



# 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/esc](http://ct.gov/esc)

Daniel F. Caruso  
Chairman

December 2, 2008

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

RE: **EM-CING-015-081016**- New Cingular Wireless PCS, LLC notice of intent to modify an existing telecommunications facility located at 2 Kaechele Place, Bridgeport, 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 with the condition that all antenna mounts (i.e. the platform) at the 140-foot level of the tower are removed prior to the antenna installation.

The proposed modifications are to be implemented as specified here and in your notice dated October 15, 2008 and additional information submitted on October 27, 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

c: The Honorable Bill Finch, Mayor, City of Bridgeport  
Melanie J. Howlett, Associate City Attorney, City of Bridgeport  
American Tower

**Perrone, Michael**

---

**From:** Levine, Steven [SL3764@att.com]  
**Sent:** Monday, October 27, 2008 9:22 AM  
**To:** Perrone, Michael  
**Cc:** Burks, Tim  
**Subject:** RE: EM-CING-015-081016 2 Kaechele Place, Bridgeport  
**Attachments:** UMTS Data Form - Bridgeport 2106.doc

Mike,

Here's a correction page for the Bridgeport EM. Thanks for pointing out the minor height discrepancies.

By the way, I received a rude voicemail from Bridgeport City Atty Melody Howlett on Friday afternoon berating me for not giving notice to her as well as to the Mayor's office. The CSC regulations require notice of EM's only to the chief elected official. Also, it took a while for the Mayor's office to get the notice over to her, so she's upset about how long after mailing she received it.

If Melody calls, please be sure to tell her that I correctly followed the regulatory requirements and that she is not entitled to separate notice.

Thanks.

**AT&T Mobility / New Cingular Wireless PCS, LLC***Steve Levine*

500 Enterprise Drive, 3rd Fl., Rocky Hill, CT 06067

Real Estate Consultant

Office 860-513-7636

Mobile 203-556-1655

Fax 860-513-7190

This e-mail, and any attachments, are intended only for use by the addressee(s) named herein and may contain legally privileged and/or confidential information. It is the property of Cingular Wireless. If you are not the intended recipient of this email, you are hereby notified that any dissemination, distribution or copying of this email, any attachments thereto, and any use of the information contained is strictly prohibited. If you have received this email in error, please notify me at (860-513-7636) and permanently delete the original and any copy thereof.

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**From:** Perrone, Michael [mailto:Michael.Perrone@ct.gov]  
**Sent:** Friday, October 24, 2008 1:39 PM  
**To:** Levine, Steven  
**Subject:** EM-CING-015-081016 2 Kaechele Place, Bridgeport

Hi Steve.

It sounds like this one is removal of two levels of antennas and installation of new antennas at one level.

The heights appear to conflict though.

The text page shows 130 feet and 150 feet.

The power density says 155 feet for the new antennas. The structural suggests an antenna removal at 140 feet.

Could we get a corrected text page for the file with correct heights?

Thanks. Have a good weekend.

Mike Perrone

CSC

12/2/2008

**CINGULAR WIRELESS  
Equipment Modification**

2 Kaechele Place, Bridgeport  
Site Number 2106  
Docket 45.1; Exempt Mods 9/92, 6/93, 9/02

**Tower Owner/Manager:** American Tower

**Equipment configuration:** Monopole

**Current and/or approved:** Fifteen DB846H80E-SX panel antennas @ 140 and 150 ft  
Fifteen runs 7/8 inch coax

**Planned Modifications:** Remove all existing antennas and coax  
Install six Powerwave 7770 antennas @ 150 ft c.l.  
Install six TMA's and six diplexers @ 150 ft  
Install twelve runs 1 5/8 inch coax.

**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 16.3 % 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 20.1 % 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
Other Users *							14.10
Cingular GSM *	155	850	21	40	0.0126	0.5667	2.22
<b>Total</b>							<b>16.3%</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 *							14.10
Cingular GSM	150	880 - 894	4	296	0.0189	0.5867	3.23
Cingular GSM	150	1900 Band	2	427	0.0136	1.0000	1.36
Cingular UMTS	150	880 - 894	1	500	0.0080	0.5867	1.36
<b>Total</b>							<b>20.1%</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. (GDP Associates, 10/15/08)



**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 2, 2008

Honorable Bill Finch  
Mayor, City of Bridgeport  
City Hall, 45 Lyon Terrace  
Bridgeport, CT 06604

Re: Telecommunications Facility – 2 Kaechele Place, Bridgeport

Dear Mayor Finch:

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

mp  
sdp  
dm  
fec  
file

CITY OF BRIDGEPORT  
OFFICE OF THE CITY ATTORNEY

CITY ATTORNEY  
Mark T. Anastasi

ASSISTANT CITY ATTORNEYS

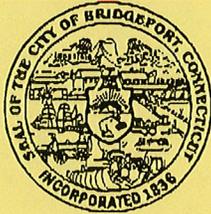
DEPUTY CITY ATTORNEY  
Salvatore C. DePiano

999 Broad Street  
Bridgeport, Connecticut 06604-4328

Christine Donahue Brown  
Arthur C. Laske III  
R. Christopher Meyer  
Stephen J. Sedensky, Jr.

ASSOCIATE CITY ATTORNEYS

Gregory M. Conte  
Melanie J. Howlett  
Russell D. Liskov  
Barbara Brazzel-Massaro  
John R. Mitola  
Ronald J. Pacacha  
Lisa R. Trachtenburg



ORIGINAL

LEGAL ADMINISTRATOR  
Kathleen Pacacha

Telephone (203) 576-7647  
Facsimile (203) 576-8252

Via Facsimile @860-827-2950

October 27, 2008

RECEIVED  
OCT 27 2008

CONNECTICUT  
SITING COUNCIL

S. Derek Phelps, Executive Director  
Connecticut Siting Council  
10 Franklin Square  
New Britain, CT 06051

Re: Petition EM-CING-015-081016-New Cingular Wireless PCS, LLC Notice of Intent to Modify an Existing Telecommunications Facility located at 2 Kaechele Place, Bridgeport, CT dated October 15, 2008-Appearance and Request for Extension of Time to Submit Objections/Comments

Dear Mr. Phelps:

The City of Bridgeport is in receipt on October 20, 2008, of the Petition of Cingular Wireless ("Cingular") noted above directly from Cingular; and a copy of your cover letter and a second copy of the Petition was received on October 21, 2008. Please enter my appearance on behalf of the City of Bridgeport in this matter. The City finds that the information provided is not sufficient for us to determine if we object to Cingular's request. We are requesting additional information from Cingular and we request a continuance from October 30, 2008, to November 7, 2008, to submit any objections and/or comments in this matter to the Siting Council.

Enclosed please find a copy of our letter to AT&T requesting a copy of the modification drawings which were not provided with the Petition. The City notes that the Petition also states that AT&T did not analyze the fabrication of the structure. If the Siting Council is going to require the submission of such an analysis, please be sure that Cingular provides us with a copy of that information, sent directly to my attention. This will expedite our review of this matter.

If there are any questions regarding this matter, please do not hesitate to contact me.

Sincerely,

Melanie J. Howlett  
Associate City Attorney

Cc: AT&T Regulatory Division-Theresa Brown  
Steve Levine; Consultant to AT&T



# STATE OF CONNECTICUT

## CONNECTICUT SITING COUNCIL

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

Daniel F. Caruso  
Chairman

October 16, 2008

The Honorable Bill Finch  
Mayor  
City of Bridgeport  
City Hall Annex  
999 Broad Street  
Bridgeport, CT 06604

RE: **EM-CING-015-081016**- New Cingular Wireless PCS, LLC notice of intent to modify an existing telecommunications facility located at 2 Kaechele Place, Bridgeport, Connecticut.

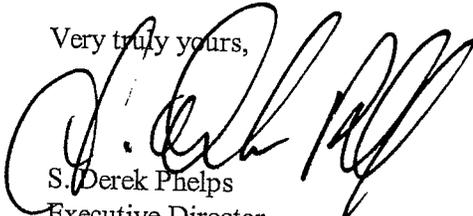
Dear Mayor Finch: *Bill*

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.

If you have any questions or comments regarding this proposal, please call me or inform the Council by October 30, 2008.

Thank you for your cooperation and consideration.

Very truly yours,

  
S. Derek Phelps  
Executive Director

SDP/jb

Enclosure: Notice of Intent

c: Melanie J. Howlett, Associate City Attorney, City of Bridgeport

EM-CING-015-081016



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

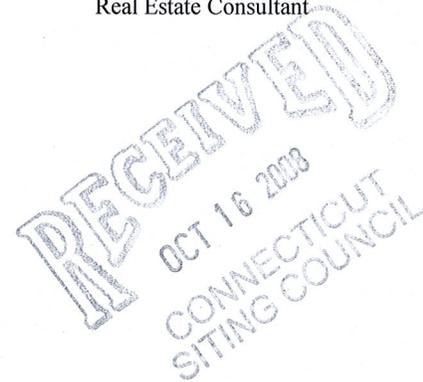
Steven L. Levine  
Real Estate Consultant

HAND DELIVERED

ORIGINAL

October 15, 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 2 Kaechele Place, Bridgeport (owner, American Tower)

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. 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 or, installation of additional antennas of a size required to accommodate UMTS.
- 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.
- Radome enlargement for flagpole and "stick" structures to accommodate larger antennas and additional associated equipment.

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 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

**CINGULAR WIRELESS  
Equipment Modification**

2 Kaechele Place, Bridgeport  
Site Number 2106  
Docket 45.1; Exempt Mods 9/92, 6/93, 9/02

**Tower Owner/Manager:** American Tower

**Equipment configuration:** Monopole

**Current and/or approved:** Fifteen DB846H80E-SX panel antennas @ 130 and 150 ft  
Fifteen runs 7/8 inch coax

**Planned Modifications:** Remove all existing antennas and coax  
Install six Powerwave 7770 antennas @ 150 ft c.l.  
Install six TMA's and six diplexers @ 150 ft  
Install twelve runs 1 5/8 inch coax.

**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 16.3 % 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 19.7 % 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 *							14.10
Cingular GSM *	155	850	21	40	0.0126	0.5667	2.22
<b>Total</b>							<b>16.3%</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 *							14.10
Cingular GSM	155	880 - 894	4	296	0.0177	0.5867	3.02
Cingular GSM	155	1900 Band	2	427	0.0128	1.0000	1.28
Cingular UMTS	155	880 - 894	1	500	0.0075	0.5867	1.28
Total							19.7%

\* Per CSC records.

### Structural information:

The attached structural analysis demonstrates that the tower and foundation have adequate structural capacity to accommodate the proposed modifications. (GDP Associates, 10/15/08)



**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

October 15, 2008

Honorable Bill Finch  
Mayor, City of Bridgeport  
City Hall, 45 Lyon Terrace  
Bridgeport, CT 06604

Re: Telecommunications Facility – 2 Kaechele Place, Bridgeport

Dear Mayor Finch:

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



Tim Burks  
 SAI Communications  
 22 Keewaydin Drive  
 Salem NH 03079  
 (603) 421-0470



GPD ASSOCIATES  
 Kevin Clements  
 520 South Main St., Suite 2531  
 Akron, Ohio 44311  
 (330) 572-2195  
 kclements@gpdgroup.com

GPD# 2008013.14 Rev 2.  
 October 15, 2008

**REVISED STRUCTURAL ANALYSIS REPORT**

**AT&T DESIGNATION:** Site USID: 60393  
 #2106 Site FA: 10034977  
 Site Name: BRIDGEPORT NORTH

**ANALYSIS CRITERIA:** Codes: TIA/EIA-222-F & 2003 IBC  
 85-mph with 0" ice  
 74-mph with 1/2" ice

**SITE DATA:** 2 Kaechele Place, Bridgeport, CT 06606, Fairfield County  
 Latitude 41° 13' 23.987"N, Longitude 73° 13' 0.407"W  
 150' Modified Monopole

Mr. Burks,

GPD is pleased to submit this Revised Structural Analysis Report to determine the structural integrity of the aforementioned tower. The purpose of the analysis is to determine the suitability of the tower with and without the following proposed loading configuration:

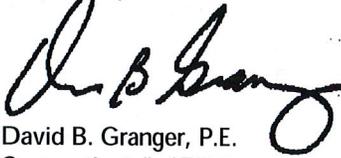
Elev. 154'	Consider all AT&T existing and future antennas
Elev. 140'	Removal of all antennas and corresponding coax
Elev. 99'	Consider all of Verizon's existing loading

\*See Appendix A for detailed description of load case

Based on our analysis we have determined the modified tower and its foundation are sufficient for the proposed loading as referenced in Appendix A.

We at GPD appreciate the opportunity of providing our continuing professional services to you and SAI. If you have any questions please do not hesitate to call.

Respectfully submitted,

  
 David B. Granger, P.E.  
 Connecticut #: 17557



## SUMMARY & RESULTS

The purpose of this analysis was to verify that the existing structure is capable of carrying the proposed loading scenario as specified by AT&T.

The tower has been previously modified with (8) 2-1/2" diameter threaded rods from 0' – 50' and (4) 2-1/2" diameter threaded rods from 50' – 95'. The rods appear to be embedded directly into the foundation. Therefore, it is assumed they transfer all forces directly into the existing foundation. In addition, triangular stiffener plates have been installed on the base plate and flange plate at 109'.

### TOWER SUMMARY AND RESULTS

Member	Capacity	Results
Monopole	92.0%	Pass
Flange @ 109'	99.8%	Pass
Base Plate	33.3%	Pass
Anchor Rods	71.2%	Pass
Foundation	95.7%	Pass

## ANALYSIS METHOD

RISA Tower (Version 5.3.0.1), a commercially available software program, was used to create a three-dimensional model of the tower and calculate primary member stresses for various dead, live, wind, and ice load cases. Selected output from the analysis is included in Appendix B. The following table details the information provided to complete this structural analysis. This analysis is solely based on this information.

### DOCUMENTS PROVIDED

Document	Remarks	Source
Tower Mapping	GPD Associates & Patriot Towers, Inc., dated 4/11/08	GPD
Previous Structural Analysis	GPD Associates Job #: 2008261.15, dated 5/14/08	GPD

## ASSUMPTIONS

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

1. The monopole shaft sizes and shape are considered accurate as supplied. The material grade is as per data supplied and/or as assumed and as stated in the materials section.
2. The antenna configuration is as supplied and/or as modeled in the analysis. 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
3. Some assumptions are made regarding antennas and mount sizes and their projected areas based on best interpretation of data supplied and of best knowledge of antenna type and industry practice.
4. All mounts, if applicable, are considered adequate to support the loading. No actual analysis of the mount(s) is performed; this analysis is limited to analyzing the tower only.
5. The soil parameters are as per data supplied or as assumed and stated in the calculations. If no data is available, the foundation system is not verified.
6. The tower and structures have been properly maintained in accordance with TIA Standards and/or with manufacturer's specifications.
7. All welds and connections are assumed to develop at least the member capacity, unless determined otherwise and explicitly stated in this report.
8. Tower Mounted Amplifiers are assumed to be installed behind antennas.
9. All existing loading was obtained from the co-location application dated 7/11/07, the Preliminary Tower Summary, and the tower mapping completed by GPD Associates & Patriot Towers, Inc. on 4/11/08.
10. All proposed coax is assumed to be internal to the monopole.
11. No steel grade information was provided, therefore, steel grades are assumed based on previous engineering experience.
12. The threaded rod modifications are assumed to be installed through the base plate into the foundation, continuing forces directly into the foundation.

If any of these assumptions are not valid or have been made in error, this analysis may be affected, and GPD Associates should be allowed to review any new information to determine its effect on the structural integrity of the tower.

## DISCLAIMER OF WARRANTIES

GPD ASSOCIATES has performed a site visit to the tower to verify the member sizes or antenna/coax loading. If the existing conditions are not as represented on the tower elevation contained in this report, we should be contacted immediately to evaluate the significance of the discrepancy. This is not a condition assessment of the tower or foundation. This report does not replace a full tower inspection. The tower and foundations are assumed to have been properly fabricated, erected, maintained, in good condition, twist free, and plumb.

The engineering services rendered by GPD ASSOCIATES in connection with this Structural Analysis are limited to a computer analysis of the tower structure and theoretical capacity of its main structural members. All tower components have been assumed to only resist dead loads when no other loads are applied. No allowance was made for any damaged, bent, missing, loose, or rusted members (above and below ground). No allowance was made for loose bolts or cracked welds.

GPD ASSOCIATES does not analyze the fabrication of the structure (including welding). It is not possible to have all the very detailed information needed to perform a thorough analysis of every structural sub-component and connection of an existing tower. GPD ASSOCIATES provides a limited scope of service in that we cannot verify the adequacy of every weld, plate connection detail, etc. The purpose of this report is to assess the feasibility of adding appurtenances usually accompanied by transmission lines to the structure.

It is the owner's responsibility to determine the amount of ice accumulation, if any, that should be considered in the structural analysis.

The attached sketches are a schematic representation of the analyzed tower. If any material is fabricated from these sketches, the contractor shall be responsible for field verifying the existing conditions, proper fit, and clearance in the field. Any mentions of structural modifications are reasonable estimates and should not be used as a precise construction document. Precise modification drawings are obtainable from GPD ASSOCIATES, but are beyond the scope of this report.

Miscellaneous items such as antenna mounts etc., have not been designed or detailed as a part of our work. We recommend that material of adequate size and strength be purchased from a reputable tower manufacturer.

GPD ASSOCIATES makes no warranties, expressed and/or implied, in connection with this report and disclaims any liability arising from material, fabrication, and erection of this tower. GPD ASSOCIATES 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 GPD ASSOCIATES pursuant to this report will be limited to the total fee received for preparation of this report.

# Tower Analysis Summary Form

<b>General Info</b>	
Site Name	BRIDGEPORT NORTH
Site Number	60393
FA Number	10034977
Date of Analysis	10/15/2008
Company Performing Analysis	GPD

The information contained in this summary report is not to be used independently from the PE stamped tower analysis.

<b>Tower Info</b>	
Tower Type (G, SST, MP)	MP
Tower Height (top of steel AGL)	150
Tower Manufacturer	n/a
Tower Model	n/a
Manufacturer Drawings	n/a
Foundation Design	n/a
Geotech Report	n/a
Previous Structural Analysis	GPD Associates Job#: 2008261.15
Foundation Mapping	4/11/2008

<b>Design Parameters</b>	
Design Code Used	TIA/EIA-222-F
Location of Tower (County, State)	Fairfield, Connecticut
Basic Wind Speed (mph)	85-Fastest
Ice Thickness (in)	0.5"
Structure Classification (I, II, III)	
Exposure Category (B, C, D)	
Topographic Category (1 to 5)	

<b>Existing Analysis Results (% Maximum Usage)</b>	
Tower	149.1%
Foundation	170.5%
Guy/Wire	n/a

<b>Proposed Analysis Results (% Maximum Usage)</b>	
Tower (LC1)	99.8%
Foundation	95.7%
Guy/Wire	n/a

<b>Steel Yield Strength (ksi)</b>	
Pole	60
Base Plate	50
Anchor Rods	75
Modification Rods	60

Note: All steel grades assumed based on previous experience.

## Existing/Reserved

Antenna Owner	Antenna				Mount				Transmission Line				
	Centerline Height (ft)	Quantity	Type	Model	EPA (ft²) each	Azimuth	Quantity	Type	Model	EPA (ft²) total	Quantity	Size	Attachment Leg/Face
AT&T Mobility	154	9	Panel	DB846H80E-SX	5.09		1	10' Platform		43.32	12	7/8"	Internal
AT&T Mobility	154	1	Omini	12	7.07			on same mount			3	1-5/8"	Internal
Unknown	140	9	Panel	7184.14	2.68		1	13' LP Platform		24.80	9	1-5/8"	Internal
Verizon Wireless	99	12	Panel	6' Panel	8.4		3	12' T-Arms		14.10	6	1-5/8"	Internal
Verizon Wireless	99	6	TMA	Unknown	shielded			on same mount			6	1-5/8"	External

## Proposed

Antenna Owner	Antenna				Mount				Transmission Line				
	Centerline Height (ft)	Quantity	Type	Model	EPA (ft²) each	Azimuth	Quantity	Type	Model	EPA (ft²) total	Quantity	Size	Attachment Leg/Face
AT&T Mobility	154	6	Panel	7770	5.88			on existing mount		43.32	12	1-5/8"	Internal
AT&T Mobility	154	1	Omini	12	7.07			on existing mount			3	1-5/8"	Internal
AT&T Mobility	154	6	TMA	TMA	shielded			on existing mount					
AT&T Mobility	154	6	Diplexer	Diplexer	shielded			on existing mount					
Verizon Wireless	99	12	Panel	6' Panel	8.4		3	12' T-Arms		14.10	6	1-5/8"	Internal
Verizon Wireless	99	6	TMA	Unknown	shielded			on same mount			6	1-5/8"	External

Note: The existing antennas, platform and coax at 140' shall be removed prior to the installation of the proposed loading and were not considered in this analysis.

The proposed loading at 154' shall replace the existing loading at that elevation.

**DESIGNED APPURTENANCE LOADING**

TYPE	ELEVATION	TYPE	ELEVATION
(2) 7770.00	149.5	(2) LGP219nn Diplexer	149.5
(2) 7770.00	149.5	(2) LGP219nn Diplexer	149.5
(2) 7770.00	149.5	12' T-arms (3)	99
12' Omni	149.5	(2) TMA	99
(2) 20401 TMA	149.5	(2) TMA	99
(2) 20401 TMA	149.5	(4) 6 ft panel	99
(2) 20401 TMA	149.5	(4) 6 ft panel	99
10'-8" Central Platform w/ 42" tower extension	149.5	(4) 6 ft panel	99
(2) LGP219nn Diplexer	149.5	(4) 6 ft panel	99

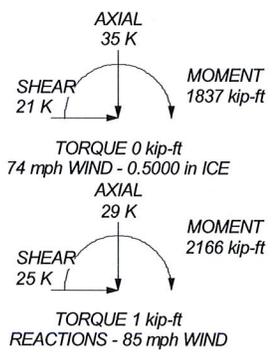
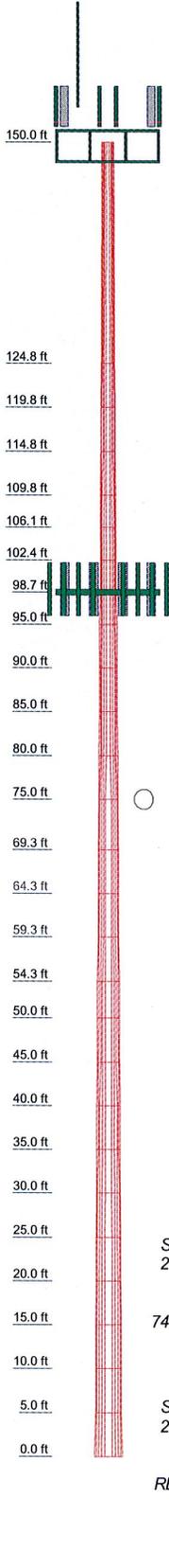
**MATERIAL STRENGTH**

GRADE	Fy	Fu	GRADE	Fy	Fu
A572-60	60 ksi	75 ksi			

**TOWER DESIGN NOTES**

1. Tower is located in Fairfield County, Connecticut.
2. Tower designed for a 85 mph basic wind in accordance with the TIA/EIA-222-F Standard.
3. Tower is also designed for a 74 mph basic wind with 0.50 in ice.
4. Deflections are based upon a 50 mph wind.
5. TOWER RATING: 92.0%

Section	Length (ft)	Number of Sides	Thickness (in)	Top Dia (in)	Bot Dia (in)	Grade	Weight (K)
1	25.25	12	0.2188	15.0000	18.7640	1.0	1.0
2	5.00	12	0.2188	15.0000	18.7640	0.2	0.2
3	5.00	12	0.2188	15.0000	18.7640	0.2	0.2
4	5.00	12	0.2188	15.0000	18.7640	0.2	0.2
5	3.69	12	0.2188	15.0000	18.7640	0.2	0.2
6	3.69	12	0.2188	15.0000	18.7640	0.2	0.2
7	3.69	12	0.2188	15.0000	18.7640	0.2	0.2
8	3.69	12	0.2188	15.0000	18.7640	0.2	0.2
9	5.00	12	0.2188	15.0000	18.7640	0.3	0.3
10	5.00	12	0.2188	15.0000	18.7640	0.3	0.3
11	5.00	12	0.2188	15.0000	18.7640	0.3	0.3
12	5.00	12	0.2188	15.0000	18.7640	0.4	0.4
13	5.75	12	0.2188	15.0000	18.7640	0.4	0.4
14	5.00	12	0.2188	15.0000	18.7640	0.5	0.5
15	5.00	12	0.2188	15.0000	18.7640	0.5	0.5
16	5.00	12	0.2188	15.0000	18.7640	0.5	0.5
17	4.25	12	0.2188	15.0000	18.7640	0.4	0.4
18	5.00	12	0.2188	15.0000	18.7640	0.5	0.5
19	5.00	12	0.2188	15.0000	18.7640	0.5	0.5
20	5.00	12	0.2188	15.0000	18.7640	0.5	0.5
21	5.00	12	0.2188	15.0000	18.7640	0.6	0.6
22	5.00	12	0.2188	15.0000	18.7640	0.7	0.7
23	5.00	12	0.2188	15.0000	18.7640	0.7	0.7
24	5.00	12	0.2188	15.0000	18.7640	0.8	0.8
25	5.00	12	0.2188	15.0000	18.7640	0.8	0.8
26	5.00	12	0.2188	15.0000	18.7640	0.8	0.8
27	5.00	12	0.2188	15.0000	18.7640	0.8	0.8



 <p><b>GPD Associates</b> 520 South Main Street, Suite 2531 Akron, OH 44311 Phone: (330) 572-2152 FAX: (330) 572-2102</p>	<p>Job: <b>60393 Bridgeport North</b></p>	
	<p>Project: <b>2008013.14</b></p>	<p>Client: <b>AT&amp;T</b></p>
<p>Consulting Engineers</p>	<p>Drawn by: <b>C. Roesink</b></p>	<p>App'd:</p>
<p>Code: <b>TIA/EIA-222-F</b></p>	<p>Date: <b>10/15/08</b></p>	<p>Scale: <b>NTS</b></p>
<p>Path: <small>G:\Telecom\200801314 - Bolton\Revised 10-15-08\RISA\Bridgport North.LC1.dwg</small></p>	<p>Dwg No. <b>E-1</b></p>	