

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

Daniel F. Caruso
Chairman

February 17, 2009

Steven L. Levine
Real Estate Consultant
New Cingular Wireless PCS, LLC
500 Enterprise Drive
Rocky Hill, CT 06067-3900

RE: **EM-CING-078-081222** - New Cingular Wireless PCS, LLC notice of intent to modify an existing telecommunications facility located at 1725 Stafford Road, Mansfield, Connecticut.

Dear Mr. Levine:

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 December 19, 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/laf

c: The Honorable Elizabeth Patterson, Mayor, Town of Mansfield
Matthew W. Hart, Town Manager, Town of Mansfield
Gregory Padick, Town Planner, Town of Mansfield



CONNECTICUT SITING COUNCIL

Affirmative Action / Equal Opportunity Employer

EM-CING-078-081222



New Cingular Wireless PCS, LLC
500 Enterprise Drive
Rocky Hill, Connecticut 06067-3900
Phone: (860) 513-7636
Fax: (860) 513-7190

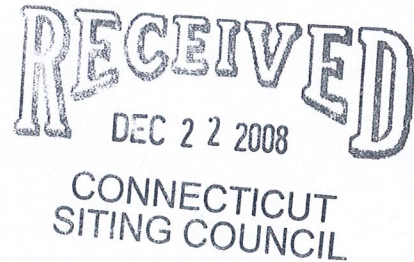
Steven L. Levine
Real Estate Consultant

HAND DELIVERED

ORIGINAL

December 19, 2008

Honorable Daniel F. Caruso, Chairman,
and Members of the Connecticut Siting Council
Connecticut Siting Council
10 Franklin Square
New Britain, Connecticut 06051



Re: New Cingular Wireless PCS, LLC notice of intent to modify an existing tele-communications facility located at 1725 Stafford Road, Mansfield (owner, Town of Mansfield)

Dear Chairman Caruso and Members of the Council:

In order to accommodate technological changes, implement Uniform Mobile Telecommunications System ("UMTS") capability, and enhance system performance in the State of Connecticut, New Cingular Wireless PCS, LLC ("AT&T") plans to modify the equipment configurations at many of its existing cell sites. Please accept this letter and attachments as notification, pursuant to R.C.S.A. Section 16-50j-73, of construction which constitutes an exempt modification pursuant to R.C.S.A. Section 16-50j-72(b)(2). In compliance with R.C.S.A. Section 16-50j-73, a copy of this letter and attachments is being sent to the chief elected official of the municipality in which the affected cell site is located.

UMTS technology offers services to mobile computer and phone users anywhere in the world. Based on the Global System for Mobile (GSM) communication standard, UMTS is the planned worldwide standard for mobile users. UMTS, fully implemented, gives computer and phone users high-speed access to the Internet as they travel. They have the same capabilities even when they roam, through both terrestrial wireless and satellite transmissions.

Attached is a summary of the planned modifications, including power density calculations reflecting the change in AT&T's operations at the site. Also included is documentation of the structural sufficiency of the tower to accommodate the revised antenna configuration.

The changes to the facility do not constitute modifications as defined in Connecticut General Statutes ("C.G.S.") Section 16-50i(d) because the general physical characteristics of the facility will not be significantly changed or altered. Rather, the planned changes to the facility fall

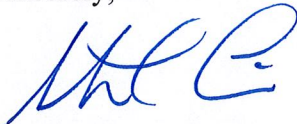
squarely within those activities explicitly provided for in R.C.S.A. Section 16-50j-72(b)(2).

1. The height of the overall structure will be unaffected.
2. The proposed changes will not extend the site boundaries. There will be no effect on the site compound other than some enlarged equipment pads as may be noted in the attachments.
3. The proposed changes will not increase the noise level at the existing facility by six decibels or more.
4. Radio frequency power density may increase due to use of one or more GSM channel for UMTS transmissions. However, the changes will not increase the calculated "worst case" power density for the combined operations at the site to a level at or above the applicable standard for uncontrolled environments as calculated for a mixed frequency site.

For the foregoing reasons, New Cingular Wireless respectfully submits that the proposed changes at the referenced site constitute exempt modifications under R.C.S.A. Section 16-50j-72(b)(2).

Please feel free to call me at (860) 513-7636 with questions concerning this matter. Thank you for your consideration.

Sincerely,



Steven L. Levine
Real Estate Consultant

Attachments

**NEW CINGULAR WIRELESS
Equipment Modification**

1725 Stafford Road, Mansfield
Site Number 1200
Exempt Modification approved 2/04

Tower Owner/Manager: Town of Mansfield

Equipment Configuration: Monopole

Current and/or Approved: Nine CSS DUO-1417-8686 panel antennas @ 150 ft AGL
Six TMA's and three diplexers @ 150 ft
Nine runs 1 5/8 inch coax cable
Equipment Shelter

Planned Modifications: Remove all existing antennas, TMA's, and diplexers
Install six Powerwave 7770 antennas (or equivalent) @ 150 ft
Install six TMA's and six diplexers @ 150 ft
Install three additional lines 1 5/8 inch coax

Power Density:

Worst-case calculations for existing wireless operations at the site indicate a radio frequency electromagnetic radiation power density, measured at ground level beside the tower, of approximately 21.1 % of the standard adopted by the FCC. As depicted in the second table below, the total radio frequency electromagnetic radiation power density following proposed modifications would be approximately 24.1 % of the standard.

Existing

Company	Centerline Ht (feet)	Frequency (MHz)	Number of Channels	Power Per Channel (Watts)	Power Density (mW/cm ²)	Standard Limits (mW/cm ²)	Percent of Limit
Other Users *							18.17
AT&T GSM *	150	1900 Band	2	427	0.0136	1.0000	1.36
AT&T GSM *	150	880 - 894	2	296	0.0095	0.5867	1.61
Total							21.1%

* Per CSC records

Proposed

Company	Centerline Ht (feet)	Frequency (MHz)	Number of Channels	Power Per Channel (Watts)	Power Density (mW/cm ²)	Standard Limits (mW/cm ²)	Percent of Limit
Other Users *							18.17
AT&T UMTS	150	880 - 894	1	500	0.0080	0.5867	1.36
AT&T GSM	150	1900 Band	2	427	0.0136	1.0000	1.36
AT&T GSM	150	880 - 894	4	296	0.0189	0.5867	3.23
Total							24.1%

* Per CSC records

Structural information:

The attached structural analysis demonstrates that the tower and foundation have adequate structural capacity to accommodate the proposed equipment modifications. (Global Tower Services, 12/17/08)



New Cingular Wireless PCS, LLC
500 Enterprise Drive
Rocky Hill, Connecticut 06067-3900
Phone: (860) 513-7636
Fax: (860) 513-7190

Steven L. Levine
Real Estate Consultant

December 19, 2008

Matthew W. Hart, Town Managaer
Town of Mansfield
Town Hall Four So. Eagleville Road
Storrs, CT 06268

Re: Telecommunications Facility – 1725 Stafford Road

Dear Mr. Hart:

In order to accommodate technological changes, implement Uniform Mobile Telecommunications System (“UMTS”) capability, and enhance system performance in the State of Connecticut, New Cingular Wireless PCS, LLC (“AT&T”) will be changing its equipment configuration at certain cell sites.

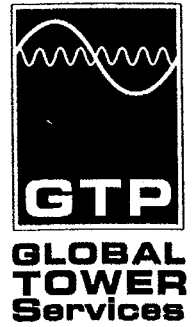
As required by Regulations of Connecticut State Agencies (“R.C.S.A.”) Section 16-50j-73, the Connecticut Siting Council has been notified of the changes and will review AT&T’s proposal. Please accept this letter as notification under Section 16-50j-73 of construction which constitutes an exempt modification pursuant to R.C.S.A. Section 16-50j-72(b)(2).

The accompanying letter to the Siting Council fully describes AT&T’s proposal for the referenced cell site. However, if you have any questions or require any further information on our plans or the Siting Council’s procedures, please call me at (860) 513-7636 or Mr. Derek Phelps, Executive Director, Connecticut Siting Council at (860) 827-2935.

Sincerely,

Steven L. Levine
Real Estate Consultant

Enclosure



Structural Analysis Report

170 ft. Tapered Monopole

**1725 Stafford Road, Mansfield, CT 06268
Tolland County
(CT-5031, Mansfield Center 2)**

**AT&T Mobility
AT&T Mobility Site Number: CT 1200
AT&T Mobility Site Name: Mansfield Center 2-Rte. 195**

**Prepared by:
Global Tower Services, LLC
Michael T. De Boer, P.E.
Director of Structural Engineering**

December 17, 2008

**1801 Clint Moore Road • Suite 110 • Boca Raton, FL 33487-2752
Phone 605.422.1548 • Fax 605.422.1550**

Global Tower Services, LLC
December 17, 2008
Mansfield Center 2
CT-5031

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Global Tower Services, LLC
December 17, 2008
Mansfield Center 2
CT-5031

INTRODUCTION

We have completed the structural analysis for the existing 170 ft. tapered monopole located in Tolland County (1725 Stafford Road, Mansfield), CT. The objective of the analysis is to determine if the existing tapered monopole design is in conformance / compliance with the current codes and standards for the proposed equipment installation.

TSTower written by TowerSoft was utilized in performing the analysis. This program is a commercially available software program which was used to create a non-linear three-dimensional beam model and calculate member stresses for various loading conditions.

DESCRIPTION OF STRUCTURE

The existing structure is a 170 ft. tapered monopole. The original monopole manufacturer is Valmont / PennSummit, West Hazelton, PA.

Original monopole drawings provided by Valmont / PennSummit were used to model the monopole steel. (Valmont / PennSummit Design Number 19122, December 6, 2002) The monopole shaft is manufactured from 65 ksi steel, the base plate is 55 ksi steel and the anchor bolts are A615 Grade 75 steel.

The monopole, for the purpose of analysis, is considered to be in good condition with no defects.

DESIGN PARAMETERS

- Standard:	ANSI/TIA-222-F-1996
- Basic Wind Speed:	85 mph (fastest mile) 105 mph (3-sec gust)
- Serviceability Wind Speed:	50 mph (fastest mile)
- Basic Wind Speed with Ice:	73.95 mph (fastest mile)
- Design Ice Thickness:	0.50 (inch)
- Allowable Stress Increase:	1/3 for wind loading conditions

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 December 17, 2008
 Mansfield Center 2
 CT-5031

ANTENNA LOADING INFORMATION

Existing and Reserved Loading Information

Antenna Description/Mount	Qty	Elev. (ft.)	TX Lines	Qty	Customer
DB844H80 / Low Profile Platform	12	170	1 5/8"	12	Verizon
DUO-1417-8686-40 / Low Profile Platform (To be removed & replaced w/ proposed)	9	150	1 5/8" (Remain)	9	AWS
ADC TMA's / Low Profile Platform (To be removed & replaced w/ proposed)	6	150			AWS
CSS Diplexers / Low Profile Platform (To be removed & replaced w/ proposed)	3	150			AWS
RR-90-17-02 DPL2 / Low Profile Platform	6	140	1 5/8"	12	T-Mobile
DB980F90E-M / Low Profile Platform	9	130	1 5/8"	9	Sprint

Note: Existing lines are inside the monopole shaft.

Proposed Loading Information

Antenna Description/Mount	Qty	Elev. (ft.)	TX Lines	Qty	Customer
Powerwave 7770 / Low Profile Platform	6	150	1 5/8"	12	ATT
Powerwave 21401 TMA's	6	150			ATT
Powerwave 21903 Diplexers	6	150			ATT

Note: Proposed lines are considered inside the monopole shaft. The final loading configuration will be six (6) antennas, twelve (12) lines, six (6) TMA's and six (6) diplexers.

ANALYSIS RESULTS

Structure

The existing 170 ft. tapered monopole is **structurally capable** of supporting the proposed equipment. (See table below)

Monopole Member	% Capacity	Results
Monopole Shaft	47	Pass
Monopole Base Plate	26	Pass
Anchor Bolts	49	Pass

(105 percent is considered acceptable.)

Global Tower Services, LLC
December 17, 2008
Mansfield Center 2
CT-5031

ANALYSIS RESULTS

Foundation

The existing foundation has also been analyzed. The existing foundation was found to be **acceptable**. (See table below)

Foundation Component	Design Reactions	Original Reactions	% Capacity	Results
Overturning Moment	2725.4 Ft-Kips	5555.0 Ft-Kips	49	Pass
Shear	24.5 Kips	45.0 Kips	54	Pass

Monopole Rating: 54%

Summary and Conclusions

The existing 170 ft. tapered monopole located in Tolland County (1725 Stafford Road, Mansfield), CT is **structurally acceptable** based upon the EIA-222-F 1996 Standard and the local building code with the proposed equipment installed.

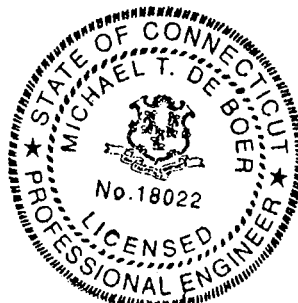
If any other changes are proposed, another structural analysis should be performed to assure the tower is in compliance / conformance with the applicable codes and standards.

Should any further questions arise, please contact the Global Tower Services, LLC Engineering Department at 605-422-1708.

Global Tower Services, LLC



Michael T. De Boer, P.E.
Director of Structural Engineering



12/17/08

Global Tower Services, LLC

December 17, 2008

Mansfield Center 2

CT-5031

Standard Conditions

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

- Information supplied by the client regarding the structure itself, the antenna and transmission line loading on the structure and its components, or relevant information.
- Information from drawings in possession of Global Tower Services, LLC, or generated by field inspections or measurements of the structure.

It is the responsibility of the client to ensure that the information provided to Global Tower Services, LLC and used in the performance of our engineering services is correct and complete. In the absence of information to the contrary, we consider that all structures were constructed in accordance with the drawings and specifications and are in an uncorroded condition and have not deteriorated; and we, therefore, consider that their capacity has not significantly changed from the original design condition.

All services will be performed to the codes and standards specified by the client, and we do not imply to meet any other code and standard requirements unless explicitly agreed to in writing. If wind and ice loads or other relevant parameters are to be different from the minimum values recommended by the codes and standards, the client shall specify the exact requirements. In the absence of information to the contrary, all work will be performed in accordance with the revision of ANSI/TIA/EIA-222 requested.

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

Global Tower Services, LLC
December 17, 2008
Mansfield Center 2
CT-5031

Disclaimer of Warranties

The engineering services by **Global Tower Services, LLC** in connection with this Structural Analysis are limited to a computer analysis of the tower structure, size and capacity of its members. **Global Tower Services, LLC** does not analyze the fabrication, including welding, except as included in this report.

The purpose of this report is to assess the feasibility of adding appurtenances usually accompanied by transmission lines. Any mention of structural modifications are reasonable estimates and should not be used as a precise construction document. Precise modification drawings are obtainable from **Global Tower Services, LLC** but are beyond the scope of this report.

Global Tower Services, LLC makes no warranties, expressed or implied, in connection with this report and disclaim any liability arising from material, fabrication and erection of this tower. **Global Tower Services, LLC** will not be responsible whatsoever for or on account of, consequential or incidental damages sustained by any person, firm, or organization as a result of any data or conclusions contained in this report. The maximum liability of **Global Tower Services, LLC** pursuant to this report will be limited to the total fee received for preparation of this report.

APPENDIX A

Monopole Profile

File: C:\Program Files\TSTower\TSTOWER Input\CT-5031_121008_ATT.out

Contract:

Revision: 1

Project: Structural Analysis for 170' Monopole

Site: CT-5031 (Mansfield Center 2)

Date and Time: 12/15/2008 11:15:52 AM

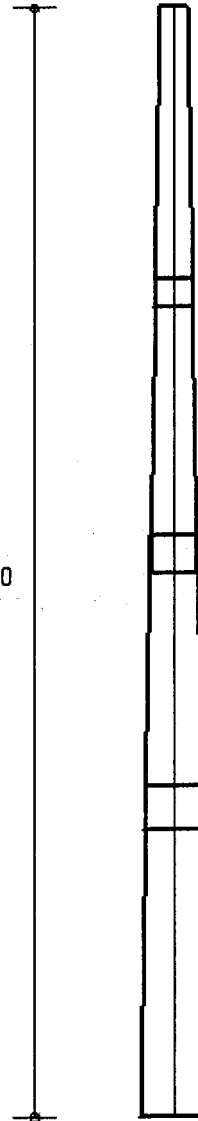
Engineer: Mike De Boer

DESIGN SPECIFICATION

Design Standard: TIA/EIA-222-F-1996
Basic Wind speed = 85.0 (mph)
Service Wind speed = 50.0 (mph)
Ice thickness = 0.50 (in)

Sct.	Length (ft)	Overlap (ft)	Top Dia. (in)	Bot Dia. (in)	Thick. (in)
1	51.00	6.75	51.52	64.12	0.4375
2	45.00	5.75	42.82	53.94	0.3750
3	45.00	4.50	33.75	44.87	0.3125
4	46.00	0.00	24.00	35.36	0.2500

170.00



MAXIMUM BASE REACTIONS

	Bare	Iced
Download (Kips)	45.1	53.1
Shear (Kips)	24.5	20.2
Moment (Kipsft)	2725.4	2328.0