April 15, 2016

VIA EMAIL AND OVERNIGHT DELIVERY

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

RE: T-Mobile Northeast LLC – CTHA068A
Tower Share Application
Day Hill Road, Bloomfield, CT
LAT: 41.876508 N
LNG: -72.741840 W

Dear Ms. Bachman:

This letter and attachments are submitted on behalf of T-Mobile Northeast LLC ("T-Mobile"). T-Mobile plans to install antennas and related equipment at the American Towers LLC tower site located at Day Hill Road in Bloomfield, CT.

T-Mobile will install nine (9) 700/1900/2100 MHz antennas and three (3) RRH's at the 100' level of the existing 109' monopole. Three (3) hybrid cables will also be installed inside the monopole. T-Mobile's equipment cabinets will be placed on a 10' x 20' concrete pad within the existing fenced equipment compound. Included are plans prepared by Tectonic Engineering dated March 29, 2016, depicting the planned changes and attached as **Exhibit A**. Also included is a structural analysis prepared by A.T. Engineering Service, PLLC dated January 19, 2016 confirming that the existing tower is structurally capable of supporting T-Mobile's equipment and attached as **Exhibit B**.

Please accept this letter as notification pursuant to Regulations of Connecticut State Agencies 16-50aa, of T-Mobile's intent to share a telecommunications facility pursuant to R.C.S.A. 16-50j-88. In accordance with R.C.S.A., a copy of this letter is being sent to Philip Schenck, Jr., Town Manager, as well as the property owner, River Bend Development CT, LLC and the tower owner, American Towers LLC. Please see the letter from American Tower authorizing the proposed shared use of the facility attached as **Exhibit C.**

The planned modifications to the facility fall squarely within those activities explicitly provided for in R.C.S.A. 16-50j-89.

1. The proposed modifications will not result in an increase in the height of the existing structure. The top of the monopole is approximately 109' AGL; T-Mobile's proposed antennas will be located at a center line height of 100' AGL.

2. The proposed modifications will not require the extension of the site boundary as depicted on the attached site plan. T-Mobile's equipment will be located entirely within the existing compound area.

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. The incremental effect of the proposed changes will be negligible.

4. The operation of the proposed antennas will not increase radio frequency emissions at the facility to a level at or above the Federal Communications Commission safety standard. As indicated in the attached power density calculations, T-Mobile's operations at the site will result in a power density of 2.66%; the combined site operations will result in a total power density of 9.66% as evidenced by the power density calculations attached as **Exhibit D**.

5. The proposed equipment will not cause a change or alteration in the physical or environmental characteristics of the site. Please see the Programmatic Agreement Letter from American Tower dated December 29, 2015 attached as **Exhibit E**.

Respectfully submitted,

By: _____
Eric Dahl, Agent for T-Mobile
edahl@comcast.net
860-227-1975

Attachments

cc: Philip Schenck, Jr., Town Manager, Town of Bloomfield
River Bend Development CT, LLC - as property owner
American Towers LLC – as tower owner

EXHIBIT A

T-Mobile

NORTHEAST, LLC.

SITE I.D. NUMBER:
CTHA068A

SITE NAME:
NORTH TUNXIS AVE

SITE ADDRESS:
2653 DAY HILL ROAD
BLOOMFIELD, CT 06002

CODE COMPLIANCE

CODE INFORMATION:

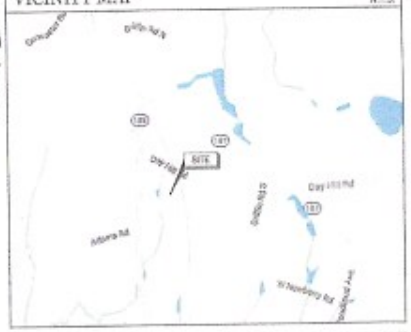
- STATE OF CONNECTICUT BUILDING CODE, LATEST EDITION
- TIA/EIA-222-F
- NATIONAL ELECTRICAL CODE, LATEST EDITION

PROJECT INDEX

SITE NUMBER:	CTHA068A
SITE NAME:	NORTH TUNXIS AVE
SITE ADDRESS:	2653 DAY HILL ROAD BLOOMFIELD, CT 06002
COUNTY:	HARTFORD
PROPERTY OWNER:	AMERICAN TOWER
APPLICANT:	T-MOBILE NORTHEAST LLC. 35 GRIFFIN ROAD SOUTH BLOOMFIELD, CT 06002
STRUCTURE TYPE:	MONOPOLE
LATITUDE: (NAD 83)	41.876508° N
LONGITUDE: (NAD 83)	-72.741842° N
GRADE ELEVATION:	177'± AMSL
PROJECT CLIENT: CONTACT: PHONE:	VERTICAL DEVELOPMENT LLC. MATT GARGILE (508) 842-5801
ENGINEER:	TECTONIC ENGINEERING CONSULTANTS P.C. 1279 ROUTE 300 NEWBURGH, NY 12550
CONTACT: PHONE:	JAMES QUICKSELL (845) 567-4656 EXT. 2835
MUNICIPALITY:	TOWN OF BLOOMFIELD
ZONING DISTRICT:	R-40
PARCEL ID:	453/52

VICINITY MAP

N.T.S.



SITE DIRECTIONS

HEAD NORTHEAST ON GRIFFIN RD S TOWARD W NEWBERRY RD. TURN LEFT ONTO DAY HILL RD. TURN LEFT ONTO SITE ACCESS ROAD RIGHT AFTER THE TRAIN TRACK. DESTINATION WILL BE ON THE END OF THE ROAD.

SHEET INDEX

SHEET NO.	DESCRIPTION	REVISION NO.	REVISION DATE
T-1	TITLE SHEET	1	03/29/16
C-1	SITE PLAN	1	03/29/16
C-2	SITE DETAIL PLAN & ELEVATION	1	03/29/16
C-3	ANTENNA PLAN, DETAILS & ANTENNA SCHEDULE	1	03/29/16
C-4	HYBRID TRUNK SPECIFICATIONS	1	03/29/16
C-5	EQUIPMENT LAYOUT PLAN & SECTIONS	1	03/29/16
C-6	ELEVATIONS & DETAILS	1	03/29/16
C-7	EQUIPMENT DETAILS & SPECIFICATIONS	1	03/29/16
C-8	NOTES	1	03/29/16
C-9	NOTES	1	03/29/16
E-1	UTILITIES PLAN, DETAILS & NOTES	1	03/29/16
G-1	GROUNDING DIAGRAM, DETAILS & NOTES	1	03/29/16
G-2	EQUIPMENT GROUNDING PLAN & NOTES	1	03/29/16
G-3	GROUNDING DETAILS	1	03/29/16

DO NOT SCALE DRAWINGS

THESE DRAWINGS ARE FORMATTED FOR 24"X36". OTHER SIZED VERSIONS ARE NOT PRINTED TO THE SCALE SHOWN. CONTRACTOR SHALL VERIFY ALL PLANS & EXISTING DIMENSIONS & CONDITIONS ON THE JOB SITE & SHALL IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.

CONFIGURATION
702CU
REFER TO LATEST T-MOBILE RF DATA SHEET FOR FINAL RF DESIGN & BOM.

TECTONIC
Practical Solutions, Exceptional Service
Tectonic Engineering & Surveying Consultants P.C.
1279 Route 300 Phone: (845) 567-4656
Newburgh, NY 12550 (860) 233-4621
www.tectonicengineering.com

T-Mobile
NORTHEAST, LLC.
35 GRIFFIN ROAD SOUTH
BLOOMFIELD, CT 06002

VERTICAL
DEVELOPMENT, LLC
25 Commerce Dr. Branford, CT 06405

APPROVALS

LANDLORD _____
RF _____
CONSTRUCTION _____
OPERATIONS _____
SITE ACQ _____

PROJECT NUMBER	DESIGNED BY
6648.CTHA068A	JG

REV.	DATE	DESCRIPTION	DRAWN BY
1	03/29/16	FOR CLIENT REVIEW	SF
2	03/29/16	FOR CONSTRUCTION	SF

DRAWN BY: JMKS DATE: 3/29/16

ORIGINAL SIZE IS 24"X36"

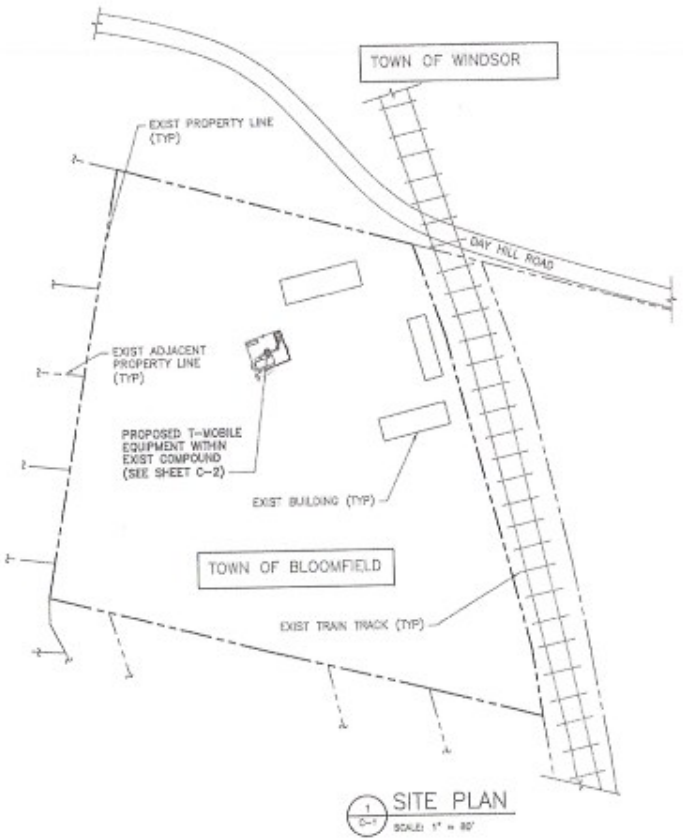
SITE INFORMATION
CTHA068A
NORTH TUNXIS AVE
2653 DAY HILL ROAD
BLOOMFIELD, CT 06002

SHEET TITLE
TITLE SHEET

SHEET NUMBER
T-1

NORTH NOTE: NORTH SHOWN HAS BEEN ESTABLISHED USING THE USGS QUADRANGLE 7.5 MINUTE MAPS AND IS APPROXIMATE. VERIFY TRUE NORTH PRIOR TO INSTALLATION OF ANTENNAS.

N



1 C-1 SITE PLAN
SCALE: 1" = 80'

LEGEND

- EXIST PROPERTY LINE
- ADJACENT PROPERTY LINE
- EXIST ROAD
- TRAIN TRACK
- EXIST BUILDING

GENERAL NOTES

1. THIS SITE PLAN IS BASED ON A SITE VISIT PERFORMED BY TECTONIC ENGINEERING AND SURVEYING CONSULTANTS, P.C. ON 02/23/16. PROPERTY LINES SHOWN BASED ON TOWN OF BLOOMFIELD TAX MAPS.
2. TRUE NORTH DETERMINED AS REFERENCED IN NOTE #1 (APPROXIMATE).
3. DESIGN AND CONSTRUCTION OF ANTENNA SUPPORTS SHALL CONFORM TO TIA/EIA-222-F "STRUCTURAL STANDARDS FOR STEEL ANTENNA TOWERS & ANTENNA SUPPORTING STRUCTURES". DESIGN WIND SPEED = 70 MPH, (81 MPH IN CONJUNCTION WITH .50 INCHES RADIAL ICE)
4. THE PROPOSED FACILITY IS MINIMAL, AND WILL CREATE NO ADDITIONAL STORM WATER RUNOFF AND WILL THEREFORE NOT IMPACT THE EXISTING STORM WATER DRAINAGE SYSTEM.
5. THE PROPOSED FACILITY IS UNMANNED, AND THEREFORE DOES NOT REQUIRE A MEANS OF WATER SUPPLY OR SEWAGE DISPOSAL.
6. THE FACILITY INCLUDES SIGNS IN ACCORDANCE WITH FCC RULES ON RADIO FREQUENCY EMISSIONS 47 CFR 1.1307(B) AND EMERGENCY CONTACTS, AS PER DETAIL 6/C-6.
7. CARE SHOULD BE TAKEN DURING ALL CONSTRUCTION ACTIVITES TO AVOID DAMAGING EXIST OVERHEAD, UNDERGROUND UTILITIES AND GROUND WIRES.

CONFIGURATION
702CU
REFER TO LATEST T-MOBILE RF DATA SHEET FOR FINAL RF DESIGN & BOM.

TECTONIC
Practical Solutions, Exceptional Service
Tectonic Engineering & Surveying Consultants P.C.
1478 Route 300
Newburgh, NY 12550
Phone: (845) 567-3100
Fax: (845) 567-3232
www.tectonicengineering.com

T-Mobile
NORTHEAST, LLC.
35 GRIFFIN ROAD SOUTH
BLOOMFIELD, CT 06002

VERTICAL
Vertical Development Group, LLC

APPROVALS

LANDLORD	
RF	
CONSTRUCTION	
OPERATIONS	
SITE ACQ.	

PROJECT NUMBER	DESIGNED BY
5648.CTHA08A	JG

REV.	DATE	DESCRIPTION	DRAWN BY
2	05/26/16	FOR CONSENT	MP
1	05/26/16	FOR CONSTRUCTION	MP

ISSUED BY: JMC2 DATE: 5/26/16

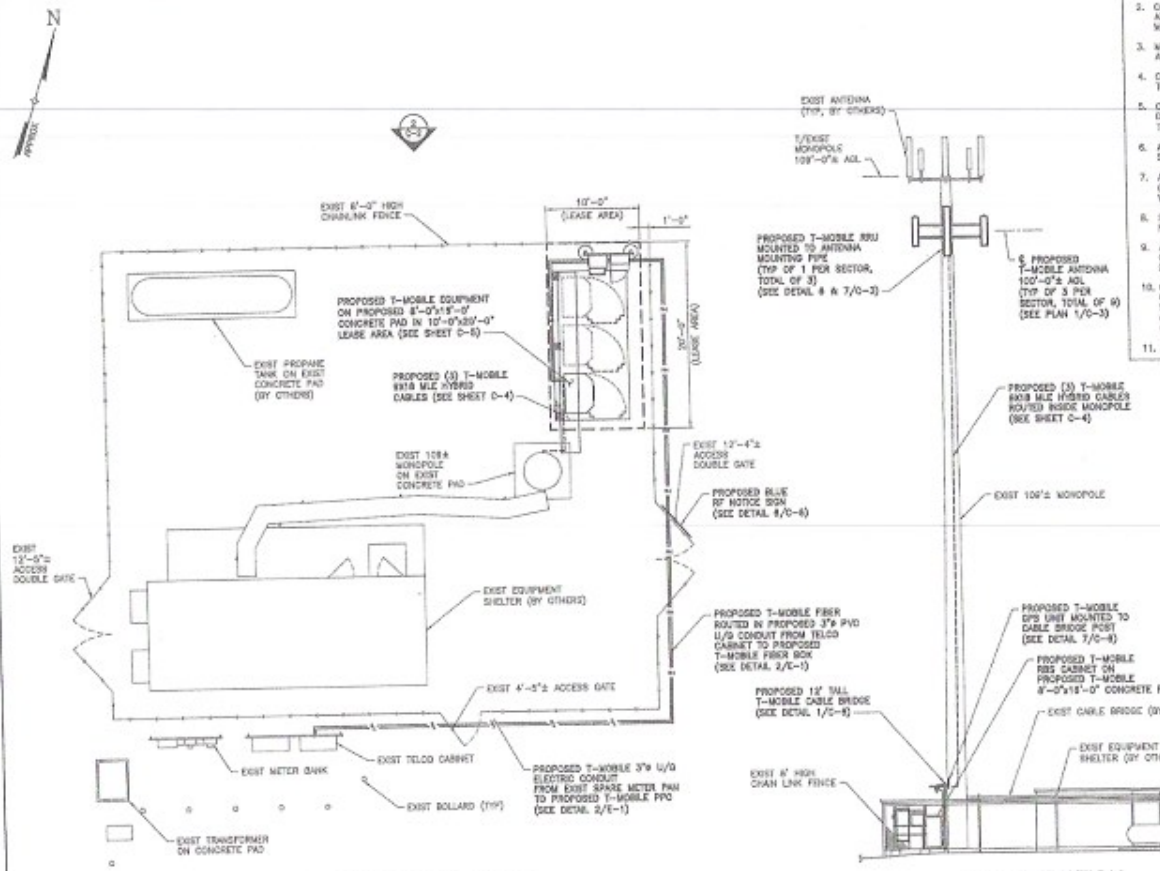
ORIGINAL SIZE IN INCHES

SITE INFORMATION
CTHA08A
NORTH TUNXIS AVE
2653 DAY HILL ROAD
BLOOMFIELD, CT 06002

SHEET TITLE
SITE PLAN

SHEET NUMBER
C-1

NORTH NOTE: NORTH SHOWN HAS BEEN ESTABLISHED USING THE USGS QUADRANGLE 7.5 MINUTE MAPS AND IS APPROXIMATE. VERIFY TRUE NORTH PRIOR TO INSTALLATION OF ANTENNAS.



1/C-2 SITE DETAIL PLAN
SCALE: 3/16" = 1'-0"

2/C-2 ELEVATION
SCALE: 1/8" = 1'-0"

ANTENNA NOTES

1. ANTENNAS SHALL BE OF TYPE AND QUANTITY AS SHOWN ON SHEET C-3.
2. CONTRACTOR SHALL VERIFY LATEST ANTENNA MODEL, DOWNTILT AND AZIMUTH FOR EACH ANTENNA WITH RF ENGINEER OR CONSTRUCTION MANAGER.
3. MINIMUM BEND RADIUS OF ANTENNA CABLES SHALL BE IN ACCORDANCE WITH CABLE MANUFACTURERS RECOMMENDATIONS.
4. CONTRACTOR TO VERIFY ALL REQUIRED LENGTHS OF MATERIAL PRIOR TO ORDERING MATERIALS.
5. CONTRACTOR TO TAG COAX CABLE AT BOTH ENDS WITH ANTENNA DESIGNATION AS REQUIRED PER T-MOBILE COMMUNICATIONS TOWER/ANTENNA CABLE MARKING STANDARD.
6. ALL ANTENNA MOUNTS SHALL BE INSTALLED WITH DOUBLE NUTS AND SHALL BE INSTALLED SNUG TIGHT.
7. ANTENNA CENTERLINE HEIGHT IS IN REFERENCE TO FEET ABOVE GROUND LEVEL. T-MOBILE "TAPE DROP FORM" WILL BE TURNED IN WITH SWEEPS.
8. SUBCONTRACTOR SHALL VERIFY THE ACTUAL COAX LENGTHS IN THE FIELD BEFORE INSTALLATION.
9. ALL ANTENNAS TO BE FURNISHED WITH DOWN TILT BRACKETS. CONTRACTOR TO COORDINATE REQUIRED MECHANICAL AND ELECTRICAL DOWN TILT FOR EACH ANTENNA WITH RF ENGINEER.
10. CONTRACTOR SHALL VERIFY THE MECHANICAL DOWN TILT AND PLUMB OF EACH ANTENNA WITH A PHOTO OF A DIGITAL LEVEL BACK AND SIDE VIEW. RET SCREEN SHOTS, JUNCTION BOX, RRU, ANTENNA CONNECTIONS PHOTOS WILL BE TURNED IN WITH 20/30 SWEEP CHECKLIST AND AUDIT FORM.
11. FIBER TESTING PER T-MOBILE SPECIFICATIONS.

ELEVATION NOTE:

ELEVATION OF EXIST MONOPOLE HAS BEEN ARBITRARILY ASSIGNED AT 109'-0"± ABOVE AVERAGE GRADE WHICH WAS ESTIMATED AS EL. 177'-0"± TAKEN FROM U.S.G.S. QUAD MAP, AND DOES NOT NECESSARILY CORRESPOND TO ACTUAL ELEVATION ABOVE SEA LEVEL. ALL OTHER ELEVATIONS INDICATED WERE DETERMINED ON THIS BASIS.

STRUCTURAL NOTE:
REFER TO THE PASSING STRUCTURAL ANALYSIS BY AMERICAN TOWER DATED JANUARY 19, 2016.

CONFIGURATION
702CU
REFER TO LATEST T-MOBILE RF DATA SHEET FOR FINAL RF DESIGN & BOM.

TECTONIC
Practical Solutions, Exceptional Service
Tectonic Engineering & Surveying Consultants P.C.
1279 Route 300, Newburgh, NY 12550 Phone: (845) 567-3100 Fax: (845) 567-3232
www.tectonicengineering.com

T-Mobile NORTHEAST, LLC.
35 GRIFFEN ROAD SOUTH
BLOOMFIELD, CT 06002

VERTICAL Development
55 Commerce Rd Stamford, CT 06902

APPROVALS
LANDLORD
RF
CONSTRUCTION
OPERATIONS
SITE ACQ

PROJECT NUMBER: 0648.ECTHA06BA
DRAWN BY: JG

REV.	DATE	DESCRIPTION	DRAWN BY
1	03/09/16	TCS COMMENT	MP
2	03/24/16	TCS CONSTRUCTION	MP

ISSUED BY: JMQ
DATE: 3/24/16

ORIGINAL SIZE IN INCHES

SITE INFORMATION
CTHA06BA
NORTH TUNXIS AVE
2653 DAY HILL ROAD
BLOOMFIELD, CT 06002

SHEET TITLE
SITE DETAIL PLAN & ELEVATION

SHEET NUMBER
C-2

STATE OF CONNECTION — TECHNICAL SERVICES — LICENSED PROFESSIONAL ENGINEER

NORTH NOTE: NORTH SHOWN HAS BEEN ESTABLISHED USING THE USGS QUADRANGLE 7.5 MINUTE MAPS AND IS APPROXIMATE. VERIFY TRUE NORTH PRIOR TO INSTALLATION OF ANTENNAS.

N

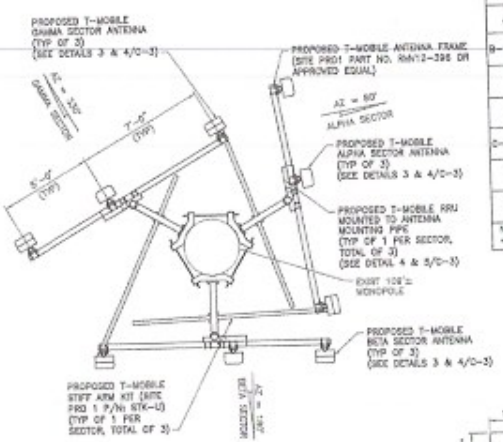
SCALE: 1" = 40'

ANTENNA AND COAXIAL CABLE SCHEDULE

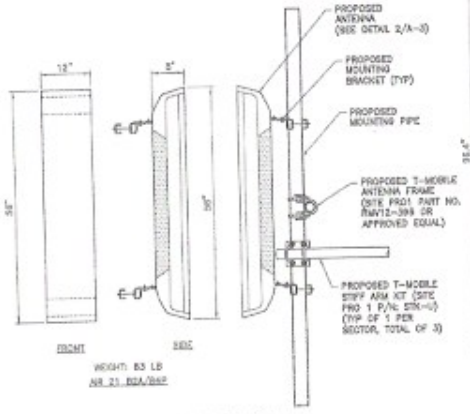
SECTOR MARK	ANTENNA MODEL	AZIMUTH	ELEC. DOWNTILT	MECH. DOWNTILT	ANTENNA CENTER-RC	SECTOR	TMA/RRU	CABLE	JUMPER TYPE	CABLE LENGTH
A-1 GSM/UMTS	ERICSSON AIR 21, 1.3M, B2A B4P	80°	2°	0°	100'-0"	LEFT ALPHA	0/0	NEW HYBRID FIBER TRUNK	DC/FIBER	215'-0"
									DC/FIBER	215'-0"
A-2 LTE	COMMSCOPE LNX-6515DS-VTM	80°	2°	0°	100'-0"	CENTER ALPHA	0/0	NEW HYBRID FIBER TRUNK	1/2" COAX	215'-0"
									1/2" COAX	215'-0"
A-3 LTE	ERICSSON AIR 21, 1.3M, B4A B2P	80°	2°	0°	100'-0"	RIGHT ALPHA	0/1	NEW HYBRID FIBER TRUNK	DC/FIBER	215'-0"
									DC/FIBER	215'-0"
B-1 GSM/UMTS	ERICSSON AIR 21, 1.3M, B2A B4P	180°	2°	0°	100'-0"	LEFT BETA	0/0	NEW HYBRID FIBER TRUNK	DC/FIBER	215'-0"
									DC/FIBER	215'-0"
B-2 LTE	COMMSCOPE LNX-6515DS-VTM	180°	2°	0°	100'-0"	CENTER BETA	0/0	NEW HYBRID FIBER TRUNK	1/2" COAX	215'-0"
									1/2" COAX	215'-0"
B-3 LTE	ERICSSON AIR 21, 1.3M, B4A B2P	180°	2°	0°	100'-0"	RIGHT BETA	0/1	NEW HYBRID FIBER TRUNK	DC/FIBER	215'-0"
									DC/FIBER	215'-0"
C-1 GSM/UMTS	ERICSSON AIR 21, 1.3M, B2A B4P	330°	2°	0°	100'-0"	LEFT GAMMA	0/0	NEW HYBRID FIBER TRUNK	DC/FIBER	215'-0"
									DC/FIBER	215'-0"
C-2 LTE	COMMSCOPE LNX-6515DS-VTM	330°	2°	0°	100'-0"	CENTER GAMMA	0/0	NEW HYBRID FIBER TRUNK	1/2" COAX	215'-0"
									1/2" COAX	215'-0"
C-3 LTE	ERICSSON AIR 21, 1.3M, B4A B2P	330°	2°	0°	100'-0"	RIGHT GAMMA	0/1	NEW HYBRID FIBER TRUNK	DC/FIBER	215'-0"
									DC/FIBER	215'-0"

NOTES:
- INFORMATION BASED ON RFDS REVISION 1, DATED 11/13/2015. CHECK WITH RF ENGINEER FOR LATEST RFDS.

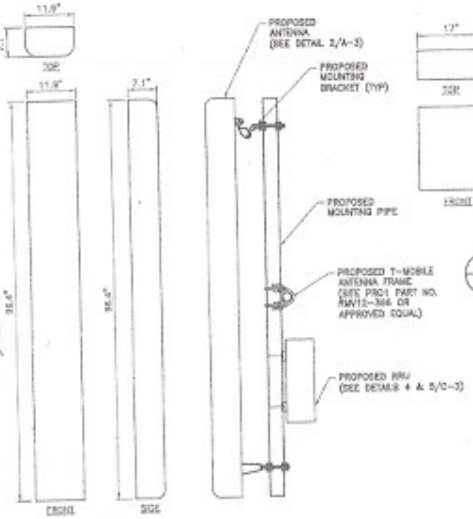
STRUCTURAL NOTE:
REFER TO THE PASSING STRUCTURAL ANALYSIS BY AMERICAN TOWER DATED JANUARY 19, 2016.



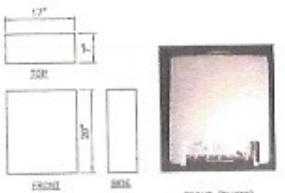
1 C-3 ANTENNA PLAN
SCALE: 3/8" = 1'-0"



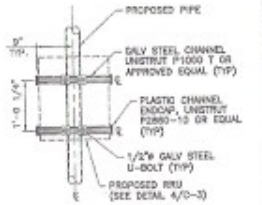
2 C-3 ANTENNA DETAIL
SCALE: 1" = 1'-0"



3 C-3 ANTENNA DETAIL
SCALE: 1" = 1'-0"



4 C-3 RRU DETAIL
SCALE: 1" = 1'-0"



NOTE: MOUNTING OF RRU TO UNISTRUT CHANNEL SHALL BE PER MANUFACTURER SPECIFICATION. SEPARATION OF CHANNELS SHALL BE PER MANUFACTURER'S MOST CURRENT SPECIFICATION/INSTRUCTIONS.

5 C-3 RRU MOUNTING DETAIL
SCALE: 1" = 1'-0"

CONFIGURATION
702CU
REFER TO LATEST T-MOBILE RF DATA SHEET FOR FINAL RF DESIGN & BOM.

STATE OF CONNECTICUT — No. 22339 — LICENSED PROFESSIONAL ENGINEER

TECTONIC
Practical Solutions, Exceptional Service
Wireless Engineering & Surveying Consultants P.C.
1279 Route 300 Phone: (845) 567-4620
Newburgh, NY 12550 Fax: (845) 895-4633
www.tectonicengineering.com

T-Mobile
NORTHEAST, LLC.
35 GRIFFIN ROAD SOUTH
BLOOMFIELD, CT 06002

VERTICAL APPLICATIONS
35 Commerce Rd Brentwood, CT 06470

APPROVALS
LANDLORD
RF
CONSTRUCTION
OPERATIONS
SITE ACQ.

PROJECT NUMBER	DESIGNED BY
5048.CTHA066A	JG

REV.	DATE	DESCRIPTION	DRAWN BY
1	03/06/16	FOR COMMENT	MF
2	03/24/16	FOR CONSTRUCTION	MF

DRAWN BY: JMQ
DATE: 3/24/16

SITE INFORMATION
CTHA066A
NORTH TUNDIS AVE
2653 DAY HILL ROAD
BLOOMFIELD, CT 06002

SHEET TITLE
ANTENN PLAN, DETAILS & ANTENNA SCHEDULE

SHEET NUMBER
C-3

EXHIBIT B

Structural Analysis Report

Structure	:	**109 ft Monopole**
ATC Site Name	:	**North Bloomfield CT, CT**
ATC Site Number	:	**283562**
Engineering Number	:	**64758822**
Proposed Carrier	:	**T-Mobile**
Carrier Site Name	:	**North Tunxis Ave**
Carrier Site Number	:	**CTHA068**
Site Location	:	**Day Hill Road** **Bloomfield, CT 06002-1177** **41.876508,-72.741840**
County	:	**Hartford**
Date	:	**January 19, 2016**
Max Usage	:	**93%**
Result	:	**Pass**

Reviewed by:
Scott Wirgau, PE
Structural Team Leader

Prepared By:
Steffen Schilstra

Steffen Schilstra

Jan 19 2016 3:34 PM

COA: PEC.0001553

Eng. Number 64758822
January 19, 2016

Table of Contents

Introduction

The purpose of this report is to summarize results of a structural analysis performed on the 109 ft monopole to reflect the change in loading by T-Mobile.

Supporting Documents

Tower Drawings	Sabre Industries, drawing #67167-MM, dated October 15, 2012
Foundation Drawing	Sabre Industries, job #67167, dated September 19, 2012
Geotechnical Report	Design Earth Technology, project #2011-20, dated January 28, 2012

Analysis

The tower was analyzed using American Tower Corporation's tower analysis software. This program considers an elastic three-dimensional model and second-order effects per ANSI/EIA-222.

Basic Wind Speed:	80 mph (Fastest Mile)
Basic Wind Speed w/ Ice:	69 mph (Fastest Mile)w/ 1/2" radial ice concurrent
Code:	ANSI/TIA/EIA-222-F / 2003 IBC , Sec. 1609.1.1, Exception (5) & Sec. 3108.4 w/ 2005 CT Supplement & 2009 CT Amendment

Conclusion

Based on the analysis results, the structure meets the requirements per the applicable codes listed above. The tower and foundation can support the equipment as described in this report.

If you have any questions or require additional information, please contact American Tower via email at Engineering@americantower.com. Please include the American Tower site name, site number, and engineering number in the subject line for any questions.

Existing and Reserved Equipment

Elevation[1] (ft)		Qty	Antenna	Mount Type	Lines	Carrier
Mount	RAD					
110.0	110.0	6	Commscope HBX-6517DS-VTM (13.67 lbs)	T-Arms	(23) 1 5/8" Coax (1) 1 5/8" Hybriflex	Verizon
		3	Antel LPA-171063-12CF-EDIN-X			
		3	Antel BXA-70063/6CF			
		6	Antel LPA-80063/6CF			
		3	Alcatel-Lucent RRH2x40-AWS			

Equipment to be Removed

Elevation[1] (ft)		Qty	Antenna	Mount Type	Lines	Carrier
Mount	RAD					
No loading considered as to be removed						

Proposed Equipment

Elevation[1] (ft)		Qty	Antenna	Mount Type	Lines	Carrier
Mount	RAD					
100.0	100.0	3	Ericsson RRUS 11 B2	T-Arms	(3) 1 5/8" (1.63") Fiber	T-Mobile
		3	Ericsson AIR 21 B4A B2P			
		3	Ericsson AIR 21, 1.3M, B2A B4P (91.5 lbs)			
		3	Commscope LNX-6515DS-VTM			

[1]Mount elevation is defined as height above bottom of steel structure to the bottom of mount, RAD elevation is defined as center of antenna above ground level (AGL).

Install proposed coax inside the pole shaft.

Structure Usages

Structural Component	Controlling Usage	Pass/Fail
Anchor Bolts	84%	Pass
Shaft	93%	Pass
Base Plate	87%	Pass

Foundations

Reaction Component	Analysis Reactions	% of Usage
Moment (Kips-Ft)	1,329.8	81%
Axial (Kips)	18.8	65%
Shear (Kips)	15.2	65%

The structure base reactions resulting from this analysis were found to be acceptable through analysis based on geotechnical and foundation information, therefore no modification or reinforcement of the foundation will be required.

Deflection and Sway*

Antenna Elevation (ft)	Antenna	Carrier	Deflection (ft)	Sway (Rotation) (°)
100.0	Ericsson RRUS 11 B2	T-Mobile	1.607	1.671
	Ericsson AIR 21 B4A B2P			
	Ericsson AIR 21, 1.3M, B2A B4P (91.5 lbs)			
	Commscope LNX-6515DS-VTM			

***Deflection and Sway was evaluated considering a design wind speed of 50 mph (Fastest Mile) per ANSI/TIA/EIA-222-F.**

Standard Conditions

All engineering services are performed on the basis that the information used is current and correct. This information may consist of, but is not necessary limited, to:

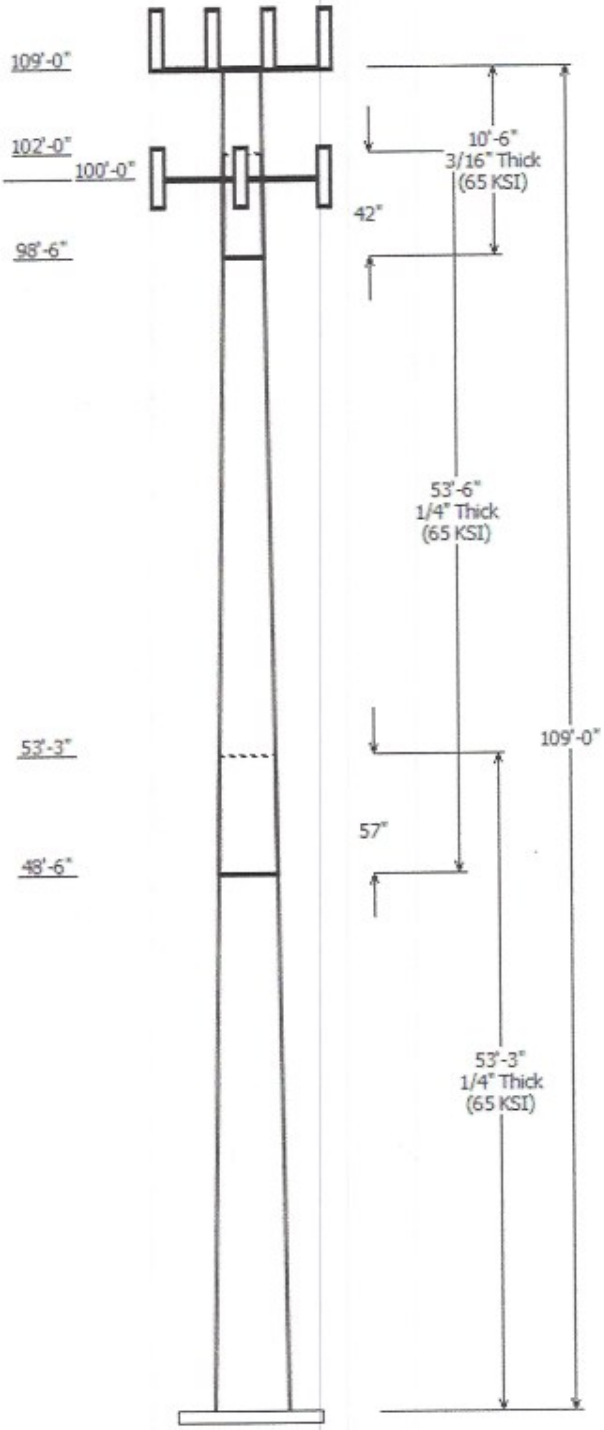
-- Information supplied by the client regarding the structure itself, antenna, mounts and feed line loading on the structure and its components, or other relevant information.

-- Information from drawings in the possession of American Tower Corporation, or generated by field inspections or measurements of the structure.

It is the responsibility of the client to ensure that the information provided to A.T. Engineering Service, PLLC and used in the performance of our engineering services is correct and complete. In the absence of information to the contrary, we assume that all structures were constructed in accordance with the drawings and specifications and that their capacity has not significantly changed from the "as new" condition.

Unless explicitly agreed by both the client and American Tower Corporation, all services will be performed in accordance with the current revision of ANSI/TIA -222. The design basic wind speed will be determined based on the minimum basic wind speed as prescribed in ANSI/TIA-222. Although every effort is taken to ensure that the loading considered is adequate to meet the requirements of all applicable regulatory entities, we can provide no assurance to meet any other local and state codes or requirements. If wind and ice loads or other relevant parameters are to be different from the minimum values recommended by the codes, the client shall specify the exact requirement.

All services are performed, results obtained, and recommendations made in accordance with generally accepted engineering principles and practices. A.T. Engineering Service, PLLC is not responsible for the conclusions, opinions and recommendations made by others based on the information we supply.



Job Information

Pole : 283562 Code: TIA/EIA-222-F
Description :
Client : T-MOBILE
Location : North Bloomfield CT, CT
Shape : 18 Sides
Height : 109.00 (ft)
Base Elev (ft): 0.00
Taper: 0.19995(in/ft)

Sections Properties

Shaft Section	Length (ft)	Diameter (in) Accross Flats Top	Bottom	Thick (in)	Joint Type	Overlap Length (in)	Taper (in/ft)	Steel Grade (ksi)
1	53.250	32.27	42.92	0.250		0.000	0.200000	65
2	53.500	23.02	33.72	0.250	Slip Joint	57.000	0.200000	65
3	10.500	22.00	24.09	0.188	Slip Joint	42.000	0.200000	65

Discrete Appurtenance

Attach Elev (ft)	Force Elev (ft)	Qty	Description
109.000	109.000	3	Alcatel-Lucent RRH2x40-AWS
109.000	109.000	1	RFS DB-T1-6Z-8AB-0Z
109.000	110.000	6	Commscope HBX-6517DS-
109.000	110.000	6	Antel LPA-80063/6CF
109.000	109.000	3	Round T-Arm
109.000	110.000	3	Antel BXA-70063/6CF_
109.000	110.000	3	Amphenol Antel LPA-171063-
100.000	100.000	3	Commscope LNX-6515DS-VTM
100.000	100.000	3	Ericsson RRUS 11 B2
100.000	100.000	3	Ericsson AIR 21 B4A B2P
100.000	100.000	3	Ericsson AIR 21, 1.3M, B2A B4P
100.000	100.000	3	Flat T-Arm

Linear Appurtenance

Elev (ft) From	To	Description	Exposed To Wind
0.000	100.0	1 5/8" (1.63",	No
0.000	110.0	1 5/8" Coax	No
0.000	110.0	1 5/8" Hybriflex	No

Load Cases

No Ice	80.00 mph Wind with No Ice
Ice	69.28 mph Wind with Ice
Twist/Sway	50.00 mph Wind with No Ice

Reactions

Load Case	Moment (kip-ft)	Shear (kip)	Axial (kip)
No Ice	1329.83	15.17	15.42
Ice	1105.97	12.37	18.84
Twist/Sway	519.88	5.92	15.45

Dish Deflections

Load Case	Attach Elev (ft)	Deflection (in)	Rotation (deg)
	0.00	0.000	0.000

EXHIBIT C

AMERICAN TOWER®
CORPORATION

LETTER OF AUTHORIZATION

ATC SITE # / NAME: 283562 / NORTH BLOOMFIELD CT
SITE ADDRESS: Day Hill Road, Bloomfield, CT
LICENSEE: T-Mobile Northeast LLC

I, Margaret Robinson, Senior Counsel for American Tower*, owner of the tower facility located at the address identified above (the "Tower Facility"), do hereby authorize T-Mobile Northeast LLC, its successors and assigns, and/or its agent, (collectively, the "Licensee") to act as American Tower's non-exclusive agent for the sole purpose of filing and consummating any land-use or building permit application(s) as may be required by the applicable permitting authorities for Licensee's telecommunications' installation.

We understand that this application may be denied, modified or approved with conditions. The above authorization is limited to the acceptance by Licensee only of conditions related to Licensee's installation and any such conditions of approval or modifications will be Licensee's sole responsibility.

Signature:

Print Name: Margaret Robinson
Senior Counsel
American Tower*

NOTARY BLOCK

Commonwealth of MASSACHUSETTS
County of Middlesex

This instrument was acknowledged before me by Margaret Robinson, Senior Counsel for American Tower*, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same.

WITNESS my hand and official seal, this 9th day of February, 2016.

NOTARY SEAL

GREGORY E. MERCIER
Notary Public
COMMONWEALTH OF MASSACHUSETTS
My Commission Expires
April 8, 2016

Notary Public Gregory Mercier
My Commission Expires: 4/8/2016

*American Tower includes all affiliates and subsidiaries of American Tower Corporation.

EXHIBIT D

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: CTHA068A

North Tunxis Ave
2653 Day Hill Road
Bloomfield, CT 06002

March 4, 2016

EBI Project Number: 6216001347

Site Compliance Summary	
Compliance Status:	COMPLIANT
Site total MPE% of FCC general public allowable limit:	9.66 %

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

EBI Consulting
environmental | engineering | due diligence

March 4, 2016

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

Emissions Analysis for Site: **CTHA068A – North Tunxis Ave**

EBI Consulting was directed to analyze the proposed T-Mobile facility located at **2653 Day Hill Road, Bloomfield, 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 $\mu W/cm^2$ 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 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 ($\mu W/cm^2$). The general population exposure limit for the 700 MHz Band is approximately 467 $\mu W/cm^2$, and the general population exposure limit for the PCS and AWS bands is 1000 $\mu W/cm^2$. 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 **2653 Day Hill Road, Bloomfield, 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, 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 GSM / UMTS channels (PCS Band - 1900 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 30 Watts per Channel

2) 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.

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) 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.

6) For the following calculations the sample point was the top of a six 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.

7) The antennas used in this modeling are the **Ericsson AIR21 (B4A/B2P & B2A/B4P)** for 1900 MHz (PCS) and 2100 MHz (AWS) channels and the **Commscope LNX-6515DS-VTM** for 700 MHz channels. This is based on feedback from the carrier with regards to anticipated antenna selection. The **Ericsson AIR21 (B4A/B2P & B2A/B4P)** have a maximum gain of **15.9 dBd** at their main lobe. The **Commscope LNX-6515DS-VTM** has a maximum gain of **14.6 dBd** at its main lobe. 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.

8) The antenna mounting height centerline of the proposed antennas is **100 feet** above ground level (AGL).

9) 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 calculations were done with respect to uncontrolled / general public threshold limits.

EBI Consulting
environmental | engineering | due diligence

T-Mobile Site Inventory and Power Data

Sector:	A
Antenna #:	1
Make / Model:	Ericsson AIR21 B4A/B2P
Gain:	15.9 dBd
Height (AGL):	100
Frequency Bands	1900 MHz(PCS) / 2100 MHz (AWS)
Channel Count	2
Total TX Power(W):	120
ERP (W):	4,668.54
Antenna A1 MPE%	1.90
Antenna #:	2
Make / Model:	Ericsson AIR21 B2A/B4P
Gain:	15.9 dBd
Height (AGL):	100
Frequency Bands	1900 MHz(PCS) / 2100 MHz (AWS)
Channel Count	4
Total TX Power(W):	120
ERP (W):	4,668.54
Antenna A2 MPE%	1.90
Antenna #:	3
Make / Model:	Commscope LNX-6515DS-VTM
Gain:	14.6 dBd
Height (AGL):	100
Frequency Bands	700 MHz
Channel Count	1
Total TX Power(W):	30
ERP (W):	865.21
Antenna A3 MPE%	0.75

Sector:	B
Antenna #:	1
Make / Model:	Ericsson AIR21 B4A/B2P
Gain:	15.9 dBd
Height (AGL):	100
Frequency Bands	1900 MHz(PCS) / 2100 MHz (AWS)
Channel Count	2
Total TX Power(W):	120
ERP (W):	4,668.54
Antenna B1 MPE%	1.90
Antenna #:	2
Make / Model:	Ericsson AIR21 B2A/B4P
Gain:	15.9 dBd
Height (AGL):	100
Frequency Bands	1900 MHz(PCS) / 2100 MHz (AWS)
Channel Count	4
Total TX Power(W):	120
ERP (W):	4,668.54
Antenna B2 MPE%	1.90
Antenna #:	3
Make / Model:	Commscope LNX-6515DS-VTM
Gain:	14.6 dBd
Height (AGL):	100
Frequency Bands	700 MHz
Channel Count	1
Total TX Power(W):	30
ERP (W):	865.21
Antenna B3 MPE%	0.75

Sector:	C
Antenna #:	1
Make / Model:	Ericsson AIR21 B4A/B2P
Gain:	15.9 dBd
Height (AGL):	100
Frequency Bands	1900 MHz(PCS) / 2100 MHz (AWS)
Channel Count	2
Total TX Power(W):	120
ERP (W):	4,668.54
Antenna C1 MPE%	1.90
Antenna #:	2
Make / Model:	Ericsson AIR21 B2A/B4P
Gain:	15.9 dBd
Height (AGL):	100
Frequency Bands	1900 MHz(PCS) / 2100 MHz (AWS)
Channel Count	4
Total TX Power(W):	120
ERP (W):	4,668.54
Antenna C2 MPE%	1.90
Antenna #:	3
Make / Model:	Commscope LNX-6515DS-VTM
Gain:	14.6 dBd
Height (AGL):	100
Frequency Bands	700 MHz
Channel Count	1
Total TX Power(W):	30
ERP (W):	865.21
Antenna C3 MPE%	0.75

Site Composite MPE%	
Carrier	**MPE%**
T-Mobile (Per Sector Max)	**4.55 %**
Verizon Wireless	5.11 %
Site Total MPE %:	**9.66 %**

T-Mobile Sector 1 Total:	4.55 %
T-Mobile Sector 2 Total:	4.55 %
T-Mobile Sector 3 Total:	4.55 %
Site Total:	9.66 %

T-Mobile _per sector	# Channels	Watts ERP (Per Channel)	Height (feet)	Total Power Density ($\mu W/cm^2$)	Frequency (MHz)	Allowable MPE ($\mu W/cm^2$)	Calculated % MPE
T-Mobile 2100 MHz (AWS) LTE	2	2334.27	100	18.99	2100	1000	1.90 %
T-Mobile 1900 MHz (PCS) GSM/UMTS	2	1167.14	100	9.50	1900	1000	0.95 %
T-Mobile 2100 MHz (AWS) UMTS	2	1167.14	100	9.50	2100	1000	0.95 %
T-Mobile 700 MHz LTE	1	865.21	100	0.75	700	467	0.75 %
						Total:	2.66%

EBI Consulting
environmental | engineering | due diligence

Summary

All calculations performed for this analysis yielded results that were **within** the allowable limits for general public 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 public exposure to RF Emissions are shown here:

T-Mobile Sector	Power Density Value (%)
Sector 1:	4.55 %
Sector 2:	4.55 %
Sector 3 :	4.55 %
T-Mobile Per Sector Maximum:	4.55 %
Site Total:	9.66 %
Site Compliance Status:	**COMPLIANT**

The anticipated composite MPE value for this site assuming all carriers present is **9.66%** 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.

Scott Heffernan
RF Engineering Director

EBI Consulting
21 B Street
Burlington, MA 01803

EXHIBIT E

AMERICAN TOWER
CORPORATION

Compliance Statement:
Nationwide Programmatic Agreement for the Collocation of Wireless Antennas and Nationwide Programmatic Agreement for Review of Effects on Historic Properties for Certain Undertakings Approved by the Federal Communication Commission

12/29/2015

T-MOBILE
OFFICE ADDRESS

Attn: **T-MOBILE**

Re: Proposed collocation or modification of telecommunications equipment by T-MOBILE, or its agents or designees ("Customer") on that certain tower, known as NORTH BLOOMFIELD CT, ATC # 283562 and located at Day Hill Road (41-52-35.427972 N and 72-44-30.62292 W) in the county of HARTFORD, State of CT (the "Tower"), and constructed on **01/29/2013.**

FOR TOWERS BUILT AFTER 3/16/01: SHPO Concurrence on file.

Dear **T-MOBILE**:

To facilitate Customer's collocation or modification of its telecommunications equipment on the above referenced Tower in compliance with both the Nationwide Programmatic Agreement for the Collocation of Wireless Antennas (the "Collocation Programmatic Agreement") and the Nationwide Programmatic Agreement for Review of Effects on Historic Properties for Certain Undertakings Approved by the Federal Communication Commission ("the Nationwide Programmatic Agreement") executed by the Federal Communication Commission ("FCC"), the National Conference of State Historic Preservation Officers and the Advisory Council On Historic Preservation ("ACHP"), American Tower Corporation ("ATC"), makes the following certifications:

1. The Tower is a structure built for the primary purpose of supporting FCC-licensed antennas and their associated facilities.

2. Tower construction was completed on or before March 16, 2001, OR, if construction was not completed by that date, consultation with a SHPO/THPO has been completed pursuant to Section 106 of the National Historic Preservation Act ("NHPA"), and the SHPO/THPO has concurred that the undertaking will have "no effect" or "no adverse effect" to historic properties, OR, the tower was categorically exempt from SHPO review based on 47 CFR § 1.1306 Note 3 or one of the exemptions outlined in Section III of the Nationwide Programmatic Agreement, OR, SHPO choose to let the 30 day response period close and per Section VII B 2 of the Nationwide Programmatic Agreement the applicant may consider the S106 process complete.

3. Based solely on ATC's review of the plans provided by Customer and statements made by Customer to ATC, the proposed collocation or modification does not require a "substantial increase in the size of the tower," as that phrase is defined in Stipulation I.C. of the Collocation Programmatic Agreement, nor does it require "enhancement of the tower" as that phrase is defined in Stipulation III.A. of the Nationwide Programmatic Agreement; **OR**, if the proposed collocation or modification does require a "substantial increase" or "enhancement" ATC has completed consultation with a SHPO/THPO

pursuant to Section 106 of the NHPA and the Programmatic Agreements. ATC has confirmed the SHPO/THPO has concurred that the undertaking will have "no effect" or "no adverse effect" to historic properties.

4. There has been no "substantial increase in the size of the tower" since March 16, 2001, OR if there has been a "substantial increase, consultation with a SHPO/THPO has been completed pursuant to Section 106 of the NHPA and the Programmatic Agreements, and the SHPO/THPO has concurred that the undertaking will have "no effect" or "no adverse effect" to historic properties.

5. There has been no "enhancement of the tower" since March 7, 2005, OR if there has been an "enhancement", consultation with a SHPO/THPO has been completed pursuant to Section 106 of the NHPA and the Programmatic Agreements, and the SHPO/THPO has concurred that the undertaking will have "no effect" or "no adverse effect" to historic properties.

6. ATC has no knowledge that the FCC has determined that the Tower has an effect on one or more historic properties, or if such an effect has been found, that such effect has been found to be not adverse through a no adverse effect finding, or that an adverse or potentially adverse effect has not been resolved through a conditional no adverse effect determination, a Memorandum of Agreement, a programmatic agreement, or that the Tower is not otherwise in compliance with Section 106 and Subpart B of 36 CFR Part 800.

7. ATC has no knowledge that the Tower is the subject of a pending environmental review or related proceeding before the FCC involving compliance with Section 106 of the NHPA.

8. ATC has no knowledge of having received any written or electronic notification that the FCC is in receipt of a complaint from a member of the public, a SHPO, or the ACHP that the collocation has or will have an adverse effect on one or more historic properties.

Based on the above certifications, the installation of the equipment on the Tower would not require review under the consultation process set forth under Subpart B of 36 CFR Part 800.

Please contact ATC's Environmental Compliance Team at [colo.enviro@americantower.com] with any questions regarding this certification.

AMERICAN TOWER CORPORATION
10 Presidential Way
Woburn, MA 01801

By: Katey Kimball

Title: **Project Specialist**