI
100 PEASE STREET
CANAAN, CT 06018
US

Number of Packages: 1

UPS Service: UPS Ground

Package Weight: 1.0 LBS

Reference Number: [CTNH550A](#)

Hello, your package has been delivered.

Delivery Date: Tuesday, 08/10/2021

Delivery Time: 10:46 AM

Left At: FRONT DESK

Signed by: TROOP L

TRANSCEND WIRELESS

Tracking Number: [1ZV257420395145025](#)

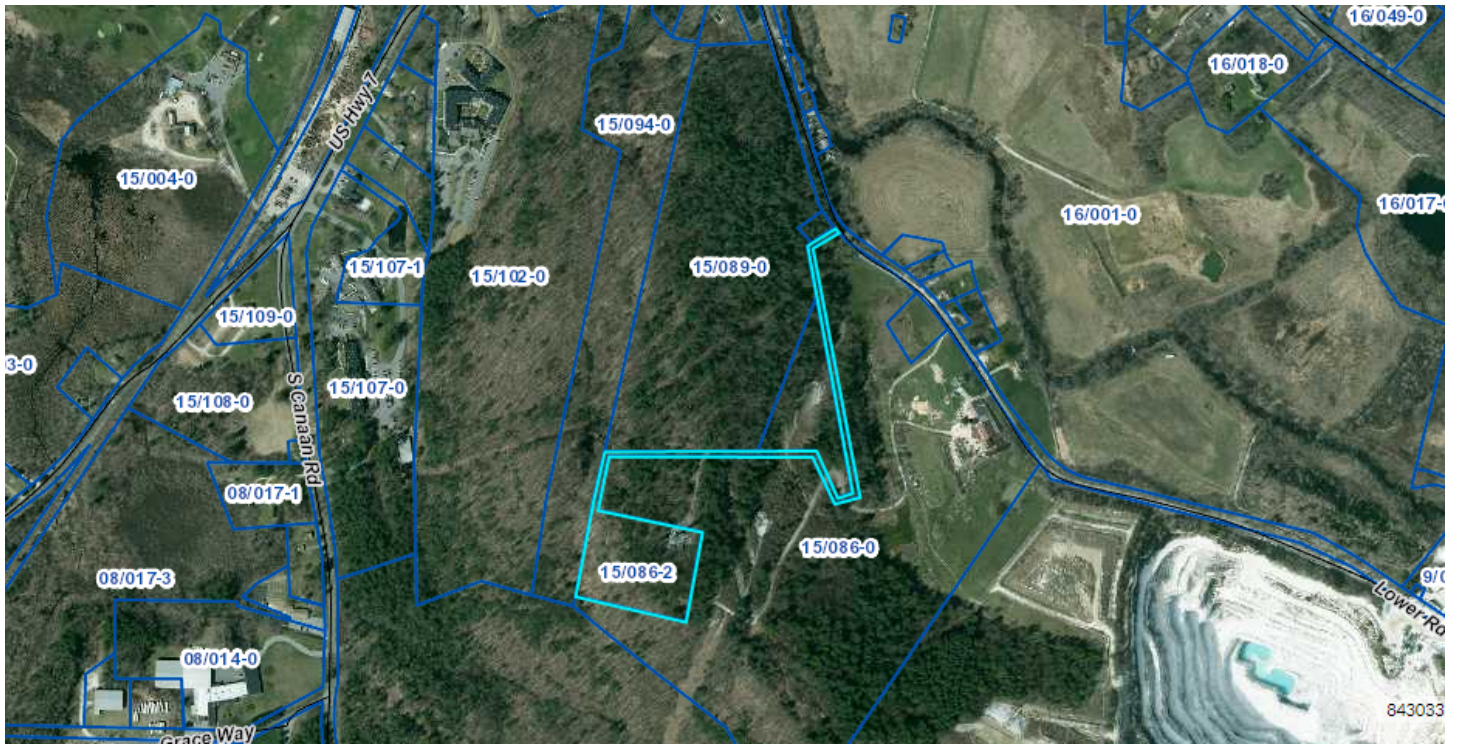
Ship To: LITCHFIELD COUNTY DISPATCH
452 BANTAM ROAD
LITCHFIELD, CT 06759
US

Number of Packages: 1

UPS Service: UPS Ground

Package Weight: 1.0 LBS

Reference Number: [CTNH550A](#)



Summary

ParcelId 15/086-2
Location Address 36 LOWER RD
Map-Block-Lot 15/086-2
Use Class/Description Storage Building
Assessing Neighborhood 7 Commercial
Survey
Acreage 6.37



Owner

Current Owner
LITCHFIELD COUNTY
DISPATCH INC
452 BANTAM RD
LITCHFIELD, CT 06759

Land

Use	Class	Land Type	Zoning	Area	Value
Storage Building	C	Commercial Excess	1	5.68	\$19,310
Storage Building	C	Primary Site	1	0.69	\$86,250

Commercial Building

Building # 1
Style
Actual Year Built 1999
Effective Year Built 2007
Living Area 1804
Stories 1
Grade
Exterior Wall
Interior Wall
Roof Cover
Roof Structure
Floor Type Concrete

Heat Type
 Fuel Type
 AC
 Bdrms/Ful Bth/Hlf Bth/Ttl Rm 0/0/0/0
 Basement Finished Area 0
 Basement Garages 0

Out Buildings\Extra Features

Description	Sub Description	Area	Year Built	Value
Sup Tower	Tower	1	1998	\$824,514

Sales History

Sale Date	Sale Price	Owner
12/29/1997	\$75,000	

Permit Information

Permit ID	Issue Date	Type	Amount	Inspection Date	% Complete	Date Complete	Comments
21-52	03-17-2021	Miscellaneous	\$25,000	1/1/1900 12:00:00 AM	100	04-27-2021	INSTALLED 2 NEW CELL PH ANTENNAS ON EXISTING TELECOMM TOWER
9157	11-12-2019	Electrical	\$45,000	1/1/1900 12:00:00 AM	100	10-01-2020	MODIFY EXISTING AT&T ANTENNA FACILITY
E8778	07-25-2018	Electrical	\$7,000	1/1/1900 12:00:00 AM	100	01-01-1900	ROOM FITOUT FOR T-MOBILE PP ~ DLP
8771	07-19-2018	Plumbing	\$2,000	1/1/1900 12:00:00 AM	100	01-01-1900	RUN NEW LINE TO GENERATOR - MECHANICAL PERMIT
B8755	06-28-2018	Generator	\$15,000	1/1/1900 12:00:00 AM	100	01-01-1900	NEW GENERATOR FOR BACKUP ~ DLP
B8750	06-18-2018		\$85,000	1/1/1900 12:00:00 AM	100	01-01-1900	NEW ANTENNA - PP - DLP
8364	10-17-2016	Electrical	\$5,000	10/1/2017 12:00:00 AM	100	01-01-1900	REPLACE 3 ANTENNAS AND REMOTE UNITS ON TOWER
7619	12-30-2013	Comm Renovations	\$9,500	1/1/1900 12:00:00 AM	100	01-01-1900	replace (3) antennas on cell tower

Current Appraised Value

Columns ▾

	2019	2018	2017	2016
➤ + Building Value	\$145,823	\$145,829	\$145,829	\$144,857
➤ + OB/Misc	\$824,514	\$824,514	\$824,514	\$832,471
➤ + Land Value	\$105,560	\$105,560	\$105,560	\$105,560
➤ = Total Appraised Value	\$1,075,897	\$1,075,903	\$1,075,903	\$1,082,888

Assessment History

Columns ▾

	2019	2018	2017	2016
➤ + Building Value	\$102,080	\$102,080	\$102,080	\$101,400
➤ + OB/Misc	\$577,160	\$577,160	\$577,160	\$582,730
➤ + Land Value	\$73,890	\$73,900	\$73,900	\$75,540
➤ = Total Assessment	\$753,130	\$753,140	\$753,140	\$759,670

Photos



Permit # 5830

Building Inspector W Bonaf

Date 4-24-98

BUILDING PERMIT

ISSUED TO Litchfield County Dispatch
TO _____

AT LOCATION 38 Lour Rd

TOWN OF NORTH CANAAN, CONN.

THIS PERMIT EXPIRES ONE YEAR FROM DATE OF ISSUE

POST THIS CARD AT BUILDING SIGHT IN A DRY AREA AVAILABLE TO THE BUILDING OFFICIAL

Where applicable, separate permits are required for electrical, plumbing and mechanical installations.

Work shall not proceed until the Inspector has approved the various stages of construction.

	Date Inspected		Date Inspected
Preliminary & or Excavation	_____	Plumbing Rough-In	_____
Footings & Foundations	_____	HVAC Rough-In	_____
Waterproofing/Foundation Coating	_____	Electric Rough-In	_____
Footing Drains	_____	Fireplace & Masonry Chimneys	_____
Electrical Service	_____	Insulation Inspection	_____
Framing Inspection	_____	Sheetrock or Plaster	_____
Roofing Inspection	_____	Fuel Tanks and Lines	_____

This Structure is Not to be Used in Whole or Part Until a Certificate of Occupancy is Issued

APPLICATION FOR BUILDING PERMIT

(APPLICATION MUST BE TYPED OR PRINTED)

TOWN OF North Canaan PERMIT NO. 5830

LOCATION OF JOB	FEE SCHEDULE	TYPE OF JOB
<u>38 LOWER Road</u> NO. STREET <u>N. CANAAN Ct 06018</u> TOWN STATE ZIP	FEE ESTIMATED VALUE \$12 FOR 1ST \$1000 (MINIMUM FEE). \$ 5 FOR EACH ADDITIONAL \$1000 OR PART THEREOF. BUILDING OFFICIAL MAY DEMAND AFFIDAVIT OF ACTUAL VALUE.	<input checked="" type="checkbox"/> ORIGINAL CONST. <input type="checkbox"/> REPAIR <input type="checkbox"/> ALTERATION <input type="checkbox"/> DEMOLITION <input type="checkbox"/> ADDITION <input type="checkbox"/> CHANGE OF USE
OWNER	VALUE-FEES	REQUIREMENTS
<u>Litchfield County Dispatch Inc</u> NAME <u>452 Bantam Rd</u> NO. STREET <u>Litchfield Ct 06759</u> TOWN STATE ZIP	VALUE FEE ESTIMATED <u>\$750,000.00</u> <u>\$3,750.00</u> ACTUAL _____ DIFFERENCE _____ ADDITIONAL FEE _____	<input type="checkbox"/> BLUEPRINTS <input type="checkbox"/> TOWN ZONING <input type="checkbox"/> SANITATION APPLIC. <input type="checkbox"/> PLOT PLAN <input type="checkbox"/> OTHER _____
APPLICANT	DEPARTMENT DECISION	TYPE OF BUILDING
<u>Litchfield County Dispatch Inc</u> NAME <u>452 Bantam Rd</u> NO. STREET <u>Litchfield Ct 06759</u> TOWN STATE ZIP	APPLICATION IS HEREBY <input checked="" type="checkbox"/> APPROVED <input type="checkbox"/> DISAPPROVED <u>4-24-98</u> <u>W. Bond</u> DATE INSPECTOR	<input type="checkbox"/> RESIDENTIAL <input type="checkbox"/> COMMERCIAL <input checked="" type="checkbox"/> <u>Emergency 911 Radio Tower and Transmitter Building -</u> OTHER



BUILDER-CONTRACTOR INFORMATION	
NAME _____	CONTRACTOR LICENSE - REGISTRATION NUMBER _____
NO. _____ STREET _____	EXPIRATION DATE _____ CONTRACTOR TELEPHONE _____
TOWN _____ STATE _____ ZIP _____	CONTRACTOR SIGNATURE _____

MECHANICAL CONTRACTORS ARE REQUIRED TO OBTAIN PERMITS BEFORE STARTING ANY WORK. PERMITS EXPIRE ONE (1) YEAR FROM DATE OF ISSUE.

DISTANCE FROM EACH SIDE LOT LINE	1. DESCRIPTION OF STRUCTURE
NORTH _____ EAST _____	<u>Communication tower and 1 story Bldg</u> TYPE <u>3A</u> NO. OF STORIES <u>1957</u>
SOUTH _____ WEST _____	2. PROPOSED USE <u>911 Communication</u> USE GROUP <u>M</u>
	3. TWO (2) COPIES OF PLANS AND SPECIFICATIONS ATTACHED <input type="checkbox"/> YES <input type="checkbox"/> NO
	4. PLOT PLAN ATTACHED <input type="checkbox"/> YES <input type="checkbox"/> NO

REMARKS:
 1. Seismic Requirement (see Spec Page 135) design will follow.
 2. Plot Plan will follow.

This is to certify that I am the owner or authorized agent for the owner. All work covered by this application has been authorized by the owner of this property and will be done according to the Connecticut Basic Building Code. As the applicant I understand that a Certificate of Use and Occupancy document is required before occupancy.

4-24-98 Alan J. Ford "Manager"
 DATE APPLICANT SIGNATURE

T-Mobile

SITE NAME: CTNH550A

SITE ID: CTNH550A

38 LOWER RD

NORTH CANAAN, CT 06018

GENERAL NOTES

- ALL WORK SHALL BE IN ACCORDANCE WITH THE 2015 INTERNATIONAL BUILDING CODE AS MODIFIED BY THE 2018 CONNECTICUT SUPPLEMENT, INCLUDING THE TIA/EIA-222 REVISION "G" "STRUCTURAL STANDARDS FOR STEEL ANTENNA TOWERS AND SUPPORTING STRUCTURES," 2017 CONNECTICUT FIRE SAFETY CODE, NATIONAL ELECTRICAL CODE AND LOCAL CODES.
- CONTRACTOR SHALL REVIEW ALL DRAWINGS AND SPECIFICATIONS IN THE CONTRACT DOCUMENT SET. CONTRACTOR SHALL COORDINATE ALL WORK SHOWN IN THE SET OF DRAWINGS. THE CONTRACTOR SHALL PROVIDE A COMPLETE SET OF DRAWINGS TO ALL SUBCONTRACTORS AND ALL RELATED PARTIES. THE SUBCONTRACTORS SHALL EXAMINE ALL THE DRAWINGS AND SPECIFICATIONS FOR THE INFORMATION THAT AFFECTS THEIR WORK.
- CONTRACTOR SHALL PROVIDE A COMPLETE BUILD-OUT WITH ALL FINISHES, STRUCTURAL, MECHANICAL, AND ELECTRICAL COMPONENTS AND PROVIDE ALL ITEMS AS SHOWN OR INDICATED ON THE DRAWINGS OR IN THE WRITTEN SPECIFICATIONS.
- CONTRACTOR SHALL FURNISH ALL MATERIAL, LABOR AND EQUIPMENT TO COMPLETE THE WORK AND FURNISH A COMPLETED JOB ALL IN ACCORDANCE WITH LOCAL AND STATE GOVERNING AUTHORITIES AND OTHER AUTHORITIES HAVING LAWFUL JURISDICTION OVER THE WORK.
- CONTRACTOR SHALL SECURE AND PAY FOR ALL PERMITS AND ALL INSPECTIONS REQUIRED AND SHALL ALSO PAY FEES REQUIRED FOR THE GENERAL CONSTRUCTION, PLUMBING, ELECTRICAL, AND HVAC. PERMITS SHALL BE PAID FOR BY THE RESPECTIVE SUBCONTRACTORS.
- CONTRACTOR SHALL MAINTAIN A CURRENT SET OF DRAWINGS AND SPECIFICATIONS ON SITE AT ALL TIMES AND INSURE DISTRIBUTION OF NEW DRAWINGS TO SUBCONTRACTORS AND OTHER RELEVANT PARTIES AS SOON AS THEY ARE MADE AVAILABLE. ALL OLD DRAWINGS SHALL BE MARKED VOID AND REMOVED FROM THE CONTRACT AREA. THE CONTRACTOR SHALL FURNISH AN "AS-BUILT" SET OF DRAWINGS TO OWNER UPON COMPLETION OF PROJECT.
- LOCATION OF EQUIPMENT, AND WORK SUPPLIED BY OTHERS THAT IS DIAGRAMMATICALLY INDICATED ON THE DRAWINGS SHALL BE DETERMINED BY THE CONTRACTOR. THE CONTRACTOR SHALL DETERMINE LOCATIONS AND DIMENSIONS SUBJECT TO STRUCTURAL CONDITIONS AND WORK OF THE SUBCONTRACTORS.
- THE CONTRACTOR IS SOLELY RESPONSIBLE TO DETERMINE CONSTRUCTION PROCEDURE AND SEQUENCE AND TO ENSURE THE SAFETY OF THE EXISTING STRUCTURES AND ITS COMPONENT PARTS DURING CONSTRUCTION. THIS INCLUDES THE ADDITION OF WHATEVER SHORING, BRACING, UNDERPINNINGS, ETC. THAT MAY BE NECESSARY.
- DRAWINGS INDICATE THE MINIMUM STANDARDS, BUT IF ANY WORK SHOULD BE INDICATED TO BE SUBSTANDARD TO ANY ORDINANCES, LAWS, CODES, RULES, OR REGULATIONS BEARING ON THE WORK, THE CONTRACTOR SHALL INCLUDE IN HIS WORK AND SHALL EXECUTE THE WORK CORRECTLY IN ACCORDANCE WITH SUCH ORDINANCES, LAWS, CODES, RULES OR REGULATIONS WITH NO INCREASE IN COSTS.
- ALL UTILITY WORK SHALL BE IN ACCORDANCE WITH LOCAL UTILITY COMPANY REQUIREMENTS AND SPECIFICATIONS.
- ALL EQUIPMENT AND PRODUCTS PURCHASED ARE TO BE REVIEWED BY CONTRACTOR AND ALL APPLICABLE SUBCONTRACTORS FOR ANY CONDITION PER MANUFACTURER'S RECOMMENDATIONS. CONTRACTOR TO SUPPLY THESE ITEMS AT NO COST TO OWNER OR CONSTRUCTION MANAGER.
- ANY AND ALL ERRORS, DISCREPANCIES, AND 'MISSED' ITEMS ARE TO BE BROUGHT TO THE ATTENTION OF THE T-MOBILE CONSTRUCTION MANAGER DURING THE BIDDING PROCESS BY THE CONTRACTOR. ALL THESE ITEMS ARE TO BE INCLUDED IN THE BID. NO 'EXTRA' WILL BE ALLOWED FOR MISSED ITEMS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ON-SITE SAFETY FROM THE TIME THE JOB IS AWARDED UNTIL ALL WORK IS COMPLETE AND ACCEPTED BY THE OWNER.
- CONTRACTOR TO REVIEW ALL SHOP DRAWINGS AND SUBMIT COPY TO ENGINEER FOR APPROVAL. DRAWINGS MUST BEAR THE CHECKER'S INITIALS BEFORE SUBMITTING TO THE CONSTRUCTION MANAGER FOR REVIEW.
- THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS, ELEVATIONS, ANGLES AND EXISTING CONDITIONS AT THE SITE, PRIOR TO FABRICATION AND/OR INSTALLATION OF ANY WORK IN THE CONTRACT AREA.
- COORDINATION, LAYOUT, FURNISHING AND INSTALLATION OF CONDUITS AND ALL APPURTENANCES REQUIRED FOR PROPER INSTALLATION OF ELECTRICAL AND TELECOMMUNICATION SERVICE SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- ALL DAMAGE CAUSED TO ANY EXISTING STRUCTURE SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR WILL BE HELD LIABLE FOR ALL REPAIRS REQUIRED FOR EXISTING STRUCTURES IF DAMAGED DURING CONSTRUCTION ACTIVITIES.
- THE CONTRACTOR SHALL CONTACT 'CALL BEFORE YOU DIG' AT LEAST 48 HOURS PRIOR TO ANY EXCAVATIONS AT 1-800-922-4455. ALL UTILITIES SHALL BE IDENTIFIED AND CLEARLY MARKED. CONTRACTOR SHALL MAINTAIN AND PROTECT MARKED UTILITIES THROUGHOUT PROJECT COMPLETION.
- CONTRACTOR SHALL COMPLY WITH THE OWNER'S ENVIRONMENTAL ENGINEER ON ALL METHODS AND PROVISIONS FOR ALL EXCAVATION ACTIVITIES INCLUDING SOIL DISPOSAL. ALL BACKFILL MATERIALS TO BE PROVIDED BY THE CONTRACTOR.

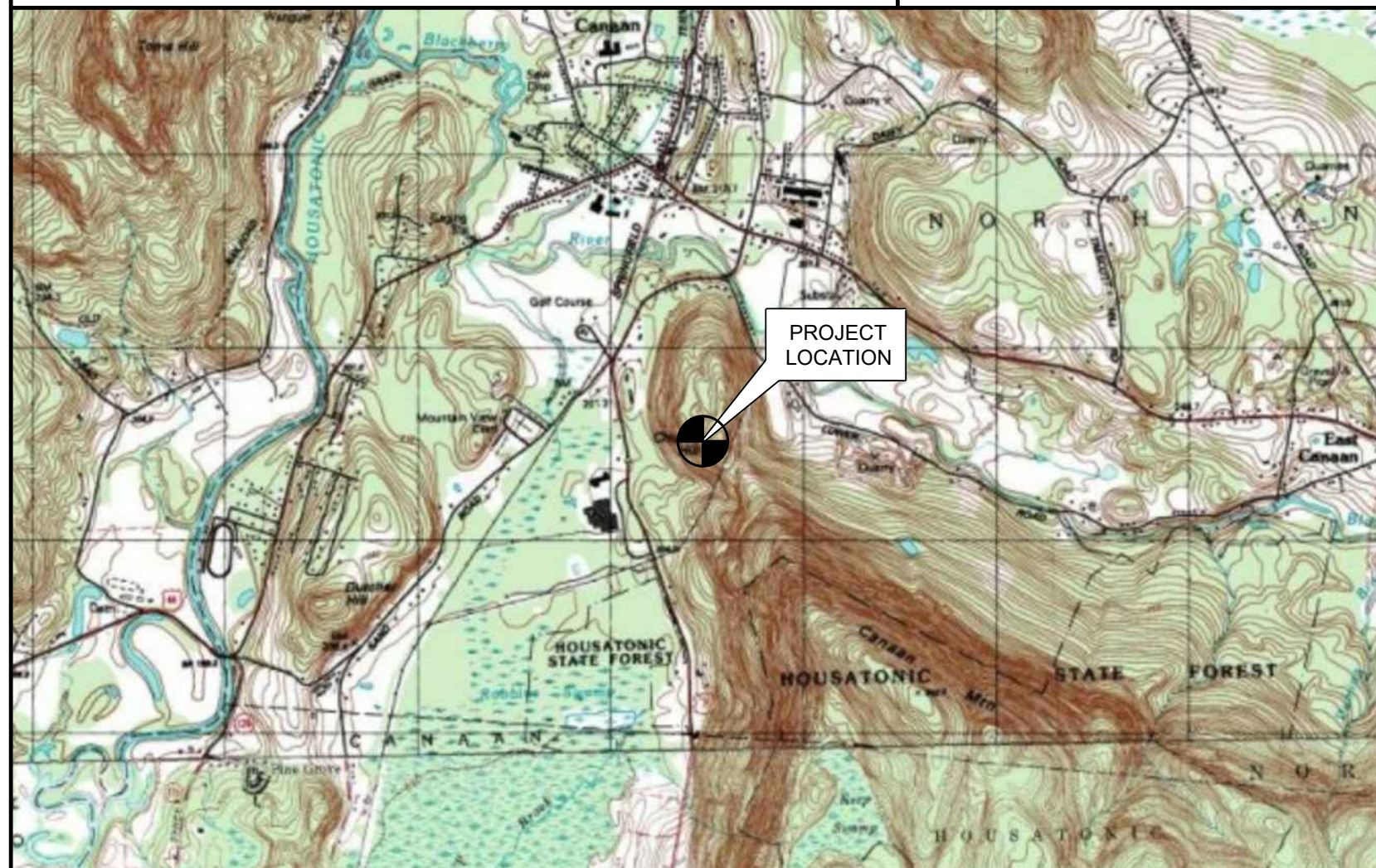
SITE DIRECTIONS

FROM: 35 GRIFFIN ROAD SOUTH BLOOMFIELD, CT 06002 **TO:** 38 LOWER ROAD NORTH CANAAN, CT 06018

- HEAD SOUTHEAST ON W NEWBERRY RD TOWARD GRIFFIN RD S. 0.04 MI.
- TURN LEFT ONTO GRIFFIN RD S. 0.70 MI.
- TURN LEFT ONTO CT-187 N. 1.30 MI.
- TAKE THE CT-189 N RAMP TO TARIFFVILLE/GRANBY. 0.70 MI.
- CONTINUE ONTO CT-189 N. 4.40 MI.
- TURN RIGHT ONTO SALMON BROOK ST. 0.08 MI.
- SLIGHT LEFT ONTO N GRANBY RD. 0.20 MI.
- SLIGHT LEFT ONTO CT-20 W/W GRANBY RD. 3.40 MI.
- TURN LEFT ONTO CT-219 S. 3.80 MI.
- TURN LEFT ONTO CT-179 S/CT-219 S. 2.50 MI.
- TURN RIGHT ONTO CT-318 W. 1.70 MI.
- TURN LEFT ONTO CT-181 S/CT-318 W. 1.40 MI.
- TURN RIGHT ONTO US-44 W. 18.6 MI.
- TURN LEFT ONTO FURNACE HILL RD. 0.30 MI.
- TURN RIGHT ONTO LOWER RD. 1.60 MI.

SITE COORDINATES: LATITUDE: 42°-00'-52.78" N
LONGITUDE: 73°-19'-34.68" W
GROUND ELEVATION: 962'± AMSL

COORDINATES AND GROUND ELEVATION ARE REFERENCED FROM GOOGLE EARTH



VICINITY MAP



PROJECT SUMMARY

- THE PROPOSED SCOPE OF WORK CONSISTS OF A MODIFICATION TO THE EXISTING UNMANNED TELECOMMUNICATIONS FACILITY INCLUDING THE FOLLOWING:
 - INSTALL (1) NEW 48 KW DIESEL FUELED BACK-UP GENERATOR ON A PROPOSED 10' x 4' CONCRETE PAD WITHIN THE EXISTING COMPOUND
 - INSTALL (1) 200A AUTOMATIC TRANSFER SWITCH INSIDE EXISTING T-MOBILE EQUIPMENT SHELTER
 - REMOVE EXISTING PROPANE GENERATOR, TANK AND CONCRETE PAD

PROJECT INFORMATION

SITE NAME: CTNH550A
SITE ID: CTNH550A
SITE ADDRESS: 38 LOWER ROAD NORTH CANAAN, CT 06018
APPLICANT: T-MOBILE NORTHEAST, LLC 35 GRIFFIN ROAD SOUTH BLOOMFIELD, CT 06002
CONTACT PERSON: DAN REID (PROJECT MANAGER) TRANSCEND WIRELESS, LLC (203) 592-8291
ENGINEER OF RECORD: CENTEK ENGINEERING, INC. 63-2 NORTH BRANFORD RD. BRANFORD, CT 06405
CARLO F. CENTORE, PE (203) 488-0580 EXT. 122
PROJECT COORDINATES: LATITUDE: 42°-00'-52.78" N
LONGITUDE: 73°-19'-34.68" W
GROUND ELEVATION: 962'± AMSL
SITE COORDINATES AND GROUND ELEVATION REFERENCED FROM GOOGLE EARTH.

SHEET INDEX

SHT. NO.	DESCRIPTION	REV.
T-1	TITLE SHEET	0
N-1	GENERAL NOTES AND SPECIFICATIONS	0
C-1	COMPOUND PLAN AND EQUIPMENT PLAN	0
C-2	TYPICAL EQUIPMENT DETAILS	0
E-1	ELECTRICAL CONDUIT ROUTING AND RISER DIAGRAM	0
E-2	ELECTRICAL SPECIFICATIONS	0

T-MOBILE NORTHEAST LLC

SITE NAME: CTNH550A

SITE ID: CTNH550A

38 LOWER RD
NORTH CANAAN, CT 06018

DATE: 06/16/21

SCALE: AS NOTED

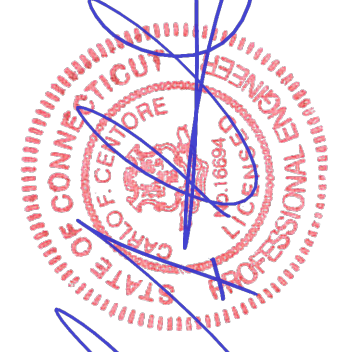
JOB NO. 21003.16

TITLE SHEET

T-1

Sheet No. 1 of 6

PROFESSIONAL ENGINEER SEAL



T-Mobile
Transcend Wireless

CENTEK engineering
Centered on Solutions

(203) 488-0580
(203) 488-8587 Fax
63-2 North Branford Road
Branford, CT 06405
www.CentekEng.com

REV.	DATE	BY	CHK'D BY	DESCRIPTION
0	08/03/21	RTS	TJR	CONSTRUCTION DRAWINGS - ISSUED FOR CONSTRUCTION

NOTES AND SPECIFICATIONS

DESIGN BASIS:

GOVERNING CODE: 2015 INTERNATIONAL BUILDING (IBC) AS MODIFIED BY THE 2018 CONNECTICUT STATE BUILDING CODE.

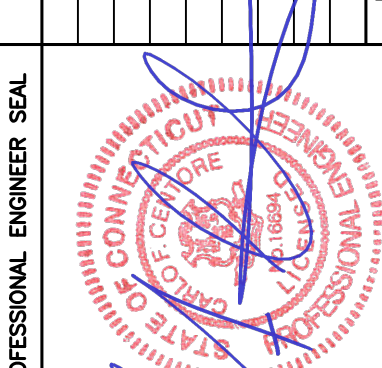
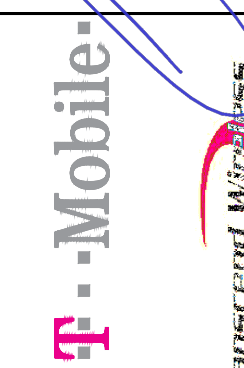
1. DESIGN CRITERIA:
- RISK CATEGORY II (BASED ON IBC TABLE 1604.5)
 - NOMINAL DESIGN SPEED (OTHER STRUCTURE): 101 MPH (V_{wsd}) (EXPOSURE B/ IMPORTANCE FACTOR 1.0 BASED ON ASCE 7-10).

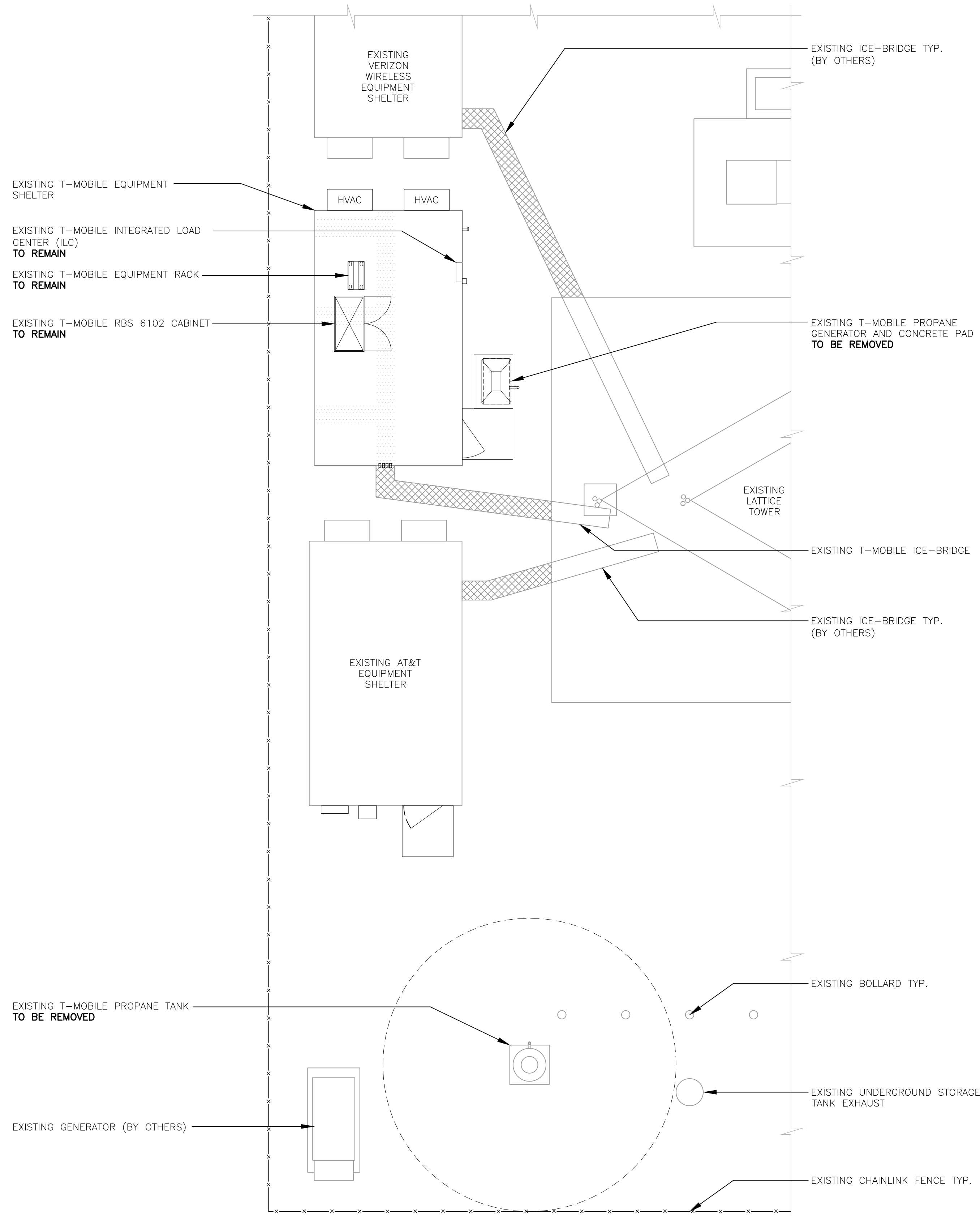
SITE NOTES

- THE CONTRACTOR SHALL CALL UTILITIES PRIOR TO THE START OF CONSTRUCTION.
- ACTIVE EXISTING UTILITIES, WHERE ENCOUNTERED IN THE WORK, SHALL BE PROTECTED AT ALL TIMES. THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY, PRIOR TO PROCEEDING, SHOULD ANY UNCOVERED EXISTING UTILITY PRECLUDE COMPLETION OF THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
- THE AREAS OF THE COMPOUND DISTURBED BY THE WORK SHALL BE RETURNED TO THEIR ORIGINAL CONDITION.
- CONTRACTOR SHALL MINIMIZE DISTURBANCE TO EXISTING SITE DURING CONSTRUCTION. EROSION CONTROL MEASURES, SHALL BE IN CONFORMANCE WITH THE LOCAL GUIDELINES FOR EROSION AND SEDIMENT CONTROL.
- IF ANY FIELD CONDITIONS EXIST WHICH PRECLUDE COMPLIANCE WITH THE DRAWINGS, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER AND SHALL PROCEED WITH AFFECTED WORK AFTER CONFLICT IS SATISFACTORILY RESOLVED.

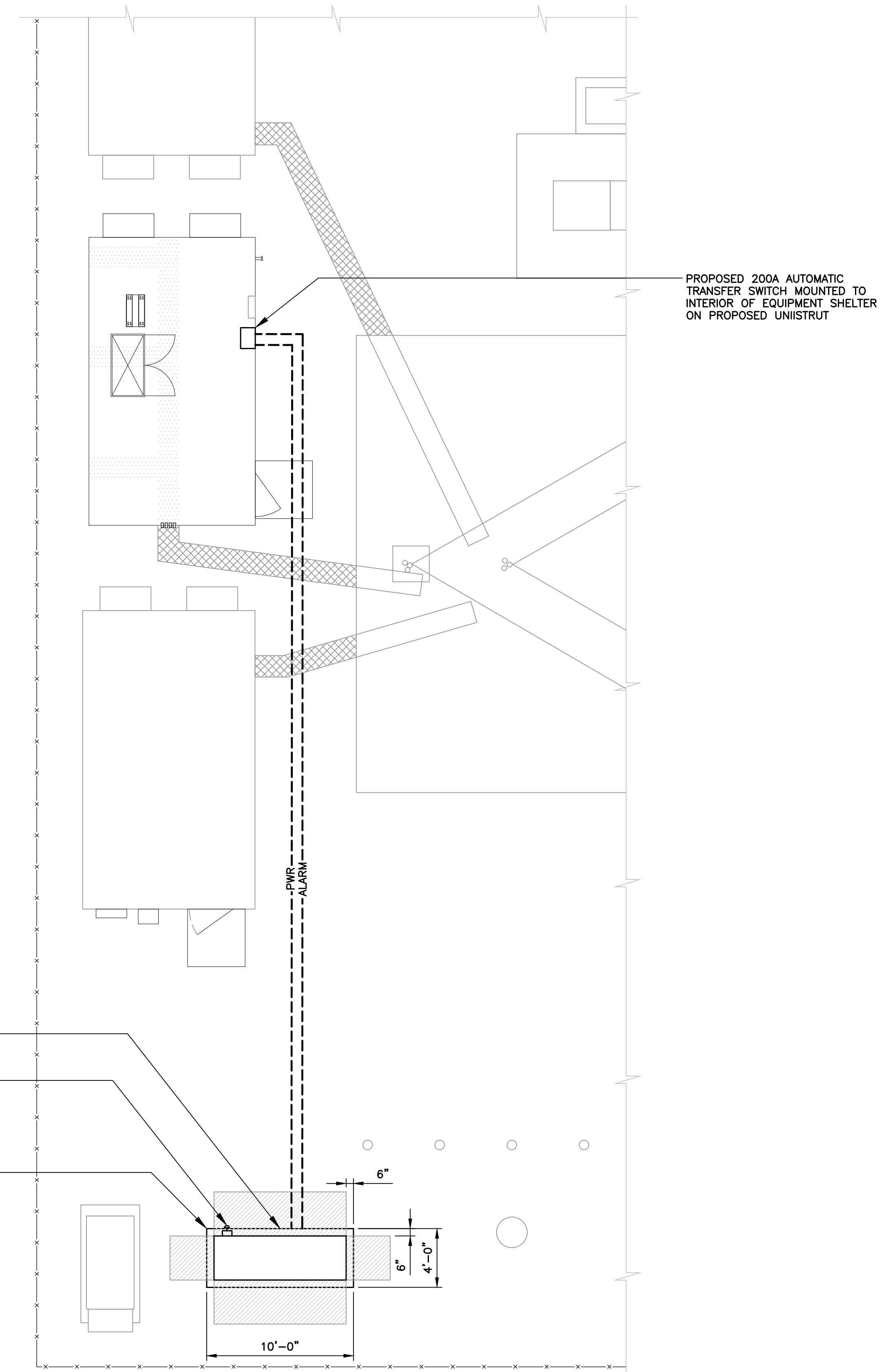
GENERAL NOTES

- ALL WORK SHALL BE IN ACCORDANCE WITH THE 2015 INTERNATIONAL BUILDING CODE AS MODIFIED BY THE 2018 CONNECTICUT SUPPLEMENT, INCLUDING THE TIA/EIA-222 REVISION "G" "STRUCTURAL STANDARDS FOR STEEL ANTENNA TOWERS AND SUPPORTING STRUCTURES." 2017 CONNECTICUT FIRE SAFETY CODE, NATIONAL ELECTRICAL CODE AND LOCAL CODES.
- CONTRACTOR SHALL REVIEW ALL DRAWINGS AND SPECIFICATIONS IN THE CONTRACT DOCUMENT SET. CONTRACTOR SHALL COORDINATE ALL WORK SHOWN IN THE SET OF DRAWINGS. THE CONTRACTOR SHALL PROVIDE A COMPLETE SET OF DRAWINGS TO ALL SUBCONTRACTORS AND ALL RELATED PARTIES. THE SUBCONTRACTORS SHALL EXAMINE ALL THE DRAWINGS AND SPECIFICATIONS FOR THE INFORMATION THAT AFFECTS THEIR WORK.
- CONTRACTOR SHALL PROVIDE A COMPLETE BUILD-OUT WITH ALL FINISHES, STRUCTURAL, MECHANICAL, AND ELECTRICAL COMPONENTS AND PROVIDE ALL ITEMS AS SHOWN OR INDICATED ON THE DRAWINGS OR IN THE WRITTEN SPECIFICATIONS.
- CONTRACTOR SHALL FURNISH ALL MATERIAL, LABOR AND EQUIPMENT TO COMPLETE THE WORK AND FURNISH A COMPLETED JOB ALL IN ACCORDANCE WITH LOCAL AND STATE GOVERNING AUTHORITIES AND OTHER AUTHORITIES HAVING LAWFUL JURISDICTION OVER THE WORK.
- CONTRACTOR SHALL SECURE AND PAY FOR ALL PERMITS AND ALL INSPECTIONS REQUIRED AND SHALL ALSO PAY FEES REQUIRED FOR THE GENERAL CONSTRUCTION, PLUMBING, ELECTRICAL AND HVAC. PERMITS SHALL BE PAID FOR BY THE RESPECTIVE SUBCONTRACTORS.
- CONTRACTOR SHALL MAINTAIN A CURRENT SET OF DRAWINGS AND SPECIFICATIONS ON SITE AT ALL TIMES AND INSURE DISTRIBUTION OF NEW DRAWINGS TO SUBCONTRACTORS AND OTHER RELEVANT PARTIES AS SOON AS THEY ARE MADE AVAILABLE. ALL OLD DRAWINGS SHALL BE MARKED VOID AND REMOVED FROM THE CONTRACT AREA. THE CONTRACTOR SHALL FURNISH AN "AS-BUILT" SET OF DRAWINGS TO OWNER UPON COMPLETION OF PROJECT.
- LOCATION OF EQUIPMENT AND WORK SUPPLIED BY OTHERS THAT IS DIAGRAMMATICALLY INDICATED ON THE DRAWINGS, SHALL BE DETERMINED BY THE CONTRACTOR. THE CONTRACTOR SHALL DETERMINE LOCATIONS AND DIMENSIONS SUBJECT TO STRUCTURAL CONDITIONS AND WORK OF THE SUBCONTRACTORS.
- THE CONTRACTOR IS SOLELY RESPONSIBLE TO DETERMINE CONSTRUCTION PROCEDURE AND SEQUENCE, AND TO ENSURE THE SAFETY OF THE EXISTING STRUCTURES AND ITS COMPONENT PARTS DURING CONSTRUCTION. THIS INCLUDES THE ADDITION OF WHATEVER SHORING, BRACING, UNDERPINNING, ETC. THAT MAY BE NECESSARY.
- DRAWINGS INDICATE THE MINIMUM STANDARDS, BUT IF ANY WORK SHOULD BE INDICATED TO BE SUBSTANDARD TO ANY ORDINANCES, LAWS, CODES, RULES, OR REGULATIONS BEARING ON THE WORK, THE CONTRACTOR SHALL INCLUDE IN HIS WORK AND SHALL EXECUTE THE WORK CORRECTLY IN ACCORDANCE WITH SUCH ORDINANCES, LAWS, CODES, RULES OR REGULATIONS WITH NO INCREASE IN COSTS.
- ALL UTILITY WORK SHALL BE IN ACCORDANCE WITH LOCAL UTILITY COMPANY REQUIREMENTS AND SPECIFICATIONS.
- ALL EQUIPMENT AND PRODUCTS PURCHASED ARE TO BE REVIEWED BY CONTRACTOR AND ALL APPLICABLE SUBCONTRACTORS FOR ANY CONDITION PER MFR.'S RECOMMENDATIONS. CONTRACTOR TO SUPPLY THESE ITEMS AT NO COST TO OWNER OR CONSTRUCTION MANAGER.
- ANY AND ALL ERRORS, DISCREPANCIES, AND "MISSED" ITEMS, ARE TO BE BROUGHT TO THE ATTENTION OF THE SITE OWNER'S CONSTRUCTION MANAGER DURING THE BIDDING PROCESS BY THE CONTRACTOR. ALL THESE ITEMS ARE TO BE INCLUDED IN THE BID. NO 'EXTRA' WILL BE ALLOWED FOR MISSED ITEMS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ON-SITE SAFETY FROM THE TIME THE JOB IS AWARDED UNTIL ALL WORK IS COMPLETE AND ACCEPTED BY THE OWNER.
- CONTRACTOR TO REVIEW ALL SHOP DRAWINGS AND SUBMIT COPY TO ENGINEER FOR APPROVAL. DRAWINGS MUST BEAR THE CHECKER'S INITIALS BEFORE SUBMITTING TO THE CONSTRUCTION MANAGER FOR REVIEW.
- THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS, ELEVATIONS, ANGLES, AND EXISTING CONDITIONS AT THE SITE, PRIOR TO FABRICATION AND/OR INSTALLATION OF ANY WORK IN THE CONTRACT AREA.
- COORDINATION, LAYOUT, FURNISHING AND INSTALLATION OF CONDUIT AND ALL APPURTENANCES REQUIRED FOR PROPER INSTALLATION OF ELECTRICAL AND TELECOMMUNICATION SERVICE SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- ALL DAMAGE CAUSED TO ANY EXISTING STRUCTURE SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR WILL BE HELD LIABLE FOR ALL REPAIRS REQUIRED FOR EXISTING STRUCTURES IF DAMAGED DURING CONSTRUCTION ACTIVITIES.
- THE CONTRACTOR SHALL CONTACT "DIG SAFE" (DIAL 811) AT LEAST 48 HOURS PRIOR TO ANY EXCAVATIONS. ALL UTILITIES SHALL BE IDENTIFIED AND CLEARLY MARKED. CONTRACTOR SHALL MAINTAIN AND PROTECT MARKED UTILITIES THROUGHOUT PROJECT COMPLETION.
- CONTRACTOR SHALL COMPLY WITH OWNER'S ENVIRONMENTAL ENGINEER ON ALL METHODS AND PROVISIONS FOR ALL EXCAVATION ACTIVITIES INCLUDING SOIL DISPOSAL. ALL BACKFILL MATERIALS TO BE PROVIDED BY THE CONTRACTOR.
- THE COUNTY/CITY/TOWN WILL MAKE PERIODIC FIELD OBSERVATION AND INSPECTIONS TO MONITOR THE INSTALLATION, MATERIALS, WORKMANSHIP AND EQUIPMENT INCORPORATED INTO THE PROJECT TO ENSURE COMPLIANCE WITH THE DESIGN PLANS, SPECIFICATIONS, CONTRACT DOCUMENTS AND APPROVED SHOP DRAWINGS.
- THE COUNTY/CITY/TOWN MUST BE NOTIFIED (2) WORKING DAYS PRIOR TO CONCEALMENT/BURIAL OF ANY SYSTEM OR MATERIAL THAT WILL PREVENT THE DIRECT INSPECTION OF MATERIALS, METHODS OR WORKMANSHIP. EXAMPLES OF THESE PROCESSES ARE BACKFILLING A GROUND RING OR TOWER FOUNDATION, POURING TOWER FOUNDATIONS, BURYING GROUND RODS, PLATES OR GRIDS, ETC. THE CONTRACTOR MAY PROCEED WITH THE SCHEDULED PROCESS (2) WORKING DAYS AFTER PROVIDING NOTICE UNLESS NOTIFIED OTHERWISE BY THE COUNTY/CITY/TOWN.
- PREVAILING WAGE RATES MAY APPLY TO THIS PROJECT. REFER TO ARTICLE 8 OF THE NEW YORK STATE DEPARTMENT OF LABOR FOR PREVAILING WAGE SCHEDULES/UPDATES ON A COUNTY-BY-COUNTY BASIS. AN ORIGINAL WAGE SCHEDULE MUST BE REQUESTED FROM THE BUREAU OF PUBLIC WORK.

PROFESSIONAL ENGINEER SEAL									
									
CENTEK engineering Centered on Solutions™	(203) 488-0380 (203) 488-8587 Fax 63-2 North Branford Road Branford, CT 06405 www.CentekEng.com								
T-MOBILE NORTHEAST LLC	SITE NAME: CTNH550A SITE ID: CTNH550A 38 LOWER RD NORTH CANAAN, CT 06018								
	DATE: 06/16/21								
	SCALE: AS NOTED								
	JOB NO. 21003.16								
	GENERAL NOTES AND SPECIFICATIONS								
	N-1								
	Sheet No. 2 of 6								



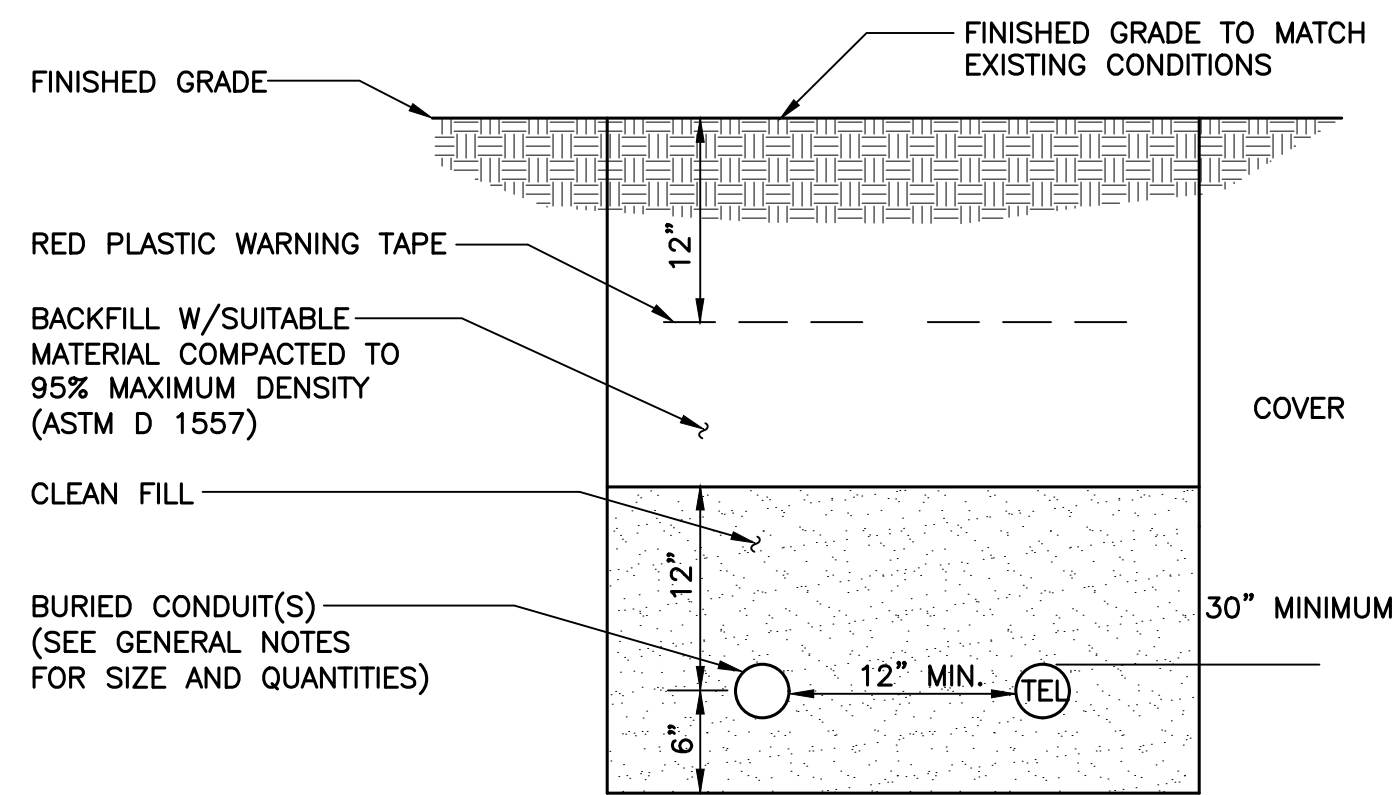
1 PARTIAL COMPOUND PLAN/EQUIPMENT PLAN - EXISTING
 C-1 SCALE: 3/16" = 1'



2 PARTIAL COMPOUND PLAN/EQUIPMENT PLAN - PROPOSED
 C-1 SCALE: 3/16" = 1'



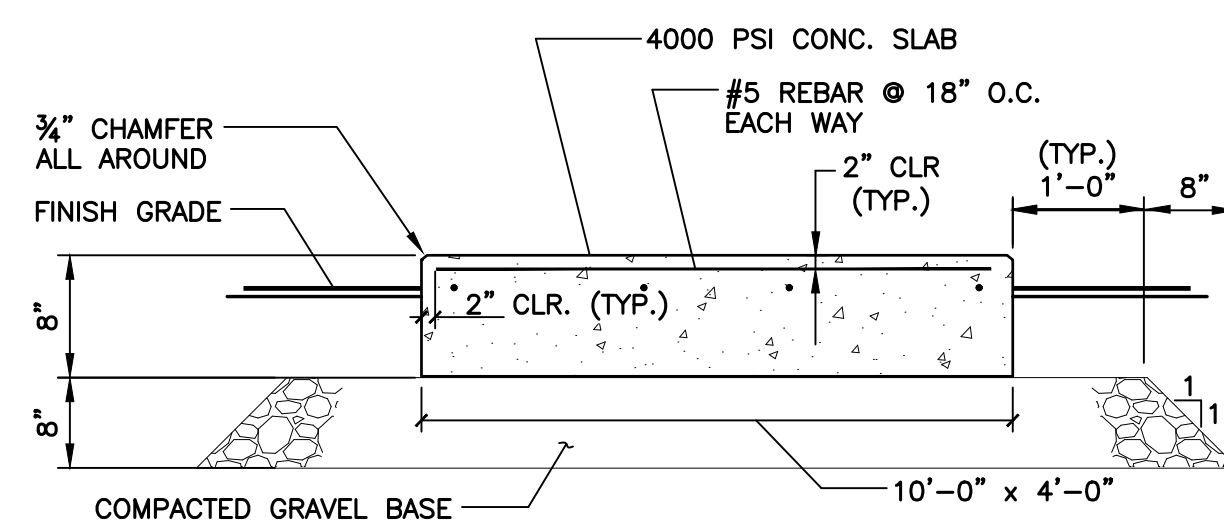
PROFESSIONAL ENGINEER SEAL	CONSTRUCTION DRAWINGS - ISSUED FOR CONSTRUCTION
T-Mobile	DATE: 08/03/21
CENTER engineering	REV. 0
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T-MOBILE NORTHEAST LLC	SCALE: AS NOTED
SITE NAME: CTNH550A	JOB NO. 21003.16
SITE ID: CTNH550A	COMPOUND PLAN AND EQUIPMENT PLAN
38 LOWER RD NORTH CANAAN, CT 06018	C-1
	Sheet No. 3 of 6



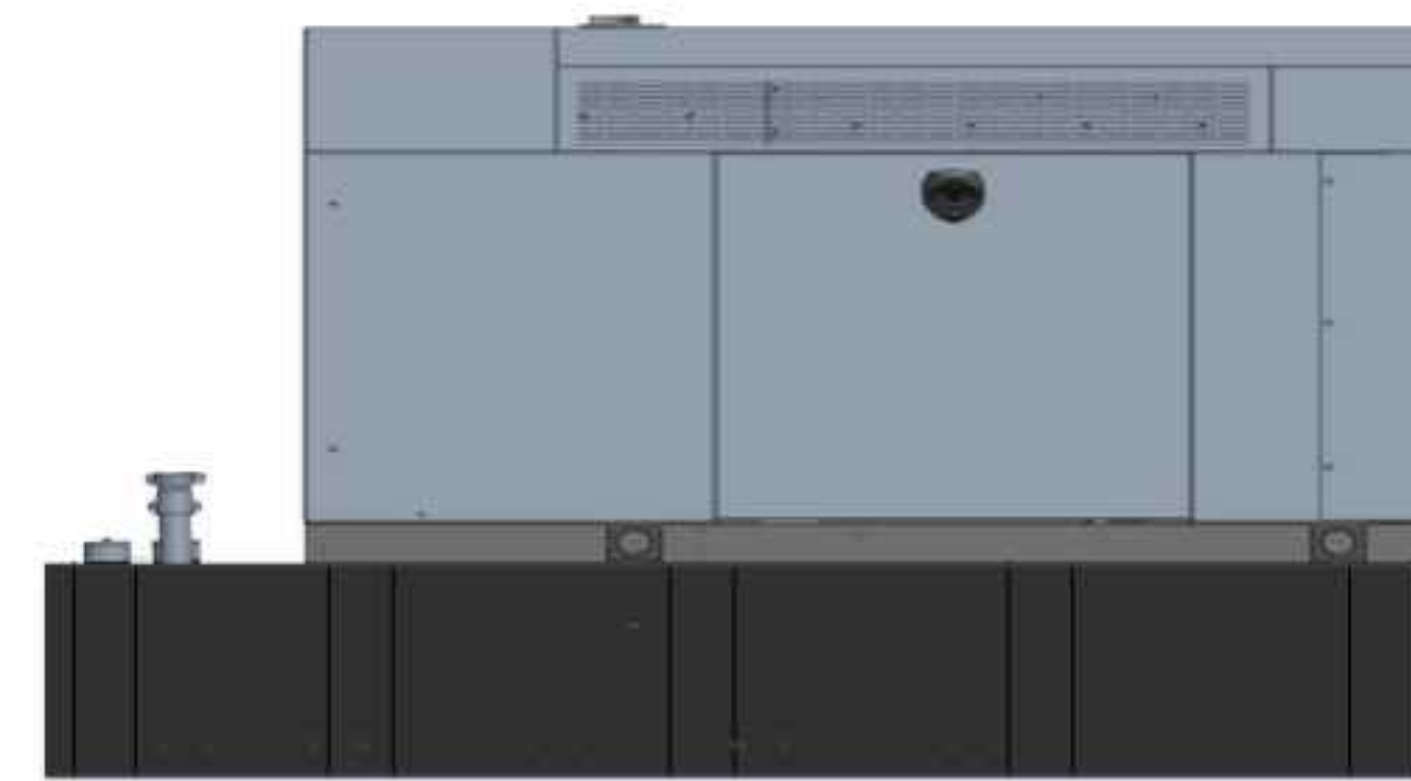
NOTES:

1. THE CLEAN FILL SHALL PASS THROUGH A 3/8" MESH SCREEN AND SHALL NOT CONTAIN SHARP STONES. OTHER BACKFILL SHALL NOT CONTAIN ASHES, CINDERS, SHELLS, FROZEN MATERIAL, LOOSE DEBRIS OR STONES LARGER THAN 2" IN MAXIMUM DIMENSION.
2. WHERE EXISTING UTILITIES ARE LIKELY TO BE ENCOUNTERED, CONTRACTOR SHALL HAND DIG AND PROTECT EXISTING UTILITIES.

1 TYPICAL ELECTRICAL/TEL TRENCH DETAIL
C-2 SCALE: NOT TO SCALE



2 TYPICAL CONCRETE PAD DETAIL
C-2 SCALE: NOT TO SCALE



BACKUP POWER GENERATOR						
EQUIPMENT	POWER GENERATED	FUEL	MODEL NUMBER	FUEL TANK SIZE (GAL)	DIMENSIONS	WEIGHT
MAKE: GENERAC MODEL: RD025	25 KW, AC	DIESEL	7192-0	240	103.4"L x 35.0"W x 91.7"H	2123 LBS.

NOTES:

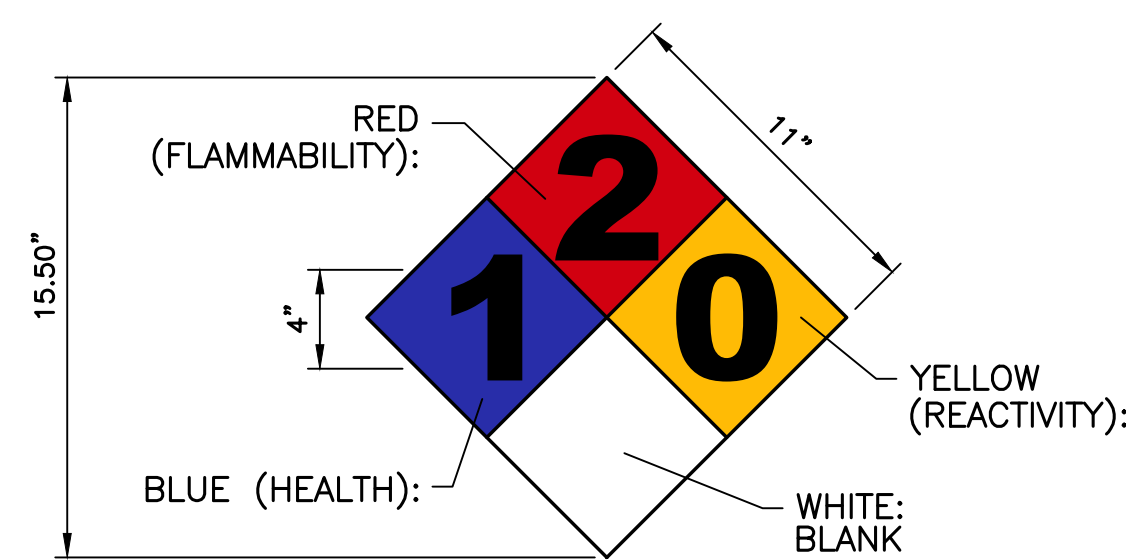
1. FUEL LEVEL/SECONDARY CONTAINMENT SHALL BE ALARMED AND IN COMMUNICATION WITH T-MOBILE'S NOC.
2. CONTRACTOR TO COORDINATE FINAL EQUIPMENT MODEL SELECTION AND ALL OPTIONAL FEATURES WITH T-MOBILE'S CONSTRUCTION MANAGER PRIOR TO ORDERING.

3 PROPOSED GENERATOR DETAIL
C-2 SCALE: NOT TO SCALE



AUTOMATIC TRANSFER SWITCH					
EQUIPMENT	PHASE	VOLTAGE	ENCLOSURE	AMP	DIMENSIONS
MAKE: GENERAC MODEL: RXSC200A3	1-PHASE	120/240	NEMA-3R	200	17.3"L x 12.5"W

4 AUTOMATIC TRANSFER SWITCH DETAIL
C-2 SCALE: NOT TO SCALE

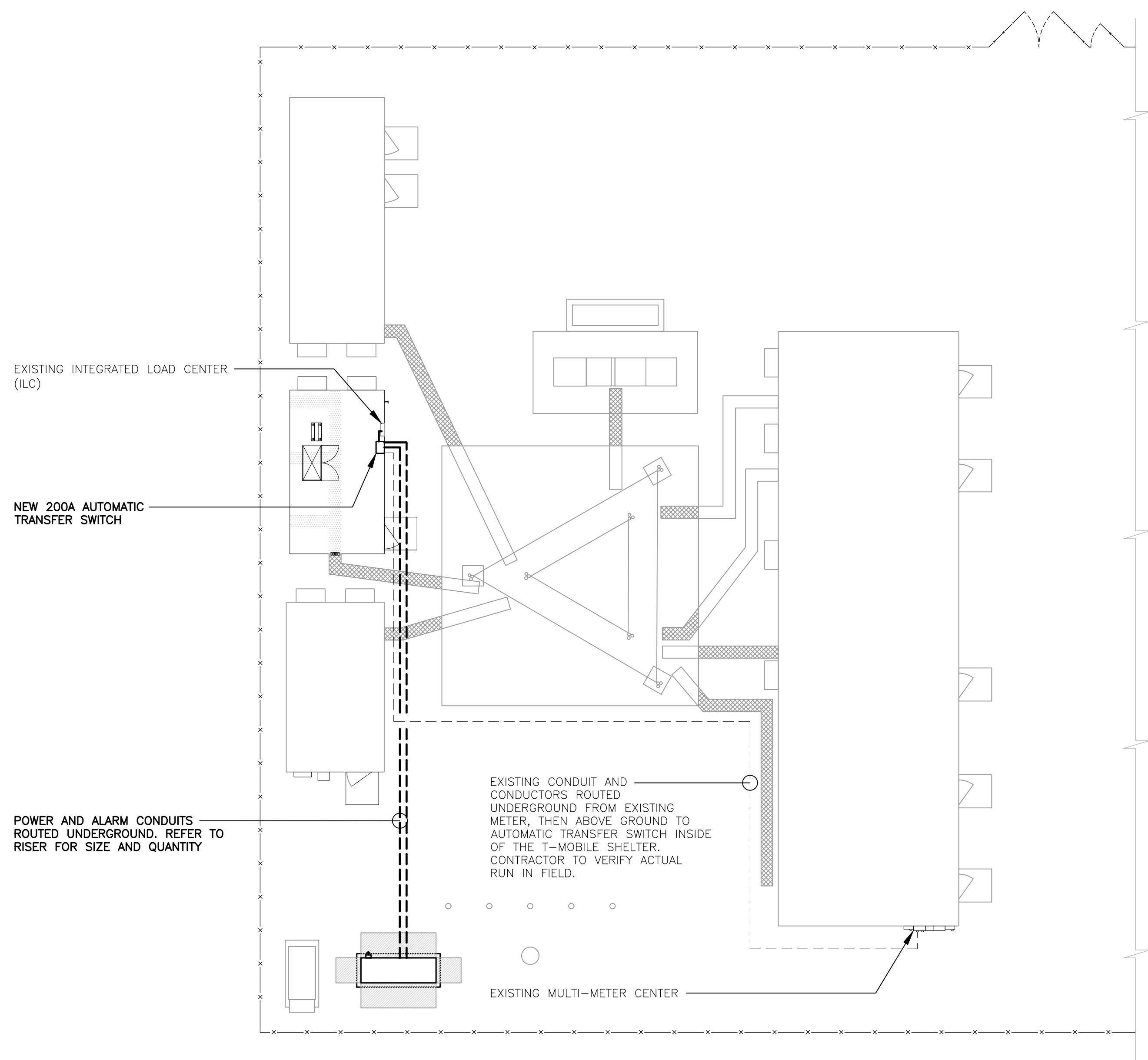


SIGN NAME: REGULATORY, NFPA 704 HAZARD ID
DESCRIPTION: MOUNT ON GENERATOR ACCESS DOOR. CONSULT WITH GENERATOR MANUFACTURER MSDS SHEET FOR BLUE AND RES POSITIONS
NOTES:

- 1) SIGNS EXPOSED TO WEATHER SHOULD BE CHECKED ANNUALLY FOR READABILITY.
- 2) SIGNS MUST BE UPDATED IF CHEMICAL STORAGE OR HAZARD INFORMATION FOR THE LOCATION CHANGES.
- 3) THE GC MUST REVIEW WITH LOCAL JURISDICTION WHEN FILING FOR PERMITS, AS EACH JURISDICTION MAY HAVE DIFFERENT REQUIREMENTS AND COMPLY WITH POSTING REQUIREMENTS OR DIRECTIVES FROM THE LOCAL JURISDICTION.

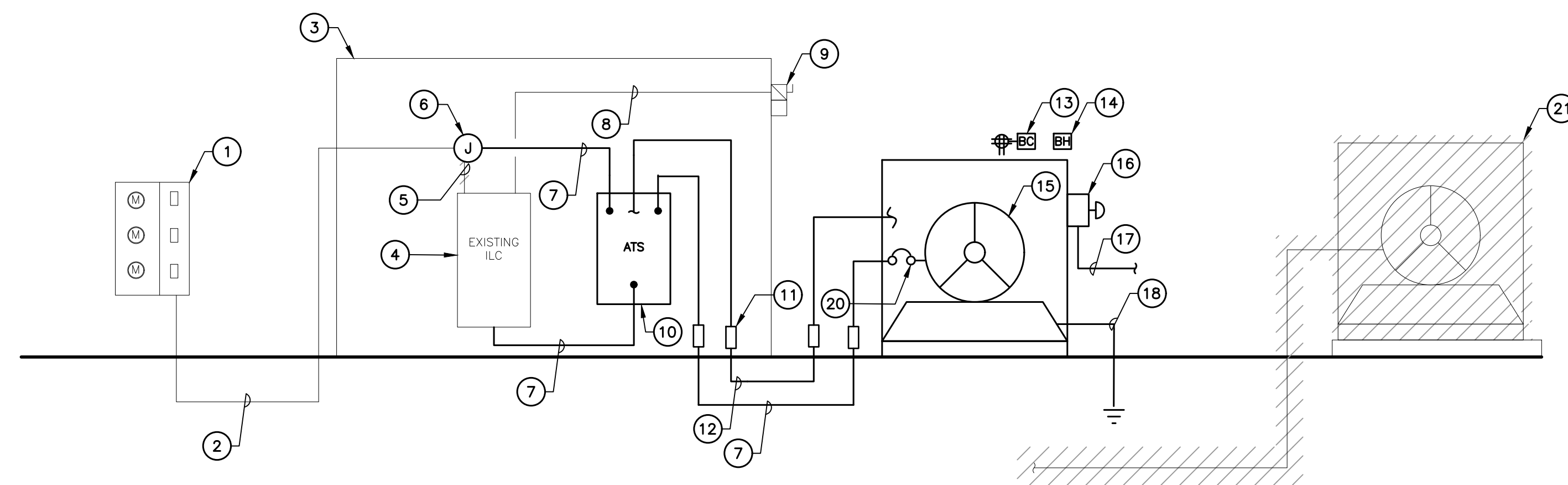
5 NFPA 704 DIAMOND SIGNAGE DETAIL
C-2 SCALE: NOT TO SCALE

PROFESSIONAL ENGINEER SEAL	CONSTRUCTION DRAWINGS - ISSUED FOR CONSTRUCTION
T-MOBILE	DATE: 06/16/21
CENTER engineering	SCALE: AS NOTED
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T-MOBILE NORTHEAST LLC	TYPICAL EQUIPMENT DETAILS
SITE NAME: CTNH550A SITE ID: CTNH550A 38 LOWER RD NORTH CANAAN, CT 06018	C-2
Sheet No. 4 of 6	



1 ELECTRICAL CONDUIT ROUTING
E-1 SCALE: 1" = 10'

RISER DIAGRAM NOTES	RISER DIAGRAM NOTES
<ul style="list-style-type: none"> ① EXISTING MULTI-GANG METER CENTER. ② EXISTING CONDUIT AND CONDUCTORS TO REMAIN ③ EXISTING SHELTER. ④ EXISTING 200A INTEGRATED LOAD CENTER (ILC) ⑤ SECTION OF CONDUIT AND CONDUCTORS TO BE REMOVED. EXTEND EXISTING CONDUITS AND CONDUCTORS TO NEW ATS. ⑥ JUNCTION BOX SIZED PER NEC. ⑦ (3) #3/0 AWG, (1) #6 AWG GROUND, 2" CONDUIT. ⑧ EXISTING CONDUIT AND CONDUCTORS CONNECTED TO GENERATOR CAM LOCK TO REMAIN ⑨ EXISTING GENERATOR CAM LOCK TO REMAIN. ⑩ NEW 200A, 2 SOURCE AUTOMATIC TRANSFER SWITCH. 	<ul style="list-style-type: none"> ⑪ EXPANSION COUPLING TYPICAL. ⑫ 1" CONDUIT FOR GENERATOR CONTROL AND SIGNAL WIRING. ⑬ GENERATOR BATTERY CHARGER AND CONVENIENCE GFCI OUTLET WIRED TO EXISTING ILC. OUTLET TO BE MOUNTED IN WEATHERPROOF ENCLOSURE. ⑭ GENERATOR BLOCK HEATER WIRED TO EXISTING ILC. ⑮ EMERGENCY BACK UP GENERATOR. ⑯ REMOTE GENERATOR SHUT OFF SWITCH IN BREAK GLASS ENCLOSURE MOUNTED TO EXTERIOR OF GENERATOR ENCLOSURE PER 2019 NFPA 110 5.6.5.6.1. ⑰ 3/4" CONDUIT AND CONDUCTORS REQUIRED FOR PROPER OPERATION OF EMERGENCY GENERATOR SHUT OFF SWITCH. ⑱ GENERATOR GROUNDING PER NEC AND MANUFACTURER'S REQUIREMENTS. BOND TO EXISTING GROUNDING SYSTEM. (MINIMUM OF (1) #2 AWG GROUND) ⑲ 200A/2P GENERATOR OUTPUT CIRCUIT BREAKER. ⑳ EXISTING PROPANE GENERATOR AND ASSOCIATED CONDUITS AND CONDUCTORS TO BE REMOVED.



1 ELECTRICAL RISER DIAGRAM
E-1 SCALE: NOT TO SCALE

PROFESSIONAL ENGINEER SEAL				TJR	RTS	DATE	DESCRIPTION
				0	08/03/21	REV.	DRAWN BY / CHK'D BY
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T-MOBILE NORTHEAST LLC SITE NAME: CTNH550A SITE ID: CTNH550A 38 LOWER RD NORTH CANAAN, CT 06018							
DATE: 06/16/21							
SCALE: AS NOTED							
JOB NO. 21003.16							
ELECTRICAL CONDUIT ROUTING AND RISER DIAGRAM							
E-1							
Sheet No. 5 of 6							

ELECTRICAL SPECIFICATIONS

SECTION 16010

1.02. GENERAL REQUIREMENTS

- A. THE ENTIRE ELECTRICAL INSTALLATION SHALL BE MADE IN STRICT ACCORDANCE WITH ALL LOCAL, STATE AND NATIONAL CODES AND REGULATIONS WHICH MAY APPLY AND NOTHING IN THE DRAWINGS OR SPECIFICATIONS SHALL BE INTERPRETED AS AN INFRINGEMENT OF SUCH CODES OR REGULATIONS.
- B. THE ELECTRICAL CONTRACTOR IS TO BE RESPONSIBLE FOR THE COMPLETE INSTALLATION AND COORDINATION OF THE ENTIRE ELECTRICAL SERVICE. ALL ACTIVITIES TO BE COORDINATED THROUGH OWNERS REPRESENTATIVE, DESIGN ENGINEER AND OTHER AUTHORITIES HAVING JURISDICTION OF TRADES.
- C. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND PAY ALL FEES THAT MAY BE REQUIRED FOR THE ELECTRICAL WORK AND FOR THE SCHEDULING OF ALL INSPECTIONS THAT MAY BE REQUIRED BY THE LOCAL AUTHORITY.
- D. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION WITH THE BUILDING OWNER FOR NEW AND/OR DEMOLITION WORK INVOLVED.
- E. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION WITH LOCAL TELEPHONE COMPANY THAT MAY BE REQUIRED FOR THE INSTALLATION OF TELEPHONE SERVICE TO THE PROPOSED CELLULAR SITE.
- F. NO MATERIAL OTHER THAN THAT CONTAINED IN THE "LATEST LIST OF ELECTRICAL FITTINGS" APPROVED BY THE UNDERWRITERS' LABORATORIES, SHALL BE USED IN ANY PART OF THE WORK. ALL MATERIAL FOR WHICH LABEL SERVICE HAS BEEN ESTABLISHED SHALL BEAR THE U.L. LABEL.
- G. THE CONTRACTOR SHALL GUARANTEE ALL NEW WORK FOR A PERIOD OF ONE YEAR FROM THE ACCEPTANCE DATE BY THE OWNER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING WARRANTIES FROM ALL EQUIPMENT MANUFACTURERS FOR SUBMISSION TO THE OWNER.
- H. DRAWINGS INDICATE GENERAL ARRANGEMENT OF WORK INCLUDED IN CONTRACT. CONTRACTOR SHALL, WITHOUT EXTRA CHARGE, MAKE MODIFICATIONS TO THE LAYOUT OF THE WORK TO PREVENT CONFLICT WITH WORK OF OTHER TRADES AND FOR THE PROPER INSTALLATION OF WORK. CHECK ALL DRAWINGS AND VISIT JOB SITE TO VERIFY SPACE AND TYPE OF EXISTING CONDITIONS IN WHICH WORK WILL BE DONE, PRIOR TO SUBMITTAL OF BID.
- I. THE ELECTRICAL CONTRACTOR SHALL SUPPLY THREE (3) COMPLETE SETS OF APPROVED DRAWINGS, ENGINEERING DATA SHEETS, MAINTENANCE AND OPERATING INSTRUCTION MANUALS FOR ALL SYSTEMS AND THEIR RESPECTIVE EQUIPMENT. THESE MANUALS SHALL BE INSERTED IN VINYL COVERED 3-RING BINDERS AND TURNED OVER TO OWNER'S REPRESENTATIVE ONE (1) WEEK PRIOR TO FINAL PUNCH LIST.
- J. ALL WORK SHALL BE INSTALLED IN A NEAT AND WORKMAN LIKE MANNER AND WILL BE SUBJECT TO THE APPROVAL OF THE OWNER'S REPRESENTATIVE.
- K. ALL EQUIPMENT AND MATERIALS TO BE INSTALLED SHALL BE NEW, UNLESS OTHERWISE NOTED.
- L. BEFORE FINAL PAYMENT, THE CONTRACTOR SHALL PROVIDE A COMPLETE SET OF PRINTS (AS-BUILTS), LEGIBLY MARKED IN RED PENCIL TO SHOW ALL CHANGES FROM THE ORIGINAL PLANS.
- M. PROVIDE TEMPORARY POWER AND LIGHTING IN WORK AREAS AS REQUIRED.
- N. SHOP DRAWINGS:
 1. CONTRACTOR SHALL SUBMIT SIX (6) COPIES OF SHOP DRAWINGS ON ALL EQUIPMENT AND MATERIALS PROPOSED FOR USE ON THIS PROJECT, GIVING ALL DETAILS, WHICH INCLUDE DIMENSIONS, CAPACITIES, ETC.
 2. CONTRACTOR SHALL SUBMIT SIX (6) COPIES OF ALL TEST REPORTS CALLED FOR IN THE SPECIFICATIONS AND DRAWINGS.
- O. ENTIRE ELECTRICAL INSTALLATION SHALL BE IN ACCORDANCE WITH OWNER'S SPECIFICATIONS, AND REQUIREMENTS OF ALL LOCAL AUTHORITIES HAVING JURISDICTION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE WITH APPROPRIATE INDIVIDUALS TO OBTAIN ALL SUCH SPECIFICATIONS AND REQUIREMENTS. NOTHING CONTAINED IN, OR OMITTED FROM, THESE DOCUMENTS SHALL RELIEVE CONTRACTOR FROM THIS OBLIGATION.

SECTION 16111

1.01. CONDUIT

- A. MINIMUM CONDUIT SIZE FOR BRANCH CIRCUITS, LOW VOLTAGE CONTROL AND ALARM CIRCUITS SHALL BE 3/4". CONDUITS SHALL BE PROPERLY FASTENED AS REQUIRED BY THE N.E.C.
- B. THE INTERIOR OF RACEWAYS/ENCLOSURES INSTALLED UNDERGROUND SHALL BE CONSIDERED TO BE WET LOCATION, INSULATED CONDUCTORS SHALL BE LISTED FOR USE IN WET LOCATIONS. PROVIDE WEATHERPROOF CONSTRUCTION IN WET LOCATIONS.
- C. CONDUIT INSTALLED UNDERGROUND SHALL BE INSTALLED TO MEET MINIMUM COVER REQUIREMENTS OF TABLE 300.5.
- D. PROVIDE RIGID GALVANIZED STEEL CONDUIT (RMC) FOR THE FIRST 10 FOOT SECTION WHEN LEAVING A BUILDING OR SECTIONS PASSING THROUGH FLOOR SLABS
- E. ONLY LISTED PVC CONDUIT AND FITTINGS ARE PERMITTED FOR THE INSTALLATION OF ELECTRICAL CONDUCTORS, SUITABLE FOR UNDERGROUND APPLICATIONS.

CONDUIT SCHEDULE SECTION 16111			
CONDUIT TYPE	NEC REFERENCE	APPLICATION	MIN. BURIAL DEPTH (PER NEC TABLE 300.5) ^{2,3}
EMT	ARTICLE 358	INTERIOR CIRCUITING, EQUIPMENT ROOMS, SHELTERS	N/A
RMC, RIGID GALV. STEEL	ARTICLE 344, 300.5, 300.50	ALL INTERIOR/ EXTERIOR CIRCUITING, ALL UNDERGROUND INSTALLATIONS.	6 INCHES
PVC, SCHEDULE 40	ARTICLE 352, 300.5, 300.50	INTERIOR/ EXTERIOR CIRCUITING AND GROUNDING SYSTEMS, UNDERGROUND INSTALLATIONS, WHERE NOT SUBJECT TO PHYSICAL DAMAGE. ¹	18 INCHES
PVC, SCHEDULE 80	ARTICLE 352, 300.5, 300.50	INTERIOR/ EXTERIOR CIRCUITING AND GROUNDING SYSTEMS, UNDERGROUND INSTALLATIONS, WHERE SUBJECT TO PHYSICAL DAMAGE. ¹	18 INCHES SECTION 16450
LIQUID TIGHT FLEX. METAL	ARTICLE 350	SHORT LENGTHS (MAX. 3FT.) WIRING TO VIBRATING EQUIPMENT IN WET LOCATIONS.	N/A
FLEX. METAL	ARTICLE 348	SHORT LENGTHS (MAX. 3FT.) WIRING TO VIBRATING EQUIPMENT IN WET LOCATIONS.	N/A

¹ PHYSICAL DAMAGE IS SUBJECT TO THE AUTHORITY HAVING JURISDICTION.
² UNDERGROUND CONDUIT INSTALLED UNDER ROADS, HIGHWAYS, DRIVEWAYS, PARKING LOTS SHALL HAVE MINIMUM DEPTH OF 24".
³ WHERE SOLID ROCK PREVENTS COMPLIANCE WITH MINIMUM COVER DEPTHS, WIRING SHALL BE INSTALLED IN PERMITTED RACEWAY FOR DIRECT BURIAL. THE RACEWAY SHALL BE COVERED BY A MINIMUM OF 2" OF CONCRETE EXTENDING DOWN TO ROCK.

SECTION 16123

1.01. CONDUCTORS

- A. ALL CONDUCTORS SHALL BE TYPE THWN (INT. APPLICATION) AND XHHW (EXT. APPLICATION), 75 DEGREE C, 600 VOLT INSULATION, SOFT ANNEALED STRANDED COPPER. #10 AWG AND SMALLER SHALL BE SPLICED USING ACCEPTABLE SOLDERLESS PRESSURE CONNECTORS. #8 AWG AND LARGER SHALL BE SPLICED USING COMPRESSION SPLIT-BOLT TYPE CONNECTORS. #12 AWG SHALL BE THE MINIMUM SIZE CONDUCTOR FOR LINE VOLTAGE BRANCH CIRCUITS. REFER TO PANEL SCHEDULE FOR BRANCH CIRCUIT CONDUCTOR SIZE(S). CONDUCTORS SHALL BE COLOR CODED FOR CONSISTENT PHASE IDENTIFICATION:

LINE	COLOR	COLOR
A	BLACK	BROWN
B	RED	ORANGE
C	BLUE	YELLOW
N	CONTINUOUS WHITE	GREY
G	CONTINUOUS GREEN	GREEN WITH YELLOW STRIPE

- B. MINIMUM BENDING RADIUS FOR CONDUCTORS SHALL BE 12 TIMES THE LARGEST DIAMETER OF BRANCH CIRCUIT CONDUCTOR.

SECTION 16195

1.01. LABELING AND IDENTIFICATION NOMENCLATURE FOR ELECTRICAL EQUIPMENT

- A. CONTRACTOR SHALL FURNISH AND INSTALL NON-METALLIC ENGRAVED BACK-LIT NAMEPLATES ON ALL PANELS AND MAJOR ITEMS OF ELECTRICAL EQUIPMENT.
- B. LETTERS TO BE WHITE ON BLACK BACKGROUND WITH LETTERS 1-1/2 INCH HIGH WITH 1/4 INCH MARGIN.
- C. IDENTIFICATION NOMENCLATURE SHALL BE IN ACCORDANCE WITH OWNER'S STANDARDS.

SECTION 16477

1.01. FUSES

- A. FUSES SHALL BE NONRENEWABLE TYPE AS MANUFACTURED BY "BUSSMAN" OR APPROVED EQUAL. FUSES RATED TO 1/10 AMPERE UP TO 600 AMPERES SHALL BE EQUIVALENT TO BUSSMAN TYPE LPN-RK (250V) UL CLASS RK1, LOW PEAK, DUAL ELEMENT, TIME-DELAY FUSES. FUSES SHALL HAVE SEPARATE SHORT CIRCUIT AND OVERLOAD ELEMENTS AND HAVE AN INTERRUPTING RATING OF 200 KAIC. UPON COMPLETION OF WORK, PROVIDE ONE SPARE SET OF FUSES FOR EACH TYPE INSTALLED.

SECTION 16960

1.01. TESTS BY INDEPENDENT ELECTRICAL TESTING FIRM

- A. CONTRACTOR SHALL RETAIN THE SERVICES OF A LOCAL INDEPENDENT ELECTRICAL TESTING FIRM (WITH MINIMUM 5 YEARS COMMERCIAL EXPERIENCE IN THE ELECTRICAL TESTING INDUSTRY) AS SPECIFIED BY OWNER TO PERFORM:

TEST 1: THERMAL OVERLOAD AND MAGNETIC TRIP TEST, AND CABLE INSULATION TEST FOR ALL CIRCUIT BREAKERS RATED 100 AMPS OR GREATER.

TEST 2: RESISTANCE TO GROUND TEST ON THE CELLULAR GROUNDING SYSTEM.

THE TESTING FIRM SHALL INCLUDE THE FOLLOWING INFORMATION WITH THE REPORT:

1. TESTING PROCEDURE INCLUDING THE MAKE AND MODEL OF TEST EQUIPMENT.
2. CERTIFICATION OF TESTING EQUIPMENT CALIBRATION WITHIN SIX (6) MONTHS OF DATE OF TESTING. INCLUDE CERTIFICATION LAB ADDRESS AND TELEPHONE NUMBER.
3. GRAPHICAL DESCRIPTION OF TESTING METHOD ACTUALLY IMPLEMENTED.
- B. THESE TESTS SHALL BE PERFORMED IN THE PRESENCE AND TO THE SATISFACTION OF OWNER'S CONSTRUCTION REPRESENTATIVE. TESTING DATA SHALL BE INITIALED AND DATED BY THE CONSTRUCTION REPRESENTATIVE AND INCLUDED WITH THE WRITTEN REPORT/ANALYSIS.
- C. THE CONTRACTOR SHALL FORWARD SIX (6) COPIES OF THE INDEPENDENT ELECTRICAL TESTING FIRM'S REPORT/ANALYSIS TO ENGINEER A MINIMUM OF TEN (10) WORKING DAYS PRIOR TO THE JOB TURNOVER.
- D. CONTRACTOR TO PROVIDE A MINIMUM OF ONE (1) WEEK NOTICE TO OWNER AND ENGINEER FOR ALL TESTS REQUIRING WITNESSING.

SECTION 16961

1.01. TESTS BY CONTRACTOR

- A. ALL TESTS AS REQUIRED UPON COMPLETION OF WORK, SHALL BE MADE BY THIS CONTRACTOR. THESE SHALL BE CONTINUITY AND INSULATION TESTS; TEST TO DETERMINE THE QUALITY OF MATERIALS, ETC. AND SHALL BE MADE IN ACCORDANCE WITH N.E.C. RECOMMENDATIONS. ALL FEEDERS AND BRANCH CIRCUIT WIRING (EXCEPT CLASS 2 SIGNAL CIRCUITS) MUST BE TESTED FREE FROM SHORT CIRCUIT AND GROUND FAULT CONDITIONS AT 500V IN A REASONABLY DRY AMBIENT OF APPROXIMATELY 70 DEGREES F.
- B. CONTRACTOR SHALL PERFORM LOAD PHASE BALANCING TESTS. CIRCUITS SHALL BE SO CONNECTED TO THE PANELBOARDS SUCH THAT THE NEW LOAD IS DISTRIBUTED AS EQUALLY AS POSSIBLE BETWEEN EACH LOAD AND NEUTRAL. 10% SHALL BE CONSIDERED AS A REASONABLE AND ACCEPTABLE ALLOWANCE. BRANCH CIRCUITS SHALL BE BALANCED ON THEIR OWN PANELBOARDS; FEEDER LOADS SHALL, IN TURN, BE BALANCED ON THE SERVICE EQUIPMENT. REASONABLE LOAD TEST SHALL BE ARRANGED TO VERIFY LOAD BALANCE IF REQUESTED BY THE ENGINEER.
- C. ALL TESTS, UPON REQUEST, SHALL BE REPEATED IN THE PRESENCE OF OWNER'S REPRESENTATIVE. ALL TESTS SHALL BE DOCUMENTED AND TURNED OVER TO OWNER. OWNER SHALL HAVE THE AUTHORITY TO STOP ANY OF THE WORK NOT BEING PROPERLY INSTALLED. ALL SUCH DETECTED WORK SHALL BE REPAIRED OR REPLACED AT NO ADDITIONAL EXPENSE TO THE OWNER AND THE TESTS SHALL BE REPEATED.

DATE: 06/16/21

SCALE: AS NOTED

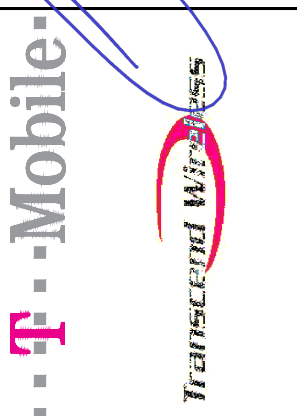
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ELECTRICAL
SPECIFICATIONS

E-2

Sheet No. 6 of 6

PROFESSIONAL ENGINEER SEAL



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T-MOBILE NORTHEAST LLC

SITE NAME: CTNH550A
SITE ID: CTNH550A
38 LOWER RD
NORTH CANAAN, CT 06018

DATE: 06/16/21

SCALE: AS NOTED

JOB NO. 21003.16

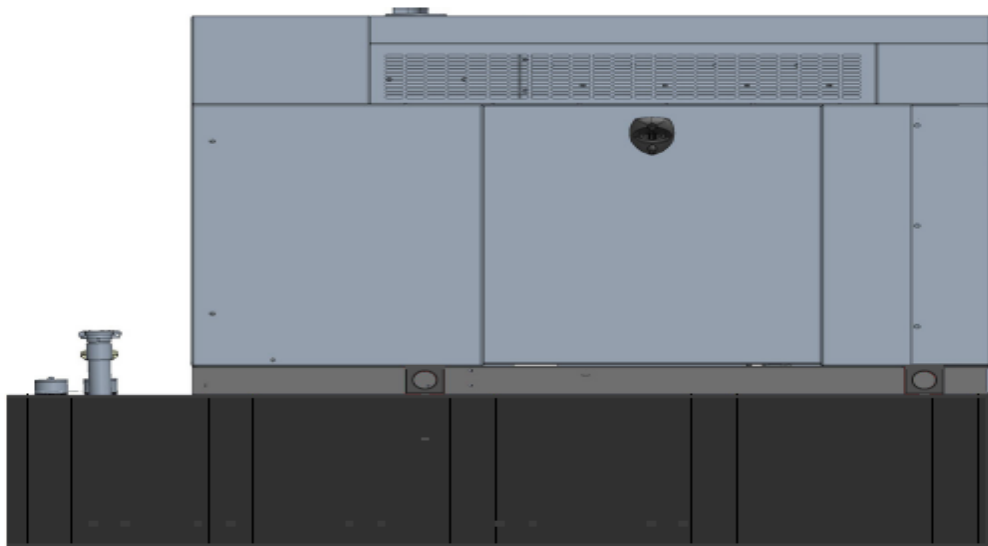
ELECTRICAL
SPECIFICATIONS

E-2

Sheet No. 6 of 6

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

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1 Introduction / Project Summary

1.1 Purpose of Project

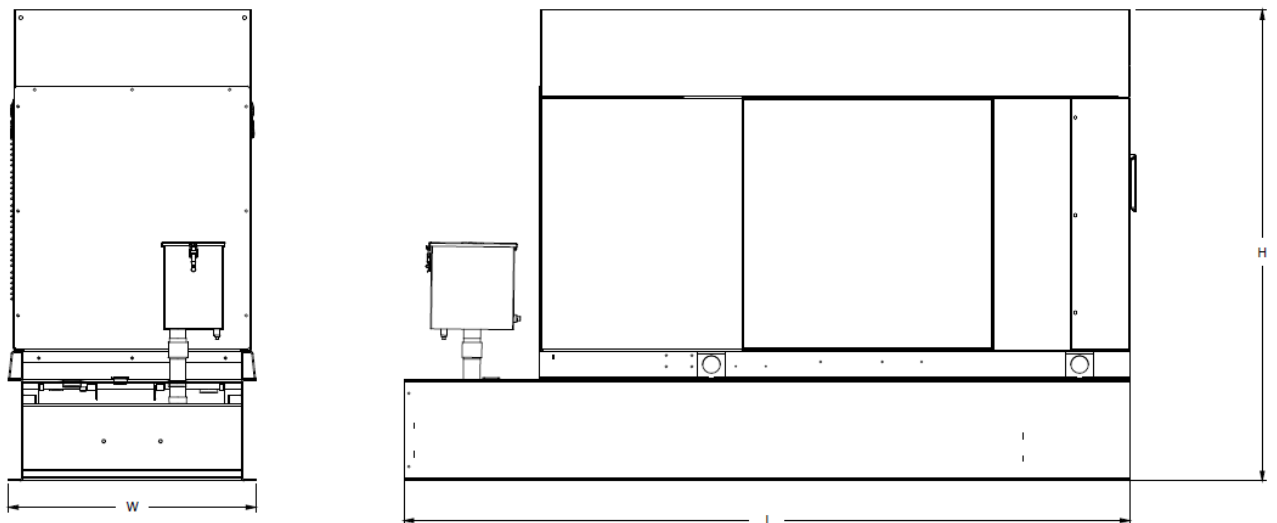
T-Mobile’s nationwide cell site hardening plan is providing a refuellable backup power system capable of powering a site for a minimum of 48 hours before refueling is required. The purpose of this project is to give T-Mobile customers reliable service during power outages and provide a sufficient layer 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 x 35 x 91.7. T-Mobile requires a 36-inch radius around the generator that will cover the 18” door swing on the generator.

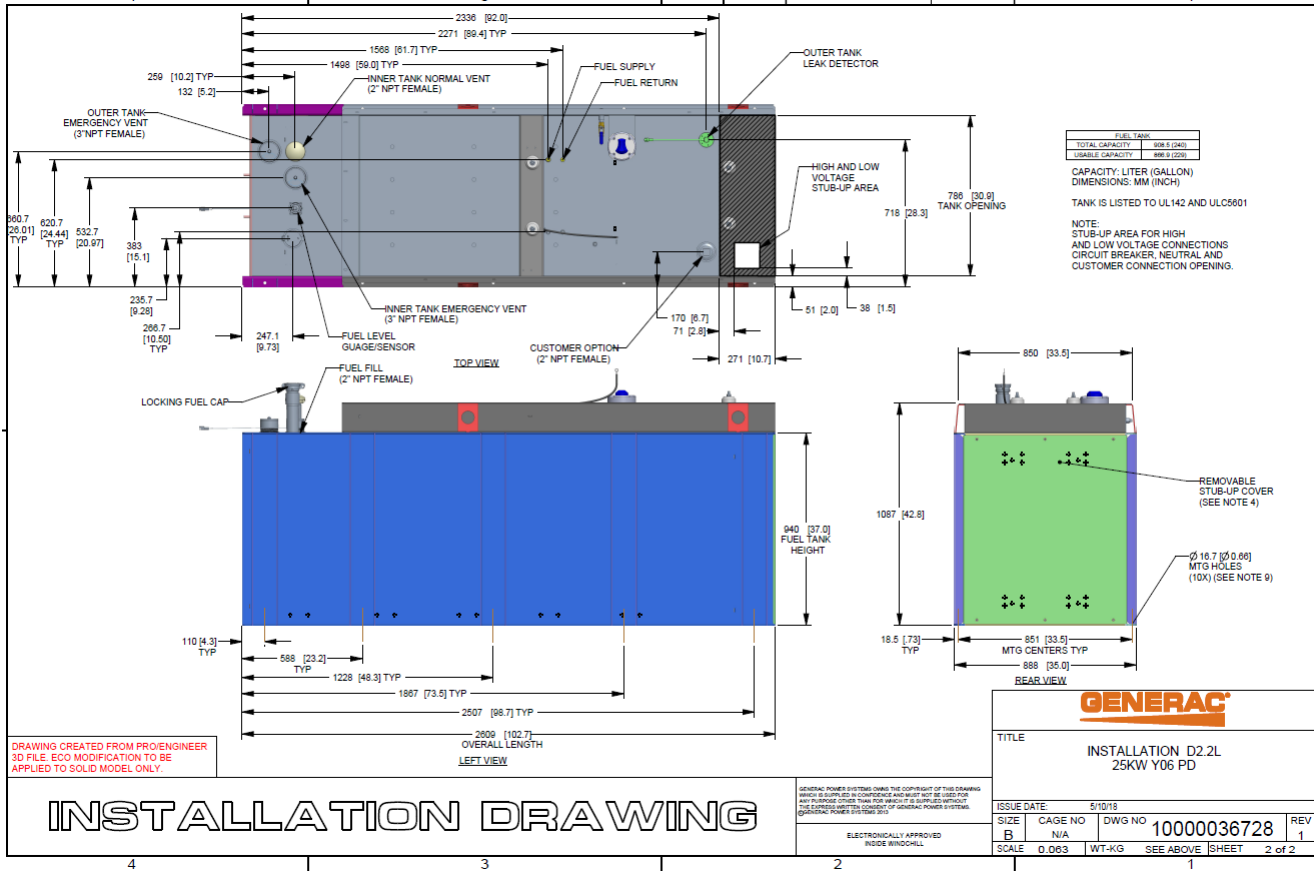


Weights and Dimensions

Unit Weight - lbs	Unit Weight with Skid - lbs	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

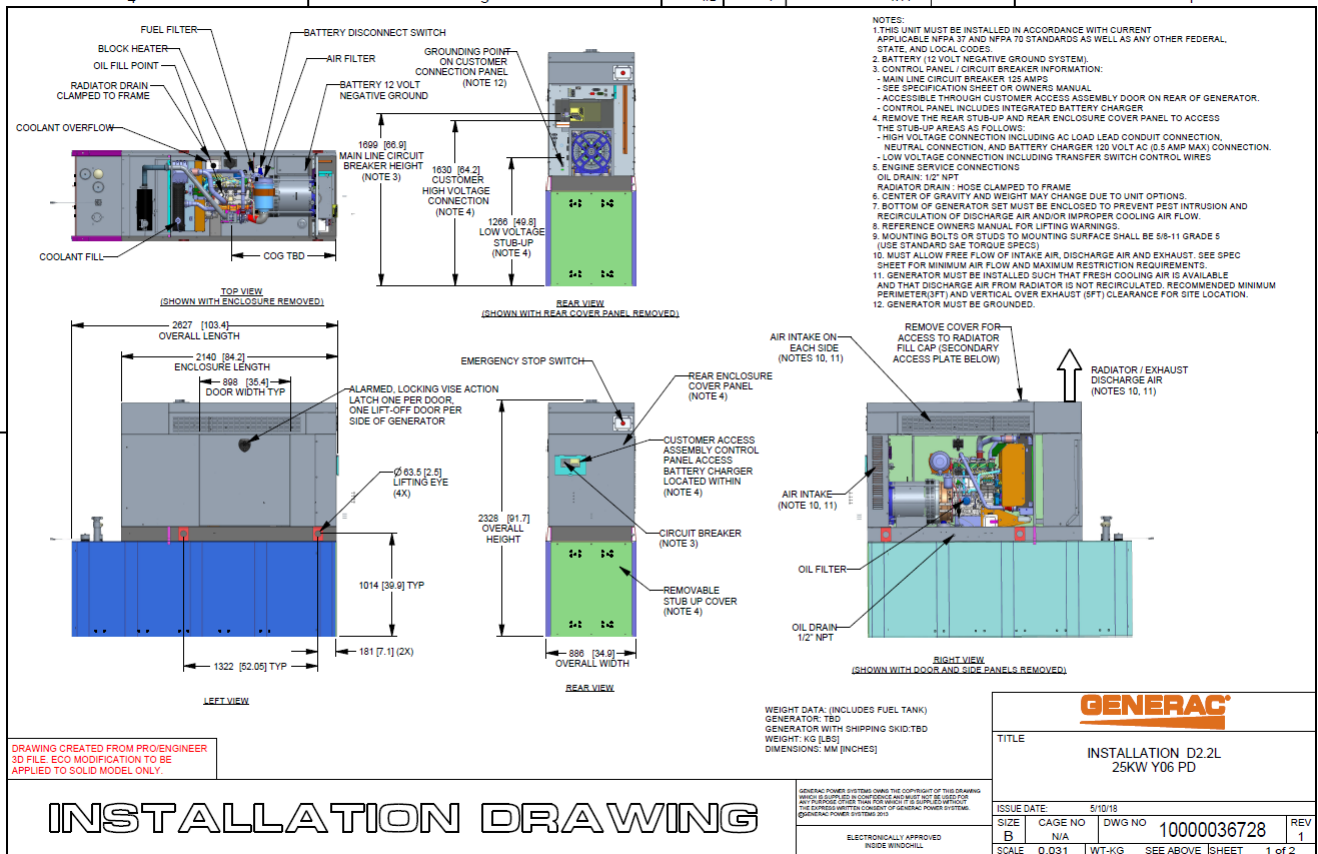
The RD025 will come with a RXSC200A3 and an Evollution controller. The sites considered for the RD025 should not have a DC power consumption above 20kW

RXSC200A3 [Link](#)

RXSC200A3 install drawing [Link](#)

Evolution controller spec sheet [Link](#)

RD025 installation drawings and supporting documentation [Link](#)

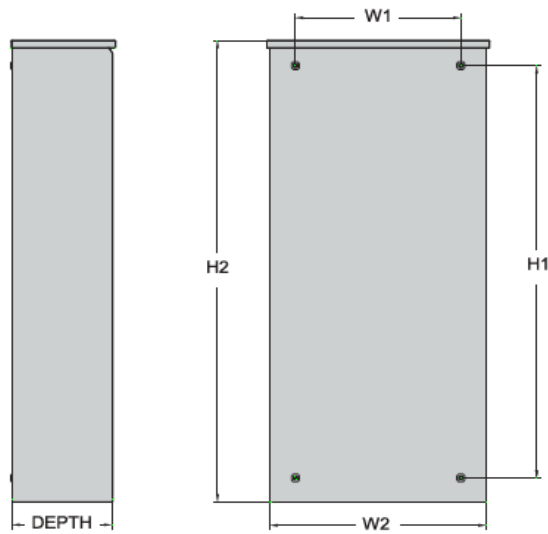


3.2 RXSC200A3 Automatic Transfer Switch

The RXSC200A3 (Automatic Transfer Switch) is equipped 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

RXSC200A3 Dimensions

Model		RXSC200A3
Height (in./mm)	H1	17.24/437.9
	H2	20/508
Width (in./mm)	W1	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 [Link](#) (The FSEE is the Nokia module that will be replacing the FSEB. For details on the FSEE contact: HQNokiaCellsiteDesigns@T-Mobile.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.

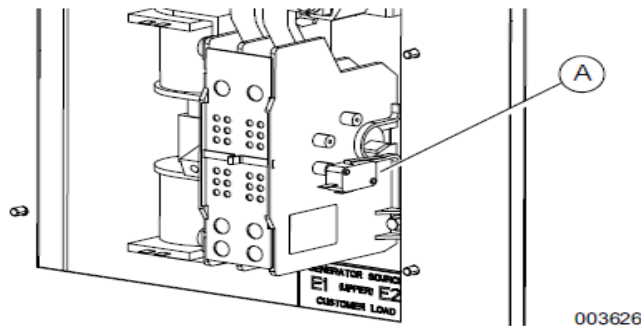


Figure 3-4. Auxiliary Contact

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.

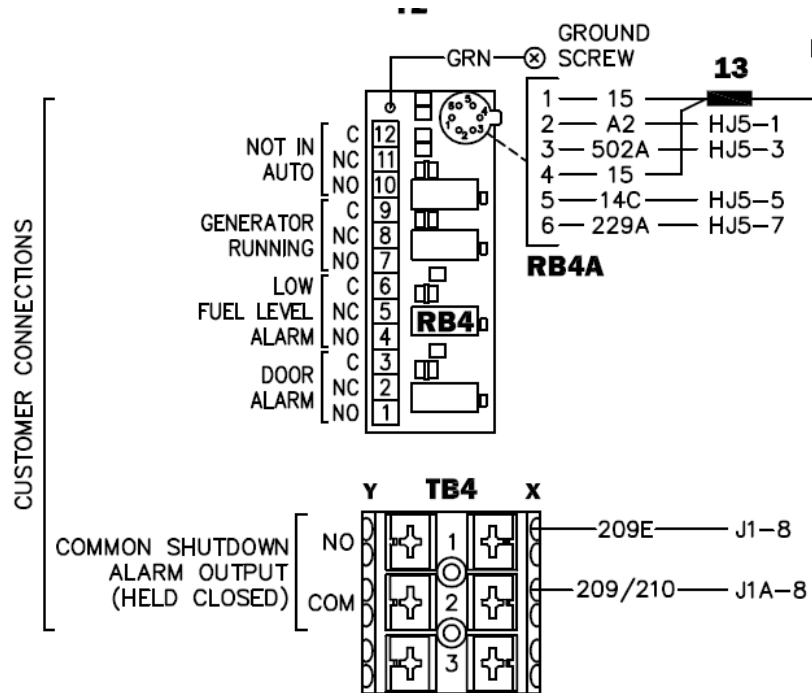
CAUTION

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



UTOVP-ALM8EXP	OVP Expansion Kit for 8 External Alarms	Qty
Product no	Denomination	
UTOVP-ALM8EXP	OVP Expansion Kit for 8 External Alarms	1
NFD30234/08	OVERVOLTAGE ARRESTER/OVP-ALM 8	1
RPM777143/01200	CABLE WITH CONNECTOR/SIGNAL CABLE	2

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

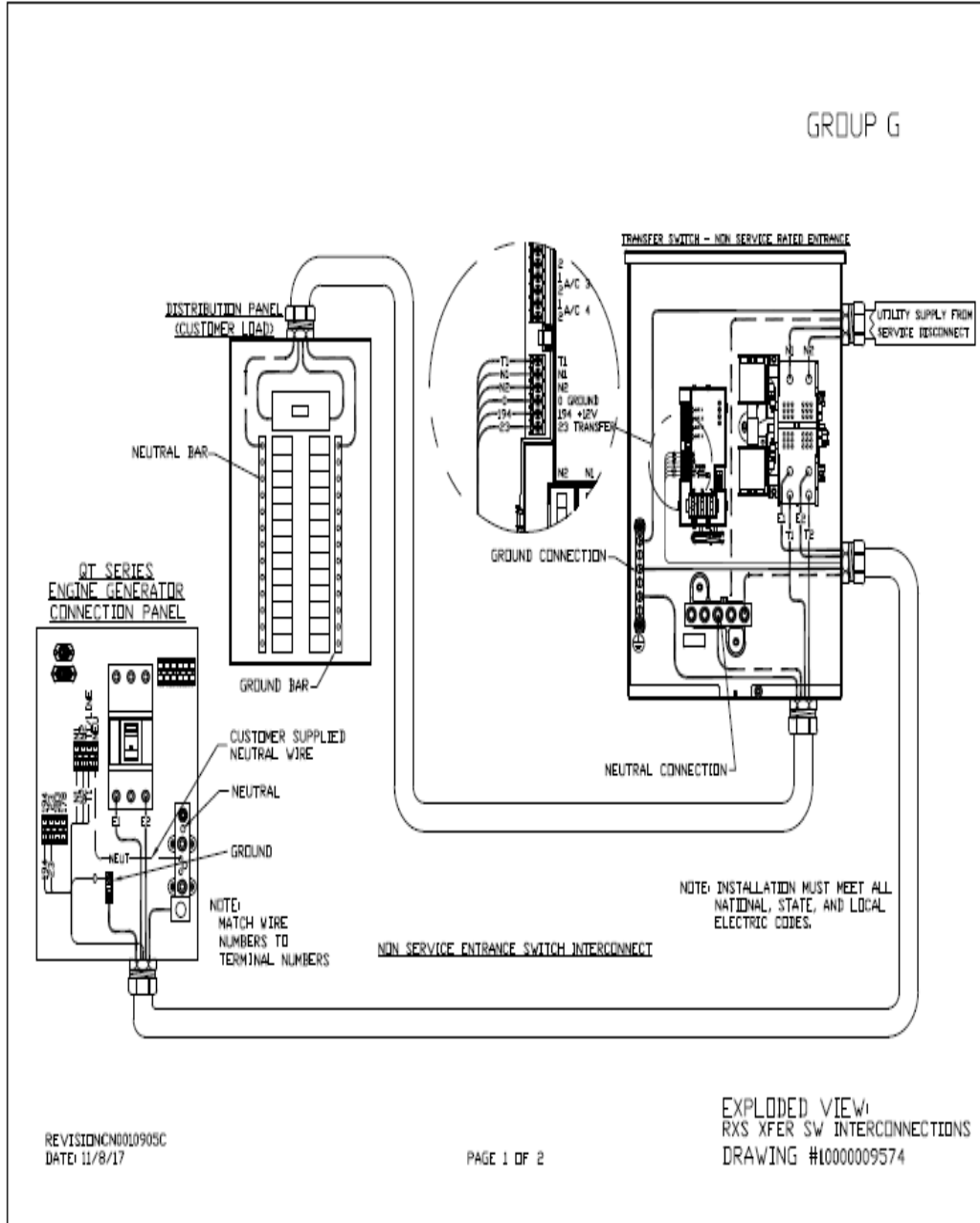
5 Regulatory Requirements

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.

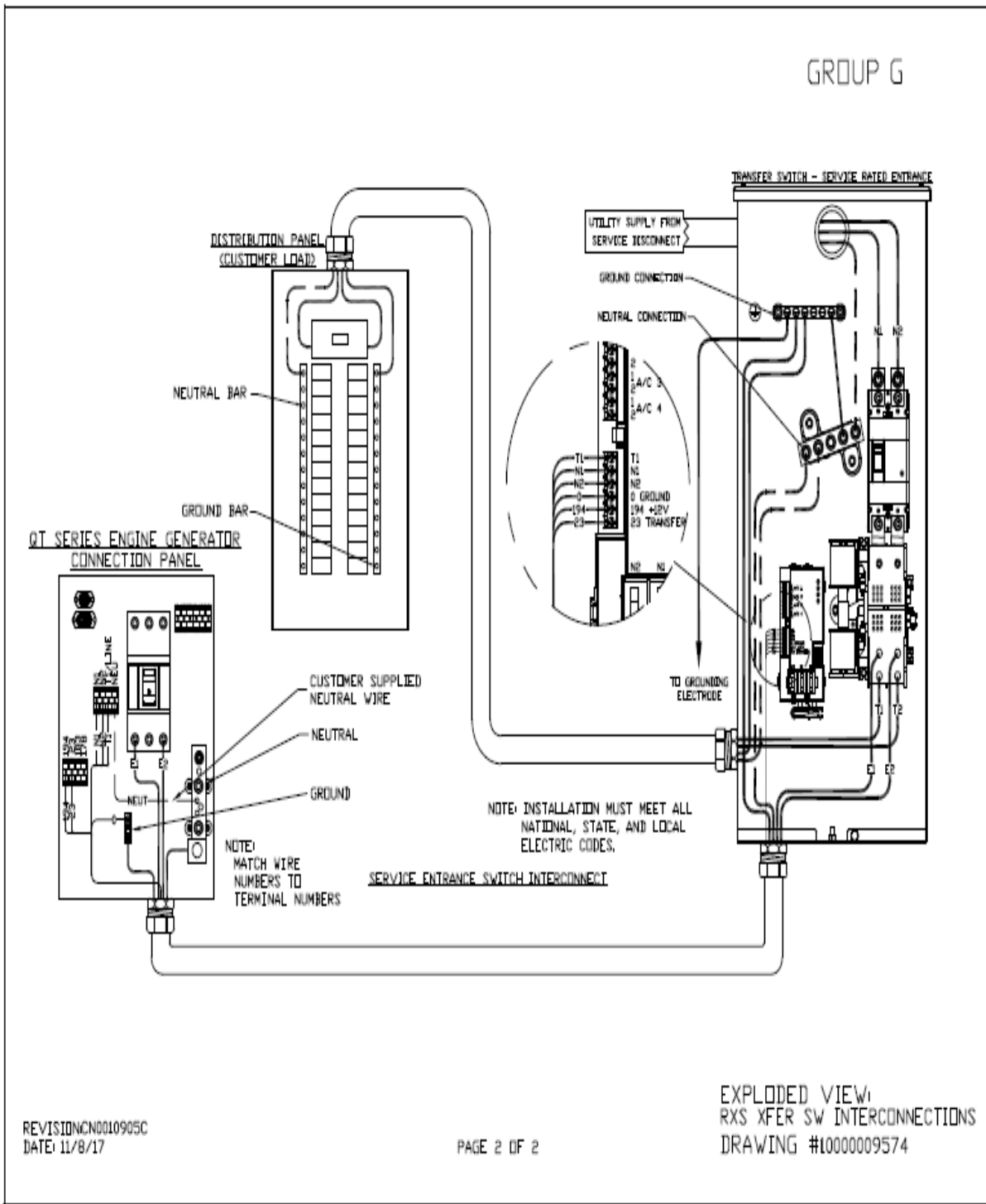
Commercial Power Connection Points
On The RXSC200A3



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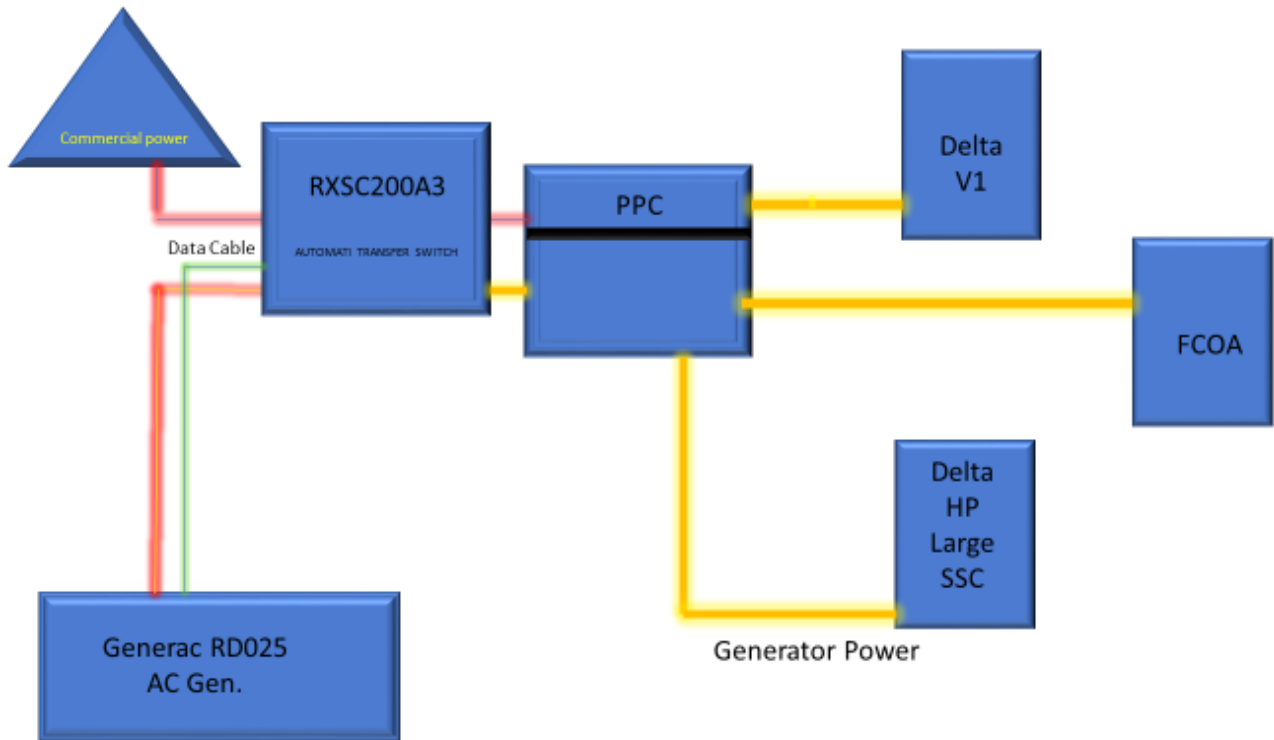
EXPLODED VIEW:
 RXS XFER SW INTERCONNECTIONS
 DRAWING #10000009574



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Compound Diagram:



7 Maintenance

T-Mobile is recommending preventive maintenance to be performed every 250 hours of run-time 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.
- 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.