

G. Scott Shepherd, Sr. Property Specialist - SBA Communications 134 Flanders Rd., Suite 125, Westborough, MA 01581 508.251.0720 x 3807 - GShepherd@sbasite.com

December 6, 2021

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

RE: Notice of Exempt Modification

459 Burr Rd., Southbury, CT 06488

Latitude: 41.448646 Longitude: -73.182669

T-Mobile Site #: CTNH231A\_Hardening

### Dear Ms. Bachman:

T-Mobile currently maintains nine (9) antennas currently installed at the 127.5-foot level of the existing 149-foot Monopole Tower at **459 Burr Rd.**, **Southbury**, **CT**. The tower is owned by SBA Towers IV, LLC. The property is also owned by SBA Towers IV, LLC. T-Mobile now intends to add one (1) Generac RD025 Diesel generator mounted to a proposed  $4' \times 10'$  concrete pad within a  $50' \times 90'$  fenced compound lease area. The proposed generator and concrete pad will sit fully within the leased area of the compound and will not require additional space for the supplementary tank.

### Ground

## **Install New:**

- (1) Generac RD0 25kw Diesel generator
- (1) 4' x 10" concrete pad
- Generac 200A, 120/240v Automatic transfer switch mounted to proposed Unistrut on existing Ice Bridge
- (1) 2" RGS Conduit for emergency power routed from proposed ATS to Existing PPC
- (1) 2" RGS conduit for Ethernet cable for generator controls & Alarms routed from exist. Equip. cabinet to proposed generator
- (1) 2" RGS conduit for emergency power routed from proposed generator to proposed ATS
- (1) 1-1/2" RGS conduit for generator heater & battery charger routed from exist. PPC to proposed generator



## Remaining:

- Existing Ericsson RBS6201 ODE Equip. Cabinet
- Existing Ericsson B160 cabinet
- Existing Ericsson 6160 cabinet
- Existing PPC
- Existing Nextend Compact 2416 Fiber cabinet
- Existing T-Mobile cables routed along existing Ice Bridge
- Existing T-Mobile 13' x 12' concretre pad
- Existing BBU
- Existing T-Mobile conduit
- Existing GPS Antenna
- Existing Ice Bridge

## Reason for Request / Change in Generator Size and Fuel

In an effort to further enhance network reliability, T-Mobile is proposing to install a diesel-based backup generator, the Generac RD025 25kw Diesel Generator. T-Mobile is currently in the middle of a National Hardening Project.

The proposed diesel generator measures  $84.2'' \times 35'' \times 91.7''$  (w/fuel tank:  $103.4'' \times 35'' \times 91.7''$ ). It will sit fully within the leased area of the compound and will not require additional space for the supplementary tank.

Generac's RD025 25kw Diesel Generator carries up to 98 hours of run time with 100% load, 125 hours of run time with a 75% load and 161 hours of run time with a 50% load. It can operate in temperatures of 122 degrees Fahrenheit.

## **Monitoring, Prevention and Containment Measures**

It will be filled by a licensed fuel filling company. The Generac's RD025 25kw Diesel Generator is fuel efficient, rodent and corrosion resistant, and has a sound attenuated aluminum enclosure with a Rated Load Sound Output at 23ft. of -65dB. It further supports advanced, remote monitoring for diagnostics and control and is installed with a tank alarm system. The Sound Output from the Generac RD025kw meets/exceeds the allowable noise emissions levels for the Town of Southbury, New Haven County, which is as follows:

Maximum Continuous Noise Levels (measured in dBA):



## **Residential Zone:**

Inductrial...62 dBA Commercial...55 dBA Residential/Day...55 dBA Residential/Night...45 dBA

## **Commercial Zone**:

Industrial...62 dBA Commercial...62 dBA Residential/Day...55 dBA Residential/Night...45 dBA

## **Industrial Zone**:

Industrial...70 dBA Commercial...66 dBA Residential/Day...61 dBA Residential/Night...51 dBA

The proposed modification will remain within the existing 50'  $\times$  90' fenced compound. The new generator and tank will be surrounded by the existing security fence and 12' wide double swing gate and will be placed on a proposed 4'  $\times$  10' concrete pad.

Additional safety specifications:

- Automatic Voltage Regulation with Over and Under Protection
- Overspeed Shutdown
- High Tempature Shutdown
- Meets ANSI/IEEE C62.41, SA CSA 22.2, SAE J1349, NFPA 37, 70 99

## Revised Construction Drawings and Full Spec Sheets referencing the above are attached herewith.

The revised ground configuration continues to meet all requirements for a Notice of Exempt Modifications. The request remains technically, legally, environmentally, and economically feasible and meets public safety concerns per Connecticut General Statute Section 16-50aa.

There is no environmental impact associated with the revised ground configuration, including, but not limited to, visibility, wetlands and water resources, air quality or noise.

T-Mobile's revised ground configuration:

- Will not have any significant adverse visual impact on the surrounding areas
- Does not affect or alter the existing site with regard to wetlands, water resources or air quality
- The generator would only be used in cases of emergency and would provide backup time of approximately 60 hours in time of need.



The proposed work is not thought to have any substantial adverse environmental impact. Public Need for the additional coverage outweighs any minor environmental effects that would result from the construction, operation, and maintenance of the proposed collocation.

## A Map of the Site Showing Nearest Wetlands, depicted in feet, is attached herewith.

Please accept this letter as notification pursuant to Regulations of Connecticut State Agencies §16-50j-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 the Town of Southbury's First Selectman, Jeff Manville and Land Use Administrator, Jessica Townsend. Separate notice is not being sent to Property Owner or the Tower owner, as both belong to SBA.)

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 modification 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 modification 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 telecommunication facility constitute an exempt modifications under R.C.S.A. § 16-50j-72(b)(2).

## Sincerely,

G. Scott Shepherd
Sr. Property Specialist
SBA COMMUNICATIONS CORPORATION
134 Flanders Rd., Suite 125
Westborough, MA 01581
508.251.0720 x3807 + T
508.366.2610 + F
508.868.6000 + C
GShepherd@sbasite.com



cc: Jeff Manville, First Selectman / with attachments
Southbury Town Hall, 501 Main St., Southbury, CT 06488
Jessica Townsend, Land Use Administrator / with attachments
Southbury Town Hall, 501 Main St., Southbury, CT 06488

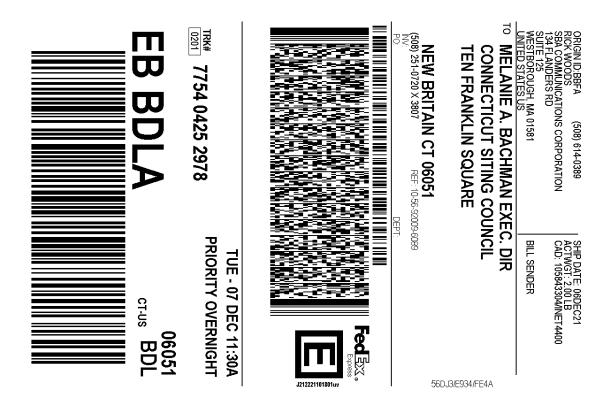
## **Exhibit List**

| Exhibit 1 | Check Copy               | x  |
|-----------|--------------------------|--|
| Exhibit 2 | FedEx Labels             | х  |
| Exhibit 3 | Property Card            | х  |
| Exhibit 4 | Property Map             | х  |
| Exhibit 5 | Zoning Documents         | Town of Southbury 1/4/06, CSC Docket No. 222A 1/4/06 |
| Exhibit 6 | Construction Drawings    | Chappell 10/29/21                                    |
| Exhibit 7 | Generator Specifications | х  |
| Exhibit 8 | Wetlands Map             | x  |

## EXHIBIT 1 Copy of Check for filing fee.

## EXHIBIT 2

FedEx Labels



## After printing this label:

- 1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
- 2. Fold the printed page along the horizontal line.
- 3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

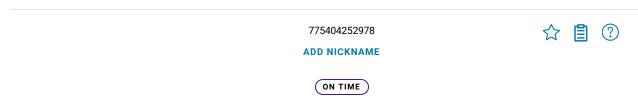
**Warning**: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com.FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery,misdelivery,or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim.Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental,consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss.Maximum for items of extraordinary value is \$1,000, e.g. jewelry, precious metals, negotiable instruments and other items listed in our ServiceGuide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

Page 1 of 2 **Detailed Tracking** 



### TRACK ANOTHER SHIPMENT



## Scheduled delivery: Tuesday, 12/7/2021 before 11:30 am



## **GET STATUS UPDATES**

FROM SBA COMMUNICATIONS CORPORATION Rick Woods

> 134 Flanders Rd Suite 125 WESTBOROUGH, MA US 01581 508-614-0389

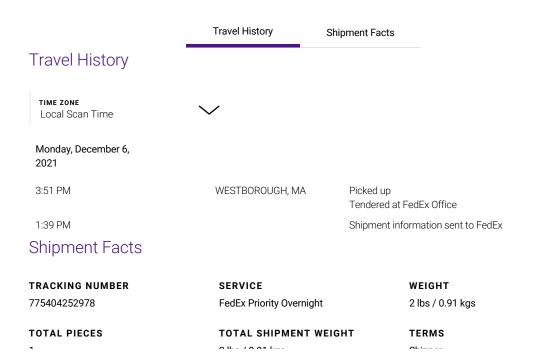
Melanie A. Bachman Exec. Dir

Connecticut Siting Council

то

Ten Franklin Square NEW BRITAIN, CT US 06051 508-251-0720

MANAGE DELIVERY ✓





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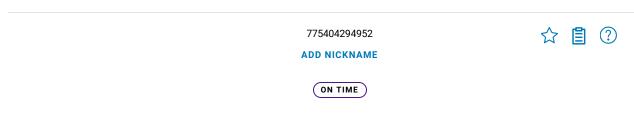
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Detailed Tracking Page 1 of 2



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134 Flanders Rd Suite 125 WESTBOROUGH, MA US 01581 508-614-0389

## **TO**Jeff Manville Southbury Town Hall

First Selectman 501 Main St. SOUTHBURY, CT US 06488 508-251-0720

MANAGE DELIVERY ✓

|                              | Travel History           | Shipment Facts                        |
|------------------------------|--------------------------|---------------------------------------|
| Travel History               |                          |                                       |
| TIME ZONE<br>Local Scan Time | ~                        |                                       |
| Monday, December 6,<br>2021  |                          |                                       |
| 3:51 PM                      | WESTBOROUGH, MA          | Picked up<br>Tendered at FedEx Office |
| 1:40 PM                      |                          | Shipment information sent to FedEx    |
| Shipment Facts               |                          |                                       |
| TRACKING NUMBER              | SERVICE                  | WEIGHT                                |
| 775404294952                 | FedEx Priority Overnight | 1 lbs / 0.45 kgs                      |
| TOTAL PIECES                 | TOTAL SHIPMENT WE        | EIGHT TERMS                           |



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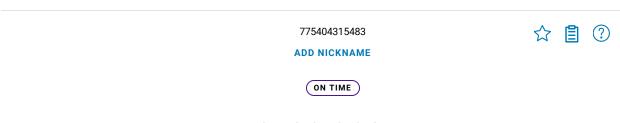
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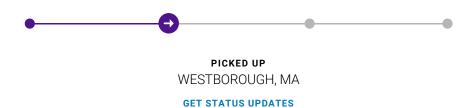
**Detailed Tracking** Page 1 of 2



## TRACK ANOTHER SHIPMENT



## Scheduled delivery: Tuesday, 12/7/2021 before 11:30 am



## FROM SBA COMMUNICATIONS CORPORATION Rick Woods

134 Flanders Rd Suite 125 WESTBOROUGH, MA US 01581 508-614-0389

## то Jessica Townsend Southbury Town Hall

Land Use Administrator 501 Main St. SOUTHBURY, CT US 06488 508-251-0720

MANAGE DELIVERY ✓

|                              | Travel History           | Shipment Facts                        |
|------------------------------|--------------------------|---------------------------------------|
| Travel History               |                          |                                       |
| TIME ZONE<br>Local Scan Time | ~                        |                                       |
| Monday, December 6,<br>2021  |                          |                                       |
| 3:51 PM                      | WESTBOROUGH, MA          | Picked up<br>Tendered at FedEx Office |
| 1:41 PM                      |                          | Shipment information sent to FedEx    |
| Shipment Facts               |                          |                                       |
| TRACKING NUMBER              | SERVICE                  | WEIGHT                                |
| 775404315483                 | FedEx Priority Overnight | 1 lbs / 0.45 kgs                      |
| TOTAL PIECES                 | TOTAL SHIPMENT W         | EIGHT TERMS                           |

## EXHIBIT 3 Property Card

## **459 BURR ROAD**

**Location** 459 BURR ROAD **Mblu** 43/ 18/ 16/ /

Acct# 00503100 Owner SBA TOWERS IV LLC

**Assessment** \$327,770 **Appraisal** \$689,150

PID 5914 Building Count 1

## **Current Value**

| Appraisal                              |           |           |           |  |  |
|--|-----------|-----------|-----------|--|--|
| Valuation Year Improvements Land Total |           |           |           |  |  |
| 2017                                   | \$251,320 | \$437,830 | \$689,150 |  |  |
| Assessment                             |           |           |           |  |  |
| Valuation Year Improvements Land Total |           |           |           |  |  |
| 2017                                   | \$175,920 | \$151,850 | \$327,770 |  |  |

## **Owner of Record**

Owner SBA TOWERS IV LLC Sale Price \$0

Co-Owner Certificate

 Address
 8051 CONGRESS AVENUE
 Book & Page
 0708/0421

 BOCA RATON, FL 33487
 Sale Date
 07/27/2020

**Sale Date** 07/27/2020

Instrument 19

## **Ownership History**

| Ownership History   |          |  |           |    |            |  |  |
|---|----------|--|-----------|----|------------|--|--|
| Owner Sale Price Certificate Book & Page Instrument Sale Date |          |  |           |    |            |  |  |
| SBA TOWERS IV LLC   | \$0      |  | 0708/0421 | 19 | 07/27/2020 |  |  |
| SBA TOWERS IV LLC   | \$20,000 |  | 0708/0417 | 07 | 07/27/2020 |  |  |
| HAGEMAN HOLLY E   | \$0      |  | 0642/1023 | 25 | 06/02/2015 |  |  |
| CUSATO SUSAN & HAGEMAN HOLLY                                  | \$0      |  | 0571/0213 | 25 | 03/04/2010 |  |  |
| CUSATO SUSAN & HOLLY  | \$0      |  | 0571/0212 | 25 | 03/04/2010 |  |  |

## **Building Information**

**Building 1: Section 1** 

Year Built: 1972

Living Area:

2,419

Replacement Cost:

\$329,200

76

**Building Percent Good: Replacement Cost** 

Less Depreciation:

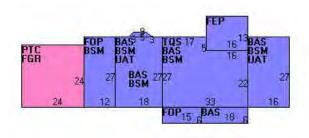
\$250,190

| Less Depreciation: \$250,190 |               |  |  |  |  |
|------------------------------|---------------|--|--|--|--|
| Building                     | Attributes    |  |  |  |  |
| Field Description            |               |  |  |  |  |
| Style                        | Саре          |  |  |  |  |
| Model                        | Residential   |  |  |  |  |
| Grade:                       | В             |  |  |  |  |
| Stories                      | 1.65          |  |  |  |  |
| Occupancy                    | 1             |  |  |  |  |
| Exterior Wall 1              | Clapboard     |  |  |  |  |
| Exterior Wall 2              |               |  |  |  |  |
| Roof Structure               | Gable         |  |  |  |  |
| Roof Cover                   | Arch Shingles |  |  |  |  |
| Interior Wall 1              | Drywall       |  |  |  |  |
| Interior Wall 2              |               |  |  |  |  |
| Interior Flr 1               | Hardwood      |  |  |  |  |
| Interior Flr 2               | Carpet        |  |  |  |  |
| Heat Fuel                    | Oil           |  |  |  |  |
| Heat Type:                   | Hot Water     |  |  |  |  |
| AC Percent                   | 0             |  |  |  |  |
| Total Bedrooms:              | 3 Bedrooms    |  |  |  |  |
| Full Bthrms:                 | 2             |  |  |  |  |
| Half Baths:                  | 1             |  |  |  |  |
| Extra Fixtures               | 0             |  |  |  |  |
| Total Rooms:                 | 7             |  |  |  |  |
| Bath Style:                  | Average       |  |  |  |  |
| Kitchen Style:               | Average       |  |  |  |  |
| Num Kitchens                 | 1             |  |  |  |  |
| Pln FPL:                     | 0             |  |  |  |  |
| Det FPL:                     | 3             |  |  |  |  |
| Gas Fireplace(s)             | 0             |  |  |  |  |
| % Attic Fin                  | 0             |  |  |  |  |
| LF Dormer                    | 35            |  |  |  |  |
| Foundation                   | Stone/Brick   |  |  |  |  |
| Bsmt Gar(s)                  | 0             |  |  |  |  |
| Bsmt %                       | 0             |  |  |  |  |
| SF FBM                       | 0.00          |  |  |  |  |
| SF Rec Rm                    | 0             |  |  |  |  |
| Fin Bsmt Qual                |               |  |  |  |  |



(http://images.vgsi.com/photos/SouthburyCTPhotos/\00\00\40\77.JPG)

## **Building Layout**



 $(http://images.vgsi.com/photos/SouthburyCTPhotos//Sketches/5914\_5914.\\$ 

|      | Building Sub-Areas (sq ft) |               | <u>Legend</u>  |
|------|----------------------------|---------------|----------------|
| Code | Description                | Gross<br>Area | Living<br>Area |
| BAS  | First Floor                | 1,851         | 1,851          |
| TQS  | Three Quarter Story        | 811           | 568            |
| BSM  | Basement                   | 2,067         | 0              |
| FEP  | Finished Enclosed Porch    | 208           | 0              |
| FGR  | Garage                     | 576           | 0              |
| FOP  | Open Porch                 | 414           | 0              |
| PTC  | Concrete Patio             | 576           | 0              |
| UAT  | Unfinished Attic           | 918           | 0              |
|      |                            | 7,421         | 2,419          |

| Bsmt Access | Walkout |
|-------------|---------|
| Fndtn Cndtn |         |
| Basement    |         |

## **Extra Features**

| Extra Features <u>Legen</u> |             |           |       |        |
|-----------------------------|-------------|-----------|-------|--------|
| Code                        | Description | Size      | Value | Bldg # |
| MSC3                        | CELL TOWER  | 1.00 UNIT | \$0   | 1      |

## Land

| Land Use      |              | Land Line Valua | Land Line Valuation |  |
|---------------|--------------|-----------------|---------------------|--|
| Use Code      | 101          | Size (Acres)    | 37.30               |  |
| Description   | Res Dwelling | Frontage        | 0                   |  |
| Zone          | R-60         | Depth           | 0                   |  |
| Neighborhood  | 75           | Assessed Value  | \$151,850           |  |
| Alt Land Appr | No           | Appraised Value | \$437,830           |  |
| Category      |              |                 |                     |  |

## Outbuildings

|      | Outbuildings <u>Leger</u> |          |                 |             |       |        |
|------|---------------------------|----------|-----------------|-------------|-------|--------|
| Code | Description               | Sub Code | Sub Description | Size        | Value | Bldg # |
| SHD1 | Shed                      | FR       | Frame           | 240.00 S.F. | \$900 | 1      |
| SHD1 | Shed                      | FR       | Frame           | 192.00 S.F. | \$230 | 1      |

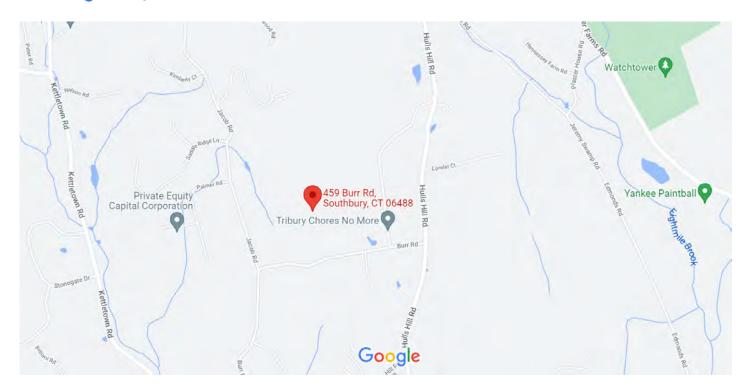
## **Valuation History**

| Appraisal Appraisal                    |           |           |           |  |  |
|--|-----------|-----------|-----------|--|--|
| Valuation Year Improvements Land Total |           |           |           |  |  |
| 2017                                   | \$264,680 | \$437,830 | \$702,510 |  |  |
| 2016                                   | \$247,130 | \$453,550 | \$700,680 |  |  |
| 2012                                   | \$247,130 | \$455,800 | \$702,930 |  |  |

| Assessment     |              |           |           |  |  |  |  |
|----------------|--------------|-----------|-----------|--|--|--|--|
| Valuation Year | Improvements | Land      | Total     |  |  |  |  |
| 2017           | \$185,280    | \$151,850 | \$337,130 |  |  |  |  |
| 2016           | \$172,990    | \$160,330 | \$333,320 |  |  |  |  |
| 2012           | \$172,990    | \$166,280 | \$339,270 |  |  |  |  |

## EXHIBIT 4 Property Map

## Google Maps 459 Burr Rd



Map data ©2021 1000 ft ⊾

## Google Maps 459 Burr Rd



Imagery ©2021 CNES / Airbus, Maxar Technologies, USDA Farm Service Agency, Map data ©2021

https://www.google.com/maps/place/459 + Burr+Rd, + Southbury, + CT+06488/@41.4478906, -73.1790863, 898 m/data = !3m1!1e3!4m5!3m4!1s0x89e7e5e...

## EXHIBIT 5 Zoning Documents

| SITE NAME:           | SOUTHBURY                                      | SITE ID:        | CT13058          | 3-A        |          |
|----------------------|--|-----------------|------------------|------------|----------|
| Transaction:         | Optasite                                       |                 |                  | 2-00       | 04       |
|                      | ZONING/PERMITTING O                            | OMPLETION FO    | )RM              |            |          |
| Address: 45          | 9 Burr Road, Southbury, CT 6488                |                 |                  |            |          |
| Jurisdiction:        | Town of Southbury                              | Zonina          | District:        |            |          |
| Zoning Approval      | Type: Cert. of Environme                       | ental Compa     | tibility         | Case #:    |          |
| Approval Date:       | 1-4-06 Approved Height:                        | 150 monopo      | le<br>ower Build |            |          |
| If tower is destroy  | ed or drop/swap required, tower can like       | ely be rebuilt? |                  | YES        | □ NO     |
| Conditions of Ap     | pproval:                                       |                 | Yes              | No         | N/A      |
| Removal Bo           | ond  |                 |                  | 8          |          |
| Site Plan St         | ubmittal                                       |                 |                  |            |          |
| Fall Zone            |  |                 |                  |            |          |
| Periodic Ins         |  |                 |                  |            |          |
| Periodic Rep         | porting  |                 |                  |            |          |
| Approval Re          |  |                 |                  |            |          |
| Additional C         |  |                 |                  | P          |          |
|                      |  |                 |                  | _          |          |
| JURISDICTION P       | OCIDERT  |                 |                  |            |          |
|                      | OCIDEPT.                                       |                 |                  |            |          |
| Dhono:               |  | ax:             |                  |            |          |
| Bldg./Code Enforce   | ement:   |                 |                  |            |          |
| Phone:               |  | ax:             |                  |            |          |
| Submitted by:        | KAP  | Date: 6         | 1261             | 08         |          |
|                      | Zoning Compliance                              |                 |                  |            |          |
|                      | TO BE COMPLETED BY                             | Y CORPORATE     |                  |            |          |
| Zoning Annessed Ad   | teched (construit                              | Yes             | <u>No</u>        | N/A        |          |
| Zoning Approval At   |  |                 |                  |            |          |
| Ordinance Attached   |  |                 | ď                |            |          |
| Building Permit Atta | ached (required)<br>06 - 3.50                  |                 |                  |            | ate Recd |
| Certificate of Occup | pancy or Compliance (CO) attached (req         | uired)          |                  | _ <b>5</b> | 102/07   |
| Zoning Manager Ap    | pproval: DEBOCKANO<br>Diane E. Borchardt, AICP | <b>H</b>        | D                | ate _ 8/2  | 7/2008   |

%86

|                  | Outstanding                                     |              | All Related            | Related<br>Permits+CO | Print<br>Inspections |            | Inspections<br>(ctrl+i) |
|------------------|---|--------------|------------------------|-----------------------|----------------------|------------|-------------------------|
|                  | Rept Num:                                       |              | Lic#: 900617           | Ġ.                    | ANTHONY'S BUILDING C |            | Contractor              |
| $\sqcap$         | Pmyt Info:                                      | Com Mac      | Bidn C                 |                       | CELL TOWER           | de la      | Description             |
| $\neg$           | Fige  | \$205,000.00 | Est Cost: S            | m                     | ADDITION             |            | Construction            |
| 83802            | CRS<br>884467<br>CRS 883802                     | Commercial.  | ·• Com                 | Lot 16                | Block: 13            | ALC:       | Map: 43                 |
| CELLTOWER.SPRINT | Nones: CELLTOWER, SPRINT & TMOBILE, CRS 747682, | Residential  | Re                     |                       | ROAD                 | BURR       | Location: BURR ROAD     |
| ļ                |   |              | 0.077W W0000           | Phones:               | RCIAL                | COMMERCIAL | Print-Type:             |
| ()<br>()         | T 06488   | टा           | SOUTHBURY              | S                     | 05/02/2007 Exp       | 05/0       | inal Date:              |
|                  |   | 2000         | 459 BURR ROAD          | Address: 45           | 10/01/2066           | 10/0       | Print Date:             |
|                  | NA<br>Section 1                                 | SUS & Y      | HAGEMAN, HOLLY & SUSAN | Owner: H              |                      | 06-350     | Prmt#:                  |
|                  |   |              | KOMD                   | JOOKK KOMD            |                      |            |                         |

%B6

| Parent 5   Inspections  Parent 5   106-350   Exp   Owner    Date Type   Init  11/130/2006   TRENCH   MC  12/13/2006   FOOTING   MC | MC MC  | Owner: HAGEMAN, HOLLY & SUS Remit Type: COMMERCIAL  Initials Comments  MC OK  MC OK |
|--|--------|---|
|  | MC     | OX  |
| 01/05/2007 SERVICE/UNDERGD   | <br> P | NG  |
| OVIII/2007 SERVICE   | Mc     | OK FAXED IN 1/12/07 CRS 747682  |
| 01/11/2007   | wc     | OK STEELE/SLAB UTILITY BUILDING   |
| 01/17/2007 (CABINET SLAB   | MC     | OX  |
| 03/09/2007   SERVICE   | MC     | OK FAXED IN 3/12/07CRS #884467 & CRS<br>883802                                      |
| 05/02/2007 FINAL   | P      | Q.  |

# 

SAMOL! 06-350 OWNER

LOCATION LASS BLEFT

Cell Lower

INSPECTIONS

Notify Building Inspector BENEARED in Advance when Changes, regardless of size, from approved plans must be submitted to Building inspector before they ready for any of the inspectionsare made. DATE DATE DATE DATE DATE DATE DATE DATE FOOTING DRAINS INSULATION ELECTRICAL PLUMBING FOOTINGS HEATING FRAME FINAL

Telephone 203-262-0609

# POST THIS PERMIT CONSPICUOUSLY

9-5-10

Building Inspector\_

| DOCKET NO. 222A - Optasite, Inc. Certificate of<br>Environmental Compatibility and Public Need for the         | } | Connecticut     |
|--|---|-----------------|
| construction maintenance, and operation of a wireless telecommunications facility at 459 Burr Road, Southbury, | 3 | Siting          |
| Connection   | } | Council         |
|  |   | January 4, 2006 |

## Opinion

On May 21, 3002, the Connecticut Siting Council (Council) approved an application filed by the James E. 1. eyer Co., Inc. for the construction, operation, and maintenance of a monopole wireless telecommunications facility, not to exceed 150 feet in height, at 459 Burr Road in Southbury. Connecticut. At the time of the approval, no wireless telecommunications provider expressed inverest in the site, and therefore, an exact height of the facility was not specified in the Council's D. cision and Order. The Council conditioned the approval to allow for a petition filed by a wireless carrier demonstrating a need for the facility at a specific height.

On January 30, 2004, Connecticut Architectural Towers, LLC, (CAT) submitted a combined Petition and Development and Management Plan (D&M Plan) to the Council for the construction of a 150-for a monopole for use by Sprint Spectrum L.P. (Sprint) and AT&T Wireless PCS LLC (AT&T). The site presented in the D&M Plan did not conform to the Council's findings of fact regarding the location of the facility.

Connecticut General Statute § 4-181a(b) allows an agency to, on "a showing of changed conditions" consider to "reverse or modify the final decision". On May 19, 2004, the Council, pursuant to mis provision, reopened the final decision in this docket. The "changed conditions" in this case ensist of a new location on the property for the facility and the proposed need of the facility by Smint.

The Certificate was transferred to Optasite Inc. (Optasite) on December 1, 2004. The Council conducted a reopened docket proceeding on October 18, 2005. The intervenors to the proceeding were Sprint, New Cingular Wireless PCS LLC (New Cingular), and Omnipoint Communications, Inc. (T-Mobile). All three carriers seek to provide coverage to the Kettletown Road/ Georges Hill Road area of Southbury.

Optasite proposes to construct a 150-foot monopole and associated compound located in the center of a 7-acre mostly wooded parcel. The parcel consists of a wooded ridge containing a single-family residence at the southern edge of the property. The tower setback radius would be contained within the property. Access to the site would be provided by a 2,325-foot long gravel road that mostly follows an existing woods road on the property.

Development of the site would not affect any wetlands or watercourses, or any rare, endangered, or special estocen species. Approximately 50 trees would be removed to improve the existing woods road and to develop the compound site. The site is not on a ridgeline, bluff, or notable promontory that provides a locally or regionally significant scenic vista. The proposed facility would have an effect on archaeological or historic resources.

Based on the lack of suitable existing structures and gaps in existing coverage for the three communication carriers, the Council finds a technical need for a new tower. The Council believes a 1:0-foot tower at the site would provide the necessary coverage for New Cingular, T-Mobile, and Sprint, and would allow co-location opportunities for future carriers below the 127-foot level of the tower.

The Countries of the site appropriate for telecommunications use due to its relatively remote location in a developing suburban area and minor environmental impact. Residential developments exist north, south, and west of the site. The nearest residence is approximately 724 feet northward of the site, sufficiently screened by existing vegetation.

The greatest visibility impact of the site would be to a residential area 0.3-miles to the west where several resources would have views of the upper 25-30 feet of the tower. Additional residential areas located approximately one mile to the south and west would have distant views of the upper 30-50 feet. If the tower. Seasonal views of the upper portion of the tower would occur from Rocky Monatain Road, a town designated scenic road 0.2-miles to the west.

According to a methodology prescribed by the FCC Office of Engineering and Technology Bulletin No. 65E, Edition 97-01 (August 1997), the combined radio frequency power density levels of the antennas proposed to be installed on the tower have been calculated by Council staff to amount to 16.5% of the FCC's Maximum Permissible Exposure, as measured at the base of the tower. This percentage is well below federal and state standards established for the frequencies used by will less companies. If federal or state standards change, the Council will require that the tower be by ught into compliance with such standards. The Council will require that the power densities is recalculated in the event other carriers add antennas to the tower. The Telecomputations Act of 1996 prohibits any state or local agency from regulating telecomputer cations towers on the basis of the environmental effects of radio frequency emissions to the extent that such towers and equipment comply with FCC's regulations concerning such emissions.

Based on the record in this proceeding, the Council finds that the effects associated with the construction operation, and maintenance of the proposed 150-foot telecommunications facility, including the cost on the natural environment; ecological integrity and balance; public health and safety; such as historic, and recreational values; forests and parks; air and water purity; and fish are not disproportionate either alone or cumulatively with other effects when need, are not in conflict with policies of the State concerning such effects, and are not sufficile reason to deny this application. Therefore, the Council will issue a Certificate for the construction, operation, and maintenance of a 150-foot monopole tower at the proposed site at 459 Burr fit ad, Southbury, Connecticut.

DOCKET NO. 222A - Optasite, Inc. Certificate of }

Environmental Compatibility and Public Need for the construction, maintenance, and operation of a wireless } telecommunications facility at 459 Burr Road, Southbury, Connecticut.

Connecticut

January 4, 2006

## Decision and Order

Pursuant to the foregoing Findings of Fact and Opinion, the Connecticut Siting Council (Council) finds that the effects associated with the construction, operation, and maintenance of a telecommunications facility includes a effects on the natural environment; ecological integrity and balance; public health and safety; scenice inserie, and recreational values; forests and parks; air and water purity; and fish and wildlife are to disproportionate either alone or cumulatively with other effects when compared to need, are not in coalect with the policies of the State concerning such effects, and are not sufficient reason to deny the application and therefore directs that a Certificate of Environmental Compatibility and Public Need, as provided by General Statutes § 16-50k, be issued to Optasite Inc., hereinafter referred to as the Certificate Holder, for a telecommunications facility at 459 Burr Road, Southbury, Connecticut.

The facility shall be constructed, operated, and maintained substantially as specified in the Council's record in this matter, and subject to the following conditions:

- The tower half be constructed as a monopole, no taller than necessary to provide the proposed telecommendations services, sufficient to accommodate the antennas of New Cingular Wireless PCS, LLC, Spring Spectrum L.P., Omnipoint Communications Inc. and other entities, both public and private, but such tower shall not exceed a height of 150 feet above ground level. Antennas mounted on the tower shall not exceed a height of 150 feet above ground level.
- 2. The Certainte Holder shall prepare a Development and Management (D&M) Plan for this site in compliance with Sections 16-50j-75 through 16-50j-77 of the Regulations of Connecticut State Agencies the D&M Plan shall be served on the Town of Southbury for comment, and all parties and intervenors as listed in the service list, and submitted to and approved by the Council prior to the commence and of facility construction and shall include:
  - a) a final site plan(s) of site development to include specifications for the tower, tower
     a slation, antennas, equipment compound, access road, utility line, and landscaping; and
  - b) co espection plans for site clearing, water drainage, and erosion and sedimentation control
    consistent with the 2002 Connecticut Guidelines for Soil Erosion and Sediment Control, as
    assended.
- 3. The Certificate Holder shall, prior to the commencement of operation, provide the Council worst-case medeling of electromagnetic radio frequency power density of all proposed entities' antennas at the closest point of uncontrolled access to the tower base, consistent with Federal Communications Commission, Office of Engineering and Technology, Bulletin No. 65, August 1997. The Certificate Holder shall ensure a recalculated report of electromagnetic radio frequency power density is submitted at the Council if and when circumstances in operation cause a change in power density above the leavest calculated and provided pursuant to this Decision and Order.
- Upon the stablishment of any new State or federal radio frequency standards applicable to frequencies of this facility, the facility granted herein shall be brought into compliance with such standard.

- The Certificate Holder shall permit public or private entities to share space on the proposed tower for fair consideration, or shall provide any requesting entity with specific legal, technical, environmental, or economic reasons precluding such tower sharing.
- 6 The Certificate Holder shall provide reasonable space on the tower for no compensation, for any Town of Scotthbury public safety services (police, fire and medical services), provided such use can be accommodated and is compatible with the structural integrity of the tower.
- 7. If the facility authorized herein is not fully constructed and providing wireless services within eighteen months from the date of the mailing of the Council's Findings of Fact, Opinion, and Decision and Order (collectively called "Final Decision"), this Decision and Order shall be void, and the Certificate Holder shall dismantle the tower and remove all associated equipment or reapply for any command or new use to the Council before any such use is made. The time between the filing and resolution of any appeals of the Council's Final Decision shall not be counted in calculating this deadline.
- 8. If the facility ceases to provide wireless services for a period of one year, this Decision and Order shall be word, and the Certificate Holder shall dismantle the tower and remove all associated equipment or reapply for any continued or new use to the Council before any such use is made.
- The Certificate Holder shall remove any nonfunctioning antenna, and associated antenna mounting equipment, within 60 days of the date the antenna ceased to function.
- 10. Any request for extension of the time periods referred to in Conditions 7, 8, & 9 shall be filed with the Council not later than sixty days prior to the expiration date of this Certificate and shall be served on all parties and intervenors, as listed in the service list, and the Town of Southbury. Any proposed modifications to this Decision and Order shall likewise be so served.
- 11. In accordance with Section 16-50j-77 of the Regulations of Connecticut State Agencies, the Certificate Holder shall provide the Council with written notice two weeks prior to the commencement of site construction activities. In addition, the Certificate Holder shall provide the Council with written notice of the completion of site construction and the commencement of site operation.

Pursuant to General Statutes § 16-50p, the Council hereby directs that a copy of the Findings of Fact, Opinion, and Decision and Order be served on each person listed below, and notice of issuance shall be published in The Voices and the Waterbury Republican-American.

By this Decision and Order, the Council disposes of the legal rights, duties, and privileges of each party named or admired to the proceeding in accordance with Section 16-50j-17 of the Regulations of Connecticut Standard Agencies.

Docket No. 222A Decision and Order Page 3

The parties and intervenors to this proceeding are:

Certificate Holder Optasite Inc.

Party Jeff Ryer 679 Jacob Road Southbury, CT 06488

Intervenor New Cingular Wireless PCS, LLC

Intervenor
Omnipoint Con againstions, Inc.

Intervenor Sprint Spectrum, L.P. d/b/a Sprint PC Its Representative

Christopher B. Fisher Cuddy & Feder LLP 90 Maple Avenue White Plains, New York 19601-5196

Jennifer Young Gaudet 345 Taylor Street Talcottville CT 06066

Its Representative

Monte E. Frank Cohen and Wolf, P.C. 158 Deer Hill Avenue Danbury, CT 06810

Its Representative

Wendell G. Davis Blackwell, Davis & Spadaccini, LLC 158 East Center Street Manchester, CT 06040

Its Representative

Kenneth Ira Spigle, Esq. Attorney At Law 687 Highland Avenue, Suite 1 Needham, MA 02494

Its Representative

Meredith Denecke Cacace, Tusch & Santagata 777 Summer Street P.O. Box 15859 Stamford, CT 06901

## CERTIFICATION

The undersigned members of the Connecticut Siting Council (Council) hereby certify that they have heard this case, or read the record thereof, in **DOCKET NO. 222A** – Optasite, Inc.'s Certificate of Environmental Compatibility and Public Need for the construction, maintenance and operation of a telecommunications facility at 459 Burr Road, Southbury, Connecticut, and voted as follows to approve the proposed site:

| Council Members   | Vote Cast |
|---|-----------|
| Pamela B. Kao, P.E., Charqman                                 | No        |
| Commissioner Jonald W. Downes<br>Designee: Grand J. Heffernan | Yes       |
| Commissions Anna McCarthy Designee: Brian Emerick             | No        |
| Philip T. John  | Yes       |
| Daniel P. Ly. Jack Jr.  | Yes       |
| James & Miller  | Yes       |
| Dr. Barbara Currier Bell                                      | Yes       |
| Colin C. Tait   | Yes       |
| Edward S. W onsky   | Yes       |
| Dated at New Britain, Connecticut January 4,                  | , 2006.   |



## STATE OF CONNECTICUT

## CONNECTICUT SITING COUNCIL

Ten Franklin Square. New Britain, CT 06051 Phone: (860) 827-2935 Fax: (860) 827-2950 E-Mail: sting.council@po.state.ct.us www.ct.gov/csc

CERTIFICATE

OF

## ENVIRONMENTAL COMPATIBILITY AND PUBLIC NEED DOCKET NO. 222A

Pursuant to General Statutes \$ 16-50k, as amended, the Connecticut Siting Council hereby issues a Certificate of Environmental Compatibility and Public Need to Optasite, Inc. for the construction, maintenance and operation of a telecommunications facility located at 459 Burr Road, Southbury, Connecticut. This Certificate is issued in accordance with and subject to the terms and conditions set forth in the Decision and Order of the Council on January 4, 2006.

By order of the Council,

January 4, 2006

Pamela B. Katz, E., Chairman



## **EXHIBIT 6**

**Construction Drawings** 

# APPROVALS PROJECT MANAGER: DATE: ZONING/SITE ACQ.: DATE: CONSTRUCTION: DATE: OPERATIONS: DATE: RF ENGINEERING: DATE: TOWER OWNER: DATE:

## T-MOBILE TECHNICIAN SITE SAFETY NOTES

LOCATION

SPECIAL RESTRICTIONS

SECTOR A: ACCESS BY CERTIFIED CLIMBER
SECTOR B: ACCESS BY CERTIFIED CLIMBER
SECTOR C: ACCESS BY CERTIFIED CLIMBER
SECTOR D: ACCESS BY CERTIFIED CLIMBER
GPS/LMU: UNRESTRICTED

RADIO CABINETS: UNRESTRICTED
PPC DISCONNECT: UNRESTRICTED
MAIN CIRCUIT D/C: UNRESTRICTED
NIU/T DEMARC: UNRESTRICTED
OTHER/SPECIAL: NONE

## GENERAL NOTES

- 1. THE CONTRACTOR SHALL GIVE ALL NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY, MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS, AND LOCAL AND STATE JURISDICTIONAL CODES BEARING ON THE PERFORMANCE OF THE WORK. THE WORK PERFORMED ON THE PROJECT AND THE MATERIALS INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES.
- 2. THE ARCHITECT/ENGINEER HAVE MADE EVERY EFFORT TO SET FORTH IN THE CONSTRUCTION AND CONTRACT DOCUMENTS THE COMPLETE SCOPE OF WORK. THE CONTRACTOR BIDDING THE JOB IS NEVERTHELESS CAUTIONED THAT MINOR OMISSIONS OR ERRORS IN THE DRAWINGS AND OR SPECIFICATIONS SHALL NOT EXCUSE SAID CONTRACTOR FROM COMPLETING THE PROJECT AND IMPROVEMENTS IN ACCORDANCE WITH THE INTENT OF THESE DOCUMENTS.
- 3. THE CONTRACTOR OR BIDDER SHALL BEAR THE RESPONSIBILITY OF NOTIFYING (IN WRITING) THE OMNIPOINT REPRESENTATIVE OF ANY CONFLICTS, ERRORS, OR OMISSIONS PRIOR TO THE SUBMISSION OF CONTRACTOR'S PROPOSAL OR PERFORMANCE OF WORK. IN THE EVENT OF DISCREPANCIES THE CONTRACTOR SHALL PRICE THE MORE COSTLY OR EXTENSIVE WORK, UNLESS DIRECTED IN WRITING OTHERWISE.
- 4. THE SCOPE OF WORK SHALL INCLUDE FURNISHING ALL MATERIALS, EQUIPMENT, LABOR AND ALL OTHER MATERIALS AND LABOR DEEMED NECESSARY TO COMPLETE THE WORK/PROJECT AS DESCRIBED
- 5. THE CONTRACTOR SHALL VISIT THE JOB SITE PRIOR TO THE SUBMISSION OF BIDS OR PERFORMING WORK TO FAMILIARIZE HIMSELF WITH THE FIELD CONDITIONS AND TO VERIFY THAT THE PROJECT CAN BE CONSTRUCTED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
- 6. THE CONTRACTOR SHALL OBTAIN AUTHORIZATION TO PROCEED WITH CONSTRUCTION PRIOR TO STARTING WORK ON ANY ITEM NOT CLEARLY DEFINED BY THE CONSTRUCTION DRAWINGS/CONTRACT DOCUMENTS.
- 7. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS ACCORDING TO THE MANUFACTURER'S/VENDOR'S SPECIFICATIONS UNLESS NOTED OTHERWISE OR WHERE LOCAL CODES OR ORDINANCES TAKE PRECEDENCE.
- 8. THE CONTRACTOR SHALL PROVIDE A FULL SET OF CONSTRUCTION DOCUMENTS AT THE SITE UPDATED WITH THE LATEST REVISIONS AND ADDENDUMS OR CLARIFICATIONS AVAILABLE FOR THE USE BY ALL PERSONNEL INVOLVED WITH THE PROJECT.
- 9. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE PROJECT DESCRIBED HEREIN. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT.
- 10. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL NECESSARY CONSTRUCTION CONTROL SURVEYS, ESTABLISHING AND MAINTAINING ALL LINES AND GRADES REQUIRED TO CONSTRUCT ALL IMPROVEMENTS AS SHOWN HEREIN.
- 1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND INSPECTIONS WHICH MAY BE REQUIRED FOR THE WORK BY THE ARCHITECT/ENGINEER, THE STATE, COUNTY OR LOCAL GOVERNMENT AUTHORITY.
- 2. THE CONTRACTOR SHALL MAKE NECESSARY PROVISIONS TO PROTECT EXISTING IMPROVEMENTS, EASEMENTS, PAVING, CURBING, ETC. DURING CONSTRUCTION. UPON COMPLETION OF WORK, THE CONTRACTOR

- SHALL REPAIR ANY DAMAGE THAT MAY HAVE OCCURRED DUE TO CONSTRUCTION ON OR ABOUT THE PROPERTY.
- 13. THE CONTRACTOR SHALL KEEP THE GENERAL WORK AREA CLEAN AND HAZARD FREE DURING CONSTRUCTION AND DISPOSE OF ALL DIRT, DEBRIS, RUBBISH AND REMOVE EQUIPMENT NOT SPECIFIED AS REMAINING ON THE PROPERTY. PREMISES SHALL BE LEFT IN CLEAN CONDITION AND FREE FROM PAINT SPOTS, DUST, OR SMUDGES OF ANY NATURE.
- 14. THE CONTRACTOR SHALL COMPLY WITH ALL OSHA REQUIREMENTS AS THEY APPLY TO THIS PROJECT.
- 15. THE CONTRACTOR SHALL NOTIFY THE PROJECT OWNER'S REPRESENTATIVE WHERE A CONFLICT OCCURS ON ANY OF THE CONTRACT DOCUMENTS. THE CONTRACTOR IS NOT TO ORDER MATERIAL OR CONSTRUCT ANY PORTION OF THE WORK THAT IS IN CONFLICT UNTIL CONFLICT IS RESOLVED BY THE LESSEE/LICENSEE REPRESENTATIVE.
- 16. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS, PROPERTY LINES, ETC. ON THE JOB.
- 17. ALL UNDERGROUND UTILITY INFORMATION WAS DETERMINED FROM SURFACE INVESTIGATIONS AND EXISTING PLANS OF RECORD. THE CONTRACTOR SHALL LOCATE ALL UNDERGROUND UTILITIES IN THE FIELD PRIOR TO ANY SITE WORK.

AT LEAST 72 HOURS PRIOR TO DIGGING, THE CONTRACTOR IS REQUIRED TO CALL DIG SAFE AT 811



## NH231/OPTASITE TOWFR FT

459 BURR ROAD SOUTHBURY, CT 06488 NEW HAVEN COUNTY

SITE NO.: CTNH231A

SITE TYPE: 175'± MONOPOLE

PROJECT TYPE: NATIONAL HARDENING PROJECT

SHEET INDEX

DESCRIPTION

TITLE SHEET

GENERAL NOTES

GENERATOR DETAILS

COMPOUND & EQUIPMENT PLANS

GENERATOR SPECIFICATIONS 1

GENERATOR SPECIFICATIONS 2

ELECTRIC & GROUNDING DETAILS

SHEET NO.

GN-1

A-2

## VICINITY MAP SCALE: 1" = 1000'-0"



## DIRECTIONS

MERGE ONTO I-495 NORTH TOWARD MANSFIELD/MARLBORO. TAKE EXIT 58 FOR I-90 WEST TOWARD ALBANY. USE RIGHT 2 LANES FOR EXIT 78 FOR I-84 TOWARD HARTFORD CT/NEW YORK CITY. CONTINUE ONTO I-84. KEEP LEFT TO STAY ON I-84. KEEP RIGHT TO STAY ON I-84 & FOLLOW SIGNS FOR I-91 NORTH/HARTFORD. KEEP RIGHT TO STAY ON I-84. TAKE EXIT 16 FOR CT-188 SOUTH. TURN LEFT ONTO CT-188 SOUTH. TURN LEFT ONTO CT-67 SOUTH. TURN RIGHT ONTO CT-188 SOUTH. TURN RIGHT ONTO HULLS HILL ROAD. TURN RIGHT ONTO BURR ROAD. SITE IS LOCATED ON THE RIGHT HAND SIDE.

## STRUCTURES AND ANTÉNNAS.

PROJECT SUMMARY

ELECTRICAL CODE: 2017 NATIONAL ELECTRICAL CODE

BUILDING CODE: 2018 CONNECTICUT STATE BUILDING CODE

DISCREPANCIES AT THE CONTRACTOR'S EXPENSE.

FOR THE PURPOSE OF PROVIDING PUBLIC CELLULAR SERVICE.

POTABLE WATER OR SANITARY SERVICE IS NOT REQUIRED.

NO OUTDOOR STORAGE OR ANY SOLID WASTE RECEPTACLES REQUIRED.

ADA COMPLIANCE NOT REQUIRED.

SCOPE OF WORK

REMOVE:

NONE

NO.

SITE NOTES

SITE NUMBER:

SITE NAME:

WATERBURY /HILL STREET

SBA SITE NUMBER:

CT13058-A

SBA SITE NAME:

SOUTHBURY

SITE ADDRESS:

459 BURR ROAD

SOUTHBURY, CT 06488

PROPERTY OWNER:

HOLLY E. HAGEMAN

459 BURR ROAD

SOUTHBURY, CT 06488

• 1 GENERATOR

THIS IS AN UNMANNED AND RESTRICTED ACCESS TELECOMMUNICATION FACILITY, AND IS

NOT FOR HUMAN HABITATION. IT WILL BE USED FOR THE TRANSMISSION OF RADIO SIGNAL

CONTRACTOR SHALL VERIFY ALL PLANS, EXISTING DIMENSIONS, AND CONDITIONS ON JOB

SITE. CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ARCHITECT/ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK. FAILURE TO NOTIFY THE

ARCHITECT/ENGINEER PLACE THE RESPONSIBILITY ON THE CONTRACTOR TO CORRECT THE

STRUCTURAL CODE: TIA/EIA-222-G STRUCTURAL STANDARDS FOR ANTENNA SUPPORTING

NEW CONSTRUCTION WILL CONFORM TO ALL APPLICABLE CODES AND ORDINANCES.

• 2 20A-1P BREAKERS

• 1 AUTOMATIC TRANSFER SWITCH

TOWER OWNER:

SBA TOWERS IV, LLC
8501 CONGRESS AVENUE
BOCA RATON, FL 33487
PHONE: 561-226-9523

COUNTY:

NEW HAVEN COUNTY

ZONING DISTRICT:

R-60 (RESIDENTIAL)

APPLICANT: 149'±

APPLICANT: T-MOBILE NORTHEAST LLC

15 COMMERCE WAY, SUITE B

ARCHITECT: CHAPPELL ENGINEERING ASSOCIATES, LLC. 201 BOSTON POST ROAD WEST, SUITE 101

NORTON, MA 02766

MARLBOROUGH, MA 01752

**MONOPOLE** 

MARLBOROUGH, MA 01752

STRUCTURAL ENGINEER: CHAPPELL ENGINEERING ASSOCIATES, LLC. 201 BOSTON POST ROAD WEST, SUITE 101

SITE CONTROL POINT: LATITUDE: N.41.448646 N41°26'55.13" LONGITUDE W.73.182669 W73°10'57.61"

## DO NOT SCALE DRAWINGS

CONTRACTOR SHALL VERIFY ALL PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE PROJECT OWNER'S REPRESENTATIVE IN WRITING OF DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.

## SPECIAL ZONING NOTE:

STRUCTURE TYPE:

BASED ON INFORMATION PROVIDED BY T-MOBILE REGULATORY COMPLIANCE PROFESSIONALS AND LEGAL COUNSEL, THIS TELECOMMUNICATIONS EQUIPMENT DEPLOYMENT IS CONSIDERED AN <u>ELIGIBLE FACILITY</u> UNDER THE MIDDLE CLASS TAX RELIEF AND JOB CREATION ACT OF 2012, 47 USC 1455(A), SECTION 6409(A), AND IS SUBJECT TO AN <u>ELIGIBLE FACILITY REQUEST</u>, EXPEDITED REVIEW, AND LIMITED/PARTIAL ZONING PRE-EMPTION FOR LOCAL DISCRETIONARY PERMITS (VARIANCE, SPECIAL PERMIT, SITE PLAN REVIEW, OR ADMINISTRATIVE REVIEW).

## T-MOBILE NORTHEAST LLC

15 COMMERCE WAY, SUITE B NORTON, MA 02766 (508) 286-2700



SBA COMMUNICATIONS CORP.
134 FLANDERS ROAD, SUITE 125
WESTBOROUGH, MA 01581
(508) 251-0720



R.K. EXECUTIVE CENTRE
201 BOSTON POST ROAD WEST, SUITE 101
MARLBOROUGH, MA 01752
(508) 481-7400
www.chappellengineering.com



CHECKED BY: JM

APPROVED BY: JI

|      | S        | UBM    | ITT  | ALS          |    |
|------|----------|--------|------|--------------|----|
| REV. | DATE     |        | DESC | RIPTION      | BY |
|      |          |        |      |              |    |
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|      |          |        |      |              |    |
|      |          |        |      |              |    |
| 1    | 10/29/21 | ISSUED | FOR  | CONSTRUCTION | JR |
| 0    | 10/13/21 | ISSUED | FOR  | REVIEW       | JR |
|      |          | •      |      |              |    |

## SITE NUMBER: CTNH231A

SITE ADDRESS: 459 BURR ROAD SOUTHBURY, CT 06488

SHEET TITLE

TITLE SHEET

SHEET NUMBER

1815.3

T-1

## **GENERAL NOTES:**

ATTENTION OF CONTRACTOR.

1. FOR THE PURPOSE OF CONSTRUCTION DRAWINGS, THE FOLLOWING DEFINITIONS SHALL APPLY: CONTRACTOR — T-MOBILE SUBCONTRACTOR — GENERAL CONTRACTOR (CONSTRUCTION) OWNER — T-MOBILE

OEM - ORIGINAL EQUIPMENT MANUFACTURER

- 2. PRIOR TO THE SUBMISSION OF BIDS, THE BIDDING SUBCONTRACTOR SHALL VISIT THE CELL SITE TO FAMILIARIZE WITH THE EXISTING CONDITIONS AND TO CONFIRM THAT THE WORK CAN BE ACCOMPLISHED AS SHOWN ON THE CONSTRUCTION DRAWINGS. ANY DISCREPANCY FOUND SHALL BE BROUGHT TO THE
- 3. ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES. SUBCONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS, AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK.
- 4. ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL, STATE AND FEDERAL JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.
- 5. DRAWINGS PROVIDED HERE ARE NOT TO BE SCALED AND ARE INTENDED TO SHOW OUTLINE ONLY.
- 6. UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES, AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.
- 7. THE SUBCONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
- 8. IF THE SPECIFIED EQUIPMENT CANNOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE SUBCONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION FOR APPROVAL BY THE CONTRACTOR.
- 9. SUBCONTRACTOR SHALL DETERMINE ACTUAL ROUTING OF CONDUIT, POWER, T1 CABLES AND GROUNDING CABLES AS SHOWN ON THE POWER, GROUNDING AND TELCO PLAN DRAWING. SUBCONTRACTOR SHALL UTILIZE EXISTING TRAYS AND/OR SHALL ADD NEW TRAYS AS NECESSARY. SUBCONTRACTOR SHALL CONFIRM THE ACTUAL ROUTING WITH THE CONTRACTOR AND/OR LANDLORD PRIOR TO CONSTRUCTION.
- 10. THE SUBCONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT SUBCONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE OWNER.
- 11. SUBCONTRACTOR SHALL LEGALLY AND PROPERLY DISPOSE OF ALL SCRAP MATERIALS SUCH AS COAXIAL CABLES AND OTHER ITEMS REMOVED FROM THE EXISTING FACILITY.
- 12. SUBCONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION AND RETURN DISTURBED AREAS TO ORIGINAL CONDITIONS.
- 13. THE SUBCONTRACTOR SHALL SUPERVISE AND DIRECT THE PROJECT DESCRIBED HEREIN. THE SUBCONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT.
- 14. SUBCONTRACTOR SHALL NOTIFY CHAPPELL ENGINEERING ASSOCIATES, LLC 48 HOURS IN ADVANCE OF POURING CONCRETE OR BACKFILLING TRENCHES, SEALING ROOF AND WALL PENETRATIONS AND POST DOWNS, FINISHING NEW WALLS OR FINAL ELECTRICAL CONNECTIONS FOR ENGINEERING REVIEW.
- 15. CONSTRUCTION SHALL COMPLY WITH ALL T-MOBILE STANDARDS AND SPECIFICATIONS.
- 16. SUBCONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS PRIOR TO COMMENCING ANY WORK. ALL DIMENSIONS OF EXISTING CONSTRUCTION SHOWN ON THE DRAWINGS MUST BE VERIFIED. SUBCONTRACTOR SHALL NOTIFY THE CONTRACTOR OF ANY DISCREPANCIES PRIOR TO ORDERING MATERIAL OR PROCEEDING WITH CONSTRUCTION.
- 17. THE EXISTING CELL SITES ARE IN FULL COMMERCIAL OPERATION. ANY CONSTRUCTION WORK BY SUBCONTRACTOR SHALL NOT DISRUPT THE EXISTING NORMAL OPERATION. ANY WORK ON EXISTING EQUIPMENT MUST BE COORDINATED WITH CONTRACTOR. ALSO, WORK SHOULD BE SCHEDULED FOR AN APPROPRIATE MAINTENANCE WINDOW USUALLY IN LOW TRAFFIC PERIODS AFTER MIDNIGHT.
- 18. IF THE EXISTING CELL SITE IS ACTIVE, ALL SAFETY PRECAUTIONS MUST BE TAKEN WHEN WORKING AROUND HIGH LEVELS OF ELECTROMAGNETIC RADIATION. EQUIPMENT SHOULD BE SHUTDOWN PRIOR TO PERFORMING ANY WORK THAT COULD EXPOSE THE WORKERS TO DANGER. PERSONAL RF EXPOSURE MONITORS ARE TO BE WORN TO ALERT OF ANY DANGEROUS EXPOSURE LEVELS.

## SITE WORK GENERAL NOTES:

- 1. THE SUBCONTRACTOR SHALL CONTACT UTILITY LOCATING SERVICES PRIOR TO THE START OF CONSTRUCTION.
- 2. ALL EXISTING ACTIVE SEWER, WATER, GAS, ELECTRIC, AND OTHER UTILITIES WHERE ENCOUNTERED IN THE WORK, SHALL BE PROTECTED AT ALL TIMES, AND WHERE REQUIRED FOR THE PROPER EXECUTION OF THE WORK, SHALL BE RELOCATED AS DIRECTED BY ENGINEERS. EXTREME CAUTION SHOULD BE USED BY THE SUBCONTRACTOR WHEN EXCAVATING OR DRILLING PIERS AROUND OR NEAR UTILITIES. SUBCONTRACTOR SHALL PROVIDE SAFETY TRAINING FOR THE WORKING CREW. THIS WILL INCLUDE BUT NOT BE LIMITED TO A) FALL PROTECTION B) CONFINED SPACE C) ELECTRICAL SAFETY D) TRENCHING AND EXCAVATION.
- 3. ALL SITE WORK SHALL BE AS INDICATED ON THE DRAWINGS AND PROJECT SPECIFICATIONS.
- 4. IF NECESSARY, RUBBISH, STUMPS, DEBRIS, STICKS, STONES AND OTHER REFUSE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF LEGALLY.
- 5. THE SITE SHALL BE GRADED TO CAUSE SURFACE WATER TO FLOW AWAY FROM THE BTS EQUIPMENT AND TOWER AREAS.
- 6. NO FILL OR EMBANKMENT MATERIAL SHALL BE PLACED ON FROZEN GROUND. FROZEN MATERIALS, SNOW OR ICE SHALL NOT BE PLACED IN ANY FILL OR EMBANKMENT.
- 7. THE SUB GRADE SHALL BE COMPACTED AND BROUGHT TO A SMOOTH UNIFORM GRADE PRIOR TO FINISHED SURFACE APPLICATION.
- 8. ALL EXISTING INACTIVE SEWER, WATER, GAS, ELECTRIC AND OTHER UTILITIES, WHICH INTERFERE WITH THE EXECUTION OF THE WORK, SHALL BE REMOVED AND/OR CAPPED, PLUGGED OR OTHERWISE DISCONTINUED AT POINTS WHICH WILL NOT INTERFERE WITH THE EXECUTION OF THE WORK, SUBJECT TO THE APPROVAL OF ENGINEERING, OWNER AND/OR LOCAL UTILITIES.
- 9. THE AREAS OF THE OWNERS PROPERTY DISTURBED BY THE WORK AND NOT COVERED BY THE TOWER, EQUIPMENT OR DRIVEWAY, SHALL BE GRADED TO A UNIFORM SLOPE AND STABILIZED TO PREVENT EROSION AS SPECIFIED IN THE PROJECT SPECIFICATIONS.
- 10. SUBCONTRACTOR SHALL MINIMIZE DISTURBANCE TO EXISTING SITE DURING CONSTRUCTION. EROSION CONTROL MEASURES, IF REQUIRED DURING CONSTRUCTION, SHALL BE IN CONFORMANCE WITH THE LOCAL GUIDELINES FOR EROSION AND SEDIMENT CONTROL.
- 11. THE SUBCONTRACTOR SHALL PROVIDE SITE SIGNAGE IN ACCORDANCE WITH THE T-MOBILE SPECIFICATION FOR SITE SIGNAGE.

## **CONCRETE AND REINFORCING STEEL NOTES:**

- 1. ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE ACI 301, ACI 318, ACI 336, ASTM A184, ASTM A185 AND THE DESIGN AND CONSTRUCTION SPECIFICATION FOR CAST—IN—PLACE CONCRETE.
- 2. ALL CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS, UNLESS NOTED OTHERWISE. A HIGHER STRENGTH (400PSI) MAY BE USED. ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE ACI 381 CODE REQUIREMENTS
- 3. REINFORCING STEEL SHALL CONFORM TO ASTM A 615, GRADE 60, DEFORMED UNLESS NOTED OTHERWISE. WELDED WIRE FABRIC SHALL CONFORM TO ASTM A 185 WELDED STEEL WIRE FABRIC UNLESS NOTED OTHERWISE. SPLICES SHALL BE CLASS "B" AND ALL HOOKS SHALL BE STANDARD, UNO.
- 4. THE FOLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCING STEEL UNLESS SHOWN OTHERWISE ON DRAWINGS:

BEAMS AND COLUMNS ......1/2 IN.

- 5. A CHAMFER 34" SHALL BE PROVIDED AT ALL EXPOSED EDGES OF CONCRETE, UNO, IN ACCORDANCE WITH ACI 301 SECTION
- 6. INSTALLATION OF CONCRETE EXPANSION/WEDGE ANCHORS SHALL BE PER MANUFACTURER'S WRITTEN RECOMMENDED PROCEDURE. THE ANCHOR BOLT, DOWEL OR ROD SHALL CONFORM TO THE MANUFACTURERS RECOMMENDATION FOR EMBEDMENT DEPTH OR AS SHOWN ON THE DRAWINGS. NO REBAR SHALL BE CUT WITHOUT PRIOR CONTRACTOR APPROVAL WHEN DRILLING HOLES IN CONCRETE. SPECIAL INSPECTIONS, REQUIRED BY GOVERNING CODES, SHALL BE PERFORMED IN ORDER TO MAINTAIN MANUFACTURER'S MAXIMUM ALLOWABLE LOADS. ALL EXPANSION/WEDGE ANCHORS SHALL BE STAINLESS STEEL OR HOT DIPPED GALVANIZED. EXPANSION BOLTS SHALL BE PROVIDED BY SIMPSON OR APPROVED EQUAL.
- 7. CONCRETE CYLINDER TIES ARE NOT REQUIRED FOR SLAB ON GRADE WHEN CONCRETE IS LESS THAN 50 CUBIC YARDS (IBC1905.6.2.3) IN THAT EVENT THE FOLLOWING RECORDS SHALL BE PROVIDED BY THE CONCRETE SUPPLIER;
- (A) RESULTS OF CONCRETE CYLINDER TEST PERFORMED AT THE SUPPLIERS PLANT.

  (B) CERTIFICATION OF MINIMUM COMPRESSIVE STRENGTH FOR THE CONCRETE GRADE SUPPLIED.
- FOR GREATER THAN 50 CUBIC YARDS THE GC SHALL PERFORM THE CONCRETE CYLINDER TEST.
- 8. AS AN ALTERNATIVE TO ITEM 7. TEST CYLINDERS SHALL BE TAKEN INITIALLY AND THEREAFTER FOR EVERY 50 YARDS OF CONCRETE FROM EACH DIFFERENT BATCH PLANT.
- 9. EQUIPMENT SHALL NOT BE PLACED ON NEW PADS FOR SEVEN DAYS AFTER PAD IS POURED, UNLESS IT IS VERIFIED BY CYLINDER TESTS THAT COMPRESSIVE STRENGTH HAS BEEN ATTAINED.

## STRUCTURAL STEEL NOTES:

- 1. ALL STEEL WORK SHALL BE PAINTED OR GALVANIZED IN ACCORDANCE WITH THE DRAWINGS AND T-MOBILE SPECIFICATIONS UNLESS OTHERWISE NOTED. STRUCTURAL STEEL SHALL BE ASTM-A-36 UNLESS OTHERWISE NOTED ON THE SITE SPECIFIC DRAWINGS. STEEL DESIGN, INSTALLATION AND BOLTING SHALL BE IN ACCORDANCE WITH THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) "MANUAL OF STEEL CONSTRUCTION".
- 2. ALL WELDING SHALL BE PERFORMED USING E70XX ELECTRODES AND WELDING SHALL CONFORM TO AISC AND AWS D1.1. WHERE FILLET WELD SIZES ARE NOT SHOWN, PROVIDE THE MINIMUM SIZE PER TABLE J2.4 IN THE AISC "MANUAL OF STEEL CONSTRUCTION", 9TH EDITION. PAINTED SURFACES SHALL BE TOUCHED UP.
- 3. BOLTED CONNECTIONS SHALL USE BEARING TYPE ASTM A325 BOLTS (¾"ø) AND SHALL HAVE MINIMUM OF TWO BOLTS UNLESS NOTED OTHERWISE. ALL BOLTS SHALL BE GALVANIZED OR STAINLESS STEEL.
- 4. NON-STRUCTURAL CONNECTIONS FOR STEEL GRATING MAY USE %" DIA. ASTM A 307 BOLTS (GALV) UNLESS NOTED OTHERWISE.
- 5. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR ENGINEER REVIEW & APPROVAL ON PROJECTS REQUIRING STRUCTURAL STEEL
- 6. ALL STRUCTURAL STEEL WORK SHALL BE DONE IN ACCORDANCE WITH AISC SPECIFICATIONS.

## SOIL COMPACTION NOTES FOR SLAB ON GRADE:

- 1. EXCAVATE AS REQUIRED TO REMOVE VEGETATION AND TOPSOIL TO EXPOSE NATURAL SUBGRADE AND PLACE CRUSHED STONE AS REQUIRED.
- 2. COMPACTION CERTIFICATION: AN INSPECTION AND WRITTEN CERTIFICATION BY A QUALIFIED GEOTECHNICAL TECHNICIAN OR ENGINEER IS ACCEPTABLE.
- 3. AS AN ALTERNATE TO INSPECTION AND WRITTEN CERTIFICATION, THE "UNDISTURBED SOIL" BASE SHALL BE COMPACTED WITH "COMPACTION EQUIPMENT", LISTED BELOW, TO AT LEAST 90% MODIFIED PROCTOR MAXIMUM DENSITY PER ASTM D 1557 METHOD C.
- 4. COMPACTED SUBBASE SHALL BE UNIFORM AND LEVELED. PROVIDE 6" MINIMUM CRUSHED STONE OR GRAVEL COMPACTED IN 3" LIFTS ABOVE COMPACTED SOIL. GRAVEL SHALL BE NATURAL OR CRUSHED WITH 100% PASSING #1 SIEVE.
- 5. AS AN ALTERNATE TO ITEMS 2 AND 3, THE SUBGRADE SOILS WITH 5 PASSES OR A MEDIUM SIZED VIBRATORY PLATE COMPACTOR (SUCH AS BOMAG BPR 30/38) OR HAND—OPERATED SINGLE DRUM VIBRATORY ROLLER (SUCH AS BOMAG BW 55E). AND SOFT AREAS THAT ARE ENCOUNTERED SHOULD BE REMOVED AND REPLACED WITH A WELL—GRADED GRANULAR FILL AND COMPACTED AS STATED ABOVE.

## **COMPACTION EQUIPMENT:**

1. HAND OPERATED DOUBLE DRUN, VIBRATORY ROLLER, VIBRATORY PLATE COMPACTOR OR JUMPING JACK COMPACTOR.

## CONSTRUCTION NOTES:

1. FIELD VERIFICATION:

- SUBCONTRACTOR SHALL FIELD VERIFY SCOPE OF WORK, T-MOBILE ANTENNA PLATFORM LOCATION AND UTILITY TRENCHWORK.
- 2. COORDINATION OF WORK: SUBCONTRACTOR SHALL COORDINATE RF WORK AND PROCEDURES WITH CONTRACTOR.
- 3. CABLE LADDER RACK:
- SUBCONTRACTOR SHALL FURNISH AND INSTALL CABLE LADDER RACK, CABLE TRAY AND/OR ICE BRIDGE, AND CONDUIT AS REQUIRED TO SUPPORT CABLES TO THE NEW BTS LOCATION.

## **ELECTRICAL INSTALLATION NOTES:**

- 1. WIRING, RACEWAY, AND SUPPORT METHODS AND MATERIALS SHALL COMPLY WITH THE REQUIREMENTS OF THE NEC AND TELCORDIA.
- 2. SUBCONTRACTOR SHALL MODIFY OR INSTALL CABLE TRAY SYSTEM AS REQUIRED TO SUPPORT RF AND TRANSPORT CABLING TO THE NEW BTS EQUIPMENT. SUBCONTRACTOR SHALL SUBMIT MODIFICATIONS TO CONTRACTOR FOR APPROVAL.
- 3. ALL CIRCUITS SHALL BE SEGREGATED AND MAINTAIN MINIMUM CABLE SEPARATION AS REQUIRED BY THE NEC AND
- 4. CABLES SHALL NOT BE ROUTED THROUGH LADDER-STYLE CABLE TRAY RUNGS.
- 5. EACH END OF EVERY POWER, GROUNDING, AND T1 CONDUCTOR AND CABLE SHALL BE LABELED WITH COLOR—CODED INSULATION OR ELECTRICAL TAPE (3M BRAND, 1/2 INCH PLASTIC ELECTRICAL TAPE WITH UV PROTECTION, OR EQUAL). THE IDENTIFICATION METHOD SHALL CONFORM WITH NEC AND OSHA, AND MATCH INSTALLATION REQUIREMENTS.
- 6. POWER PHASE CONDUCTORS (I.E., HOTS) SHALL BE LABELED WITH COLOR—CODED INSULATION OR ELECTRICAL TAPE (3M BRAND, ½ INCH PLASTIC ELECTRICAL TAPE WITH UV PROTECTION, OR EQUAL). PHASE CONDUCTOR COLOR CODES SHALL CONFORM WITH THE NEC AND OSHA.
- 7. ALL ELECTRICAL COMPONENTS SHALL BE CLEARLY LABELED WITH ENGRAVED LAMACOID PLASTIC LABELS. ALL EQUIPMENT SHALL BE LABELED WITH THEIR VOLTAGE RATING, PHASE CONFIGURATION, WIRE CONFIGURATION, POWER OR AMPACITY RATING, AND BRANCH CIRCUIT ID NUMBERS (I.E., PANELBOARD AND CIRCUIT ID'S).
- 8. PANELBOARDS (ID NUMBERS) AND INTERNAL CIRCUIT BREAKERS (CIRCUIT ID NUMBERS) SHALL BE CLEARLY LABELED WITH ENGRAVED LAMACOID PLASTIC LABELS.
- 9. ALL TIE WRAPS SHALL BE CUT FLUSH WITH APPROVED CUTTING TOOL TO REMOVE SHARP EDGES.
- 10. POWER, CONTROL, AND EQUIPMENT GROUND WIRING IN TUBING OR CONDUIT SHALL BE SINGLE CONDUCTOR (#34 AWG OR LARGER), 600 V, OIL RESISTANT THHN OR THWN-2, CLASS B STRANDED COPPER CABLE RATED FOR 90 °C (WET AND DRY) OPERATION; LISTED OR LABELED FOR THE LOCATION AND RACEWAY SYSTEM USED, UNLESS OTHERWISE SPECIFIED.
- 11. SUPPLEMENTAL EQUIPMENT GROUND WIRING LOCATED INDOORS SHALL BE SINGLE CONDUCTOR (#6 AWG OR LARGER), 600 V, OIL RESISTANT THHN OR THWN-2 GREEN INSULATION, CLASS B STRANDED COPPER CABLE RATED FOR 90 °C (WET AND DRY) OPERATION; LISTED OR LABELED FOR THE LOCATION AND RACEWAY SYSTEM USED, UNLESS OTHERWISE SPECIFIED.
- 12. SUPPLEMENTAL EQUIPMENT GROUND WIRING LOCATED OUTDOORS, OR BELOW GRADE, SHALL BE SINGLE CONDUCTOR #2 AWG SOLID TINNED COPPER CABLE, UNLESS OTHERWISE SPECIFIED.
- 13. POWER AND CONTROL WIRING, NOT IN TUBING OR CONDUIT, SHALL BE MULTI-CONDUCTOR, TYPE TC CABLE (#34 AWG OR LARGER), 600 V, OIL RESISTANT THHN OR THWN-2, CLASS B STRANDED COPPER CABLE RATED FOR 90 °C (WET AND DRY) OPERATION; WITH OUTER JACKET; LISTED OR LABELED FOR THE LOCATION USED, UNLESS OTHERWISE SPECIFIED.
- 14. ALL POWER AND GROUNDING CONNECTIONS SHALL BE CRIMP—STYLE, COMPRESSION WIRE LUGS AND WIRENUTS BY HARGER (OR EQUAL). LUGS AND WIRENUTS SHALL BE RATED FOR OPERATION AT NO LESS THAN 75°C (90°C IF AVAILABLE).
- 15. RACEWAY AND CABLE TRAY SHALL BE LISTED OR LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA, UL, ANSI/IEEE AND NEC.
- 16. NEW RACEWAY OR CABLE TRAY WILL MATCH THE EXISTING INSTALLATION WHERE POSSIBLE.
- 17. ELECTRICAL METALLIC TUBING (EMT) OR RIGID NONMETALLIC CONDUIT (I.E., RIGID PVC SCHEDULE 40 OR RIGID PVC SCHEDULE 80 FOR LOCATIONS SUBJECT TO PHYSICAL DAMAGE) SHALL BE USED FOR EXPOSED INDOOR LOCATIONS.
- 18. ELECTRICAL METALLIC TUBING (EMT), ELECTRICAL NONMETALLIC TUBING (ENT), OR RIGID NONMETALLIC CONDUIT (RIGID PVC, SCHEDULE 40) SHALL BE USED FOR CONCEALED INDOOR LOCATIONS.
- 19. GALVANIZED STEEL INTERMEDIATE METALLIC CONDUIT (IMC) SHALL BE USED FOR OUTDOOR LOCATIONS ABOVE
- 20. RIGID NONMETALLIC CONDUIT (I.E., RIGID PVC SCHEDULE 40 OR RIGID PVC SCHEDULE 80) SHALL BE USED UNDERGROUND; DIRECT BURIED, IN AREAS OF OCCASIONAL LIGHT VEHICLE TRAFFIC OR ENCASED IN REINFORCED CONCRETE IN AREAS OF HEAVY VEHICLE TRAFFIC.
- 21. LIQUID-TIGHT FLEXIBLE METALLIC CONDUIT (LIQUID-TITE FLEX) SHALL BE USED INDOORS AND OUTDOORS, WHERE VIBRATION OCCURS OR FLEXIBILITY IS NEEDED.
- 22. CONDUIT AND TUBING FITTINGS SHALL BE THREADED OR COMPRESSION—TYPE AND APPROVED FOR THE LOCATION
- 23. CABINETS, BOXES AND WIREWAYS SHALL BE LISTED OR LABELED FOR ELECTRICAL USE IN ACCORDANCE WITH NEMA,
- UL, ANSI/IEEE AND NEC.

  24. CABINETS. BOXES AND WIREWAYS TO MATCH THE EXISTING INSTALLATION WHERE POSSIBLE.

USED. SETSCREW FITTINGS ARE NOT ACCEPTABLE.

- 25. WIREWAYS SHALL BE EPOXY—COATED (GRAY) AND INCLUDE A HINGED COVER, DESIGNED TO SWING OPEN DOWNWARD; SHALL BE PANDUIT TYPE E (OR EQUAL); AND RATED NEMA 1 (OR BETTER) INDOORS, OR NEMA 3R (OR BETTER) OUTDOORS.
- 26. EQUIPMENT CABINETS, TERMINAL BOXES, JUNCTION BOXES, AND PULL BOXES SHALL BE GALVANIZED OR EPOXY—COATED SHEET STEEL, SHALL MEET OR EXCEED UL 50, AND RATED NEMA 1 (OR BETTER) INDOORS, OR NEMA 3R (OR BETTER) OUTDOORS.
- 27. METAL RECEPTACLE, SWITCH, AND DEVICE BOXES SHALL BE GALVANIZED, EPOXY—COATED, OR NON—CORRODING; SHALL MEET OR EXCEED UL 514A AND NEMA OS 1; AND RATED NEMA 1 (OR BETTER) INDOORS, OR WEATHER PROTECTED (WP OR BETTER) OUTDOORS.
- 28. NONMETALLIC RECEPTACLE, SWITCH, AND DEVICE BOXES SHALL MEET OR EXCEED NEMA OS 2; AND RATED NEMA 1 (OR BETTER) INDOORS, OR WEATHER PROTECTED (WP OR BETTER) OUTDOORS.
- 29. THE SUBCONTRACTOR SHALL NOTIFY AND OBTAIN NECESSARY AUTHORIZATION FROM THE CONTRACTOR BEFORE COMMENCING WORK ON THE AC POWER DISTRIBUTION PANELS.
- 30. THE SUBCONTRACTOR SHALL PROVIDE NECESSARY TAGGING ON THE BREAKERS, CABLES AND DISTRIBUTION PANELS IN ACCORDANCE WITH THE APPLICABLE CODES AND STANDARDS TO SAFEGUARD AGAINST LIFE AND PROPERTY.
- 31. ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS, NEC AND ALL APPLICABLE LOCAL CODES.
- 32. CONDUIT ROUTINGS ARE SCHEMATIC. SUBCONTRACTOR SHALL INSTALL CONDUITS SO THAT ACCESS TO EQUIPMENT IS NOT BLOCKED.

## T-MOBILE NORTHEAST LLC

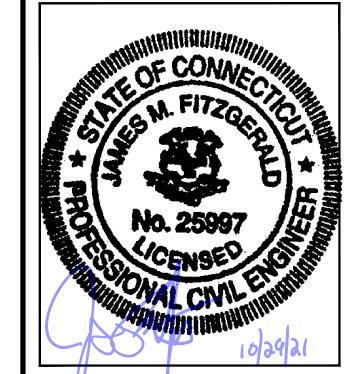
15 COMMERCE WAY, SUITE B NORTON, MA 02766 (508) 286-2700



SBA COMMUNICATIONS CORP.
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(508) 251-0720



R.K. EXECUTIVE CENTRE
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MARLBOROUGH, MA 01752
(508) 481-7400
www.chappellengineering.com



CHECKED BY: JMT

APPROVED BY: JM

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CTNH231A

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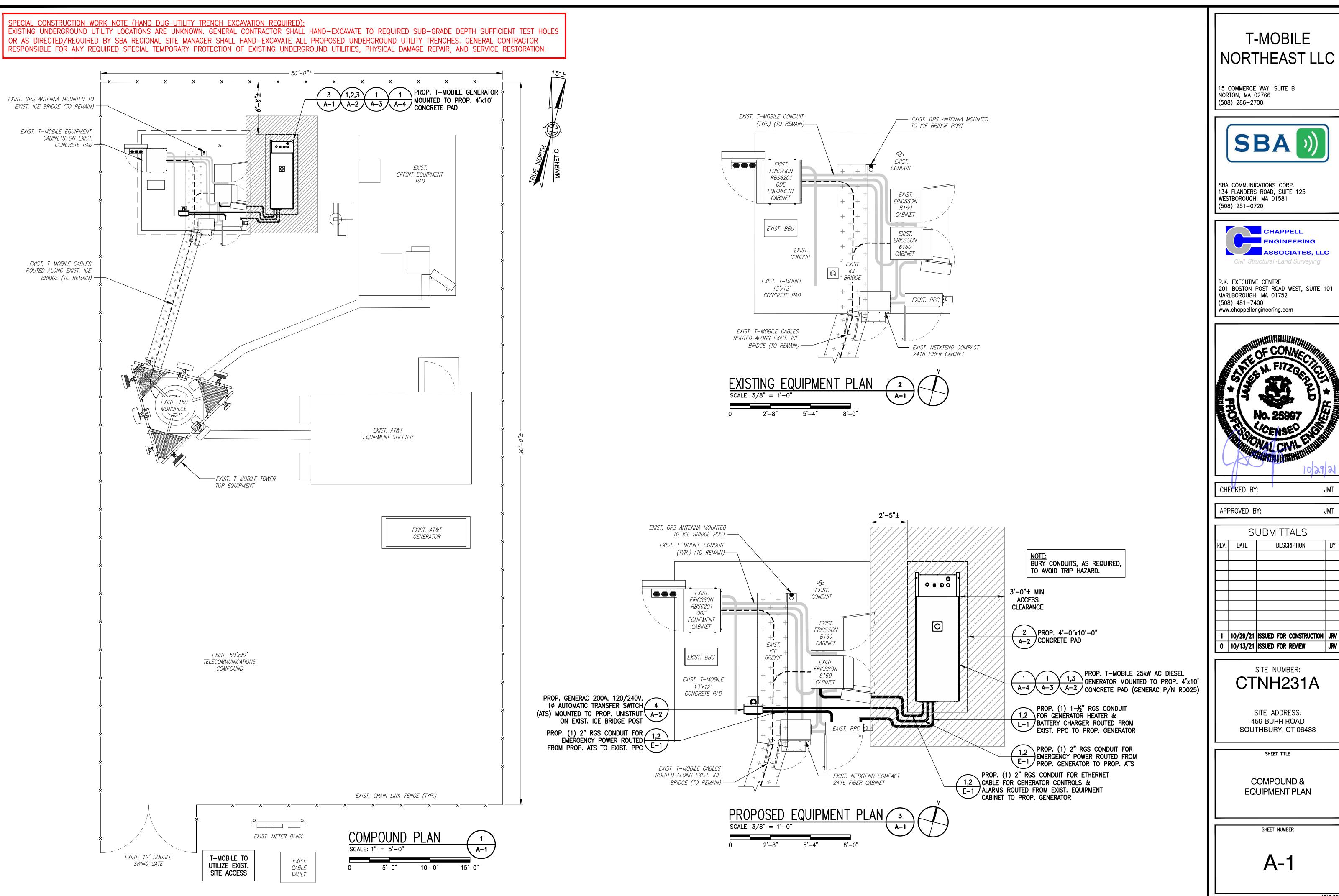
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**GENERAL NOTES** 

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## T-MOBILE NORTHEAST LLC

15 COMMERCE WAY, SUITE B



SBA COMMUNICATIONS CORP. 134 FLANDERS ROAD, SUITE 125 WESTBOROUGH, MA 01581



R.K. EXECUTIVE CENTRE 201 BOSTON POST ROAD WEST, SUITE 101 MARLBOROUGH, MA 01752



SUBMITTALS DESCRIPTION

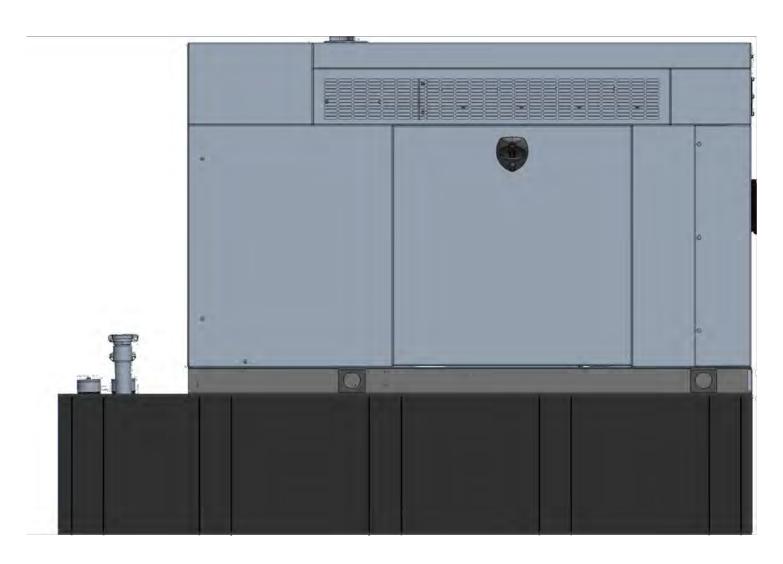
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SHEET TITLE

COMPOUND & **EQUIPMENT PLAN** 

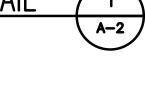
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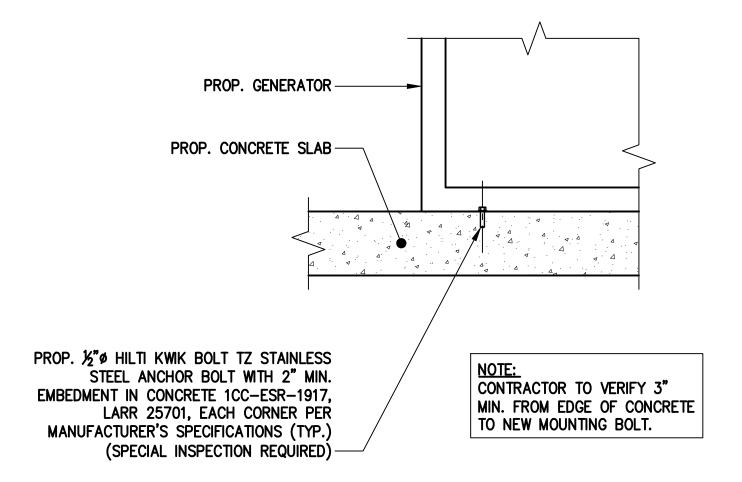
NOTE:
GENERATOR DIESEL TANK TO
BE FILLED BY CONTRACTOR



GENERAC RD025 25kW AC DIESEL GENERATOR DIMENSIONS: 103.4"L x 35.0"W x 91.7"H WEIGHT: 2,946 lbs QUANTITY: TOTAL OF 1

GENERATOR DETAIL SCALE: N.T.S.

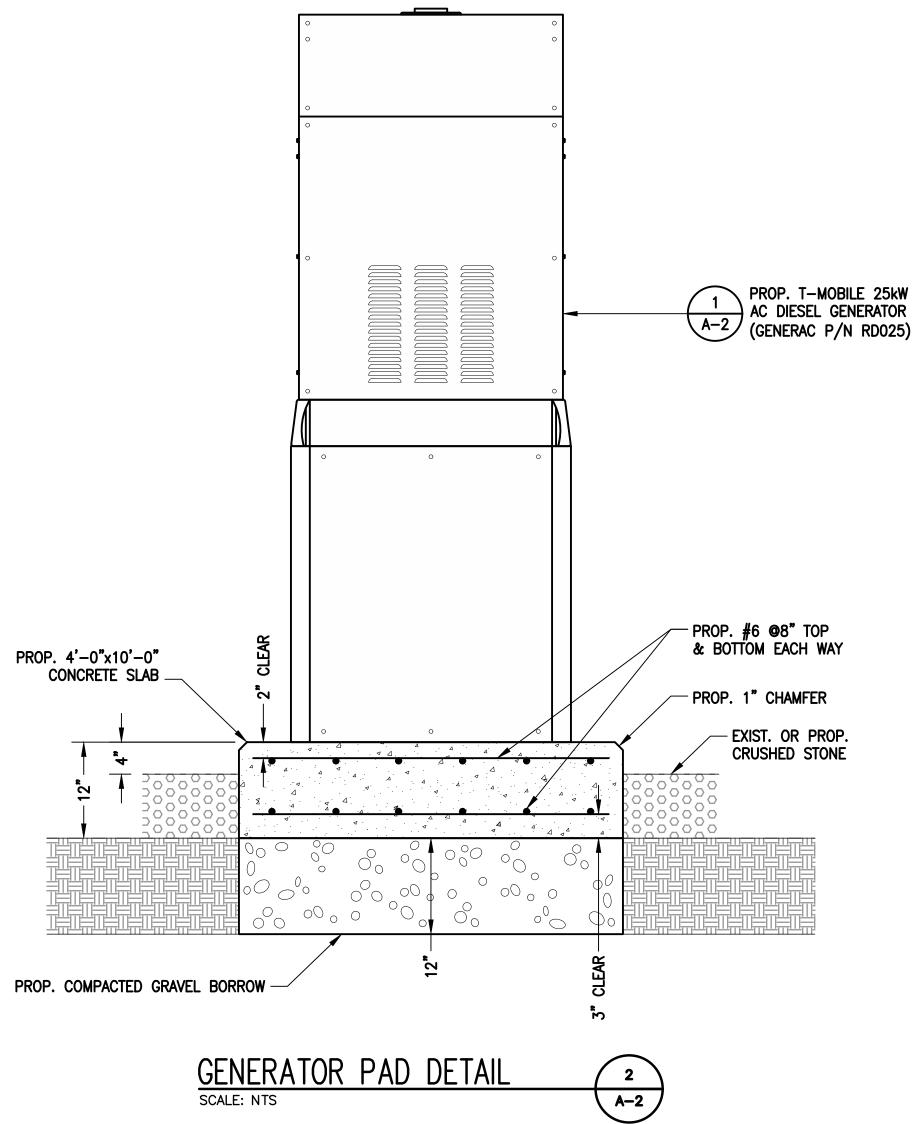


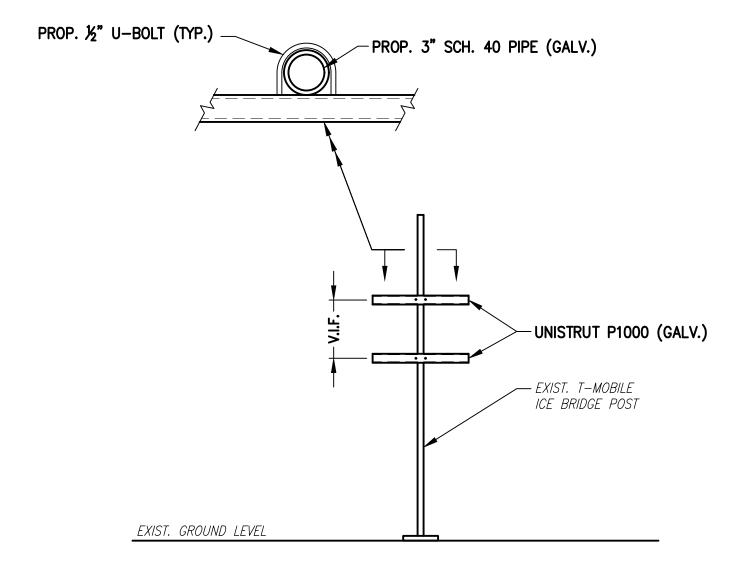


GENERATOR MOUNTING DETAIL

SCALE: N.T.S.

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## T-MOBILE NORTHEAST LLC

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CHECKED BY:

APPROVED BY:

SUBMITTALS REV. DATE DESCRIPTION

1 10/29/21 ISSUED FOR CONSTRUCTION JRV 0 10/13/21 ISSUED FOR REVIEW

> SITE NUMBER: CTNH231A

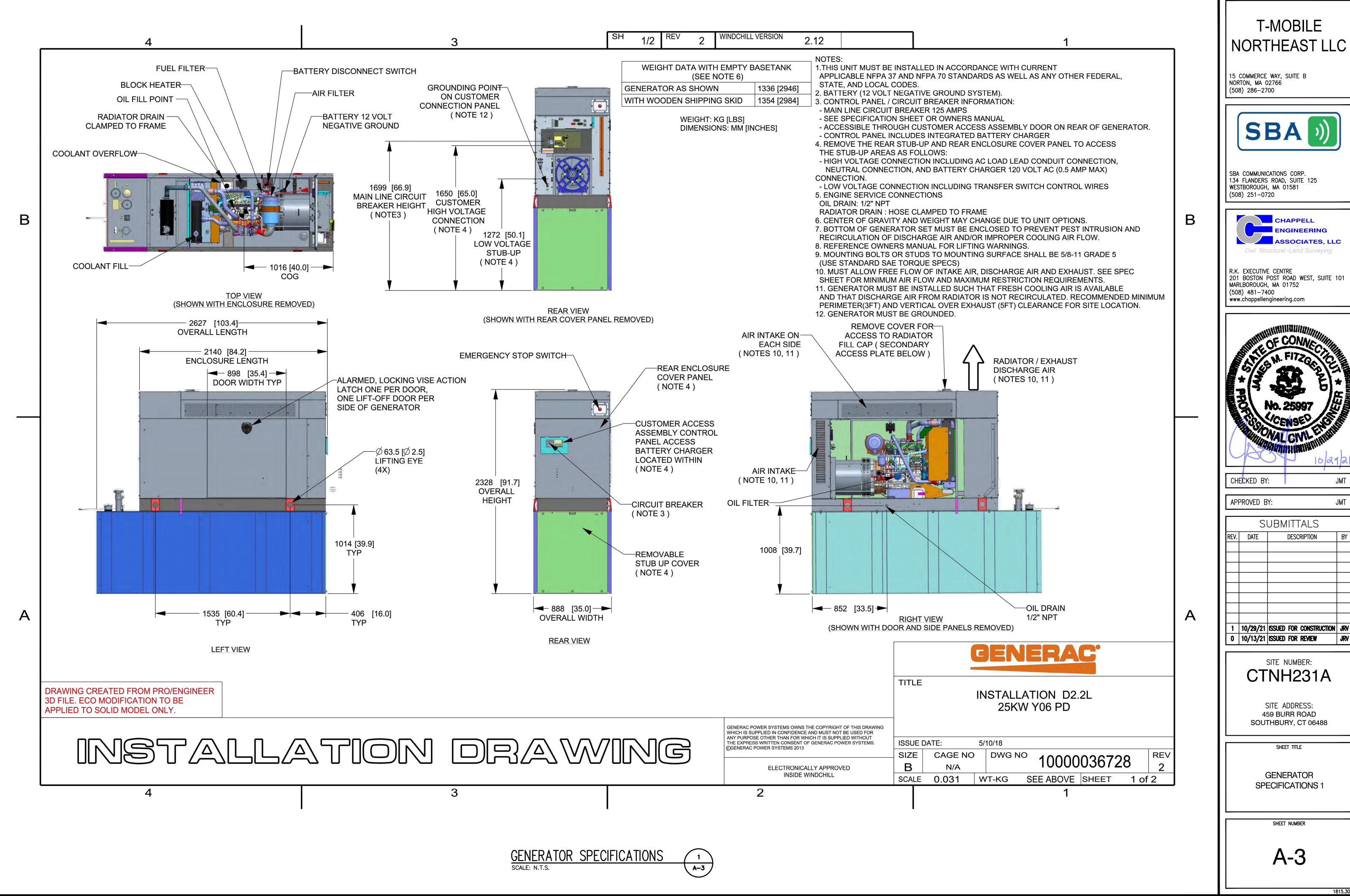
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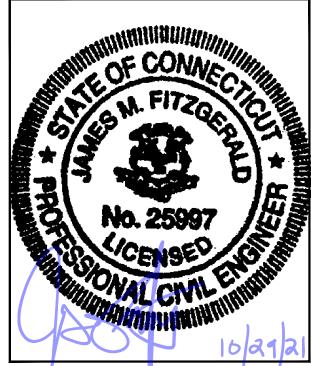
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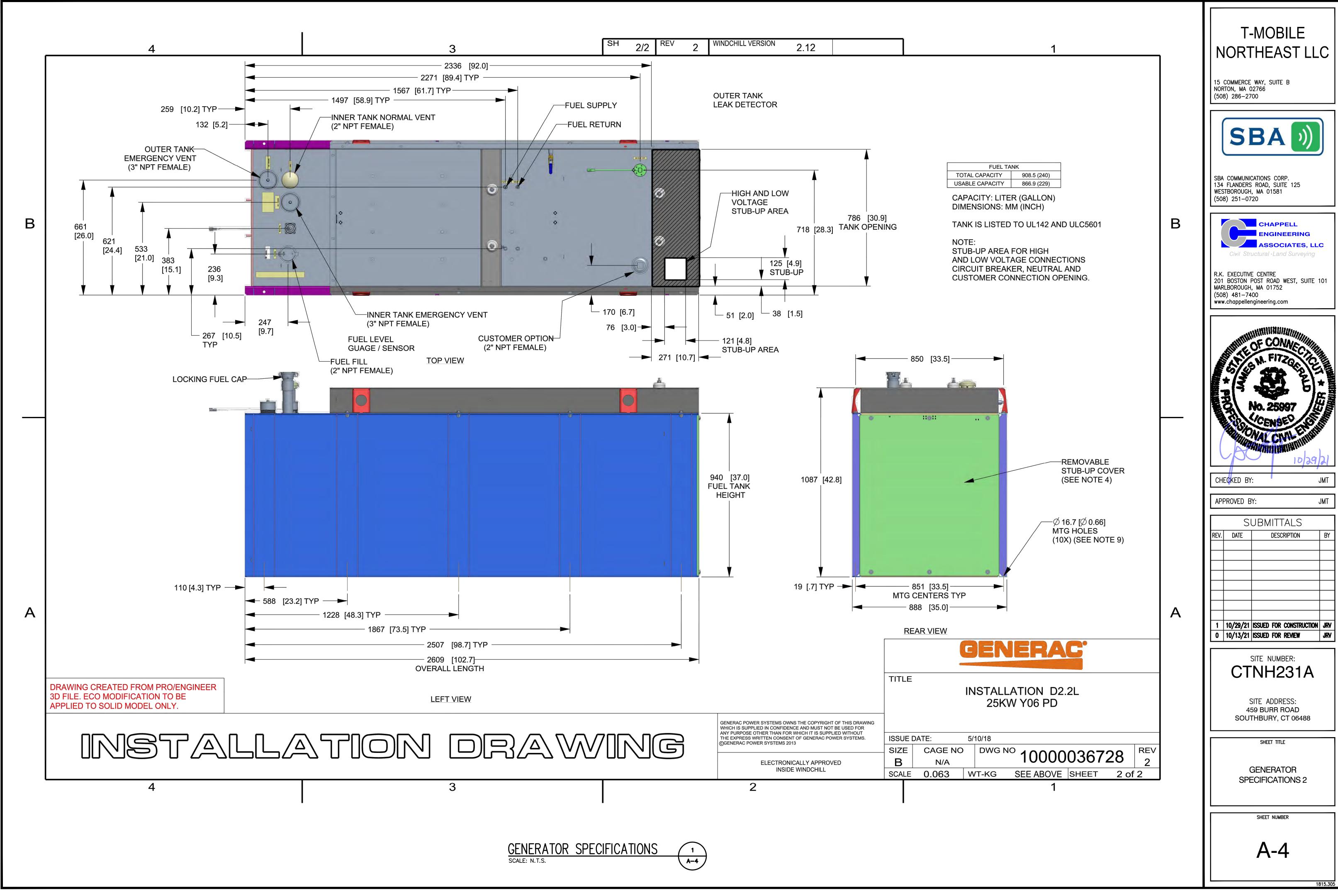
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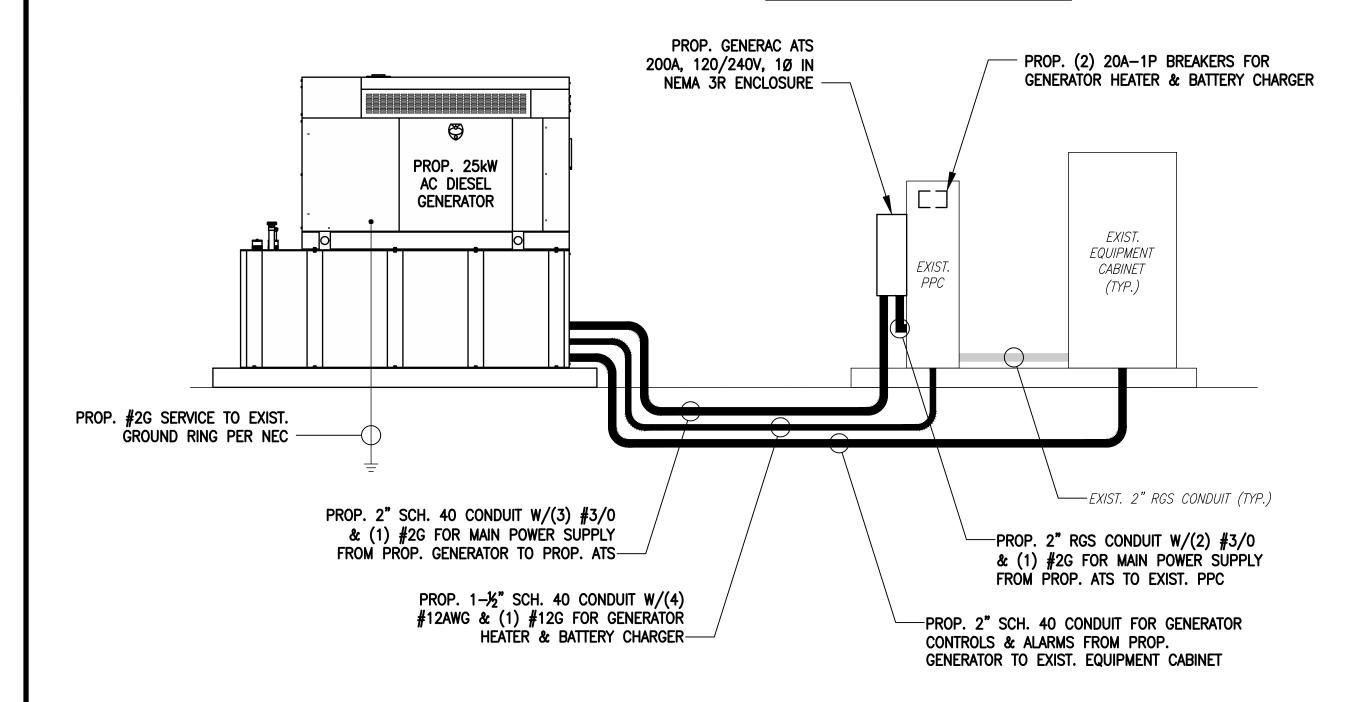


# NOTE: CUT BACK (E) MAIN POWER CONDUIT, AS REQUIRED, & RECOONECT TO (P) ATS.

E-1

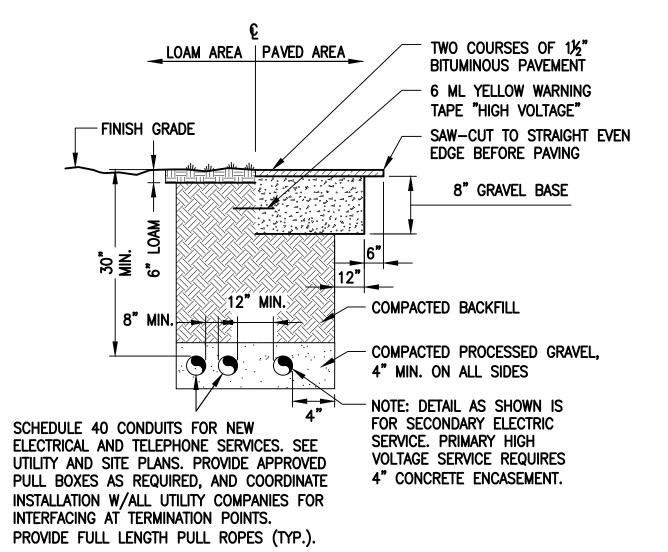
STAINLESS STEEL

HARDWARE



ONE-LINE POWER DIAGRAM

SCALE: NOT TO SCALE

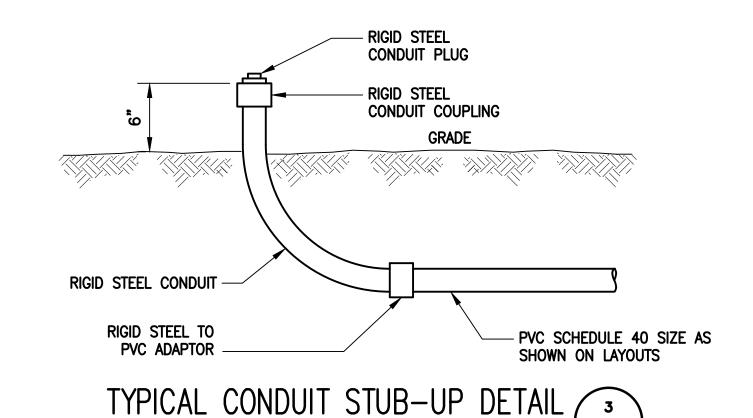


SCALE: NOT TO SCALE

- FLAT WASHER, TYP.

- **¾**"x1¼" HEX BOLT

E-1





## ELECTRICAL AND GROUNDING NOTES

SCALE: NONE

- 1. ALL ELECTRICAL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE (NEC) AS WELL AS APPLICABLE STATE AND LOCAL CODES.
- 2. ALL ELECTRICAL ITEMS SHALL BE U.L. APPROVED OR LISTED AND PROCURED PER SPECIFICATION REQUIREMENTS.
- 3. THE ELECTRICAL WORK INCLUDES ALL LABOR AND MATERIAL DESCRIBED BY DRAWINGS AND SPECIFICATION INCLUDING INCIDENTAL WORK TO PROVIDE COMPLETE OPERATING AND APPROVED ELECTRICAL SYSTEM.
- 4. GENERAL CONTRACTOR SHALL PAY FEES FOR PERMITS, AND IS RESPONSIBLE FOR OBTAINING SAID PERMITS AND COORDINATION OF INSPECTIONS.
- 5. ELECTRICAL AND TELCO WIRING OUTSIDE A BUILDING AND EXPOSED TO WEATHER SHALL BE IN WATER TIGHT GALVANIZED RIGID STEEL CONDUITS OR SCHEDULE 80 PVC (AS PERMITTED BY CODE) AND WHERE REQUIRED IN LIQUID TIGHT FLEXIBLE METAL OR NONMETALLIC CONDUITS.
- 6. BURIED CONDUIT SHALL BE SCHEDULE 40 PVC.
- 7. ELECTRICAL WIRING SHALL BE COPPER WITH TYPE XHHW, THWN, OR THININSULATION.
- 8. RUN ELECTRICAL CONDUIT OR CABLE BETWEEN ELECTRICAL UTILITY DEMARCATION POINT AND PROJECT OWNER CELL SITE PPC AS INDICATED ON THIS DRAWING. PROVIDE FULL LENGTH PULL ROPE. COORDINATE INSTALLATION WITH UTILITY COMPANY.
- 9. RUN TELCO CONDUIT OR CABLE BETWEEN TELEPHONE UTILITY DEMARCATION POINT AND PROJECT OWNER CELL SITE TELCO CABINET AND BTS CABINET AS INDICATED ON THIS DRAWING PROVIDE FULL LENGTH PULL ROPE IN INSTALLED TELCO CONDUIT. PROVIDE GREENLEE CONDUIT MEASURING TAPE AT EACH END.
- 10. WHERE CONDUIT BETWEEN BTS AND PROJECT OWNER CELL SITE PPC AND BETWEEN BTS AND PROJECT OWNER CELL SITE TELCO SERVICE CABINET ARE UNDERGROUND USE PVC, SCHEDULE 40 CONDUIT. ABOVE THE GROUND PORTION OF THESE CONDUITS SHALL BE PVC CONDUIT.
- 11. ALL EQUIPMENT LOCATED OUTSIDE SHALL HAVE NEMA 3R ENCLOSURE.
- 11. ALL EQUIPMENT LOCATED OUTSIDE SET 12. PPC SUPPLIED BY PROJECT OWNER.
- 13. GROUNDING SHALL COMPLY WITH NEC ART. 250. ADDITIONALLY, GROUNDING, BONDING AND LIGHTNING PROTECTION SHALL BE DONE IN ACCORDANCE WITH "T-MOBILE BTS SITE GROUNDING STANDARDS".
- 14. GROUND COAXIAL CABLE SHIELDS MINIMUM AT BOTH ENDS USING MANUFACTURERS COAX CABLE GROUNDING KITS SUPPLIED BY PROJECT
- 15. USE #6 COPPER STRANDED WIRE WITH GREEN COLOR INSULATION FOR ABOVE GRADE GROUNDING (UNLESS OTHERWISE SPECIFIED) AND #2 SOLID TINNED BARE COPPER WIRE FOR BELOW GRADE GROUNDING AS INDICATED ON THE DRAWING.
- 16. ALL GROUND CONNECTIONS TO BE BURNDY HYGROUND COMPRESSION TYPE CONNECTORS OR CADWELD EXOTHERMIC WELD. DO NOT ALLOW BARE COPPER WIRE TO BE IN CONTACT WITH GALVANIZED STEEL.
- 17. ROUTE GROUNDING CONDUCTORS ALONG THE SHORTEST AND STRAIGHTEST PATH POSSIBLE, EXCEPT AS OTHERWISE INDICATED. GROUNDING LEADS SHOULD NEVER BE BENT AT RIGHT ANGLE. ALWAYS MAKE AT LEAST 12" RADIUS BENDS. #6 WIRE CAN BE BENT AT 6" RADIUS WHEN NECESSARY. BOND ANY METAL OBJECTS WITHIN 6 FEET OF PROJECT OWNER EQUIPMENT OR CABINET TO MASTER GROUND BAR OR GROUNDING
- 18. CONNECTIONS TO GROUND BARS SHALL BE MADE WITH TWO HOLE COMPRESSION TYPE COPPER LUGS. APPLY OXIDE INHIBITING COMPOUND TO ALL LOCATIONS.
- 19. APPLY OXIDE INHIBITING COMPOUND TO ALL COMPRESSION TYPE GROUND CONNECTIONS.
- 20. CONTRACTOR SHALL PROVIDE AND INSTALL OMNI DIRECTIONAL ELECTRONIC MARKER SYSTEM (EMS) BALLS OVER EACH GROUND ROD AND BONDING POINT BETWEEN EXIST. TOWER/ MONOPOLE GROUNDING RING AND EQUIPMENT GROUNDING RING.
- 21. CONTRACTOR SHALL TEST COMPLETED GROUND SYSTEM AND RECORD RESULTS FOR PROJECT CLOSE—OUT DOCUMENTATION. 5 OHMNS MINIMUM RESISTANCE REQUIRED.
- 22. CONTRACTOR SHALL CONDUCT ANTENNA, COAX, AND LNA RETURN-LOSS AND DISTANCE- TO-FAULT MEASUREMENTS (SWEEP TESTS) AND RECORD RESULTS FOR PROJECT CLOSE OUT.

T-MOBILE NORTHEAST LLC

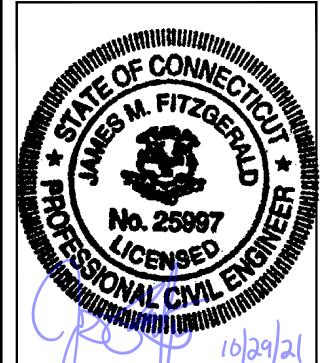
15 COMMERCE WAY, SUITE B NORTON, MA 02766 (508) 286-2700



SBA COMMUNICATIONS CORP.
134 FLANDERS ROAD, SUITE 125
WESTBOROUGH, MA 01581
(508) 251-0720



R.K. EXECUTIVE CENTRE
201 BOSTON POST ROAD WEST, SUITE 101
MARLBOROUGH, MA 01752
(508) 481-7400
www.chappellengineering.com



CHECKED BY: JMT

APPROVED BY: JMT

| S        | UBM    | ΙΤΊ  | TALS         |   |
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| 10/29/21 | ISSUED | FOR  | CONSTRUCTION | JRV   |
| 10/13/21 | ISSUED | FOR  | REVIEW       | JRV   |
|          | DATE   | DATE | DATE DESC    | SUBMITTALS  DATE DESCRIPTION  10/29/21 ISSUED FOR CONSTRUCTION 10/13/21 ISSUED FOR REVIEW |

SITE NUMBER: CTNH231A

SITE ADDRESS: 459 BURR ROAD SOUTHBURY, CT 06488

SHEET TITLE

ELECTRIC & GROUNDING DETAILS

SHEET NUMBER

E-

GROUND BAR (EGB)

SCALE: NOT TO SCALE

E-1

CADWELD

(LOWER EGB)

TO GROUNDING RING

ANDREW UGBKIT2

ANTENNA MOUNT GROUND

COAX CABLE

GROUNDING KITS

TWO HOLE COMPRESSION NUT, TYP. — CLEAR HEAT-SHRINK INSULATION EXTENDING 1/4" OVER LUG & 2" OVER GROUND BAR CABLE INSULATION -EXPOSED BARE COPPER TO BE KEPT TO ABSOLUTE MINIMUM, NO GROUNDING CABLE INSULATION ALLOWED WITHIN THE GROUND CABLE COMPRESSION TERMINAL (TYP.) GROUND BAR SECTION A-A **ELEVATION** "DOUBLING UP" OR "STACKING" OF CONNECTION IS NOT PERMITTED. OXIDE INHIBITING COMPOUND TO BE USED AT ALL LOCATIONS. 3. CADWELL DOWNLEADS FROM UPPER EGB, LOWER EGB AND MGB. SCALE: NOT TO SCALE

FLAT WASHER, TYP.

LOCK WASHER, TYP.

## EXHIBIT 7

Generac RD025 25 KW 25kw Diesel Specifications **Standby Power Rating** 25 kW, 31.25 kVA, 60 Hz







Image used for illustration purposes only

## **Codes and Standards**

Not all codes and standards apply to all configurations. Contact factory for details.



UL2200, UL508, UL489, UL142



CSA 22.2





BS5514 and DIN 6271



**SAE J1349** 



NFPA 37, 70, 99



ISO 3046, 8528, 9001



NEMA ICS1, ICS10, MG1, 250, ICS6, AB1



an National Standards Institute ANSI/IEEE C62.41

## **Powering Ahead**

For over 50 years, Generac has led the industry with innovative design and superior manufacturing.

Generac ensures superior quality by designing and manufacturing most of its generator components, including alternators, enclosures and base tanks, control systems and communications software.

Generac's gensets utilize a wide variety of options, configurations and arrangements, allowing us to meet the standby power needs of practically every application.

Generac searched globally to ensure the most reliable engines power our generators. We choose only engines that have already been proven in heavy-duty industrial application under adverse conditions.

Generac is committed to ensuring our customers' service support continues after their generator purchase.

## RD025 | 2.2L | 25 kW

### INDUSTRIAL DIESEL GENERATOR SET

**EPA Certified Stationary Emergency** 

## **Standard Features**

## **ENGINE SYSTEM**

- Cold Weather Kit
- Oil Drain Extension
- Heavy Duty Air Cleaner
- Fan Guard
- Stainless Steel Flexible Exhaust Connection
- · Factory Filled Oil & Coolant
- Critical Exhaust Silencer

#### **GENERATOR SET**

- Sound Attenuated Aluminum Enclosure
- Internal Genset Vibration Isolation
- · Separation of Circuits High/Low Voltage
- Wrapped Exhaust Piping
- Standard Factory Testing
- 5 Year Limited Warranty
- Ready to Accept Full Load in <10 Seconds
- E-Stop

### **Electrical System**

- Battery Charging Alternator
- Battery Cables
- Battery Tray
- Rubber-Booted Engine Electrical Connections
- Solenoid Activated Starter Motor
- Smart Battery Charger

#### **ALTERNATOR SYSTEM**

- Class H Insulation Material
- 2/3 Pitch
- Skewed Stator
- Sealed Bearings
- Low Temperature Rise (>120°C)
- Low THD (<5%)

## **Cooling System**

**GENERAC**<sup>®</sup>

**INDUSTRIAL** 

- Closed Coolant Recovery System
- · Factory-Installed Radiator
- 50/50 Ethylene Glycol Antifreeze
- Radiator Drain Extension
- Can Operate at up to 122°F (50°C) Ambient Temperature

### **Fuel System**

- · Fuel Lockoff Solenoid
- · Primary Fuel Filter
- Stainless Steel Fuel Lines

### **TANKS**

- 24 Hour Run Time Tank
- UL142 Listed Tank

## **CONTROL SYSTEM**



## **Evolution ™ Controller**

- Two-Line Plain Text LCD Display
- Programmable Start Delay Between 10-30 seconds
- 10 second Engine Start Sequence
- 5 second Engine Warm Up
- 1 minute Engine Cool-Down
- Starter Lock-Out
- Smart Battery Charger
- Automatic Voltage Regulation with Over and Under Protection
- Automatic Low Oil Pressure Shutdown
- Overspeed Shutdown
- High Temperature Shutdown

- Overcrank Protection
- · Safety Fused
- · Failure to Transfer Protection
- Low Battery Protection
- 50 Even Run Log
- Future Set Capable Exerciser
- Incorrect Wiring Protection
- Internal Fault Protection
- · Common External Fault Capability
- · Governor Failure Protection

## **Optional Shipped Loose and Field Install Kits**

#### **ENGINE SYSTEM**

Base Plug Kit

### **GENERATOR SET**

- O Paint Kit
- O Scheduled Maintance Kit

#### **CONTROL SYSTEM**

○ Mobile Link <sup>TM</sup> and Adapter Kit

### **TANKS**

- O Spill Box
- O 90% Fuel Alarm
- Tank Risers
- O Spill Box Drainback Kit
- O Vent Extension Support Kit
- 5 Day Run Time Tank

## RD025 | 2.2L | 25 kW

## INDUSTRIAL DIESEL GENERATOR SET

**EPA Certified Stationary Emergency** 



## **APPLICATION AND ENGINEERING DATA**

## **ENGINE SPECIFICATIONS**

| $\cap$ | _ | _ | _        |    | ī |
|--------|---|---|----------|----|---|
| l-     | e | n | $\Theta$ | ГA |   |

| Make                               | Perkins                  |
|------------------------------------|--------------------------|
| EPA Emission Compliance            | Tier 4 Interim           |
| Cylinder #                         | 4                        |
| Туре                               | In-Line                  |
| Displacement - in <sup>3</sup> (L) | 2.22 (135)               |
| Bore - in (mm)                     | 3.3 (84.0)               |
| Stroke - in (mm)                   | 3.9 (100.0)              |
| Compression Ratio                  | 23.3:1                   |
| Intake Air Method                  | Turbocharged/Aftercooled |
| Piston Type                        | Aluminum                 |
| Crankshaft Type                    | Forged Steel             |
| Engine Block Type                  | Cast Iron                |
|                                    |                          |
|                                    |                          |

## Engine Governing

| Governor                            | Electronic |
|-------------------------------------|------------|
| Frequency Regulation (Steady State) | ±0.25%     |

## Lubrication System

| Oil Pump Type                           | Gear                |
|---|---------------------|
| Oil Filter Type                         | Full Flow Cartridge |
| Crankcase Capacity with Filters- qt (L) | 11.2 (10.6)         |

## Cooling System

| Cooling System Type    | Closed Recovery |
|------------------------|-----------------|
| Fan Type               | Pusher          |
| Fan Speed- rpm         | 1,980           |
| Fan Diameter - in (mm) | 18.0 (457.2)    |

## Fuel System

| Fuel Type                | Ultra Low Sulfur Diesel Fuel  |
|--------------------------|-------------------------------|
| Fuel Specification       | ASTM                          |
| Fuel Pump Type           | Mechanical Engine Driven Gear |
| Injector Type            | Mechanical                    |
| Fuel Supply Lin (mm/in)  | 7.94/0.31 (ID)                |
| Fuel Return Line (mm/in) | 4.76/.19 (ID)                 |
| Fuel Filtering (microns) | 25                            |

## Engine Electrical System

| System Voltage             | 12 VDC                       |
|----------------------------|------------------------------|
| Battery Charger Alternator | Standard                     |
| Battery Size               | See Battery Index 0161970SBY |
| Battery Voltage            | 12 VDC                       |
| Ground Polarity            | Negative                     |

## **ALTERNATOR SPECIFICATIONS**

| Standard Model                      | Generac  |
|-------------------------------------|----------|
| Poles                               | 4        |
| Field Type                          | Rotating |
| Insulation Class - Rotor            | Н        |
| Insulation Class - Stator           | Н        |
| Total Harmonic Distortion           | <5%      |
| Telephone Interference Factor (TIF) | <50      |

| Standard Excitation                | Direct        |  |  |
|------------------------------------|---------------|--|--|
| Bearings                           | Single Sealed |  |  |
| Coupling                           | Flexible Disc |  |  |
| Prototype Short Circuit Test       | Yes           |  |  |
| Voltage Regulator Type             | Full Digital  |  |  |
| Number of Sensed Phases            | 2             |  |  |
| Regulation Accuracy (Steady State) | ±1%           |  |  |

## RD025 | 2.2L | 25 kW

## INDUSTRIAL DIESEL GENERATOR SET

**EPA Certified Stationary Emergency** 

## **OPERATING DATA**

#### **POWER RATINGS**

Standby

GENERAC\* | INDUSTRIAL

|                                 |       | •         |  |
|---------------------------------|-------|-----------|--|
| Single-Phase 120/480 VAC @0.1pf | 25 kW | Amps: 104 |  |
| Three-Phase 120/208 VAC @0.8pf  | 25 kW | Amps: 87  |  |
| Three-Phase 120/240 VAC @0.8pf  | 25 kW | Amps: 75  |  |
| Three-Phase 277/480 VAC @0.8pf  | 25 kW | Amps: 37  |  |

## **MOTOR STARTING CAPABILITIES (sKVA)**

## sKVA vs. Voltage Dip at 30%

| 120/240 V, Single-Phase at 0.4pf | 168 |
|----------------------------------|-----|
| 120/208 V, Three-Phase at 0.4pf  | 144 |
| 120/240 V, Three-Phase at 0.4pf  | 125 |
| 120/240 V, Three-Phase at 0.4pf  | 64  |

## **FUEL CONSUMPTION RATES\***

| Percent Load | Diesel gal/hr (L/hr) |
|--------------|----------------------|
| 25%          | 0.97 (3.67)          |
| 50%          | 1.37 (5.19)          |
| 75%          | 1.97 (7.46)          |
| 100%         | 2.77 (10.49)         |

<sup>\*</sup> Fuel supply installation must accommodate fuel consumption rates at 100% load.

## **COOLING**

|   |                             | Standby         |
|---|-----------------------------|-----------------|
| Air Flow (Radiator and Alternator)                    | ft³/min (m³/min)            | 2800 (79)       |
| Coolant System Capacity                               | gal (L)                     | 2.5 (9.5)       |
| Heat Rejection to Coolant                             | BTU/hr (MJ/hr)              | 128,638 (135.7) |
| Max. Operating Ambient Temperature                    | °F (°C)                     | 122 (50)        |
| Maximum Operating Ambient Temperature (Before Derate) | See Bulletin No. 0199270SSD |                 |
| Maximum Radiator Backpressure                         | in H <sub>2</sub> O (kPa)   | 0.50 (0.12)     |

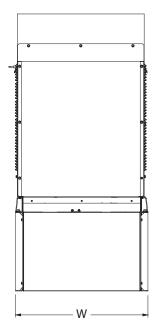
## **COMBUSTION AIR REQUIREMENTS**

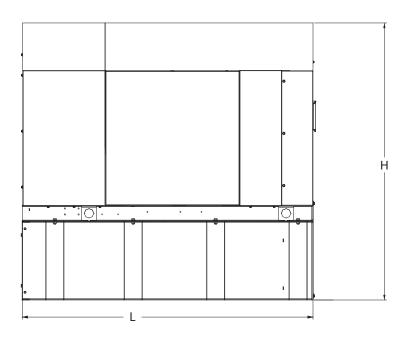
|  | Standby                        |
|--|--------------------------------|
| Flow at Rated Power ft <sup>3</sup> /min | (m <sup>3</sup> /min) 88 (2.5) |

| ENGINE             |     |         | EXHAUST                                     |                  |             |
|--------------------|-----|---------|---|------------------|-------------|
|                    |     | Standby |   |                  | Standby     |
| Rated Engine Speed | rpm | 1,800   | Exhaust Flow (Rated Output)                 | ft³/min (m³/min) | 296.6 (8.4) |
|                    |     |         | Exhaust Temp (Rated Output - Post Silencer) | °F (°C)          | 930 (499)   |

**EPA Certified Stationary Emergency** 

## **DIMENSIONS AND WEIGHTS\***





#### Weights and Dimensions

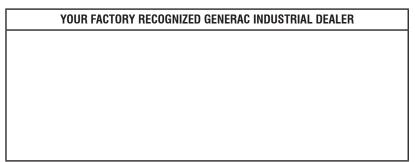
| Unit Weight - Ibs | Unit Weight with Skid - Ibs | Dimensions (L x W x H) in |
|-------------------|-----------------------------|---------------------------|
| 2,811             | 2,849                       | 84.2 x 35.0 x 91.7        |

| 25kW Fuel Consumption   | with fuel tank<br>103.4" 35" x 91.7" |
|---|--------------------------------------|
| Fuel Tank Gross Total Capacity  | 240 103.4 33 X 91.7                  |
| Fuel Tank Gross Usable Capacity   | 229                                  |
| Fuel Tank Net Usable Capacity<br>(Run Hours Based on Net Usable Capacity) | 206                                  |
| Run Hours 100% Load   | 98                                   |
| Run Hours 75% Load  | 125                                  |
| Run Hours 50% Load  | 161                                  |

Sound Emission Data

Rated Load Sound Output at 23ft - dB(A) 65

<sup>\*</sup> All measurements are approximate and for estimation purposes only. Drawing is for illustration purposes only, not to scale.



Specification characteristics may change without notice. Dimensions and weights are for preliminary purposes only. Please consult a Generac Power Systems Industrial Dealer for detailed installation drawings.

## EXHIBIT 8

Map showing nearest wetlands

