

# 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)

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

Daniel F. Caruso  
Chairman

September 7, 2007

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

RE: **EM-CING-007-062-126-135-137-070809** – New Cingular Wireless PCS, LLC notice of intent to modify existing telecommunications facilities located at 1657 Wilbur Cross Parkway, Berlin; 360 Gaylord Mountain Road, Hamden; 165 Birdseye Road, Shelton; 366 Old Long Ridge Road, Stamford; and 7 Broadway Avenue Extension, Stonington (Mystic), Connecticut.

Dear Mr. Levine:

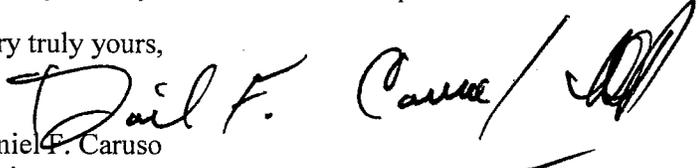
At a public meeting held on August 29, 2007, the Connecticut Siting Council (Council) acknowledged your notice to modify these existing telecommunications facilities, pursuant to Section 16-50j-73 of the Regulations of Connecticut State Agencies with the condition that the AT&T panel antennas and coax be removed from the Stonington tower (Mystic) tower within 180 days of this acknowledgement unless they can be utilized by another carrier within that time period.

The proposed modifications are to be implemented as specified here and in your notice dated August 8, 2007. 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 existing facility sites that would not increase tower heights, extend the boundaries of the tower sites, increase noise levels at the tower site boundaries by six decibels, and increase the total radio frequencies electromagnetic radiation power densities measured at the tower site boundaries to or above the standard adopted by the State Department of Environmental Protection pursuant to General Statutes § 22a-162. These facilities have also been carefully modeled to ensure that radio frequency emissions are conservatively below State and federal standards applicable to the frequencies now used on these towers.

This decision is under the exclusive jurisdiction of the Council. Any additional change to any of these facilities 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.

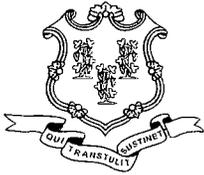
Thank you for your attention and cooperation.

Very truly yours,

  
Daniel F. Caruso  
Chairman

DFC/MP/cm

- c: The Honorable William S. Brown, First Selectman, Town of Stonington
- Jason Vincent, Town Planner, Town of Stonington
- The Honorable Mark A. Lauretti, Mayor, City of Shelton
- Richard Schultz, Planning Administrator, City of Shelton
- The Honorable Dannel P. Malloy, Mayor, City of Stamford
- Robert Stein, Planning and Zoning Director, City of Stamford
- The Honorable Adam P. Salina, Mayor, Town of Berlin
- Hellyn Riggins, Town Planner, Town of Berlin
- The Honorable Craig B. Henrici, Mayor, Town of Hamden
- Leslie Creane, Town Planner, Town of Hamden
- Berlin Volunteer Fire Department
- Clear Channel Broadcasting
- Thomas J. Regan, Esq., Brown Rudnick Berlack Israels, LLP
- Long Ridge Fire Department
- Maria Scotti, Message Center Management



Daniel F. Caruso  
Chairman

# 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)

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

August 9, 2007

The Honorable Adam P. Salina  
Mayor  
Town of Berlin  
240 Kensington Road  
Kensington, CT 06037

RE: **EM-CING-007-062-126-165-137-070809** – New Cingular Wireless PCS, LLC notice of intent to modify existing telecommunication facilities located at 1657 Wilbur Cross Parkway, Berlin; 360 Gaylord Mountain Road, Hamden; 165 Birdseye Road, Shelton; 366 Old Long Ridge Road, Stamford; and 7 Broadway Avenue Extension, Stonington (Mystic), Connecticut.

Dear Mayor Salina:

The Connecticut Siting Council (Council) received this request to modify an existing telecommunications facility, pursuant to Regulations of Connecticut State Agencies Section 16-50j-72.

The Council will consider this item at the next meeting scheduled for August 29, 2007 at 1:30 p.m. in Hearing Room Two, Ten Franklin Square, New Britain, Connecticut.

If you have any questions or comments regarding this proposal, please call me or inform the Council by August 28, 2007.

Thank you for your cooperation and consideration.

Very truly yours,

S. Derek Phelps  
Executive Director

SDP/cm

Enclosure: Notice of Intent

c: Hellyn Riggins, Town Planner, Town of Berlin



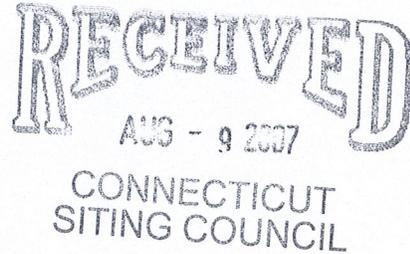
New Cingular Wireless PCS, LLC  
500 Enterprise Drive  
Rocky Hill, Connecticut 06067-3900  
Phone: (860) 513-7636  
Fax: (860) 513-7190

EM-CING-007-062-126-135-137-070809

Steven L. Levine  
Real Estate Consultant

HAND DELIVERED

August 8, 2007



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 5 existing tele-communications facilities located in Berlin, Hamden, Shelton, Stamford, and Stonington

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 ("Cingular") 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 each of the municipalities in which an affected cell site is locate.

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 are summary sheets detailing the planned changes, including power density calculations reflecting the change in the effect of Cingular's operations at each affected site. Also included is documentation of the structural sufficiency of each tower to accommodate the revised antenna configuration.

The changes to the facilities do not constitute modifications as defined in Connecticut General

Statutes ("C.G.S.") Section 16-50i(d) because the general physical characteristics of the facilities will not be significantly changed or altered. Rather, the planned changes to the facilities fall squarely within those activities explicitly provided for in R.C.S.A. Section 16-50j-72(b)(2).

1. In each instance, the height of the overall structure will be unaffected. Modifications to the existing sites include all or some of the following as necessary to bring each 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 noted in the following 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 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, Cingular Wireless respectfully submits that the proposed changes at the referenced sites 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

**GINGULAR WIRELESS  
Equipment Modification**

1657 Wilbur Cross Parkway, Berlin, CT  
Site Number 5375  
Former AT&T site  
Exempt Modification 11/7/02

**Tower Owner/Manager:** Berlin Volunteer Fire Department

**Equipment configuration:** Monopole

**Current and/or approved:** Three Allgon 7250 antennas @ 170 ft c.l.  
Six runs 1 5/8 inch coax

**Planned Modifications:** Remove all three existing antennas  
Install three Powerwave 7770 antennas @ 170 ft c.l.  
Install six TMA's @ 170 ft  
Remove one existing outdoor equipment cabinet  
Install two additional outdoor cabinets on existing steel frame

**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 23.8 % 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 27.5 % of the standard.

**Existing**

Company	Centerline Ht (feet)	Frequency (MHz)	Number of Channels	Power Per Channel (Watts)	Power Density (mW/cm <sup>2</sup> )	Standard Limits (mW/cm <sup>2</sup> )	Percent of Limit
Other Users *							22.54
Cingular GSM *	168	1900 Band	4	250	0.0127	1.0000	1.27
<b>Total</b>							<b>23.8%</b>

\* Per CSC Records

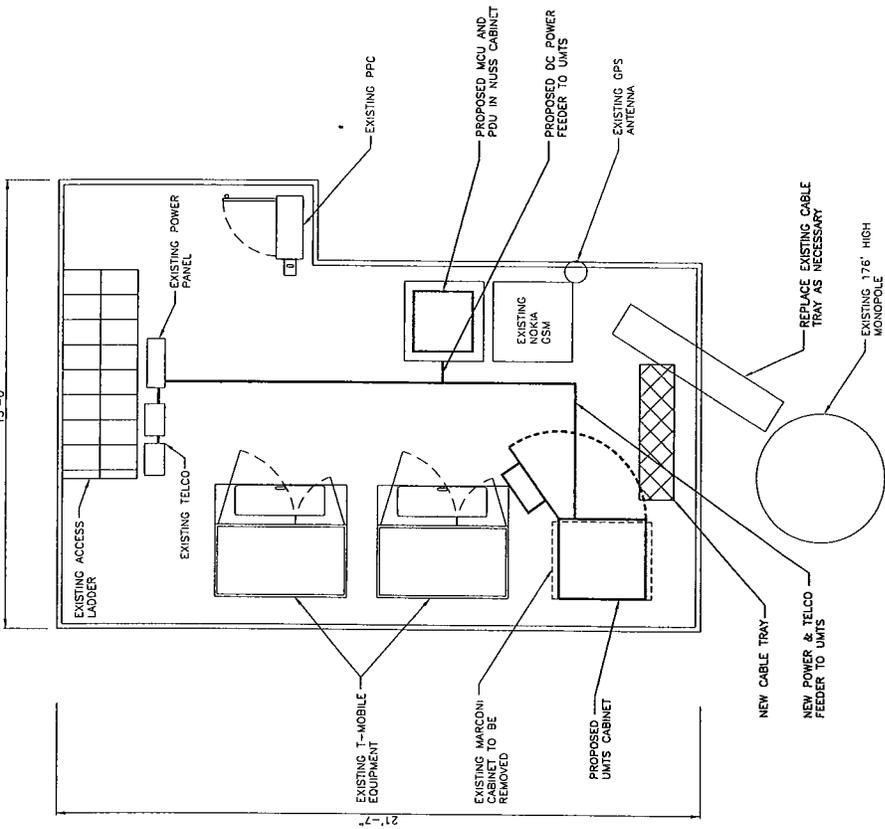
**Proposed**

Company	Centerline Ht (feet)	Frequency (MHz)	Number of Channels	Power Per Channel (Watts)	Power Density (mW/cm <sup>2</sup> )	Standard Limits (mW/cm <sup>2</sup> )	Percent of Limit
Other Users *							22.54
Cingular GSM	170	1900 Band	4	787	0.0392	1.0000	3.92
Cingular UMIS	170	880 - 894	1	500	0.0062	0.5867	1.06
<b>Total</b>							<b>27.5%</b>

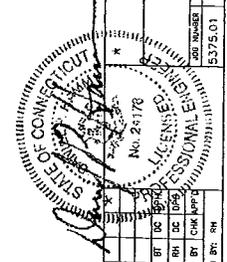
\* Per CSC Records

**Structural information:**

The attached structural analyses indicate that the tower, foundation, and steel frame have adequate structural capacity to accommodate the proposed modifications. (Malouf Engineering Intl., dated 8/7/07; Hudson Design Group, dated 5/21/07)



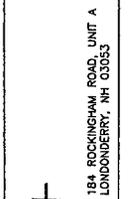
**EQUIPMENT PLAN  
OUTDOOR UMITS**  
SCALE: 1/2"=1'-0"

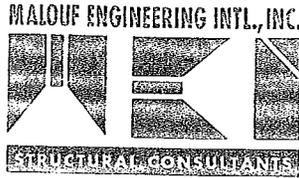


NO.	DATE	REVISIONS	BY	CHK	APP'D
1	08/15/07	CONSTRUCTION FINAL	BT	DC	BT
0	05/22/07	ISSUED FOR CONSTRUCTION	RH	DC	BT
SCALE: NOT SHOWN					
DESIGNED BY: RH					
DRAWN BY: RH					
JOB NUMBER: 5375.01					
SHEET NUMBER: A-1					



**SITE NUMBER: 5375**  
**SITE NAME: BERLIN EAST**  
 1657 WILBUR CROSS HIGHWAY  
 BERLIN, CT 06037  
 HARTFORD COUNTY





August 7, 2007

Mr. Derek Creaser  
 HUDSON DESIGN GROUP, LLC  
 representing AT&T  
 46 Beechwood Drive  
 North Andover, MA 01845

SUBJECT	<b>FEASIBILITY STRUCTURAL EVALUATION</b>		
Structure:	176 ft <b>Monopole</b>	EEI Inc.	
Client/ Site Name /#:	<b>Hudson D.G./ AT&amp;T</b>	<b>Berlin East</b>	<b># 5375</b>
Owner/Site Name /#:			
MEI Project ID:	<b>CT00843M-07V0</b>		
Location:	1657 Willbur Cross Hwy Berlin, CT 06037	Hartford County F.A # N/A	
	LAT	41-36-22.7 N	LON 72-44-58.6 W

Malouf Engineering Int'l (MEI), as requested, has performed a feasibility structural evaluation of the above mentioned structure to assess the impact of the changed condition as noted below.

The structural evaluation performed used the following criteria:

CODE / STANDARD	ANSI/TIA-222-F-96 Standard / IBC 2003 Code - CT Building Code	
LOADING CASES	Full Wind:	80 Mph (with No Radial Ice)
	Iced Case:	70 Mph + 0.50" Radial Ice
	Service:	50 Mph

Table 1: Proposed Changed Condition Appurtenances

Elev (ft)	Tenant	Ants Qty	Appurtenance Model / Description	Mount Description	Lines Qty	Line size & Location
170 *	AT&T	3	Allgon 7770 Panel Ants.	[exist 3-way close contact mount]	[6]	1-5/8" - (I) [re-use exist]
		6	LGP 21401 DB TMA's			
		3	RCU/RET's			
					1	3/8" - (I)

\* Note: Existing (3) panel antennas are to be removed and replaced with above.

Table 2: Previous Analysis Appurtenances

Elev (ft)	Tenant	Ants Qty	Appurtenance Model / Description	Mount Description	Lines Qty	Line size & Location
176	Town	3	Dipoles Antennas	LP Platform w/o Rails	2	1-5/8" - I
		2	Omni Antennas		2	1-5/8" - I
		2	Grid Dishes		2	1-5/8" - I
168	Cingular	3	Allgon 7184 Panel Antennas	3 way Flush Mount	6	1-5/8" - I
160	T-Mobile	9	EMS DR65-19-00DP Panel Ants.	LP Platform w/o Rails	24	1-5/8" - I
		12	Decibel PCS 1900 TMA's			
150	Sprint	12	Dapa 48000 Panel Antennas	LP Platform w/o Rails	12	1-5/8" - I
130	Town	1	Dipole Antenna	Standoff Mount	1	1-5/8" - I
118	Verizon	6	RWA80013 Panel Antennas	LP Platform w/o Rails	12	1-5/8" - I
		6	LPA-185080/8CF Panel Antennas			
100	Town	1	Dipole Antenna	Standoff Mount	1	1-5/8" - I
		1	Grid Dish	Standoff Mount	1	1-5/8" - I
75	Sprint	1	GPS Antenna	Standoff Mount	1	1/2" - I
60	Town	1	VIC-100 GPS Ant.	Standoff Mount	1	1/2" - I
		1	Scanner Antenna	Standoff Mount	1	1/2" - I

(I) = Internal; (E) = External - as per TIA-222

The information used as source data to represent the existing structure and the related appurtenances is as follows:

Structure & Current Appurtenances	Structure data and previous appurtenances loading as per previous analysis by URS Corp., ref. job # 36912556-00008, dated 02/21/06 – Tower <i>Max. Stress at 69.0%</i> .
Changed Condition	As per AT&T /Cingular Wireless RF approval email, dated 04/23/07 version 2007-02, Supplied by Hudson Design Group, LLC on 07/03/07.

The subject structure is evaluated for the feasibility of the installation of the proposed changed condition previously noted. The data records furnished were reviewed and the appurtenances loading was evaluated (no computer analysis performed, only relative loading magnitude comparison), in accordance with the TIA-222 Standard provisions and with the agreed limited scope of work terms and the results of this feasibility evaluation are reported. This evaluation is based on information supplied, and therefore, its results are based on and as accurate as that supplied data. MEI has made no independent determination of its accuracy. This existing structure is assumed, for the purpose of this evaluation, to have been properly maintained and to be in good condition with no structural defects and with no deterioration to its capacity ('as-new').

Based on the feasibility structural evaluation of the data provided, the subject structure, including foundation, would meet the minimum requirements of ANSI/TIA 222-F Standard for the proposed changed condition as stated above when considering the structure to have been properly designed for the stated appurtenances. The proposed loading would stress the structure the same or less than the previous structural analysis. (*Note that not all the previous analysis loading is currently present on tower*)

Therefore, **the installation of the noted proposed changed condition is structurally acceptable** on this existing structure in accordance with the ANSI/TIA 222-F Standard for the loading considered under the criteria listed and referenced.

MEI appreciates the opportunity of providing our continuing professional services to you. If you have any questions or need further assistance on this or other projects please contact us.

Respectfully submitted,

MALOUF ENGINEERING INT'L, INC.



E. Mark Malouf, PE  
Connecticut #17715  
972-783-2578 ext. 106  
mmalouf@maloufengineering.com





May 21, 2007

Mark Appleby  
Real Estate Consultant  
Cingular Wireless  
500 Enterprise Drive "Suite 3A"  
Rocky Hill, CT 06067

RE: Cingular Site #5375  
Site Name: Berlin East  
Berlin Fire Department  
1657 Wilbur Cross Highway  
Berlin, CT 06037

Hudson Design Group LLC has been authorized by Cingular Wireless to conduct a structural evaluation of the new Cingular cabinet installation on the existing platform (formerly AT&T) for the above referenced site.

The proposed Cingular installation will consist of removing the existing Marconi cabinet and installing an Ericsson UMTS and CCI cabinet. The proposed installation will include the two existing Cingular Nokia BTS cabinets as well as the new Emerson and CCI cabinets.

Hudson Design Group performed an evaluation based on available structural drawings and information collected during a site visit on May 8, 2007. Based on our evaluation, we have determined that the existing platform is capable of supporting the loads imposed by the Cingular equipment. This evaluation is based on the requirements of the 2003 IBC and the 2005 Connecticut amendments.

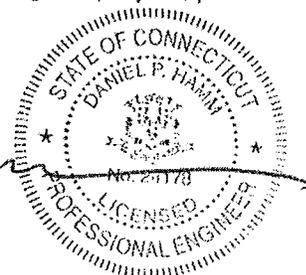
This determination was based on the following limitations and assumptions:

1. The existing equipment platform and Cingular equipment will be properly maintained.
2. Hudson Design Group is not responsible for any modifications completed prior to or hereafter which Hudson Design Group was not directly involved.

If you have any questions regarding this project, please do not hesitate to call.

Sincerely,

  
Daniel P. Hamm PE  
President  
Hudson Design Group, LLC.  
46 Beechwood Drive  
North Andover, MA 01845





The new



at&t

Your world. Delivered.

**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

August 8, 2007

Herman Middlebrooks, Jr, Town Manager  
Town of Berlin  
Town Hall 240 Kensington Rd.  
Berlin, CT 06037

Re: Telecommunications Facility – 1657 Wilbur Cross Parkway, Berlin, CT

Dear Mr. Middlebrooks:

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 (“Cingular”) 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 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

**CINGULAR WIRELESS  
Equipment Modification**

360 Gaylord Mountain Road, Hamden, CT  
Site Number 5663  
Former AT&T site  
Exempt Modification 9/5/02

**Tower Owner/Manager:** Clear Channel Broadcasting

**Equipment configuration:** Guyed Lattice Tower

**Current and/or approved:** Three Allgon 7250 antennas @ 180 ft c.l.  
Six runs 1 5/8 inch coax

**Planned Modifications:** Remove all three existing antennas  
Install three Powerwave 7770 antennas @ 180 ft c.l.  
Install six TMA's @ 180 ft  
Remove one existing cabinet  
Install two outdoor cabinets

**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 8.3 % 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 8.6 % of the standard.

**Existing**

Company	Centerline Ht (feet)	Frequency (MHz)	Number of Channels	Power Per Channel (Watts)	Power Density (mW/cm <sup>2</sup> )	Standard Limits (mW/cm <sup>2</sup> )	Percent of Limit
Other Users *							4.95
Cingular GSM *	180	1900 Band	12	250	0.0333	1.0000	3.33
<b>Total</b>							<b>8.3%</b>

\* Per CSC Records

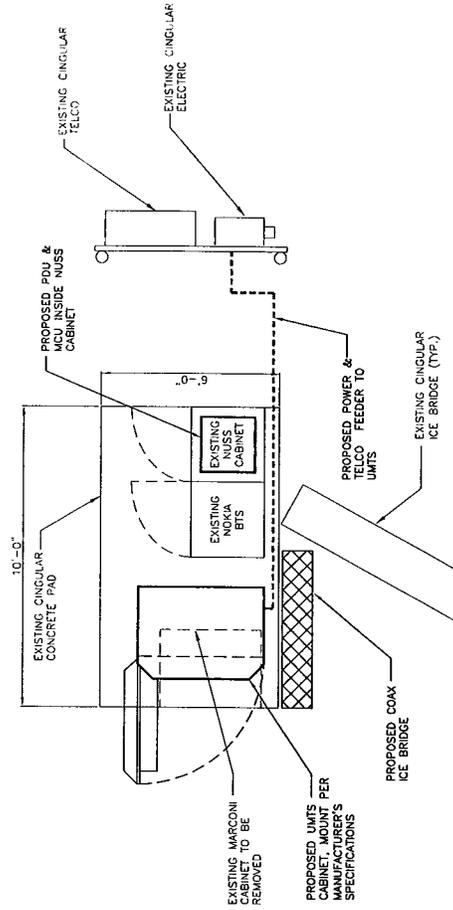
**Proposed**

Company	Centerline Ht (feet)	Frequency (MHz)	Number of Channels	Power Per Channel (Watts)	Power Density (mW/cm <sup>2</sup> )	Standard Limits (mW/cm <sup>2</sup> )	Percent of Limit
Other Users *							4.95
Cingular GSM	180	1900 Band	4	611	0.0271	1.0000	2.71
Cingular UMTS	180	880 - 894	1	500	0.0055	0.5867	0.95
<b>Total</b>							<b>8.6%</b>

\* Per CSC Records

**Structural information:**

The attached structural analysis demonstrates that the tower and foundation have sufficient structural capacity to accommodate the proposed modifications. (Malouf Engineering Intl., dated 8/6/07)



**LEGEND**

-  EXISTING EQUIPMENT
-  PROPOSED EQUIP.
-  FUTURE EQUIP.
-  CONDUCTORS AND RACEWAY TO BE FURNISHED & INSTALLED BY SUBCONTRACTOR
-  EXISTING CABLE TRAY
-  PROPOSED CABLE TRAY

**EQUIPMENT PLAN  
OUTDOOR UNITS**  
SCALE: 1/2"=1'-0"



NO.	DATE	BY	REVISIONS
1	08/24/07	AL DC	CONSTRUCTION FINAL
0	08/18/07	AL DC	ISSUED FOR CONSTRUCTION

SCALE	NOT SHOWN	DESIGNED BY	AL	DRAWN BY	AL
PROJECT NUMBER	5663.01	SHEET NUMBER	A-1	TOTAL SHEETS	1

**cingular**  
WIRELESS  
500 ENTERPRISE DRIVE, SUITE 3A  
ROCKY HILL, CT 06067

**SIAD**  
communications  
184 ROCKINGHAM ROAD, UNIT A  
LONDONGERRY, NH 03053

**Hudson**  
Engineering & Construction  
111 W. 10th Street  
Hudson, NH 03051  
TEL: 603.887.2200  
FAX: 603.887.2200

SITE NUMBER: 5663  
SITE NAME: HAMDEN-WEST  
360 GAYLORD MOUNTAIN ROAD  
HAMDEN, CT 06518  
NEW HAVEN COUNTY

CINGULAR WIRELESS  
"OUTDOOR" PLAN  
OUTDOOR UNITS



**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

August 8, 2007

Honorable Craig B. Henrici, Mayor  
Town of Hamden  
Hamden Government Center 2750 Dixwell Avenue  
Hamden, CT 06518-3320

Re: Telecommunications Facility – 360 Gaylord Mountain Road, Hamden

Dear Mayor Henrici:

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 (“Cingular”) 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 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

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# Structural Analysis Report

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## AT&T - Hamden West Site # 5663

Clear Channel Broadcasting – Hamden Site  
360 Gaylord Mountain Rd, Hamden, CT 06518.

Aug 06, 2007

MEI PROJECT ID: CT00835G-07V0

**MALOUF ENGINEERING INTL., INC.**



**STRUCTURAL CONSULTANTS**

---

17950 PRESTON ROAD, SUITE 720 ■ DALLAS, TEXAS 75252-5635 ■ TEL. 972 -783-2578 FAX 972-783-2583  
[www.maloufengineering.com](http://www.maloufengineering.com)

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Aug 06, 2007

## STRUCTURAL ANALYSIS

Structure:	625 ft <b>Guyed Tower</b>		CSS /Triangular	
Client/ Site Name /#:	<b>Hudson / AT&amp;T</b>		<b>Hamden_West</b>	<b># 5663</b>
Owner/Site Name /#:	Clear channel Broadcasting, Inc		Hamden-West	
MEI Project ID:	<b>CT00835G-07V0</b>			
Location:	360 Gaylord Mountain Rd., Hamden, CT 06518		New Haven County FCC # 1216288	
	LAT	41-26-0.6 N	LON	72-56-41.6 W

### EXECUTIVE SUMMARY:

Malouf Engineering Int'l (MEI), as requested, has performed a rigorous structural analysis of the above-mentioned structure to assess the impact of the changed condition as noted in Table 1.

Based on the stress analysis performed, the existing structure is **in conformance** with the ANSI/TIA **222-F** Standard for the loading considered under the criteria listed and referenced in the report sections.

**The installation of the proposed changed condition of the AT&T (3) LGP Allgon 7770 panel antennas, (6) Powerwave LGP 21401 TMA's and (#) RCU/RET units onto leg mounts fed with (6) 1-5/8" Coaxes (exist) at Elev. 180 ft c.l. is structurally acceptable.**

MEI appreciates the opportunity of providing our continuing professional services to you. If you have any questions or need further assistance on this or any other projects please contact us.

Respectfully submitted,

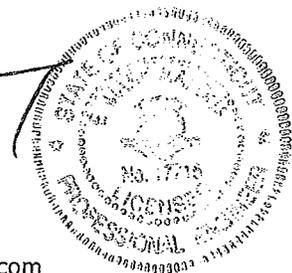
**MALOUF ENGINEERING INT'L, INC.**

Analysis performed by:

Krishna Manda, PE  
Project Engineer

Reviewed & Approved by:

  
E. Mark Malouf, PE  
Connecticut #17715  
972-783-2578 ext. 106  
mmalouf@maloufengineering.com



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## 1. INTRODUCTION & SCOPE

A structural analysis was performed by Malouf Engineering Int'l (MEI), as requested and authorized by Mr. Derek Creaser, Hudson Design Group, LLC, on behalf of AT&T to determine the acceptance of the proposed changed conditions in conformance with the ANSI/TIA-222-F Standard, "Structural Standards for Steel Antenna Towers and Antenna Supporting Structures".

The scope of this independent analysis is to determine the overall stability and the adequacy of structural members, foundations, and member connections, as available and stated. This analysis considers the structure to have been properly installed and maintained with no structural defects. Installation procedures and related loading are not within the scope of this analysis and should be performed and evaluated by a competent person of the erection contractor.

The different report sections detail the applicable information used in this evaluation, relating to the tower data, the appurtenances configuration and the wind and ice loading considered.

## 2. SOURCE OF DATA

The following information has been used in this evaluation as source data that accurately represent the existing structure and the related appurtenances:

	Source	Information	Reference
<b>STRUCTURE</b>			
<b>Tower</b>	Hudson D.G. / Derek Creaser	Tower Original Drawings	Paul J. Ford Analysis # 37700-30 Dated 2/23/2001
<b>Foundation</b>	Hudson D.G. / Derek Creaser	Foundation Original Drawings	Paul J. Ford Analysis # 37700-30 Dated 2/23/2001
<b>Material Grade</b>	Available from supplied documents - refer to Appendix.		
<b>CURRENT APPURTENANCES</b>			
	Hudson D.G. / Derek Creaser	Previous Analysis Report & mainly recent Photos	Paul J. Ford Analysis # 37700-30 Dated 2/23/2001
<b>CHANGED CONDITION</b>			
	Hudson D.G. / Derek Creaser	Cingular RF Data Sheet	Dated 4/26/2007, ver. 2007-02

### Background Information:

Based on available information, the following is known regarding this structure:

<b>DESIGNER / FABRICATOR</b>	Communications Structures & Services
<b>DESIGN CRITERIA</b>	TIA/EIA 222-F -85/74 MPH + 0"/1/2" Ice
<b>PRIOR STRUCTURAL MODIFICATIONS</b>	None known

→ ALL HEADERS

**3. ANALYSIS CRITERIA**

The structural analysis performed used the following criteria:

<b>CODE / STANDARD</b>	ANSI/TIA-222-F-96 Standard / IBC2003	
<b>LOADING CASES</b>	Full Wind:	85 Mph (with No Radial Ice)
	Iced Case:	74 Mph + 1/2" Radial Ice
	Service:	50 Mph

**Appurtenances Configuration**

The following appurtenances configuration has been considered:

**Table 1: Proposed Changed Condition Appurtenances**

Elev (ft)	Tenant	Ants Qty	Appurtenance Model / Description	Mount Description	Lines Qty	Line size & Location
180	AT&T	3	LGP Allgon 7770 Panels	[leg mounts - exist]	6	1-5/8" [re-use exist]
		6	LGP 21401 TMA's			
		3	RCU/RET			

**Table 2: Current and Reserved/Future Appurtenances**

Elev (ft)	Tenant	Ants Qty	Appurtenance Model / Description	Mount Description	Lines Qty	Line size & Location
615		1	4-Bay w/ radome FM Antenna		1	2 1/4"
544		1	2-Bay FM Antenna		1	2 1/4"
396		1	20' Omni Antenna		1	7/8"
296		1	20' Omni Antenna		1	7/8"
250		1	20' Omni Antenna		1	7/8"
196		1	DB420 Antenna	6' Side arm mount	1	7/8"
158		1	OB Lights			

**Notes:**

1. Current antennas used is based on limited data available and have been estimated from supplied information - mainly photos..
2. Please note appurtenances not listed above are to be removed/not present as per data supplied.
3. (I) = internal; (E) = External; (FZ) = Within Face Zone & (OFZ) = Outside Face Zone - as per TIA-222.
4. The above antennas, mounts, and lines represent MEI's understanding of the appurtenances configuration. If different than above, the analysis is invalid. Please refer to Appendix 2 for EPA wind areas used in the calculations. Please contact MEI if any discrepancies are found.

#### 4. ANALYSIS PROCEDURE

The subject structure is analyzed for feasibility of the installation of the proposed changed condition previously noted. The data records furnished were reviewed and a computer stress analysis was performed in accordance with the TIA-222 Standard provisions and with the agreed scope of work terms and the results of this analysis are reported.

##### Analysis Program

The computer program used to model the structure is a rigorous Finite Element Analysis program, RISATower (ver. 5.022), a commercially available program developed by C-Concepts, WI and now maintained by RISA Technologies. The latticed structures members are modeled using beam/truss and cable members and the pole members using tubular beam elements. The structural parameters and geometry of the members are included in the model. The dead and temperature loads and the wind loads are internally calculated by the program for the different wind directions and then applied as external loads on the structure.

##### Assumptions

This engineering study is based on the theoretical capacity of the members and is not a condition assessment of the structure. This analysis is based on information supplied, and therefore, its results are based on and as accurate as that supplied data. MEI has made no independent determination, nor is it required to, of its accuracy. The following assumptions were made for this structural stress analysis:

- This existing tower is assumed, for the purpose of this analysis, to have been properly maintained and to be in good condition with no structural defects and with no deterioration to its member capacities ('as-new' condition).
- The tower member sizes and configuration are considered accurate as supplied. The material grade is as per data supplied and/or as assumed and as stated.
- The appurtenances configuration is as supplied and/or as stated in the report. It is assumed to be complete and accurate. All antennas, mounts, coax and waveguides are assumed to be properly installed and supported as per manufacturer requirements.
- Some assumptions are made regarding antennas and mounts sizes and their projected areas based on best interpretation of data supplied and of best knowledge of antenna type & industry practice.
- Mounts are considered adequate to support the loading. No actual analysis of the platform/mount itself is performed, with the analysis being limited to analyzing the structure.
- The soil parameters are as per data supplied or as assumed and stated in the calculations. Refer to the Appendix. If no data is available, the foundation system is assumed to support the structure with its new reactions.
- All welds and connections are assumed to develop at least the member capacity, unless determined otherwise and explicitly stated in this report. All guy cable assemblies, as applicable, are assumed to develop the rated breaking strength of the wire.
- All prior structural modifications, if any, are assumed to be as per data supplied/available, and to have been properly installed and to be fully effective.

If any of the above assumptions are not valid or have been made in error, this analysis results may be invalidated, MEI should be contacted to review any contradictory information to determine its effect.

## 5. ANALYSIS RESULTS

The results of the structural stress analysis based on data available and with the previous listed criteria, indicated the following:

**Table 3: Stress Analysis Results**

Member Type	Maximum Stress Ratio	Controlling Elevation / Component	Pass/Fail	Comment
<b>POLE</b>	90.1%	592-625ft	<b>Pass</b>	
<b>LEGS</b>	78.4%	380-400ft	<b>Pass</b>	
<b>DIAGONALS</b>	65.6%	4-20ft	<b>Pass</b>	
<b>HORIZONTAL</b>	98.9%	4-20ft	<b>Pass</b>	
<b>BASE FDN</b>	76.5%	Bearing	<b>Pass</b>	
<b>ANCHOR FDN</b>	81.3%	Uplift	<b>Pass</b>	

**Notes:**

1. The Maximum Stress Ratio is the percentage that the maximum load in the member is relative to the allowable load as determined by Code requirements.
2. Refer to the Appendix 2 for more details on the member loads.
3. A maximum stress ratio between 100% to 105% may be considered as *Acceptable* according to industry standard practice.

## 6. FINDINGS & RECOMMENDATIONS

- Based on the rigorous stress analysis results, the subject structure is **rated at 98.9%** of its support capacity (controlling component: horizontals) with the proposed changed condition considered. Please refer to Table 3 and to Appendix 2 for more details of the analysis results.
- Based on the stress analysis performed, the existing structure is **in conformance** with the ANSI/TIA **222-F** Standard for the loading considered under the criteria listed and referenced in the report sections.
- ***The installation of the proposed changed condition of the AT&T (3) LGP Allgon 7770 panel antennas, (6) Powerwave LGP 21401 TMA's and (#) RCU/RET units onto leg mounts fed with (6) 1-5/8" Coaxes (exist) at Elev. 180 ft c.l. is structurally acceptable.***
- This structure is ne its maximum support capacity in some components for the appurtenances and loading criteria considered. Therefore, No changes to the configuration considered should be made without performing a new proper evaluation.

*Rigging and temporary supports required for the erection/modification shall be determined, documented, furnished and installed by the erector/contractor accounting for the loads imposed on the structure due to the proposed construction method.*

## 7. REPORT DISCLAIMER

*The engineering services rendered by Malouf Engineering International, Inc. ('MEI') in connection with this Structural Analysis are limited to a computer analysis of the tower structure, size and capacity of its members. MEI does not analyze the fabrication, including welding and connection capacities, except as included in this Report.*

The analysis performed and the conclusions contained herein are based on the assumption that the tower has been properly installed and maintained, including, but not limited to the following:

1. Proper alignment and plumbness.
2. Correct guy tensions, as applicable.
3. Correct bolt tightness or slip jacking of sleeved connections.
4. No significant deterioration or damage to any structural component.

Furthermore, the information and conclusions contained in this Report were determined by application of the current "state-of-the-art" engineering and analysis procedures and formulae. MALOUF ENGINEERING INTERNATIONAL, INC. Assumes no obligation to revise any of the information or conclusions contained in this Report in the event that such engineering and analysis procedures and formulae are hereafter modified or revised. In addition, under no circumstances will MALOUF ENGINEERING INTERNATIONAL, INC. Have any obligation or responsibility whatsoever for or on account of consequential or incidental damages sustained by any person, firm or organization as a result of any information or conclusions contained in the Report, and the maximum liability of MALOUF ENGINEERING INTERNATIONAL, INC., if any, pursuant to this Report shall be limited to the total funds actually received by MALOUF ENGINEERING INTERNATIONAL, INC. For preparation of this Report.

Customer has requested MALOUF ENGINEERING INTERNATIONAL, INC. To prepare and submit to Customer an engineering analysis with respect to the Subject Tower and has further requested MALOUF ENGINEERING INTERNATIONAL, INC. to make appropriate recommendations regarding suggested structural modifications and changes to the Subject Tower. In making such request of MALOUF ENGINEERING INTERNATIONAL, INC., Customer has informed MALOUF ENGINEERING INTERNATIONAL, INC. that Customer will make a determination as to whether or not to implement any of the changes or modifications which may be suggested by MALOUF ENGINEERING INTERNATIONAL, INC. and that Customer will have any such changes or modifications made by riggers, erectors and other subcontractors of Customer's choice. MALOUF ENGINEERING INTERNATIONAL, INC. shall have the right to rely upon the accuracy of the information supplied by the customer and shall not be held responsible for the Customer's misrepresentation or omission of relevant fact whether intentional or otherwise.

Customer hereby agrees and acknowledges that MALOUF ENGINEERING INTERNATIONAL, INC. shall have no liability whatsoever to Customer or to others for any work or services performed by any persons other than MALOUF ENGINEERING INTERNATIONAL, INC. in connection with the implementation of services including but not limited to any services rendered for Customer or for others by riggers, erectors or other subcontractors. Customer acknowledges and agrees that any riggers, erectors or subcontractors retained or employed by Customer shall be solely responsible to Customer and to others for the quality of work performed by them and that MALOUF ENGINEERING INTERNATIONAL, INC. shall have no liability or responsibility whatsoever as a result of any negligence or breach of contract by any such rigger, erector or subcontractor and that Customer and rigger, erector, or subcontractor will provide MALOUF ENGINEERING INTERNATIONAL, INC. with a Certificate of Insurance naming MALOUF ENGINEERING INTERNATIONAL, INC. as additional insured.

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**APPENDIX 1 - TOWER DRAWING**

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**CINGULAR WIRELESS  
Equipment Modification**

165 Birdseye Road, Shelton  
Site Number 5441  
Former AT&T Cell Site  
Exempt Modification approved 4/3/02

**Tower Owner/Manager:** Nextel

**Equipment configuration:** Monopole

**Current and/or approved:** Three Allgon 7250 panel antennas @ 108 ft c.l. (6 approved)  
Six runs 1 ¼ inch coax

**Planned Modifications:** Remove all three existing antennas  
Install three Powerwave 7770 antennas @ 108 ft c.l.  
Install six TMA's @ 108 ft  
Install new 4 x 5 ft concrete pad for new cabinet  
Install one new equipment cabinet

**Power Density:**

Calculations for Cingular's current operations at the site indicate a radio frequency electromagnetic radiation power density, measured at the tower base, of approximately 13.2 % of the standard adopted by the FCC. As depicted in the second table below, the total radio frequency electromagnetic radiation power density for Cingular's planned operations would be approximately 10.7 % of the standard.

**Existing**

Company	Centerline Ht (feet)	Frequency (MHz)	Number of Channels	Power Per Channel (Watts)	Power Density (mW/cm <sup>2</sup> )	Standard Limits (mW/cm <sup>2</sup> )	Percent of Limit
Other Users *							3.92
Cingular GSM *	108	1900 Band	12	250	0.0925	1.0000	9.25
<b>Total</b>							<b>13.2%</b>

\* Per CSC records.

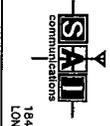
## Proposed

Company	Centerline Ht (feet)	Frequency (MHz)	Number of Channels	Power Per Channel (Watts)	Power Density (mW/cm <sup>2</sup> )	Standard Limits (mW/cm <sup>2</sup> )	Percent of Limit
Other Users *							3.92
Cingular GSM	108	1900 Band	2	670	0.0413	1.0000	4.13
Cingular UMTS	108	880 - 894	1	500	0.0154	0.5867	2.63
Total							10.7%

\* Per CSC records.

### Structural information:

The attached structural analysis demonstrates that the tower and foundation have adequate structural capacity to accommodate the proposed modifications. (Malouf Engineering Intl., dated 8/7/07)



**SITE NUMBER: 5441**  
**SITE NAME: SHELTON-NORTH CENTRAL**  
 155 BIRCHWOOD ROAD  
 SHELTON, CT 06484  
 FAIRFIELD COUNTY



NO.	DATE	ISSUED FOR CONSTRUCTION	REVISIONS	DRAWN BY	CHECKED BY
1	07/06/07	CONSTRUCTION FINAL		AL	DC
2	09/07/07	CONSTRUCTION FINAL		AL	DC
3	04/29/07	ISSUED FOR CONSTRUCTION		BT	CHK

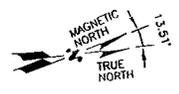
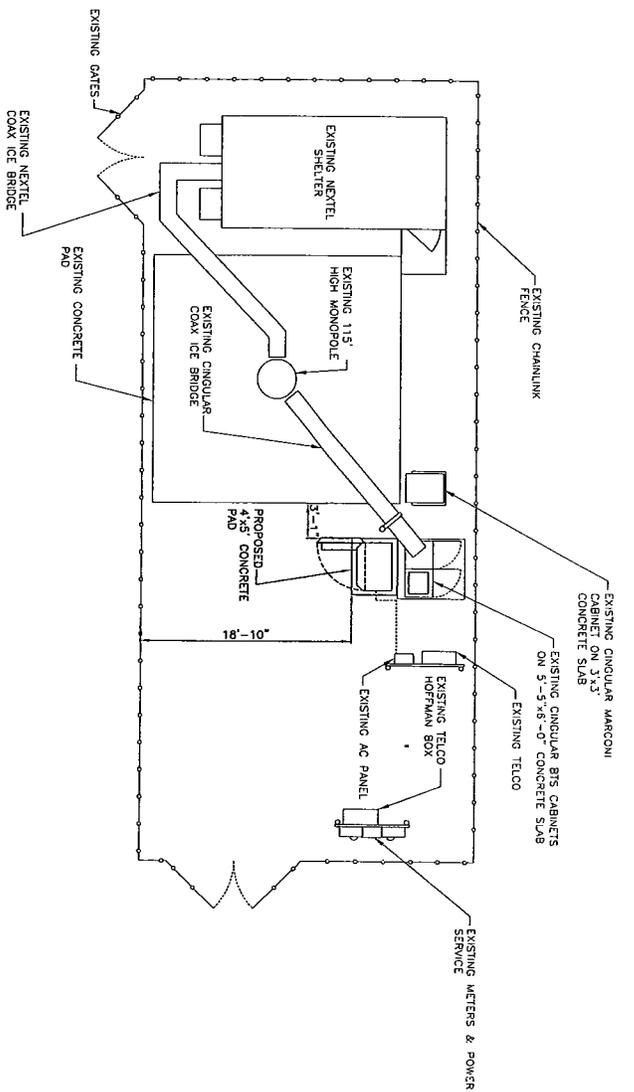
**STATE OF CONNECTICUT**  
**PROFESSIONAL ENGINEER**  
 No. 24178  
 5441.01

**CINGULAR WIRELESS**  
 COMPOUND PLAN  
 UNITS (OUTDOOR)  
 SHEET NUMBER  
 C-1

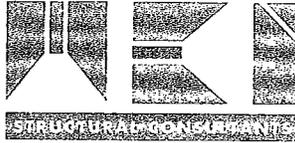
3

**COMPOUND PLAN**  
**OUTDOOR UNITS**

SCALE: 3/16"=1'-0"  
 0 2'-8" 5'-4" 10'-8" 16'-0"







August 7, 2007

Mr. Derek Creaser  
 HUDSON DESIGN GROUP, LLC  
 representing AT&T  
 46 Beechwood Drive  
 North Andover, MA 01845

SUBJECT	<b>FEASIBILITY STRUCTURAL EVALUATION</b>		
Structure:	120 ft <b>Monopole</b>	Summit Manufacturing	
Client/ Site Name /#:	<b>Hudson D.G. / AT&amp;T</b>	<b>5441 Shelton North Central</b>	<b># 5441</b>
Owner/Site Name /#:	at&t	Shelton North Central	
MEI Project ID:	<b>CT00844M-07V0</b>		
Location:	165 Birdseye Rd Shelton, CT 06484	Fairfield County F.A #	
	LAT	41-19-32.9 N	LON 73-08-55.3 W

Malouf Engineering Int'l (MEI), as requested, has performed a feasibility structural evaluation of the above mentioned structure to assess the impact of the changed condition as noted below.

The structural evaluation performed used the following criteria:

CODE / STANDARD	ANSI/TIA-222-F-96 Standard / IBC 2003 Code - CT Building Code	
LOADING CASES	<i>Full Wind:</i>	85 Mph (with No Radial Ice)
	<i>Iced Case:</i>	74 Mph + 0.50" Radial Ice
	<i>Service:</i>	50 Mph

Table 1: Proposed Changed Condition Appurtenances

Elev (ft)	Tenant	Ants Qty	Appurtenance Model / Description	Mount Description	Lines Qty	Line size & Location
108 *	AT&T	3	7770 Panel Antennas	[exist 3-way close contact mount]	[6]	1-1/4"-(I) [re-use exist]
		6	LGP 21401 DB TMA's			
		3	RCU/RET's		1	3/8" -(I)

\* Note: Existing (3) panel antennas are to be removed and replaced with above.

Table 2: Previous Analysis Appurtenances

Elev (ft)	Tenant	Ants Qty	Appurtenance Model / Description	Mount Description	Lines Qty	Line size & Location
120		12	DB844H90 Panel Ants.	14' Low Profile Platform	-	Internal
108		6	Allgon 7250.02 Panels	(3) 14' Low T-Arm Mnts.	6	1 1/4" - I
98		12	ALP-9212-N Panels	14' Low Profile Platform	-	Internal
50, 40		1	GPS Antenna (per level)	Side Arm Mount (per level)	-	Internal

(I)= Internal; (E) = External - as per TIA-222

(Existing Tx-line size and quantity is not available and are assumed internal to pole as per data available)

The information used as source data to represent the existing structure and the related appurtenances is as follows:

Structure & Current Appurtenances	Structure data and design appurtenances loading as per previous analysis data by Summit/PJF, ref. job # 29202-0129, design #12218, dated 03/05/02 - Tower analysis <i>Max. Stress at 83.4%</i> .
Changed Condition	As per AT&T /Cingular Wireless RF approval email, dated 04/23/07 Version 2007-02, Supplied by Hudson Design Group, LLC on 07/03/07.

The subject structure is evaluated for the feasibility of the installation of the proposed changed condition previously noted. The data records furnished were reviewed and the appurtenances loading was evaluated (no computer analysis performed, only relative loading magnitude comparison), in accordance with the TIA-222 Standard provisions and with the agreed limited scope of work terms and the results of this feasibility evaluation are reported. This evaluation is based on information supplied, and therefore, its results are based on and as accurate as that supplied data. MEI has made no independent determination of its accuracy. This existing structure is assumed, for the purpose of this evaluation, to have been properly maintained and to be in good condition with no structural defects and with no deterioration to its capacity ('as-new').

Based on the feasibility structural evaluation of the data provided, the subject structure, including foundation, would meet the minimum requirements of ANSI/TIA 222-F Standard for the proposed changed condition as stated above when considering the structure to have been properly designed for the stated appurtenances. The proposed loading would stress the structure about the same or less than the previous analysis.

Therefore, **the installation of the noted proposed changed condition is structurally acceptable** on this existing structure in accordance with the ANSI/TIA 222-F Standard for the loading considered under the criteria listed and referenced.

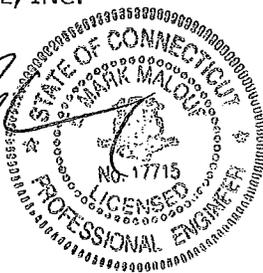
MEI appreciates the opportunity of providing our continuing professional services to you. If you have any questions or need further assistance on this or other projects please contact us.

Respectfully submitted,

MALOUF ENGINEERING INT'L, INC.



E. Mark Malouf, PE  
Connecticut #17715  
972-783-2578 ext. 106  
mmalouf@maloufengineering.com





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

August 8, 2007

Honorable Mark A. Lauretti, Mayor  
Town of Shelton  
Town Hall, 54 Hill Street  
Shelton, CT 06484-0364

Re: Telecommunications Facility – 165 Birdseye Road, Shelton

Dear Mayor Lauretti:

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 (“Cingular”) 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 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

**CINGULAR WIRELESS  
Equipment Modification**

366 Old Long Ridge Rd, Stamford  
 Site Number 5047  
 Former AT&T Cell Site  
 Exempt Modification approved 6/3/02

**Tower Owner/Manager:** Long Ridge Fire Department

**Equipment configuration:** Self-Supporting Lattice Tower

**Current and/or approved:** Three Allgon 7250 Panel Antennas @ 148 ft c.l.  
 Six runs 1 5/8 inch coax

**Planned Modifications:** Remove all three existing antennas  
 Install three Powerwave 7770 antennas @ 143 ft c.l.  
 Install 6 TMA's at 148 ft  
 Remove one existing outdoor equipment cabinet  
 Install one new outdoor equipment cabinet

**Power Density:**

Calculations for Cingular's current operations at the site indicate a radio frequency electromagnetic radiation power density, measured at the tower base, of approximately 18.2 % of the standard adopted by the FCC. As depicted in the second table below, the total radio frequency electromagnetic radiation power density for Cingular's planned operations would be approximately 19.3 % of the standard.

**Existing**

Company	Centerline Ht (feet)	Frequency (MHz)	Number of Channels	Power Per Channel (Watts)	Power Density (mW/cm <sup>2</sup> )	Standard Limits (mW/cm <sup>2</sup> )	Percent of Limit
Other Users *							16.53
Cingular GSM *	148	1900 Band	4	250	0.0164	1.0000	1.64
<b>Total</b>							<b>18.2%</b>

\* Per CSC records.

## Proposed

Company	Centerline Ht (feet)	Frequency (MHz)	Number of Channels	Power Per Channel (Watts)	Power Density (mW/cm <sup>2</sup> )	Standard Limits (mW/cm <sup>2</sup> )	Percent of Limit
Other Users *							16.53
Cingular GSM	148	1900 Band	2	427	0.0140	1.0000	1.40
Cingular UMTS	148	880 - 894	1	500	0.0082	0.5867	1.40
<b>Total</b>							<b>19.3%</b>

\* Per CSC records.

### Structural information:

The attached structural analysis demonstrates that the tower and foundation have adequate structural capacity to accommodate the proposed modifications. (Vertical Structures, Inc., dated 8/7/07)



**Table 1 – Proposed and Existing Loads**

Mount Elevation	Mount Location*	Status	Antennas	Mounts	Feedlines
150'	Leg C**	Existing	(1) 15' Omni w/ Reflector & (1) TMA	(1) 4' Sidearm Mount	(1) 1 5/8" Coax & (2) 1/2" Coax
150'	Leg B	Proposed	(1) Andrew VHLP4-11 Dish, Az. 160°	(1) Pipe Mount	(1) EW90 W/G
150'	Leg A	Proposed	(1) TxRx 101-90-06-0-01 Omni	(1) 4' Sidearm Mount	(1) 7/8" Coax
			(1) TxRx 424-86A-03 TTA		(1) 3/8" Coax
145'	Face BC	Existing	(1) 22' Dipole Antenna	Face Mounted	(1) 7/8" Coax
145'	Legs A, B, C	Remove	(3) Allgon 7250 Panels	(3) Pipe Mounts	(6) 1 5/8" Coax
		Proposed	(3) Powerwave 7770.00 Panels		
			(3) Powerwave LGP2140X TMAs		
139'	Leg B	Proposed	(1) Andrew VHLP4-11 Dish, Az. 133°	(1) Pipe Mount	(1) EW90 W/G
136'	Leg C	Existing	(1) 15' Omni Antenna	(1) 4' Sidearm Mount	(1) 7/8" Coax
135'	Leg B	Existing	(1) 2' Std. Dish, Az. 180°	(1) Pipe Mount	(1) EW90 W/G
135'	Leg C	Existing	(1) 2'x2' Reflector Antenna	Leg Mounted	(1) 7/8" Coax
134'	Leg C	Existing	(1) 15' Omni w/ Reflector	(1) 2' Sidearm Mount	(1) 1 5/8" Coax
130'	Leg A	Proposed	(1) TxRx 101D-90-06-0-01N Omni	(1) 4' Sidearm Mount	(2) 1 5/8" Coax
129'	Leg C	Existing	(1) 12' Omni Antenna	(1) 4' Sidearm Mount	(1) 1 1/4" Coax
125'	Legs A, B, C	Existing	(6) Decibel DB980H90E-M Panels	(3) 13' Sector Frames	(6) 1 5/8" Coax
122'	Leg C	Existing	(1) 3' Yagi Antenna	Leg Mounted	(1) 1/2" Coax
115'	Legs A, B, C	Existing	(12) Decibel DB844H90E-XY Panels	(3) 15' T-Frames	(12) 1 1/4" Coax
96'	Leg B	Existing	(1) 10' Dipole Antenna	(1) 4' Sidearm Mount	(1) 7/8" Coax
	Leg C	Existing	(1) 10' Omni Antenna	(1) 4' Sidearm Mount	(1) 7/8" Coax
95'	Leg A	Existing	(1) 12' Omni Antenna	(2) 4' Sidearm Mounts	(1) 1 1/4" Coax
90'	Leg B	Existing	(1) 22' Omni Antenna	(1) 4' Sidearm Mount	(1) 7/8" Coax
73'	Leg A	Existing	(1) Log Periodic Antenna	(1) 4' Sidearm Mount	(1) 7/8" Coax
			(1) 4' Omni Antenna		(1) 1 1/4" Coax
	Leg C		(1) 10' Dipole Antenna	(1) 4' Sidearm Mount	(1) 7/8" Coax
57'	Leg C	Existing	(1) GPS Antenna	(1) 3' Sidearm Mount	(1) 1/2" Coax
45'	Leg C	Existing	(1) 4' Channel Master Dish	(1) 2' Sidearm Mount	(1) 1/4" Coax
15'	Face AB	Existing	(2) GPS Antennas	Face Mounted	(1) 1/2" Coax & (1) 1/4" Coax

\*Leg A is North Leg.

\*\*Indicates antenna to be relocated from Leg B.

Based on a comparison of the loading in Table 1 to the loading considered in our April 23, 2007 structural analysis, we have determined the tower superstructure and foundation are sufficient for the proposed Cingular change-out, provided the rework detailed in Vertical Structures Job No. 2007-024-005 has been completed. The proposed TMAs must be mounted directly behind the proposed panel antennas.

Vertical Structures appreciates the opportunity of providing our continuing professional services to you and Crown Castle International. If you have any questions or need further assistance on this or any other projects please give us a call.

Respectfully submitted,



Chris Sandlin  
Project Engineer





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

August 8, 2007

Honorable Dannel P. Malloy, Mayor  
City of Stamford  
Stamford Government Ctr., 888 Washington Blvd.  
Stamford, CT 06904-2152

Re: Telecommunications Facility – 366 Old Long Ridge Road, Stamford

Dear Mayor Malloy:

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 (“Cingular”) 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 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

**CINGULAR WIRELESS**  
**Equipment Modification**

7 Broadway Avenue Extension, Stonington (Mystic)  
Site Number 2177  
Former AT&T and Cingular Cell Sites  
Local Zoning Approvals 1997-98, 2001, and 2004

**Tower Owner/Manager:** Message Center Management

**Equipment configuration:** Water Tank

**Current and/or approved:** Three CSS DUO1417 antennas @ 143 ft (Cingular)  
Six EMS RR90-17 antennas @ 103 (AT&T)  
Coax: Twelve runs 1 5/8 inch and three runs 1 ¼ inch  
Microwave dish @ 135 ft

**Planned Modifications:** Remove all three existing CSS antennas @ 143 ft  
Install six Powerwave 7770 antennas @ 143 ft  
Remove all six EMS antennas @ 103 ft  
Install six TMA's and six diplexers @ 143 ft  
Remove three runs 1 ¼ inch coax and 12 runs 1 5/8 inch coax  
Install 12 new runs 1 5/8 inch coax to 143 ft level

**Siting Council Review:**

Although this water tank would normally be subject to local zoning rather than Council review, the Stonington Zoning Officer deferred to the Council's expertise in telecommunications. When approached by Cingular on this matter, Council staff accepted these proposed modifications for Council review in place of Town review.

**Decommissioning of AT&T Facility:**

Cingular hereby gives notice that the AT&T facility at this water tank has been decommissioned. AT&T outdoor cabinets on an elevated steel platform have been removed. The AT&T coax and panel antennas will be removed in due course. The former AT&T microwave dish is an exception to this statement and will remain in operation under Cingular ownership.

**Power Density:**

Worst-case calculations for existing wireless operations at the site, using standard parameters for other carriers, indicate a radio frequency electromagnetic radiation power density, measured at ground level beside the tower, of approximately 43.8 % 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 25.1 % of the standard.

### Existing

Company	Centerline Ht (feet)	Frequency (MHz)	Number of Channels	Power Per Channel (Watts)	Power Density (mW/cm <sup>2</sup> )	Standard Limits (mW/cm <sup>2</sup> )	Percent of Limit
Velocita	152	Inoperative	n/a	n/a	0.0000	n/a	0.00
Cingular GSM	143	880 - 894	6	296	0.0312	0.5867	5.32
Cingular GSM	143	1900 Band	3	427	0.0225	1.0000	2.25
Cingular TDMA	143	880 - 894	19	100	0.0334	0.5867	5.69
American Messaging *	143	929	1	100	0.0018	0.6193	0.28
Town of Stonington	143	Receive only	n/a	n/a	0.0000	n/a	0.00
Sprint *	143	1962.5	12	250	0.0528	1.0000	5.28
AT&T (microwave)	135	n/a	n/a	n/a	0.0000	n/a	0.00
Nextel *	127	851	12	100	0.0268	0.5673	4.72
T-Mobile *	124	1850	8	250	0.0468	1.0000	4.68
AT&T*	103	1945 & 1985	12	250	0.1017	1.0000	10.17
Verizon *	93	869 & 1985	3	250	0.0312	0.5793	5.38
<b>Total</b>							<b>43.8%</b>

\* Channels and power are typical values for the other users.

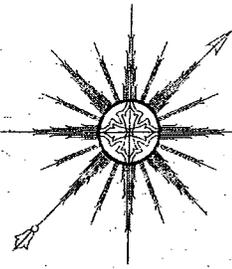
### Proposed

Company	Centerline Ht (feet)	Frequency (MHz)	Number of Channels	Power Per Channel (Watts)	Power Density (mW/cm <sup>2</sup> )	Standard Limits (mW/cm <sup>2</sup> )	Percent of Limit
Velocita	152	Inoperative	n/a	n/a	0.0000	0.6240	0.00
Cingular UMTS	143	880 - 894	1	500	0.0088	0.5867	1.50
Cingular GSM	143	1900 Band	2	427	0.0150	1.0000	1.50
Cingular GSM	143	880 - 894	2	296	0.0104	0.5867	1.77
American Messaging *	143	929	1	100	0.0018	0.6193	0.28
Town of Stonington	143	Receive only	n/a	n/a	0.0000	n/a	0.00
Sprint *	143	1962.5	12	250	0.0528	1.0000	5.28
AT&T (microwave)	135	n/a	n/a	n/a	0.0000	n/a	0.00
Nextel *	127	851	12	100	0.0268	0.5673	4.72
T-Mobile *	124	1850	8	250	0.0468	1.0000	4.68
Verizon *	93	869 & 1985	3	250	0.0312	0.5793	5.38
<b>Total</b>							<b>25.1%</b>

\* Channels and power are typical values for the other users. AT&T antennas @ 103 ft decommissioned & to be removed.

### Structural information:

The attached structural analysis demonstrates that the tower and foundation have adequate structural capacity to accommodate the proposed modifications. (All-Points Technology Corp., dated 7-27-07))



# ALL-POINTS TECHNOLOGY CORPORATION, P.C.

July 27, 2007

Hudson Design Group, LLC  
46 Beechwood Drive  
North Andover, MA 01845

Attn: Derek Creaser  
Re: 155' Water Tower, Mystic, CT  
Cingular Site #2177; Mystic

Dear Derek,

All-Points Technology Corporation, P.C. (APT) evaluated the 155' water tower located at 7 Broadway Extension in Mystic, Connecticut for antenna changes proposed by Cingular Wireless. APT previously visited the tower site on July 9, 2002 and performed two subsequent structural analyses. This evaluation also relied on information provided by others, which included recent tower photographs and antenna changes proposed by Cingular Wireless.

Cingular Wireless proposes to remove nine existing panel antennas (three CSS DUO1417-8686 and six EMS Wireless RR90-17-00DP). The antennas will be replaced with six Powerwave 7770 panel antennas, six LGP 21401 tower-mounted amplifiers, and six LGP 13519 diplexers, all at approximately 144'. Twelve existing 1-5/8" and three existing 1-1/4" feed lines will be replaced with twelve 1-5/8" lines.

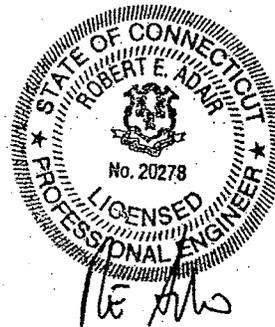
My evaluation indicates that the water tower is capable of supporting Cingular's proposed antenna changes and associated appurtenances. The proposed changes represent an insignificant change in wind and dead loads on the structure compared to current loads. The structural capacity of the water tower will not be diminished due to Cingular's proposed changes.

Please call if you have any questions.

Sincerely,  
All-Points Technology Corporation, P.C.

Robert E. Adair, P.E.  
Principal

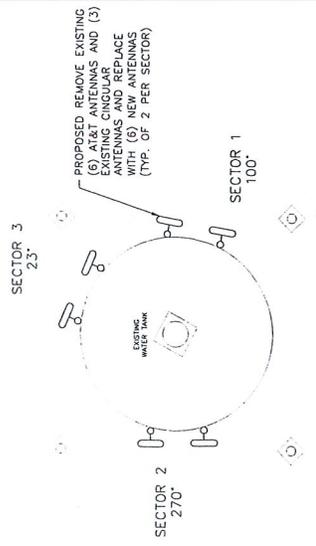
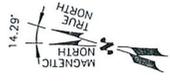
CT198430 Mystic SA ltr 7-27-07.doc



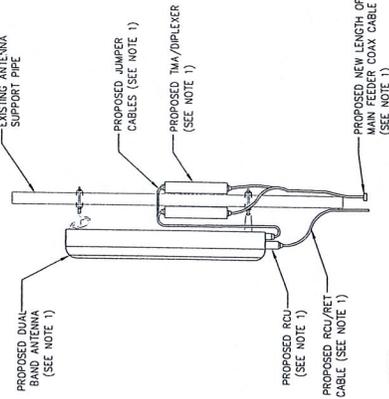
NOTE:  
AN ANALYSIS FOR THE CAPACITY OF THE EXISTING STRUCTURES TO SUPPORT THE PROPOSED EQUIPMENT SHALL BE DETERMINED PRIOR TO CONSTRUCTION.

NOTE:  
REFER TO THE FINAL RF DATA SHEET FOR FINAL ANTENNA SETTINGS.

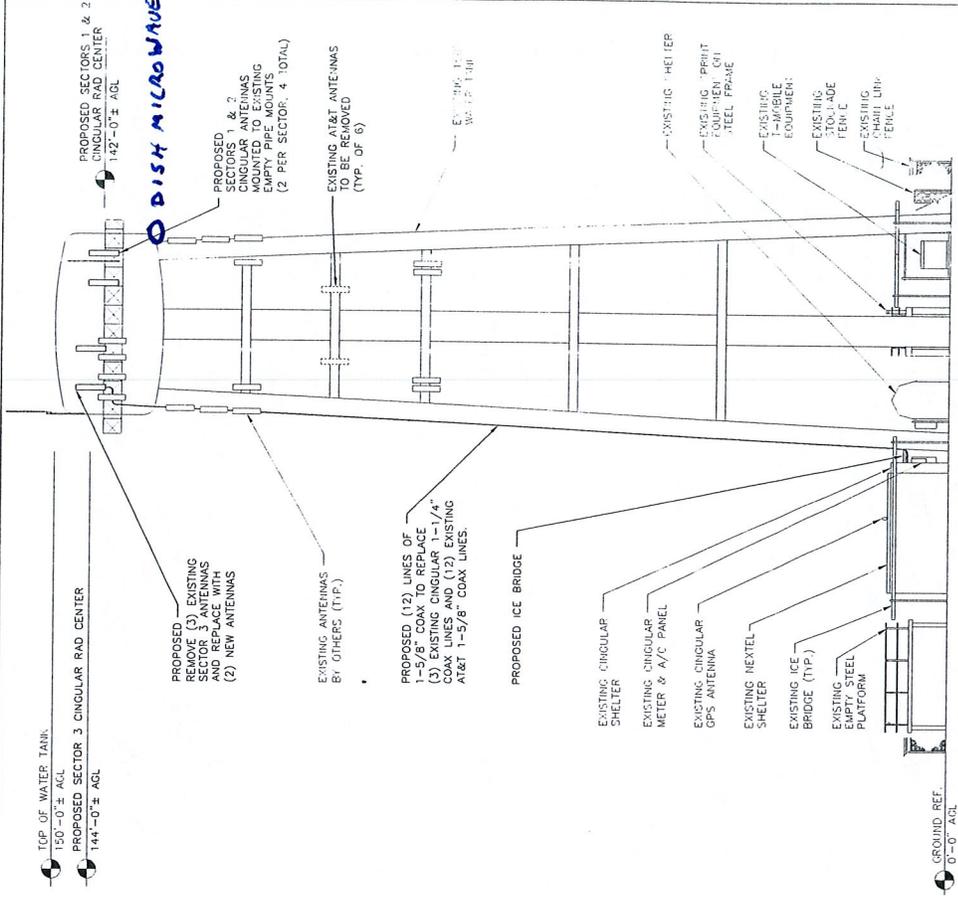
SECTOR	SECTOR NAME	ANTENNA MAKE & MODEL	ANTENNA COUNT	AZIMUTH	RAD CENTER	MECHANICAL DOWNHILL	TMA COUNT	DIPLEXER COUNT
1	ALPHA	LCP ALLCON 7770	2	100°	142±	0*	2 PROP. 0 EXIST.	2 PROP. 0 EXIST.
2	BETA	LCP ALLCON 7770	2	270°	142±	0*	2 PROP. 0 EXIST.	2 PROP. 0 EXIST.
3	GAMMA	LCP ALLCON 7770	2	23°	144±	0*	2 PROP. 0 EXIST.	2 PROP. 0 EXIST.



PROPOSED ANTENNA PLAN VIEW  
N.T.S.



PROPOSED ANTENNA DETAIL  
N.T.S.



PROPOSED NORTH ELEVATION  
SCALE: 1"=10'-0"



NO.	DATE	REVISIONS	CHKD BY	DRWN BY
2	07/27/07	CONSTRUCTION FINAL	MM	DC
1	07/23/07	CONSTRUCTION FINAL	MM	DC
0	06/20/07	ISSUED FOR CONSTRUCTION	HC	DC

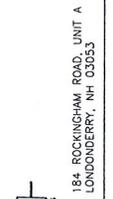
SCALE: NOT SHOWN

DESIGNED BY: BK  
DRAWN BY: BK

CDR NUMBER: 2177.01  
CANNING NUMBER: A-2

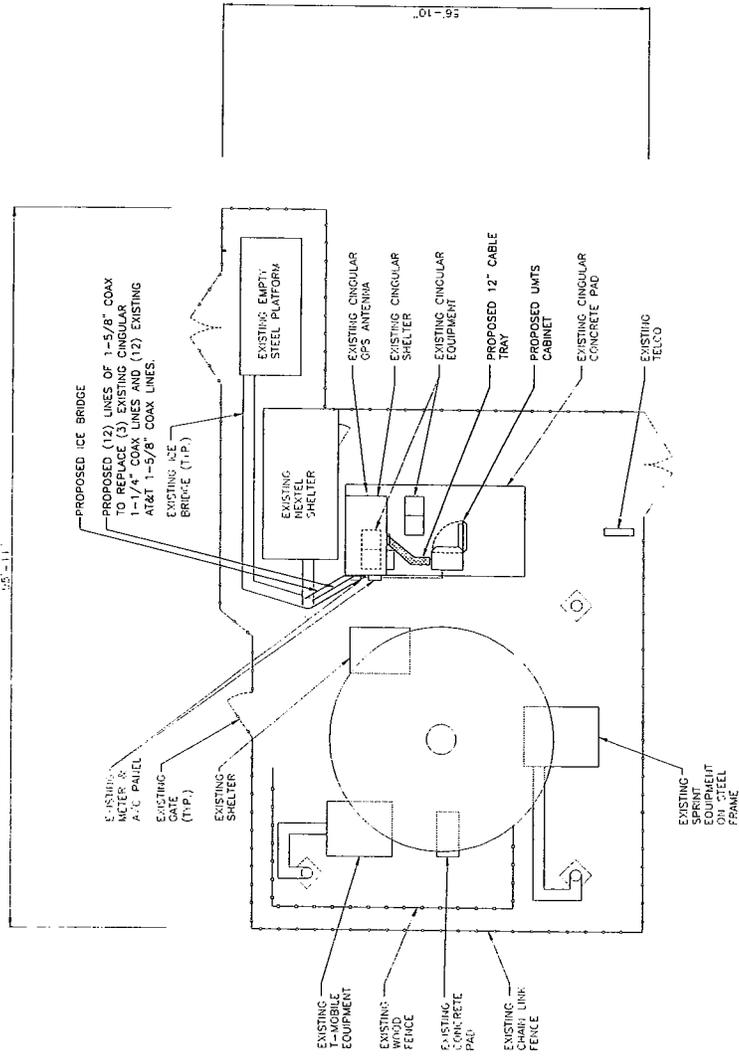


SITE NUMBER: 2177  
SITE NAME: MYSTIC  
7 BROADWAY AVE. EXT.  
MYSTIC, CT 06355  
NEW LONDON COUNTY

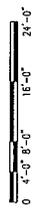


184 ROCKINGHAM ROAD, UNIT A  
LONDONDERRY, NH 03053

TEL: (603) 551-5555  
FAX: (603) 551-5555



**COMPOUND PLAN  
OUTDOOR UNITS**  
SCALE: 1/8"=1'-0"



 4 HESWOOD DR. HANOVER, NH 03055 TEL: (603) 531-5555 FAX: (603) 531-5588		 184 ROCKINGHAM ROAD, UNIT A LONDONDERRY, NH 03053		SITE NUMBER: 2177 SITE NAME: MYSTIC 7 BROADWAY AVE. EXT. MYSTIC, CT 06355 NEW LONDON COUNTY		 500 ENTERPRISE DRIVE, SUITE 3A ROCKY HILL, CT 06067		 STATE OF CONNECTICUT PROFESSIONAL ENGINEER No. 24178	
NO.	DATE	REVISIONS	DESIGNED BY: BK	DRAWN BY: BK	DATE	ISSUE NUMBER	COMPOUND PLAN UNITS (OUTDOOR)	CINGULAR WIRELESS	2
2	07/27/07	CONSTRUCTION FINAL							
1	07/23/07	CONSTRUCTION FINAL							
0	06/20/07	ISSUED FOR CONSTRUCTION							
SCALE: NOT SHOWN DESIGNED BY: BK DRAWN BY: BK 2177.01 C-1									



# ZONING PERMIT

## TOWN OF STONINGTON PLANNING & ZONING COMMISSION

Date Issued: August 14, 1997

Permit No.: #97-201 ZON

NAME OF PROPERTY OWNER: EDWARD J. PLANETA, OWNER  
CFM CONSTRUCTION, APPLICANT

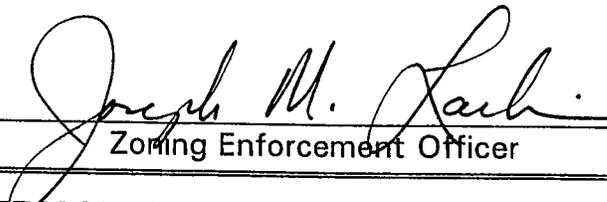
LOCATION OF PROPERTY: 7 BROADWAY EXTENSION, MYSTIC

MAP: 174      BLOCK: 22      LOT: 1      ZONE: M-1

PERMITTED ACTIVITY: INSTALLATION OF CELLULAR EQUIPMENT FOR SNET

STIPULATIONS OR SPECIAL CONDITIONS: As per Planning and Zoning  
Commission consent agenda approval.

BY: \_\_\_\_\_

  
Zoning Enforcement Officer

**CONSTRUCTION MAY NOT PROCEED UNTIL  
A BUILDING PERMIT HAS BEEN OBTAINED**

**THIS PERMIT MUST BE PROMINENTLY POSTED  
ON THE PREMISES**

TOWN OF STONINGTON

BUILDING PERMIT

DATE: August 27, 1997

PERMIT #: B-97-337

This permit is hereby granted to: Edward J. Planeta  
of: c/o CFM Construction Corp., 150 Sycamore St., Glastonbury, CT  
for the purpose of: constructing site improvements for cellular  
: radio equipment (SNET)

In compliance with the provisions of the Basic Building Code  
of the State of Connecticut

Property Location: 7 Broadway Ext., Mystic

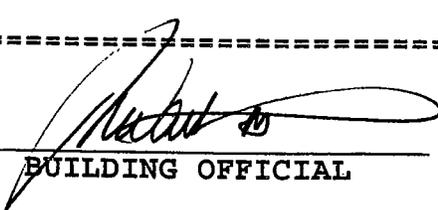
Assessor's Map: 174

Block: 22

Lot: 1

Special conditions or stipulations: NA

In accordance with the application dated: August 19, 1997



BUILDING OFFICIAL

DATE: 8/27/97

Building Fee: \$120.00

Paid:

# ZONING PERMIT

## TOWN OF STONINGTON PLANNING & ZONING COMMISSION

Date Issued: December 17, 2001

Permit No.: #01-319 ZON

NAME OF PROPERTY OWNER: AT&T, APPLICANT; ACME WIRE PRODUCTS, OWNER

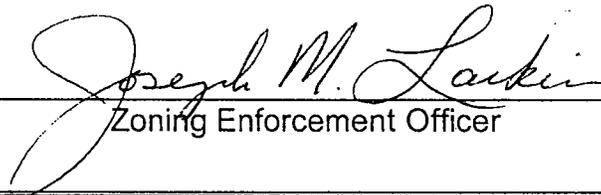
LOCATION OF PROPERTY: 7 BROADWAY EXT., MSYTIC

MAP: 174 BLOCK: 22 LOT: 1 ZONE: M-1

PERMITTED ACTIVITY: INSTALL OUTDOOR EQUIPMENT ON RAISED PLATFORM WITH ANTENNAS INSTALLED ON THE EXISTING WATER TANK FOR TELECOMMUNICATIONS FACILITY.

STIPULATIONS OR SPECIAL CONDITIONS: DEMO BOND TO BE REVIEWED AND RENEWED IN DECEMBER 2003.

BY: \_\_\_\_\_

  
Zoning Enforcement Officer

**CONSTRUCTION MAY NOT PROCEED UNTIL  
A BUILDING PERMIT HAS BEEN OBTAINED**

**THIS PERMIT MUST BE PROMINENTLY POSTED  
ON THE PREMISES**

**This Permit Is Valid For 1 Year.**



# Town of Stonington Building Permit

Permit number: **B-2001-498**

Permit Date: 1/2/2002

This permit is hereby granted to: **PLANETA PROPERTIES DBA ACME WIRE PRODUCTS**

Of: 345 Ardenwood Avenue

Englewood

FL

34223

For the purpose of: **install telecommunications facility outdoor equipment on a raised platform with antennas installed on existing water tank**

*AT&T*

In compliance with the provisions of the Basic Building Code of the State of Connecticut

Property Location: **7 Broadway Ext.**

**Mystic**

Assessor's Map: 174

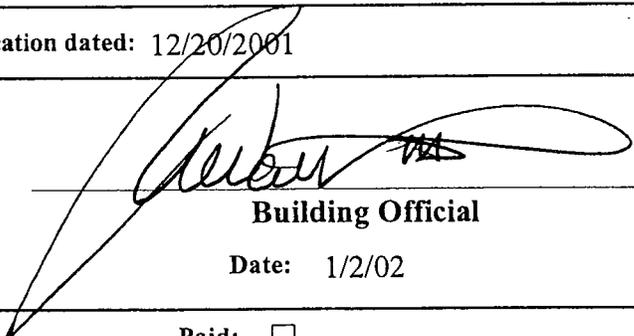
Block: 22

Lot: 1

Sub Lot: 0

Special Conditions or Stipulations: NA

In accordance with the application dated: 12/20/2001

  
\_\_\_\_\_  
**Building Official**

Date: 1/2/02

Building Fee: \$710.00

Paid:

*AT&T*

# ZONING PERMIT

## TOWN OF STONINGTON

### PLANNING & ZONING COMMISSION

DATE ISSUED: **January 30, 2004**

NO. **03-389 ZON**

NAME OF OWNER / APPLICANT: **AT&T Wireless / Planeta Properties**

LOCATION OF PROPERTY: **7 Broadway Ave. Ext., Mystic, CT 06355**

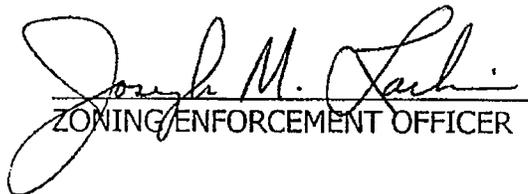
MAP: **174** BLOCK: **22** LOT: **1** ZONE: **M-1**

PERMITTED ACTIVITY: **Installation of a parabolic subscriber antenna**

STIPULATIONS OR SPECIAL CONDITIONS:

1. **Bond#04-001 in place & to be reviewed & renewed in January 2006.**

APPROVED BY:

  
ZONING ENFORCEMENT OFFICER

1-30-04  
DATE

**CONSTRUCTION MAY NOT PROCEED UNTIL  
A BUILDING PERMIT HAS BEEN OBTAINED**

**THIS PERMIT MUST BE PROMINENTLY  
POSTED ON THE PREMISES**

**THIS PERMIT IS VALID FOR 1 YEAR**

Applicant may publish **Notice** of this approval as per Public Act No. 03-144



# Town of Stonington Building Permit

Permit number: **B-2004-039**

Permit Date: 2/4/2004

This permit is hereby granted to: **AT&T WIRELESS, APPLICANT; PLANETA PROPERTIES - OWNER**  
Of: 333 Crossways Park Drive  
Woodbury NY

For the purpose of: **installation of a Parabolic Subscriber antenna**

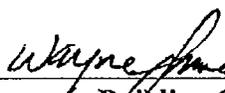
In compliance with the provisions of the Basic Building Code of the State of Connecticut

Property Location: **7 Broadway Ext. Mystic**

Assessor's Map: 174 Block: 22 Lot: 1 Sub Lot: 0

Special Conditions or Stipulations: **NA**

In accordance with the application dated: 2/4/2004

  
\_\_\_\_\_  
Building Official

Date: 2/4/04

Building Fee: \$91.00

Paid:



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

August 8, 2007

Honorable William S. Brown  
1<sup>st</sup> Selectman, Town of Stonington  
Town Hall 152 Elm St.  
Stonington, CT 06378-0352

Re: Telecommunications Facility – 7 Broadway Avenue Extension, Mystic

Dear Mr. Brown:

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 (“Cingular”) 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 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