

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

November 5, 2021

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

RE: Notice of Exempt Modification 540 Cherry Brook Rd., Canton, CT

> Latitude: 41.894052 Longitude: -72.893850

T-Mobile Site #: CTHA530A_Hardening

Dear Ms. Bachman:

T-Mobile currently maintains nine (9) antennas at the 129-foot level of the existing 150-foot Monopole Tower at **540 Cherry Brook Rd., Canton, CT.** The tower is owned by SBA Towers, LLC. The property is owned by North Canton Volunteer Fire Association. T-Mobile now intends to add one (1) Generac RD025 Diesel generator and $4' \times 10'$ concrete pad, within a 65' $\times 62'$ 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
- (1) 2" RGS Conduit for emergence power routed from proposed ATS to Existing PPC
- (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 existing PPC to proposed generator
- (1) 2" RGS conduit for Ethernet cable for generator controls & Alarms from exist. Equip. cabinet to prop. generator
- Generac 200A, 120/240v automatic transfer switch mounted to proposed H-Frame



Remaining:

- T-Mobile Emerson Nextend Compact 2416 fiber cabinet
- Existing PPC
- T-Mobile cables routed along exist. Ice bridge
- T-Mobile Ericsson B160 cabinet
- T-Mobile Ericsson 6160 equip. Cabinet
- Existing 12' x 15' concrete pad

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 Canton, CT which is as follows:

Maximum Continuous Noise Levels (measured in dBA):

Ordinance Amending Chapter 23 of the Hartford Municipal Code: Section 23-3:

- (a) It shall be unlawful for any person to emit or cause to be emitted any noise beyond the boundaries of his/her premises in excess of the noise levels established in these regulations.
- (b) Noise level standards
- (1) No person in a residential zone shall emit noise beyond the boundaries of his/her premises exceeding the levels stated herein and applicable to adjacent residential, commercial or industrial zones:



Emitter's Zone:

- Residential Receptor's Zone : Maximum Level:
- Industrial...62dBA
- Commercial...55 dBA
- Residential/Day...55 dBA
- Residential/Night...45 dBA

The proposed modification will remain within the existing $65' \times 62'$ fenced compound. The new generator and tank will be surrounded by the existing security fence and 12' 6'' wide double leaf gate and will be placed on a plinth secured to 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 Canton's First Selectman, Robert Bessel and Neil Pade, Dir. Of Planning & Zoning, as well as, to the Chief Administrative Officer for the North Canton Volunteer Fire Association, Robert Skinner. (Separate notice is not being sent to tower owner, as it belongs 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

Attachments

cc: Robert Bessel, First Selectman / with attachments
Canton Town Hall, 4 Market St, PO Box 168, Collinsville, CT 06022
Neil Pade, AICP, Dir. Of Planning & Zoning
Canton Town Hall, 4 Market St, PO Box 168, Collinsville, CT 06022
Robert Skinner, Chief Admin. Officer North Canton Volunteer Fire Association / with attachments
PO Box 393, North Canton, CT 06059-0393 {SBA remit to address on file}



Exhibit List

Exhibit 1	Check Copy	х
Exhibit 2	FedEx Labels	х
Exhibit 3	Property Card	Х
Exhibit 4	Property Map	Х
Exhibit 5	Zoning Documents	Town of Canton Special Permit (10/19/00),
		Superior Court Judicial District of Hartford,
		No. CV0005954065 (10/18/00)
Exhibit 6	Construction Drawings	Chappell 10/29/21
Exhibit 7	Generator Specifications	Х
Exhibit 8	Wetlands Map	Х

EXHIBIT 1 Copy of Check for filing fee.

EXHIBIT 2

FedEx Labels



After printing this label:

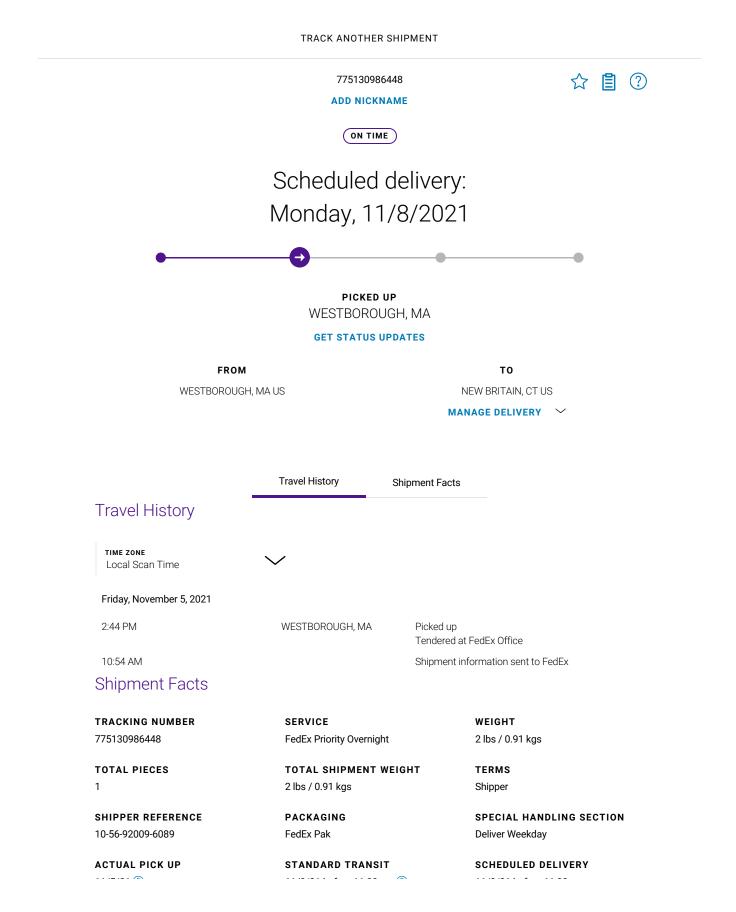
- 1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
- 2. Fold the printed page along the horizontal line.
- 3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

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.

Detailed Tracking Page 1 of 2







After printing this label:

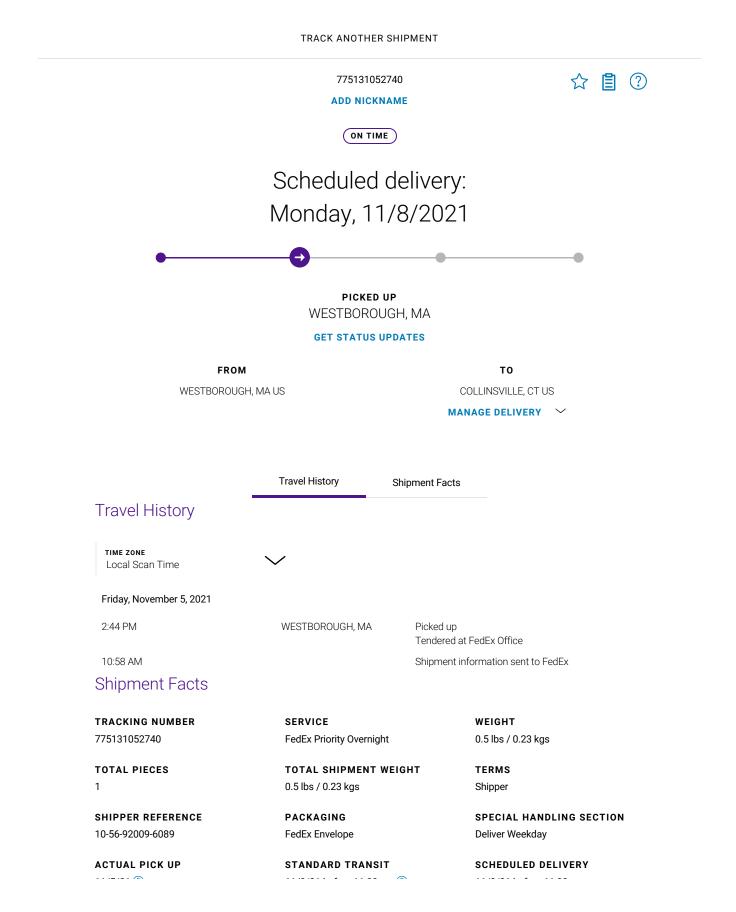
- 1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
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Detailed Tracking Page 1 of 2







After printing this label:

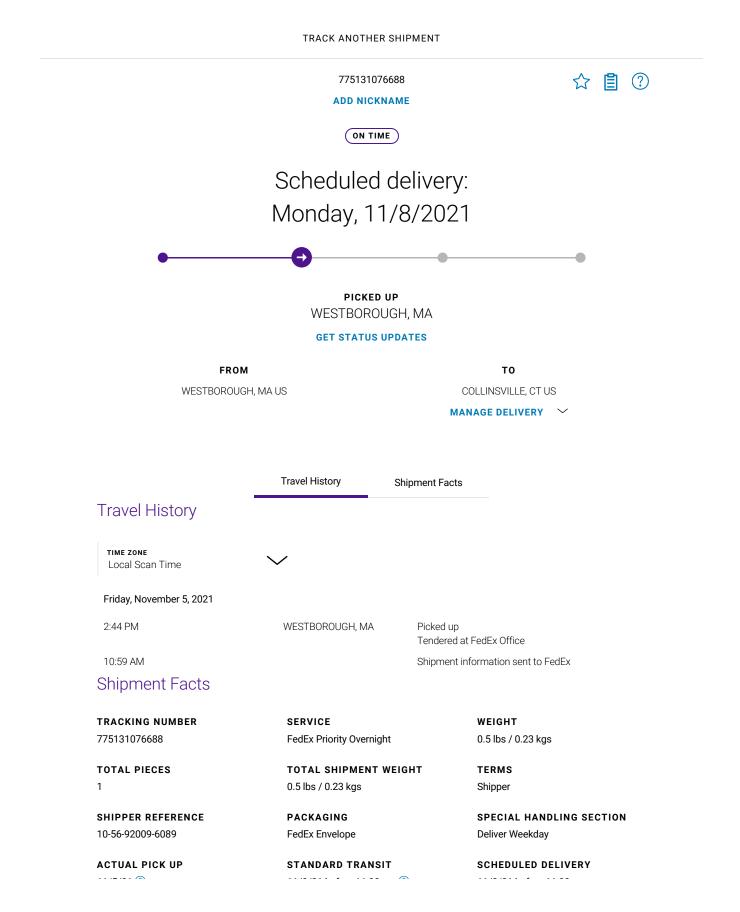
- 1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
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Detailed Tracking Page 1 of 2





SEA CONTUNION CONTO ACTIVITY OF THE PARTY OF Suite 125 SUBST REPORCE IN THE SY FLANDERS RD.

POSTAL SERVICE

NORTH CANTON VOL. FIRE

C/O POSERT SKINNER

11/05/2021 12:57 PM

Product Price

\$7.95

North Canton, CT 06059 ted Delivery Date

Total Insurance \$50.00 included

Grand Total:

\$0.00

\$7.95

\$7.95

P.O. Box 393 MOETH CANTON, CT

06059-0393

EXHIBIT 3

Property Card

The Assessor's office is responsible for the maintenance of records on the ownership of properties. Assessments are computed at 70% of the estimated market value of real property at the time of the last revaluation which was 2018.



Information on the Property Records for the Municipality of Canton was last updated on 11/4/2021.



Parcel Information

Location:	540 CHERRY BROOK ROAD	Property Use:	Automotive	Primary Use:	Serv Sta w/o Bays
Unique ID:	1850540	Map Block Lot:	7/185/0540	Acres:	5.77
490 Acres:	0.00	Zone:	MCPF	Volume / Page:	438/ 33
Developers Map / Lot:		Census:			

Value Information

	Appraised Value	Assessed Value
Land	171,310	119,910
Buildings	591,394	413,980
Detached Outbuildings	4,800	3,360

	Appraised Value	Assessed Value
Total	767,504	537,250

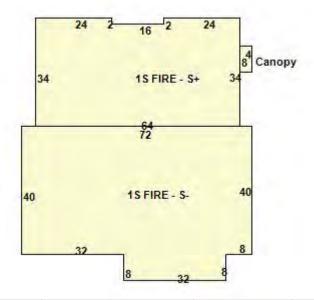
Owner's Information

Owner's Data

CANTON TOWN OF PO BOX 168 COLLINSVILLE, CT 06022

Building 1

photo Not Available



Category:	Public Use	Use:	Fire Station - Staffed	GLA:	5,280
Stories:	1.00	Construction:	Metal	Year Built:	2006

Heating:	FHA	Fuel:	Oil	Cooling Percent:	0
Siding:	Metal	Roof Material:	Asphalt	Beds/Units:	0

Special Features

Attached Components

Туре:	Year Built:	Area:
Canopy	2006	32

Detached Outbuildings

Туре:	Year Built:	Length:	Width:	Area:
Paving	2006	0.00	0.00	6,000

Owner History - Sales

Owner Name	Volume	Page	Sale Date	Deed Type	Sale Price
CANTON TOWN OF	0438	0033	01/25/2018	Warranty Deed	\$0
NORTH CANTON FIRE DEPT	0057	344-			\$0

Information Published With Permission From The Assessor

EXHIBIT 4 Property Map



Google Maps 540 Cherry Brook Rd



Imagery @2021 CNES / Airbus, Maxar Technologies, U.S. Geological Survey, USDA Farm Service Agency, Map data @2021

200 ft L

EXHIBIT 5 Zoning Documents

SITE ID #4275-011

SITE NAME: North Canton, 2

JOB COST #001500

ZONING/PERMITTING COMPLETION FORM

Zoning Classification for Site: AR-3

Special Relief (setback, height variance, special use permit, wetlands permit etc.):

Special Permit Approval

Date of Zoning Decision: 10/19/00

Summary of zoning conditions (Include details of any conditions relative to time restrictions, expiration dates, renewal obligations, monetary obligations, performance obligation, inspection fees).

See attached Stipulation for Judgment. Settlement was reached via litigation. Included in the stipulated judgment is a condition that the Special Permit is to be renewed by SBA every five years.

Submitted by: Esther McNany

Title: Territory Manager

Territory Manager Approval:

* Attach a copy of the Zoning decision and forward to the Regional Compliance Manager as soon as possible, after the decision.

HURWITZ@SAGARIN LLC

October 23, 2000

Sheila Becker, Esq. SBA, Inc. 900 Cummings Center Suite 216U Beverly, MA 01915

Ms.Esther McNany SBA, Inc. 80 Eastern Boulevard Glastonbury, CT 06033

Re: SBA v. Canton

Dear Sheila and Esther:

Enclosed please find a Motion For Judgment and Stipulation For Judgment in the captioned matter. The Court entered judgment in accordance with the stipulation this morning. Counsel for the Town will let me know when the special exception will be issued. Once it is, the federal action will be withdrawn.

Please call me with any questions.

Very truly yours,

John W. Knuff JWK:kvc

Enclosures

NO. CV 00 0595406S

SUPERIOR COURT

SBA COMMUNICATIONS, INC.

JUDICIAL DISTRICT OF HARTFORD

ZONING COMMISSION OF THE TOWN OF CANTON

OCTOBER 23, 2000

MOTION FOR JUDGMENT

Defendant Zoning Commission of the Town of Canton hereby move for judgment in accordance with the attached Stipulation of Judgment. John Knuff, counsel for plaintiff SBA Communications, Inc. has been contacted regarding this Motion and has no objection.

> DEFENDANT, ZONING COMMISSION OF THE TOWN OF CANTON

Matthew Ranelli

For Shipman & Goodwin LLP

Harris.

Its Attorneys

ORAL ARGUMENT REQUESTED TESTIMONY NOT REQUIRED

ORDER

The foregoing Motion having been heard, it is hereby ORDERED: GRANTED/DENIED.

BY THE COURT,

DATE Judge/Assistant Clerk

CERTIFICATION OF SERVICE

I hereby certify that a copy of the foregoing Motion for Judgment was mailed, postage prepaid, this 23rd day of October, 2000, to:

John W. Knuff, Esq. Margaret E. Haering, Esq. Hurwitz & Sagarin, LLC 147 North Broad Street Milford, Connecticut 06460

Matthew Ranelli

276153

NO. CV 00 0595406S : SUPERIOR COURT

SBA COMMUNICATIONS, INC. : JUDICIAL DISTRICT

OF HARTFORD

v.

:

ZONING COMMISSION OF THE

TOWN OF CANTON : OCTOBER 19, 2000

STIPULATION FOR JUDGMENT

The parties hereby stipulate to the following facts:

- Plaintiff SBA Communications, Inc. ("SBA") is a Florida corporation in the business of providing services to licensed personal wireless telecommunications carriers.
- 2. The Zoning Commission of the Town of Canton (the "Commission") is the duly authorized Zoning Commission of the Town of Canton.
- 3. On September 2, 1999, SBA submitted to the Commission an application for a special exception and site plan approval for a facility consisting of a 195 foot monopole with a fenced-in compound area to be located on property owned by the North Canton Volunteer Fire Association, Inc. (the "Fire Association"). The plan included provisions to tear down the existing communications tower also located on the Fire Association's property and to erect a 195 foot monopole and

relocate the Fire Association's emergency radio service antennas to the new pole.

- The location of the proposed tower is zoned AR-3.
- 5. Telecommunication towers are a permitted use in all districts, including AR-3, in Canton subject to approval of a special exception. The regulations limit tower height to 70 feet and impose front and side yard setback requirements.
- 6. On August 9, 1999, SBA obtained a variance from the Canton Zoning Board of Appeals of the tower height limitation.
- 7. After holding duly-noticed public hearings on November 17, 1999 and December 15, 1999, the Commission denied SBA's application for special exception for the reasons stated in its denial letter to SBA dated April 10, 2000.
- 8. On January 4, 2000, SBA appealed the Commission's decision to the Connecticut Superior Court and filed an action in the United States District Court for the District of Connecticut (SBA Communications, Inc. v. Zoning Commission of the Town of Canton, Civil Action No. 3:00 CV 007 (RNC)) setting forth claims under the federal Telecommunications Act of 1996, 47 U.S.C. § 332.

- 9. While these state and federal court claims were pending, the parties made cooperative settlement efforts resulting in this Stipulation for Judgment.
- 10. The parties agree that this Stipulation is subject to Superior Court approval.
- 11. The defendant Commission hereby agrees to issue a special exception and site plan approval for a 150 foot monopole at the Fire Association site in settlement of the state and federal court actions as approved at its October 18, 2000 meeting. The monopole would house the Fire Association's emergency communications system and be subject to the following conditions:
- a. The facility is approved and will be constructed in accordance with the revised site plan dated December 13, 1999 except that the tower height shall be a maximum of 150 feet rather than 195 feet and that the diameter of the tower at the base and top shall be the lesser of the dimensions shown on the reference plan or as prescribed by the ANSI standard;
- b. If more than five carriers are to be installed, the applicant must submit a site plan modification;

- c. Additional landscaping shall be provided to satisfactorily screen the fencing and auxiliary structures according to the requirements of the Town Planner;
- d. Any auxiliary equipment deviations from the drawings dated December 13, 1999 must be submitted for site plan review;
- e. A removal bond must be posted in the initial amount of \$50,000 and adjusted upon renewal dates to reflect the true cost of removal;
- f. The tower shall be inspected for structural integrity every five years and the removal bond shall be renewed concurrently;
- g. Approval is for a five year period and is renewable for an additional five years subject to a successful submission of a re-inspection report and renewals of a removal bond; and
- h. Approval of the special exception is subject to approval of the settlement by the Superior Court.
- 12. The defendant Commission will issue the special exception permit to plaintiff SBA promptly after the Court's approval and entry of this Stipulation for Judgment. Within five days after issuance of the special exception by the

defendant Commission in accordance with this Stipulation, the parties will file a Stipulation of Dismissal of the pending action in the United States District Court for the District of Connecticut.

13. Plaintiff SBA agrees to provide counsel for defendant with an executed Stipulation of Dismissal to be held in escrow, pending issuance of the special exception permit and site plan.

THE PLAINTIFFS

Bv(

Elias A. Alexiades

John W. Knuff

Hurwitz & Sagarin, Lbe

147 North Broad Street
Milford, Connecticut 06460

Juris No. 26616

Telephone: (203) 877-8000

THE DEFENDANTS

By:

John T. Harris

Matthew Ranelli

Shipman & Goodwin, LLP

One American Row

Hartford, Connecticut 06101

Juris No.

Telephone: 860-251-5602

EXHIBIT 6

Constrcution Drawings

SBA CANTON CHERRYBROO

APPROVALS ZONING/SITE ACQ.: **PROJECT MANAGER:** DATE: DATE: **CONSTRUCTION:** DATE: **OPERATIONS:** DATE: 10 SHAGBARK LANE

DATE:

CANTON, CT 06019 HARTFORD COUNTY

SITE NO.: CTHA530A

SITE TYPE: 150'± MONOPOLE

PROJECT TYPE: NATIONAL HARDENING PROJECT

SHEET INDEX

SCOPE OF WORK

REMOVE:

NONE 1 GENERATOR • 1 AUTOMATIC TRANSFER SWITCH

• 2 20A-1P BREAKERS

SITE NOTES

- 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 FOR THE PURPOSE OF PROVIDING PUBLIC CELLULAR SERVICE.
- ADA COMPLIANCE NOT REQUIRED.
- POTABLE WATER OR SANITARY SERVICE IS NOT REQUIRED.
- NO OUTDOOR STORAGE OR ANY SOLID WASTE RECEPTACLES REQUIRED.
- CONTRACTOR SHALL VERIFY ALL PLANS, EXISTING DIMENSIONS, AND CONDITIONS ON 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 DISCREPANCIES AT THE CONTRACTOR'S EXPENSE.
- NEW CONSTRUCTION WILL CONFORM TO ALL APPLICABLE CODES AND ORDINANCES.
- BUILDING CODE: 2018 CONNECTICUT STATE BUILDING CODE

PROJECT SUMMARY

- ELECTRICAL CODE: 2017 NATIONAL ELECTRICAL CODE
- STRUCTURAL CODE: TIA/EIA-222-G STRUCTURAL STANDARDS FOR ANTENNA SUPPORTING

STRUCTURES AND ANTÉNNAS.

STRUCTURE TYPE:

ARCHITECT:

SPECIAL ZONING NOTE

GENERAL NOTES

RADIO CABINETS: UNRESTRICTED

PPC DISCONNECT: UNRESTRICTED

MAIN CIRCUIT D/C: UNRESTRICTED

RF ENGINEERING:

LOCATION

SECTOR A:

SECTOR B:

SECTOR C:

SECTOR D:

NIU/T DEMARC:

OTHER/SPECIAL:

GPS/LMU:

DATE:

SPECIAL RESTRICTIONS

ACCESS BY CERTIFIED CLIMBER

ACCESS BY CERTIFIED CLIMBER

ACCESS BY CERTIFIED CLIMBER

ACCESS BY CERTIFIED CLIMBER

UNRESTRICTED

UNRESTRICTED

TECHNICIAN SITE SAFETY NOTES

TOWER OWNER:

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.

NONE

- 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.
- 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.
- 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
- 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.
- 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.
- 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.
- 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.
- 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.
- 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.
- 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.
- 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
- 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
- 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**



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

DIRECTIONS

TURN LEFT ONTO S WASHINGTON ST. TURN RIGHT ONTO MA-123 E. TURN LEFT TO MERGE ONTO I-495 NORTH TOWARD MANSFIELD/MARLBORO. MERGE ONTO I-495 NORTH. TAKE EXIT 58 TO MERGE ONTO I-90 WEST TOWARD ALBANY. TAKE EXIT 78 TOWARD I-84. TAKE EXIT 61 TO MERGE ONTO I-291 WEST. TAKE EXIT 1 FOR CT-218. TURN LEFT ONTO CT-218 WEST. TURN RIGHT ONTO CT-189 NORTH. TURN LEFT ONTO GABB ROAD. TURN LEFT ONTO CT-178 WEST. TURN RIGHT ONTO CT-185 WEST. TURN RIGHT ONTO HOPMEADOW STREET. TURN ONTO STRATTON BROOK ROAD. TURN LEFT ONTO FARMS VILLAGE ROAD. CONTINUE ONTO CT-309 WEST. TURN LEFT ONTO CT-179 SOUTH. TURN RIGHT ONTO SHAG BARK LANE. SITE WILL BE ON THE LEFT.

SHEET NO. DESCRIPTION NO. TITLE SHEET GN-1GENERAL NOTES

COMPOUND & EQUIPMENT PLANS A-2GENERATOR DETAILS GENERATOR SPECIFICATIONS 1 0 GENERATOR SPECIFICATIONS 2 ELECTRIC & GROUNDING DETAILS

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.

SITE NUMBER: SBA CANTON CHERRYBROOK RD MONOPOLE SITE NAME: SBA SITE NUMBER: CT01500-S

CANTON 2 CT SBA SITE NAME: SITE ADDRESS: 10 SHAGBARK LANE CANTON, CT 06019

PROPERTY OWNER: TOWN OF CANTON PO BOX 168 COLLINSVILLE, CT 06022

TOWER OWNER: SBA TOWERS, LLC 8501 CONGRESS AVENUE

BOCA RATON, FL 33487 PHONE: 561-226-9523 COUNTY: **HARTFORD ZONING DISTRICT:** AR-3 (AGRICULTURAL)

STRUCTURE HEIGHT: 150'± APPLICANT: T-MOBILE NORTHEAST LLC

> NORTON, MA 02766 CHAPPELL ENGINEERING ASSOCIATES, LLC.

15 COMMERCE WAY, SUITE B

201 BOSTON POST ROAD WEST. SUITE 101 MARLBOROUGH, MA 01752

STRUCTURAL ENGINEER: CHAPPELL ENGINEERING ASSOCIATES, LLC. 201 BOSTON POST ROAD WEST, SUITE 101 MARLBOROUGH, MA 01752

BASED ON INFORMATION PROVIDED BY T-MOBILE REGULATORY COMPLIANCE

PROFESSIONALS AND LEGAL COUNSEL, THIS TELECOMMUNICATIONS EQUIPMENT

RELIEF AND JOB CREATION ACT OF 2012, 47 USC 1455(A), SECTION 6409(A),

AND IS SUBJECT TO AN ELIGIBLE FACILITY REQUEST, EXPEDITED REVIEW, AND

LIMITED/PARTIAL ZONING PRE-EMPTION FOR LOCAL DISCRETIONARY PERMITS

(VARIANCE, SPECIAL PERMIT, SITE PLAN REVIEW, OR ADMINISTRATIVE REVIEW).

DEPLOYMENT IS CONSIDERED AN ELIGIBLE FACILITY UNDER THE MIDDLE CLASS TAX

MONOPOLE

SITE CONTROL POINT: LATITUDE: N.41.894200° N41°53'39.12" LONGITUDE W.72.893300° W72°53'35.88"

SHEET NUMBER

| - 1

T-MOBILE NORTHEAST LLC

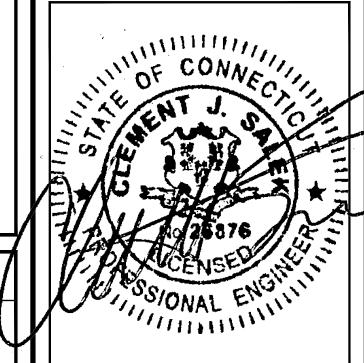
15 COMMERCE WAY, SUITE B NORTON, MA 02766 (508) 286-2700



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:

APPROVED BY:

0	10/29/21	ISSUED FOR REVIEW	JRV
REV.	DATE	DESCRIPTION	BY
	S	UBMITTALS	

SITE NUMBER: CTHA530A

SITE ADDRESS: 10 SHAGBARK LAND CANTON, CT 06019

SHEET TITLE

TITLE SHEET

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 COLUMNS1/2 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 (3/4"0) 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 STEFL
- 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 USED. SETSCREW FITTINGS ARE NOT ACCEPTABLE.
- 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.

- 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

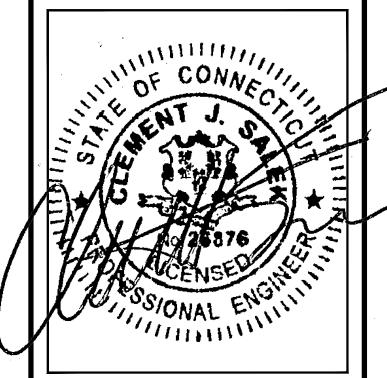
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CHECKED BY: JMT

APPROVED BY: JM

SUBMITTALS

REV. DATE DESCRIPTION BY

0 10/29/21 ISSUED FOR REVIEW JRV

SITE NUMBER: CTHA530A

SITE ADDRESS: 10 SHAGBARK LAND CANTON, CT 06019

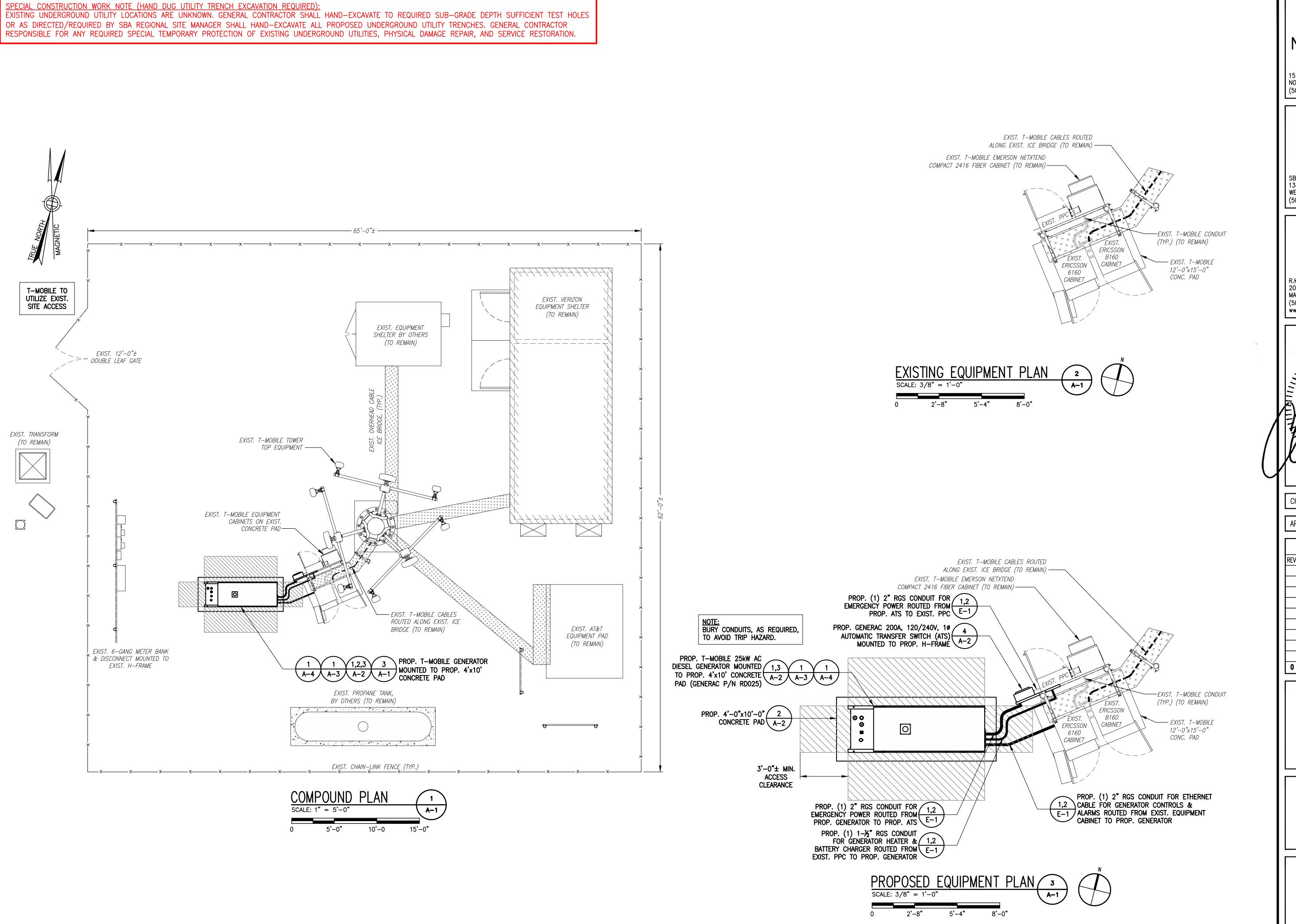
SHEET TITLE

GENERAL NOTES

SHEET NUMBER

GN-1

1815



T-MOBILE NORTHEAST LLC

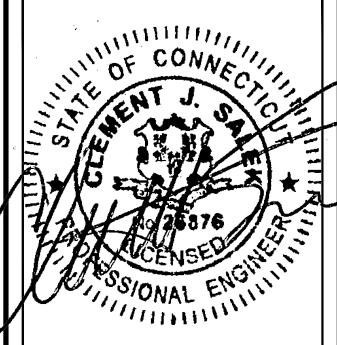
15 COMMERCE WAY, SUITE B NORTON, MA 02766 (508) 286-2700



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: JM

REV.	DATE	DATE DESCRIPTION BY						
	SUBMITTALS							

SITE NUMBER: CTHA530A

SITE ADDRESS: 10 SHAGBARK LAND CANTON, CT 06019

SHEET TITLE

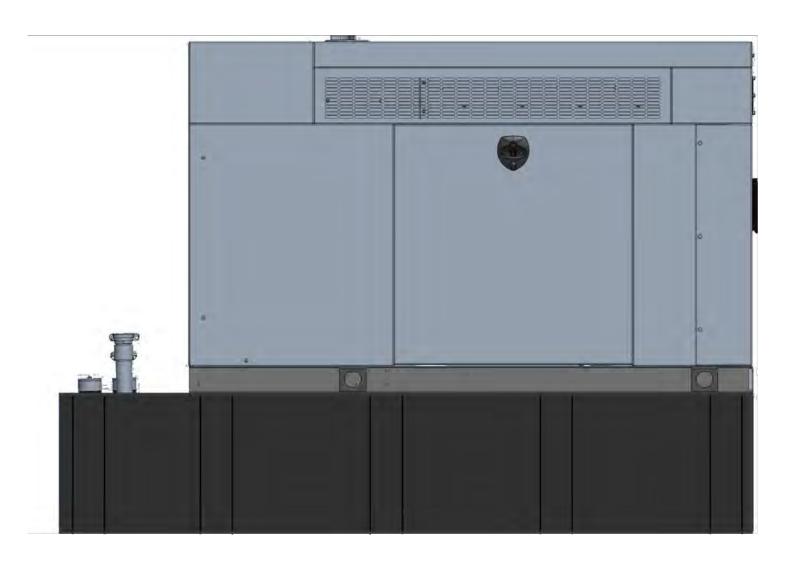
COMPOUND & EQUIPMENT PLAN

SHEET NUMBER

A-

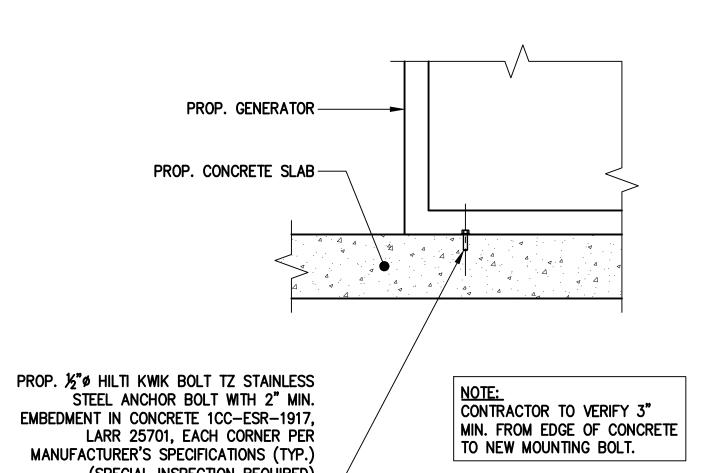
1815

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.

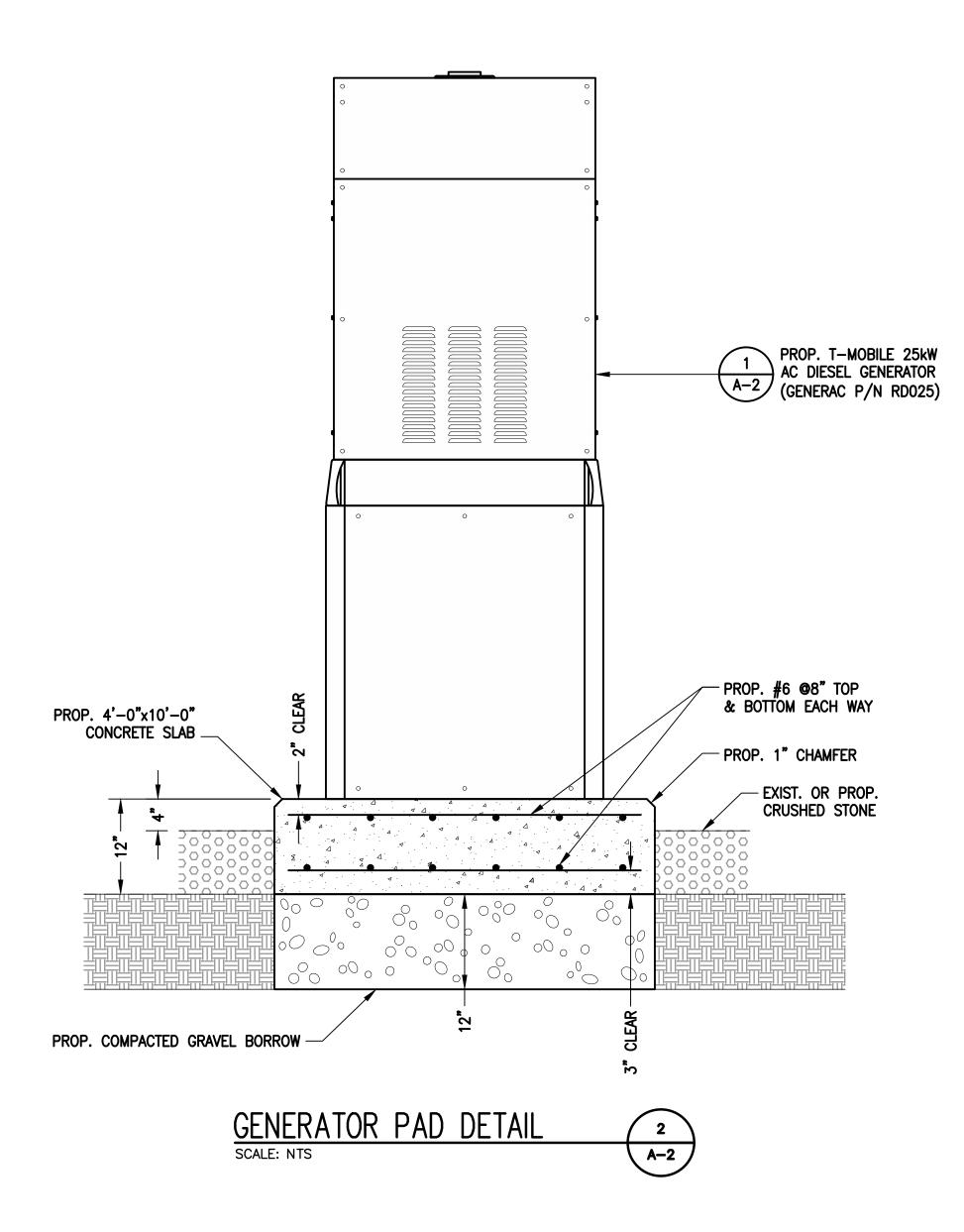


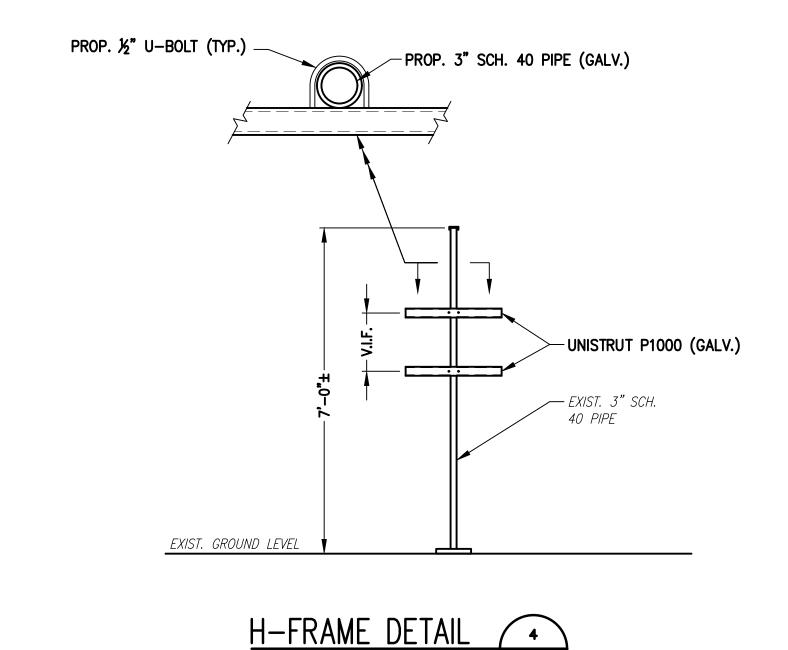
GENERATOR MOUNTING DETAIL

SCALE: N.T.S.

3
A-2

(SPECIAL INSPECTION REQUIRED)





A-2

T-MOBILE NORTHEAST LLC

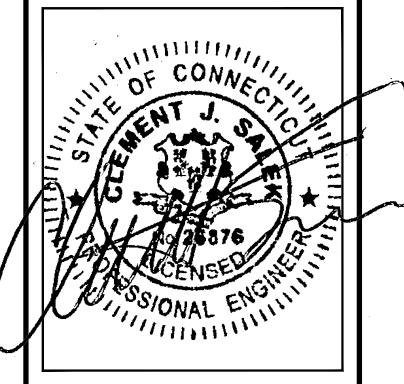
15 COMMERCE WAY, SUITE B NORTON, MA 02766 (508) 286-2700



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CHECKED BY:

APPROVED BY:

	SUBMITTALS							
REV.	DATE	DESCRIPTION	BY					
0	10/29/21	ISSUED FOR REVIEW	JRV					

SITE NUMBER: CTHA530A

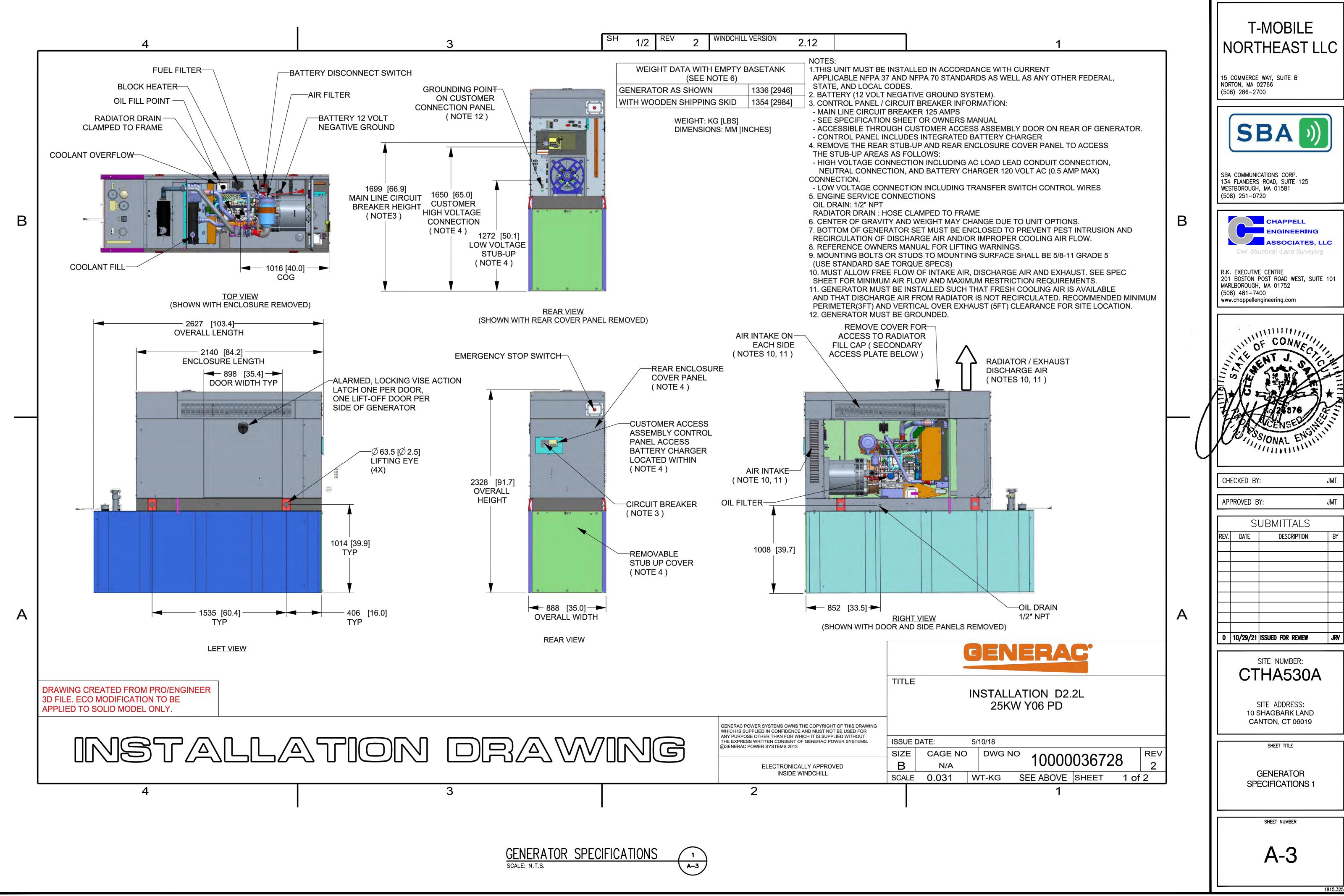
SITE ADDRESS: 10 SHAGBARK LAND CANTON, CT 06019

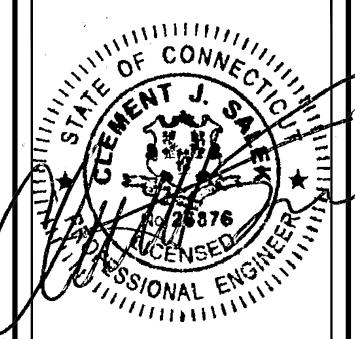
SHEET TITLE

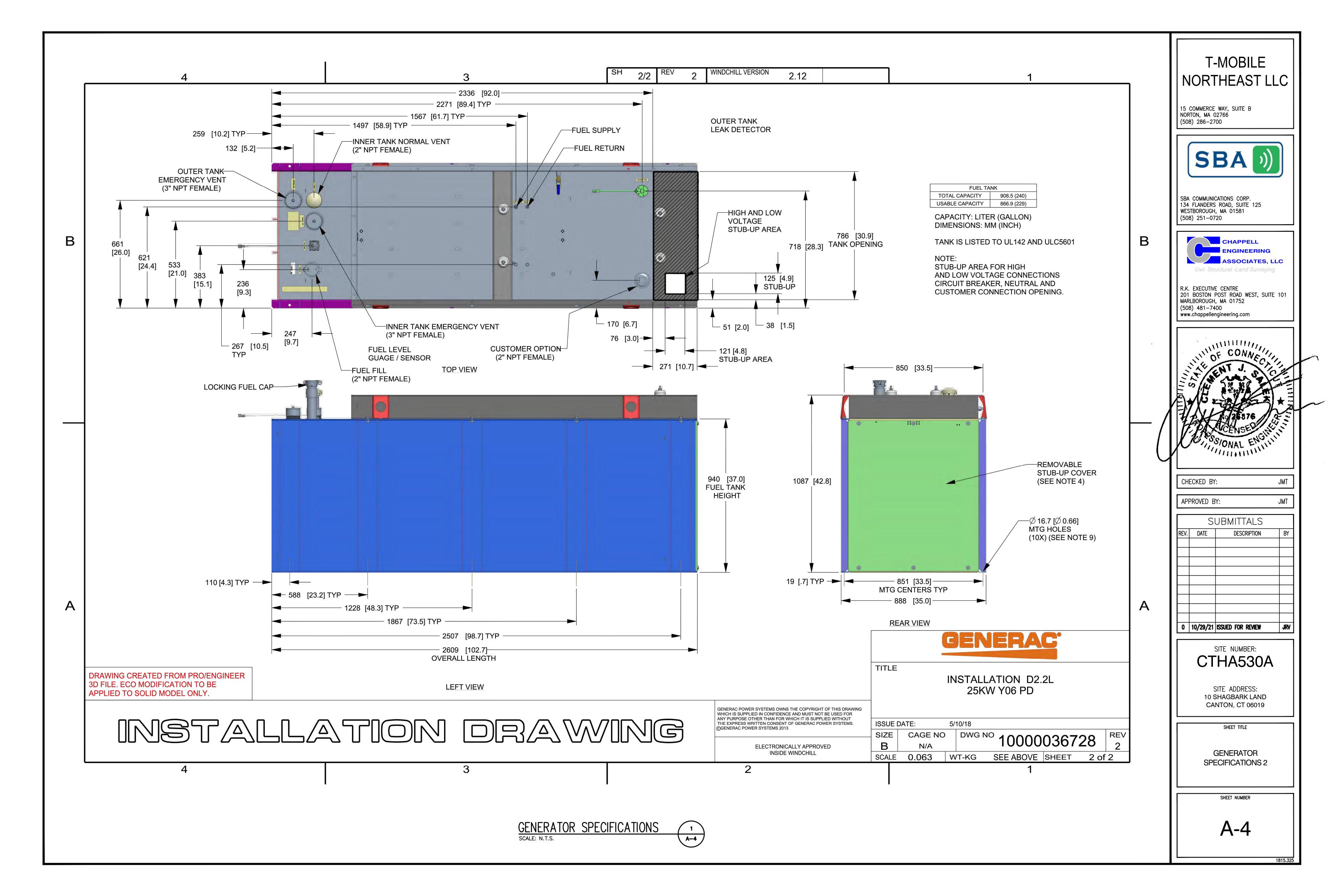
GENERATOR DETAILS

SHEET NUMBER

A-2

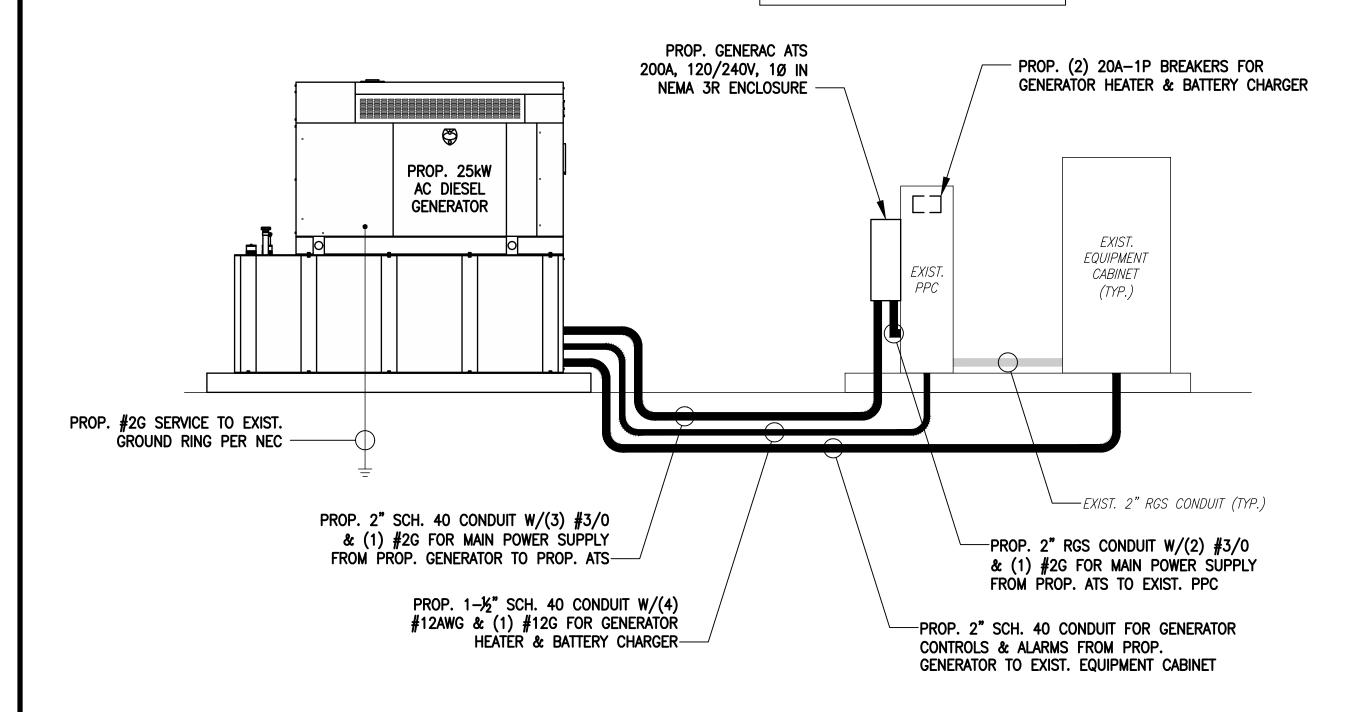






NOTE: CUT BACK (E) MAIN POWER CONDUIT, AS REQUIRED, & RECOONECT TO (P) ATS.

E-1



ONE-LINE POWER DIAGRAM

SCALE: NOT TO SCALE

ANDREW UGBKIT2

CADWELD

(LOWER EGB)

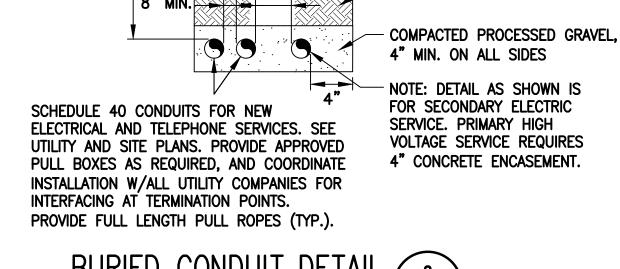
TO GROUNDING RING

ANTENNA MOUNT GROUND

SCALE: NOT TO SCALE

COAX CABLE

GROUNDING KITS



- FLAT WASHER, TYP.

LOAM AREA PAVED AREA

FINISH GRADE

30° MIN. 6° L

SCALE: NOT TO SCALE

TWO COURSES OF 11/2" BITUMINOUS PAVEMENT

6 ML YELLOW WARNING

SAW-CUT TO STRAIGHT EVEN

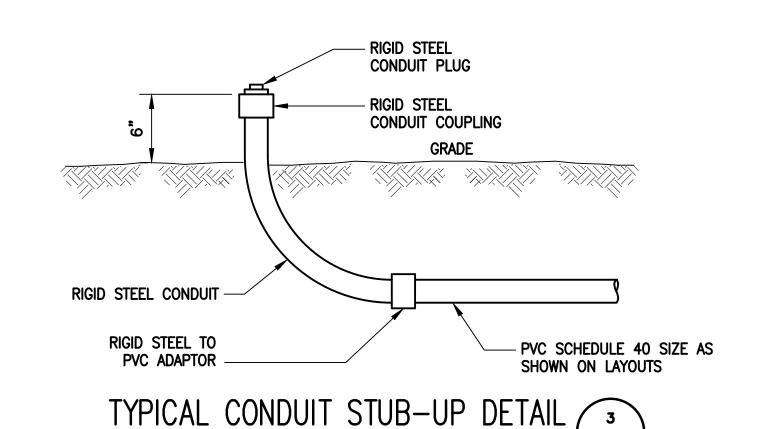
TAPE "HIGH VOLTAGE"

EDGE BEFORE PAVING

8" GRAVEL BASE

COMPACTED BACKFILL

E-1



T-MOBILE NORTHEAST LLC

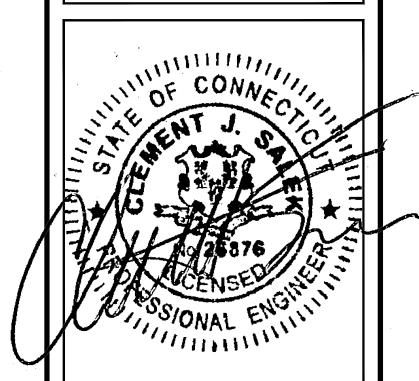
15 COMMERCE WAY, SUITE B NORTON, MA 02766 (508) 286-2700



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APPROVED BY:

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SITE NUMBER: CTHA530A

0 | 10/29/21 | ISSUED FOR REVIEW

SITE ADDRESS: 10 SHAGBARK LAND CANTON, CT 06019

SHEET TITLE

ELECTRIC & GROUNDING DETAILS

SHEET NUMBER

STAINLESS STEEL HARDWARE LOCK WASHER, TYP. - **¾**"x1¼" HEX BOLT 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.

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
- 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.
- 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.

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[®]

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 TM and Adapter Kit

TANKS

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

RD025 | 2.2L | 25 kW

INDUSTRIAL DIESEL GENERATOR SET

EPA Certified Stationary Emergency



APPLICATION AND ENGINEERING DATA

ENGINE SPECIFICATIONS

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Make	Perkins
EPA Emission Compliance	Tier 4 Interim
Cylinder #	4
Туре	In-Line
Displacement - in ³ (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%

INDUSTRIAL

RD025 | 2.2L | 25 kW

INDUSTRIAL DIESEL GENERATOR SET

EPA Certified Stationary Emergency

OPERATING DATA

POWER RATINGS

 Standby

 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)

^{*} Fuel supply installation must accommodate fuel consumption rates at 100% load.

COOLING

		Standby
Air Flow (Radiator and Alternator)	ft ³ /min (m ³ /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 ₂ O (kPa)	0.50 (0.12)

COMBUSTION AIR REQUIREMENTS

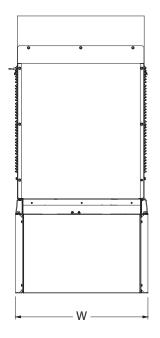
	Standby
Flow at Rated Power ft ³ /min (m ³	⁸ /min) 88 (2.5)

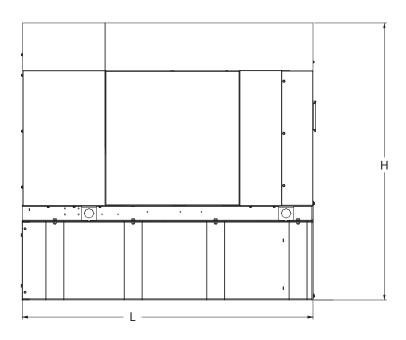
ENGINE			EXHAUST		
		Standby			Standby
Rated Engine Speed	rpm	1,800	Exhaust Flow (Rated Output)	ft ³ /min (m ³ /min)	296.6 (8.4)
			Exhaust Temp (Rated Output - Post Silencer)	°F (°C)	930 (499)



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DIMENSIONS AND WEIGHTS*





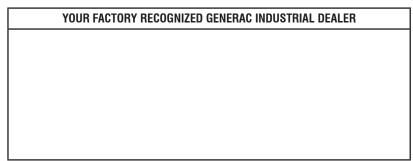
Weights and Dimensions

	<u> </u>		
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 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 (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)

^{*} 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

