

T-Mobile Northeast LLC, a subsidiary of T-Mobile USA, Inc.

Connecticut Market

June 11, 2019

Honorable Robert Stein, Chairman, and members of the Council Connecticut Siting Council 10 Franklin Square New Britain, CT 06051

Re: T-MOBILE Northeast LLC notice of intent to install a temporary cellular telephone facility located at 311 Thames Street Groton, Connecticut

Dear Ms. Bachman:

TRM is pleased to submit this Notice of Exempt Modification on behalf of T-MOBILE Northeast LLC

T-MOBILE Northeast LLC hereby notifies the Connecticut Siting Council of its intent for the temporary use of telecommunications equipment by placing a Cell On Light Truck (COLT) in the parking lot at 311 Thames Street owned by the City of Groton. This is a Special Event of statewide importance. Please accept this Notice to the Connecticut Siting Council, Pursuant to RCSA Section 16-50j-73, of construction that constitutes an exempt modification under RSCA Section 16-50j-72 (d). In compliance with RCSA Section 16-50j-73, a copy of this Exempt Modification is being sent to Groton Mayor Keith Hedrick and Groton Planning and Zoning Inspector Carlton Smith. The City of Groton owns the property.

The proposed temporary cell site meets the criteria set forth in RCSA 16-50j-72(d) for temporary cellular service for events of statewide significance. The site is necessary to provide additional system capacity to accommodate the increased communication needs during Sailfest.

Sailfest is July 12<sup>th</sup>, 13<sup>th</sup> and 14<sup>th</sup> and T-Mobile will need to do testing beforehand to make sure the site is up and running before then.

# **Proposed Temporary Facility**

The temporary site will be located at 311 Thames Street Groton, CT 06340 owned by the City of Groton. (See attached location map) Coordinates for the location are N 41.354469, W-72.083847. A 15kw diesel generator will be used for power and the proposed temporary cell site will not increase the noise level by six decibels or more.

The proposal for the temporary equipment installation is July 8, 2019 and the site will be taken down and recommissioned on July 15, 2019.

T-Mobile's temporary cell site will consist of a "Cell On Light Truck" ("COLT") (See attached photo) which needs a 30' x 25' footprint, contains three indoor RBS6201's and PBC6200 with battery backup, a backup generator, dual masts and can support 5 sector multi-beam antennas.

# **Power Density Calculations**

T-Mobile's temporary cell site will not result in a total radio frequency electromagnetic radiation power density, measured at ground level at the COLT location, at or above State or Federal standards. The following table shows the power density at the site from the proposed temporary cellular transmissions form the COLT:

T-Mobile Sector	Power Density Value (%)
Sector A:	33.42 %
Sector B:	33.42 %
Sector C:	33.42 %
Sector D:	33.42 %
Sector E:	33.42 %

T-Mobile per Sector Maximum: 33.42 %

Site Total: 33.42 %

Site Compliance Status: COMPLIANT

See attached full report

#### Conclusion

For the reasons above, we respectfully request the Council acknowledge T-Mobile's Notice of Exempt Modification for the temporary cell site to be operated during Sailfest pursuant to RCSA Section 16-50j-72(d).

Please call me with any questions concerning this Notice at 203-417-4446. Thank you.

Respectfully,

Thomas White Agent of T-Mobile

Cc: Groton Mayor Keith Hedrick

Building and ZoningInspector Carlton Smith



T-Mobile Northeast LLC, a subsidiary of T-Mobile USA, Inc.

Connecticut Market

June 4, 2019

**Re:** STANDARD AGREEMENT by and between the City of Groton ("Landlord") and T-Mobile Northeast LLC as successor-in interest to Omnipoint Communications, Inc. ("Tenant").

Site Number:

CTCLT06A

Site Address:

311 Thames Street Groton, CT ("Property")

# Mr. Gaudet:

Tenant has the right to place a Cell On Lite Truck ("COLT") at 311 Thames Street Groton, CT from 7/8/19 to 7/15/19. The COLT will be removed by 7/15/19.

Please signify your approval by signing and dating one (1) original of this Consent Letter in the space provided below. Kindly return the Consent Letter via email to twhite@clinellc.com.

Should you have any questions, please contact Thomas White at 203-417-4446. Thank you in advance for your cooperation in this matter.

Very truly yours,

Thomas White Agent for T-Mobile

Acknowledged, Accepted and Agreed:

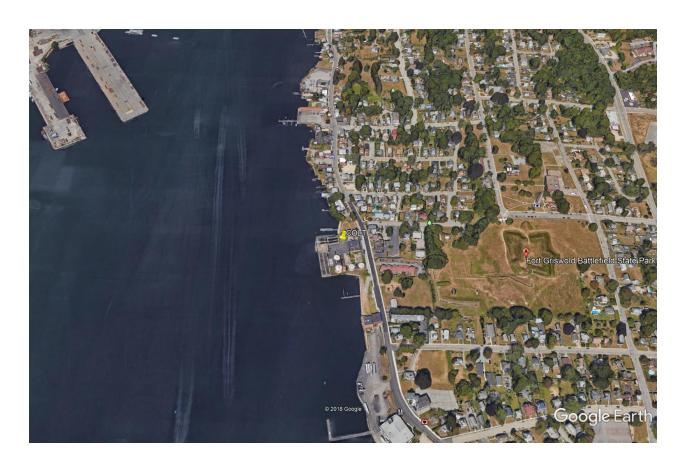
By: 

| Acknowledged, Accepted and Agreed:

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| By: |

Date: 6/5/19

# **COLT Location**



# <u>COLT</u>



# **Empowering** Real People

# Magnum Mobile Lite Generator - MLG15 Specifications

# **ENGINE**

Mitsubishi® S4L2-Y461ML - naturally aspirated, diesel engine o Prime - 22.3 hp @ 1800

rpm o 4 cylinder o 1.8 L displacement o Interim Tier IV approved

- Polyethylene fuel tank o 56 gal. capacity o 43 hr. run time − full load o 3 ½" fill port
- Fuel consumption at prime:

○ 100% - 1.30 gph (4.92 Lph) ○ 75% -0.98 gph (3.71 Lph) o 50% - 0.65 gph (2.46 Lph)

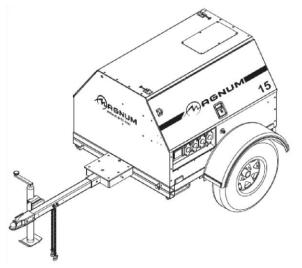
- Cooling system capable of operating at 120°F ambient
- Rubber vibration dampers isolate engine/generator from frame
- Full flow oil filter, spin on type
- Fuel filter with replaceable element
- Dry type cartridge air filter
- 60 Hz engine/generator

# **ENGINE CONTROLS**

- Engraved aluminum punched and anodized control panel
- Four position keyed switch glow plugs (preheat, off, run, start)
- Hour meter
- Automatic low oil/high temperature shutdown system

# **GENERATOR**

- Marathon Electric® Brushless 4 pole Class H insulation
- Single phase output o Prime 13 kW / 13 kVA (54A @ 240V) o Standby - 14 kW / 14 kVA (58A @ 240V)
- Voltage regulation +/- 1% with Marathon SE350 Voltage Regulator





#### ELECTRICAL SYSTEM AND CONTROLS

- 70A start limit breaker (assures no load condition exists before starting)
- Convenience receptacles with individual breakers o (2) 120V 20 Amp GFCI duplex outlets (Nema 5-20R type) ○ (2) 240V 30 Amp twistlock outlets (Nema L6-30R type) ○ (2) 240V 50 Amp twistlock outlets (Non-Nema 6369)
- 440 CCA wet cell battery

# **ENCLOSURE**

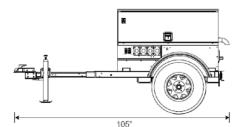
- Steel, 14-gauge, sound attenuated enclosure o UV & fade resistant, high temperature cured, white polyester powder paint o Insulated and baffled o 70 dB(A) at 23 feet – prime power
- Fully lockable enclosure
- Stainless steel hinges, door latches and exterior hardware
- Emergency stop switch located on front panel
- License plate holder with light
- Multi-lingual operating/safety decals
- Document holder with operating/parts manuals including AC/DC wiring diagrams

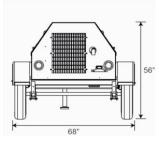
# **TRAILER**

- DOT approved tail, side, brake, and directional lights o Recessed rear lights
- Transportation tie downs
- Safety chains with spring loaded safety hooks
- Single wall polyethylene fenders
- 2" ball hitch
- 2200 lb. leaf spring axle
- 2000 lb. tongue jack with footplate
- ST205/75R15 tubeless tires 6 ply
- 48" track width

#### **WEIGHTS & DIMENSIONS**

- Dry weight: 1425 lbs (646 kg)
- Operating weight: 1823 lbs (827 kg)
- 105 x 68 x 56 in (2.67 x 1.73 x 1.42 m)





#### WARRANTY

Engine and generator covered under OEM warranty – consult factory for details

#### CERTIFICATIONS

CSA certified



# **MLG15 Options**

# **ENGINE OPTIONS**

- ♦ Heated fuel filter
- ♦ Lower radiator hose engine heater
- ♦ Oil drain valve kit

# **ELECTRICAL CONTROLS OPTIONS**

- ♦ 720 CCA gel cell battery
- ♦ 720 CCA wet cell battery
- ♦ 685 CCA gel cell battery
- ♦ Battery disconnect
- ♦ Battery charger 2A trickle

# **VOLTAGE OUTPUT OPTIONS**

♦ Alternative receptacle panel – consult factory for configurations

# **COOLANT OPTIONS**

♦ 60/40 Coolant – cold weather applications

# **ENCLOSURE OPTIONS**

- ♦ Interior cabinet light
- ♦ Level indicator
- ♦ Tamper pack
- ♦ Liquid containment / Quiet pack
- **♦** Lift structure

# **FUEL TANK OPTIONS**

- ♦ 56 gal. fuel tank
- ♦ Tethered fuel tank cap

# TRAILER OPTIONS

- ♦ 6 pin or 7 spade electrical connectors
- ♦ Outrigger package
- ♦ Tube and sleeve jack
- ♦ Spare tire/wheel kit

# HITCH OPTIONS

- ♦ 2.5" lunette ring
- •

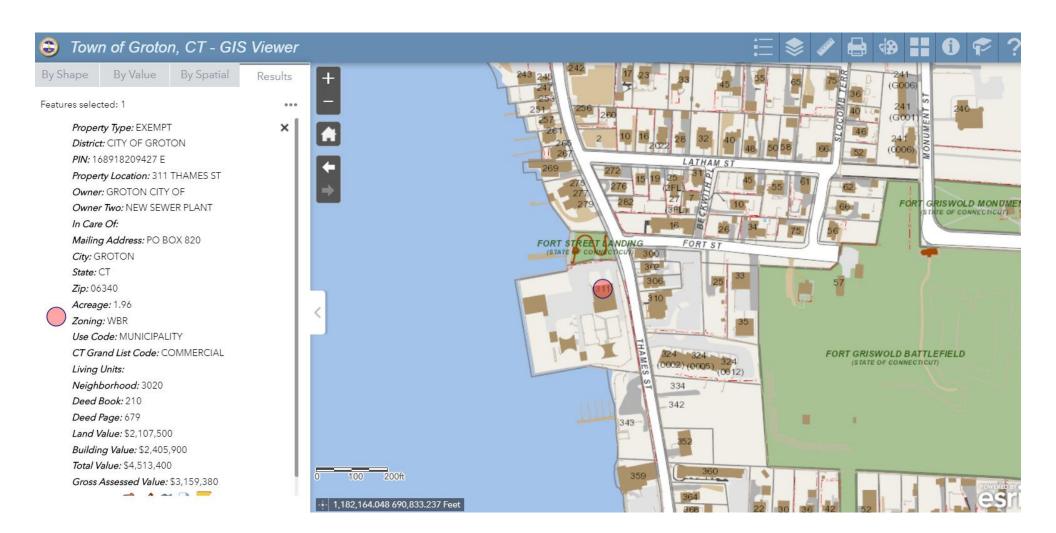


3" lunette ring

3" HD lunette ring

- ♦ 2 5/16" ball
- ♦ Combination hitch 2.5" lunette ring / 2" ball

05/09





# RADIO FREQUENCY EMISSIONS ANALYSIS REPORT EVALUATION OF HUMAN EXPOSURE POTENTIAL TO NON-IONIZING EMISSIONS

T-Mobile Existing Facility

Site ID: CTCLT06A

311 Thames Street Groton, Connecticut 06340

June 10, 2019

EBI Project Number: 6219002173

Site Compliance Summary				
Compliance Status:	COMPLIANT			
Site total MPE% of FCC general population allowable limit:	33.42%			



June 10, 2019

T-Mobile Attn: Jason Overbey, RF Manager 35 Griffin Road South Bloomfield, Connecticut 06002

Emissions Analysis for Site: CTCLT06A -

EBI Consulting was directed to analyze the proposed T-Mobile facility located at **311 Thames Street** in **Groton, Connecticut** for the purpose of determining whether the emissions from the Proposed T-Mobile Antenna Installation located on this property are within specified federal limits.

All information used in this report was analyzed as a percentage of current Maximum Permissible Exposure (% MPE) as listed in the FCC OET Bulletin 65 Edition 97-01 and ANSI/IEEE Std C95.1. The FCC regulates Maximum Permissible Exposure in units of microwatts per square centimeter ( $\mu$ W/cm²). The number of  $\mu$ W/cm² calculated at each sample point is called the power density. The exposure limit for power density varies depending upon the frequencies being utilized. Wireless Carriers and Paging Services use different frequency bands each with different exposure limits; therefore, it is necessary to report results and limits in terms of percent MPE rather than power density.

All results were compared to the FCC (Federal Communications Commission) radio frequency exposure rules, 47 CFR 1.1307(b)(1) - (b)(3), to determine compliance with the Maximum Permissible Exposure (MPE) limits for General Population/Uncontrolled environments as defined below.

General population/uncontrolled exposure limits apply to situations in which the general population may be exposed or in which persons who are exposed as a consequence of their employment may not be made fully aware of the potential for exposure or cannot exercise control over their exposure. Therefore, members of the general population would always be considered under this category when exposure is not employment related, for example, in the case of a telecommunications tower that exposes persons in a nearby residential area.

Public exposure to radio frequencies is regulated and enforced in units of microwatts per square centimeter ( $\mu$ W/cm²). The general population exposure limits for the 600 MHz and 700 MHz frequency bands are approximately 400  $\mu$ W/cm² and 467  $\mu$ W/cm², respectively. The general population exposure limit for the 1900 MHz (PCS), 2100 MHz (AWS) and 11 GHz frequency bands is 1000  $\mu$ W/cm². Because each carrier will be using different frequency bands, and each frequency band has different exposure limits, it is necessary to report percent of MPE rather than power density.



Occupational/controlled exposure limits apply to situations in which persons are exposed as a consequence of their employment and in which those persons who are exposed have been made fully aware of the potential for exposure and can exercise control over their exposure. Occupational/controlled exposure limits also apply where exposure is of a transient nature as a result of incidental passage through a location where exposure levels may be above general population/uncontrolled limits (see below), as long as the exposed person has been made fully aware of the potential for exposure and can exercise control over his or her exposure by leaving the area or by some other appropriate means.

Additional details can be found in FCC OET 65.

# **CALCULATIONS**

Calculations were done for the proposed T-Mobile Wireless antenna facility located at 311 Thames Street in Groton, Connecticut using the equipment information listed below. All calculations were performed per the specifications under FCC OET 65. Since T-Mobile is proposing highly focused directional panel antennas, which project most of the emitted energy out toward the horizon, all calculations were performed assuming a lobe representing the maximum gain of the antenna per the antenna manufacturer's supplied specifications, minus 10 dB for directional panel antennas and 20 dB for highly focused parabolic microwave dishes, was focused at the base of the tower. For this report, the sample point is the top of a 6-foot person standing at the base of the tower.

For all calculations, all equipment was calculated using the following assumptions:

- 1) 2 LTE channels (PCS Band 1900 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 60 Watts per Channel.
- 2) 2 LTE channels (AWS Band 2100 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 60 Watts per Channel.
- 3) All radios at the proposed installation were considered to be running at full power and were uncombined in their RF transmissions paths per carrier prescribed configuration. Per FCC OET Bulletin No. 65 Edition 97-01 recommendations to achieve the maximum anticipated value at each sample point, all power levels emitting from the proposed antenna installation are increased by a factor of 2.56 to account for possible in-phase reflections from the surrounding environment. This is rarely the case, and if so, is never continuous.
- 4) For the following calculations, the sample point was the top of a 6-foot person standing at the base of the tower. The maximum gain of the antenna per the antenna manufacturer's supplied specifications, minus 10 dB for directional panel antennas and 20 dB for highly focused



parabolic microwave dishes, was used in this direction. This value is a very conservative estimate as gain reductions for these particular antennas are typically much higher in this direction.

- 5) The **Commscope 5NPX1006F** is a multi-beam antenna that covers approximately 100 degrees utilizing 5 separate narrow beams per band separated by 20 degrees of azimuth orientation between each adjacent beam. For T-Mobile's installation, this antenna will be utilized to broadcast 5 separate sectors. Configuration and power data is shown below in the **T-Mobile Site Inventory and Power Data** table and is broken down by sector. The maximum gain of the antenna per the antenna manufacturer's supplied specifications, minus 10 dB for directional panel antennas and 20 dB for highly focused parabolic microwave dishes, was used for all calculations. This value is a very conservative estimate as gain reductions for these particular antennas are typically much higher in this direction.
- 6) The antenna mounting height centerline of the proposed antennas is 50 feet above ground level (AGL).
- 7) Emissions values for additional carriers were taken from the Connecticut Siting Council active database. Values in this database are provided by the individual carriers themselves.
- 8) Emissions from additional carriers were not included because emissions data for the site location are not available.
- 9) All calculations were done with respect to uncontrolled / general population threshold limits.



# **T-Mobile Site Inventory and Power Data**

Sector	Azimuth	Antenna Make / Model	Antenna Height (ft)	Frequency Band (MHz)	Techno logy	TX Power per Channel (W)	Number of Channels	Composi te ERP (W)	Power Density Value (μw/cm²)	FCC General Populatio n Limit (μw/cm²)	% Allowable FCC General Population Limit	Composite Sector % Allowable FCC General Population Limit
A	125	Commscope 5NPX1006F	50	1900	LTE	60	2	10,819	155.6	1000	15.56	33.42%
	125	Commscope 5NPX1006F	50	2100	LTE	60	2	12,422	178.6	1000	17.86	
В	145	Commscope 5NPX1006F	50	1900	LTE	60	2	10,819	155.6	1000	15.56	33.42%
	145	Commscope 5NPX1006F	50	2100	LTE	60	2	12,422	178.6	1000	17.86	
С	165	Commscope 5NPX1006F	50	1900	LTE	60	2	10,819	155.6	1000	15.56	33.42%
	165	Commscope 5NPX1006F	50	2100	LTE	60	2	12,422	178.6	1000	17.86	
D	185	Commscope 5NPX1006F	50	1900	LTE	60	2	10,819	155.6	1000	15.56	33.42%
	185	Commscope 5NPX1006F	50	2100	LTE	60	2	12,422	178.6	1000	17.86	
E	205	Commscope 5NPX1006F	50	1900	LTE	60	2	10,819	155.6	1000	15.56	33.42%
_	205	Commscope 5NPX1006F	50	2100	LTE	60	2	12,422	178.6	1000	17.86	

Site Composite MPE %	
Carrier	MPE %
T-Mobile (Per Sector Max)	33.42%
No Additional Carriers at This	N/A
Facility	
Site Total MPE % :	33.42%

T-Mobile Maximum MPE Power Values (Sector A)							
T-Mobile Frequency Band / Technology (Sector A)	# Channels	Watts ERP (Per Channel)	Height (feet)	Total Power Density (µW/cm²)	Frequency (MHz)	Allowable MPE (μW/cm²)	Calculated % MPE
T-Mobile 1900 MHz LTE	2	5409.43	50.0	155.58	1900 MHz LTE	1000	15.56%
T-Mobile 2100 MHz LTE	2	6210.85	50.0	178.63	2100 MHz LTE	1000	17.86%
						Total:	33.42%

<sup>•</sup> NOTE: Totals may vary by approximately 0.01% due to summation of remainders in calculations.



# **Summary**

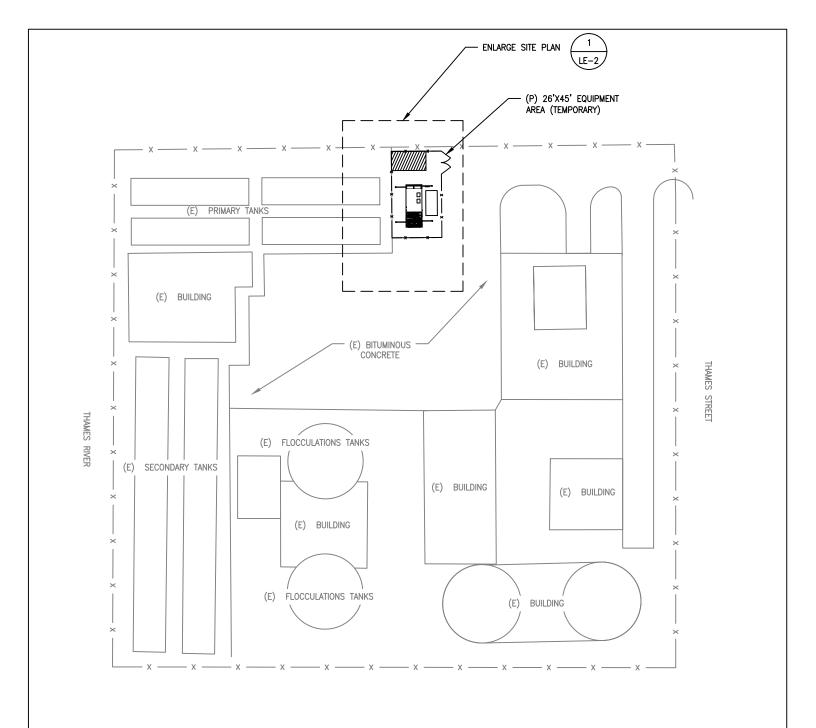
All calculations performed for this analysis yielded results that were **within** the allowable limits for general population exposure to RF Emissions.

The anticipated maximum composite contributions from the T-Mobile facility as well as the site composite emissions value with regards to compliance with FCC's allowable limits for general population exposure to RF Emissions are shown here:

T-Mobile Sector	Power Density Value (%)
Sector A:	33.42%
Sector B:	33.42%
Sector C:	33.42%
Sector D:	33.42%
Sector E:	33.42%
T-Mobile Maximum MPE % (Per Sector):	33.42%
Site Total:	33.42%
Site Compliance Status:	COMPLIANT

The anticipated composite MPE value for this site assuming all carriers present is **33.42**% of the allowable FCC established general population limit sampled at the ground level. This is based upon values listed in the Connecticut Siting Council database for existing carrier emissions.

FCC guidelines state that if a site is found to be out of compliance (over allowable thresholds), that carriers over a 5% contribution to the composite value will require measures to bring the site into compliance. For this facility, the composite values calculated were well within the allowable 100% threshold standard per the federal government.





LEASING:	
ZONING:	
LANDLORD:	

NOTES:

ALL EQUIPMENT LOCATIONS ARE APPROXIMATE AND ARE SUBJECT TO APPROVAL BY T-MOBILE NORTHEAST, LLC STRUCTURAL & RF ENGINEERS. LOCATIONS OF POWER & TELEPHONE FACILITIES ARE SUBJECT TO APPROVAL BY UTILITY COMPANIES.



CONSTRUCTION:

Civil Engineering - Site Development - Surveying - Telecommunications 500 NORTH BROADWAY EAST PROVIDENCE, RI 02914 TEL: (401) 354-2403 FAX: (401) 633-6354

T-MOBILE NORTHEAST LLC 35 GRIFFIN ROAD SOUTH BLOOMFIELD CT 06002

TITLE: LEASE EXHIBIT SITE NO: CTCLT06A

SITE NAME: CTCLT06A

ADDRESS: 311 THAMES STREET

GROTON, CT 06340

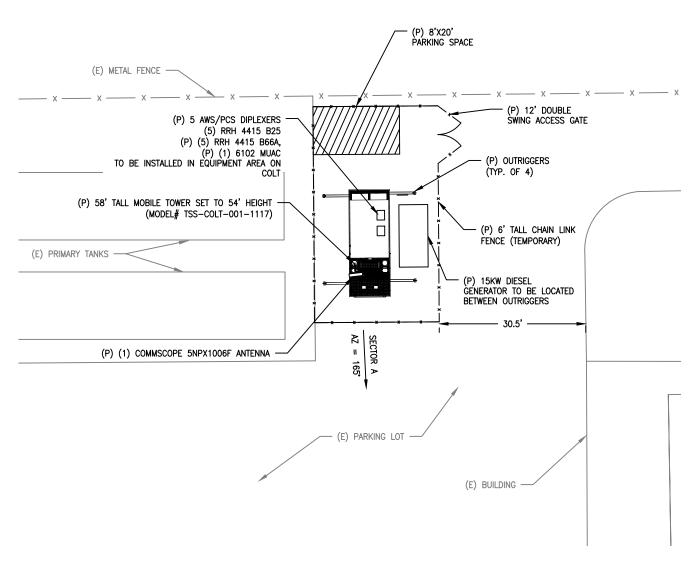
DATE: 06/10/2019

DRAWN BY: JWH

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**REVISION:** 

SCALE: NOTED SHEET: LE-1







ENLARGED SITE PLAN

SCALE: 1"=20'



T-MOBILE NORTHEAST LLC 35 GRIFFIN ROAD SOUTH BLOOMFIELD CT 06002 TITLE: LEASE EXHIBIT SITE NO: CTCLT06A

SITE NAME: CTCLT06A ADDRESS: 311 THAMES STREET

GROTON, CT 06340

DATE: 06/10/2019

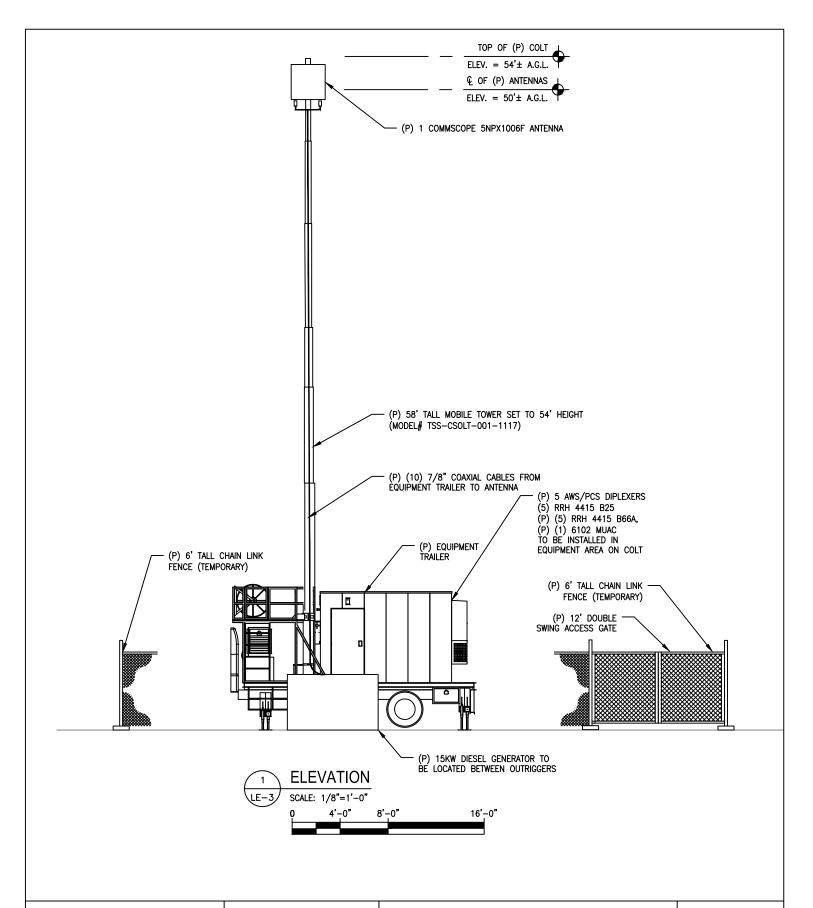
DRAWN BY: JWH

REVISION: 0

SCALE: NOTED

SHEET: LE-2

500 NORTH BROADWAY EAST PROVIDENCE, RI 02914 TEL: (401) 354-2403 FAX: (401) 633-6354





Civil Engineering - Site Development - Surveying - Telecommunications
500 NORTH BROADWAY
EAST PROVIDENCE, RI 02914
TEL: (401) 534—2403
FAX: (401) 633—6354

T-MOBILE NORTHEAST LLC 35 GRIFFIN ROAD SOUTH BLOOMFIELD CT 06002 TITLE: LEASE EXHIBIT SITE NO: CTCLT06A

SITE NAME: CTCLT06A

ADDRESS: 311 THAMES STREET

GROTON, CT 06340

DATE: 06/10/2019

DRAWN BY: JWH

REVISION: 0

SCALE: NOTED

SHEET: LE-3

Invoice CTCLT06A

P.O. Num.

Invoice Amt 625.00

625.00

Prior Balance 625.00 ———625.00

Retention 0.00 ——— 0.00

Discount 0.00 ——— 0.00

Check: 11936 Date: 6/10/2019 Vendor: 0

Amt. Paid 625.00 625.00

PAWTUCKET

40 MONTGOMERY ST

PAWTUCKET, RI

02860-9998

4367200860

(800)275-8777 3:53 PM 06/12/2019 Final Sale Product Qty Price Description \$7.35 1 PM 2-Day Flat Rate Env (Domestic) (GROTON, CT 06340) (Flat Rate) (Expected Delivery Day) (Friday 06/14/2019) (USPS Tracking #) (9505 5124 4841 9163 1866 55) \$0.00 Insurance (Up to \$50.00 included) PM 2-Day 1 \$7.35 Flat Rate Env (Domestic) (GROTON, CT 06340) (Flat Rate) (Expected Delivery Day) (Friday 06/14/2019) (USPS Tracking #) (9505 5124 4841 9163 1866 62) \$0.00 Insurance 1 (Up to \$50.00 included) \$14.70 Total \$14.70 Debit Card Remit'd (Card Name: VISA) (Account #:XXXXXXXXXXXXXXX0959) (Approval #: (Transaction #:455) (Receipt #:020588) (Debit Card Purchase:\$14.70) (Cash Back: \$0.00) (AID: A0000000980840 Chip) (AL:US DEBIT) (PIN: Verified)

Includes up to \$50 insurance

Text your tracking number to 28777 (2USPS) to get the latest status. Standard Message and Data rates may apply. You may also visit www.usps.com USPS Tracking or call 1-800-222-1811.

PAWTUCKET

40 MONTGOMERY ST

PAWTUCKET, RI

02860-9998

4367200860

06/12/2019 (800)275-8777 3:55 PM

Sale Final Description Qty Price PM 2-Day 1 \$7.35 Flat Rate Env (Domestic) (NEW BRITAIN, CT 06051) (Flat Rate) (Expected Delivery Day) (Friday 06/14/2019) (USPS Tracking #) (9505 5124 4841 9163 1866 79) Insurance 1 \$0.00 (Up to \$50.00 included) Total \$7.35

Debit Card Remit'd \$7.35
(Card Name:VISA)
(Account #:XXXXXXXXXXXXXXXXX0959)
(Approval #: )
(Transaction #:456)
(Receipt #:020589)
(Debit Card Purchase:\$7.35)
(Cash Back:\$0.00)
(AID:A000000980840 Chip)
(AL:US DEBIT)
(PIN:Verified)

Includes up to \$50 insurance

Text your tracking number to 28777 (2USPS) to get the latest status. Standard Message and Data rates may apply. You may also visit www.usps.com USPS Tracking or call 1-800-222-1811.

Save this receipt as evidence of insurance. For information on filing an insurance claim go to https://www.usps.com/help/claims.htm

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