



Northeast Site Solutions  
Denise Sabo  
199 Brickyard Rd Farmington, CT 06032  
860-209-4690  
[denise@northeastsitesolutions.com](mailto:denise@northeastsitesolutions.com)

October 5, 2017

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

RE: Tower Share Application  
87 MONCE ROAD, BURLINGTON, CT 06013  
Latitude: 41.73308000  
Longitude: -72.90730000  
T-Mobile Site#: CTHA560B-MWAAV

Dear Ms. Bachman:

T-Mobile is requesting to file an exempt modification for an existing 120-foot support tower located at 87 Monce Road in Burlington, Connecticut. T-Mobile currently has approval for nine (9) antennas at the 100-foot level of the existing 120-foot tower. The property and support tower are owned by Homeland Towers. T-Mobile now intends to install one (1) IBR1300 Dish. The new dish would be installed at the 100-foot and level of the tower.

Planned Modifications:

Remove: NONE  
Remove and Replace: NONE

Install New:  
(1)IBR1300 Dish  
(1)Fiber line  
(2)CAT6 Cables

Existing to Remain:  
(2) Hybrid  
(3) 1900 Mhz Antenna  
(3) 700 Mhz Antenna  
(3) 2100 Mhz Antenna  
(6) RRU

This facility was approved by the Town of Burlington PZC – Dated August 15, 2014. Please see attached.



Please accept this letter as notification pursuant to Regulations of Connecticut State Agencies § 16- SOj-73, for construction that constitutes an exempt modification pursuant to R.C.S.A. § 16-50j-72(b)(2). In accordance with R.C.S.A. § 16-SOj-73, a copy of this letter is being sent Theodore Shafer, First Selectman and Abby Conroy, Zoning Enforcement Officer of the Town of Burlington, as well as the tower owner (Homeland Tower) and property owner (Town of Burlington).

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

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

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

Sincerely,

**Denise Sabo**

Mobile: 860-209-4690

Fax: 413-521-0558

Office: 199 Brickyard Rd, Farmington, CT 06032

Email: denise@northeastsitesolutions.com

Attachments

cc: Theodore Shafer, First Selectman, as elected official  
Abby Conroy, Zoning Enforcement Officer  
Homeland Tower - as tower owner  
Town of Burlington - property owner

# Exhibit A



Property Information

Property Location	87 MONCE RD
Owner	BURLINGTON TOWN OF
Co-Owner	
Mailing Address	87 MONCE RD BURLINGTON CT 06013
Land Use	9030 Municipal Mdl-00
Land Class	E
Zoning Code	R44
Census Tract	4101

Neighborhood	4000
Acreage	0.8
Utilities	Well,Septic
Lot Setting/Desc	Rural Level
Additional Info	

Photo



Sketch

Primary Construction Details

Year Built	
Stories	
Building Style	
Building Use	
Building Condition	
Floors	
Total Rooms	

Bedrooms	
Full Bathrooms	
Half Bathrooms	
Bath Style	
Kitchen Style	
Roof Style	
Roof Cover	

Exterior Walls	
Interior Walls	
Heating Type	
Heating Fuel	
AC Type	
Gross Bldg Area	
Total Living Area	



Valuation Summary (Assessed value = 70% of Appraised Value)

Item	Appraised	Assessed
Buildings	0	0
Extras	0	0
Improvements	5500	3850
Outbuildings	5500	3850
Land	127000	88900
Total	132500	92750

Outbuilding and Extra Items

Type	Description
Paving-Asphalt	3600.00 S.F.
Light w/Pole	1.00 UNITS
Paving-Asphalt	3600.00 S.F.
Light w/Pole	1.00 UNITS

Sub Areas

Subarea Type	Gross Area (sq ft)	Living Area (sq ft)
Total Area		0

Sales History

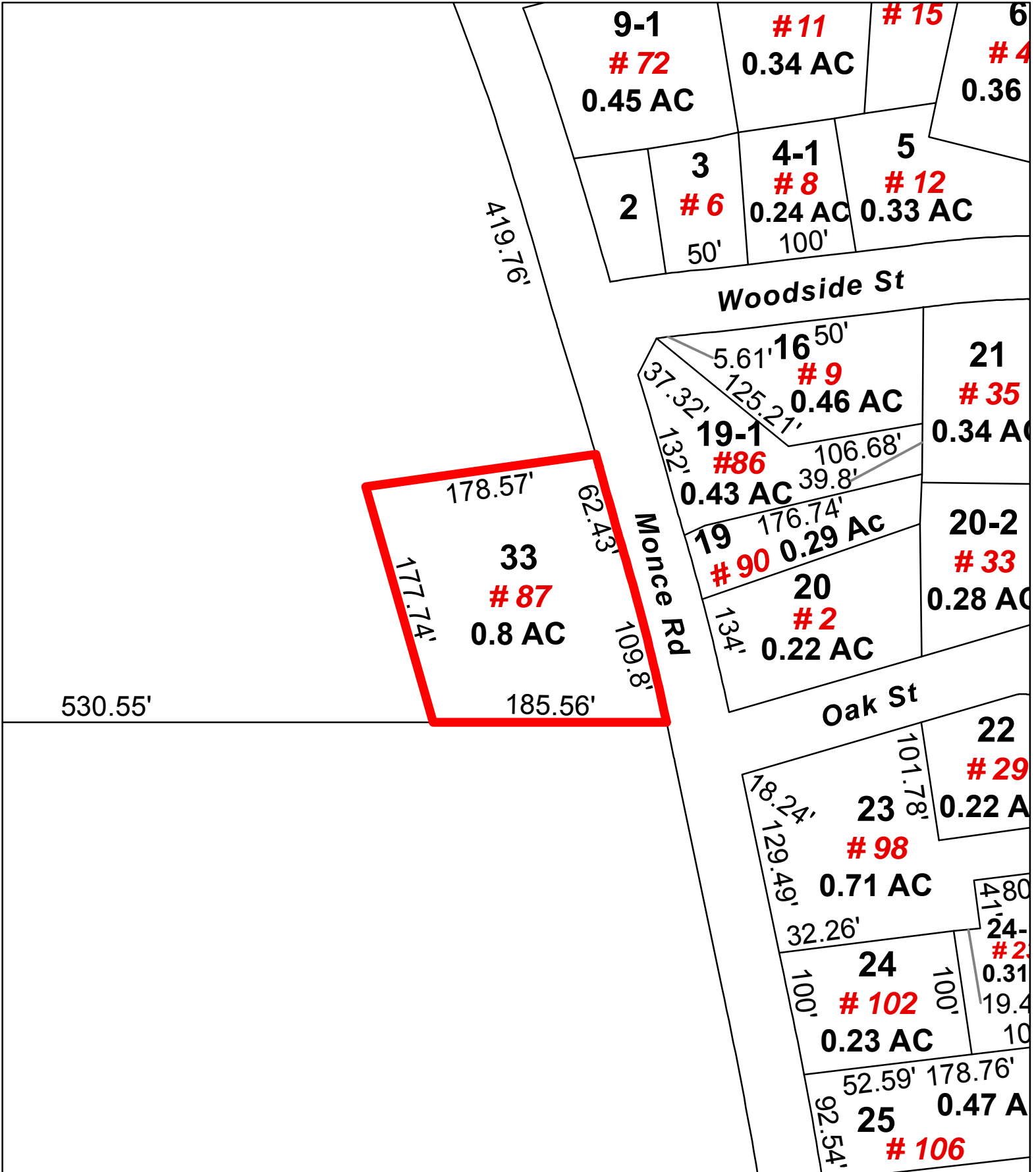
Owner of Record	Book/ Page	Sale Date	Sale Price
BURLINGTON TOWN OF	335/ 780	4/6/2015	
BURLINGTON VOLUNTEER FIRE DEPT	00151/0044	2/1/1995	5000
BURLINGTON VOLUNTEER FIRE	00047/0037		0



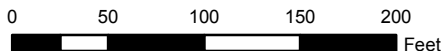
# Town of Burlington, Connecticut. Assessment Parcel Map

Map-Block-Lot 11-06-33

Address: 87 MONCE RD



1 inch = 100 feet



Disclaimer: This map is for informational purposes only. All information is subject to verification by any user. The Town of Burlington and its mapping contractors assume no legal responsibility for the information contained herein.

Map Produced: July 2017

# Exhibit B



# Town of Burlington

## ZONING BOARD OF APPEALS

TOWN OF BURLINGTON  
Burlington, CT 06013

**Certificate of Variance**  
Special Permit/Special Exception  
(Granted by the Town of Burlington)  
Zoning Board of Appeals  
To Public Act 75-317

At a meeting held on July 15, 2014 the Zoning Board of Appeals of the Town of Burlington voted to approve the following variance:

- Application No: 2014- 523
- Owner of Record: Burlington Volunteer Fire Department
- Applicant: Burlington Volunteer Fire Department

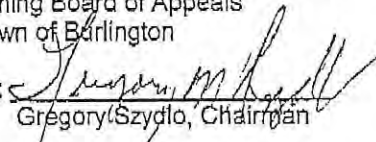

**Description and Location of Premises:**

To request a variance from Section IV.R44. Section 5 of the Zoning Regulations to allow a rear yard variance of 21 feet from 60 feet to 39 feet and side yard variance of 14 feet from 25 feet to 11 feet for proposed new firehouse building on property located at 87 Monce Road submitted by Burlington Volunteer Fire Department.

The provisions of the variance, including the specific section of the Zoning Regulation of the Town of Burlington, are as follows:

Variance from Section IV.R44. Section 5 of the Zoning Regulations to allow a rear yard variance of 21 feet from 60 feet to 39 feet and side yard variance of 14 feet from 25 feet to 11 feet for proposed new firehouse building on property located at 87 Monce Road submitted by Burlington Volunteer Fire Department.  
Hardship being the lot size and the need for public safety resource in the area.

Zoning Board of Appeals  
Town of Burlington

By:  Date:   
Gregory Szydlo, Chairman



# Exhibit C

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LEASE EXHIBIT

ANTENNA UPGRADES  
BY


**T-Mobile**  
**T-MOBILE NORTHEAST LLC**

SITE NUMBER: CTHA560B  
SITE NAME: CTHA560B  
SITE ADDRESS: 87 MONCE RD, BURLINGTON, CT 06013  
(797DB2 CONFIGURATION)

**APPLICANT:**  
**T-Mobile**  
**T-MOBILE NORTHEAST LLC**  
35 GRIFFIN ROAD SOUTH  
BLOOMFIELD, CT 06002  
860-692-7100

**PROJECT MANGER**  
**NSS** NORTHEAST  
SITE SOLUTIONS  
*Turnkey Wireless Development*  
420 MAIN STREET, BLDG 4  
STURBRIDGE, MA 01566  
203-275-6669

**CONSULTANT:**  
**FORESITE** LLC  
462 WALNUT STREET  
NEWTON, MA 02460  
617-212-3123

PROFESSIONAL SEAL  


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REV	DESCRIPTION	DATE
A	PRELIMINARY	09/14/17

SITE NUMBER: CTHA560B  
SITE NAME: CTHA560B  
SITE ADDRESS: 87 MONCE RD  
BURLINGTON, CT 06013

SHEET TITLE:  
T-1: TITLE SHEET

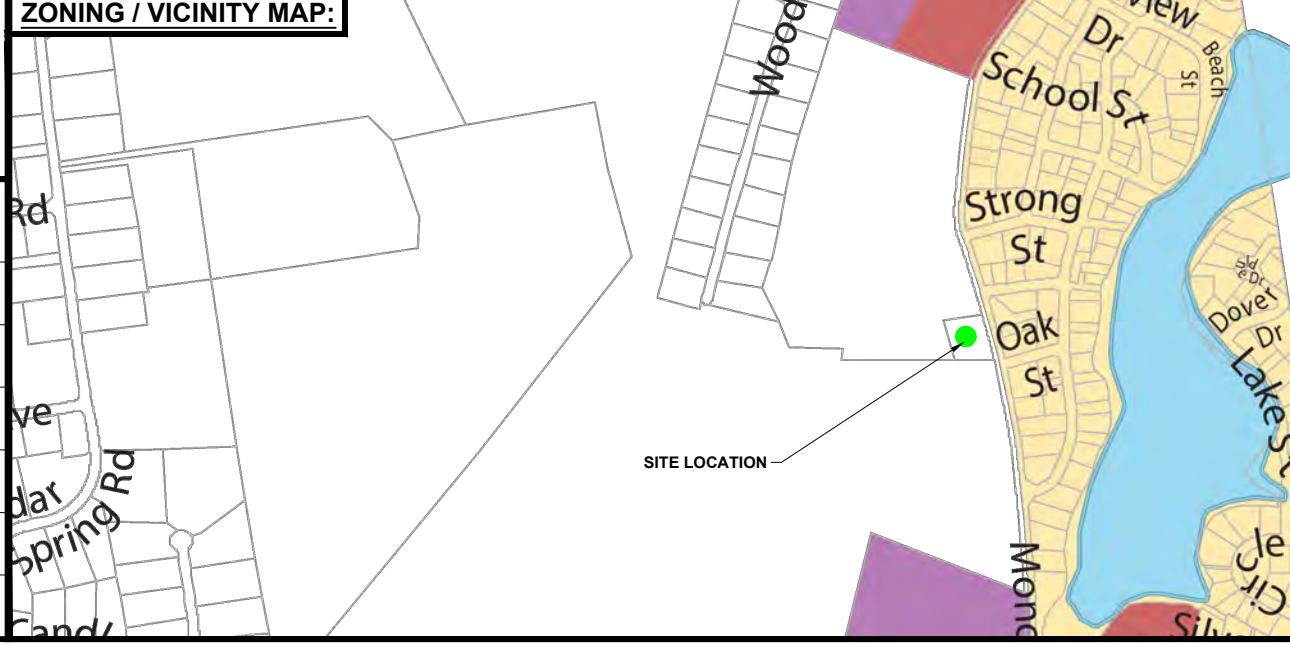
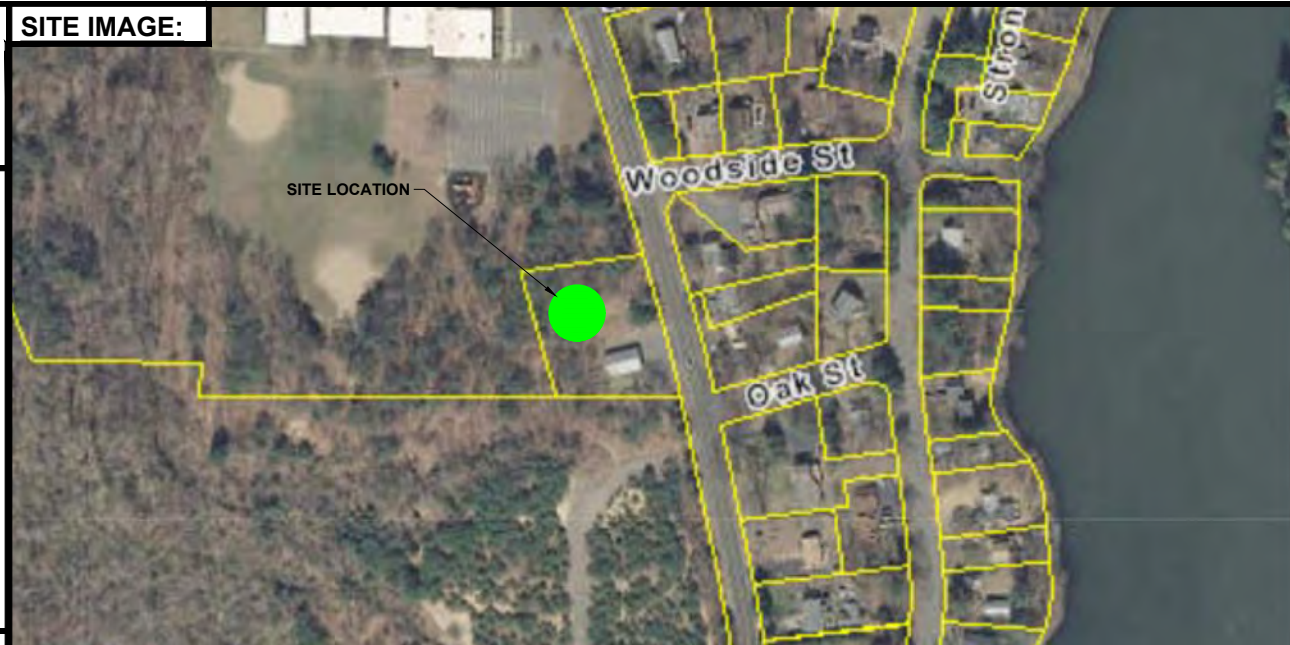
**PROJECT SCOPE:**  
ADDING A BACKHAUL RADIO TO T-MOBILE SECTOR ON THE TOWER WITH ASSOCIATED CABLES.

- PROJECT NOTES:**
- THIS IS AN UNMANNED TELECOMMUNICATION FACILITY AND NOT FOR HUMAN HABITATION. HANDICAPPED ACCESS IS NOT REQUIRED. POTABLE WATER OR SANITARY SERVICE IS NOT REQUIRED. NO OUTDOOR STORAGE OR ANY SOLID WASTE RECEPTACLES REQUIRED.
  - CONTRACTOR SHALL VERIFY ALL PLANS, EXISTING DIMENSIONS, AND CONDITIONS ON THE JOB SITE. CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ARCHITECT/ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK. FAILURE TO NOTIFY THE ARCHITECT/ENGINEER PLACES THE RESPONSIBILITY ON THE CONTRACTOR TO CORRECT THE DISCREPANCIES AT THE CONTRACTOR'S EXPENSE.
  - DEVELOPMENT AND USE OF THE SITE WILL CONFORM TO ALL APPLICABLE CODES, ORDINANCES AND SPECIFICATIONS.

**APPLICABLE STATE ADOPTION CODES:**  
2016 CONNECTICUT STATE BUILDING CODE (CSBC).  
ANSI/TIA-222-G-2005 STRUCTURAL STANDARD FOR ANTENNA SUPPORTING STRUCTURES AND ANTENNAS.  
2014 NATIONAL ELECTRICAL CODE (NFPA 70) FOR POWER AND GROUNDING REQUIREMENTS.

**APPROVALS:**

FSA CM	DATE
RF ENGINEER	DATE
FOPS	DATE
T-MOBILE ENGINEERING AND DEVELOPMENT	DATE
	DATE
	DATE



**PROJECT INFORMATION:**

ADDRESS: 87 MONCE RD  
BURLINGTON, CT 06013

STRUCTURE TYPE: FUTURE MONOPOLE BY  
HOMELAND TOWERS LLC

ZONING DISTRICT: R-44  
COORDINATES: N 41°44'20.89" & W 72°54'28.08"  
STRUCTURE HEIGHT: 140' AGL

POWER PROVIDER: EVERSOURCE  
107 SELDEN STREET  
BERLIN, CT 06037

TELCO PROVIDER: LIGHT TOWER  
260 FRANKLIN STREET  
BOSTON, MA 02110

CALL BEFORE YOU DIG: 800-922-4455

STRUCTURE OWNER: HOMELAND TOWERS, LLC (CT011)  
9 HARMONY ST 2ND FLOOR  
DANBURY, CT 06810  
203-297-6345

**PROJECT TEAM:**

APPLICANT: T-MOBILE NORTHEAST, LLC.  
35 GRIFFIN ROAD SOUTH  
BLOOMFIELD, CT 06002  
860-692-7100

LANDLORD: TOWN OF BURLINGTON  
200 SPIELMAN ROAD  
BURLINGTON, CT 06013

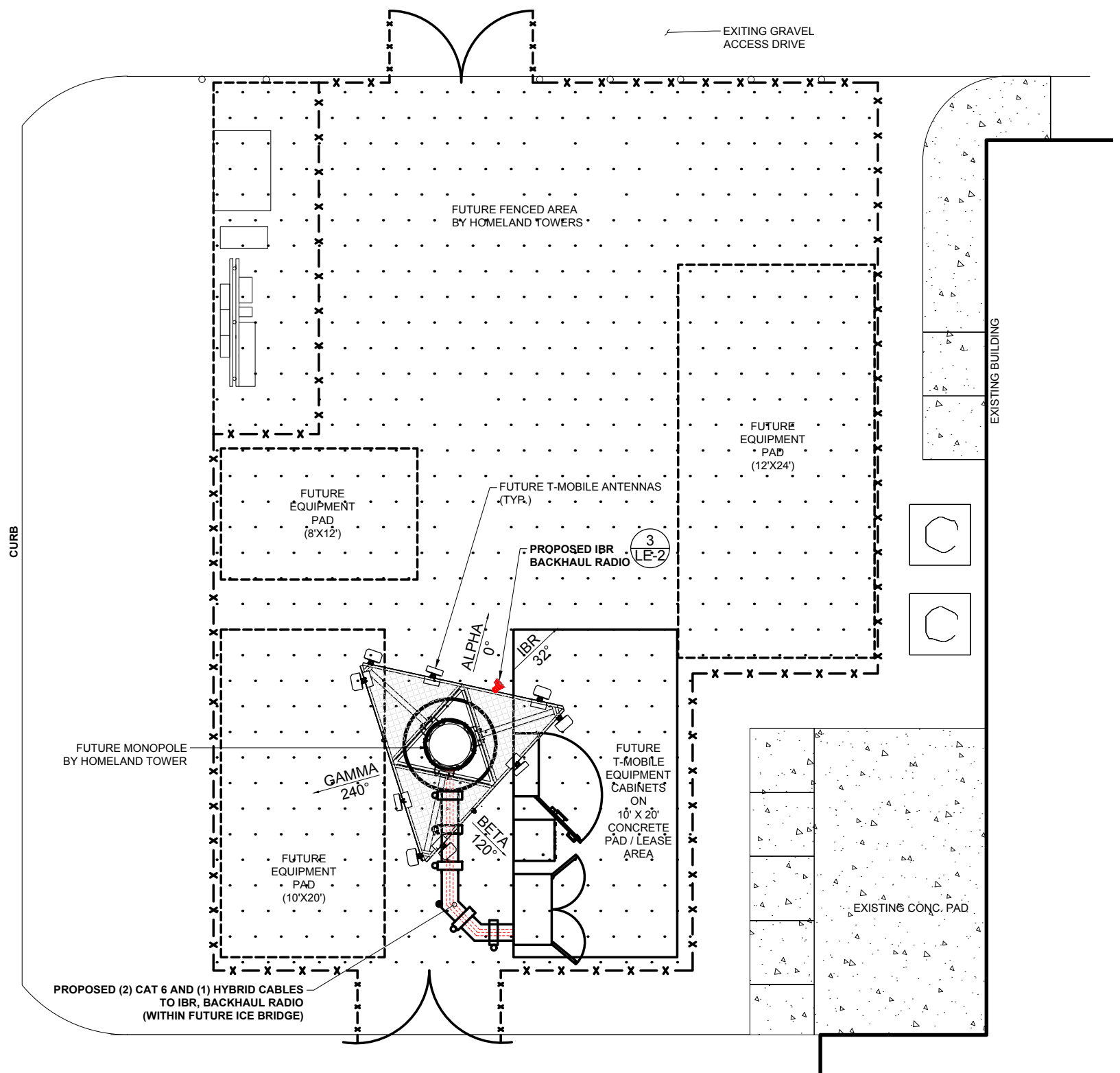
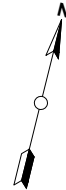
PROJECT MANGER: NORTHEAST SITE SOLUTIONS  
420 MAIN STREET, BLDG 4  
STURBRIDGE, MA 01566  
MATTHEW BANDLE  
MATT@NORTHEASTSITESOLUTIONS.COM  
201-776-8521

CONSULTANTS: FORESITE LLC  
462 WALNUT ST  
NEWTON, MA 02460  
SAEED MOSSAVAT  
SMOSSAVAT@FORESITELLC.COM  
617-212-3123

**SHEET INDEX:**

T-1: TITLE SHEET  
LE-1: PLAN  
LE-2: ELEVATION AND DETAILS

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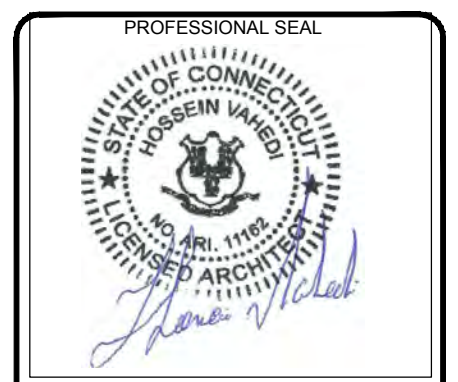


PLAN  
SCALE 1"=4' 1  
LE-1

APPLICANT:  
**T-Mobile**  
**T-MOBILE NORTHEAST LLC**  
35 GRIFFIN ROAD SOUTH  
BLOOMFIELD, CT 06002  
860-692-7100

PROJECT MANGER  
**NSS NORTHEAST**  
SITE SOLUTIONS  
*Turnkey Wireless Development*  
420 MAIN STREET, BLDG 4  
STURBRIDGE, MA 01566  
203-275-6669

CONSULTANT:  
**FORESITE** LLC  
462 WALNUT STREET  
NEWTON, MA 02460  
617-212-3123



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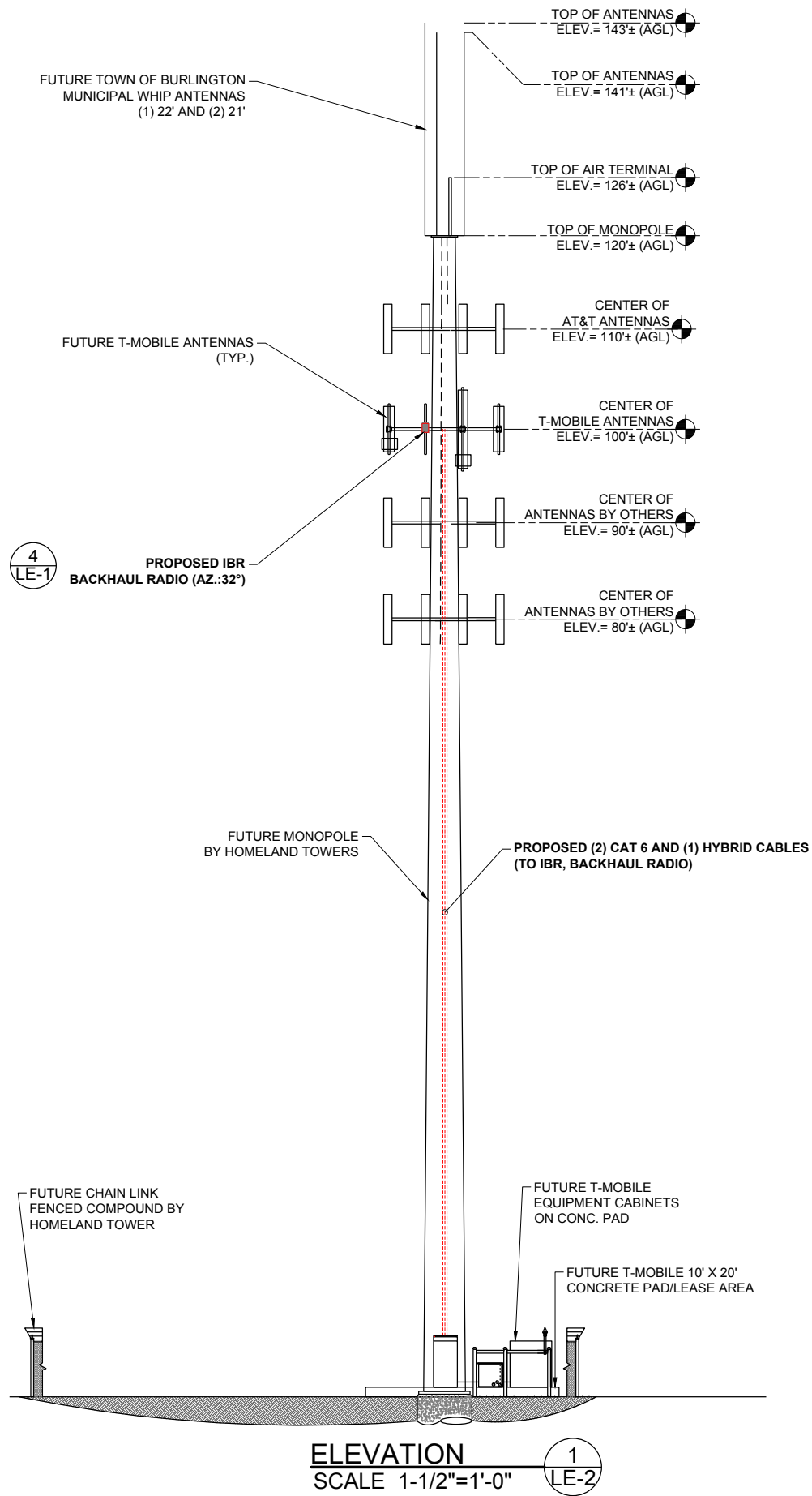
REV	DESCRIPTION	DATE
A	PRELIMINARY	09/14/17

SITE NUMBER: CTHA560B  
SITE NAME: CTHA560B  
SITE ADDRESS: 87 MONCE RD  
BURLINGTON, CT 06013

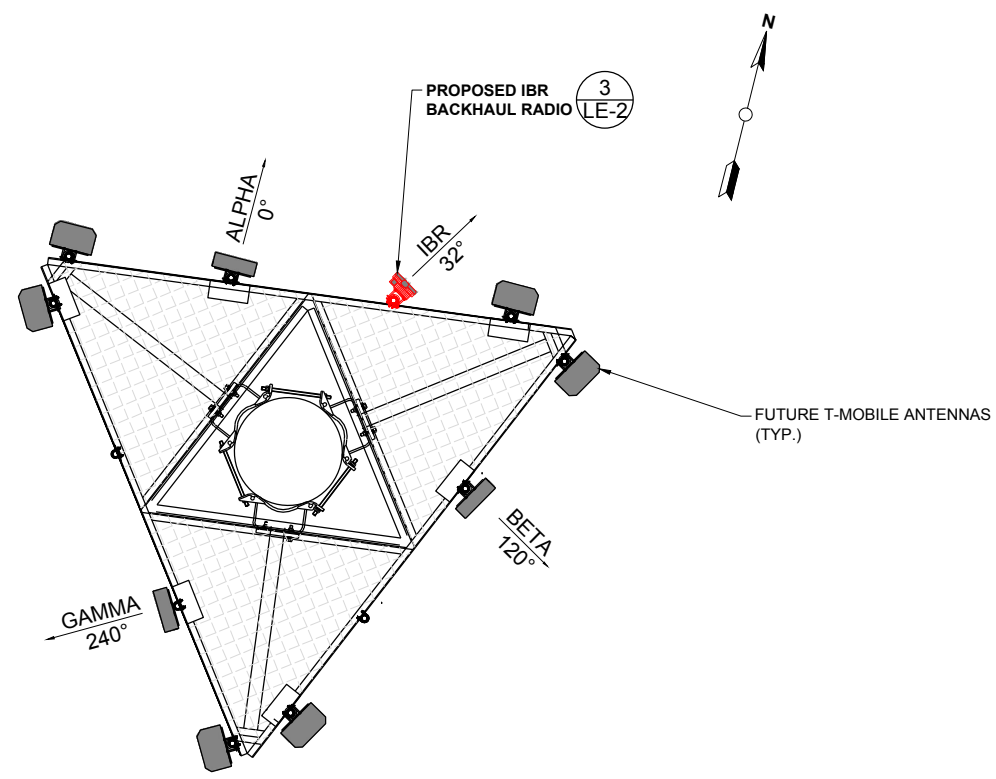
SHEET TITLE:  
LE-1: PLAN



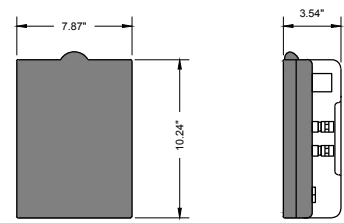
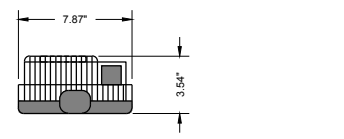
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**ELEVATION**  
SCALE 1-1/2"=1'-0" 1 LE-2



**ANTENNA PLAN**  
N.T.S. 2 LE-2



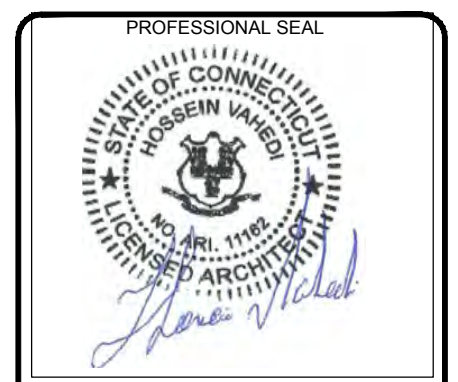
MANUFACTURER: FASTBACK  
MODEL: IBR 1300  
FOOTPRINT: 10.24"HX7.87"WX3.54"D  
WEIGHT: 8.82 LBS

**BACKHAUL RADIO** 3 LE-2  
N.T.S.

**APPLICANT:**  
**T-Mobile**  
**T-MOBILE NORTHEAST LLC**  
35 GRIFFIN ROAD SOUTH  
BLOOMFIELD, CT 06002  
860-692-7100

**PROJECT MANGER**  
**NSS NORTHEAST**  
SITE SOLUTIONS  
*Turnkey Wireless Development*  
420 MAIN STREET, BLDG 4  
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203-275-6669

**CONSULTANT:**  
**FORESITE** LLC  
462 WALNUT STREET  
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617-212-3123



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REV	DESCRIPTION	DATE
A	PRELIMINARY	09/14/17

SITE NUMBER: CTHA560B  
SITE NAME: CTHA560B  
SITE ADDRESS: 87 MONCE RD  
BURLINGTON, CT 06013

SHEET TITLE:  
LE-2: ELEVATION AND DETAILS

# Exhibit D

# INFINIGY®

FROM ZERO TO INFINIGY  
the solutions are endless

1033 WATERVLIET SHAKER RD, ALBANY, NY 12205

---

September 19, 2017

Mikala Charron  
Collocation Coordinator  
InSite Wireless Group LLC

**RE: T-Mobile Project PE Letter**

InSite Site Name:	CT011 Burlington
T-Mobile Site Name:	Burlington Fire CTHA560B
Site Address:	87 Monce Road, Burlington, CT 06013
Building Code:	2012 IBC / 2016 Connecticut State Building Code
Design Standard:	ANSI/TIA-222-G
Result:	<b>Pass</b>
Note:	--

Dear Ms. Charron:

At your request, Infinigy Engineering, PLLC has reviewed the existing InSite Wireless tower at the above referenced site for adequacy to support the existing and proposed loads for the referenced project. This evaluation is based on a review of the information from the Structural Analysis Report (dated 04/28/17) provided by Infinigy Engineering, PLLC and the Collocation Application (dated 08/31/17) provided by Insite Wireless, LLC.

This evaluation assumes that all structural members are in good condition, have not been altered from the manufacturer's original design, and have been installed per the manufacturer's requirements. Prior to installation of any new appurtenances, the contractor shall inspect the condition of all relevant members and connections and shall tighten all connections. The contractor is responsible for the means and methods of construction and shall notify Infinigy Engineering, PLLC immediately if any field conditions differ from those listed above.

AI CA CO FL GA IL MD NC NH NJ NY TN TX WA

INFINIGY®

Mount Height (ft)	Qty.	Appurtenance	Mount Type	Coax & Lines	Carrier
110.0	12	CCI HPA-65R-BUU-H8	Platform	(8) 3/4" (2) 3/8" Fiber	AT&T
	3	Ericsson RRUS 11 (700)			
	6	Ericsson RRUS 12 (PCS)			
	3	Ericsson RRUS 11 (850)			
	3	Ericsson RRUS 32 (WCS)			
	3	Ericsson RRUS E2 (700)			
	3	Ericsson RRUS 32 (B66A AWS)			
	4	Raycap DC6-48-60-18-8F			
100.0	3	RFS APX16DWV16DWVSEA20	Platform	(3) 1.4" Hybrid (1) 1/2" (3) 5/16"	T-Mobile
	3	Commscope LNX-6515DS-A1M			
	3	Commscope KRD9011461_B66A_B2A			
	3	Ericsson RRUS 11 B4			
	6	Ericsson RRUS 11 B12			
	1	Fastback IBR 1300 Series			
	1	GPS			

Should there be any questions, please do not hesitate to contact us at (518) 690-0790.

Sincerely,

Joseph R. Johnston, P.E.  
 VP Structural Engineering/Principal  
[structural@infinigy.com](mailto:structural@infinigy.com)  
 Connecticut P.E. License Number: PEN.0029460  
 ST/NRO



# Exhibit E





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

T-Mobile Existing Facility

Site ID: CTHA560B

CTHA560B  
87 Monce Road  
Burlington, CT 06013

**September 27, 2017**

**EBI Project Number: 6217004212**

Site Compliance Summary	
Compliance Status:	<b>COMPLIANT</b>
Site total MPE% of FCC general population allowable limit:	<b>6.868%</b>



September 27, 2017

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

## Emissions Analysis for Site: **CTHA560B – CTHA560B**

EBI Consulting was directed to analyze the proposed T-Mobile facility located at **87 Monce Road, Burlington, CT**, 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 ( $\mu\text{W}/\text{cm}^2$ ). The number of  $\mu\text{W}/\text{cm}^2$  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.

Population exposure to radio frequencies is regulated and enforced in units of microwatts per square centimeter ( $\mu\text{W}/\text{cm}^2$ ). The general population exposure limit for the 700 MHz Band is approximately 467  $\mu\text{W}/\text{cm}^2$ , and the general population exposure limit for the 1900 MHz (PCS), 2100 MHz (AWS) and 5 GHz microwave bands is 1000  $\mu\text{W}/\text{cm}^2$ . 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 **87 Monce Road, Burlington, CT**, 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 and microwave 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 manufactures supplied specifications, minus 10 dB, 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 UMTS channels (AWS Band – 2100 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 30 Watts per Channel.
- 2) 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.
- 3) 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
- 4) 1 LTE channel (700 MHz Band) was considered for each sector of the proposed installation. This channel has a transmit power of 30 Watts.
- 5) 1 microwave backhaul channel (5 GHz) was considered for the microwave link. This channel has a transmit power of 1 Watt.



- 6) 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.
- 7) 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 manufactures supplied specifications minus 10 dB 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.
- 8) The antennas used in this modeling are the **Ericsson AIR32 B66A/B2A & RFS APX16DWV-16DWVS-E-A20** for 1900 MHz (PCS) and 2100 MHz (AWS) channels, the **Commscope LNX-6515DS-A1M** for 700 MHz channels and the **Fastback Networks IBR 1300** for 5 GHz microwave backhaul. This is based on feedback from the carrier with regards to anticipated antenna selection. The **Ericsson AIR32 B66A/B2A** has a maximum gain of **15.9 dBd** at its main lobe at 1900 MHz and 2100 MHz. The **RFS APX16DWV-16DWVS-E-A20** has a maximum gain of **16.3 dBd** at its main lobe at 1900 MHz and 2100 MHz. The **Commscope LNX-6515DS-A1M** has a maximum gain of **14.6 dBd** at its main lobe at 700 MHz. the **Fastback Networks IBR 1300 antenna** has a maximum gain of **10 dBd** at 5 GHz. The maximum gain of the antenna per the antenna manufactures supplied specifications, minus 10 dB, 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.
- 9) The antenna mounting height centerline of the proposed antennas is **100 feet** above ground level (AGL) for all standard panel antennas and 5 GHz microwave radio / antenna.
- 10) 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.
- 11) All calculations were done with respect to uncontrolled / general population threshold limits.



## T-Mobile Site Inventory and Power Data

Sector:	A	Sector:	B	Sector:	C
Antenna #:	1	Antenna #:	1	Antenna #:	1
Make / Model:	Ericsson AIR32 B66A/B2A	Make / Model:	Ericsson AIR32 B66A/B2A	Make / Model:	Ericsson AIR32 B66A/B2A
Gain:	15.9 dBd	Gain:	15.9 dBd	Gain:	15.9 dBd
Height (AGL):	100	Height (AGL):	100	Height (AGL):	100
Frequency Bands	1900 MHz (PCS) / 2100 MHz (AWS)	Frequency Bands	1900 MHz (PCS) / 2100 MHz (AWS)	Frequency Bands	1900 MHz (PCS) / 2100 MHz (AWS)
Channel Count	4	Channel Count	4	Channel Count	4
Total TX Power(W):	240	Total TX Power(W):	240	Total TX Power(W):	240
ERP (W):	9,337.08	ERP (W):	9,337.08	ERP (W):	9,337.08
Antenna A1 MPE%	3.799	Antenna B1 MPE%	3.799	Antenna C1 MPE%	3.799
Antenna #:	2	Antenna #:	2	Antenna #:	2
Make / Model:	RFS APX16DWV-16DWVS-E-A20	Make / Model:	RFS APX16DWV-16DWVS-E-A20	Make / Model:	RFS APX16DWV-16DWVS-E-A20
Gain:	16.3 dBd	Gain:	16.3 dBd	Gain:	16.3 dBd
Height (AGL):	100	Height (AGL):	100	Height (AGL):	100
Frequency Bands	2100 MHz (AWS)	Frequency Bands	2100 MHz (AWS)	Frequency Bands	2100 MHz (AWS)
Channel Count	3	Channel Count	2	Channel Count	2
Total TX Power(W):	60	Total TX Power(W):	60	Total TX Power(W):	60
ERP (W):	2,559.48	ERP (W):	2,559.48	ERP (W):	2,559.48
Antenna A2 MPE%	1.041	Antenna B2 MPE%	1.041	Antenna C2 MPE%	1.041
Antenna #:	3	Antenna #:	3	Antenna #:	3
Make / Model:	Commscope LNX-6515DS-A1M	Make / Model:	Commscope LNX-6515DS-A1M	Make / Model:	Commscope LNX-6515DS-A1M
Gain:	14.6 dBd	Gain:	14.6 dBd	Gain:	14.6 dBd
Height (AGL):	100	Height (AGL):	100	Height (AGL):	100
Frequency Bands	700 MHz	Frequency Bands	700 MHz	Frequency Bands	700 MHz
Channel Count	1	Channel Count	1	Channel Count	1
Total TX Power(W):	30	Total TX Power(W):	30	Total TX Power(W):	30
ERP (W):	865.21	ERP (W):	865.21	ERP (W):	865.21
Antenna A3 MPE%	0.754	Antenna B3 MPE%	0.754	Antenna C3 MPE%	0.754
Antenna #:	<b>4 (Microwave)</b>				
Make / Model:	Fastback Networks IBR 1300				
Gain:	10.0 dBd				
Height (AGL):	125				
Frequency Bands	5.0 GHz				
Channel Count	1				
Total TX Power(W):	1				
ERP (W):	10 W				
Antenna A4 MPE%	0.004				

Site Composite MPE%	
Carrier	MPE%
T-Mobile (Per Sector Max)	<b>5.598%</b>
AT&T	0.630 %
WinStar Wireless	0.070 %
PageNet	0.140 %
Broadcast Video	0.430%
<b>Site Total MPE %:</b>	<b>6.868%</b>

T-Mobile Sector A Total:	5.598%
T-Mobile Sector B Total:	5.594%
T-Mobile Sector C Total:	5.594%
<b>Site Total:</b>	<b>6.868%</b>



## T-Mobile Per Sector Maximum Power Values

T-Mobile _Max Values per sector (Sector A)	# Channels	Watts ERP (Per Channel)	Height (feet)	Total Power Density ( $\mu\text{W}/\text{cm}^2$ )	Frequency (MHz)	Allowable MPE ( $\mu\text{W}/\text{cm}^2$ )	Calculated % MPE
T-Mobile AWS - 2100 MHz LTE	2	2,334.27	100	18.99	AWS - 2100 MHz	1000	1.899%
T-Mobile PCS - 1900 MHz LTE	2	2,334.27	100	18.99	PCS - 1900 MHz	1000	1.899%
T-Mobile AWS - 2100 MHz UMTS	2	1,279.74	100	10.41	AWS - 2100 MHz	1000	1.041%
T-Mobile 700 MHz LTE	1	865.21	100	3.52	700 MHz	467	0.754%
T-Mobile 5 GHz MW	1	10.00	100	0.04	5 GHz	1000	0.004%
						<b>Total*:</b>	<b>5.598%</b>

NOTE: Totals may vary by 0.001% due to summing of remainders



## 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:	5.598%
Sector B:	5.594%
Sector C:	5.594%
T-Mobile Per Sector Maximum:	5.598%
Site Total:	6.868%
Site Compliance Status:	<b>COMPLIANT</b>

The anticipated composite MPE value for this site assuming all carriers present is **6.868%** 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.

# Exhibit 8



CTHASTWB

UNIONVILLE  
24 MILL ST  
UNIONVILLE  
CT

06085-9998  
0883640185

09/29/2017 (800)275-8777 12:03 PM

Product Description	Sale Qty	Final Price
PM 2-Day Flat Rate Env (Domestic) (DANBURY, CT 06810) (Flat Rate) (Expected Delivery Day) (Monday 10/02/2017) (USPS Tracking #) (9505 5119 1366 7272 1012 32)	1	\$6.65
Insurance (Up to \$50.00 included)	1	\$0.00
PM 1-Day Flat Rate Env (Domestic) (BURLINGTON, CT 06013) (Flat Rate) (Expected Delivery Day) (Saturday 09/30/2017) (USPS Tracking #) (9505 5119 1366 7272 1012 49)	1	\$6.65
Insurance (Up to \$50.00 included)	1	\$0.00
PM 1-Day Flat Rate Env (Domestic) (BURLINGTON, CT 06013) (Flat Rate) (Expected Delivery Day) (Saturday 09/30/2017) (USPS Tracking #) (9505 5119 1366 7272 1012 56)	1	\$6.65
Insurance (Up to \$50.00 included)	1	\$0.00
PM 1-Day Flat Rate Env (Domestic) (BURLINGTON, CT 06013) (Flat Rate) (Expected Delivery Day) (Saturday 09/30/2017) (USPS Tracking #) (9505 5119 1366 7272 1012 63)	1	\$6.65
Insurance (Up to \$50.00 included)	1	\$0.00

Total \$26.60

Credit Card Remitd \$26.60  
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(Account #:XXXXXXXXXX0717)  
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