

# 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](mailto:siting.council@ct.gov)

[www.ct.gov/csc](http://www.ct.gov/csc)

April 1, 2011

Jennifer Young Gaudet  
HPC Development LLC  
46 Mill Plain Road, 2<sup>nd</sup> floor  
Danbury, CT 06811

RE: **TS-T-MOBILE-023-110225** – T-Mobile Northeast LLC notice of intent to modify an existing telecommunications facility located at 4 Hoffman Road, Canton, Connecticut.

Dear Ms. Gaudet:

At a public meeting held March 31, 2011, the Connecticut Siting Council (Council) ruled that the shared use of this existing tower site is technically, legally, environmentally, and economically feasible and meets public safety concerns, and therefore, in compliance with General Statutes § 16-50aa, the Council has ordered the shared use of this facility to avoid the unnecessary proliferation of tower structures with the following conditions:

- Any deviation from the proposed installation as specified in the original tower share request and supporting materials with the Council shall render this decision invalid;
- Any material changes to the proposed installation as specified in the original tower share request and supporting materials filed with the Council shall require an explicit request for modification to the Council pursuant to Connecticut General Statutes § 16-50aa, including 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;
- Not less than 45 days after completion of the proposed installation, the Council shall be notified in writing that the installation has been completed;
- The validity of this action shall expire one year from the date of this letter; and
- The applicant may file a request for an extension of time beyond the one year deadline provided that such request is submitted to the Council not less than 60 days prior to the expiration.

This decision is under the exclusive jurisdiction of the Council. This facility has 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. 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.

This decision applies only to this request for tower sharing and is not applicable to any other request or construction. Please be advised that the validity of this action shall expire one year from the date of this letter.

The proposed shared use is to be implemented as specified in your letter dated February 24, 2011, including the placement of all necessary equipment and shelters within the tower compound.

Thank you for your attention and cooperation.

Very truly yours,

Robert Stein  
Acting Chairman

RS/CDM/laf

c: The Honorable Richard J. Barlow, First Selectman, Town of Canton  
Robert H. Skinner, Chief Administrative Officer, Town of Canton  
Neil Pade, Town Planner, Town of Canton  
American Tower Corporation





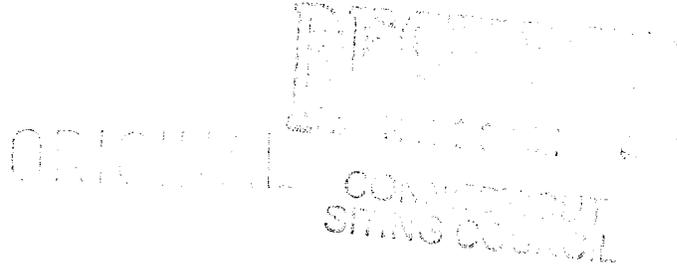
**TOWN OF CANTON**  
FOUR MARKET STREET  
P.O. Box 168  
COLLINSVILLE, CONNECTICUT 06022-0168

**OFFICE OF THE FIRST SELECTMAN**

VIA EMAIL & U.S. MAIL

March 24, 2011

Linda Roberts  
Executive Director  
State of Connecticut  
Connecticut Siting Council  
Ten Franklin Square  
New Britain, CT 06031



**Re: TS-T-MOBILE-023-110225 - T-Mobile Northeast LLC request for an order to approve tower sharing at an existing telecommunications facility located a 4 Hoffman Road, Canton, Connecticut.**

Dear Ms. Roberts:

We are requesting that the Connecticut Siting Council notify each person appearing of record as an owner of property which abuts the site on which the existing facility is proposed to be shared. Since this location is in a residential area, the Town feels that is important to notify these property owners of any changes to this telecommunications facility.

Please feel free to contact for any additional information that you may require.

Sincerely Yours,

Richard J. Barlow  
First Selectman  
Town of Canton

Enclosure: March 11, 2011 CT Siting Council notification to Richard J, Barlow

cc: Robert H. Skinner, Chief Administrative Officer  
Neil Pade, Town Planner, Town of Canton

Phone 860-693-7837 Fax: 860-693-7840  
rbarlow@townofcantonct.org  
www.townofcantonct.org



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Internet: [ct.gov/csc](http://ct.gov/csc)

Daniel F. Caruso  
Chairman

March 11, 2011

The Honorable Richard J. Barlow  
First Selectman  
Town of Canton  
4 Market Street  
P. O. Box 168  
Collinsville, CT 06022-0168

RE: **TS-T-MOBILE-023-110225** - T-Mobile Northeast LLC request for an order to approve tower sharing at an existing telecommunications facility located at 4 Hoffman Road, Canton, Connecticut.

Dear Mr. Barlow:

The Connecticut Siting Council (Council) received this request for tower sharing, pursuant to Connecticut General Statutes § 16-50aa.

The Council will consider this item at the next meeting scheduled for April 14, 2011 at 2:00 p.m. in Hearing Room One, Ten Franklin Square, New Britain, Connecticut.

If you have any questions or comments regarding this proposal, please call me or inform the council by April 13, 2011.

Thank you for your cooperation and consideration.

Very truly yours,

Linda Roberts  
Executive Director

LR/jbw

Enclosure: Notice of Tower Sharing

c: Robert H. Skinner, Chief Administrative Officer, Town of Canton  
Neil Pade, Town Planner, Town of Canton

February 24, 2011

VIA UPS

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

ORIGINAL

RECEIVED  
FEB 25 2011  
CONNECTICUT  
SITING COUNCIL

Re: T-Mobile Northeast, LLC – Tower Share Request  
4 Hoffmann Road, Canton, 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 4 Hoffmann Road in Canton, Connecticut (coordinates 41°-51’-18’’, -72°-04’-13’’). The tower is owned by American Tower Corporation, and currently supports wireless carrier and municipal 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 December 22, 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 a mounting height of 135’ and an antenna center line of approximately 134’. T-Mobile’s related equipment would be located on a 15’ 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 Canton 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 6.249%; the combined site operations will result in a total power density of 10.03349%.
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 4 Hoffmann Road in Canton, 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 Richard J. Barlow, First Selectman, Town of Canton  
James H. and Katherine E. Hart (underlying property owners)



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December 22, 2008

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

RE: **EM-T-MOBILE-023-081023B** – Omnipoint Communications, Inc. a.k.a. T-Mobile notice of intent to modify an existing telecommunication facility located at 4 Hoffman Road, Canton, Connecticut – Relocation of Ground Equipment

Dear Ms. Gaudet:

The Connecticut Siting Council (Council) hereby acknowledges the revisions to your notice to modify this existing telecommunications facility, pursuant to Section 16-50j-73 of the Regulations of Connecticut State Agencies. These revisions include the plans submitted on December 11, 2008 to relocate T-Mobile's equipment within the fenced compound. Please be advised that all conditions associated with the Council's November 12, 2008 acknowledgement are still applicable.

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

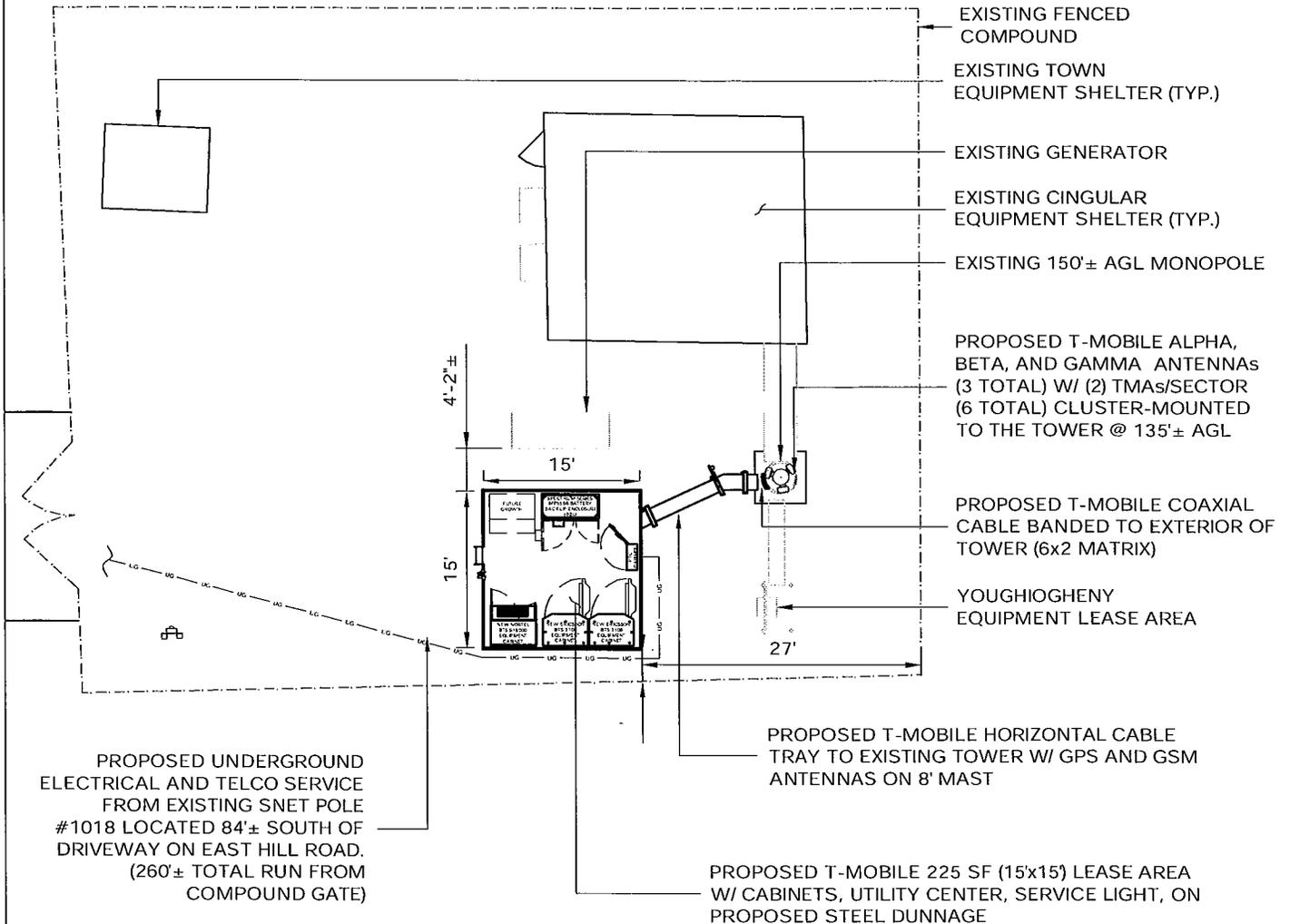
SDP/MP/jb

c: The Honorable Richard J. Barlow, First Selectman, Town of Canton  
Robert H. Skinner, Chief Administrative Officer, Town of Canton  
Neil Pade, Town Planner, Town of Canton  
American Tower

<b>ALL-POINTS TECHNOLOGY CORPORATION, P.C.</b> 3 SADDLEBROOK DRIVE KILLINGWORTH, CT. 06419 PHONE: (860)-663-1697 FAX: (860)-663-0935 www.allpointstech.com	<b>APT FILING NUMBER: CT-255T-230</b> LE-1		 <b>35 GRIFFIN ROAD</b> <b>BLOOMFIELD, CT 06002</b> <b>OFFICE: (860)-692-7100</b>	<b>T-MOBILE SITE NUMBER</b> <b>CTHA155A</b>
	<b>SCALE: AS NOTED</b>	<b>DRAWN BY: AAJ</b>		<b>CANTON ATC</b> <b>4 HOFFMAN ROAD</b> <b>CANTON, CT 06019-2123</b>
<b>DATE: 10/08/08</b>		<b>CHECKED BY: SMC</b>		

**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: 10/20/08: LEASE AREA SIZE: SMC  
 REV2: 10/21/08: GENERAL COMMENTS: SMC  
 REV3: 11/12/08: ANTENNA CONFIG: SMC  
 REV4: 11/25/08: LEASE AREA RELOCO: SMC  
 REV5: 01/28/11: REVISED EQUIP. LAYOUT: SMC

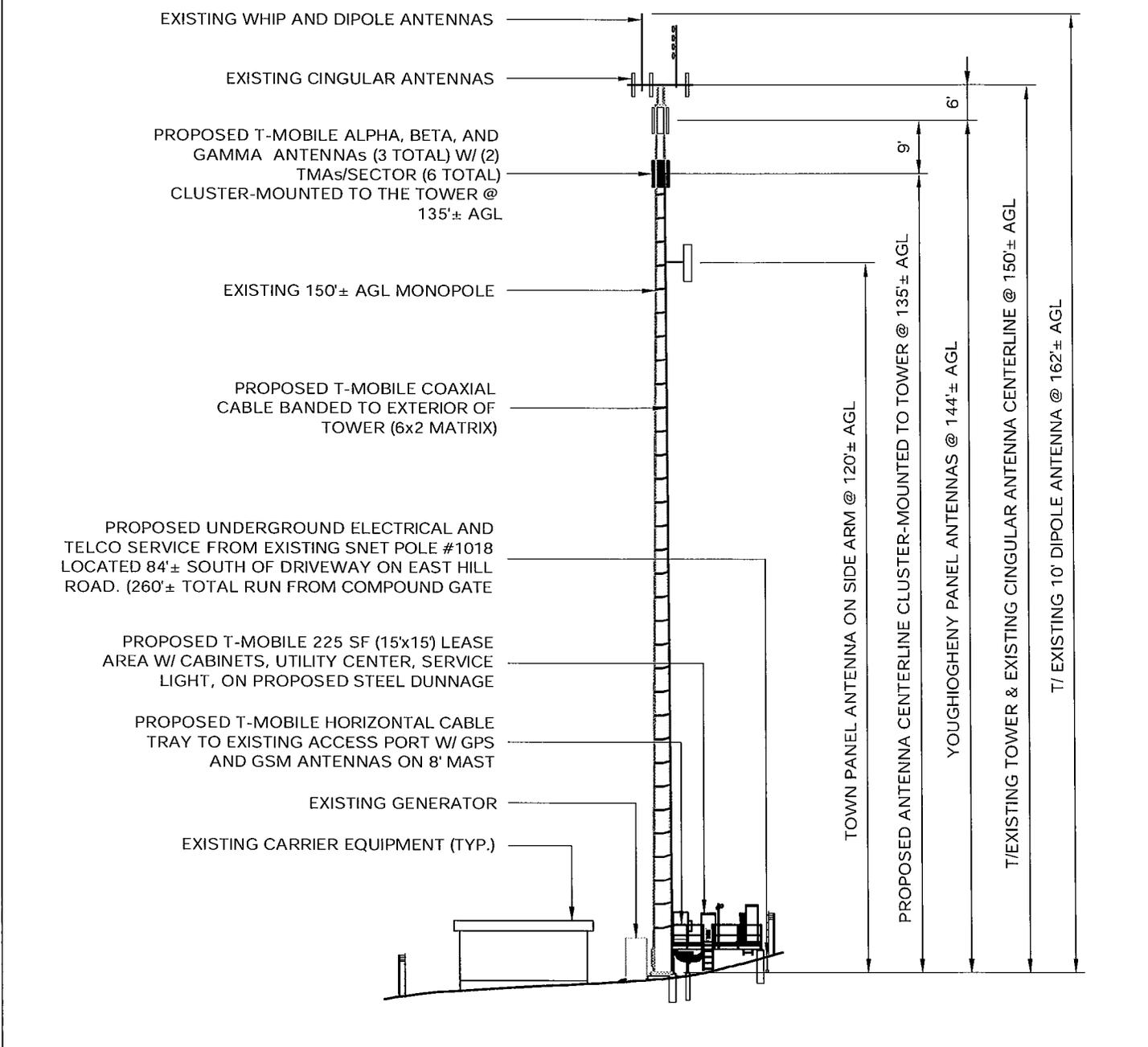


**COMPOUND PLAN**  
 SCALE: 1/16" = 1'-0"

<b>ALL-POINTS TECHNOLOGY CORPORATION, P.C.</b> 3 SADDLEBROOK DRIVE KILLINGWORTH, CT. 06419 PHONE: (860)-663-1697 FAX: (860)-663-0935 www.allpointstech.com	<b>APT FILING NUMBER: CT-255T-230</b>			<b>T-MOBILE SITE NUMBER</b> <b>CTHA155A</b>
	<b>LE-2</b>			<b>35 GRIFFIN ROAD</b> <b>BLOOMFIELD, CT 06002</b> <b>OFFICE: (860)-692-7100</b>
	<b>SCALE: AS NOTED</b>	<b>DRAWN BY: AAJ</b>		
	<b>DATE: 10/08/08</b>	<b>CHECKED BY: SMC</b>	<b>CANTON ATC</b> <b>4 HOFFMAN ROAD</b> <b>CANTON, CT 06019-2123</b>	

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REV1: 10/20/08: LEASE AREA SIZE: SMC  
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 REV4: 11/25/08: LEASE AREA RELOCO: SMC  
 REV5: 01/28/11: REVISED EQUIP. LAYOUT: SMC



**SOUTHERN ELEVATION**  
 SCALE: 1" = 25'-0"



**AMERICAN TOWER®**  
CORPORATION

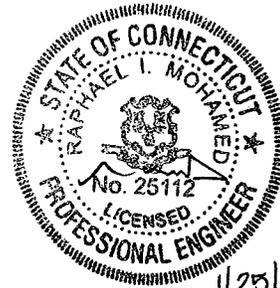
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## Structural Analysis Report

**Structure** : 150 ft ITT Meyer Monopole  
**ATC Site Name** : Cntn - Canton, CT  
**ATC Site Number** : 302488  
**Proposed Carrier** : T-Mobile  
**Carrier Site Name** : N/A  
**Carrier Site Number** : CTHA155  
**County** : Hartford  
**Eng. Number** : 46444121  
**Date** : January 24, 2011\*  
**Usage** : 99%  
**Portholes Required** : No

Submitted by:  
Zachary A. Medoff, E.I.  
Project Engineer

American Tower Engineering Services  
400 Regency Forest Drive  
Cary, NC 27518  
Phone: 919-468-0112



## Results

The maximum structure usage is: 99%

Additional exit and/or entry ports may be required to accommodate the running of the proposed lines to the proposed antennas. These additional ports **may not** be installed without installation drawings providing the location, size and welding requirements of each port.

To ensure compliance with all conditions of this structural analysis, port installation drawings shall be provided by American Tower's Engineering Department under a subsequent project.

Pole Reactions	Original Design Reactions	Factored Design Reactions*	Current Analysis Reactions	% Of Design
Moment (ft-kips)	1,197.0	1616.0	1,891.7	117
Axial (kips)	14.9	20.1	25.2	125
Shear (kips)	13.1	17.7	18.5	105

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.

## Conclusion

Based on the analysis results, the structure meets the requirements per TIA-222-G and 2003 IBC w/ 2005 CT Supplement & 2008 CT Amendments. The tower and foundation can support the existing and proposed antennas with the TX line distribution as described in this report.

If you have any questions or require additional information, please call 919-466-5057.

## **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, the antenna 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 ATC Engineering Services 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 un-corroded condition and have not deteriorated; and we, therefore, assume that their 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 relevant revision of ANSI/EIA-222.

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

**Introduction**

The purpose of this report is to summarize results of the structural analysis performed on the 150 ft ITT Meyer Monopole located at 4 Hoffmann Road, Canton, CT 06019, Hartford County (ATC site #302488). The tower was originally designed and manufactured by ITT Meyer (AT&T Spec. AT-8935, Type "B", dated April 13, 1984).

**Analysis**

The tower was analyzed using Semaan Engineering Solutions, Inc., Software. The analysis assumes that the tower is in good, undamaged, and non-corroded condition.

Basic Wind Speed: 95 mph (3-Second Gust)  
 Radial Ice: 50 mph (3-Second Gust) w/ 1 1/4" ice  
 Code: TIA-222-G/2003 IBC w/ 2005 CT Supplement & 2008 CT Amendments

**Antenna Loads**

The following antenna loads were used in the tower analysis.

**Existing Antennas**

Elev.(ft)	Qty	Antennas	Mount	Coax(in)	Carrier
150.0	1	Telewave ANT450D6-9	Platform w/ Handrails	(1)7/8	Town of Canton
	1	6' Yagi		(1)1/2	USA Mobility
	1	12' Omni		(1)15/8	USA Mobility
	6	Powerwave 7770.00		(12)1 1/4	AT&T Mobility
	6	Powerwave LGP21901			
	6	Powerwave LGP21401			
	6	Powerwave 7020.00 DB RET			
144.0	3	RFS APXV18-206517S-C	Flush	(6)15/8	Youghiogheny
120.0	1	Telewave ANT450D6-9	Side Arm	(1)7/8	Town of Canton

**Proposed Antennas**

Elev.(ft)	Qty	Antennas	Mount	Coax(in)	Carrier
135.0	3	RFS ATMPPI412D-1CWA	Low Profile Platform	(12)15/8	T-Mobile
	3	RFS APX16DWV-16DWV-S-E-ACU			
	3	RFS ATMAA1412D-1A20			

Double-stack proposed coax on outside of monopole.

## Technical Memo

To: HPC  
From: Amir Uzzaman - Radio Frequency Engineer  
cc: Jason Overbey  
Subject: Power Density Report for CTHA155A  
Date: February 22, 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 4 Hoffman Road, Canton, 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), (2140-2145), (2110-2120)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 134 ft.
- 4) UMTS antenna center line height is 134 ft.
- 5) The maximum transmit power from any GSM sector is 2336.25 Watts Effective Radiated Power (EIRP) assuming 8 channels per sector.
- 5) The maximum transmit power from any UMTS sector is 2330.72 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 4 Hoffman Road, Canton, CT, is 0.06249 mW/cm<sup>2</sup>. This value represents 6.249% of the Maximum Permissible Exposure (MPE) standard of 1 milliwatt per square centimeter (mW/cm<sup>2</sup>) 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 10.03349%. The combined Power Density for the site is 16.283% of the M.P.E. standard.

## Connecticut Market



### Worst Case Power Density

**Site:** CTHA155A  
**Site Address:** 4 Hoffman Road  
**Town:** Canton  
**Tower Height:** 150 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	160 ft.	Cable Length	160 ft.
Antenna Height	134.0 ft.	Antenna Height	134.0 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	1.8560 dB	Total Cable Loss	1.8560 dB
Total Attenuation	6.3560 dB	Total Attenuation	3.3560 dB
Total EIRP per Channel (In Watts)	54.65 dBm 292.03 W	Total EIRP per Channel (In Watts)	60.66 dBm 1165.36 W
Total EIRP per Sector (In Watts)	63.69 dBm 2336.25 W	Total EIRP per Sector (In Watts)	63.67 dBm 2330.72 W
nsg	11.6440	nsg	14.6440
Power Density (S) = 0.031284 mW/cm <sup>2</sup>		Power Density (S) = 0.031210 mW/cm <sup>2</sup>	
T-Mobile Worst Case % MPE =		6.2494%	

Equation Used:

$$S = \frac{(1000)(grf)^2 (Power)^{10^{(nsg/10)}}}{4\pi(R)^2}$$

Office of Engineering and Technology (OET) Bulletin 65, Edition 97-01, August 1997

### Co-Location Total

Carrier	% of Standard
Cingular UMTS	1.3620 %
Cingular UMTS	0.7990 %
Cingular GSM	3.2252 %
Cingular GSM	1.3648 %
<b>Pocket</b>	3.2825 %
MetroPCS	
Nextel	
Other Antenna Systems	
<b>Total Excluding T-Mobile</b>	<b>10.0335 %</b>
T-Mobile	6.2494
<b>Total % MPE for Site</b>	<b>16.2829%</b>