



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@po.state.ct.us

Web Site: www.ct.gov/csc

January 16, 2004

Christine Farrell
Real Estate and Zoning
T-Mobile
100 Filley Street
Bloomfield, CT 06002

RE: **TS-T-MOBILE-080-031217** - T-Mobile USA, Inc. request for an order to approve tower sharing for a proposed telecommunications facility to be constructed at 450-478 West Main Street, Meriden, Connecticut.

Dear Ms. Farrell:

At a public meeting held January 12, 2004, 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. 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. Any additional change to this facility may require an explicit request to this agency pursuant to General Statutes § 16-50aa or notice pursuant to Regulations of Connecticut State Agencies Section 16-50j-73, as applicable. Such request or 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.

This decision applies only to this request for tower sharing and is not applicable to any other request or construction.

The proposed shared use is to be implemented as specified in your letter dated December 16, 2003, and additional information provided January 9, 2004.

Thank you for your attention and cooperation.

Very truly yours,

Pamela B. Katz, P.E.
Chairman

PBK/laf

c: Honorable Mark Benigni, Mayor, City of Meriden
Dominick Caruso, City Planner, City of Meriden
Christopher B. Fisher, Esq., Cuddy & Feder LLP



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December 18, 2003

Honorable Mark Benigni
Mayor
City of Meriden
City Hall
142 East Main Street
Room 124
Meriden, CT 06450

RE: **TS-T-MOBILE-080-031217** – T-Mobile USA, Inc. request for an order to approve tower sharing for a proposed telecommunications facility to be constructed at 450-478 West Main Street, Meriden, Connecticut.

Dear Mayor Benigni:

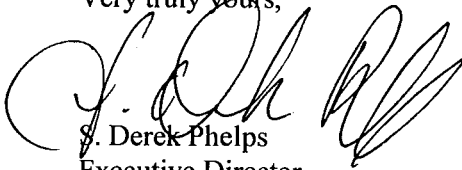
The Connecticut Siting Council (Council) received this request for tower sharing, pursuant to Connecticut General Statutes § 16-50aa.

The Council will consider this item at the next meeting which is tentatively scheduled for January 12, 2004 at 1:30 p.m. in Hearing Room One, Ten Franklin Square, New Britain, Connecticut.

Please call me or inform the Council if you have any questions or comments regarding this proposal.

Thank you for your cooperation and consideration.

Very truly yours,



S. Derek Phelps
Executive Director

SDP/cm

Enclosure: Notice of Tower Sharing

cc: Dominick Caruso, City Planner, City of Meriden



TS-T-MOBILE-080-031217

RECEIVED
JAN - 9 2004

CONNECTICUT
SITING COUNCIL

January 9, 2003

BY HAND

Pamela B. Katz, Chairman and
Members of the Siting Council
Connecticut Siting Council
Ten Franklin Square
New Britain, CT 06051

RE: Tower Sharing Request by T-Mobile
Future AT&T Wireless PCS, LLC Tower Facility at
450-478 West Main Street, Meriden
Latitude: 41.53989 / Longitude: 72.81893

Dear Ms. Katz and Members of the Siting Council:

Attached, please find a structural letter from Tectonic Engineering approving T-Mobile's design to co-locate their equipment on the AT&T Tower facility at 450-470 West Main Street, in Meriden, CT. The tower facility was designed for three carriers. T-Mobile will be the second carrier.

Respectfully submitted,

Christine Farrell
Real Estate and Zoning
T-Mobile
100 Filley St.
Bloomfield, CT 06002
(860) 794-6427

cc: Mayor Mark Benigni



CORPORATE OFFICE:
Mountainville, NY (800) 829-6531

A Division of TECTONIC Engineering Consultants P.C.
1344 Silas Deane Highway, Suite 500
Rocky Hill, Connecticut 06067

(860) 563-2341 FAX: (860) 257-4882
www.tectonicengineering.com

Mr. Robert Bodjiak
T-Mobile
100 Filley Street
Bloomfield, Connecticut 06002

January 9, 2004

**RE: WO # 3050.CT11-733B
T-MOBILE SITE NO. CT11-733.B
100' MONOPOLE
450-478 WEST MAIN STREET
MERIDIAN, CONNECTICUT 06451
MONOPOLE DESIGN REVIEW**

Dear Mr. Bodjiak:

At your request, Tectonic Engineering & Surveying Consultants, P.C. has performed a third party review of the proposed monopole design for the above referenced site in accordance with the Connecticut State Building Code.

Glen Martin Engineering designed the monopole and foundation. Their design was evaluated for conformance to the requirements of ANSI/TIA/EIA-222-F-1996 "Structural Standards for Steel Antenna Towers and Antenna Supporting Structures", the Connecticut State Building Code, and standard industry practice.

For the purpose of our review, the following documents were provided to Tectonic:

1. 100' Monopole 450-478 West Main Street Meriden, CT Configuration Drawing by Glen Martin Engineering; Drawing Number MP0100853-0001, Dated 12/11/03 Revision 2.
2. Structural Design Calculations, by Glen Martin Engineering, CT-378, Meriden-North Central, dated 5/30/03 (18 pages).
3. CT-378A, Meridian North Central, Meriden, CT, 100' Monopole Foundation Drawing by Glen Martin Engineering Drawing Number GME-03260 Rev1 Dated 12/13/03.

We have reviewed the drawings provided, and have performed limited independent calculations to assess this design. We have determined that the appropriate wind and ice loading criteria were applied, and the foundation design properly incorporates the recommendations of the geotechnical report dated August 28, 2002.

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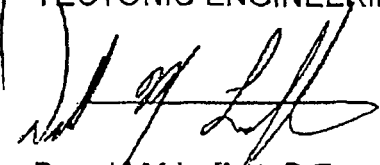
We offer the following comments:

1. The monopole was originally designed to be expandable from 100' to 150' and to would accommodate 6 wireless carriers. However during construction, the foundation was modified such that it could only accommodate 3 wireless carriers on the 100' section of monopole. T-Mobile will be the second carrier on the monopole and their installation will be at elevation 88'.
2. The loads calculated by Glen Martin Engineering do not include the weight of the antenna cables. The additional cable weight will increase the vertical foundation reaction, although it does not affect the final design.

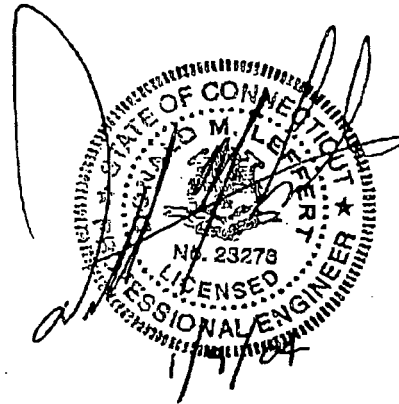
We therefore find that the design of the monopole and foundation for the above referenced site is in compliance with the applicable codes. T-Mobile should be able to install their 9 antennas and a low profile platform at elevation 88'.

Please contact me if you require further information.

Sincerely,
TECTONIC ENGINEERING & SURVEYING CONSULTANTS, P.C.



Donald M Leffert, P.E.
Senior Structural Engineer



December 16, 2003

Page 2

T-MOBILE FACILITY

As shown on the enclosed plans prepared by WestCott and Mapes, including a site plan and tower elevation of the AT&T Meriden Facility, annexed hereto as Exhibit A, T-Mobile proposes a shared use of the Facility by placing antennas on the Tower and equipment needed to provide personal communications services ("PCS") within the existing fenced compound. T-Mobile will install up to nine (9) antennas at approximately the eighty eight (88) foot level of the Tower. Associated unmanned equipment cabinets will be located on a concrete pad near the base of the tower within the existing compound.

Connecticut General Statutes § 16-50aa provides that, upon written request for shared use approval, an order approving such use shall be issued, "if the council finds that the proposed shared use of the facility is technically, legally, environmentally and economically feasible and meets public safety concerns." (C.G.S. § 16-50aa(c)(1).) Further, upon approval of such shared use, it is exclusive and no local zoning or land use approvals are required C.G.S. §16-50x. Shared use of the AT&T Meriden Facility satisfies the approval criteria set forth in C.G.S. § 16-50aa as follows:

- A. Technical Feasibility The existing Tower and compound were designed to accommodate multiple carriers. A structural analysis of the Tower with the proposed T-Mobile installation has been performed and is attached as Exhibit B. The structural analysis concludes that the future tower can safely accommodate the proposed T-Mobile antennas. The proposed shared use of this Tower is technically feasible. Further there is sufficient room in the fenced compound for our facility, thus the site plan will not have to be altered.
- B. Legal Feasibility Pursuant to C.G.S. § 16-50aa, the Council has been authorized to issue an order approving shared use of the existing AT&T Meriden Facility. (C.G.S. § 16-50aa (C)(1)). Under the authority vested in the Council by C.G.S. § 16-50aa, an order by the Council approving the shared use of a tower would permit the Applicant to obtain a building permit for the proposed installation.
- C. Environmental Feasibility The proposed shared use would have a minimal environmental effect, for the following reasons:

- 1.) The proposed installation would have a de minimis visual impact, and would not cause any significant change or alteration in the physical or environmental characteristics of the existing facility,
 - 2.) The proposed installation by T-Mobile would not increase the height of the tower or extend the boundaries of the AT&T Meriden Facility;
 - 3.) The proposed installation would not increase the noise levels at the existing facility boundaries by six decibels or more;
 - 4.) Operation of T-Mobile's antennas at this site would not exceed the total radio frequency electromagnetic radiation power density level adopted by the FCC and Connecticut Department of Health. The "worst case" exposure calculated for the operation of this facility for all carriers, would be approximately 64.644 % of the standard. See Cumulative Emissions Compliance Report dated October 16, 2003, prepared by Jeetendra Ghare, T-Mobile Radio Frequency Engineer, annexed hereto as Exhibit C;
 - 5.) The proposed shared use of the AT&T Meriden Facility would not require any water or sanitary facilities, or generate any air emissions or discharges to water bodies. Further, the installation will not generate any traffic other than for periodic maintenance visits.
- D. Economic Feasibility The Applicant and the tower owner have agreed to share use of the AT&T Meriden Facility on terms agreeable to both parties. The proposed tower sharing is therefore economically feasible.
- E. Public Safety As stated above and evidenced in the Cumulative Emissions Compliance Report annexed hereto as Exhibit C, the operation of T-Mobile's antennas at this site would not exceed the total radio frequency electromagnetic radiation power density level adopted by the FCC and Connecticut Department of Health. Further, the addition of T-Mobile's telecommunications service in the Meriden area through shared use of the AT&T Meriden Facility is expected to enhance the safety and welfare of local residents and travelers through the area resulting in an improvement to public safety in this area.


December 16, 2003

Page 4

Conclusion

As delineated above, the proposed shared use of the AT&T Meriden Facility satisfies the criteria set forth in C.G.S. § 16-50aa, and advances the General Assembly's and the Siting Council's goal of preventing the proliferation of tower in the State of Connecticut. T-Mobile therefore requests the Siting Council issue an order approving the proposed shared use of the AT&T Meriden Facility.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Christine Farrell". The signature is fluid and cursive, with the first name being more prominent.

Christine Farrell
Real Estate and Zoning
T-Mobile
100 Filley St.
Bloomfield, CT 06002
(860) 794-6427

cc: Mayor Mark Benigni

Exhibit 1

Exhibit 2

CT11-733

TECTONIC / KEYES ASSOCIATES

Division of TECTONIC Engineering Consultants P.C.

CORPORATE OFFICE:
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(800)-829-6531

1344 Silas Deane Highway, Suite 500
Rocky Hill, Connecticut 06067(860) 563-2341 Fax: (860) 257-4882
www.tectonicengineering.com

Mr. Donald Huntley
Bechtel Telecommunications
210 Pomeroy Avenue
Meriden, CT 06450

February 18, 2003

RE: **W.O. 2650. CT378**
AT&T WIRELESS SITE CT-378, MERIDEN
PROPOSED 100' MONOPOLE
450-478 WEST MAIN STREET, MERIDEN, CT
STRUCTURAL CAPACITY

Dear Mr. Huntley:

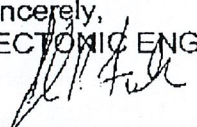
At the above referenced site, AT&T Wireless PCS proposes to replace the existing 100' tower with a new 100' monopole. The existing 100' tower was structurally analyzed by Tectonic and found to be overstressed in its current condition. Any proposed addition of AT&T antennas would severely overstress the tower and any reinforcing of the tower would be impractical.

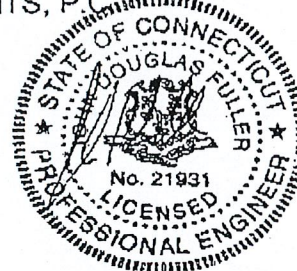
The new 100' monopole will be designed in accordance with established guidelines and loading criteria of all applicable codes. The governing codes include the 1999 Connecticut supplement to the BOCA National Building Code and the national standard ANSI/TIA/EIA-222-F-1996 "Structural Standards for Steel Antenna Towers and Antenna Supporting Structures".

The design and details of the tower and it's foundation will be provided by a leading tower manufacturer prior to construction. The location and elevation of the proposed tower is shown on Tectonic's drawings, SC-1 through SC-5.

Should you require any additional information regarding the structural design of this proposed tower, please feel free to contact me.

Sincerely,
TECTONIC ENGINEERING & SURVEYING CONSULTANTS, P.C.

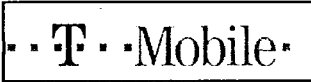

John D. Fuller, P.E.
Telecommunications Manager



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Exhibit 3



T-Mobile USA Inc.
100 Filley St, Bloomfield, CT 06002-1853
Phone: (860) 692-7100
Fax: (860) 692-7159

Technical Memo

To: Karen Bartholomew
From: Jeetendra Ghare - Radio Frequency Engineer
cc: Overbey Jason
Subject: Power Density Report for CT11733B
Date: October 16, 2003

1. Introduction:

This report is the result of an Electromagnetic Field Intensities (EMF - Power Densities) study for the T-Mobile PCS antenna installation on a New Monopole at 462 Main St, Meriden, 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 1935-1945 MHz frequency band.
- 2) The antenna array consists of three sectors, with 3 antennas per sector.
- 3) The model number for each antenna is EMS RR65-18-02DP.
- 4) The antenna center line height is 88 ft.
- 5) The maximum transmit power from any sector is 2845.25 Watts Effective Radiated Power (EiRP) assuming 8 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:

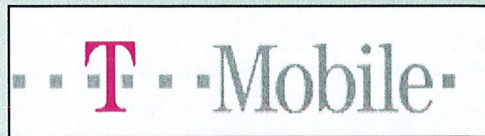
Based on the above worst case assumptions, the power density calculation from the T-Mobile PCS antenna installation on a New Monopole at 462 Main St, Meriden, CT, is 0.09284 mW/cm². This value represents 9.284% of the Maximum Permissible Emission (MPE) standard of 1 milliwatt per square centimeter (mW/cm²) 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 55.36%. The combined Power Density for the site is 64.644% of the M.P.E. standard.

New England Market

Connecticut

Worst Case Power Density



Site:	CT11733B
Site Address:	462 Main St
Town:	Meriden
Tower Height:	100 ft.
Tower Style:	New Monopole
Base Station TX output	20 W
Number of channels	8
Antenna Model	EMS RR65-18-02DP
Cable Size	1 5/8 in.
Cable Length	0 ft.
Antenna Height	88.0 ft.
Ground Reflection	1.6
Frequency	1935.0 MHz
Jumper & Connector loss	4.50 dB
Antenna Gain	17.0 dBi
Cable Loss per foot	0.0116 dB
Total Cable Loss	0.0000 dB
Total Attenuation	4.5000 dB
Total EIRP per Channel	55.51 dBm
(In Watts)	355.66 W
Total EIRP per Sector	64.54 dBm
(In Watts)	2845.25 W
nsg	12.5000
Power Density (S) =	0.092835 mW/cm²
T-Mobile USA Worst Case % MPE =	9.2835%
Equation Used :	$S = \frac{(1000(\text{grf})^2(\text{Power}) * 10^{(\text{ns}/10)})}{4\pi(R)^2}$
	Office of Engineering and Technology (OET) Bulletin 65, Edition 97-01, August 1997

Co-Location Total	
Carrier	% of Standard
AT&T Wireless	10.7900 %
Hunter Ambulance Yagi 1	7.4300 %
Hunter Ambulance Yagi 2	7.4300 %
Hunter Ambulance Yagi 3	22.2800 %
Hunter Ambulance Whip	7.4300 %
Total Excluding T-Mobile USA	55.3600 %
T-Mobile USA	9.2835
Total % MPE for Site	64.6435%



100 Filley Street, Bloomfield, CT 06002
860-794-6427 fax 860-692-7159

Mayor Mark Benigni
City Of Meriden
142 East Main Street
Meriden, CT 06450

RE: **Exempt Modification – Existing Wireless Telecommunications Facility
450-478 West Main Street, Hunter Ambulance, Meriden, Connecticut**

Dear Mayor Benigni :

Omnipoint Communications, Inc. a.k.a. T-Mobile (formerly Voicestream Wireless Corp.) intends to co-locate antennas on the existing monopole located at 450-478 West Main Street in Meriden. Attached, please find a copy of our application to the CT Siting Council.

If you have any questions or concerns, please feel free to call me at 860-794-6427, or the CT Siting Council.

Very Truly Yours

Christine Farrell
T-Mobile Real Estate and Zoning

Attachments-Application

Cc: CSC