

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

October 15, 2021

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

RE: Notice of Exempt Modification 297 North St., Plymouth, CT 06782 Latitude: 41.693297 Longitude: -73.053692 T-Mobile Site #: CT11366A_Hardening

Dear Ms. Bachman:

T-Mobile currently maintains six (6) antennas at the 175-foot level of the existing 195-foot Monopole Tower at **297 North St., Plymouth, CT**, CT. The tower is owned by SBA Towers, LLC. The property is owned by Raymond & Brenda Lagosz. T-Mobile now intends to add one (1) Generac RD025 Diesel generator to an existing 35' x 35' concrete pad, within a 65' 4" x 58' 10" fenced compound lease area. The proposed generator and concrete tower foundation and 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) 2" RGS conduit for Ethernet cable & Alarms from exist. Cabinet to prop. generator
- (1) 2" RGS conduit for emergency power from proposed ATS to existing PPC
- (1) 2" RGS conduit for emergency power from proposed generator to proposed ATS
- (1) 1-1/2" TGS conduit for generator heater & battery charger from exist. PPC to Prop. generator
- Generac 200A, 120/240v automatic transfer switch mounted to proposed H-Frame



Remaining:

- Exist. Emerson Nextend Compact 2416 fiber cabinet
- Existing RBS6201 ODE equip. cabinet
- Exist. Sprint Ice shield Post
- Existing T-Mobile Ice bridge
- Existing T-Mobile cables along exist. Ice bridge
- Existing 35' x 35' concrete tower foundation
- Exist. PTS 8003 battery cabinet
- Existing radios mounted to existing H-Frame
- Existing 200A power panel

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" x 35" x 91.7" (w/fuel tank: 103.4" x 35" x 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 Plymouth, Litchfield County, which is as follows:

Maximum Continuous Noise Levels (measured in dBA):

1. No person shall cause or allow the emission of excessive noise beyond the boundaries of his/her noise zone as measured at any point on a receptor's tract or parcel of land, so as to exceed the levels stated herein:



	С	В	A-Day	A- Night
Class C emitter	70dBA	66dBA	61dBA	5ldBA
to				
Class B emitter	62dBA	62dBA	55dBA	45dBA
to				
Class A emitter	62dBA	55dBA	55dBA	45dBA
to				

The proposed modification will remain within the existing 65' 4" x 58' 10" 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 plinth secured to a proposed 4' x 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 Plymouth's, Mayor, David V. Merchant and Planning & Zone Chairman, Carl Johnson, as well as, to the property owner. (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: Mayor David V. Merchant / with attachments *Town Hall, 80 Main St., Terryville, CT 06786* Carl Johnson, Planning & Zone Chairman / with attachments *Town Hall, 80 Main St., Terryville, CT 06786* Raymond & Brenda Lagosz / with attachments 297 North St., Plymouth, CT 06782 (SBA Address on file)



Exhibit List

Exhibit 1	Check Copy	x
Exhibit 2	FedEx Labels	x
Exhibit 3	Property Card	x
Exhibit 4	Property Map	x
Exhibit 5	Zoning Documents	Plymouth P&Z Commission (9/8/99)
Exhibit 6	Construction Drawings	Chappell 10/7/21
Exhibit 7	Generator Specifications	x
Exhibit 8	Wetlands Map	x

EXHIBIT 1

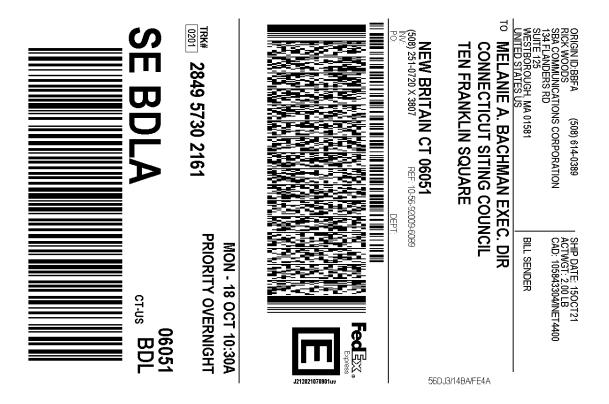
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Copy of Check for filing fee.

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.

FedEx.

TRACK ANOTHER SHIPMENT ☆ 目 ⑦ 284957302161 ADD NICKNAME Delivered DELIVERED Signature release on file **GET STATUS UPDATES OBTAIN PROOF OF DELIVERY** FROM то SBA COMMUNICATIONS CORPORATION Melanie A. Bachman Exec. Dir Rick Woods **Connecticut Siting Council** 134 Flanders Rd Ten Franklin Square Suite 125 NEW BRITAIN, CT US 06051 WESTBOROUGH, MA US 01581 508-251-0720 508-614-0389 **Travel History** Shipment Facts **Travel History** TIME ZONE Local Scan Time Monday, October 18, 2021 8:41 AM NEW BRITAIN, CT Delivered Package delivered to recipient address release authorized 7:13 AM WINDSOR LOCKS, CT On FedEx vehicle for delivery 6:09 AM WINDSOR LOCKS, CT At local FedEx facility Sunday, October 17, 2021 At destination sort facility 8:53 PM EAST GRANBY, CT 5:33 PM MEMPHIS, TN Departed FedEx hub Saturday, October 16, 2021

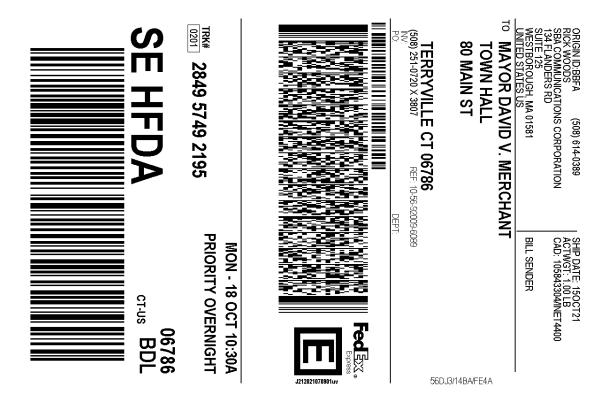
11:28 AM	MEMPHIS, TN	Arrived at FedEx hub
Friday, October 15, 2021		
8:25 PM	FRAMINGHAM, MA	Left FedEx origin facility
5:16 PM	FRAMINGHAM, MA	Picked up
1:24 PM		Shipment information sent to FedEx
	Expand History 🥆	/
Shipment Facts		
TRACKING NUMBER	SERVICE	WEIGHT
284957302161	FedEx Priority Overnight	2 lbs / 0.91 kgs
DELIVERY ATTEMPTS	TOTAL PIECES	TOTAL SHIPMENT WEIGHT
1	1	2 lbs / 0.91 kgs
TERMS	SHIPPER REFERENCE	PACKAGING
Shipper	10-56-92009-6089	FedEx Pak
SPECIAL HANDLING SECTION	SHIP DATE	STANDARD TRANSIT
Deliver Weekday	10/15/21 🕐	10/18/21 before 10:30 am 🕐
ACTUAL DELIVERY		
10/18/21 at 8:41 am		

Outbound (30)

Watch list (0)

Inbound (0)

All (30)



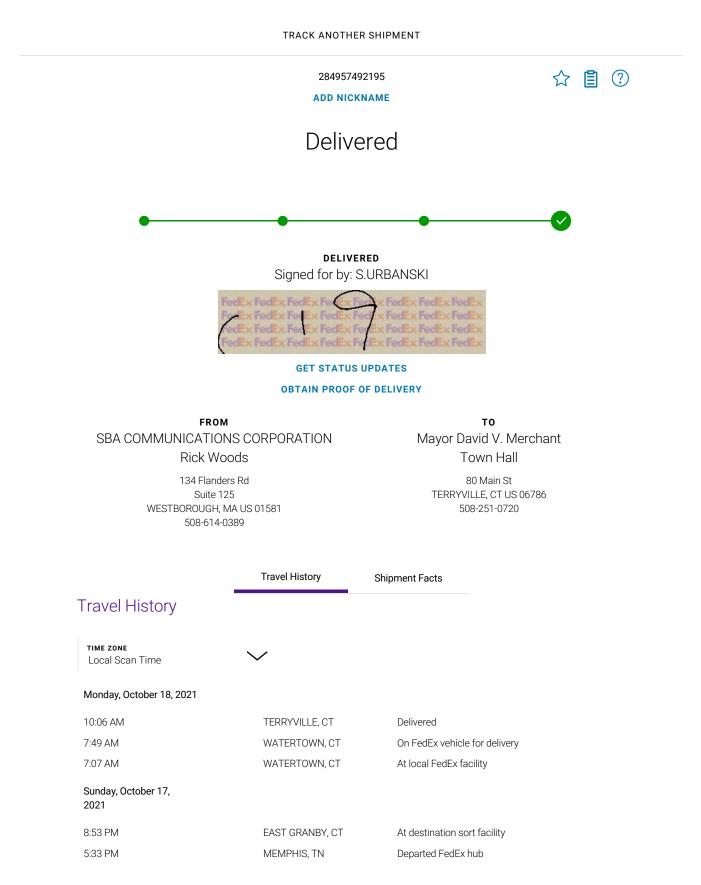
After printing this label:

- 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.

FedEx.



Saturday, October 16, 2021		
11:28 AM	MEMPHIS, TN	Arrived at FedEx hub
Friday, October 15, 2021		
8:25 PM	FRAMINGHAM, MA	Left FedEx origin facility
5:16 PM	FRAMINGHAM, MA	Picked up
1:26 PM		Shipment information sent to FedEx

Expand History \checkmark

Shipment Facts

TRACKING NUMBER	SERVICE	WEIGHT
284957492195	FedEx Priority Overnight	1 lbs / 0.45 kgs
DELIVERY ATTEMPTS	DELIVERED TO	TOTAL PIECES
1	Receptionist/Front Desk	1
TOTAL SHIPMENT WEIGHT	TERMS	SHIPPER REFERENCE
1 lbs / 0.45 kgs	Shipper	10-56-92009-6089
PACKAGING	SPECIAL HANDLING SECTION	SHIP DATE
FedEx Envelope	Deliver Weekday	10/15/21 ⑦
STANDARD TRANSIT 10/18/21 before 10:30 am ⑦	ACTUAL DELIVERY 10/18/21 at 10:06 am	

All (30)

Inbound (0)

Outbound (30)

Watch list (0)



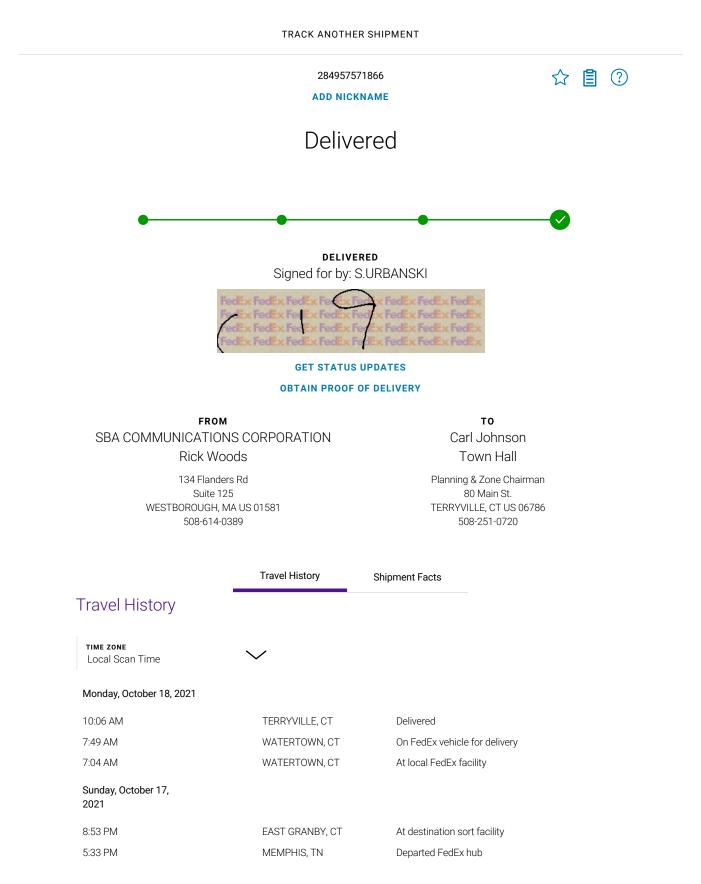
After printing this label:

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Saturday, October 16, 2021		
11:28 AM	MEMPHIS, TN	Arrived at FedEx hub
Friday, October 15, 2021		
8:25 PM	FRAMINGHAM, MA	Left FedEx origin facility
5:16 PM	FRAMINGHAM, MA	Picked up
1:27 PM		Shipment information sent to FedEx

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Shipment Facts

TRACKING NUMBER	SERVICE	WEIGHT
284957571866	FedEx Priority Overnight	1 lbs / 0.45 kgs
DELIVERY ATTEMPTS	DELIVERED TO	TOTAL PIECES
1	Receptionist/Front Desk	1
TOTAL SHIPMENT WEIGHT	TERMS	SHIPPER REFERENCE
1 lbs / 0.45 kgs	Shipper	10-56-92009-6089
PACKAGING	SPECIAL HANDLING SECTION	SHIP DATE
FedEx Envelope	Deliver Weekday	10/15/21 ⑦
STANDARD TRANSIT 10/18/21 before 10:30 am ⑦	ACTUAL DELIVERY 10/18/21 at 10:06 am	

All (30)

Inbound (0)

Outbound (30)

Watch list (0)



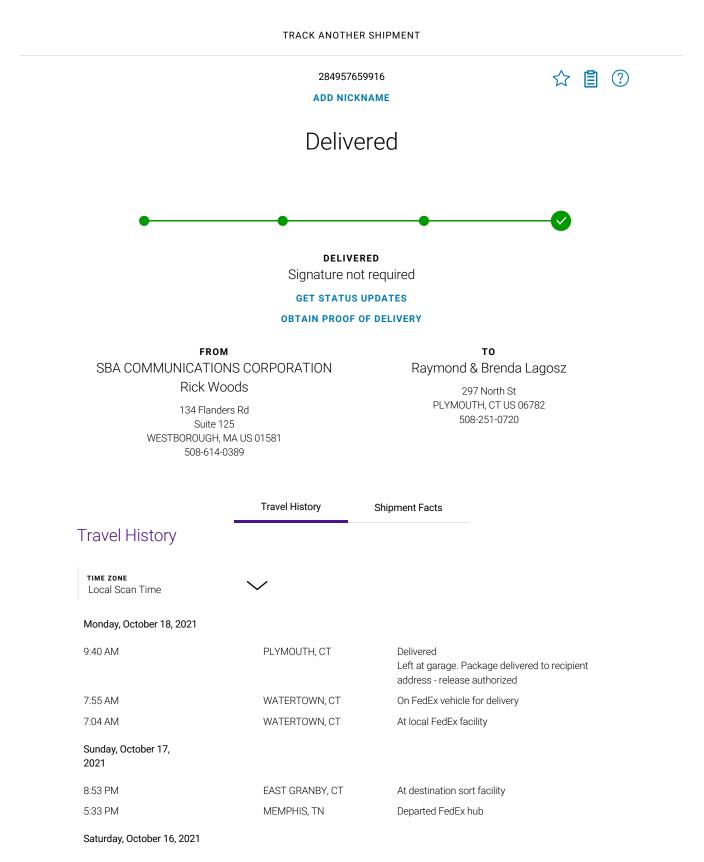
After printing this label:

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FedEx.



11:28 AM	MEMPHIS, TN	Arrived at Fe	dEx hub
Friday, October 15, 2021			
8:25 PM	FRAMINGHAM, MA	Left FedEx o	rigin facility
5:16 PM	FRAMINGHAM, MA	Picked up	
1:28 PM		Shipment inf	formation sent to FedEx
	Expand History 💊	/	
Shipment Facts			
TRACKING NUMBER 284957659916	SERVICE FedEx Priority Overnight		WEIGHT 1 lbs / 0.45 kgs
DELIVERY ATTEMPTS	DELIVERED TO Residence		TOTAL PIECES 1
TOTAL SHIPMENT WEIGHT	TERMS		SHIPPER REFERENCE
1 lbs / 0.45 kgs	Shipper		10-56-92009-6089
PACKAGING	SPECIAL HANDLING SEC	TION	SHIP DATE
FedEx Envelope	Deliver Weekday, Residential	Delivery	10/15/21 🕐
STANDARD TRANSIT 10/18/21 before 12:00 pm ③	ACTUAL DELIVERY 10/18/21 at 9:40 am		

All (30)

Inbound (0)

Outbound (30)

Watch list (0)

EXHIBIT 3

Property Card



Parcel ID 017-014-014D

Account

00074600

Property Information

Owner	LAGOSZ RAYMOND & BRENDA
Address	297 NORTH ST
Mailing Address	297 NORTH ST PLYMOUTH CT 06782
Land Use	- 18
Land Class	R

Census Tract	4253	
Neighborhood	101	
Zoning	RA1	
Acreage	2.62	
Utilities		
Lot Setting/ Desc	11	

Photo



PARCEL VALUATIONS (Assessed value = 70% of Appraised Value)

	Appraised	Assessed
Buildings	145040	
Outbuildings		
Improvements		
Extras		
Land	97800	
Total	242840	169990
Previous		

Construction Details

Year Built	
Stories	1.5
Building Style	CAPE
Building Use	
Building Condition	AVERAGE
Total Rooms	7
Bedrooms	4
Full Bathrooms	2/1
Half Bathrooms	1
Bath Style	
Kitchen Style	1
Roof Style	
Roof Cover	

EXTERIOR WALLS:

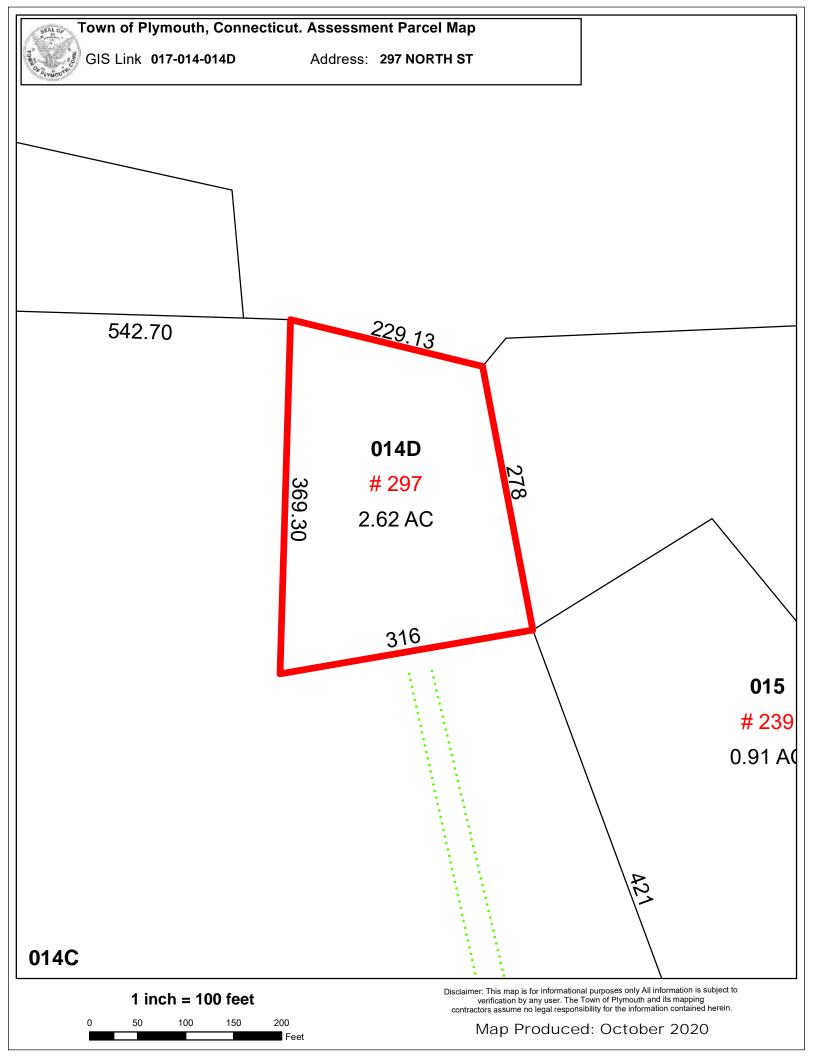
Primary	FRAME
Secondary	
INTERIOR WAI	LLS:
Primary	
Secondary	
FLOORS:	
Primary	
Secondary	
HEATING/AC:	
Heating Type	
Heating Fuel	OIL
AC Type	WARM AIR

BUILDING AREA:	
Effective Building Area	1.0
Gross Building Area	1
Total Living Area	

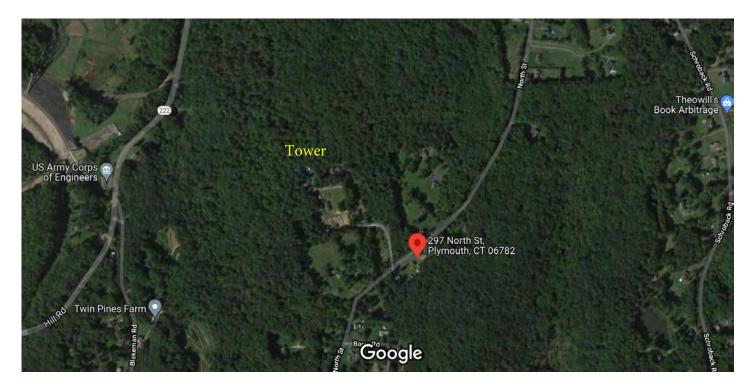
SALES HISTORY:

Sale Date	0
Sale Price	0
Book/ Page	163/1122

EXHIBIT 4 Property Map



Google Maps 297 North St



Imagery ©2021 CNES / Airbus, Maxar Technologies, U.S. Geological Survey, USDA Farm Service Agency, Map data ©2021 500 ft 🗉

EXHIBIT 5 Zoning Documents

APPLICATION FOR SPECIAL PERMIT

Of

SBA COMMUNICATIONS INC.

For a

WIRELESS TELECOMUNICATIONS FACILITY

At

297 NORTH STREET

PLYMOUTH, CT.

Submitted to:

PLYMOUTH PLANNING & ZONING COMMISSION

SEPTEMBER 8, 1999

Prepared by:

THOMAS F. FLYNN III ZONING SPECIALIST SBA COMMUNICATIONS, INC.

SITE # 4245-008 FILE TYPE______ SECTION_20 MIN 2

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I. INTRODUCTION

SBA Communications, Inc., the Applicant, submits this memorandum in support of its Application for a Special Permit and Site Plan Review to install a wireless telecommunications facility at 297 North Street, Plymouth, CT., on property owned by Raymond and Brenda Lagosz and Francis and Barbara Bart. A copy of the application and associated documents are included as Exhibit 1. The site is also known as Lots 014C, Block 14, Map 017 of the Plymouth Tax Assessor's Map. The parcel is located in the R (Residence) zone as designated by the Town Zoning Map. The proposed use is permitted by Special Permit in the R zone pursuant to Article III Section 3.11 and Article IV Section 4.32.S et seq. of the Plymouth Zoning Regulations.

The proposed facility will close a gap in the networks of several wireless telecommunication carriers, specifically Sprint PCS and Nextel Communication which are co-applicants for purposes this application, while at the same time providing additional opportunities for local emergency services to improve their communications services to the area. Moreover, the location at the North Street property is consistent with the Regulation's requirements. The Regulations encourage Applicants to place these facilities in areas that pose the least impact to the Town and to the surrounding properties, while at the same time serving the needs of the telecommunications carriers and the public's health safety and welfare. There already exists a telecommunications facility at this site. Therefore the area will not be degraded in any way. That facility is not capable of carrying any other PCS antennae at this time. The Regulations require that these facilities be of such a nature to encourage co-location opportunities and to prevent the multiplication of towers in Plymouth. This facility will provide space for up to 5 carriers on this pole. The Applicant has made every effort to place this facility in an area that satisfies the letter and spirit of the regulations. The proposed tower meets and exceeds all the standards contained in the Regulations. The Applicant has agreed to make this facility available to police, fire and emergency services, both municipal and volunteer, as needs dictate, at no cost to Plymouth. There are no towers or other tall structures in the area that would satisfy the needs of the carriers, because the existing pole is not

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capable of carrying any other equipment. This property is isolated from surrounding properties, but is near a heavily traveled commercial corridor that has seen high level of new development. The coverage needs of the carriers are served because several of the carriers do not have service in the area and there is a definite need for a new facility in this location.

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II. DESCRIPTION OF THE PROPOSED FACILITY

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The facility will consist of a 195 foot monopole. The monopole will be constructed to accommodate up to five PCS\Cellular antenna arrays and associated equipment at the base of the pole. The area at the base of the facility will be fenced and secured. As the tenants locate at the site, they will construct their base equipment entirely within the fenced area. It will be landscaped appropriately. This will be an unmanned facility. No sanitary facilities or water will be provided. The site will generate very little traffic and will be visited infrequently after construction is complete. The Applicant has offered to allow the Town emergency services to locate its equipment as needed on the tower at no cost. The availability of this facility to the Town will markedly improve said services' ability to effectively serve the community. A copy of the site plan is attached as Exhibit 1.

III. NEED FOR THE FACILITY

A. FCC REQUIREMENTS

The Applicant provides services to the licensed wireless telecommunications carriers in Connecticut. Each of these carriers, such Sprint PCS and Nextel are licensed by the FCC and are required as part of their license to provide service throughout the State of Connecticut. A copy of these licenses are attached as Exhibit 2. Each of these carriers are required to complete construction and build out of its wireless network and to fill coverage gaps in its federally licensed service area, which includes the Town of Plymouth. The Applicant provides a variety of services for the carriers. These include the location and leasing of appropriate sites, zoning and permitting, and the construction and ownership of sites that the licensed carriers will use. The Applicant makes a significant contribution the carrier's ability to satisfy their licensing requirements by providing site like the one before this Commission in the application. Sprint PCS and Nextel Communications Inc. are interested in leasing space on this tower for its network and has agreed to support this application as co-applicants. See letter attached as Exhibit 3. The Commission has two radio frequency propagation studies that are part of this application. Exhibits 4 & 5. These studies are used to determine and analyze the need for sites that are part of each carrier's system. Each study demonstrates that neither carrier have an acceptable level of service in this area. This site will connect with other sites the carriers are currently using or planning to use in creating a complete network.

There is also a public need for the Applicant's service to the carriers, as evidenced by the granting of the carrier's licenses. The grant of the license to the various carriers constitutes a finding that the public interest will be served by the carriers' service. This is consistent with the public policy of the United States "to make available, so far as possible, to all the people of the United States a rapid, efficient, nationwide and world wide wire and radio communication service with adequate facilities at reasonable charges, for the purpose of a national defense, for the purpose of promoting safety of life and property through the use of wire and radio communication... " 47 U.S.C. Section 151. In fact, at the time the FCC granted the carrier's licenses, the FCC determined that the carrier's services furthered the FCC's statutory mandate and the public policy of the United States. A copy of Sprint's and Nextel's license is attached as Exhibit 2.

B. COVERAGE WITHIN THE TOWN OF PLYMOUTH

The Applicant has prepared a visual RF analysis to demonstrate the need to locate wireless telecommunications facility in this area of Plymouth. This analysis is called a signal propagation map and displays the geographical area that is served by wireless facilities within a certain area. A propagation map of the coverage in Plymouth without the proposed facility for each carrier is included as page 1 of Exhibits 4 and 5. As these maps demonstrate, there is a significant coverage gap in Plymouth for each carrier. As described above, the carriers must provide service to this cell. This cell does not currently receive service. The Applicant's proposed facility is designed to supply the necessary coverage.

In order to provide comprehensive service to this area, a wireless facility must be placed in a very specific region. That area within which a facility must be located to provide coverage is called the search area ring. The search area ring for this cell is attached as Exhibit 6. As the search ring demonstrates, the Applicant had a very small region within which it could locate a facility and satisfy the needs of the carriers. If the facility were located outside this search area ring, the facility would not provide coverage throughout this cell and coverage gaps would remain. This would result in unacceptable levels of service for the carriers.

With the proposed facility at 297 North Street, the Applicant is able to provide a site that will allow the carriers to provide coverage throughout the cell and the previous coverage gaps are eliminated. Exhibits 4 and 5, page 1 of each, displays the coverage currently available for Sprint and Nextel in the area from the surrounding facilities. This map demonstrates that there is a coverage gap that needs to be remedied. This site will do so. A propagation map showing the coverage provided by this site is attached as Exhibits 4 and 5, page 2. In addition, the radio coverage available to the emergency services of the town will be improved substantially. SBA has a policy of allowing, at no cost, local volunteer and municipal emergency services on these facilities. When the coverage provided by this site is merged with that of the surrounding facilities, the gap is closed and a seamless network is accomplished. See Exhibits 4 and 5, page 3.

SBA Communications has conducted an exhaustive survey of the sites in the search area ring to identify any existing structure that could be used to fill this gap in coverage for the carriers. Because there

are no buildings or other facilities of sufficient height and because the existing pole at the site is not capable of holding other antennae, the carriers had to turn to the Applicant for an appropriate site for a monopole. The site selected by the Applicant is in R zone. This is a heavily traveled area because of Route 8, but this is an isolated property. The site itself consists of two properties owned by the same owners with a residential structure and some farm buildings and equipment. There are residential developments to the south and east of the site. There is also a commercial property to the north and west. The area is a mixture of uses. There is low residential density in the area. Emergency services may also be able to improve their services by using this facility. This is an ideal site for this type of facility because it can fill the needs of the various emergency services, the surrounding community serviced by them, and the wireless carriers.

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IV. COMPLIANCE WITH THE PLYMOUTH ZONING REGUALTIONS

The Applicant seeks a Special Permit under Article IV, Section 4.32.S of the Plymouth Zoning regulations. Sections 4.32.S details the requirements for this type of facility. The Applicant has satisfied all the criteria outlined in the regulations as follows:

SECTION 4.32.S.1 PURPOSE

This Section outlines the goals of this Commission regarding telecommunication facilities. The Applicant believes that it has satisfied these goals with the selection of this site. Although there is a facility at the site already, the addition of another, especially one that will accommodate the needs of up to 5 telecommunications carriers, will ensure that there will be no further proliferation of towers in this area. The Applicant has reviewed the "Guide Plan for the Central Connecticut Region" and believes that it has satisfied the criteria contained therein. See Exhibit 7

SECTION 4.32.S.2 LOCATIONAL PREFERENCES

The site selected by the Applicant is number 6 on the list of preferences. However, this site was selected because of the need of the carriers to provide service in particular areas. That need is driven by the technology of the wireless industry, the real limitations imposed by the topography of the area, and the relationship of this site to the surrounding coverage areas.

SECTION 4.32.S.3 SPECIAL STANDARDS

- (i) This facility is not within 200 feet of a residence. It is 213 feet from the residence of the owners of the property.
- (ii) No lighting is required at this facility. See Exhibit 8.
- (iii) The Tower is galvanized steel that will quickly weather to a mat grey color.
- (iv) No signage or advertising will be placed on the tower.
- (v) This tower will accommodate up to 5 PCS type antennae array.

- (vi) The facility is setback from all property lines in excess of 215 feet.
- (vii) Not applicable. The individual carriers will make application to this Commission for all the approvals necessary to locate their antennae and base station equipment. This Applicant does not make any proposal for buildings at this time.
- (viii) Not applicable. No dish type antennae are proposed.
- (ix) Not applicable.
- (x) The applicant has proposed an 8 foot fence to enclose the tower and an area sufficient for future location of the carrier's ground equipment.
- Each carrier is obligated by its license to comply with all FCC standards, which include non-interference with all existing telecommunications systems.
- (xii) This facility, and all carriers that locate on it, will comply with all FCC standards.
- (xiii) The utilities will be underground.
- (xiv) Not applicable at this time.

SECTION 4.32.S.4 APPLICATION REQUIREMENTS

- Provided as Exhibits 4&5
- (ii) Attached as Exhibit 9
- (iii) See Exhibit 1 Site Plan Sheet C-4
- (iv) Not Applicable at this time.

This site complies with all the regulations. In fact this site is exactly the type of property that the designers of the current regulation sought to encourage. As indicated above, without the proposed facility, SBA Communications on behalf of Sprint PCS and Nextel, federally licensed carriers, will be unable to provide service to this area and improve emergency services communications. The public's safety will not be compromised by the location of the facility. In addition to providing a fall zone in which there are no other structures, these towers are extremely sturdy. In the very unlikely event that the tower might be damaged, the tower will fold in upon itself. See attached Exhibit 10. In addition to the opinion of the

structural engineer, attached is a study that indicates that there have been no reported monopole failures. Exhibit 11. This facility will be built to meet or exceed all building code standards and is an extremely safe facility.

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The facility will be an integral part of the PCS carrier's network of facilities in the area. The FCC requires Sprint, Nextel and the other carriers to provide coverage and to complete construction of the networks in the federally licensed areas and to fill coverage gaps in the network, which includes Plymouth. Without this Special Permit, the carriers will be unable to fulfill their license requirements and provide coverage.

V. CONCLUSION

The Applicant respectfully submits that the Plymouth Planning and Zoning Commission should grant the requested Special Permit because the Applicant has complied with all the pertinent regulations and provided the Commission with all the necessary information on which to grant the Special Permit. By granting the requested Special Permit, the Commission will permit the Applicant and the licensed carriers to comply with the FCC mandate to build out the wireless system and provide reliable wireless communications. Many people will be concerned by unsubstantiated claims that property values are effected by tower construction. There are also fears of the health impacts of these towers. Although these issues are not part of the responsibilities of this Commission, the Applicant would like to address the issues briefly. There are no studies and no evidence that property values decline as a result of tower construction, despite the anecdotal comments to the contrary. Properties continue to appreciate in value at the same rate as other similar properties, and to sell at comparable rates and prices. With regard to health issues, all carriers that occupy space on this facility are required by their licenses to comply with all current and future FCC standards for EMF radiation. The 1996 Telecommunications Act prohibits a regulatory authority from denying an application based on the perceived health impact of radio emissions if the carrier is in compliance with FCC regulations. A copy is attached as Exhibit 16. This Commission is prohibited by federal law from basing its decision on the issue of the health impact of the tower.

In any event, this Commission has the opportunity to substantially increase the public health, safety and welfare by approving this application



Γ	RECEIVED	
	JUN 2 9 1999	
REC	LANNING AND ZONING	1

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June 29,1999

Planning & Zoning Commission Town of Plymouth 19 East Main Street Terryville, CT. 06786

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Re: Special Permit Application 297 North Street

Dear Sir,

Enclosed please find an application for a Special Permit, the appropriate number of drawings and the filing fee. Please receipt this at your next meeting and schedule the public hearing for the month of August.

Please call me at the number below if I can answer any questions or provide you with any further information.

Xery truly yours, ann THOMAS F. ELYNN III ZONING SPECIALIST SBA COMMUNICATIONS INC.

TOWN OF PLYMOUTH PLANNING AND ZONING COMMISSION APPLICATION FOR ZONING PERMIT EST. VALUE

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DATE OF APPLICATION June 22, 1999 APPLICATION IS HEREEY MADE TO THE PLANNING AND ZONING COMMISSION	
APPLICATION IS HEREEY MADE TO THE PLANNING AND ZONING COMMISSION	
OF THE TOWN OF PLYMOUTH FOR A PERMIT FOR: Special Permit	
addition accessory end	
other	
LOCATION OF PROPERTY 297 North Street	
LOCATION OF PROPERTY 297 North Street LOT#LOT#UOT	
APPLICANT: <u>SBA Communications inc.</u> OWNER (IF DIFFERENT): Raymond & Brenda Lagosz, Francis & Barbara	Bent
ADDRESS (IF DIFFERENT):	
PHONE (HOME):	
ZONERLOT AREA 10,000 sg. febt OF LOT	
WIDTH OF LOT NA EXISTING STRUCTURE	
ADDRECONT (WORK): Applicant 203-578-3697 PHONE (HOME):LOT AREA_10,000 sg. feld T FRONTAGE ZONER LOT AREA_10,000 sg. feld T FRONTAGE WIDTH OF LOT AVERAGE DEPTH OF LOT WIDTH OF LOT EXISTING STRUCTURE PROPOSED STRUCTURE Telecommunications tower 195'(LxWxH) DIMENSIONS FRONT XAED	
DIMENSIONSFRONT YARDFRAR LOT	
DISTANCE FROM: SIDE YARDS na SQ.FT.	
FLOOR AREA: na	
STRUCTURE WILL EE SERVICED BY printed oublic water	
No water or sanitary service at siteDATE:DATE:	
HEALTH DEPARTMENT STONATONES	
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LAND USE ENFORCEMENT OFFICER

EXHIBIT 6

Construction Drawings

APPROVALS]
PROJECT MANAGER:	DATE:	ZONING/SITE ACQ.:	DATE:	
CONSTRUCTION:	DATE:	<u>OPERATIONS:</u>	DATE:	
<u>RF ENGINEERING:</u>	DATE:	TOWER OWNER:	<u>DATE:</u>	
]
T-MOBILE TECHNIC	CIAN SITE	SAFETY NOTES		-
SECTOR A:ACCESSSECTOR B:ACCESSSECTOR C:ACCESS	RICTED RICTED RICTED	CLIMBER CLIMBER CLIMBER		
GENERAL NOTES				
 THE CONTRACTOR SHALL GIVE ALL NOTICES A LAWS, ORDINANCES, RULES, REGULATIONS AND ANY PUBLIC AUTHORITY, MUNICIPAL AND UTILI SPECIFICATIONS, AND LOCAL AND STATE JURIS BEARING ON THE PERFORMANCE OF THE WOR PERFORMED ON THE PROJECT AND THE MATE BE IN STRICT ACCORDANCE WITH ALL APPLICA REGULATIONS, AND ORDINANCES. THE ARCHITECT/ENGINEER HAVE MADE EVERY IN THE CONSTRUCTION AND CONTRACT DOCUM SCOPE OF WORK. THE CONTRACTOR BIDDING NEVERTHELESS CAUTIONED THAT MINOR OMISS THE DRAWINGS AND OR SPECIFICATIONS SHALL CONTRACTOR FROM COMPLETING THE PROJECT ACCORDANCE WITH THE INTENT OF THESE DOW THE CONTRACTOR OR BIDDER SHALL BEAR TH NOTIFYING (IN WRITING) THE OMNIPOINT REPRI CONFLICTS, ERRORS, OR OMISSIONS PRIOR TO CONTRACTOR'S PROPOSAL OR PERFORMANCE OF DISCREPANCIES THE CONTRACTOR SHALL F OR EXTENSIVE WORK, UNLESS DIRECTED IN W 	LAWFUL ORDERS OF Y COMPANY DICTIONAL CODES K. THE WORK RIALS INSTALLED SHALL BLE CODES, EFFORT TO SET FORTH ENTS THE COMPLETE THE JOB IS IONS OR ERRORS IN . NOT EXCUSE SAID AND IMPROVEMENTS IN CUMENTS. E RESPONSIBILITY OF ESENTATIVE OF ANY THE SUBMISSION OF DF WORK. IN THE EVENT RICE THE MORE COSTLY	 SHALL REPAIR ANY DAMAGE THAT MAY HAV CONSTRUCTION ON OR ABOUT THE PROPER 13. THE CONTRACTOR SHALL KEEP THE GENER HAZARD FREE DURING CONSTRUCTION AND DEBRIS, RUBBISH AND REMOVE EQUIPMENT REMAINING ON THE PROPERTY. PREMISES S CONDITION AND FREE FROM PAINT SPOTS, ANY NATURE. 14. THE CONTRACTOR SHALL COMPLY WITH ALL THEY APPLY TO THIS PROJECT. 15. THE CONTRACTOR SHALL NOTIFY THE PROJ REPRESENTATIVE WHERE A CONFLICT OCCUL CONTRACT DOCUMENTS. THE CONTRACTOR MATERIAL OR CONSTRUCT ANY PORTION OF CONFLICT UNTIL CONFLICT IS RESOLVED BY REPRESENTATIVE. 16. THE CONTRACTOR SHALL VERIFY ALL DIMEN PROPERTY LINES, ETC. ON THE JOB. 	RTY. AL WORK AREA CLEAN AND DISPOSE OF ALL DIRT, NOT SPECIFIED AS SHALL BE LEFT IN CLEAN DUST, OR SMUDGES OF OSHA REQUIREMENTS AS IECT OWNER'S RS ON ANY OF THE IS NOT TO ORDER THE WORK THAT IS IN THE LESSEE/LICENSEE	
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6. THE CONTRACTOR SHALL OBTAIN AUTHORIZATIO CONSTRUCTION PRIOR TO STARTING WORK	HAT THE PROJECT CAN CONTRACT DOCUMENTS. IN TO PROCEED WITH			Photes a
 DEFINED BY THE CONSTRUCTION DRAWINGS/CO THE CONTRACTOR SHALL INSTALL ALL EQUIPM ACCORDING TO THE MANUFACTURER'S/VENDOR UNLESS NOTED OTHERWISE OR WHERE LOCAL TAKE PRECEDENCE. 	ONTRACT DOCUMENTS. ENT AND MATERIALS 'S SPECIFICATIONS	AT LEAST 72 HOURS P DIGGING, THE CONTRA REQUIRED TO CALL DIG S	ACTOR IS	3
8. THE CONTRACTOR SHALL PROVIDE A FULL SE DOCUMENTS AT THE SITE UPDATED WITH THE ADDENDUMS OR CLARIFICATIONS AVAILABLE FO PERSONNEL INVOLVED WITH THE PROJECT.	LATEST REVISIONS AND			· city
 9. THE CONTRACTOR SHALL SUPERVISE AND DIRE DESCRIBED HEREIN. THE CONTRACTOR SHALL RESPONSIBLE FOR ALL CONSTRUCTION MEANS TECHNIQUES, SEQUENCES AND PROCEDURES / ALL PORTIONS OF THE WORK UNDER THE CO 10. THE CONTRACTOR IS RESPONSIBLE FOR PROV CONSTRUCTION CONTROL SURVEYS, ESTABLISH ALL LINES AND GRADES REQUIRED TO CONSTR AS SHOWN HEREIN. 	BE SOLELY METHODS, ND FOR COORDINATING NTRACT. DING ALL NECESSARY NG AND MAINTAINING			MERGE ONTO TOWARD ALB/ YORK CITY. (ON I-84 & EXIT 33 FOR
 THE CONTRACTOR SHALL BE RESPONSIBLE FO PERMITS AND INSPECTIONS WHICH MAY BE RE BY THE ARCHITECT/ENGINEER, THE STATE, CO GOVERNMENT AUTHORITY. THE CONTRACTOR SHALL MAKE NECESSARY PI EXISTING IMPROVEMENTS, EASEMENTS, PAVING, 	QUIRED FOR THE WORK JNTY OR LOCAL ROVISIONS TO PROTECT			CONTINUE ON BOULEVARD. ONTO PARK WEST/MAIN S SIDE.

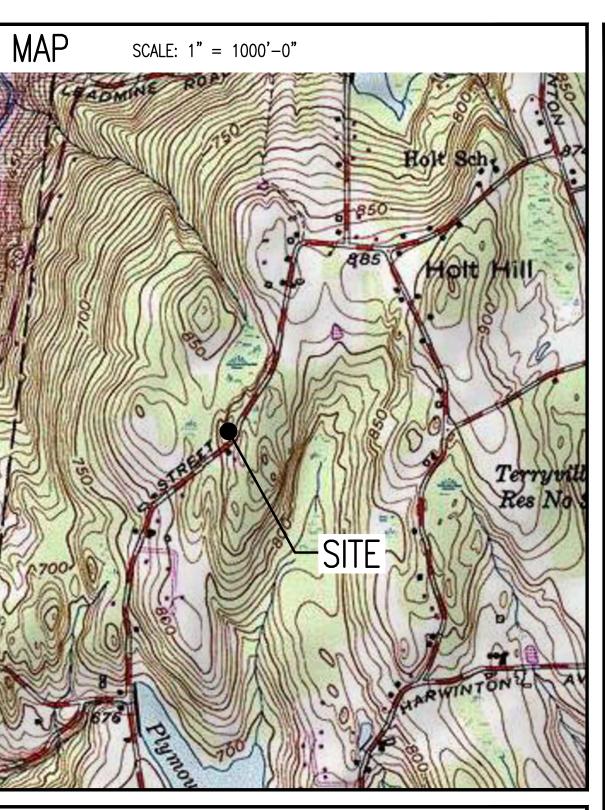
THOMASTON3/RT 8

297 NORTH STREET PLYMOUTH, CT 06782 LITCHFIELD COUNTY

SITE NO.: CT11366A

SITE TYPE: 195'± MONOPOLE

PROJECT TYPE: NATIONAL HARDENING PROJECT



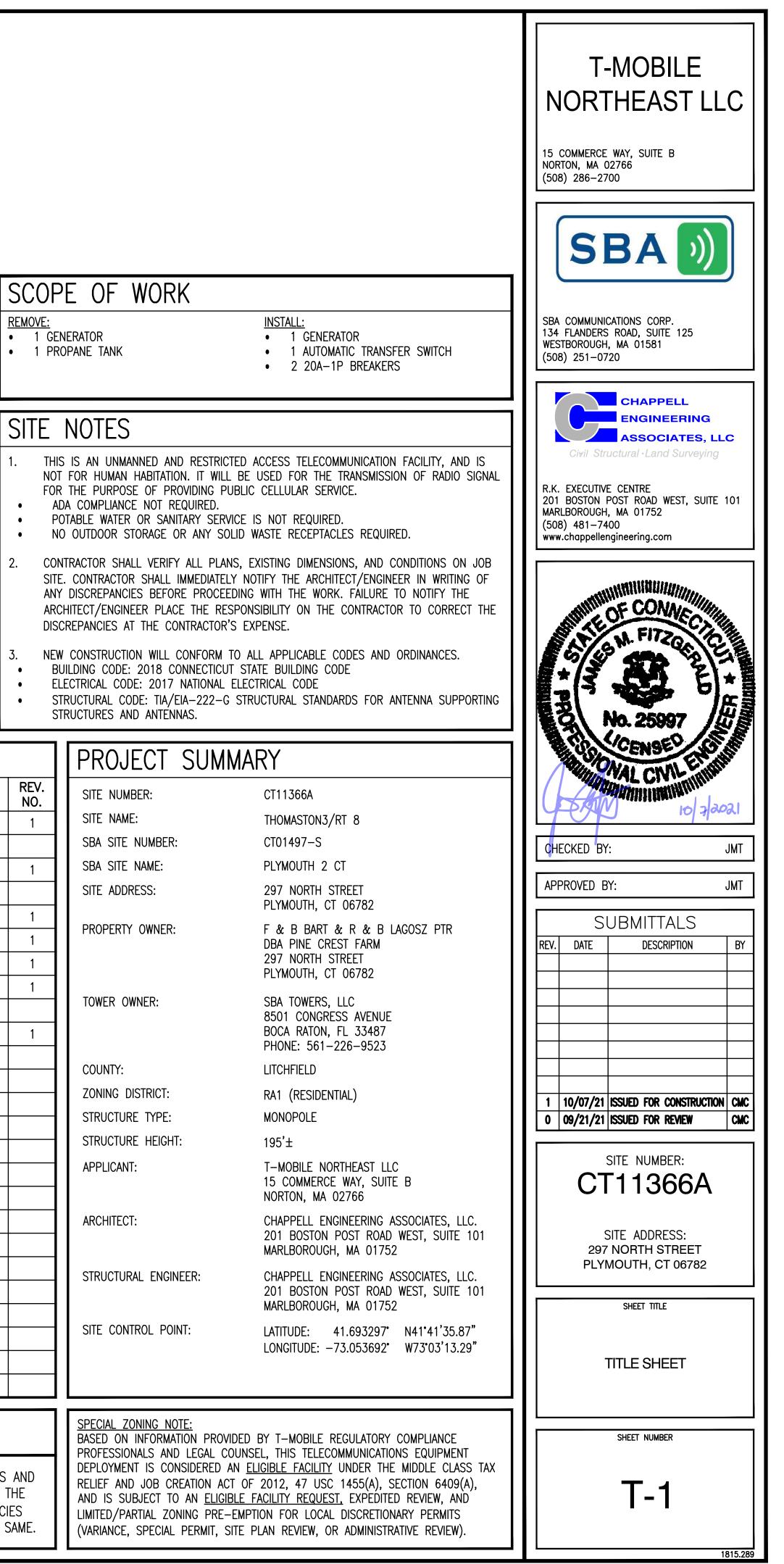
DIRECTIONS

-495 NORTH TOWARD MANSFIELD/MARLBORO. TAKE EXIT 58 FOR I-90 WEST Y. USE RIGHT 2 LANES FOR EXIT 78 FOR I-84 TOWARD HARTFORD CT/NEW NTINUE ONTO I-84. KEEP LEFT TO STAY ON I-84 (2x). KEEP RIGHT TO STAY DLLOW SIGNS FOR I-91 NORTH/HARTFORD. KEEP RIGHT TO STAY ON I-84. TAKE CT-72 WEST/NEW BRITAIN AVENUE TOWARD BRISTOL/PLAINVILLE. KEEP LEFT TO CT-72 WEST. TURN RIGHT ONTO CT-72. CONTINUE STRAIGHT ONTO MEMORIAL ONTINUE ONTO SCHOOL STREET. CONTINUE ONTO DIVINITY STREET. TURN RIGHT REET. CONTINUE ONTO CT-72/TERRYVILLE ROAD. TURN LEFT ONTO US-6 REET. TURN RIGHT ONTO NORTH STREET. SITE IS LOCATED ON THE LEFT HAND

SHE	SHEET INDEX				
SHEET NO.	DESCRIPTION	REV. NO.			
T-1	TITLE SHEET	1			
GN-1	GENERAL NOTES	1			
A-1	COMPOUND & EQUIPMENT PLANS	1			
A-2	GENERATOR DETAILS	1			
A-3	GENERATOR SPECIFICATIONS 1	1			
A-4	GENERATOR SPECIFICATIONS 2	1			
E-1	ELECTRIC & GROUNDING DETAILS	1			
L I					
	DO NOT SCALE DRAWINGS				

REMOVE:

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.



1 FOR THE DURDASE OF CONSTRUCTION DRAWINGS THE FOULOWING DEFINITIONS SHALL ARRIVE	
 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 ATTENTION OF CONTRACTOR.	
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.	

ETE AND REINFORCING STEEL NOTES:

NCRETE WORK SHALL BE IN ACCORDANCE WITH THE ACI 301, ACI 318, ACI 336, ASTM A184, ASTM A185 AND THE ND CONSTRUCTION SPECIFICATION FOR CAST-IN-PLACE CONCRETE.

NCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS, UNLESS NOTED OTHERWISE. A FRENGTH (400PSI) MAY BE USED. ALL CONCRETE WORK SHALL BE IN ACCORDANCE WITH THE ACI 381 CODE ENTS

RCING STEEL SHALL CONFORM TO ASTM A 615. GRADE 60. DEFORMED UNLESS NOTED OTHERWISE. WELDED WIRE IALL CONFORM TO ASTM A 185 WELDED STEEL WIRE FABRIC UNLESS NOTED OTHERWISE. SPLICES SHALL BE CLASS ALL HOOKS SHALL BE STANDARD, UNO.

DLLOWING MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCING STEEL UNLESS SHOWN OTHERWISE ON

CRETE EXPOSED TO EARTH OR WEATHER: #6 AND LARGER2 IN. #5 AND SMALLER & WWF1½ IN.

CRETE NOT EXPOSED TO EARTH OR WEATHER NOT CAST AGAINST THE GROUND:

SLAB AND WALL%/ IN.

MFER 3/4" SHALL BE PROVIDED AT ALL EXPOSED EDGES OF CONCRETE, UNO, IN ACCORDANCE WITH ACI 301 SECTION

ATION OF CONCRETE EXPANSION/WEDGE ANCHORS SHALL BE PER MANUFACTURER'S WRITTEN RECOMMENDED E. THE ANCHOR BOLT, DOWEL OR ROD SHALL CONFORM TO THE MANUFACTURERS RECOMMENDATION FOR EMBEDMENT AS SHOWN ON THE DRAWINGS. NO REBAR SHALL BE CUT WITHOUT PRIOR CONTRACTOR APPROVAL WHEN DRILLING CONCRETE. SPECIAL INSPECTIONS, REQUIRED BY GOVERNING CODES, SHALL BE PERFORMED IN ORDER TO MAINTAIN URER'S MAXIMUM ALLOWABLE LOADS. ALL EXPANSION/WEDGE ANCHORS SHALL BE STAINLESS STEEL OR HOT DIPPED D. EXPANSION BOLTS SHALL BE PROVIDED BY SIMPSON OR APPROVED EQUAL.

ETE CYLINDER TIES ARE NOT REQUIRED FOR SLAB ON GRADE WHEN CONCRETE IS LESS THAN 50 CUBIC YARDS 3.2.3) IN THAT EVENT THE FOLLOWING RECORDS SHALL BE PROVIDED BY THE CONCRETE SUPPLIER; SULTS OF CONCRETE CYLINDER TEST PERFORMED AT THE SUPPLIERS PLANT. RTIFICATION OF MINIMUM COMPRESSIVE STRENGTH FOR THE CONCRETE GRADE SUPPLIED. TER THAN 50 CUBIC YARDS THE GC SHALL PERFORM THE CONCRETE CYLINDER TEST.

ALTERNATIVE TO ITEM 7. TEST CYLINDERS SHALL BE TAKEN INITIALLY AND THEREAFTER FOR EVERY 50 YARDS OF FROM EACH DIFFERENT BATCH PLANT.

IENT SHALL NOT BE PLACED ON NEW PADS FOR SEVEN DAYS AFTER PAD IS POURED, UNLESS IT IS VERIFIED BY TESTS THAT COMPRESSIVE STRENGTH HAS BEEN ATTAINED.

<u>TURAL STEEL NOTES:</u>

EEL WORK SHALL BE PAINTED OR GALVANIZED IN ACCORDANCE WITH THE DRAWINGS AND T-MOBILE SPECIFICATIONS THERWISE NOTED. STRUCTURAL STEEL SHALL BE ASTM-A-36 UNLESS OTHERWISE NOTED ON THE SITE SPECIFIC STEEL DESIGN, INSTALLATION AND BOLTING SHALL BE IN ACCORDANCE WITH THE AMERICAN INSTITUTE OF STEEL TION (AISC) "MANUAL OF STEEL CONSTRUCTION".

LDING SHALL BE PERFORMED USING E70XX ELECTRODES AND WELDING SHALL CONFORM TO AISC AND AWS D1.1. LET WELD SIZES ARE NOT SHOWN, PROVIDE THE MINIMUM SIZE PER TABLE J2.4 IN THE AISC "MANUAL OF STEEL TION", 9TH EDITION. PAINTED SURFACES SHALL BE TOUCHED UP.

CONNECTIONS SHALL USE BEARING TYPE ASTM A325 BOLTS $(\frac{3}{4})^{\circ}$ and shall have minimum of two bolts OTED OTHERWISE. ALL BOLTS SHALL BE GALVANIZED OR STAINLESS STEEL.

TRUCTURAL CONNECTIONS FOR STEEL GRATING MAY USE $\frac{5}{6}$ " DIA. ASTM A 307 BOLTS (GALV) UNLESS NOTED

ACTOR SHALL SUBMIT SHOP DRAWINGS FOR ENGINEER REVIEW & APPROVAL ON PROJECTS REQUIRING STRUCTURAL

RUCTURAL STEEL WORK SHALL BE DONE IN ACCORDANCE WITH AISC SPECIFICATIONS.

COMPACTION NOTES FOR SLAB ON GRADE:

TE AS REQUIRED TO REMOVE VEGETATION AND TOPSOIL TO EXPOSE NATURAL SUBGRADE AND PLACE CRUSHED STONE

CTION CERTIFICATION: AN INSPECTION AND WRITTEN CERTIFICATION BY A QUALIFIED GEOTECHNICAL TECHNICIAN OR IS ACCEPTABLE.

ALTERNATE TO INSPECTION AND WRITTEN CERTIFICATION. THE "UNDISTURBED SOIL" BASE SHALL BE COMPACTED WITH ON EQUIPMENT", LISTED BELOW, TO AT LEAST 90% MODIFIED PROCTOR MAXIMUM DENSITY PER ASTM D 1557

CTED SUBBASE SHALL BE UNIFORM AND LEVELED. PROVIDE 6" MINIMUM CRUSHED STONE OR GRAVEL COMPACTED IN ABOVE COMPACTED SOIL. GRAVEL SHALL BE NATURAL OR CRUSHED WITH 100% PASSING #1 SIEVE.

ALTERNATE TO ITEMS 2 AND 3, THE SUBGRADE SOILS WITH 5 PASSES OR A MEDIUM SIZED VIBRATORY PLATE R (SUCH AS BOMAG BPR 30/38) OR HAND-OPERATED SINGLE DRUM VIBRATORY ROLLER (SUCH AS BOMAG BW 55E). AREAS THAT ARE ENCOUNTERED SHOULD BE REMOVED AND REPLACED WITH A WELL-GRADED GRANULAR FILL AND D AS STATED ABOVE.

CTION EQUIPMENT:

DPERATED DOUBLE DRUN, VIBRATORY ROLLER, VIBRATORY PLATE COMPACTOR OR JUMPING JACK COMPACTOR.

RUCTION NOTES:

/ERIFICATION: ACTOR SHALL FIELD VERIFY SCOPE OF WORK, T-MOBILE ANTENNA PLATFORM LOCATION AND UTILITY TRENCHWORK.

INATION OF WORK:

ACTOR SHALL COORDINATE RF WORK AND PROCEDURES WITH CONTRACTOR.

LADDER RACK:

ACTOR SHALL FURNISH AND INSTALL CABLE LADDER RACK, CABLE TRAY AND/OR ICE BRIDGE, AND CONDUIT AS 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 TELCORDIA.

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 GRADF.

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.

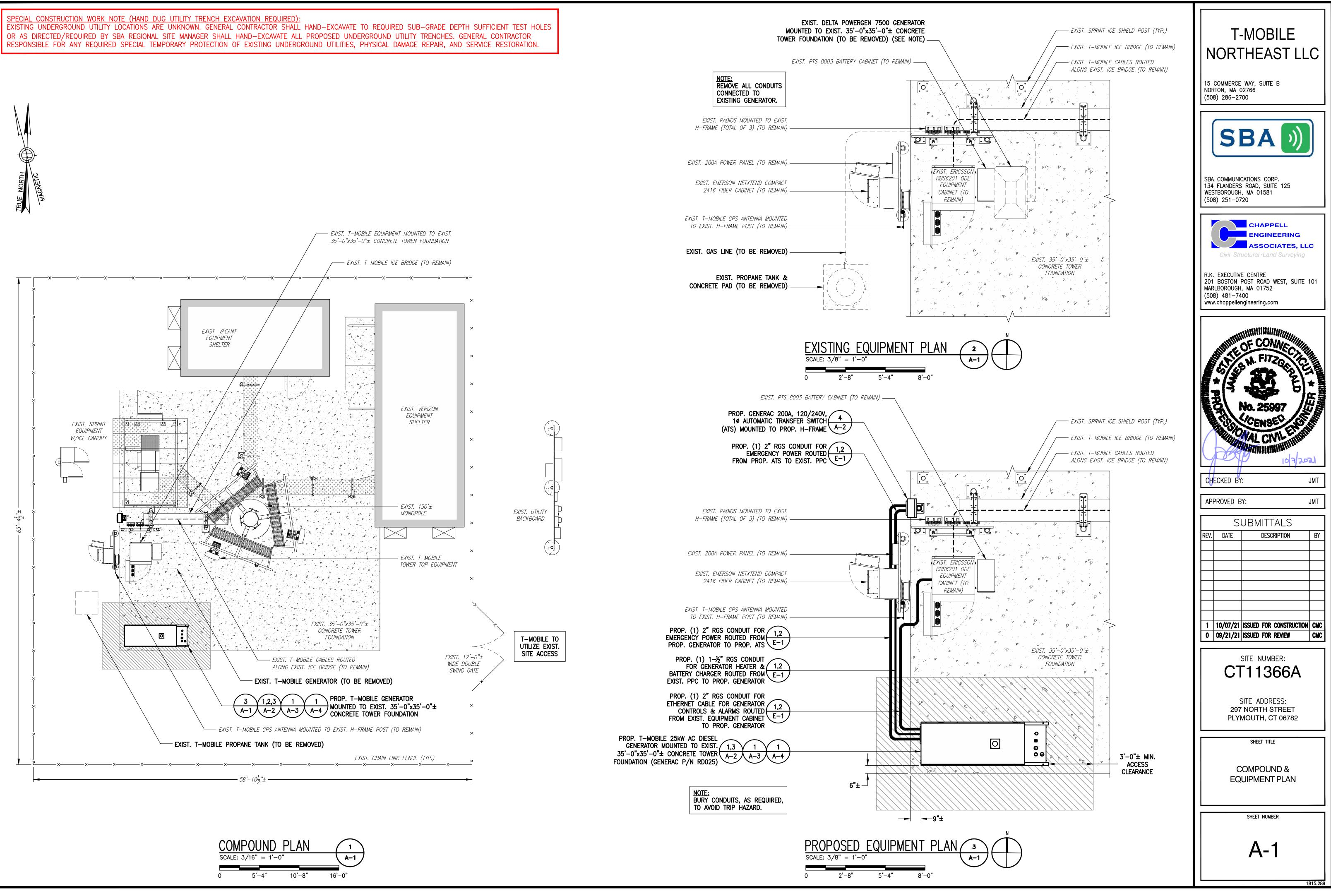
30. THE SUBCONTRACTOR SHALL PROVIDE NECESSARY TAGGING ON THE BREAKERS. CABLES AND DISTRIBUTION PANELS IN ACCORDANCE WITH THE APPLICABLE CODES AND STANDARDS TO SAFEGUARD AGAINST LIFE AND PROPERTY. 31. ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS, NEC AND ALL

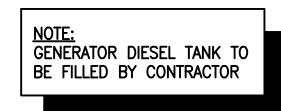
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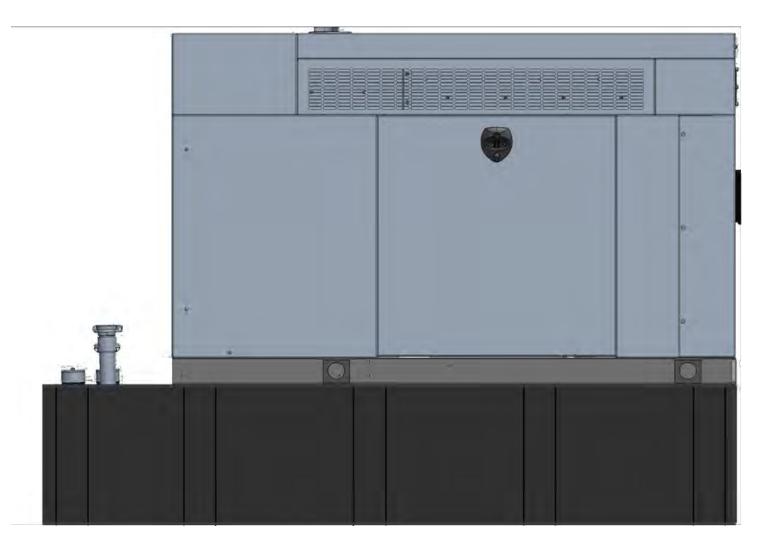
APPLICABLE LOCAL CODES.

32. CONDUIT ROUTINGS ARE SCHEMATIC. SUBCONTRACTOR SHALL INSTALL CONDUITS SO THAT ACCESS TO EQUIPMENT IS



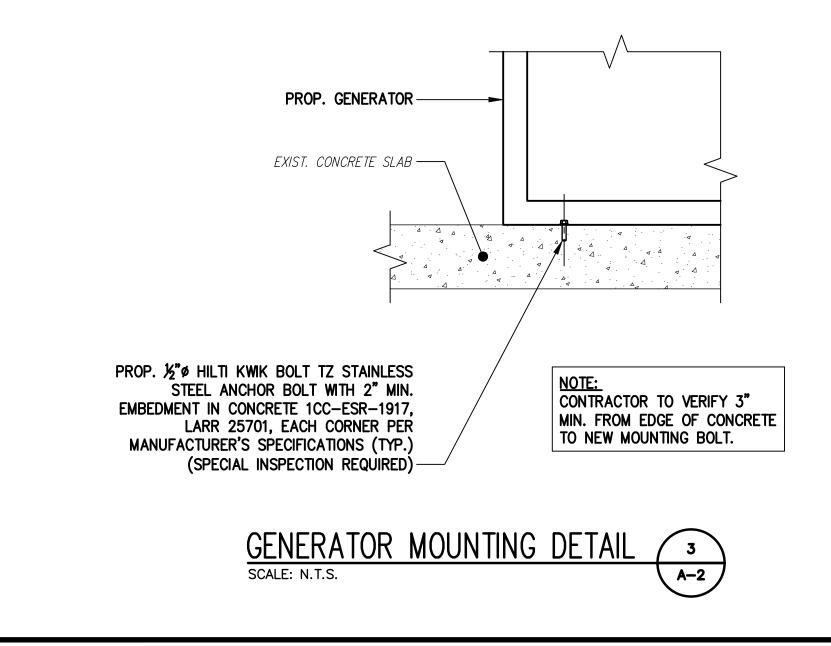


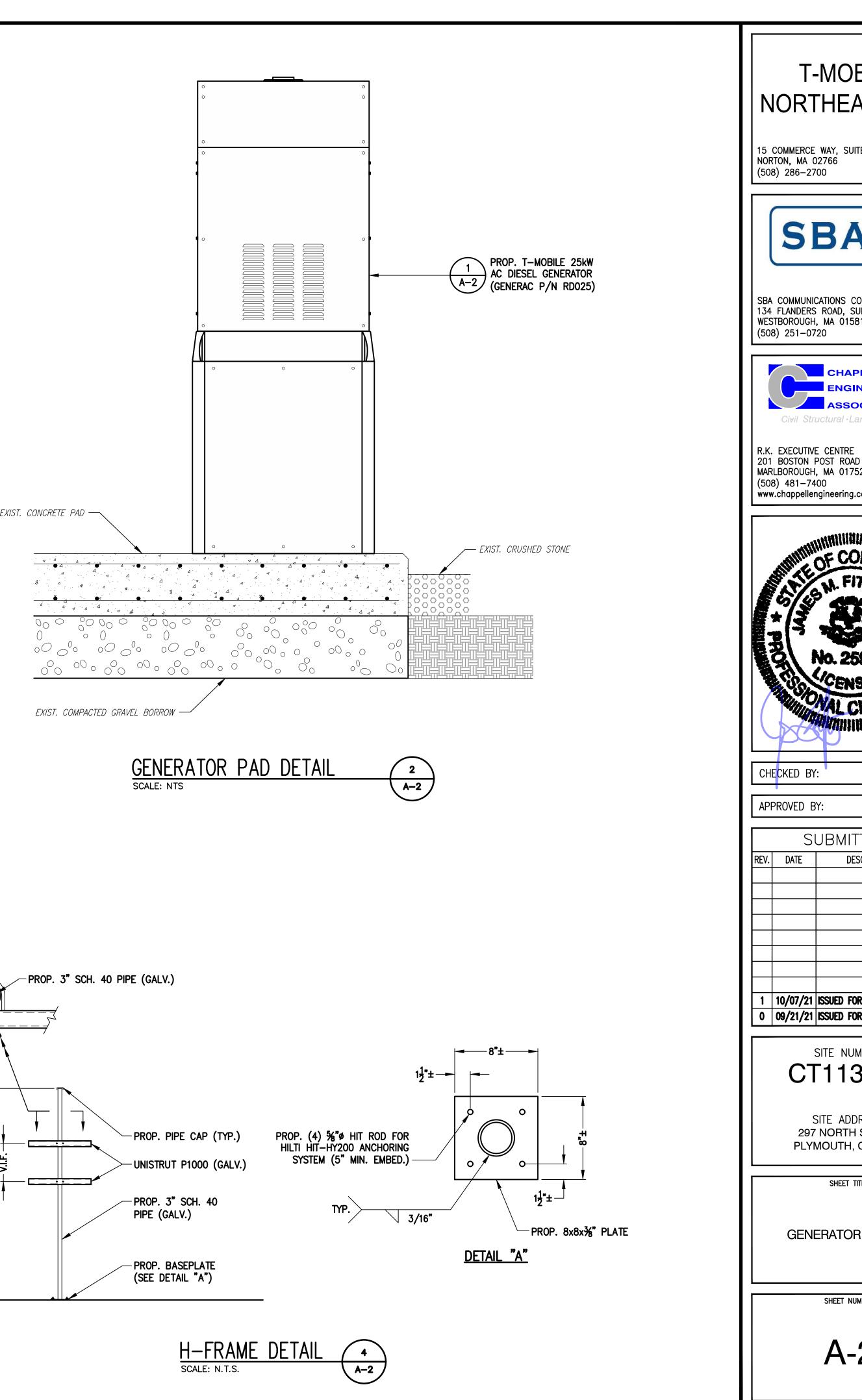


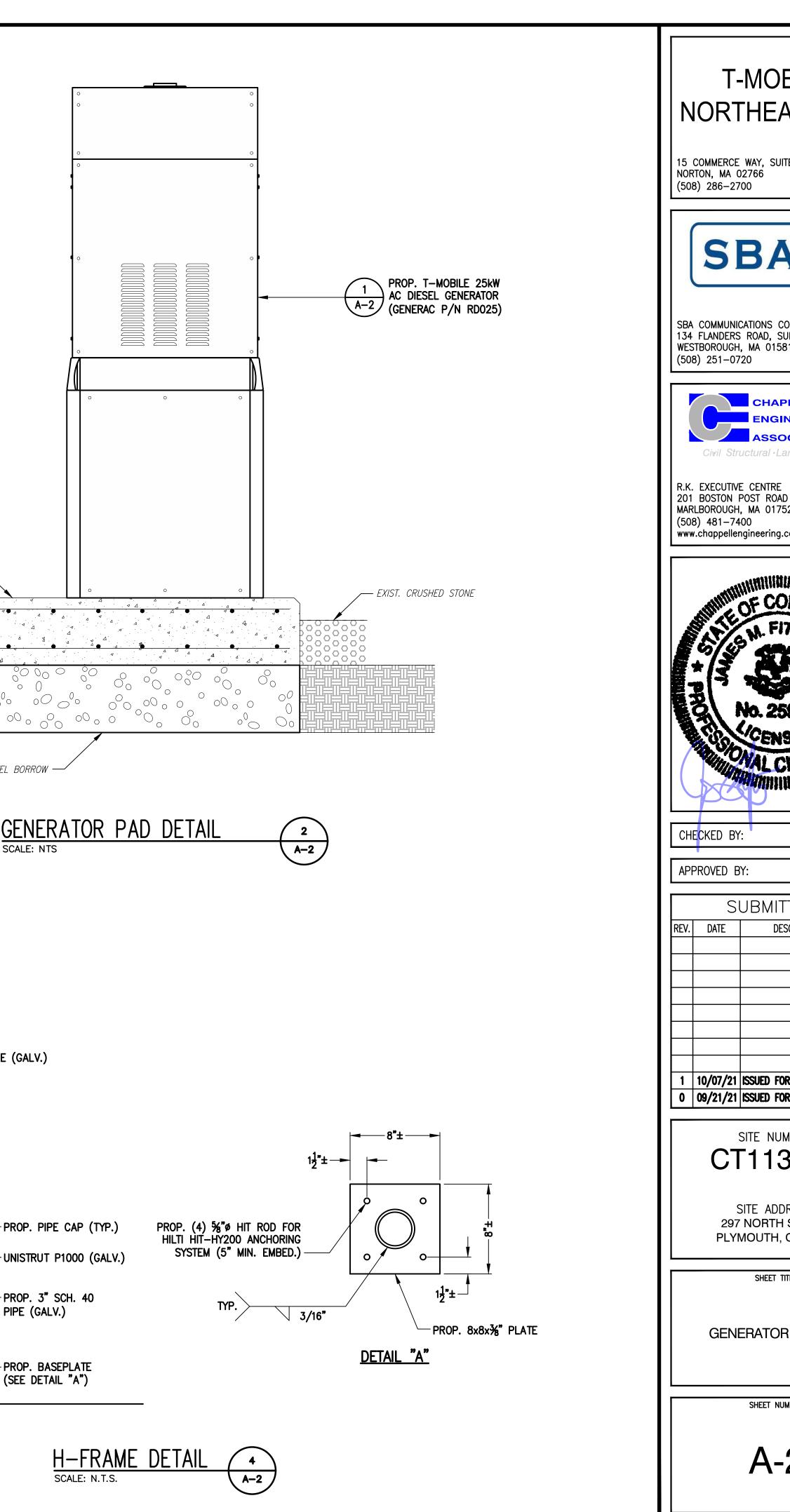


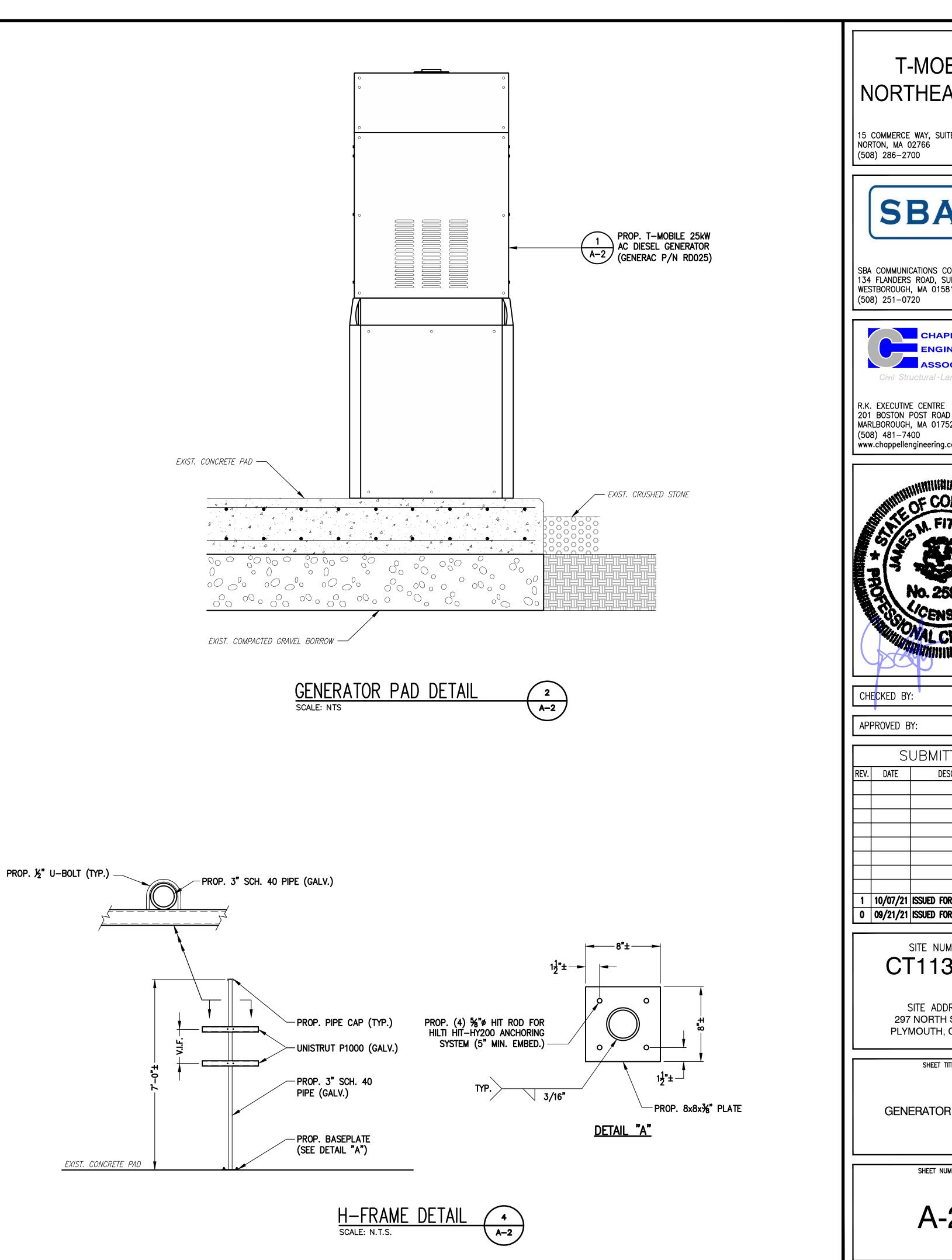
GENERAC RD025 25kW AC DIESEL GENERATOR DIMENSIONS: 103.4"L x 35.0"W x 91.7"H WEIGHT: 2,946 lbs QUANTITY: TOTAL OF 1

GENERATOR DETAIL SCALE: N.T.S. 1 A-2

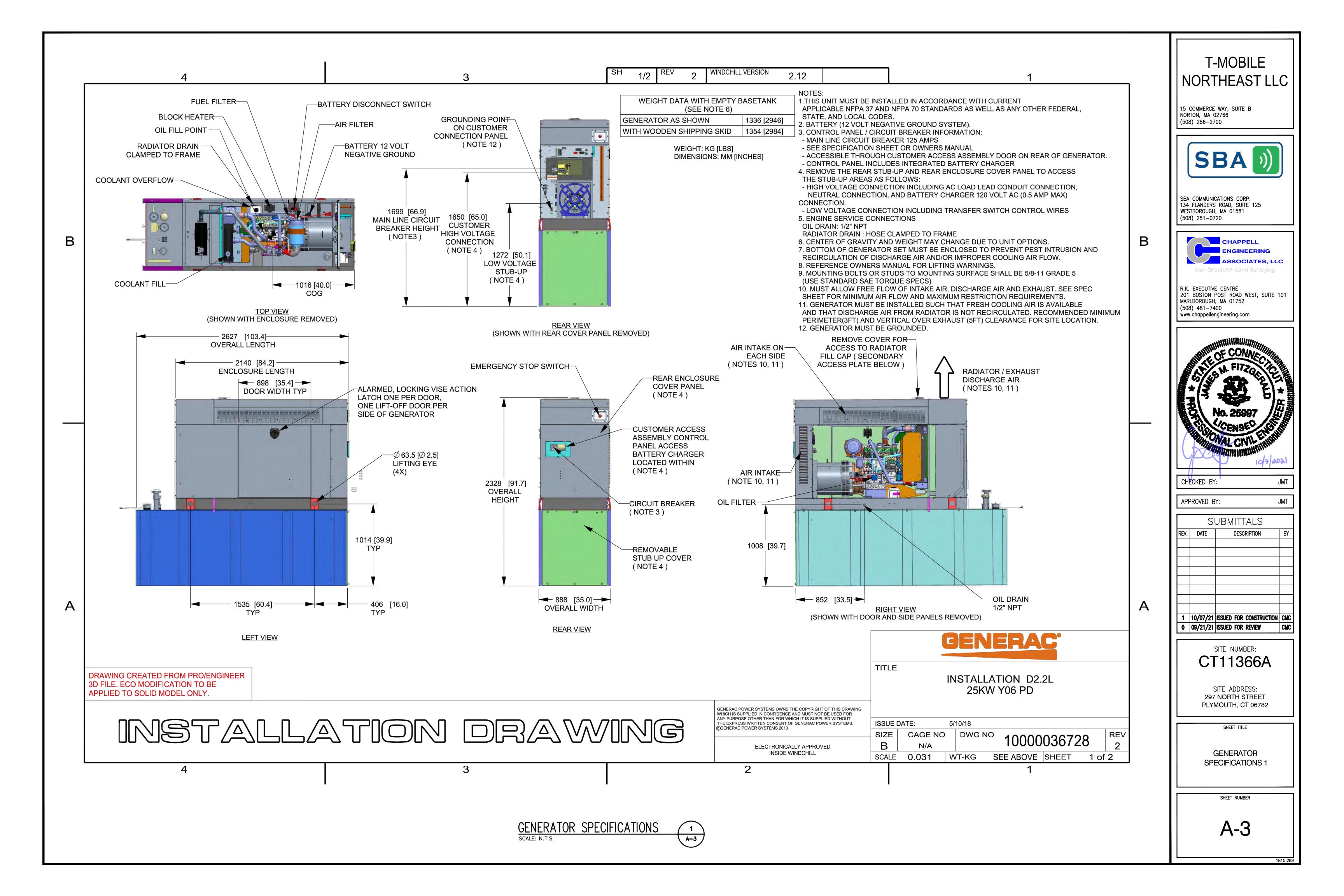


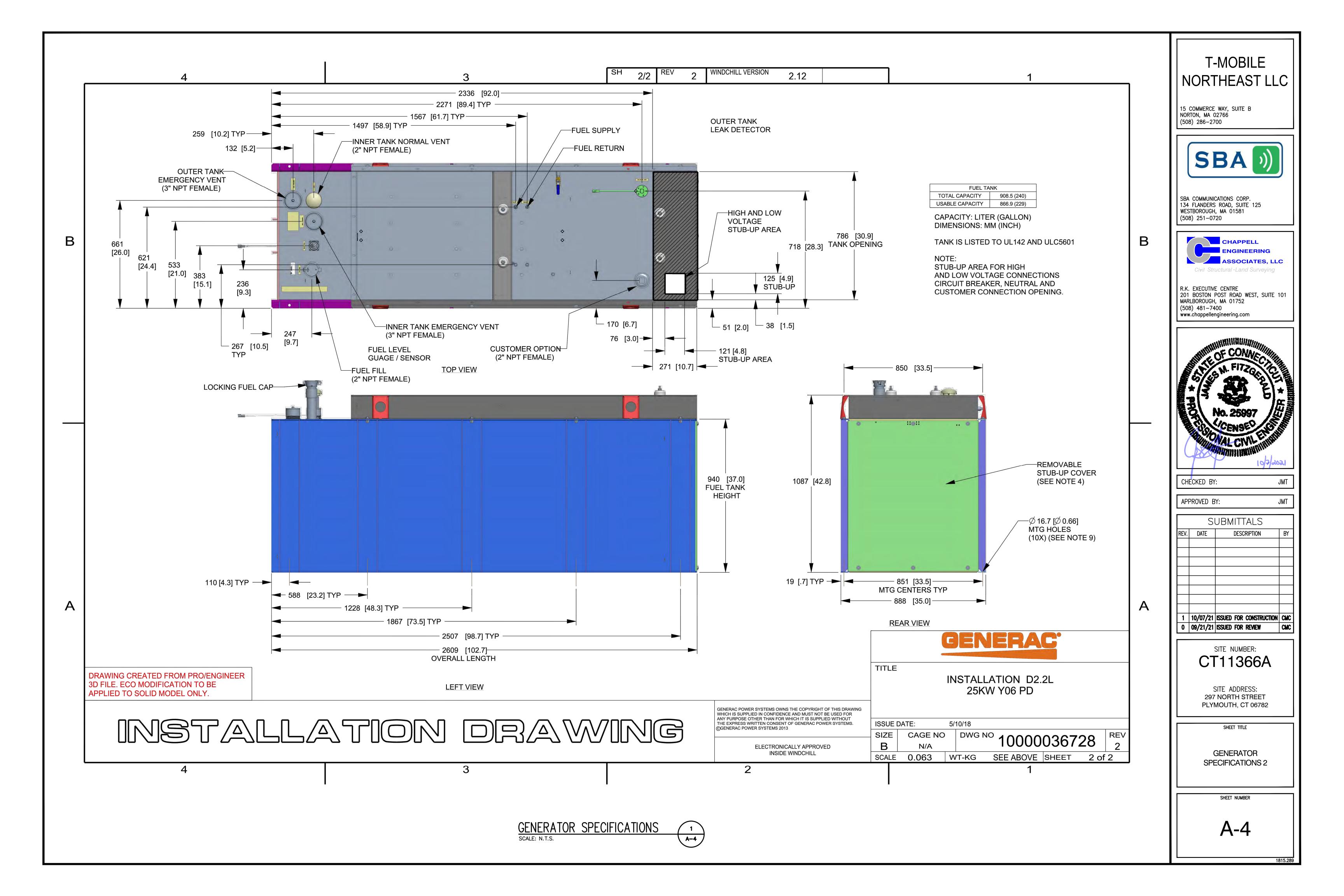


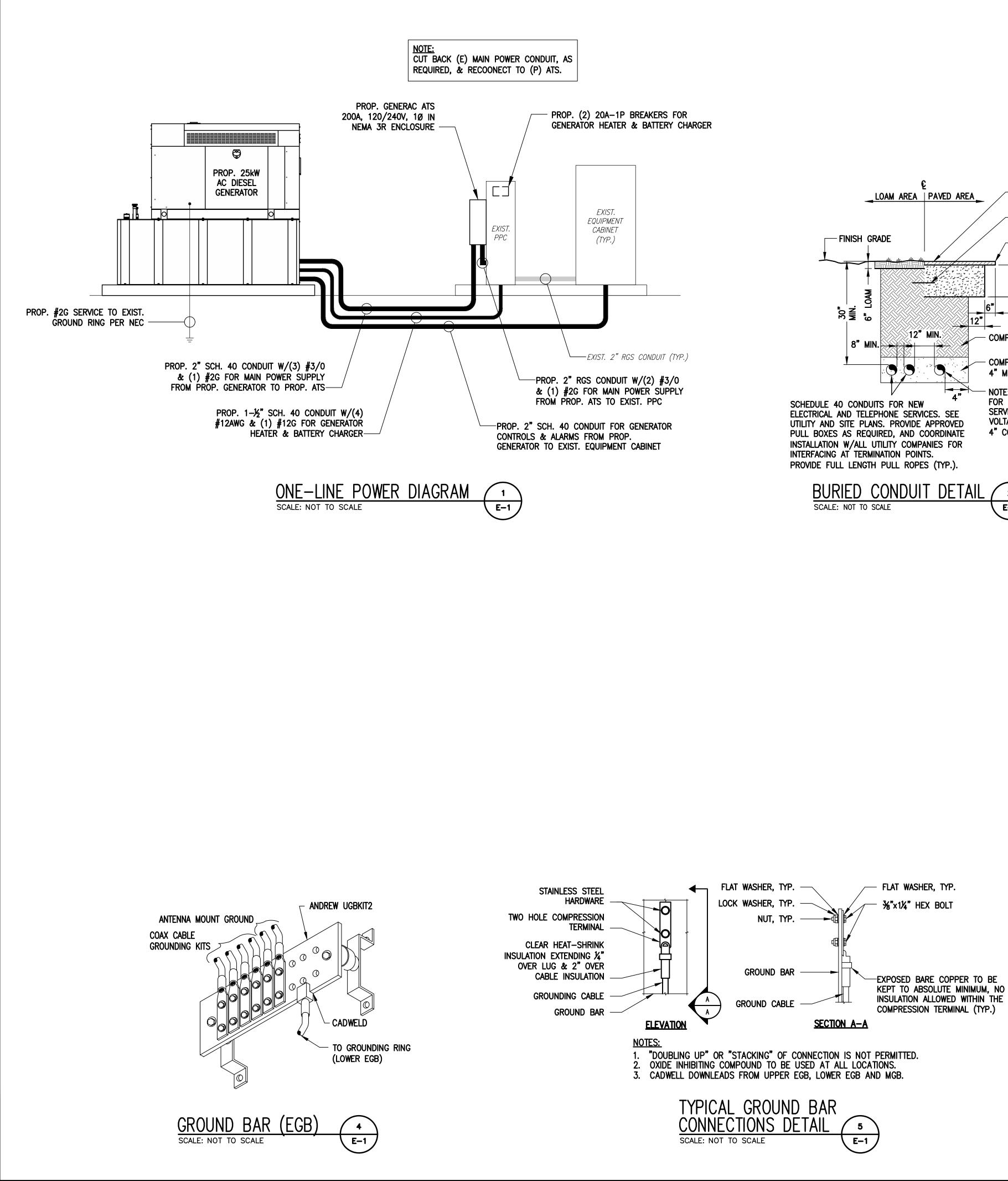


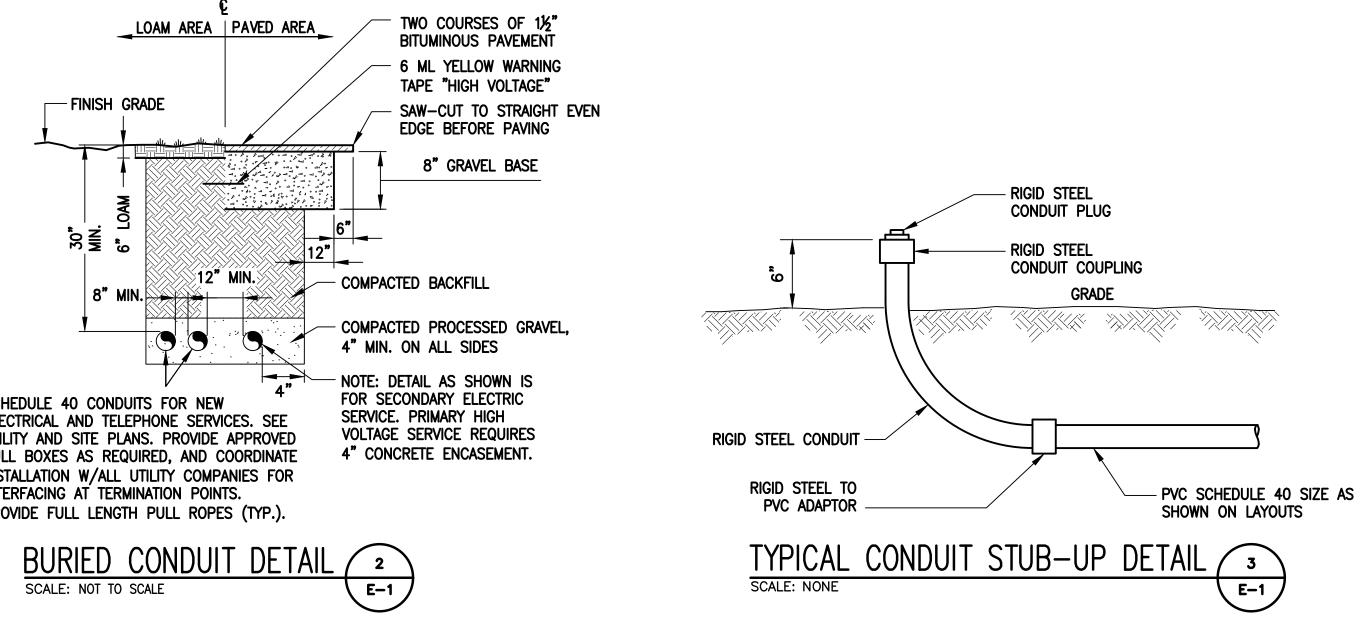


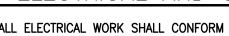
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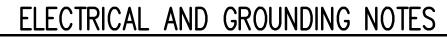






- AND LOCAL CODES.

- INSPECTIONS.
- 6. BURIED CONDUIT SHALL BE SCHEDULE 40 PVC.
- 7. ELECTRICAL WIRING SHALL BE COPPER WITH TYPE XHHW, THWN, OR THININSULATION.
- 9. RUN TELCO CONDUIT OR CABLE BETWEEN TELEPHONE UTILITY DEMARCATION POINT AND PROJECT OWNER CELL SITE TELCO CABINET AND BTS MEASURING TAPE AT EACH END.
- 11. ALL EQUIPMENT LOCATED OUTSIDE SHALL HAVE NEMA 3R ENCLOSURE.
- 12. PPC SUPPLIED BY PROJECT OWNER.
- ACCORDANCE WITH "T-MOBILE BTS SITE GROUNDING STANDARDS".
- OWNER.
- BARE COPPER WIRE TO BE IN CONTACT WITH GALVANIZED STEEL.
- RING
- ALL LOCATIONS.
- 19. APPLY OXIDE INHIBITING COMPOUND TO ALL COMPRESSION TYPE GROUND CONNECTIONS.
- RESISTANCE REQUIRED.
- RECORD RESULTS FOR PROJECT CLOSE OUT.



1. ALL ELECTRICAL WORK SHALL CONFORM TO THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE (NEC) AS WELL AS APPLICABLE STATE

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.

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.

CABINET AS INDICATED ON THIS DRAWING PROVIDE FULL LENGTH PULL ROPE IN INSTALLED TELCO CONDUIT. PROVIDE GREENLEE CONDUIT

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.

13. GROUNDING SHALL COMPLY WITH NEC ART. 250. ADDITIONALLY, GROUNDING, BONDING AND LIGHTNING PROTECTION SHALL BE DONE IN

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

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

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

22. CONTRACTOR SHALL CONDUCT ANTENNA, COAX, AND LNA RETURN-LOSS AND DISTANCE- TO-FAULT MEASUREMENTS (SWEEP TESTS) AND



EXHIBIT 7

Generac RD025 25 KW 25kw Diesel Specifications

RD025 | 2.2L | 25 kW

INDUSTRIAL DIESEL GENERATOR SET

EPA Certified Stationary Emergency

Standby Power Rating 25 kW, 31.25 kVA, 60 Hz



GENERAC

Image used for illustration purposes only

INDUSTRIAL

Codes and Standards

ANSI

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



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

CONTROL SYSTEM



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

- 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

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

- Paint Kit
- Scheduled Maintance Kit

CONTROL SYSTEM

 $\, \odot \,$ Mobile Link $^{\rm TM}$ and Adapter Kit

TANKS

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

SPEC SHEET



EPA Certified Stationary Emergency

APPLICATION AND ENGINEERING DATA

ENGINE SPECIFICATIONS

General

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	

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 Governing

Oil Filter Type

Governor	Electronic
Frequency Regulation (Steady State)	±0.25%
Lubrication System	
Oil Pump Type	Gear

Full Flow Cartridge

11.2 (10.6)

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

Crankcase Capacity with Filters- qt (L)

Standard Model	Generac	Standard Excitation	Direct	
Poles	4	Bearings	Single Sealed	
Field Type	Rotating	Coupling	Flexible Disc	
Insulation Class - Rotor	Н	Prototype Short Circuit Test	Yes	
Insulation Class - Stator	Н	Voltage Regulator Type	Full Digital	
Total Harmonic Distortion	<5%	Number of Sensed Phases	2	
Telephone Interference Factor (TIF)	<50	Regulation Accuracy (Steady State)	±1%	



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 0.4p	f 168
120/208 V, Three-Phase at 0.4pt	144
120/240 V, Three-Phase at 0.4pt	125
120/240 V, Three-Phase at 0.4pt	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

Flow at Rated Power ft³/min (m³/min)

Standby

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)

Deration – Operational characteristics consider maximum ambient conditions. Derate factors may apply under atypical site conditions. Please consult a Generac Power Systems Industrial Dealer for additional details. All performance ratings in accordance with ISO3046, BS5514, ISO8528 and DIN6271 standards. Standby - See Bulletin 0187500SSB



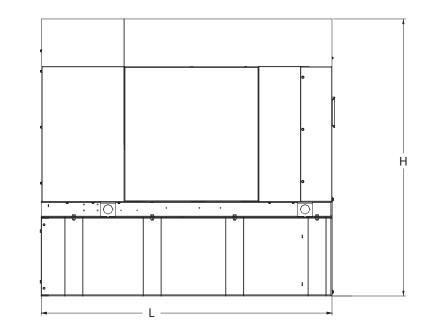


RD025 | 2.2L | 25kW

INDUSTRIAL DIESEL GENERATOR SET

EPA Certified Stationary Emergency

DIMENSIONS AND WEIGHTS*



Weights and Dimensions

– W –

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 Consumptio		with fuel ta 103.4" 35"	
Fuel Tank Gross To	tal Capacity	240		
Fuel Tank Gross Usable Capacity		229		
Fuel Tank Net Usab (Run Hours Based on Ne	1 5	206		-
Run Hours 100% L	oad	98		-
Run Hours 75% Lo	ad	125		•
Run Hours 50% Lo	ad	161		-
	0 15 · · D ·			

Sound Emission Data

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

* All measurements are approximate and for estimation purposes only. Drawing is for illustration purposes only, not to scale.

YOUR FACTORY RECOGNIZED GENERAC INDUSTRIAL DEALER

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

