

INDUSTRIAL AVE,  
STATE 3  
NEW BRITAIN NJ 07430  
PHONE: 201.684.0055  
FAX: 201.684.0066



January 7, 2022

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

RE: Notice of Exempt Modification  
156 Bokum Road / Middlesex Turnpike, Old Saybrook, CT 06475  
Latitude: 41.194130  
Longitude: -72.231965  
T-Mobile Site#: CT11335B - Hardening

Dear Ms. Bachman:

T-Mobile currently maintains three (3) antennas at the 155' level and three (3) antennas at the 167' level of the 200' guyed tower located at 156 Bokum Road/Middlesex Turnpike in Old Saybrook, CT. The guyed tower and property are owned by Crossroads Communications of Old Saybrook. T-Mobile now intends to add a 48 Kw generator to a proposed 10'x4' concrete pad within the existing compound.

**Planned Modifications:**

**Ground:**

Install New:

- (1) Generac RD048 48 Kw AC Diesel Generator - 229 gallon double walled self-contained tank with fuel sensor.
- (1) 10' x 4' Concrete Pad

This tower was approved by the Town of Old Saybrook with no existing conditions given. There are no dockets or petitions on the Connecticut Siting Council website that approved this site. After visiting the jurisdiction there were no original permits or approval letters for the tower on file. This modification will not break any conditions.

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-SOj-73, a copy of this letter is being sent to First Selectwoman Carl Fortuna Jr., Elected Official, and Christina Costa, Town Planner of Old Saybrook, as well as the property and tower owner.

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

1. The proposed modifications will not result in an increase in the height of the existing structure.
2. The proposed modifications will not require the extension of the site boundary.
3. The proposed modifications will not increase noise levels at the facility by six decibels or more, or to levels that exceed state and local criteria.
4. The operation of the replacement antennas will not increase radio frequency emissions at the facility to a level at or above the Federal Communications Commission safety standard.
5. The proposed modifications will not cause a change or alteration in the physical or environmental characteristics of the site.
6. The existing structure and its foundation can support the proposed loading.

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

Sincerely,

**Eric Breun**

Transcend Wireless

Cell: 201-658-7728

Email: [ebreun@transcendwireless.com](mailto:ebreun@transcendwireless.com)

Attachments

cc: Carl Fortuna Jr. - First Selectman of Old Saybrook

Christina Costa - Town Planner

Crossroads Communications of Old Saybrook - Property Owner

ERIC BREUN  
2016587728  
10 INDUSTRIAL AVE  
MAHWAH NJ 07430

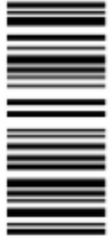
1 LBS

1 OF 1

**SHIP TO:**  
CHRISTINA COSTA  
302 MAIN STREET  
OLD SAYBROOK CT 06475

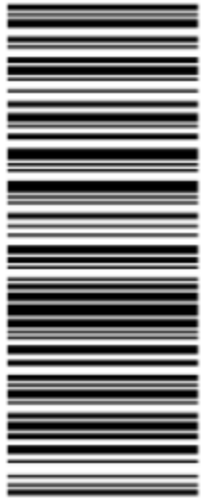


**CT 063 5-02**



**UPS GROUND**

TRACKING #: 1Z V25 742 03 9292 1941



BILLING: P/P

Reference #1: CT11335B

XOL 21.11.24

NV415 2.0A 01/2022\*



TM

ERIC BREUN  
2016587728  
10 INDUSTRIAL AVE  
MAHWAH NJ 07430

1 LBS

1 OF 1

**SHIP TO:**  
CARL FORTUNA JR  
302 MAIN STREET  
OLD SAYBROOK CT 06475



**CT 063 5-02**



**UPS GROUND**

TRACKING #: 1Z V25 742 03 9034 3936



BILLING: P/P

Reference #1: CT11335B

XOL 21.11.24

NV415 2.0A 01/2022\*



TM

ERIC BREUN  
2016587728  
10 INDUSTRIAL AVE  
MAHWAH NJ 07430

1 LBS

1 OF 1

**SHIP TO:**  
CROSSROADS COMM OF OLD SAYBROOK  
157 NORTH SEIR HILL ROAD  
**NORWALK CT 06850**

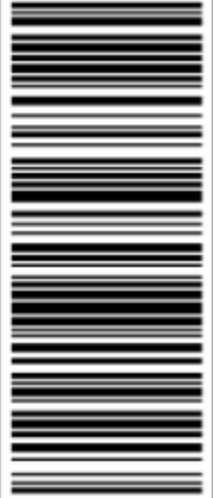


**CT 069 9-04**



**UPS GROUND**

TRACKING #: 1Z V25 742 03 9170 3956



BILLING: P/P

Reference #1: CT11335B

XOL 21.11.24 NWPB 2.0A 01/2022\*



**Hello, your package has been delivered.**

**Delivery Date:** Thursday, 01/06/2022

**Delivery Time:** 12:27 PM

**Left At:** INSIDE DELIV

**Signed by:** KANE

**TRANSCEND WIRELESS**

|                            |  |
|----------------------------|--|
| <b>Tracking Number:</b>    | <a href="#"><u>1ZV257420390343936</u></a>                          |
| <b>Ship To:</b>            | CARL FORTUNA JR<br>302 MAIN STREET<br>OLD SAYBROOK, CT 06475<br>US |
| <b>Number of Packages:</b> | 1  |
| <b>UPS Service:</b>        | UPS Ground   |
| <b>Package Weight:</b>     | 1.0 LBS  |
| <b>Reference Number:</b>   | CT11335B   |

**Hello, your package has been delivered.**

**Delivery Date:** Thursday, 01/06/2022

**Delivery Time:** 12:27 PM

**Left At:** INSIDE DELIV

**Signed by:** KANE

**TRANSCEND WIRELESS**

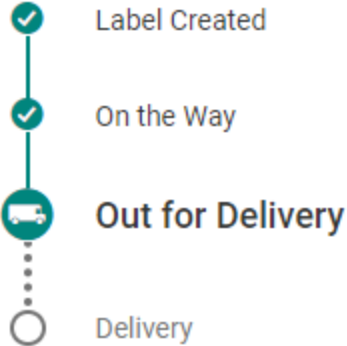
|                            |  |
|----------------------------|--|
| <b>Tracking Number:</b>    | <a href="#"><u>1ZV257420392921941</u></a>                          |
| <b>Ship To:</b>            | CHRISTINA COSTA<br>302 MAIN STREET<br>OLD SAYBROOK, CT 06475<br>US |
| <b>Number of Packages:</b> | 1  |
| <b>UPS Service:</b>        | UPS Ground   |
| <b>Package Weight:</b>     | 1.0 LBS  |
| <b>Reference Number:</b>   | CT11335B   |

Your shipment  
1ZV257420391703956

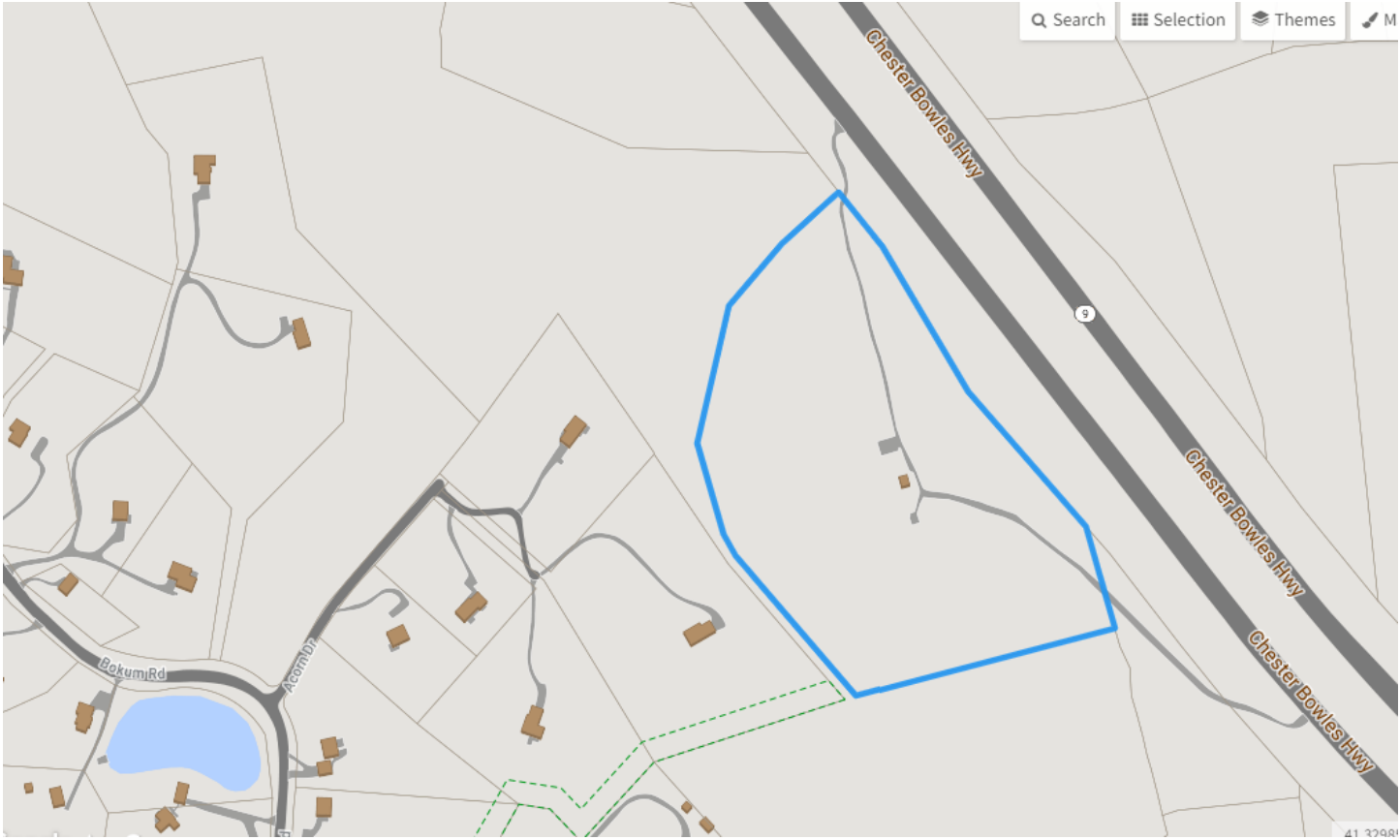
Estimated delivery

**Thursday, January 06 by 9:00 P.M.**

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Ship To  
NORWALK, CT US



# MIDDLESEX TPKE

[Print](#) [Map It](#)

**Location** MIDDLESEX TPKE **MBLU** 062/ 011/ / /

**Acct#** 00638200 **Owner** CROSSROADS COMMUNICATIONS OF OLD SAYBR

**Assessment** \$288,100 **Appraisal** \$411,500

**PID** 4146 **Building Count** 1

## Current Value

| Appraisal      |              |           |           |
|----------------|--------------|-----------|-----------|
| Valuation Year | Improvements | Land      | Total     |
| 2018           | \$113,400    | \$298,100 | \$411,500 |

| Assessment     |              |           |           |
|----------------|--------------|-----------|-----------|
| Valuation Year | Improvements | Land      | Total     |
| 2018           | \$79,400     | \$208,700 | \$288,100 |

## Owner of Record

**Owner** CROSSROADS COMMUNICATIONS OF OLD SAYBR **Sale Price** \$134,170  
**Co-Owner** **Certificate**  
**Address** 157 NORTH SEIR HILL RD **Book & Page** 0408/0993  
NORWALK, CT 06850 **Sale Date** 04/01/2002  
**Instrument** UNKQ

## Ownership History

| Ownership History                       |            |             |             |            |            |
|---|------------|-------------|-------------|------------|------------|
| Owner                                   | Sale Price | Certificate | Book & Page | Instrument | Sale Date  |
| RICE MICHAEL C & CAROLA & TELESKO DON W | \$0        |             | 0199/0254   |            | 10/20/1981 |

## Building Information

Building 1 : Section 1



Year Built:

0

Living Area:

| Building Attributes |             |
|---------------------|-------------|
| Field               | Description |
| Style               | Vacant Land |
| Model               |             |
| Grade:              |             |
| Stories:            |             |
| Occupancy           |             |
| Exterior Wall 1     |             |
| Exterior Wall 2     |             |
| Roof Structure:     |             |
| Roof Cover          |             |
| Interior Wall 1     |             |
| Interior Wall 2     |             |
| Interior Flr 1      |             |
| Interior Flr 2      |             |
| Heat Fuel           |             |
| Heat Type:          |             |
| AC Type:            |             |
| Total Bedrooms:     |             |
| Total Bthrms:       |             |
| Total Half Baths:   |             |
| Total Xtra Fixtrs:  |             |
| Total Rooms:        |             |

### Building Photo



### Building Layout

| Building Sub-Areas (sq ft)     | Legend |
|--------------------------------|--------|
| No Data for Building Sub-Areas |        |

|                |  |
|----------------|--|
| Bath Style:    |  |
| Kitchen Style: |  |
| Num Kitchens   |  |
| Cndtn          |  |
| Usrflid 103    |  |
| Usrflid 104    |  |
| Usrflid 105    |  |
| Usrflid 106    |  |
| Usrflid 107    |  |
| Num Park       |  |
| Fireplaces     |  |
| Usrflid 108    |  |
| Usrflid 101    |  |
| Usrflid 102    |  |
| Usrflid 100    |  |
| Usrflid 300    |  |
| Usrflid 301    |  |

**Extra Features**

| Extra Features             | Legend |
|----------------------------|--------|
| No Data for Extra Features |        |

**Land**

**Land Use**

**Use Code** 1300  
**Description** RES ACLNDV MDL-00 ⓘ  
**Zone** AAA

**Land Line Valuation**

**Size (Acres)** 13.69  
**Depth** 0  
**Assessed Value** \$208,700  
**Appraised Value** \$298,100

**Outbuildings**

| Outbuildings |             |          |                 |              |          | Legend |
|--------------|-------------|----------|-----------------|--------------|----------|--------|
| Code         | Description | Sub Code | Sub Description | Size         | Value    | Bldg # |
| CELL         | CELL TOWER  |          |                 | 180.00 UNITS | \$56,700 | 1      |
| CELL         | CELL TOWER  |          |                 | 180.00 UNITS | \$56,700 | 1      |

**Valuation History**

| Appraisal      |              |           |           |
|----------------|--------------|-----------|-----------|
| Valuation Year | Improvements | Land      | Total     |
| 2020           | \$113,400    | \$298,100 | \$411,500 |
| 2018           | \$113,400    | \$298,100 | \$411,500 |
| 2016           | \$94,600     | \$298,100 | \$392,700 |

| Assessment     |              |           |           |
|----------------|--------------|-----------|-----------|
| Valuation Year | Improvements | Land      | Total     |
| 2020           | \$79,400     | \$208,700 | \$288,100 |
| 2018           | \$79,400     | \$208,700 | \$288,100 |
| 2016           | \$66,200     | \$208,700 | \$274,900 |



# T-Mobile

SITE NAME: ROUTE 9 MIDDLESEX TURNPIKE

SITE ID: CT11335B

156 BOKUM RD  
OLD SAYBROOK, CT 06475

## 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.

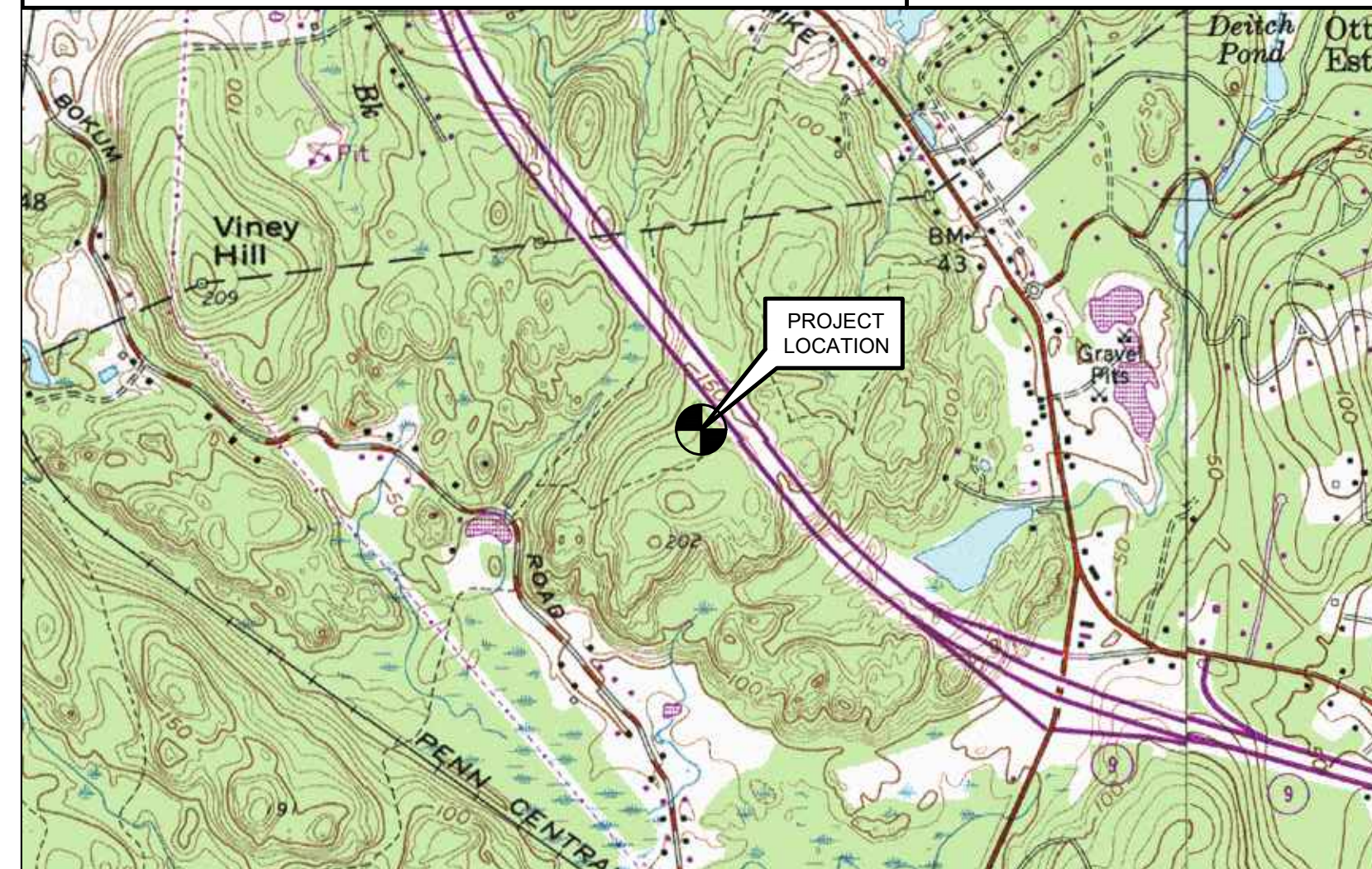
## SITE DIRECTIONS

**FROM:** 35 GRIFFIN ROAD SOUTH BLOOMFIELD, CT 06002 **TO:** 156 BOKUM RD OLD SAYBROOK, CT 06475

- START OUT GOING NORTH ON GRIFFIN RD TOWARD HARTMAN RD 0.30 MI.
- TURN RIGHT ONTO DAY HILL RD. 0.41 MI.
- TAKE THE 1ST RIGHT ONTO BLUE HILLS AVENUE EXT/CT-187. CONTINUE TO FOLLOW CT-187. 0.64 MI.
- STAY STRAIGHT TO GO ONTO BLUE HILLS AVE/CT-187. 2.74 MI.
- TURN LEFT ONTO E WINTONBURY AVE/CT-178. CONTINUE TO FOLLOW CT-178. 1.77 MI.
- MERGE ONTO I-91 S TOWARD HARTFORD. 15.56 MI.
- MERGE ONTO CT-9 S VIA EXIT 225 ON THE LEFT TOWARD MIDDLETOWN/OLD SAYBROOK. 25.55 MI.
- TAKE THE CT-154 EXIT, EXIT 3, TOWARD ESSEX/WESTBROOK/CT-153 0.26 MI.
- GO STRAIGHT TOWARD WESTBROOK. 0.12 MI.
- TURN RIGHT ONTO PLAINS RD/CT-153. 0.84 MI.
- TURN LEFT ONTO BOKUM RD. 1.33 MI.
- 156 BOKUM RD, OLD SAYBROOK, CT 06475-1247, 156 BOKUM RD.

SITE COORDINATES: LATITUDE: 41°-19'-41.30" N  
LONGITUDE: 72°-23'-19.65" W  
GROUND ELEVATION: 169± AMSL

COORDINATES AND GROUND ELEVATION ARE REFERENCED FROM GOOGLE EARTH



VICINITY MAP



## NOTE:

PREVIOUS ELECTRICAL UPGRADE TO BE COMPLETED PRIOR TO THE PROPOSED GENERATOR INSTALLATION. (CENTEK ENGINEERING JOB #21022.34)

## 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

## PROJECT INFORMATION

SITE NAME: ROUTE 9 MIDDLESEX TURNPIKE  
 SITE ID: CT11335B  
 SITE ADDRESS: 156 BOKUM RD OLD SAYBROOK, CT 06475  
 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: 41°-19'-41.30" N  
 LONGITUDE: 72°-23'-19.65" W  
 GROUND ELEVATION: 169± AMSL  
 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 AND EQUIPMENT PLANS     | 0    |
| C-2      | TYPICAL EQUIPMENT DETAILS        | 0    |
| E-1      | ELECTRICAL RISER DIAGRAM         | 0    |
| E-2      | ELECTRICAL SPECIFICATIONS        | 0    |

PROFESSIONAL ENGINEER SEAL

**T-MOBILE NORTHEAST LLC**  
**ROUTE 9 MIDDLESEX TURNPIKE**  
**SITE ID: CT11335B**  
**156 BOKUM RD**  
**OLD SAYBROOK, CT 06475**

DATE: 08/31/21  
 SCALE: AS NOTED  
 JOB NO. 21003.28

TITLE SHEET

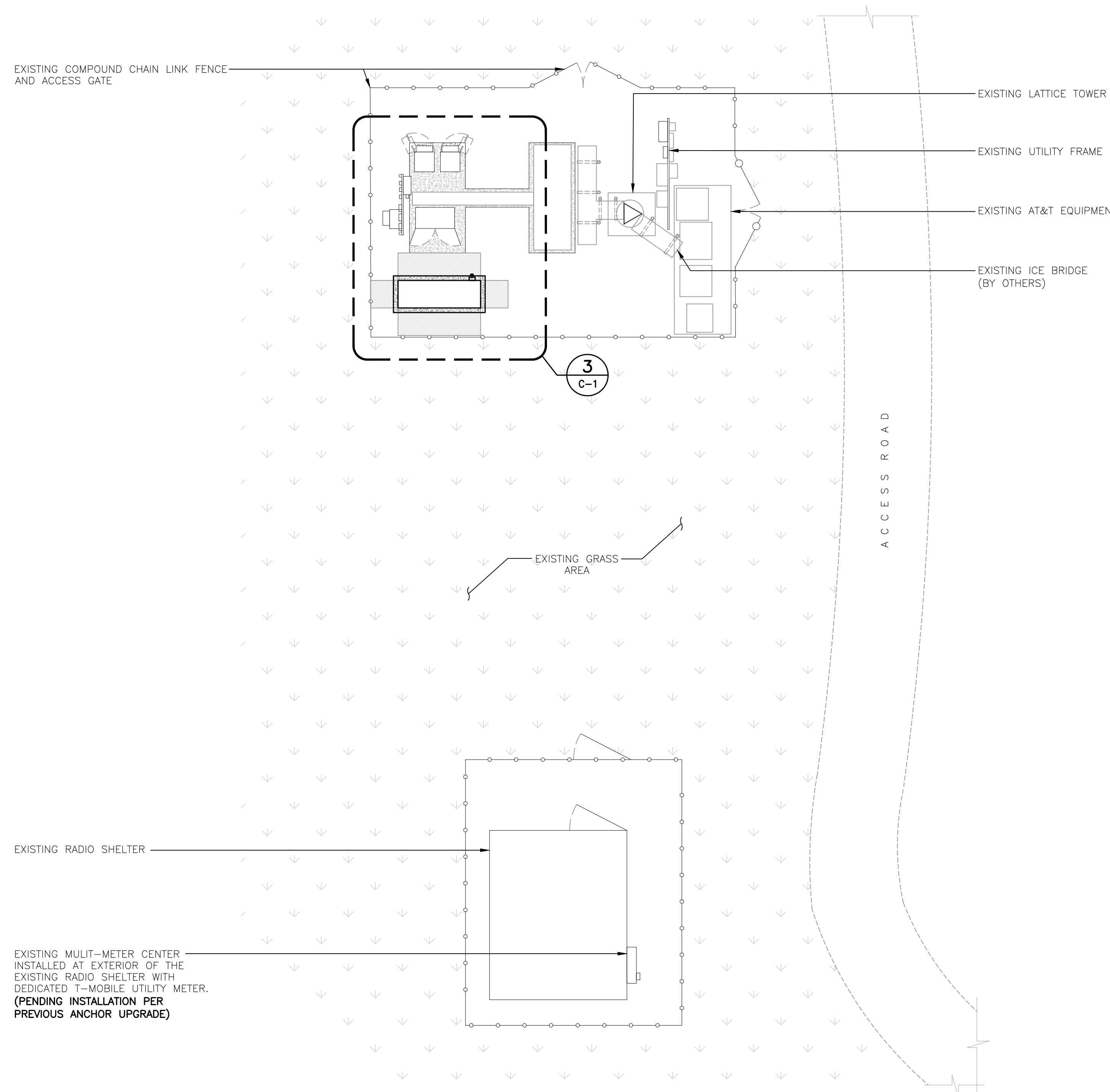
**T-1**

Sheet No. 1 of 6

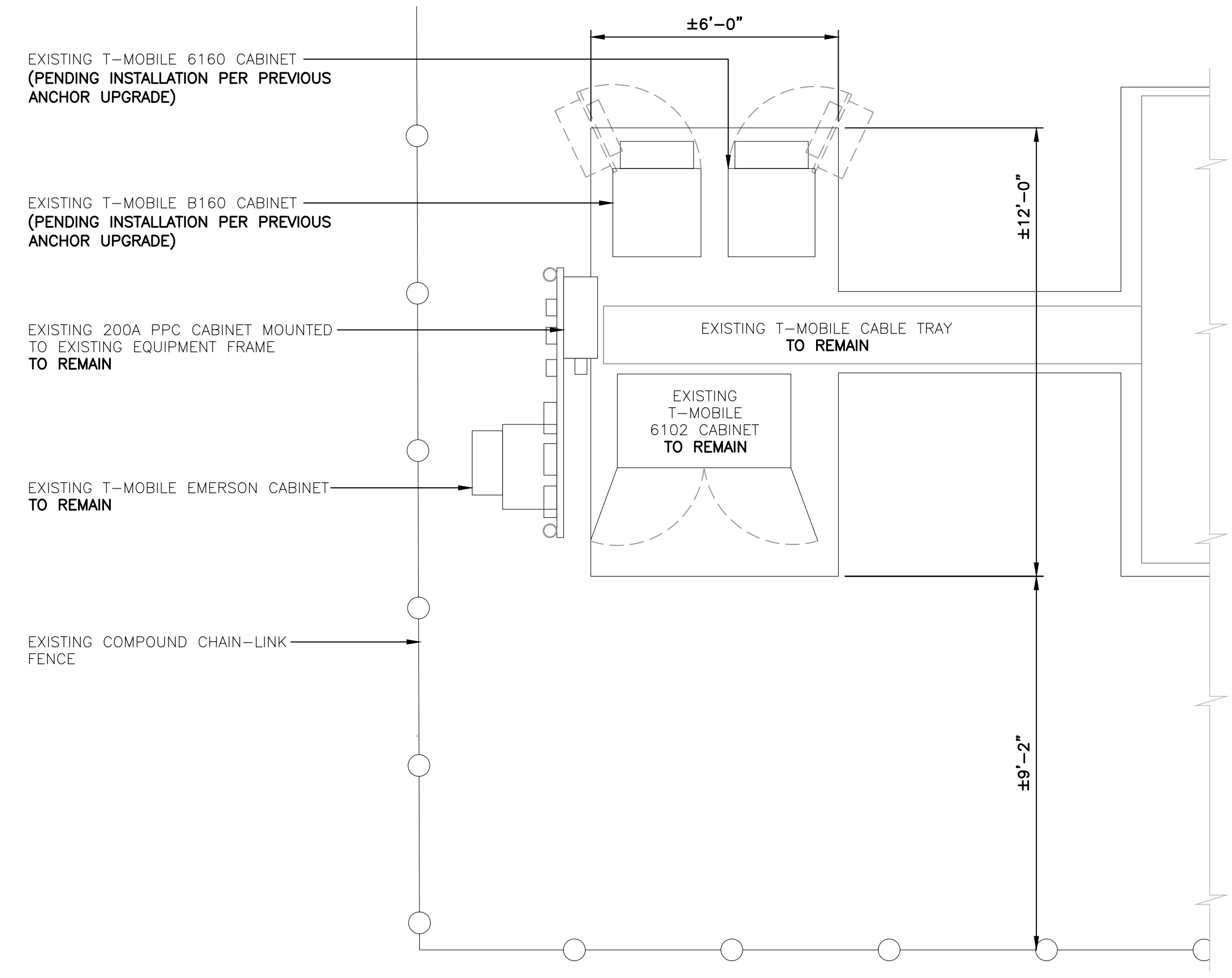
CONSTRUCTION DRAWINGS - ISSUED FOR CONSTRUCTION  
 DRAWN BY: CKD  
 DATE: 12/28/21  
 REV. 0



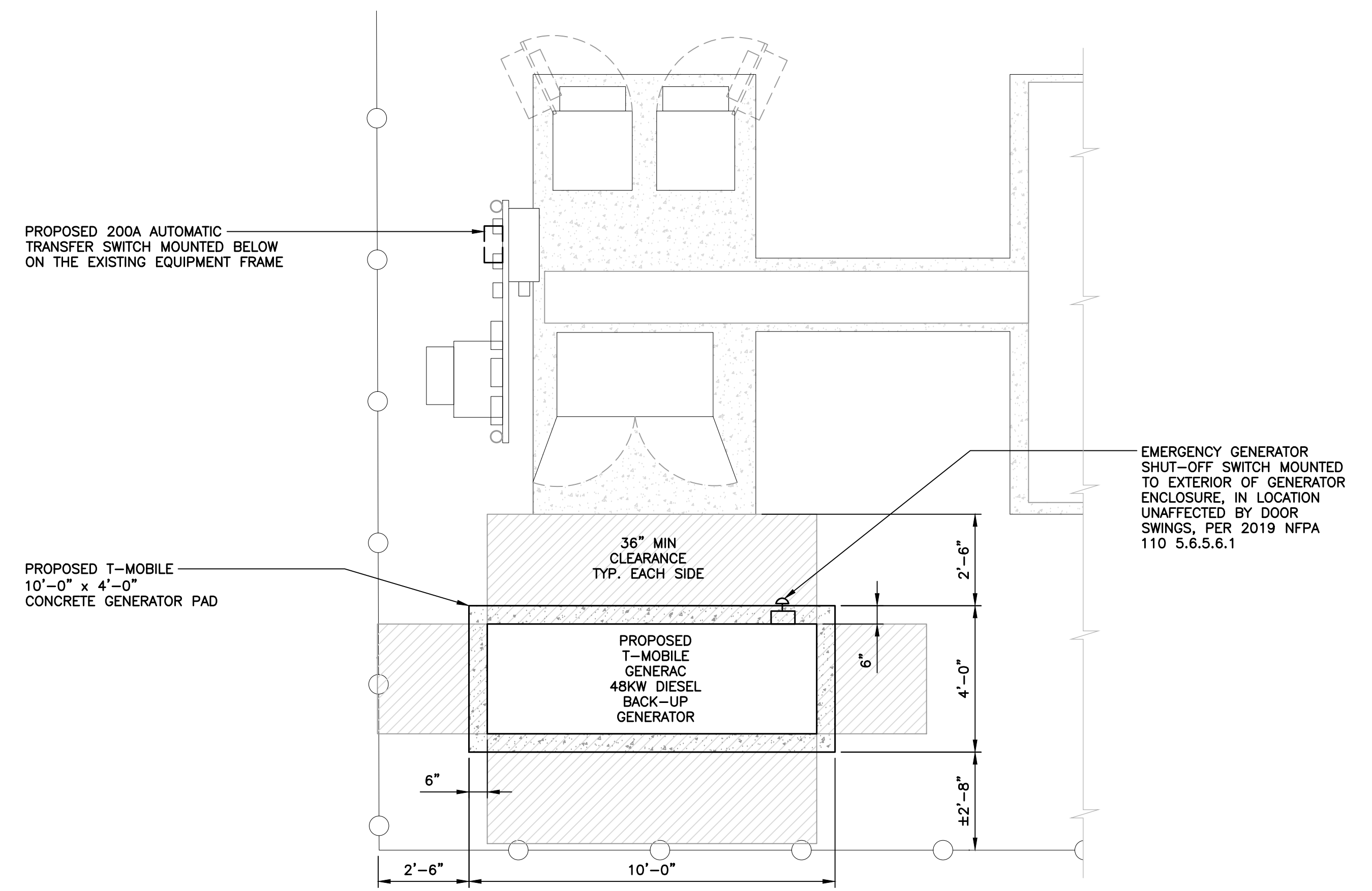




**1**  
C-1  
**COMPOUND PLAN - PROPOSED**  
SCALE: 1" = 8'  
TRUE NORTH



**2**  
C-1  
**EQUIPMENT PLAN - EXISTING**  
SCALE: 3/8" = 1'  
TRUE NORTH



**3**  
C-1  
**EQUIPMENT PLAN - PROPOSED**  
SCALE: 3/8" = 1'  
TRUE NORTH

|                        |  |   |  |
|------------------------|--|---|--|
| T-MOBILE NORTHEAST LLC |  | ROUTE 9 MIDDLESEX TURNPIKE<br>SITE ID: CT11335B<br>156 BOKUM RD<br>OLD SAYBROOK, CT 06475 |  |
| DATE: 08/31/21         |  | SCALE: AS NOTED   |  |
| JOB NO. 21003.28       |  | COMPOUND AND EQUIPMENT PLANS  |  |
| Sheet No. 3 of 6       |  | C-1   |  |

PROFESSIONAL ENGINEER SEAL

**T-Mobile**

True North

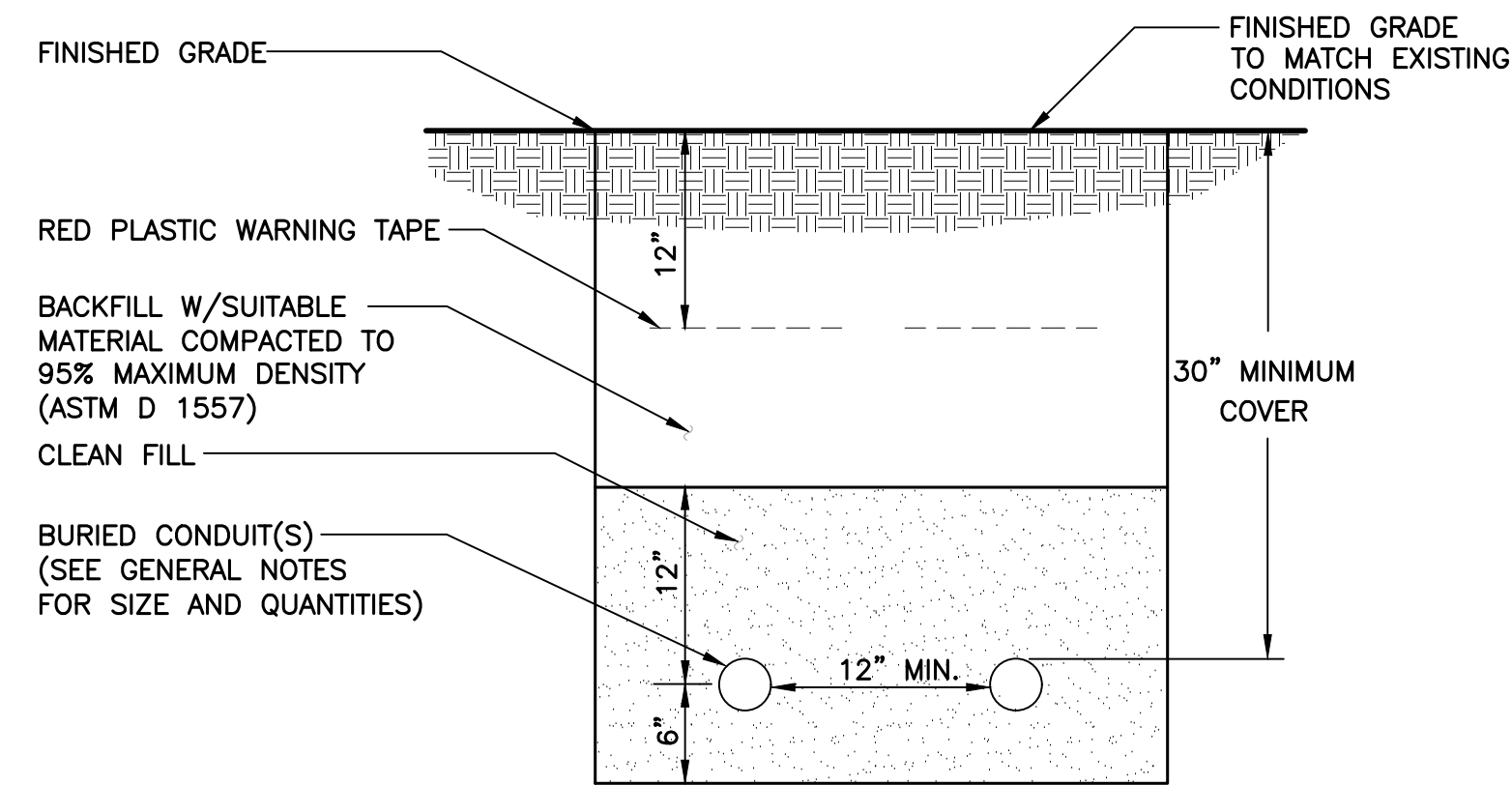
**CENTEX** engineering

Centered on Solutions

(203) 488-0380  
(203) 488-8587 Fax  
65-2 North Branford Road  
Branford, CT 06405  
www.CentexEng.com

| REV. | DATE     | BY  | CHK'D BY | DESCRIPTION                                     |
|------|----------|-----|----------|---|
| 0    | 12/28/21 | RTS | ANC      | CONSTRUCTION DRAWINGS - ISSUED FOR CONSTRUCTION |





**NOTES:**

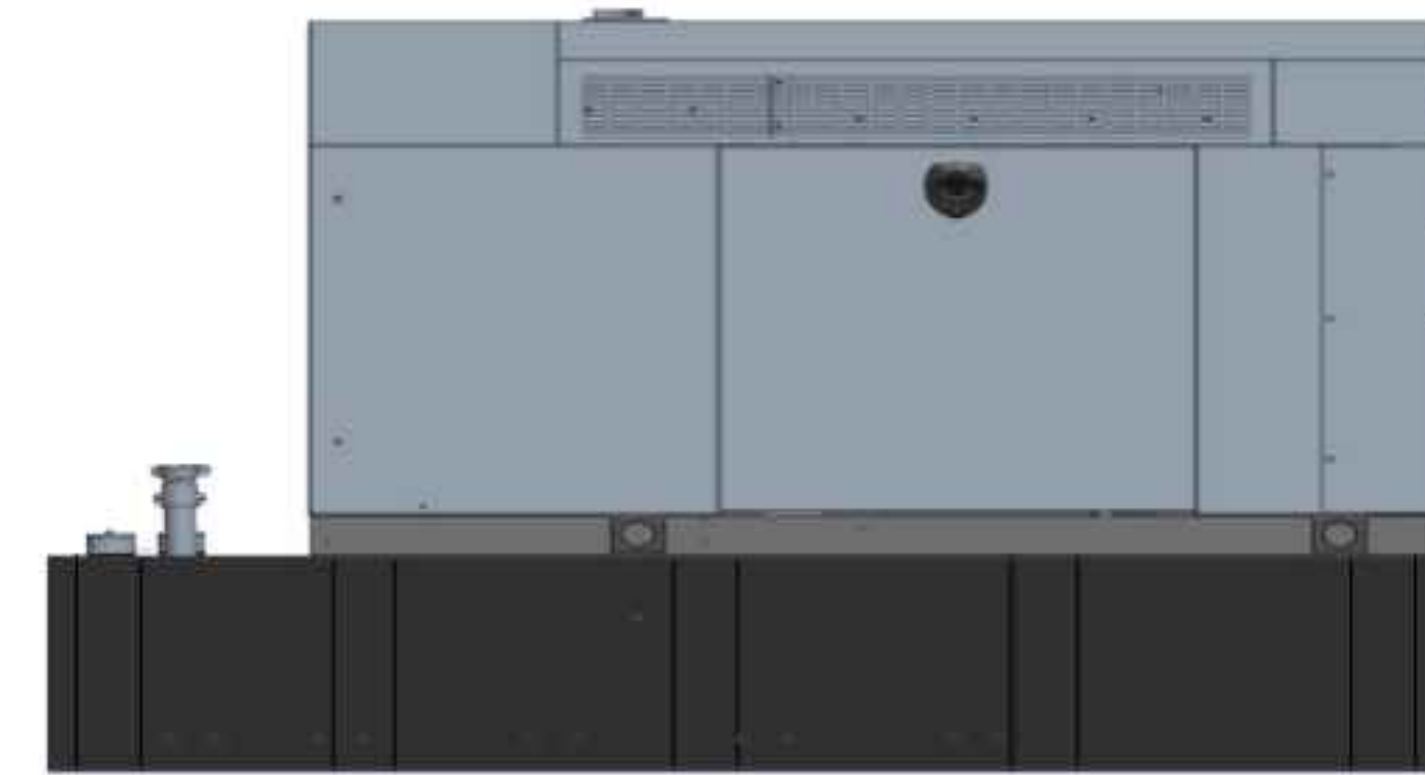
1. THE CLEAN FILL SHALL PASS THROUGH A 3/8" MESH SCREEN AND SHALL NOT CONTAIN SHARP STONES. OTHER BACKFILL SHALL NOT CONTAIN ASHES, CINDERS, SHELLS, FROZEN MATERIAL, LOOSE DEBRIS OR STONES LARGER THAN 2" IN MAXIMUM DIMENSION.
2. WHERE EXISTING UTILITIES ARE LIKELY TO BE ENCOUNTERED, CONTRACTOR SHALL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

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



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

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

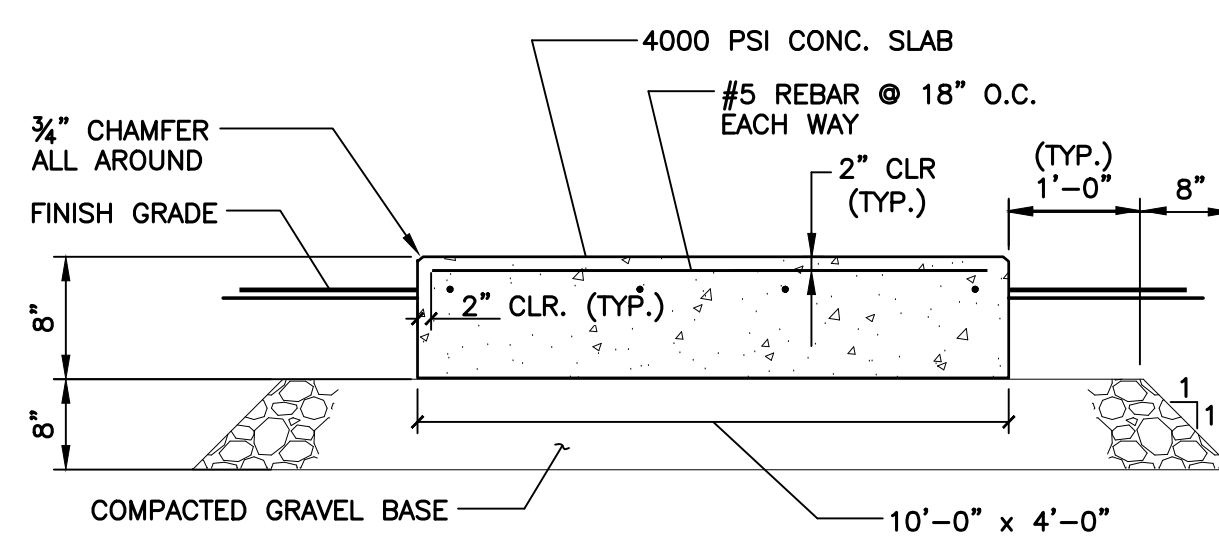


| BACKUP POWER GENERATOR       |                 |        |              |                      |                           |           |
|------------------------------|-----------------|--------|--------------|----------------------|---------------------------|-----------|
| EQUIPMENT                    | POWER GENERATED | FUEL   | MODEL NUMBER | FUEL TANK SIZE (GAL) | DIMENSIONS                | WEIGHT    |
| MAKE: GENERAC<br>MODEL: RD48 | 48 KW, AC       | DIESEL | 7960-0       | 229                  | 103.4"L x 35.0"W x 91.7"H | 2915 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



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



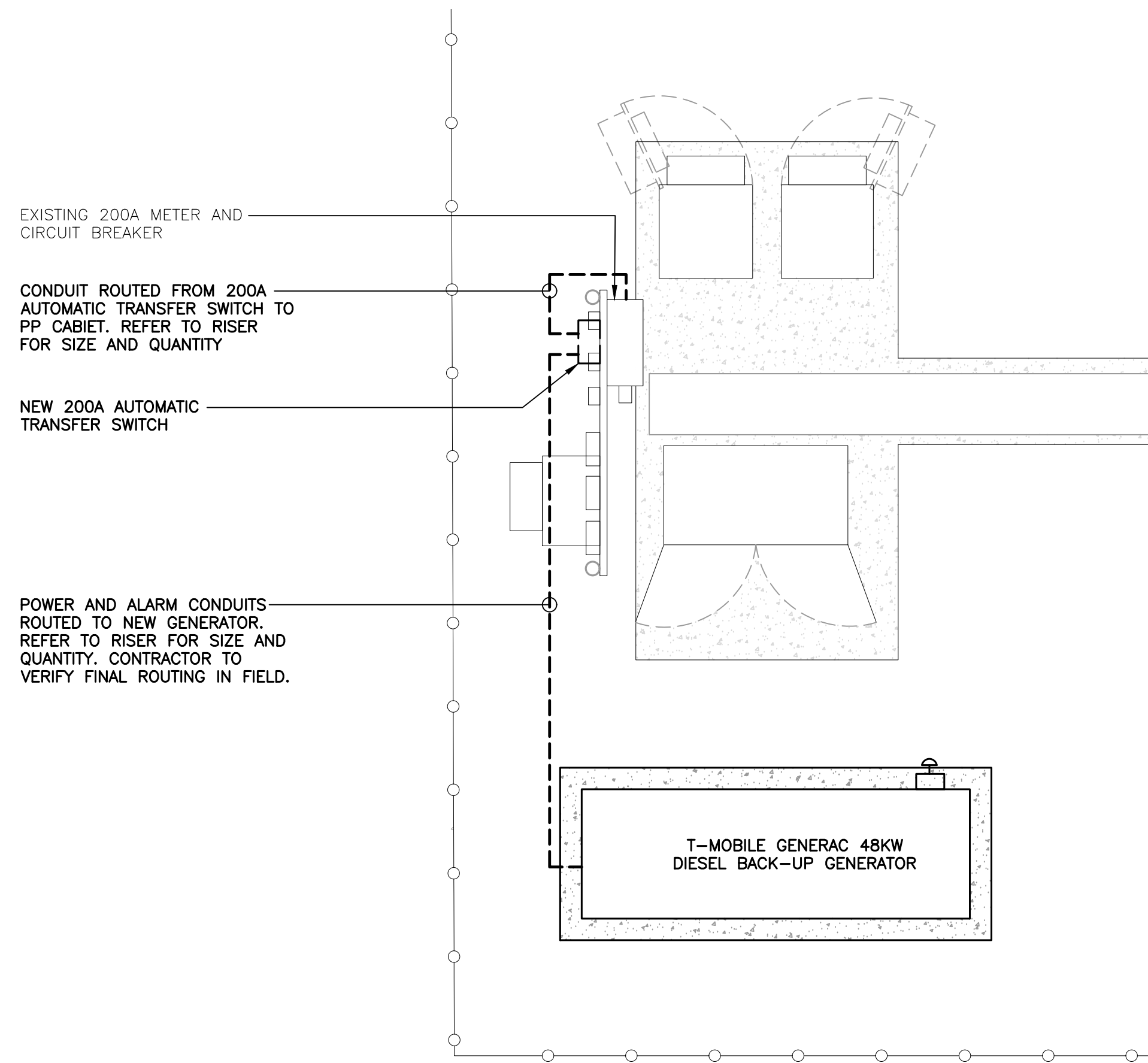
**NFPA 704 HAZARD ID LEGEND:**  
RED: FLAMMABILITY  
BLUE: HEALTH  
YELLOW: REACTIVITY  
WHITE: BLANK

**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 FILLING 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 |
|   | DATE: 08/31/21                                  |
|   | SCALE: AS NOTED                                 |
|   | JOB NO. 21003.28                                |
| T-MOBILE NORTHEAST LLC<br>ROUTE 9 MIDDLESEX TURNPIKE<br>SITE ID: CT11335B<br>156 BOKUM RD<br>OLD SAYBROOK, CT 06475 | TYPICAL EQUIPMENT DETAILS                       |
| (203) 488-0380<br>(203) 488-8587 Fax<br>65-2 North Branford Road<br>Branford, CT 06405<br>www.CentekEng.com         | C-2   |
| Sheet No. 4 of 6  |   |



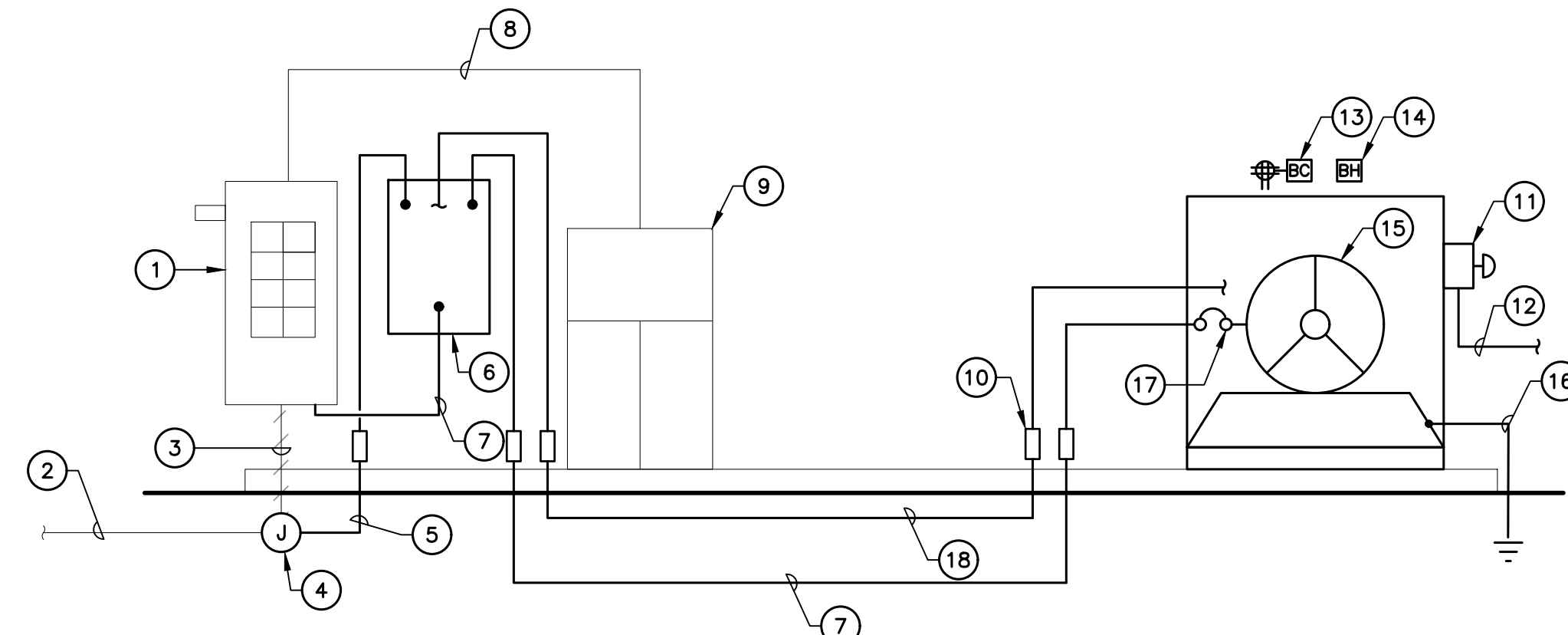
**1 ELECTRICAL CONDUIT ROUTING PLAN**  
E-1 SCALE: 1/4" = 1'

**RISER DIAGRAM NOTES**

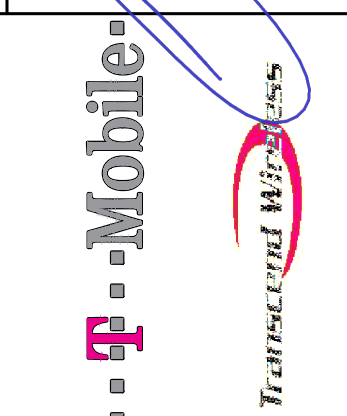
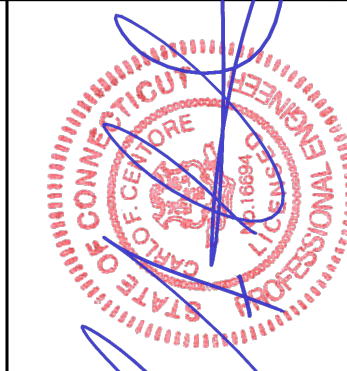
- ① EXISTING 200A PPC CABINET TO REMAIN
- ② EXISTING POWER CONDUIT AND CONDUCTORS PREVIOUSLY SERVING EXISTING PANEL.
- ③ SECTION OF CONDUIT AND CONDUCTORS TO BE REMOVED.
- ④ JUNCTION BOX SIZED PER NEC.
- ⑤ EXTEND EXISTING CONDUITS AND CONDUCTORS TO NEW ATS.
- ⑥ NEW 200A, 2 SOURCE AUTOMATIC TRANSFER SWITCH.
- ⑦ (3) #3/0 AWG, (1) #6 AWG GROUND, 2-1/2" CONDUIT.
- ⑧ EXISTING CONDUITS AND CONDUCTORS TO REMAIN
- ⑨ EXISTING EQUIPMENT CABINETS TO REMAIN.
- ⑩ EXPANSION COUPLING TYPICAL.

**RISER DIAGRAM NOTES**

- ⑪ REMOTE GENERATOR SHUT OFF SWITCH IN BREAK GLASS ENCLOSURE MOUNTED TO EXTERIOR OF GENERATOR ENCLOSURE PER 2019 NFPA 110 5.6.5.6.1.
- ⑫ 3/4" CONDUIT AND CONDUCTORS REQUIRED FOR PROPER OPERATION OF EMERGENCY GENERATOR SHUT OFF SWITCH.
- ⑬ GENERATOR BATTERY CHARGER AND CONVENIENCE GFCI OUTLET WIRED TO EXISTING PANEL. OUTLET TO BE MOUNTED IN WEATHERPROOF ENCLOSURE.
- ⑭ GENERATOR BLOCK HEATER WIRED TO EXISTING PANEL.
- ⑮ 48KW EMERGENCY BACK UP GENERATOR.
- ⑯ GENERATOR GROUNDING PER NEC AND MANUFACTURER'S REQUIREMENTS. BOND TO EXISTING GROUNDING SYSTEM. (MINIMUM OF (1) #2 AWG GROUND)
- ⑰ GENERATOR OUTPUT CIRCUIT BREAKER.
- ⑱ 1" CONDUIT FOR GENERATOR CONTROL AND SIGNAL WIRING.



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



**CENTEX** engineering  
Centered on Solutions  
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652 North Branford Road  
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www.CentexEng.com

**T-MOBILE NORTHEAST LLC**  
ROUTE 9 MIDDLESEX TURNPIKE  
SITE ID: CT11335B  
156 BOKUM RD  
OLD SAYBROOK, CT 06475

DATE: 08/31/21  
SCALE: AS NOTED  
JOB NO. 21003.28

**ELECTRICAL RISER DIAGRAM**

**E-1**  
Sheet No. 5 of 6

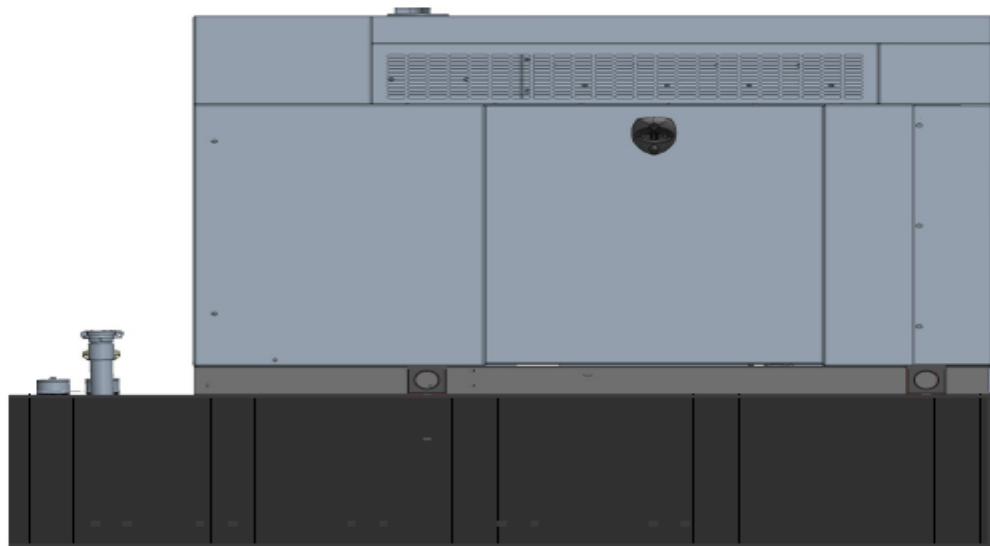
| REV. | DATE     | BY  | CHK'D BY | DESCRIPTION                                     |
|------|----------|-----|----------|---|
| 0    | 12/28/21 | RTS | ANC      | CONSTRUCTION DRAWINGS - ISSUED FOR CONSTRUCTION |





# 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 (nnnnn without the D) to find the location of the master document. |                         |           |
| Template URL:                | <a href="http://docs.eng.t-mobile.com/InfoRouter/docs/~D423750">http://docs.eng.t-mobile.com/InfoRouter/docs/~D423750</a>       | Slightly updated 1/2011 |           |



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# 1 Introduction / Project Summary

## 1.1 Purpose of Project

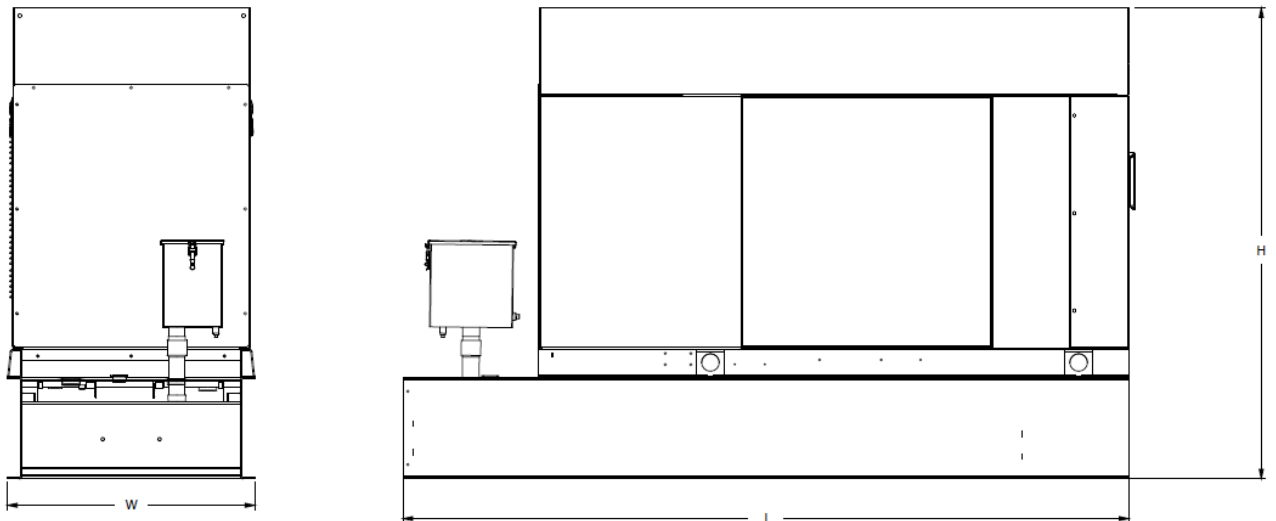
T-Mobile’s nationwide cell site hardening plan is providing a refuellable backup power system capable of powering a site for a minimum of 48 hours before refueling is required. The purpose of this project is to give T-Mobile customers reliable service during power outages and provide a sufficient layer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

## 1.2 Feature Description

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

## 1.3 Dimensions

The dimensions of a level 2 Acoustic Enclosure L x W x H in inches 103.4 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.

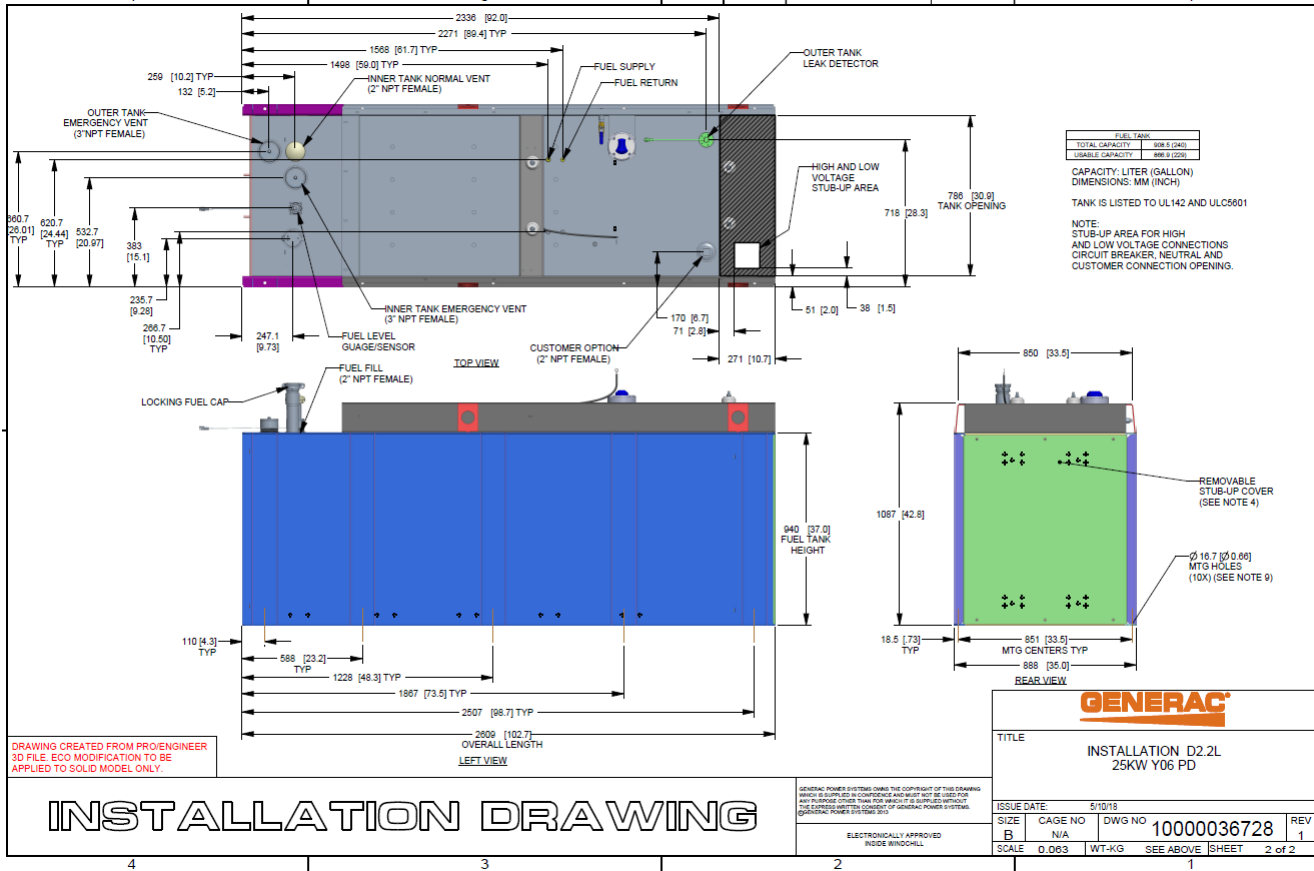


Weights and Dimensions

| 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

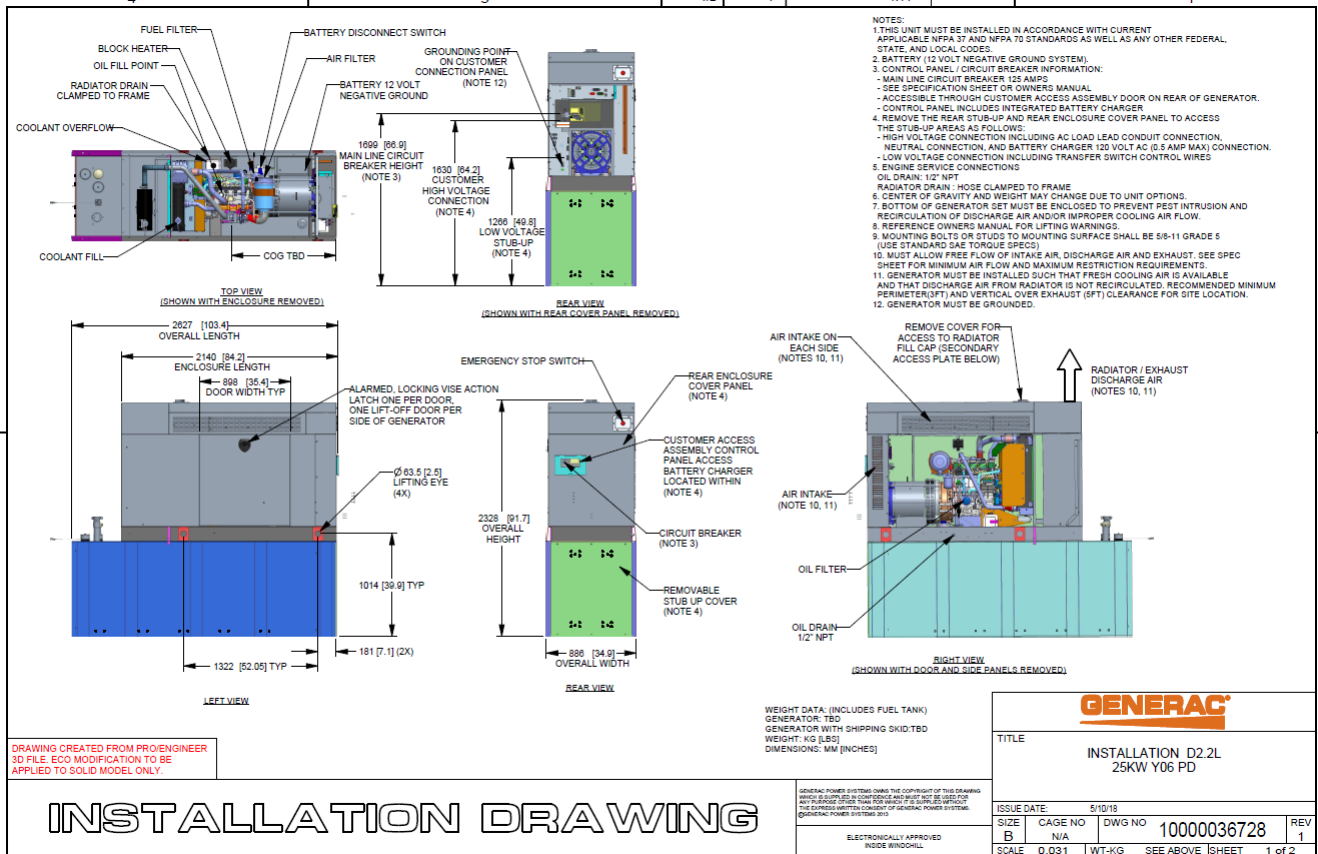
The RD025 will come with a RXSC200A3 and an Evollution controller. The sites considered for the RD025 should not have a DC power consumption above 20kW

RXSC200A3 [Link](#)

RXSC200A3 install drawing [Link](#)

Evolution controller spec sheet [Link](#)

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

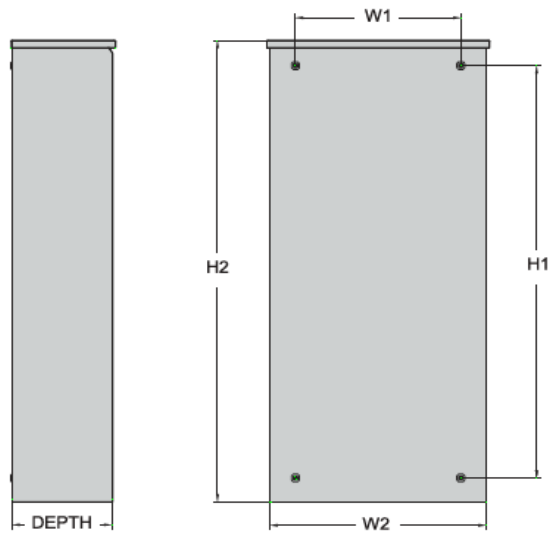


### 3.2 RXSC200A3 Automatic Transfer Switch

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.

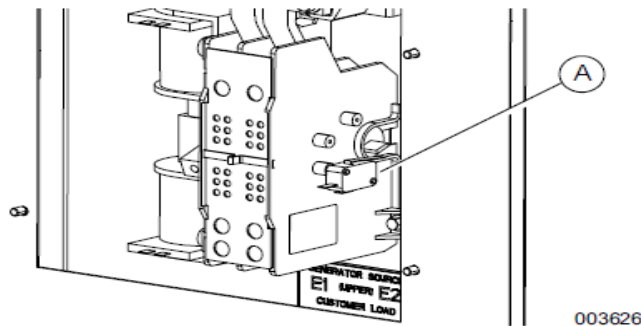
At a Nokia site, this connection is at the FSEB or an FSEE module. For the wiring diagram and instructions for the FSEB click the [Link](#) (The FSEE is the Nokia module that will be replacing the FSEB. For details on the FSEE contact: HQNokiaCellsiteDesigns@T-Mobile.com)

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**

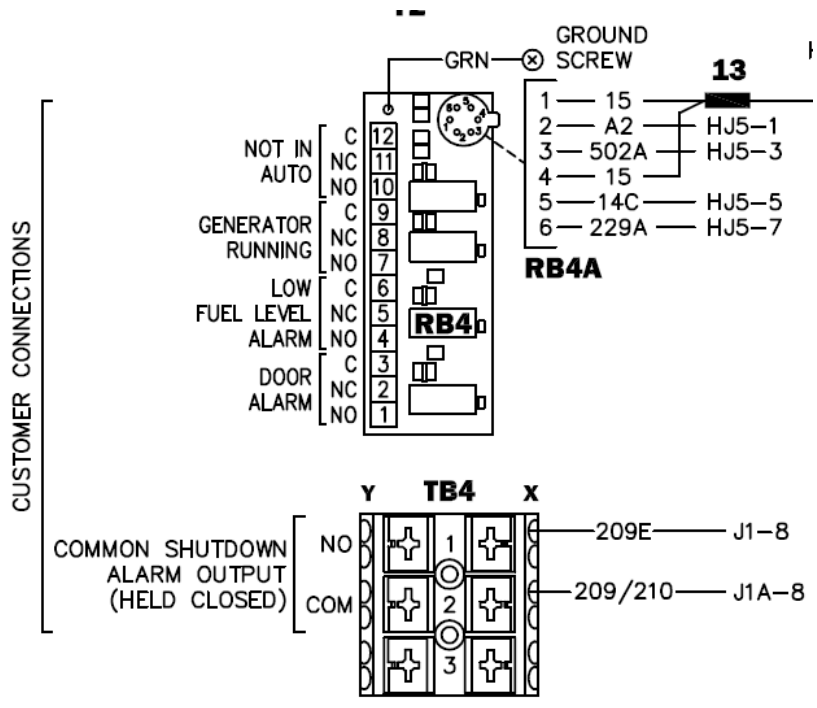
Equipment damage. Exceeding rated voltage and current will damage the auxiliary contacts. Verify that voltage and current are within specification before energizing this equipment.

(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 |
|-------------------|---|-----|
| <b>Product no</b> | <b>Denomination</b>                     |     |
| 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 |

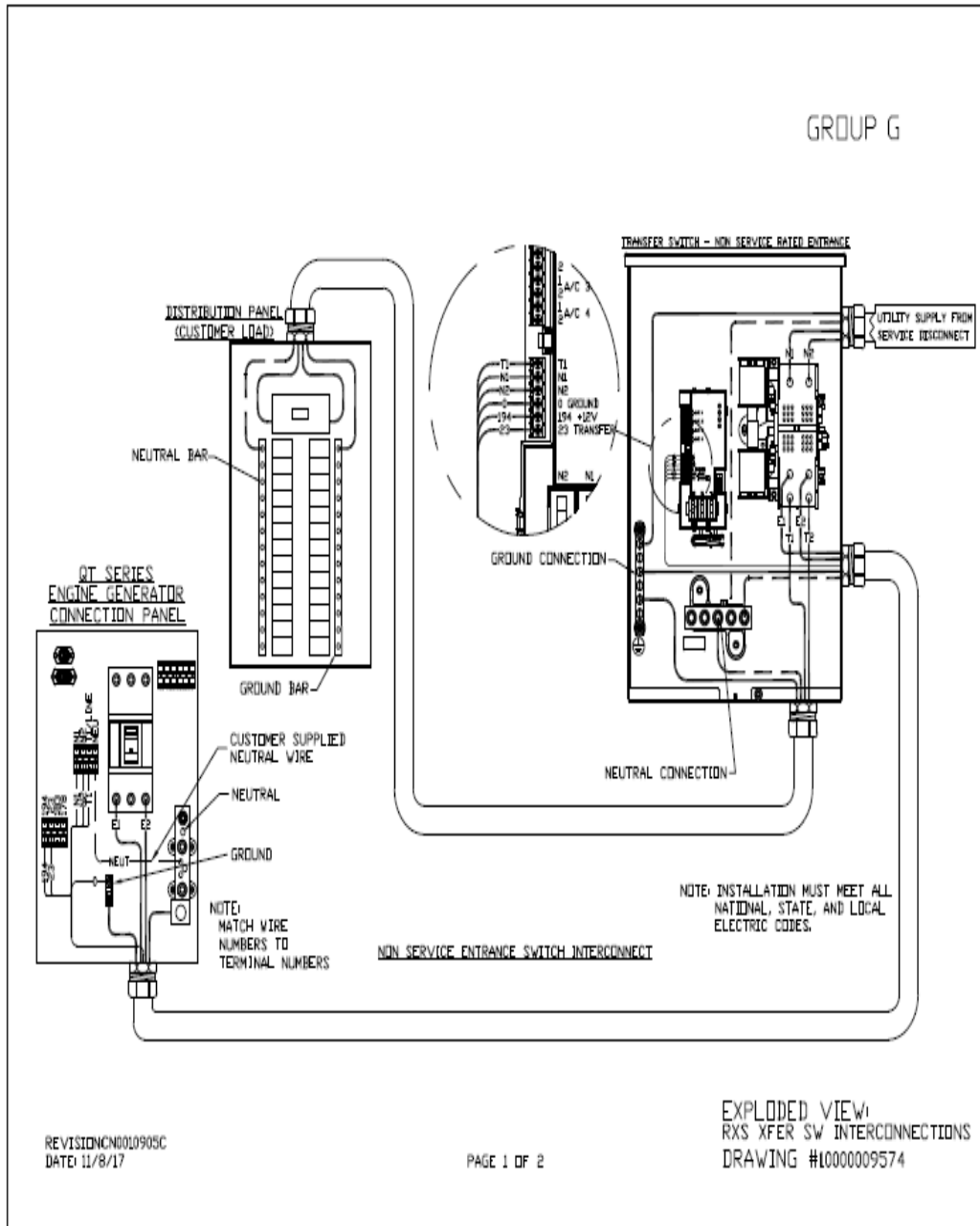
## 5 Regulatory Requirements

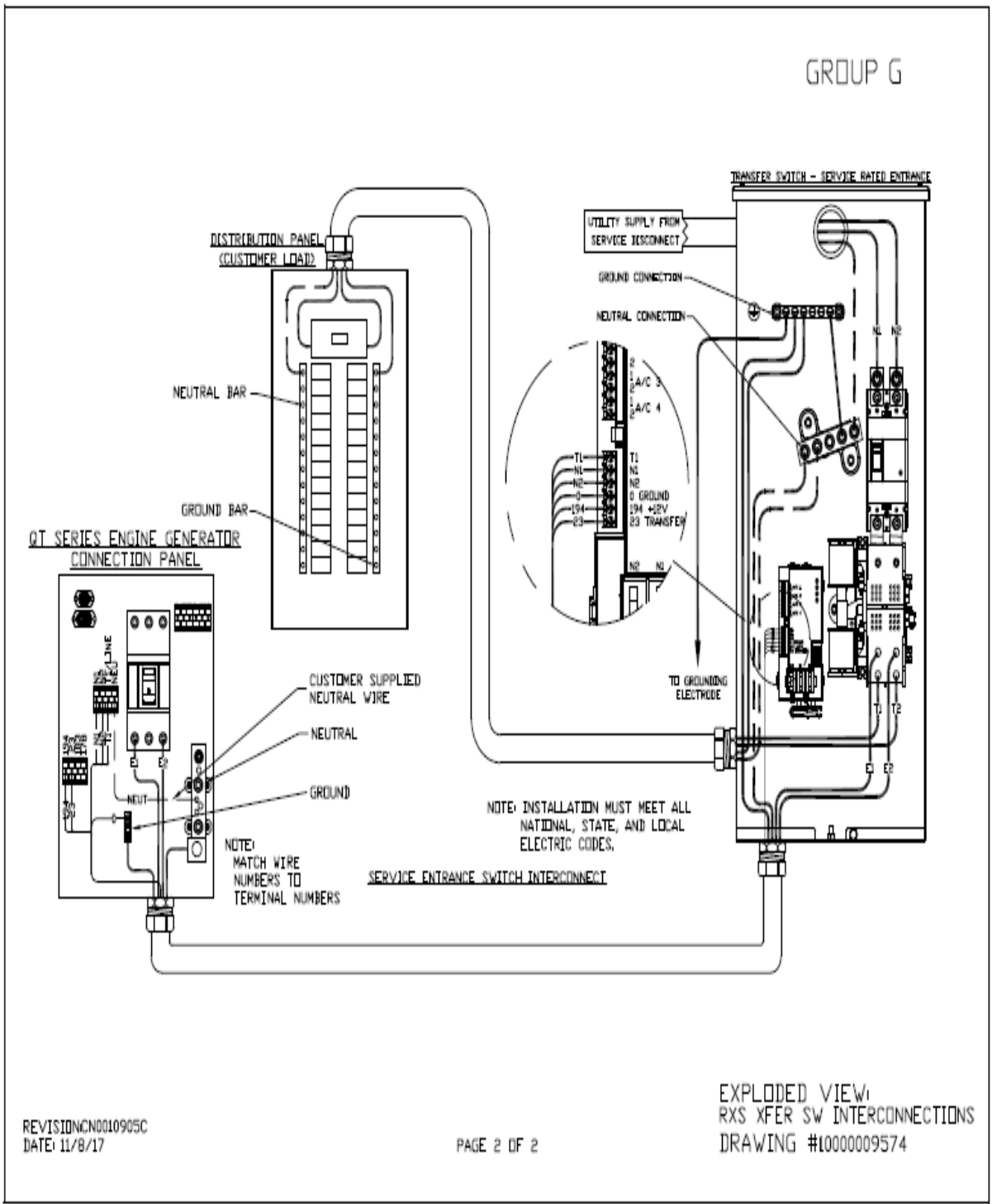
Level 2 Acoustic Enclosure provides a noise level of 67.5dBA. It is EPA certified and meets NFPA 99 and 110 requirements(NFPA National Fire Protection Association). The RD025 generator engines is a tier 4 engine and meets the EPA final standards.

## 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

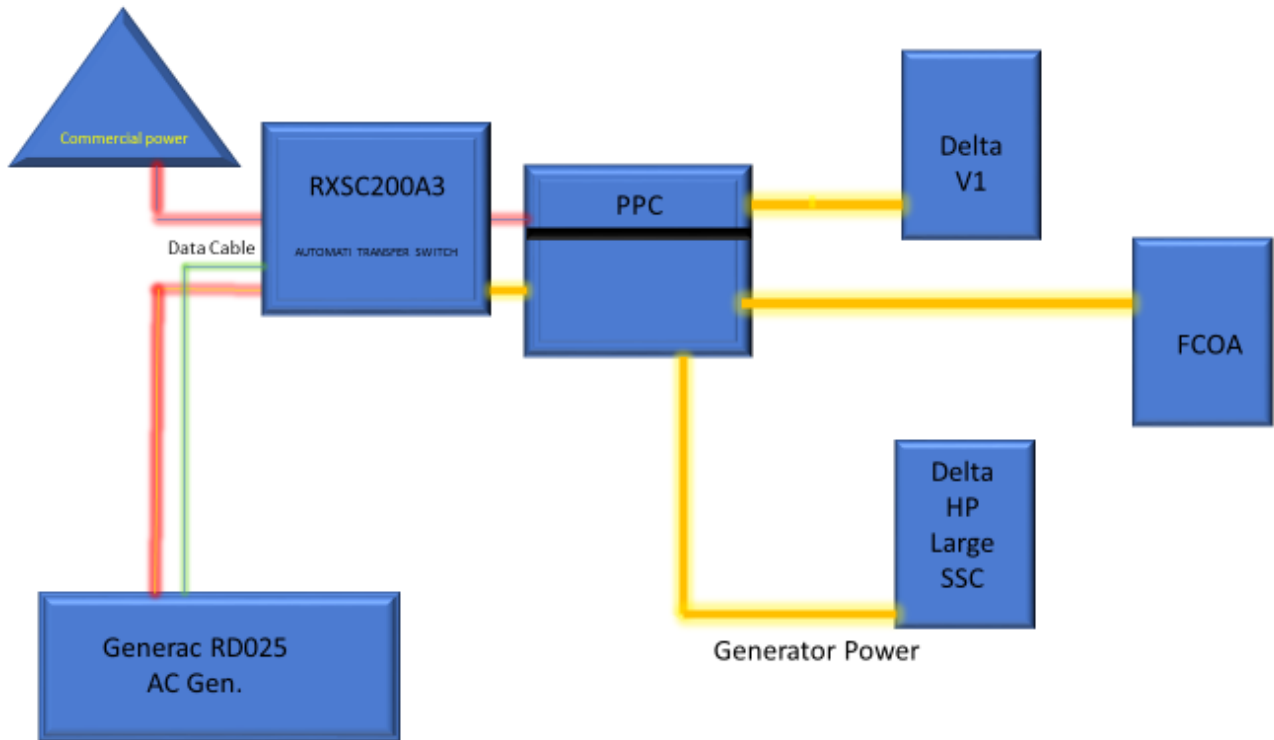




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DATE: 11/8/17

PAGE 2 OF 2

### 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.