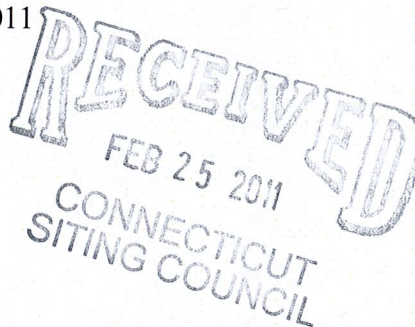


February 24, 2011



VIA UPS

Connecticut Siting Council
10 Franklin Square
New Britain, Connecticut 06051
Attn: Ms. Linda Roberts, Executive Director

Re: T-Mobile Northeast, LLC – Tower Share Request
6 Mountain Road, Washington, Connecticut

Dear Ms. Roberts:

Pursuant to Connecticut General Statutes §16-50aa, as amended, and on behalf of T-Mobile Northeast LLC (“T-Mobile”), this letter and associated documentation is submitted as a request for an order from the Connecticut Siting Council (“Council”) to approve the proposed shared use by T-Mobile of a tower at 6 Mountain Road in Washington, Connecticut (coordinates 41°40’08.9” N, -73°21’55” W). The tower is owned by Verizon Wireless, and currently supports wireless carrier antennas.

T-Mobile requests that the Council find that the proposed shared use of the tower satisfies the criteria stated in Connecticut General Statutes § 16-50aa and issue an order approving the proposed use. It should be noted that the Council previously acknowledged T-Mobile’s proposed use of the tower on November 20, 2008. A copy of that document is attached. T-Mobile did not install its antennas and equipment at or subsequent to that time.

As shown on drawings attached hereto, T-Mobile proposes to install three (3) panel-type antennas on the tower with an antenna center line of approximately 127’. T-Mobile’s related equipment would be located on a 10’ x 15’ concrete pad to be installed adjacent to the tower within the existing compound.

C.G.S. § 16-50aa(c)(1) provides that, upon written request for approval of a proposed shared use, “if the council finds that the proposed shared use of the facility is technically, legally, environmentally and economically feasible and meets public safety concerns, the council shall issue an order approving such shared use.” The shared use of the tower satisfies those criteria as follows:

A. Technical Feasibility. Attached is documentation of the structural sufficiency of the existing tower and foundation to support the proposed T-Mobile loading. The proposed shared use of this tower therefore is technically feasible.

B. Legal Feasibility. Under C.G.S. § 16-50aa, the Council has been authorized to issue orders approving the proposed shared use of a tower facility such as the Washington facility. In addition, § 16-50aa directs the Council to “give such consideration to other state laws and municipal regulations as it shall deem appropriate” in ruling on requests for the shared use of tower facilities. There is no legal impediment to the shared use of the facility.

C. Environmental Feasibility. The proposed shared use would have a minimal environmental effect, for the following reasons:

1. The proposed installations would have an insignificant incremental visual impact, and would not cause any significant change or alteration in the physical or environmental characteristics of the planned site. In particular, the proposed installation would not increase the height of the approved tower, and would not extend the boundaries of the tower site outside the limits of the approved site compound.
2. The proposed installation would not increase the noise levels at the planned facility by six decibels or more.
3. Addition of T-Mobile’s antennas at this site would not result in a total radio frequency (RF) electromagnetic radiation power density level in excess of that adopted by the Federal Communications Commission. As indicated on the attached power density calculation, T-Mobile’s operations at the site will result in a power density of 7.183%; the combined site operations will result in a total power density of 44.333%.
4. The proposed installations would not require any water or sanitary facilities, or generate air emissions or discharges to water bodies. After construction is complete, the proposed installations would not generate any traffic other than for periodic maintenance visits.

The proposed use of this facility would therefore have a minimal environmental effect, and is environmentally feasible.

E. Economic Feasibility. The parties have entered into agreements to share the use of the existing tower on terms mutually agreeable to the parties. The proposed tower sharing is therefore economically feasible.

F. Public Safety Concerns. T-Mobile is not aware of any public safety concerns relative to the proposed sharing of the tower. As stated above, the tower is structurally capable of supporting the proposed and existing antennas. The proposed shared use will not interfere with municipal public safety activities. In fact, improved wireless communications service realized through shared use of the tower will enhance the safety and welfare of area residents.

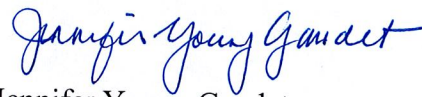
Ms. Linda Roberts
February 24, 2011

Conclusion

For the reasons set forth above, the proposed shared use of the tower at 6 Mountain Road in Washington, Connecticut satisfies the criteria stated in C.G.S. § 16-50aa and advances the General Assembly's and the Council's goal of preventing the proliferation of towers in Connecticut. T-Mobile therefore requests that the Council issue an order approving the proposed shared use.

Please contact the undersigned at (860) 798-7454 if there are any questions with respect to this matter. Thank you for your consideration.

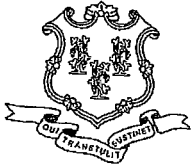
Respectfully yours,



Jennifer Young Gaudet

Attachments

cc: Honorable Mark E. Lyon, First Selectman, Town of Washington
H. Ray and Carol A. Underwood (underlying property owners)



Daniel F. Caruso
Chairman

November 20, 2008

Jennifer Young Gaudet
T-Mobile USA, Inc.
35 Griffin Road S
Bloomfield, CT 06002

STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051

Phone: (860) 827-2935 Fax: (860) 827-2950

E-Mail: siting.council@ct.gov

Internet: ct.gov/csc

RE: **EM-T-MOBILE-150-081024** – Omnipoint Communications, Inc. a.k.a. T-Mobile notice of intent to modify an existing telecommunication facility located at 6 Mountain Road, Washington, Connecticut.

Dear Ms. Gaudet:

The Connecticut Siting Council (Council) hereby acknowledges your notice to modify this existing telecommunications facility, pursuant to Section 16-50j-73 of the Regulations of Connecticut State Agencies.

The proposed modifications are to be implemented as specified here and in your notice dated October 23, 2008, including the placement of all necessary equipment and shelters within the tower compound. The modifications are in compliance with the exception criteria in Section 16-50j-72 (b) of the Regulations of Connecticut State Agencies as changes to an existing facility site that would not increase tower height, extend the boundaries of the tower site, increase noise levels at the tower site boundary by six decibels, and increase the total radio frequencies electromagnetic radiation power density measured at the tower site boundary to or above the standard adopted by the State Department of Environmental Protection pursuant to General Statutes § 22a-162. This facility has also been carefully modeled to ensure that radio frequency emissions are conservatively below State and federal standards applicable to the frequencies now used on this tower.

This decision is under the exclusive jurisdiction of the Council. Please be advised that the validity of this action shall expire one year from the date of this letter. Any additional change to this facility will require explicit notice to this agency pursuant to Regulations of Connecticut State Agencies Section 16-50j-73. Such notice shall include all relevant information regarding the proposed change with cumulative worst-case modeling of radio frequency exposure at the closest point of uncontrolled access to the tower base, consistent with Federal Communications Commission, Office of Engineering and Technology, Bulletin 65. Any deviation from this format may result in the Council implementing enforcement proceedings pursuant to General Statutes § 16-50u including, without limitation, imposition of expenses resulting from such failure and of civil penalties in an amount not less than one thousand dollars per day for each day of construction or operation in material violation.

Thank you for your attention and cooperation.

Very truly yours,

S. Derek Phelps
Executive Director

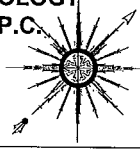
SDP/MP/jb

- c: The Honorable Mark E. Lyon, First Selectman, Town of Washington
Janet Hill/ Michael Agello, Zoning Enforcement Officer, Town of Washington
Kenneth C. Baldwin, Esq., Robinson & Cole LLP



CONNECTICUT SITING COUNCIL
Affirmative Action / Equal Opportunity Employer

ALL-POINTS TECHNOLOGY CORPORATION, P.C.
 3 SADDLEBROOK DRIVE
 KILLINGWORTH, CT. 06419
 PHONE: (860)-663-1697
 FAX: (860)-663-0935
 www.allpointstech.com



APT FILING NUMBER: CT-255T-150

LE-1

SCALE: AS NOTED **DRAWN BY: AAJ**

DATE: 08/27/08 **CHECKED BY: SMC**

T-Mobile

35 GRIFFIN ROAD
 BLOOMFIELD, CT 06002
 OFFICE: (860)-692-7100

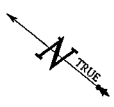
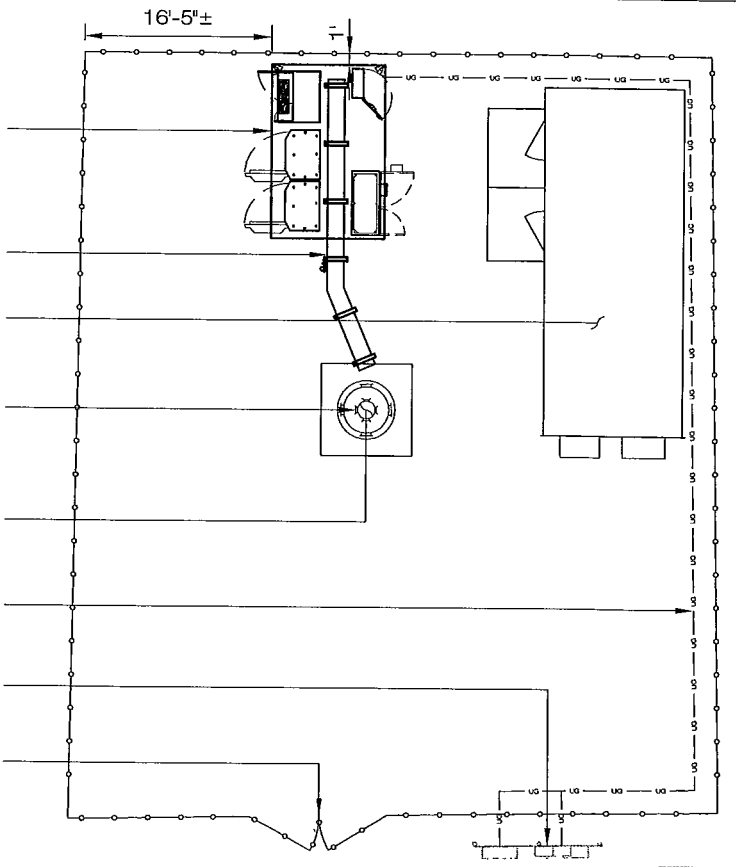
T-MOBILE SITE NUMBER:
CTNH371A

VZW - WASHINGTON NORTH
 6 MOUNTAIN RD
 WASHINGTON, CT 06777

NOTE:
 PER FCC MANDATE, ENHANCED EMERGENCY (E911) SERVICE IS REQUIRED TO MEET NATIONWIDE STANDARDS FOR WIRELESS COMMUNICATIONS SYSTEMS. T-MOBILE NORTHEAST LLC IMPLEMENTATION REQUIRES DEPLOYMENT OF EQUIPMENT AND ANTENNAS GENERALLY DEPICTED ON THIS PLAN, ATTACHED TO OR MOUNTED IN CLOSE PROXIMITY TO THE BTS RADIO CABINETS. T-MOBILE NORTHEAST LLC. RESERVES THE RIGHT TO MAKE REASONABLE MODIFICATIONS TO E911 EQUIPMENT AND LOCATION AS TECHNOLOGY EVOLVES TO MEET REQUIRED SPECIFICATIONS. ALL EQUIPMENT LOCATIONS ARE APPROXIMATE AND ARE SUBJECT TO APPROVAL BY T-MOBILE NORTHEAST LLC, STRUCTURAL & RF ENGINEERS. LOCATIONS OF POWER & TELEPHONE FACILITIES ARE SUBJECT TO APPROVAL BY UTILITY COMPANIES.

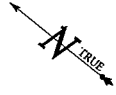
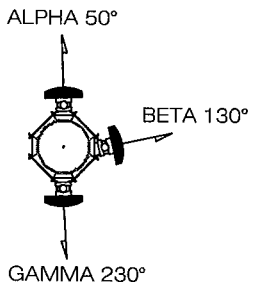
REV1: 09/08/08: CHANGE ANTENNA ELEVATION: SMC
 REV2: 09/11/08: CHANGE SITE NAME: SMC
 REV3: 02/18/11: REVISED EQUIPMENT LAYOUT: SMC

- PROPOSED T-MOBILE 150 SF (10'x15') LEASE AREA W/ CABINETS, UTILITY CENTER, SERVICE LIGHTS, ON PROPOSED CONCRETE SLAB
- PROPOSED T-MOBILE HORIZONTAL CABLE TRAY TO EXISTING ACCESS PORT W/ GPS AND GSM ANTENNAS ON 8' MAST
- EXISTING VERIZON EQUIPMENT SHELTER
- PROPOSED T-MOBILE ALPHA 50°, BETA 130°, AND GAMMA 230° PANEL ANTENNAS W/(2) TMAs PER SECTOR CLUSTER MOUNTED TO EXISTING MONOPOLE. PAINT ALL MOUNTING HARDWARE TO MATCH EXISTING TOWER (SEE ANTENNA PLAN)
- EXISTING 160'± AGL MONOPOLE W/ FUTURE 10' EXTENSION (170'± AGL) BY OTHERS
- PROPOSED UNDERGROUND ELECTRICAL AND TELCO SERVICE FROM EXISTING METER CENTER & TELCO BOX TO PROPOSED EQUIPMENT AREA
- EXISTING MULTIMETER CENTER AND TELCO DEMARC ON SERVICE BACKBOARD
- EXISTING 12' GATE



COMPOUND PLAN

SCALE : 1/16" = 1'-0"



ANTENNA PLAN

SCALE : 3/16" = 1'-0"

CEN TEK engineering

Centered on Solutions™

Structural Analysis Report

160' Existing EEl Monopole

Proposed AT&T UMTS Antenna Upgrade

AT&T Site Ref: CT2245

*6 Mountain Road
Washington, CT*

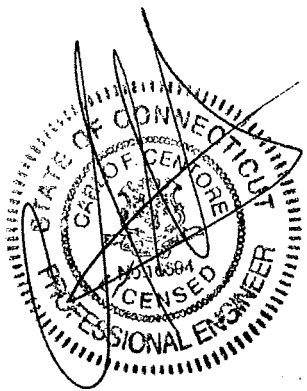
CEN TEK Project No. 10079-CO3

~~*Date: July 20, 2010*~~

~~*Rev 1: August 18, 2010*~~

~~*Rev 2: November 8, 2010*~~

Rev 3: December 6, 2010



Prepared for:

**AT&T Mobility
500 Enterprise Drive, Suite 3A
Rocky Hill, CT 06067**

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Introduction

The purpose of this report is to summarize the results of the non-linear, P- Δ structural analysis of the antenna installation proposed by AT&T Mobility on the existing monopole (tower), owned and operated by Verizon Wireless, located in Washington, CT.

The host tower is a 160-ft tall, four-section, eighteen sided, tapered monopole, originally designed and manufactured by Engineered Endeavors Inc.; project no. 15143 dated October 22, 2007. The tower geometry, structure member sizes and foundation system information were obtained from the original manufacturers design documents.

The tower is made up of four (4) tapered vertical sections consisting of A572-65 pole sections. The vertical tower sections are slip joint connected. The diameter of the pole (flat-flat) is 18.00-in at the top and 47.00-in at the base.

Antenna and appurtenance information were obtained from a previous structural report by Natcomm; job no. 08136.CO3 dated October 21, 2008 and field verification from grade by Centek personnel on June 29, 2010.

AT&T Mobility proposes the installation of six (6) panel antennas and six (6) TMAs on a proposed 10-ft extension to the existing monopole. Refer to the Antenna and Appurtenance Summary below for a detailed description of the proposed antenna and appurtenance configuration.

Antenna and Appurtenance Summary

The existing tower was designed to support several communication antennas. The existing, proposed and future loads considered in this analysis consist of the following:

- VERIZON (EXISTING):
Antennas: Three (3) Antel BXA-80063/6CF panel antennas flush mounted with a RAD center elevation of 157-ft above grade level.
Coax Cables: Six (6) 1-5/8" \varnothing coax cables running on the inside of the existing tower.
- VERIZON (EXISTING):
Antennas: Three (3) Antel BXA-185063/12CF panel antennas flush mounted with a RAD center elevation of 147-ft above grade level.
Coax Cables: Six (6) 1-5/8" \varnothing coax cables running on the inside of the existing tower.
- VERIZON (RESERVED):
Antennas: Three (3) 5-ft panel antennas flush mounted with a RAD center elevation of 137-ft above grade level.
Coax Cables: Six (6) 1-5/8" \varnothing coax cables running on the inside of the existing tower.
- T-MOBILE (RESERVED):
Antennas: Three (3) RFS APX16DWV-16DWVS-E-ACU panel antennas and six (6) TMAs flush mounted with a RAD center elevation of 127-ft above grade level.
Coax Cables: Twelve (12) 1-5/8" \varnothing coax cables running on the inside of the existing tower.

- **FUTURE CARRIER (RESERVED):**
Antennas: Three (3) 5-ft panel antennas flush mounted with a RAD center elevation of 117-ft above grade level.
Coax Cables: Six (6) 1-5/8" Ø coax cables running on the inside of the existing tower.
- **FUTURE CARRIER (RESERVED):**
Antennas: Three (3) 5-ft panel antennas flush mounted with a RAD center elevation of 107-ft above grade level.
Coax Cables: Six (6) 1-5/8" Ø coax cables running on the inside of the existing tower.
- **AT&T (PROPOSED):**
Antennas: Six (6) Powerwave P90-14-XLH-RR panel antennas and six (6) Powerwave TT08-19DB111-001 TMA's flush mounted on a proposed 10-ft monopole extension with a RAD center elevation of 167-ft above grade level.
Coax Cables: Twelve (12) 1-5/8" Ø coax cables running on the outside of the existing tower as indicated in section 3 of this report.

Primary Assumptions Used in the Analysis

- The tower structure's theoretical capacity not including any assessment of the condition of the tower.
- The tower carries the horizontal and vertical loads due to the weight of antennas, ice load and wind.
- Tower is properly installed and maintained.
- Tower is in plumb condition.
- Tower loading for antennas and mounts as listed in this report.
- All bolts are appropriately tightened providing the necessary connection continuity.
- All welds are fabricated with ER-70S-6 electrodes.
- All members are assumed to be as specified in the original tower design documents or reinforcement drawings.
- All members are "hot dipped" galvanized in accordance with ASTM A123 and ASTM A153 Standards.
- All member protective coatings are in good condition.
- All tower members were properly designed, detailed, fabricated, installed and have been properly maintained since erection.
- Any deviation from the analyzed antenna loading will require a new analysis for verification of structural adequacy.
- All coax cables to be installed as indicated in this report.

Analysis

The existing tower was analyzed using a comprehensive computer program entitled RISATower. The program analyzes the tower, considering the worst case loading condition. The tower is considered as loaded by concentric forces along the tower shaft, and the model assumes that the shaft members are subjected to bending, axial, and shear forces.

The existing tower was analyzed for 80 mph basic wind speed (fastest mile) with no ice and 75% reduction of wind force with ½ inch accumulative ice to determine stresses in members as per guidelines of TIA/EIA-222-F-96 entitled "Structural Standards for Steel Antenna Towers and Antenna Supporting Structures", the American Institute of Steel Construction (AISC) and the Manual of Steel Construction; Allowable Stress Design (ASD).

Tower Loading

Tower loading was determined by the basic wind speed as applied to projected surface areas with modification factors per TIA/EIA-222-F, gravity loads of the tower structure and its components, and the application of ½" radial ice tower structure and its components.

Basic Wind Speed:	Litchfield; v = 80 mph (fastest mile)	[Section 16 of TIA/EIA-222-F-96]
	Washington; v = 95 mph (3 second gust) equivalent to v = 77.5 mph (fastest mile)	[Appendix K of the 2005 CT Building Code Supplement]
	<i>TIA/EIA wind speed criteria controls.</i>	
Load Cases:	<u>Load Case 1</u> ; 80 mph wind speed w/ no ice plus gravity load – used in calculation of tower stresses and rotation. This load case typically controls the design of monopole towers.	[Section 2.3.16 of TIA/EIA-222-F-96]
	<u>Load Case 2</u> ; 69 mph wind speed w/ ½" radial ice plus gravity load – used in calculation of tower stresses. The 69 mph wind speed velocity represents 75% of the wind pressure generated by the 80 mph wind speed. This load case typically controls the design of lattice towers.	[Section 2.3.16 of TIA/EIA-222-F-96]
	<u>Load Case 3</u> ; Seismic – not checked	[Section 1614.5 of State Bldg. Code 2005] does not control in the design of this structure type

Tower Capacity

Tower stresses were calculated utilizing the structural analysis software RISATower. Allowable stresses were determined based on Table 5 of the TIA/EIA code with a 1/3 increase per Section 3.1.1.1 of the same code.

Calculated stresses were found to be within allowable limits. In Load Case 1, per RISATower "Section Capacity Table", this tower was found to be at **97.7%** of its total capacity.

Tower Section	Elevation	Stress Ratio (percentage of capacity)	Result
Pole Shaft (L3)	47.28'-93.83	97.7%	PASS

Foundation and Anchors

The existing foundation consists of a 7-ft square x 3-ft long reinforced concrete pier on a 23.0-ft square x 3.0-ft thick reinforced concrete pad. The sub-grade conditions used in the analysis of the existing foundation were obtained from the aforementioned EEI design report; project no. 15143 dated October 22, 2007. The base of the tower is connected to the foundation by means of (16) 2.25"Ø, ASTM A615-75 anchor bolts embedded approximately 5-ft into the concrete foundation structure.

Review of the foundation and anchor design consisted of verification of applied loads obtained from the tower design calculations and code checks of allowable stresses:

- The tower base reactions developed from the governing Load Case 1 were used in the verification of the foundation and its anchors:

Base Reactions	Vector	Proposed Load (kips/ft-kips)
Base	Shear	19
	Axial	27
	Moment	2064

- The foundation was found to be within allowable limits.

Foundation	Design Limit	IBC 2003/2005 CT State Building Code Section 3108.4.2 FS ⁽¹⁾	Proposed Loading FS ⁽¹⁾	Result
Reinf. Conc. Pad and Pier	OTM ⁽²⁾	2.0	2.02	PASS

Note: 1. FS denote Factor of Safety
 2. OTM denotes Overturning Moment

CEN TEK Engineering, Inc.
Structural Analysis – 160' EEI Monopole
AT&T UMTS Antenna Upgrade – CT2245
Washington, CT
Rev. 3 ~ December 6, 2010

- The anchor bolts and base plate were found to be within allowable limits.

Tower Component	Design Limit	Stress Ratio (percentage of capacity)	Result
Anchor Bolts	Compression	58.7%	PASS
Base Plate	Bending	53.2%	PASS

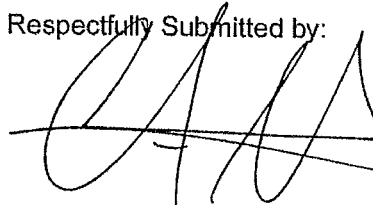
Conclusion

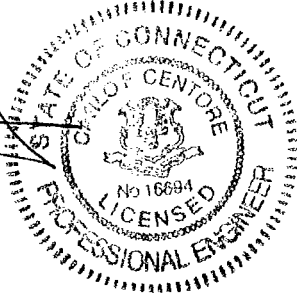
This analysis shows that the subject tower is adequate to support the proposed modified antenna configuration.

The analysis is based, in part, on the information provided to this office by AT&T Mobility. If the existing conditions are different than the information in this report, Centek Engineering, Inc. must be contacted for resolution of any potential issues.

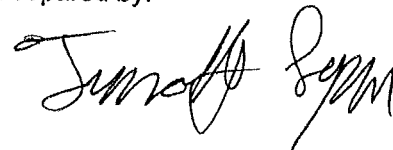
Please feel free to call with any questions or comments.

Respectfully Submitted by:


Carlo F. Centore, PE
Principal ~ Structural Engineer



Prepared by:


Timothy J. Lynn, EIT
Structural Engineer

Standard Conditions for Furnishing of
Professional Engineering Services on
Existing Structures

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

- Information supplied by the client regarding the structure itself, its foundations, the soil conditions, the antenna and feed line loading on the structure and its components, or other relevant information.
- Information from the field and/or drawings in the possession of CENTEK engineering, Inc. or generated by field inspections or measurements of the structure.
- It is the responsibility of the client to ensure that the information provide to CENTEK engineering, Inc. 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 are in an uncorroded condition and have not deteriorated. It is therefore assumed that its capacity has not significantly changed from the "as new" condition.
- All services will be performed to the codes specified by the client, and we do not imply to meet any other codes or requirements unless explicitly agreed in writing. 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. In the absence of information to the contrary, all work will be performed in accordance with the latest revision of ANSI/ASCE10 & ANSI/EIA-222
- All services performed, results obtained, and recommendations made are in accordance with generally accepted engineering principles and practices. CENTEK engineering, Inc. is not responsible for the conclusions, opinions and recommendations made by others based on the information we supply.

General Description of Structural Analysis Program

RISATower, is an integrated structural analysis and design software package for Designed specifically for the telecommunications industry, RISATower, formerly ERITower, automates much of the tower analysis and design required by the TIA/EIA 222 Standard.

RISATower Features:

- RISATower can analyze and design 3- and 4-sided guyed towers, 3- and 4-sided self-supporting towers and either round or tapered ground mounted poles with or without guys.
- The program analyzes towers using the TIA-222-G (2005) standard or any of the previous TIA/EIA standards back to RS-222 (1959). Steel design is checked using the AISC ASD 9th Edition or the AISC LRFD specifications.
- Linear and non-linear (P-delta) analyses can be used in determining displacements and forces in the structure. Wind pressures and forces are automatically calculated.
- Extensive graphics plots include material take-off, shear-moment, leg compression, displacement, twist, feed line, guy anchor and stress plots.
- RISATower contains unique features such as True Cable behavior, hog rod take-up, foundation stiffness and much more.

Technical Memo

To: HPC
From: Amir Uzzaman - Radio Frequency Engineer
cc: Jason Overbey
Subject: Power Density Report for CTNH371A
Date: February 24, 2011

1. Introduction:

This report is the result of an Electromagnetic Field Intensities (EMF - Power Densities) study for the T-Mobile antenna installation on a MP at 6 Mountain Road, Washington, CT. This study incorporates the most conservative consideration for determining the practical combined worst case power density levels that would be theoretically encountered from locations surrounding the transmitting location.

2. Discussion:

The following assumptions were used in the calculations:

- 1) The emissions from T-Mobile transmitters are in the (1935-1944.8), (1980.2-1984.8), (2140-2145)MHz frequency Band.
- 2) The antenna array consists of three sectors, with 1 antenna per sector.
- 3) The model number for GSM antenna is APX16DWV-16DWV.
- 3) The model number for UMTS antenna is APX16DWV-16DWV.
- 4) GSM antenna center line height is 127 ft.
- 4) UMTS antenna center line height is 127 ft.
- 5) The maximum transmit power from any GSM sector is 2399.5 Watts Effective Radiated Power (EiRP) assuming 8 channels per sector.
- 5) The maximum transmit power from any UMTS sector is 2393.81 Watts Effective Radiated Power (EiRP) assuming 2 channels per sector.
- 6) All the antennas are simultaneously transmitting and receiving, 24 hours a day.
- 7) Power levels emitting from the antennas 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.
- 8) The average ground level of the studied area does not change significantly with respect to the transmitting location.

Equations given in "FCC OET Bulletin 65, Edition 97-01" were then used with the above information to perform the calculations.

3. Conclusion:

Based on the above worst case assumptions, the power density calculation from the T-Mobile antenna installation on a MP at 6 Mountain Road, Washington, CT, is 0.07183 mW/cm². This value represents 7.183% of the Maximum Permissible Exposure (MPE) standard of 1 milliwatt per square centimeter (mW/cm²) set forth in the FCC/ANSI/IEEE C95.1-1991. Furthermore, the proposed antenna location for T-Mobile will not interfere with existing public safety communications, AM or FM radio broadcasts, TV, Police Communications, HAM Radio communications or any other signals in the area.

The combined Power Density from other carriers is 37.14988%. The combined Power Density for the site is 44.333% of the M.P.E. standard.

Connecticut Market



Worst Case Power Density

Site: CTNH371A
Site Address: 6 Mountain Road
Town: Washington
Tower Height: 160 ft.
Tower Style: MP

GSM Data		UMTS Data	
Base Station TX output	20 W	Base Station TX output	40 W
Number of channels	8	Number of channels	2
Antenna Model	APX16DWV-16DWV	Antenna Model	APX16DWV-16DWV
Cable Size	1 5/8 in.	Cable Size	1 5/8 in.
Cable Length	150 ft.	Cable Length	150 ft.
Antenna Height	127.0 ft.	Antenna Height	127.0 ft.
Ground Reflection	1.6	Ground Reflection	1.6
Frequency	1945.0 MHz	Frequency	2.1 GHz
Jumper & Connector loss	4.50 dB	Jumper & Connector loss	1.50 dB
Antenna Gain	18.0 dBi	Antenna Gain	18.0 dBi
Cable Loss per foot	0.0116 dB	Cable Loss per foot	0.0116 dB
Total Cable Loss	1.7400 dB	Total Cable Loss	1.7400 dB
Total Attenuation	6.2400 dB	Total Attenuation	3.2400 dB
Total EIRP per Channel (In Watts)	54.77 dBm 299.94 W	Total EIRP per Channel (In Watts)	60.78 dBm 1196.91 W
Total EIRP per Sector (In Watts)	63.80 dBm 2399.50 W	Total EIRP per Sector (In Watts)	63.79 dBm 2393.81 W
nsg	11.7600	nsg	14.7600
Power Density (S) = 0.035956 mW/cm ²		Power Density (S) = 0.035871 mW/cm ²	
T-Mobile Worst Case % MPE =		7.1827%	
Equation Used :			
$S = \frac{(1000)(grf)^2 (Power)^{10}}{4\pi (R)^2}$			
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Co-Location Total

Carrier	% of Standard
Verizon	14.9573 %
Verizon	3.9760 %
Verizon	1.9137 %
Pocket	8.4032 %
Clearwire	0.6411 %
Clearwire	0.4421 %
Sprint	2.8553 %
Nextel	3.9611 %
Total Excluding T-Mobile	37.1499 %
T-Mobile	7.1827
Total % MPE for Site	44.3325%