COHEN and WOLF P.C.
ATTORNEYS AT LAW

JULIE D. KOHLER

PLEASE REPLY TO: Bridgeport
WRITER'S DIRECT DIAL: (203) 337-4157
E-Mail Address: jkohler@cohenandwolf.com

April 23, 2014

Attorney Melanie Bachman
Acting Executive Director
Connecticut Siting Council
Ten Franklin Square
New Britain, CT 06051

Re: Notice of Exempt Modification
SBA Communications Corporation/T-Mobile co-location
Site ID CT11505A
349R Mountain Street, Willimantic, Connecticut

Dear Attorney Bachman:

This office represents T-Mobile Northeast LLC ("T-Mobile") and has been retained to file exempt modification filings with the Connecticut Siting Council on its behalf.

In this case, SBA Communications Corporation owns the existing self-supported communications tower and related facility located at 349R Mountain Street, Willimantic, Connecticut (Latitude: 41.38932982 Longitude: -72.1713843). T-Mobile intends to replace six antennas and related equipment at this existing telecommunications facility in Willimantic ("Willimantic Facility"). Please accept this letter as notification, pursuant to R.C.S.A. § 16-50j-73, of construction which 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 Mayor, Earnest Eldridge. SBA Communications Corporation is also the property owner.

The existing Willimantic Facility consists of a 196 foot tall self-supported tower.[1] T-Mobile plans to replace six antennas and six TMAs (tower mounted amplifiers) with six antennas and three TMAs at a centerline of 169 feet. (See the plans revised to March 28, 2014 attached hereto as Exhibit A). T-Mobile will also install a new equipment cabinet on the existing concrete pad, install fiber cable, reuse some coax cable and remove other coax cable. The existing Willimantic Facility is structurally capable of supporting T-Mobile's proposed modifications, as indicated in the structural analysis dated March 26, 2014 and attached hereto as Exhibit B.

[1] While the online docket for the Connecticut Siting Council does not provide a docket or petition number for the approval of this structure, it does reference this structure in connection with notices of intent captioned EM-T-MOBILE-163-110714 and EM-T-MOBILE-163-090227.

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

1. The proposed modification will not increase the height of the tower. T-Mobile's replacement antennas will be installed at a centerline of 169 feet, merely replacing existing antennas located at the same 169 foot elevation. The enclosed tower drawing confirms that the proposed modification will not increase the height of the tower.

2. The proposed modifications will not require an extension of the site boundaries. T-Mobile's equipment will be located entirely within the existing compound and leased area as shown on Pages 1 of Exhibit A.

3. The proposed modification to the Willimantic Facility will not increase the noise levels at the existing facility by six decibels or more.

4. The operation of the replacement antennas will not increase the total radio frequency (RF) power density, measured at the base of the tower, to a level at or above the applicable standard. According to a Radio Frequency Emissions Analysis Report prepared by EBI dated April 3, 2014, T-Mobile's operations would add 0.143% of the FCC Standard. Therefore, the calculated "worst case" power density for the planned combined operation at the site including all of the proposed antennas would be 26.170% of the FCC Standard as calculated for a mixed frequency site as evidenced by the engineering exhibit attached hereto as Exhibit C.

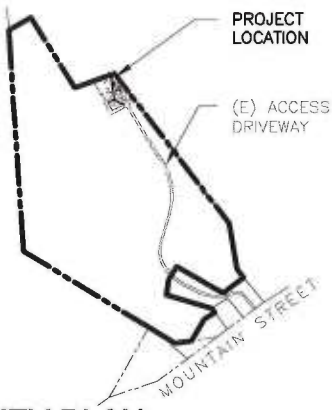
For the foregoing reasons, T-Mobile respectfully submits that the proposed replacement antennas and equipment at the Willimantic Facility constitutes an exempt modification under R.C.S.A. § 16-50j-72(b)(2). Upon acknowledgement by the Council of this proposed exempt modification, T-Mobile shall commence construction approximately sixty days from the date of the Council's notice of acknowledgement.

Sincerely,

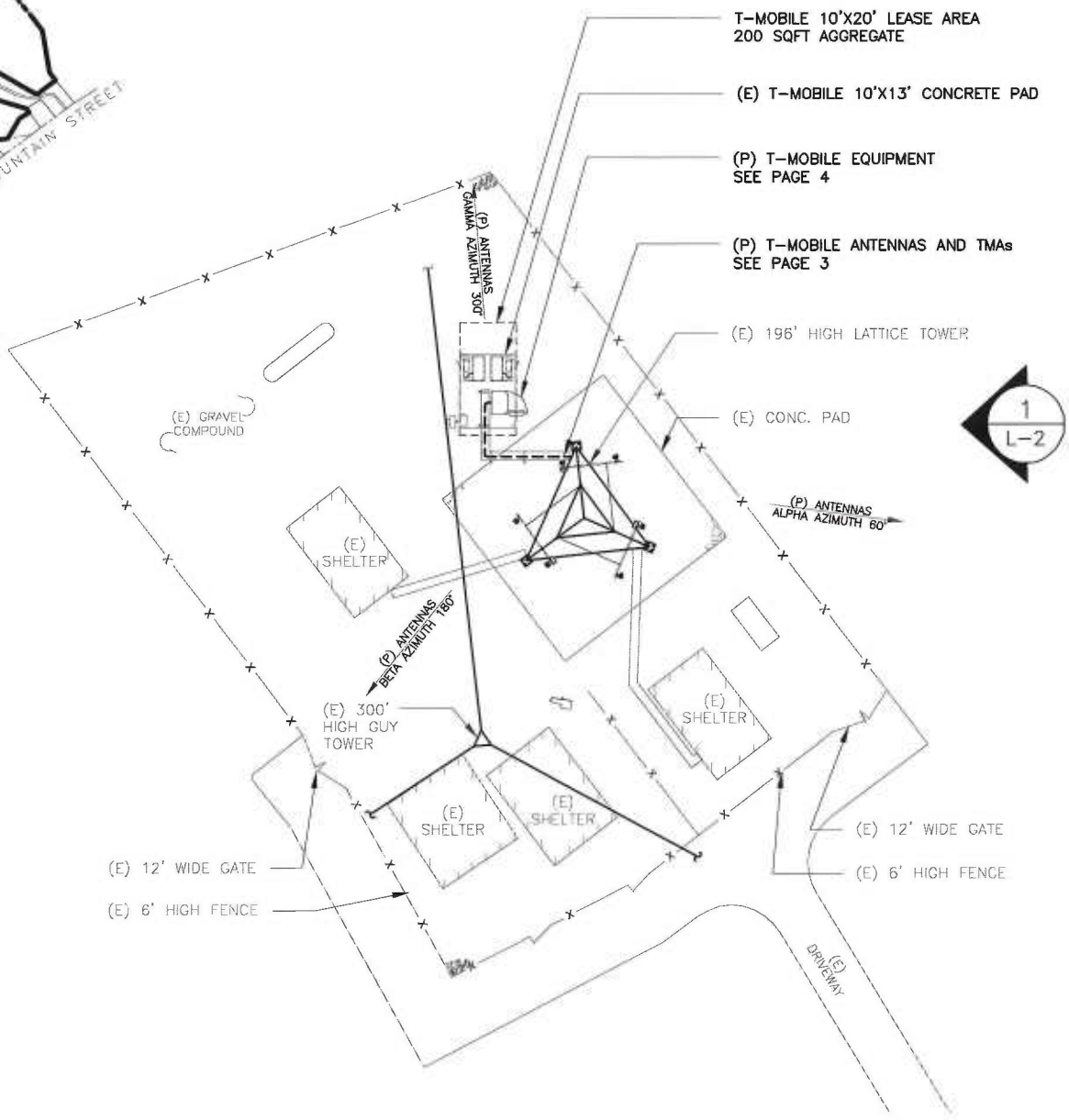
Julie D. Kohler, Esq.

cc: Town of Windham (Willimantic), Mayor Earnest Eldridge
SBA Communications Corporation
Northeast Site Solutions, Sheldon J. Freincle

EXHIBIT A



KEY PLAN
N.T.S.



ALL EQUIPMENT LOCATIONS ARE APPROXIMATE AND ARE SUBJECT TO APPROVAL BY LESSEE/LICENSEE'S STRUCTURAL & RF ENGINEERS. LOCATIONS OF POWER & TELEPHONE FACILITIES ARE SUBJECT TO APPROVAL BY UTILITY COMPANIES.

SITE PLAN
N.T.S.
1
LE-1

CONFIGURATION
2C

SUBMITTALS	
LE REV A	02.18.14
LE REV 0	02.18.14
LE REV 1	03.28.14

ATLANTIS GROUP
1340 Centre Street
Suite 212
Newton, MA 02459
Office: 617-965-0789
Fax: 617-213-5056

LEASE EXHIBIT

SITE NUMBER:
CT11505A

SITE NAME:
WILLIMANTIC - VERIZON

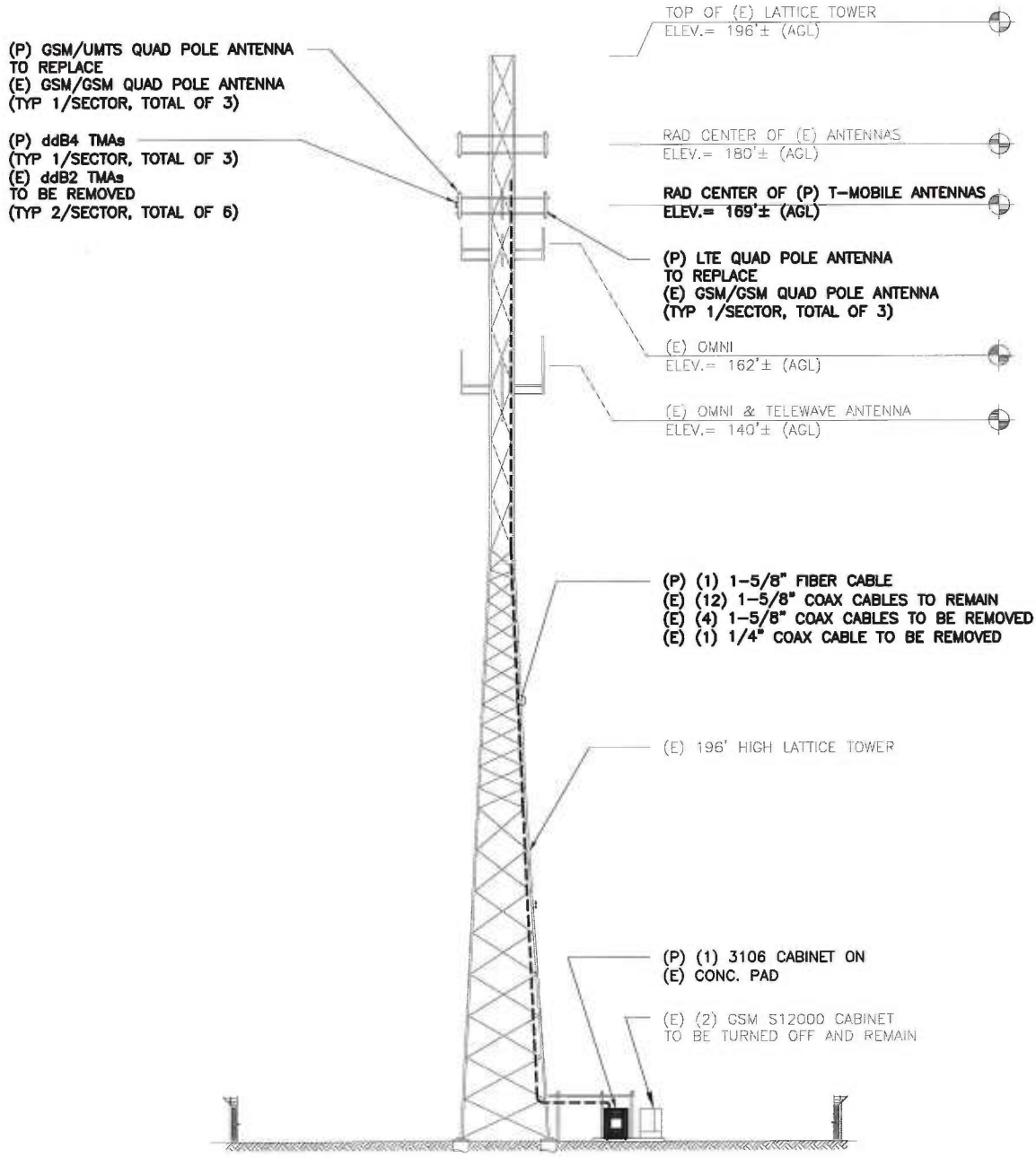
SITE ADDRESS:
349R MOUNTAIN STREET
WILLIMANTIC, CT 06226

NORTHEAST SITE SOLUTIONS
54 MAIN STREET, UNIT 3
STURBRIDGE, MA 01566
(508) 434-5237

FOR

T-MOBILE NORTHEAST, LLC
35 GRIFFIN ROAD SOUTH
BLOOMFIELD, CT 06002
OFFICE: (860) 692-7100
FAX: (860) 692-7159

DRAWN BY: EB | CHECKED BY: SM



ELEVATION

N.T.S.

1
LE-4

CONFIGURATION
2C

SUBMITTALS	
LE REV A	02.18.14
LE REV 0	02.18.14
LE REV 1	03.28.14

ATLANTIS GROUP
1340 Centre Street
Suite 212
Newton, MA 02459
Office: 617-965-0789
Fax: 617-213-5056

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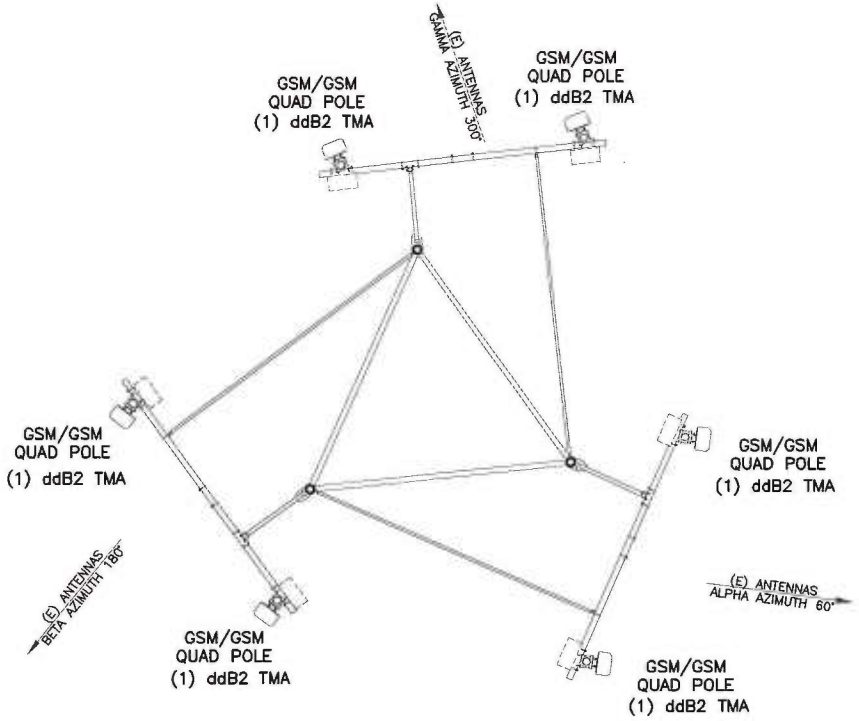
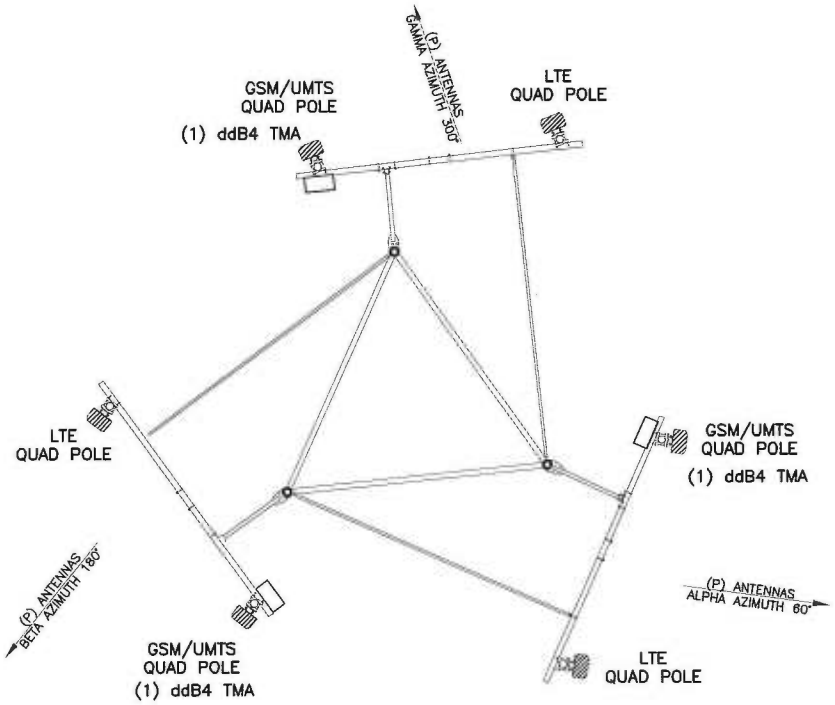


EXISTING ANTENNA CONFIGURATION



PROPOSED ANTENNA CONFIGURATION

CONFIGURATION

2C

SUBMITTALS	
LE REV A	02.18.14
LE REV 0	02.18.14
LE REV 1	03.28.14

ATLANTIS GROUP
1340 Centre Street
Suite 212
Newton, MA 02459
Office: 617-965-0789
Fax: 617-213-5056

LEASE EXHIBIT

SITE NUMBER:
CT11505A

SITE NAME:
WILLIMANTIC - VERIZON

SITE ADDRESS:
349R MOUNTAIN STREET
WILLIMANTIC, CT 06226

NORTHEAST SITE SOLUTIONS
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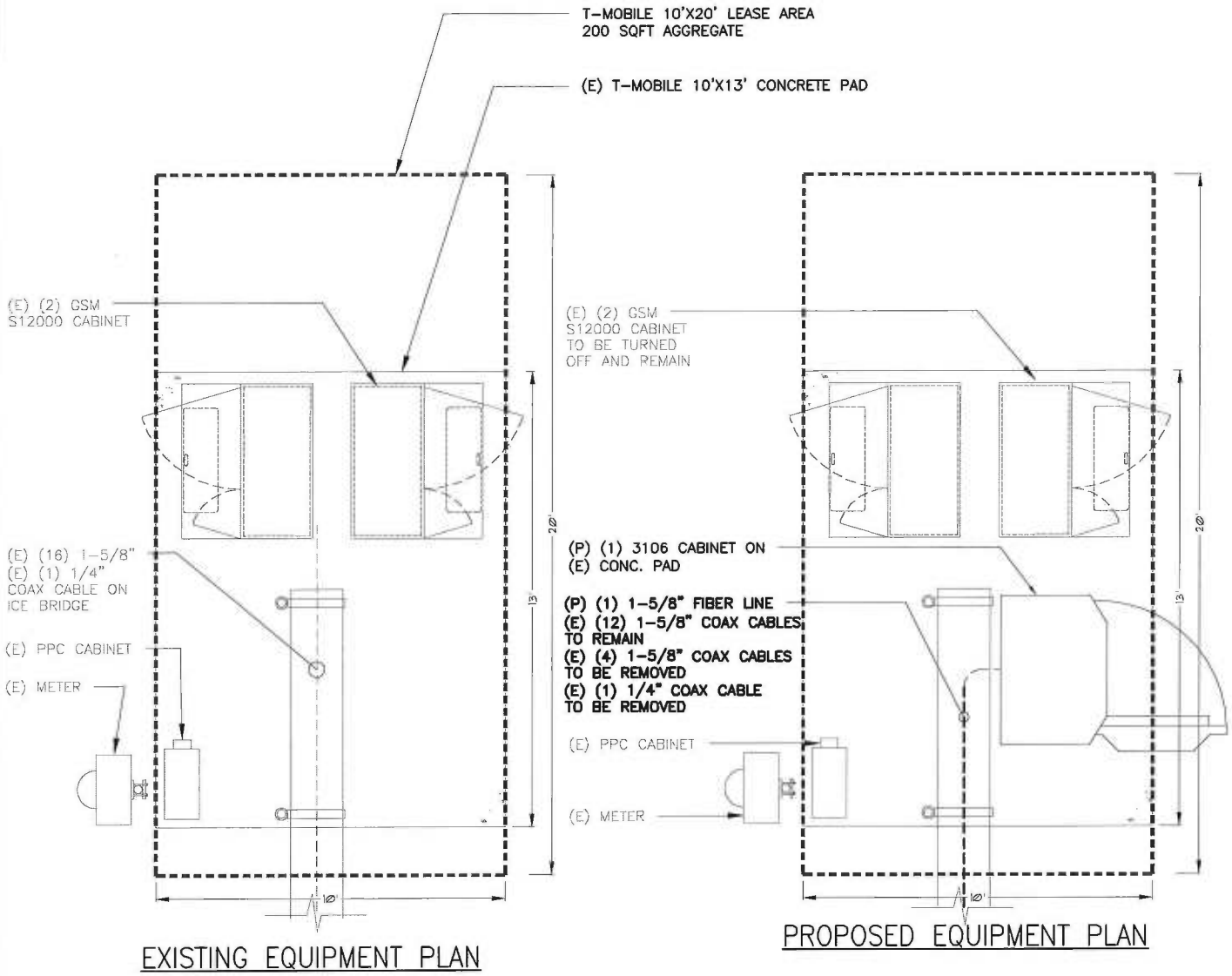

EXISTING EQUIPMENT PLAN

PROPOSED EQUIPMENT PLAN

CONFIGURATION

2C

SUBMITTALS	
LE REV A	02.18.14
LE REV 0	02.18.14
LE REV 1	03.28.14

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1340 Centre Street
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LEASE EXHIBIT

SITE NUMBER:
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BLOOMFIELD, CT 06002
OFFICE: (860) 692-7100
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DRAWN BY: EB | CHECKED BY: SM

EXHIBIT B

FDH Engineering, Inc., 6521 Meridien Drive Raleigh, NC 27616, Ph. 919.755.1012

Structural Analysis for SBA Network Services, Inc.

196' Self-Support Tower

SBA Site Name: Mountain Street – Twr #2
SBA Site ID: CT06462-A-02
T-Mobile Site ID: CT11505A

FDH Project Number 1424YD1400

Analysis Results

Tower Components	76.0%	Sufficient
Foundation	72.4%	Sufficient

Prepared By:

Jarel Duncan

Jarel Duncan, EI
Project Engineer

Reviewed By:

Bradley R. Newman, PE
Senior Project Engineer
CT PE License No. 29630

FDH Engineering, Inc.
6521 Meridien Drive
Raleigh, NC 27616
(919) 755-1012
info@fdh-inc.com

March 26, 2014

Prepared pursuant to TIA/EIA-222-F Structural Standards for Steel Antenna Towers and Antenna Supporting Structures and 2005 Connecticut State Building Code

TABLE OF CONTENTS

EXECUTIVE SUMMARY

At the request of SBA Network Services, Inc., FDH Engineering, Inc. performed a structural analysis of the existing self-supported tower located in Windham, CT to determine whether the tower is structurally adequate to support both the existing and proposed loads pursuant to the *Structural Standards for Steel Antenna Towers and Antenna Supporting Structures, TIA/EIA-222-F* and *2005 Connecticut State Building Code (CSBC)*. Information pertaining to the existing/proposed antenna loading, current tower geometry, the member sizes, and foundation dimensions was obtained from:

- Rohn Industries, Inc (Eng. File No. 49204TT) original design drawings dated September 27, 2001
- Rohn Industries, Inc (Eng. File No. 49204TT) Mat Foundation Detail dated August 31, 2001
- FDH Engineering, Inc. (Job No. 1301611800) TIA Inspection Report dated May 3, 2013
- SBA Network Services, Inc

The *basic design wind speed* per the *TIA/EIA-222-F* standards and *2005 CSBC* is 85 mph without ice and 38 mph with 1" radial ice. Ice is considered to increase in thickness with height.

Conclusions

With the existing and proposed antennas from T-Mobile in place at 175 ft, the tower meets the requirements of the *TIA/EIA-222-F* standards and *2005 CSBC* provided the **Recommendations** listed below are satisfied. Furthermore, provided the foundation was designed and constructed to support the original design reactions (see Rohn File No. 49204TT), the foundation should have the necessary capacity to support both the proposed and existing loading. For a more detailed description of the analysis of the tower, see the **Results** section of this report.

Our structural analysis has been performed assuming all information provided to FDH Engineering, Inc. is accurate (i.e., the steel data, tower layout, existing antenna loading, and proposed antenna loading) and that the tower has been properly erected and maintained per the original design drawings.

Recommendations

To ensure the requirements of the *TIA/EIA-222-F* standards and *2005 CSBC* are met with the existing and proposed loading in place, we have the following recommendations:

1. Coax lines must be installed as shown in **Figure 1**.
2. The proposed TMAs should be installed directly behind the proposed panel antennas.

APPURTENANCE LISTING

The proposed and existing antennas with their corresponding cables/coax lines are shown in **Table 1**. *If the actual layout determined in the field deviates from the layout, FDH Engineering, Inc. should be contacted to perform a revised analysis.*

Table 1 - Appurtenance Loading

Existing Loading:

Antenna Elevation (ft)	Description	Coax and Lines	Carrier	Mount Elevation (ft)	Mount Type
180	(3) Antel BXA-80080/4CF (3) Antel BXA-70063/6CF (3) Antel BXA-171085-8BF (3) Antel BXA-171063-8CF (3) Alcatel lucent RRH2X40-AWS RRHs (6) RFS FD9R6004/2C-3L Diplexers (1) RFS DB-T1-6Z-8AB-0Z Distribution Box	(12) 1-5/8" (1) 1-5/8" Fiber	Verizon	180	(3) 10' T-Frames
169	(7) Andrew ADFD1820-9090B-R2DM (3) RFS Twin PCS TMAs (3) RFS Twin AWS TMAs	(16) 1-5/8" (1) 1/4"	T-Mobile	168	(3) 10' T-Frames
162	(1) RFS PD1142-2B Omni	(1) 7/8"	Connecticut Light and Power Company	158	(1) 1.5' Standoff
157	(1) RFS 458-2N Omni	(1) 7/8"		152	(1) 4' Standoff
	(1) Telewave ANT450D6-9 Dipole	(1) 7/8"		151	(1) 4' Standoff
140	(1) RFS 220-7N Omni	(3) 7/8"		130	(3) 8' Standoffs
139	(1) RFS PD1142-2B Omni				
135	(1) Telewave ANT450D6-9 Dipole				

Proposed Loading:

Antenna Elevation (ft)	Description	Coax and Lines	Carrier	Mount Elevation (ft)	Mount Type
168	(3) Ericsson Air B2A B4P (3) Ericsson Air B4A B2P (3) Ericsson KRY112 144 TMAs	(12) 1-5/8" (1) 1-5/8" Fiber	T-Mobile	168	(3) 10' T-Frames

RESULTS

The following yield strength of steel for individual members was used for analysis:

Table 2 - Material Strength

Member Type	Yield Strength
Legs	50 ksi
Bracing	36 ksi

Table 3 displays the summary of the ratio (as a percentage) of force in the member to their capacities. Values greater than 100% indicate locations where the maximum force in the member exceeds its capacity. *Note: Capacities up to 100% are considered acceptable.* **Table 4** displays the maximum foundation reactions.

If the assumptions outlined in this report differ from actual field conditions, FDH Engineering, Inc. should be contacted to perform a revised analysis. Furthermore, as no information pertaining to the allowable twist and sway requirements for the existing or proposed appurtenances was provided, deflection and rotation were not taken into consideration when performing this analysis.

See the **Appendix** for detailed modeling information

Table 3 - Summary of Working Percentage of Structural Components

Section No.	Elevation ft	Component Type	Size	% Capacity*	Pass Fail
T1	198.475 - 190.35	Leg	ROHN 3 STD	1.4	Pass
		Diagonal	L1 3/4x1 3/4x3/16	3.2 4.5 (b)	Pass
		Top Girt	L1 3/4x1 3/4x3/16	1.3	Pass
T2	190.35 - 170.204	Leg	ROHN 3 STD	20.1	Pass
		Diagonal	L2x2x1/4	18.7 32.5 (b)	Pass
T3	170.204 - 162.038	Leg	ROHN 3 STD	37.9	Pass
		Diagonal	L2x2x1/4	28.4 48.6 (b)	Pass
T4	162.038 - 141.871	Leg	ROHN 3 EH	60.2	Pass
		Diagonal	L2x2x3/16	61.5 67.6 (b)	Pass
		Top Girt	L1 3/4x1 3/4x3/16	2.2	Pass
T5	141.871 - 121.683	Leg	ROHN 4 EH	61.5	Pass
		Diagonal	L2 1/2x2 1/2x1/4	47.0 58.9 (b)	Pass
T6	121.683 - 101.475	Leg	ROHN 5 EH	54.3	Pass
		Diagonal	L2 1/2x2 1/2x1/4	64.4	Pass
T7	101.475 - 81.2668	Leg	ROHN 6 EHS	58.9	Pass
		Diagonal	L3x3x1/4	53.3	Pass
T8	81.2668 - 60.996	Leg	ROHN 6 EH	62.1	Pass
		Diagonal	L3 1/2x3 1/2x1/4	54.5 55.9 (b)	Pass
T9	60.996 - 40.663	Leg	ROHN 8 EHS	57.2	Pass
		Diagonal	L3 1/2x3 1/2x1/4	72.3	Pass

Section No.	Elevation ft	Component Type	Size	% Capacity*	Pass Fail
T10	40.663 - 20.33	Leg	ROHN 8 EHS	65.0	Pass
		Diagonal	L4x4x1/4	61.0 67.7 (b)	Pass
T11	20.33 - 0	Leg	ROHN 8 EH	55.6	Pass
		Diagonal	L4x4x1/4	76.0	Pass

* Capacities include a 1/3 allowable stress increase for wind per *TIA/EIA-222-F* standards.

Table 4 - Maximum Base Reactions

Load Type	Direction	Current Analysis *(TIA/EIA-222-F)*	Original Design *(TIA/EIA-222-F)*
Individual Foundation	Horizontal	26 k	-
	Uplift	204 k	301 k
	Compression	241 k	345 k
Overturning Moment	---	4,549 k-ft	6,281 k-ft

GENERAL COMMENTS

This engineering analysis is based upon the theoretical capacity of the structure. It is not a condition assessment of the tower and its foundation. It is the responsibility of SBA Network Services, Inc. to verify that the tower modeled and analyzed is the correct structure (with accurate antenna loading information) modeled. If there are substantial modifications to be made or the assumptions made in this analysis are not accurate, FDH Engineering, Inc. should be notified immediately to perform a revised analysis.

LIMITATIONS

All opinions and conclusions are considered accurate to a reasonable degree of engineering certainty based upon the evidence available at the time of this report. All opinions and conclusions are subject to revision based upon receipt of new or additional/updated information. All services are provided exercising a level of care and diligence equivalent to the standard and care of our profession. No other warranty or guarantee, expressed or implied, is offered. Our services are confidential in nature and we will not release this report to any other party without the client's consent. The use of this engineering work is limited to the express purpose for which it was commissioned and it may not be reused, copied, or distributed for any other purpose without the written consent of FDH Engineering, Inc.

APPENDIX

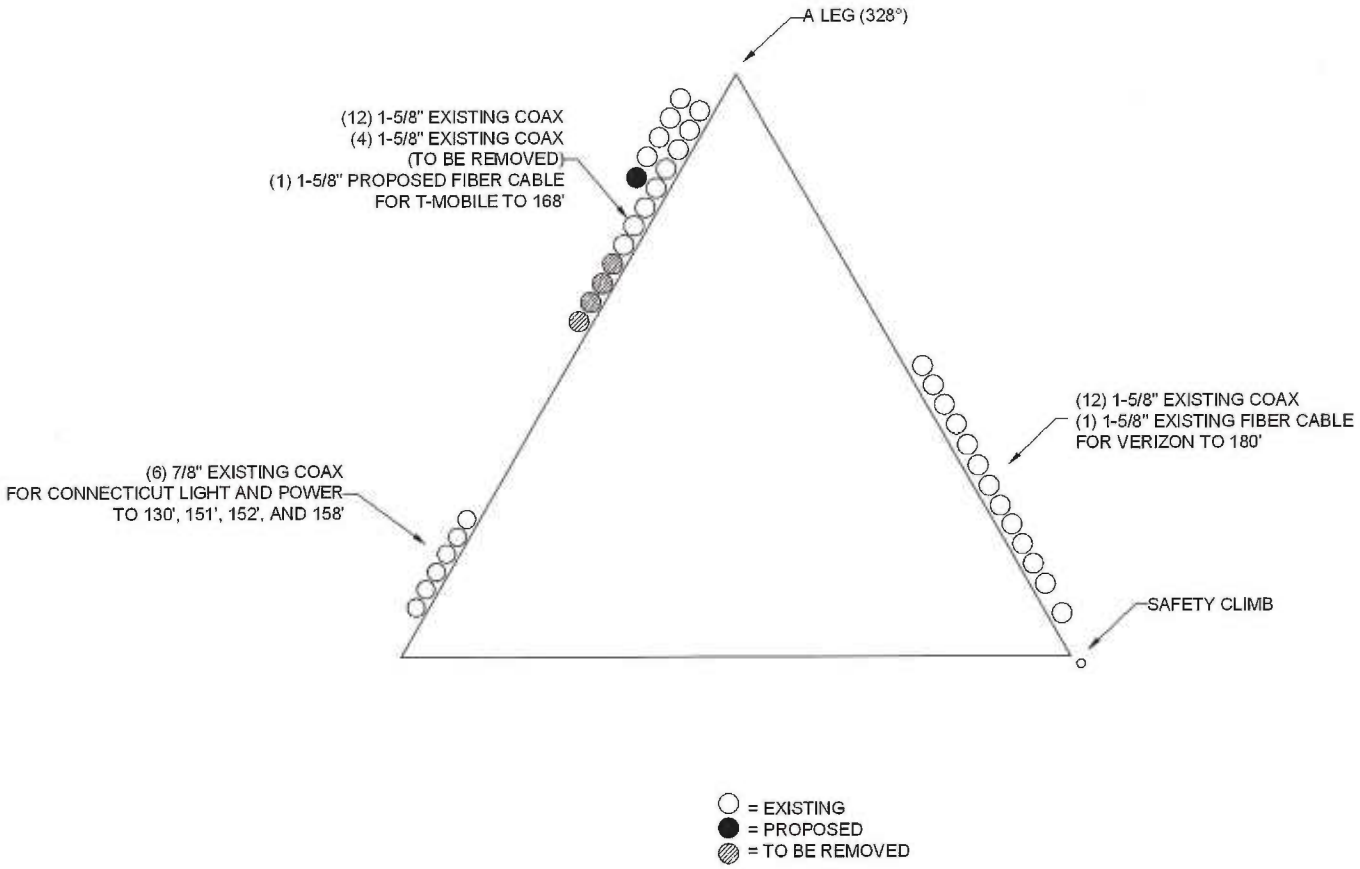
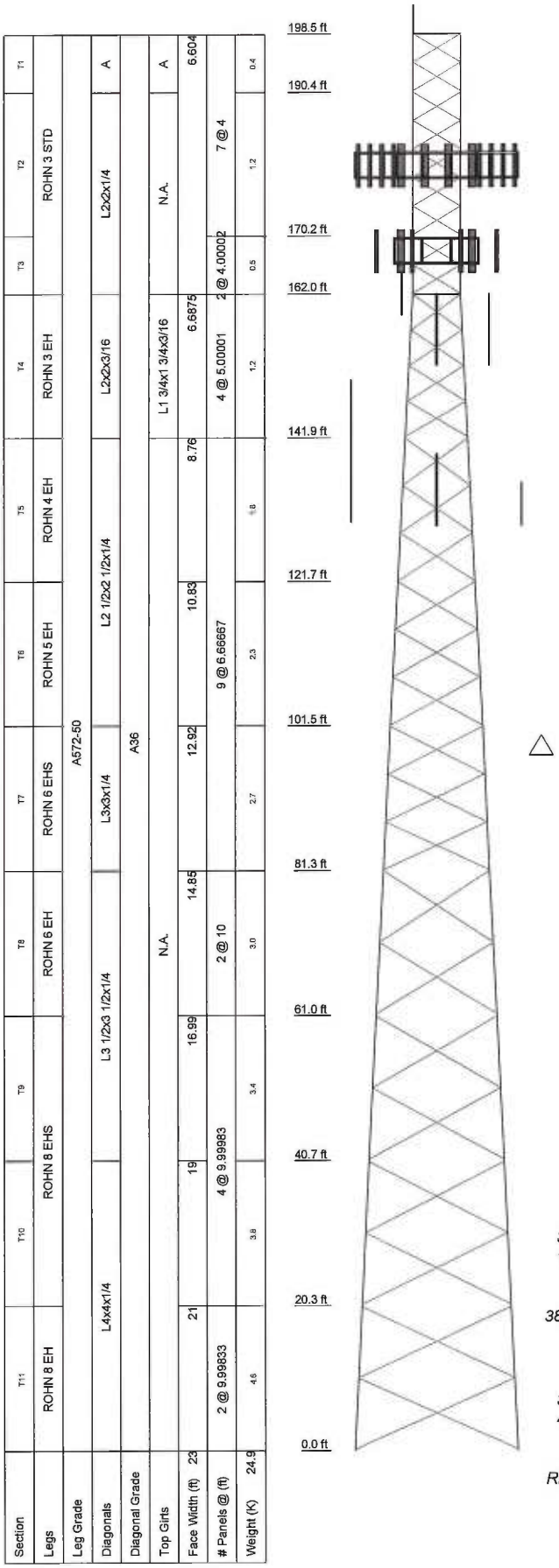


Figure 1 – Coax Layout



DESIGNED APPURTENANCE LOADING

TYPE	ELEVATION	TYPE	ELEVATION
Lightning Rod	198.475	AIR 21 B4A/B2P w/Mount Pipe	168
Antel BXA-70063/6CF w/ Mount Pipe	180	AIR 21 B4A/B2P w/Mount Pipe	168
Antel BXA-70063/6CF w/ Mount Pipe	180	AIR 21 B4A/B2P w/Mount Pipe	168
BXA-80080/4CF w/ Mount Pipe	180	KRY 112 144 TMA	168
BXA-80080/4CF w/ Mount Pipe	180	KRY 112 144 TMA	168
BXA-80080/4CF w/ Mount Pipe	180	KRY 112 144 TMA	168
(2) FD9R6004/2C-3L Diplexers	180	Empty Mount Pipe	168
(2) FD9R6004/2C-3L Diplexers	180	Empty Mount Pipe	168
(2) FD9R6004/2C-3L Diplexers	180	Empty Mount Pipe	168
Antel BXA-171085-8BF w/ Mount Pipe	180	(3) 10' T-Frames	168
Antel BXA-171085-8BF w/ Mount Pipe	180	AIR 21 B2A/B4P w/Mount Pipe	168
Antel BXA-171085-8BF w/ Mount Pipe	180	(1) 1.5' Standoff	158
Antel BXA-171063-8CF w/Mount Pipe	180	RFS PD1142-2B Omni	158
Antel BXA-171063-8CF w/Mount Pipe	180	458-2N Omni	152
Antel BXA-171063-8CF w/Mount Pipe	180	(1) 4' Standoff	152
RRH2X40-AWS	180	(1) 4' Standoff	151
RRH2X40-AWS	180	ANT450D6-9 Dipole	151
RRH2X40-AWS	180	RFS 220-7N Omni	130
DB-T1-6Z-8AB-0Z Distribution Box	180	RFS PD1142-2B Omni	130
(3) 10' T-Frames	180	ANT450D6-9 Dipole	130
Antel BXA-70063/6CF w/ Mount Pipe	180	(3) 8' Standoffs	130
AIR 21 B2A/B4P w/Mount Pipe	168	RFS PD1142-2B Omni	130
AIR 21 B2A/B4P w/Mount Pipe	168		

SYMBOL LIST

MARK	SIZE	MARK	SIZE
A	L1 3/4x1 3/4x3/16		

MATERIAL STRENGTH

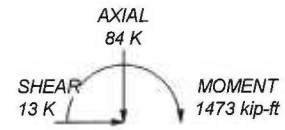
GRADE	Fy	Fu	GRADE	Fy	Fu
A572-50	50 ksi	65 ksi	A36	36 ksi	58 ksi

TOWER DESIGN NOTES

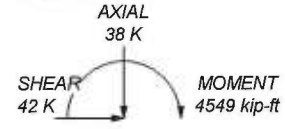
1. Tower is located in Windham County, Connecticut.
2. Tower designed for a 85 mph basic wind in accordance with the TIA/EIA-222-F Standard.
3. Tower is also designed for a 38 mph basic wind with 1.00 in ice. Ice is considered to increase in thickness with height.
4. Deflections are based upon a 50 mph wind.
5. TOWER RATING: 76%

MAX. CORNER REACTIONS AT BASE:
DOWN: 241 K
SHEAR: 26 K

UPLIFT: -204 K
SHEAR: 23 K



TORQUE 5 kip-ft
38 mph WIND - 1.0000 in ICE



TORQUE 21 kip-ft
REACTIONS - 85 mph WIND

FDH Engineering, Inc.
6521 Meridien Drive
Raleigh, NC 27616
Phone: (919) 755-1012
FAX: (919) 755-1031
Tower Analysis

Job: Mountain Street, CT06462-A-02			
Project: 1424YD1400			
Client: SBA Network Services, Inc.	Drawn by: Jarel Duncan	App'd:	
Code: TIA/EIA-222-F	Date: 03/26/14	Scale: NTS	
Path:		Dwg No. E-1	

EXHIBIT C

EBI Consulting
environmental | engineering | due diligence

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

T-Mobile Existing Facility

Site ID: CT11505A
Willimantic-Verizon

349R Mountain Street
Willimantic CT 06226

April 3, 2014

EBI Project Number:62142243

21 B Street Burlington, MA 01803 Tel: (781) 273.2500 Fax: (781) 273.3311

EBI Consulting
environmental | engineering | due diligence

April 3, 2014

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

Re: Emissions Values for Site: **CT11505A – Willimantic-Verizon**

EBI Consulting was directed to analyze the proposed T-Mobile facility located at 349R Mountain Street, Willimantic 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 97-01and ANSI/IEEE Std C95.1. The FCC regulates Maximum Permissible Exposure in units of microwatts per square centimeter (μW/cm2). The number of μW/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 public 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 public 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 (μW/cm2). The general population exposure limit for the cellular band is 567 μW/cm2, and the general population exposure limit for the PCS and AWS bands is 1000 μW/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 349R Mountain Street, Willimantic 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 antennas, which project most of the emitted energy out toward the horizon, the actual antenna pattern gain value in the direction of the sample area was used. For this report the sample point is a 6 foot person standing at the base of the tower.

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

1) 2 GSM / UMTS channels (1935.000 MHz to 1945.000 MHz / 1983.000 MHz to 1984.000 MHz) were considered for each sector of the proposed installation.
2) 4 UMTS / LTE channels (2110.000 to 2120.000 MHz / 2140.000 MHz to 2145.000 MHz) were considered for each sector of the proposed installation.
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 six foot person standing at the base of the tower. The actual gain in this direction was used per the manufactures supplied specifications.
5) The antenna used in this modeling is the Ericsson AIR21 for LTE, UMTS and GSM. This is based on feedback from the carrier with regards to anticipated antenna selection. This antenna has a 15.6 dBd gain value at its main lobe. Actual antenna gain values were used for all calculations as per the manufacturers specifications.

6) The antenna mounting height centerline of the proposed antennas is **168 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.

All calculation were done with respect to uncontrolled / general public threshold limits.

Site ID	CT11505A - Willimantic-Verizon
Site Addresss	349R Mountain Street, Willimantic CT 06226
Site Type	Self Support Tower

Sector 1

Antenna Number	Antenna Make	Antenna Model	Status	Frequency Band	Technology	Power Out Per Channel (Watts)	Number of Channels	Composite Power	Antenna Gain in direction of sample point (dBd)	Antenna Height (ft)	analysis height	Cable Size	Cable Loss (dB)	Additional Loss	ERP	Power Density Value	Power Density Percentage
1a	Ericsson	AIR21 B4A/B2P	Active	AWS - 2100 MHz	LTE	60	2	120	-3.95	168	162	None	0	0	48.326044	0.661999	0.06620%
1b	Ericsson	AIR21 B4A/B2P	Not Used	-	-			0	-3.95	168	162	None	0	0	0	0	0.00000%
2a	Ericsson	AIR21 B2A / B4P	Active	PCS - 1950 MHz	GSM / UMTS	30	2	60	-3.95	168	162	None	0	0	24.163022	0.330999	0.03310%
1b	Ericsson	AIR21 B4A/B2P	Passive	AWS - 2100 MHz	UMTS	40	2	80	-3.95	168	162	None	0	0	32.217363	0.441333	0.04413%
														Sector total Power Density Value:		0.143%	

Sector 2

Antenna Number	Antenna Make	Antenna Model	Status	Frequency Band	Technology	Power Out Per Channel (Watts)	Number of Channels	Composite Power	Antenna Gain in direction of sample point (dBd)	Antenna Height (ft)	analysis height	Cable Size	Cable Loss (dB)	Additional Loss	ERP	Power Density Value	Power Density Percentage
1a	Ericsson	AIR21 B4A/B2P	Active	AWS - 2100 MHz	LTE	60	2	120	-3.95	168	162	None	0	0	48.326044	0.661999	0.06620%
1b	Ericsson	AIR21 B4A/B2P	Not Used	-	-			0	-3.95	168	162	None	0	0	0	0	0.00000%
2a	Ericsson	AIR21 B2A / B4P	Active	PCS - 1950 MHz	GSM / UMTS	30	2	60	-3.95	168	162	None	0	0	24.163022	0.330999	0.03310%
1b	Ericsson	AIR21 B4A/B2P	Passive	AWS - 2100 MHz	UMTS	40	2	80	-3.95	168	162	None	0	0	32.217363	0.441333	0.04413%
														Sector total Power Density Value:		0.143%	

Sector 3

Antenna Number	Antenna Make	Antenna Model	Status	Frequency Band	Technology	Power Out Per Channel (Watts)	Number of Channels	Composite Power	Antenna Gain in direction of sample point (dBd)	Antenna Height (ft)	analysis height	Cable Size	Cable Loss (dB)	Additional Loss	ERP	Power Density Value	Power Density Percentage
1a	Ericsson	AIR21 B4A/B2P	Active	AWS - 2100 MHz	LTE	60	2	120	-3.95	168	162	None	0	0	48.326044	0.661999	0.06620%
1b	Ericsson	AIR21 B4A/B2P	Not Used	-	-			0	-3.95	168	162	None	0	0	0	0	0.00000%
2a	Ericsson	AIR21 B2A / B4P	Active	PCS - 1950 MHz	GSM / UMTS	30	2	60	-3.95	168	162	None	0	0	24.163022	0.330999	0.03310%
1b	Ericsson	AIR21 B4A/B2P	Passive	AWS - 2100 MHz	UMTS	40	2	80	-3.95	168	162	None	0	0	32.217363	0.441333	0.04413%
														Sector total Power Density Value:		0.143%	

Site Composite MPE %	
Carrier	MPE %
T-Mobile	0.430%
Verizon Wireless	9.390%
CL&P	16.350%
Total Site MPE %	**26.170%**

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Summary

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

The anticipated Maximum Composite contributions from the T-Mobile facility are **0.143% (0.430% from each sector)** of the allowable FCC established general public limit considering all three sectors simultaneously sampled at the ground level.

The anticipated composite MPE value for this site assuming all carriers present is **26.170%** of the allowable FCC established general public 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.

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