## EM-CING-063-080408





New Cingular Wireless PCS, LLC 500 Enterprise Drive

Rocky Hill, Connecticut 06067-3900

Phone: (860) 513-7636 Fax: (860) 513-7190

ORIGINAL

Steven L. Levine Real Estate Consultant

#### HAND DELIVERED

April 8, 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 telecommunications facility located at 185 Fisk Road, Hampton (owner American Tower)

Dear Chairman Caruso and Members of the Council:

To enhance system performance in the State of Connecticut, New Cingular Wireless PCS, LLC ("Cingular") plans to "dual band" the referenced site. This involves installing new antennas and associated equipment at the cell site to enable transmissions in the 850 MHz band as well as the 1900 MHz band.

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.

Attached is a summary of the planned modifications, including power density calculations reflecting the change in Cingular'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 not be affected. Modifications to the existing

site include all or some of the following as necessary to bring the site into conformance with the plan:

- Replacement of existing panel antennas with new antennas of similar size, shape, and weight, or, installation of additional antennas of similar size, shape, and weight.
- Installation of small tower mount amplifiers ("TMA's") and/or diplexers to the platform on which the panel antennas are mounted to enhance signal reception.
- Installation of additional or larger coaxial cables as required.
- Installation of an additional equipment cabinet in existing shelters, or on existing or enlarged concrete pads.

None of these modifications will extend the height of the tower.

- 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 the addition of the 850 MHz 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, 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

# CINGULAR WIRELESS Dual Banding Equipment Modification

185 Fisk Road, Hampton

Site Number 5707 Former AT&T Site

Exempt Modification approved 6-25-02

Tower Owner/Manager:

American Tower

**Equipment Configuration:** 

**Guyed Lattice Tower** 

Current and/or Approved: Three Allgon 7250 Panel Antennas @ 130 ft

Six 1 1/4 inch coax cables

**Planned Modifications:** 

Remove existing antennas (flushmount)

Install new antenna mount

Install 6 Powerwave 7770 antennas (or equivalent) @ 130 ft

Install 6 TMA's and 6 diplexers @ 130 ft Install six additional runs 1 1/4 inch coax cable Install new radio equipment inside existing shelter

#### **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 15.2 % 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 19.2 % of the standard.

#### **Existing**

Company	Centerline Ht (feet)	Frequency (MHz)	Number of Channels	Power Per Channel (Watts)	Power Density (mW/cm²)	Standard Limits (mW/cm²)	Percent of Limit
Other Users *							13.05
Cingular GSM	130	1900 Band	4	250	0.0213	1.0000	2.13
Total							15.2%

<sup>\*</sup> Per CSC records

# Proposed

Company	Centerline Ht (feet)	Frequency (MHz)	Number of Channels	Power Per Channel (Watts)	Power Density (mW/cm²)	Standard Limits (mW/cm²)	Percent of Limit
Other Users *							13.05
Cingular GSM	130	1900 Band	2	427	0.0182	1.0000	1.82
Cingular GSM	130	880 - 894	4	296	0.0252	0.5867	4.29
Total							19.2%

<sup>\*</sup> Per CSC records

## **Structural information:**

The attached structural analysis demonstrates that the tower and foundation have adequate structural capacity to accommodate the proposed modifications. (American Tower 2/19/08)





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Steven L. Levine Real Estate Consultant

April 8, 2008

Honorable Maurice Y. Bisson 1<sup>st</sup> Selectman, Town of Hampton Town Office Bldg. 164 Main St. Hampton, Connecticut 06247-0143

Re: Telecommunications Facility – 185 Fisk Road, Hampton

Dear Mr. Bisson:

To enhance system performance in the State of Connecticut, New Cingular Wireless PCS, LLC ("Cingular") plans to "dual band" the referenced site to enable transmissions in the 850 Mhz band as well as the 1900 MHz band. This involves changing Cingular's equipment configuration at the site.

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 Cingular'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 Cingular'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**

**Structure** 

160 ft Fred A. Nudd Guyed Tower

**ATC Site Name** 

Hampton CT, CT

**ATC Site Number** 

: 10029

**Proposed Carrier** 

: ATT Mobility

**Carrier Site Name** 

: Hampton West Central

Carrier Site Number:

5707

County

: Windham

Engineering Number: 41488621

Date

: February 19, 2008

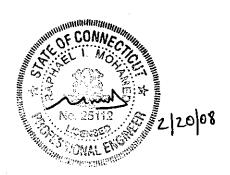
Usage

: 93%

Submitted by: Christopher L. Jolly, E.I. Design Engineer

**American Tower Engineering Services** 400 Regency Forest Drive Cary, NC 27518

Phone: 919-468-0112



#### Introduction

The purpose of this report is to summarize results of the structural analysis performed on the 160 ft Nudd Guyed Tower located off Fisk Road, Hampton, Connecticut, 06247, Windham County (ATC Site No. 10029). The tower was originally designed and manufactured by Fred A. Nudd (Drawing No. 99-6606-1, dated February 17, 1999).

#### <u>Analysis</u>

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:

85.0 mph (Fastest Mile) / 105.0 mph (3-Second Gust)

Radial Ice:

73.6 mph (Fastest Mile) w/ ½" ice

Code:

TIA/EIA-222-F / 2003 International Building Code w/ 2005 Connecticut

Supplements

#### Antenna Loads

The following antenna loads were used in the tower analysis.

#### Existing Antennas

Elev. (ft)	Qty	Antennas	Mount	Coax	Carrier
160.0	9	Allgon 7120.16	(3) Flat Light Sector Frame	(9) 1 1/4"	Contract Manager
150.0	9	Decibel DB980F90E-M	(3) Flat Light Sector Frame	(9) 1 5/8"	Sprint Nextel
142.0	12	Swedcom ALP 9212-N	(3) Flat Light Sector Frame	(12) 1 5/8"	¥7. *
75.0	1	GPS	Side Arm	(1) 1/2"	Verizon

#### Proposed Antennas

Elev. (ft)	Qty	Antennas	Mount	Coax	Carrier
	6	Allgon 7770.00		(12) 1 1/4"	
130.0	6	Powerwave LGP-17201	(3) Flat Light Sector Frame	N/A	ATT Mobility
	6	Powerwave LGP-13519		N/A	·

Double stack proposed coax (6-on-6) in same location as existing.

# Results

The maximum structure usage is: 93%

Foundation	Design (kip)	Analysis (kip)	% Of Design
Base Compression	Unknown	96.3	N/A
Base Shear	Unknown	2.9	N/A
Anchor Uplift	52.5	37.6	72
Anchor Shear	63.2	46.8	74

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/EIA-222-F and 2003 IBC w/ 2005 Connecticut Supplements standards. 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 919-465-6545.

#### **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.

