



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)

December 24, 2008

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

RE: **EM-CING-041-081202**- New Cingular Wireless PCS, LLC notice of intent to modify an existing telecommunications facility located at 126 Parker Road, East Haddam, 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 following condition:

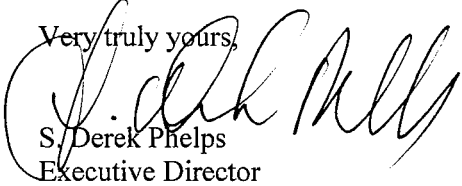
- A signed letter from a Professional Engineer duly licensed in the State of Connecticut shall be submitted to the Council prior to the antenna installation to certify that a post-construction foundation rating of not more than 100 percent has been achieved.

The proposed modifications are to be implemented as specified here and in your notice dated November 26, 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,

A handwritten signature in black ink, appearing to read "S. Derek Phelps", written over the typed name.

S. Derek Phelps  
Executive Director

SDP/MP/laf

c: The Honorable Mark B. Walter, First Selectman, Town of East Haddam  
James Ventres, Land-Use Administrator, Town of East Haddam  
Comcast Cable Television Company

EM-CING-041-081202



**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

ORIGINAL

HAND DELIVERED

November 26, 2008

RECEIVED  
DEC 2 - 2008

CONNECTICUT  
SITING COUNCIL

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 126 Parker Road, East Haddam (owner, Comcast)

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

**NEW CINGULAR WIRELESS  
Equipment Modification**

126 Parker Road, East Haddam  
Site Number 2053  
Docket 76 and Exempt Mods approved 9/02 and 12/02

**Tower Owner/Manager:** Comcast

**Equipment Configuration:** Guyed Lattice Tower

**Current and/or Approved:** Nine CSS DUO-1417-8686 panel antennas @ 185 ft AGL  
Nine TMA's @ 185 ft  
Ten runs 1 5/8 inch coax cable  
Equipment Shelter

**Planned Modifications:** Remove all existing antennas and TMA's  
Remove three runs of existing coax  
Install six Powerwave 7770 antennas (or equivalent) @ 185 ft  
Install six TMA's and six diplexers @ 185 ft  
Install six additional lines 1 5/8 inch coax

**Power Density:**

Worst-case calculations for existing wireless operations at the site indicate a radio frequency electromagnetic radiation power density, measured at ground level beside the tower, of approximately 4.8 % 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 5.8 % 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 *							unknown
AT&T TDMA *	185	880 - 894	16	100	0.0168	0.5867	2.87
AT&T GSM *	185	1900 Band	2	427	0.0090	1.0000	0.90
AT&T GSM *	185	880 - 894	2	296	0.0062	0.5867	1.06
<b>Total</b>							<b>4.8%</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 *							unknown
AT&T UMTS	185	880 - 894	1	500	0.0053	0.5867	0.90
AT&T GSM	185	1900 Band	2	427	0.0090	1.0000	0.90
AT&T GSM	135	880 - 894	4	296	0.0234	0.5867	3.98
<b>Total</b>							<b>5.8%</b>

\* Per CSC records

### Structural information:

The attached structural analysis demonstrates that the tower and foundation have adequate structural capacity to accommodate the proposed equipment modifications. (GPD Associates, 11/20/08)



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

November 26, 2008

Honorable Mark B. Walter  
1<sup>st</sup> Selectman, Town of East Haddam  
Town Office Bldg. 7 Main Street  
East Haddam, CT 06423

Re: Telecommunications Facility – 126 Parker Road, East Haddam

Dear Mr. Walter:

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

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

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

Sincerely,

Steven L. Levine  
Real Estate Consultant

Enclosure



Derek Creaser  
 Hudson Design Group, LLC  
 1600 Osgood Street, Building 20 North, Suite 2-101  
 North Andover, MA 01845  
 (617) 306-3034



GPD ASSOCIATES  
 Brian Daugherty  
 520 South Main St., Suite 2531  
 Akron, Ohio 44311  
 (330) 572-2225  
 bdaugherty@gpdgroup.com

GPD# 2008147.18  
 November 20, 2008

**STRUCTURAL ANALYSIS REPORT**

**HDG DESIGNATION:**      **Site Number:**      **CT2053**

**AT&T DESIGNATION:**      **Site USID:**      59411  
    **Site FA:**      10035000  
    **Site Name:**      EAST HADDAM-126 PARKER ROAD

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

**SITE DATA:**                              126 Parker Road, East Haddam, CT 06423, Middlesex County  
                                 Latitude 41° 27' 39.275"N, Longitude 72° 23' 42.791" W  
                                 300' Guyed Tower

Mr. Creaser,

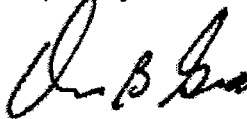
GPD is pleased to submit this Structural Analysis Report to determine the structural integrity of the aforementioned tower. The purpose of the analysis is to determine the suitability of the tower with the addition of the following proposed loading configuration:

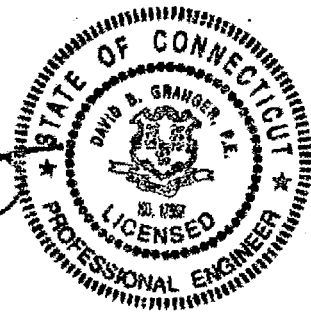
- Elev. 185'      (6) Powerwave 7770.00 Antennas on (3) 12' T-Frames, w/ (12) 1-5/8" coax
- (6) Powerwave LGP21401 TMA's mounted behind the antennas
- (6) Powerwave LGP21901 Diplexers mounted behind the antennas

Based on our analysis we have determined that the tower is sufficient for the proposed, existing, and reserved loadings as referenced in Appendix A. However, the foundation could not be verified based on the information provided.

We at GPD appreciate the opportunity of providing our continuing professional services to you and AT&T. 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 whether the existing structure is capable of carrying the proposed loading configuration as specified by AT&T to Hudson Design Group, LLC. This report was commissioned by Mr. Derek Creaser of Hudson Design Group, LLC.

No geotechnical information or foundation design was available or provided for this report. Therefore, the in place capacity of the existing foundation could not be verified. It is recommended that the geotechnical report or foundation design be obtained or a new geotechnical study and foundation investigation at the site be performed in order to complete a foundation analysis.

### TOWER SUMMARY AND RESULTS

Member	Capacity	Results
Legs	59.3%	Pass
Diagonals	71.3%	Pass
Horizontals	38.2%	Pass
Guy Wires	96.8%	Pass
Guy Anchors	Not Verified	N/A
Foundation	Not Verified	N/A

## 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 and is being provided without the benefit of a site visit.

### DOCUMENTS PROVIDED

Document	Remarks	Source
Previous Structural Analysis	O2 Wireless Solutions, Job #: 103-3637-07, dated 11/26/02	D. Creaser
AT&T Proposed Loading	RF Data Sheet, Dated 10/22/2008	D. Creaser

## ASSUMPTIONS

This structural analysis is based on the theoretical capacity of the members and is not a condition assessment of the guyed tower. 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 tower's member 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. All tower mounted amplifiers are assumed to be mounted behind the antennas.
9. All existing and proposed loading was obtained from the previous structural analysis performed by O2 Wireless Solutions Job # 103-3637-07, dated 11/26/02, tower photos and the supplied RF Data Sheet.
10. The locations of the coax are assumed. If the coax layout differs in the field, contact the engineer immediately. See Appendix C for the coax layout.

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 not 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.

## APPENDIX A

### Tower Analysis Summary Form

<b>General Info</b>	
Site Name	EAST HADDAM NORTH
Site Number	27385
Date of Analysis	11/20/2008
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)	39
Tower Manufacturer	
Tower Model	
Manufacturer Drawings	
Foundation Design	
Geotech Report	
Tower Mapping	
Previous Structural Analysis	JEM Engineering & Manufacturing, Inc 3/14/2003

<b>Design Parameters</b>	
Design Code Used	TIA/EIA-222-F
Location of Tower (County, State)	Middlesex, Connecticut
Basic Wind Speed (mph)	65-fastest
Ice Thickness (in)	0.5"
Structure Classification (I, II, III)	
Exposure Category (B, C, D)	
Topographic Category (1 to 5)	

<b>Analysis Results Existing &amp; reserved Condition</b>	
Tower	90.6%
Foundation	106.4%
Guy Wire	102.8%

Note: Foundation could not be verified based on the information provided.

<b>Proposed Condition</b>	
Tower	71.3%
Foundation	116
Guy Wire	95.8%

Note: Foundation could not be verified based on the information provided.

<b>Steel Yield Strength (ksi)</b>	
Legs	50
Diagonals	36
Guy Wires	48.5

Note: Steel grades were taken from previous analysis.

Existing/Reserved		Antenna				Mount				Transmission Line			
Antenna Owner	Attachment Height (ft)	Quantity	Type	Model	EPA (ft²) each	Azimuth	Quantity	Type	Model	EPA (ft²) total	Quantity	Size	Attachment Leg/Face
Unknown	195	1	Omni	6 Omni	1.77		1	4" Standoff		3.41	3	7/8" Leg B	
A&T Mobility	185	5	Panel	DUO-1477-6686-4-0	7.35	23, 143, 263	3	12" T-Frame's On Same Mount		36.60	6	1-5/8" Face B	
A&T Mobility	185	5	TMA	TMA-DDD 3507306	Shielded	23, 143, 263	4				4	1-5/8" AIR Leg A	
Unknown	155	1	Yagi	4 Yagi	0.79			Flush Mounted		Shielded			
Unknown	160	1	Yagi	4 Yagi	0.79			Flush Mounted		Shielded			
Unknown	142	1	Yagi	4 Yagi	0.79			Flush Mounted		Shielded			
Unknown	130	1	Yagi	4 Yagi	0.79			Flush Mounted		Shielded			
Unknown	28	1	Yagi	4 Yagi	0.79			Flush Mounted		Shielded			

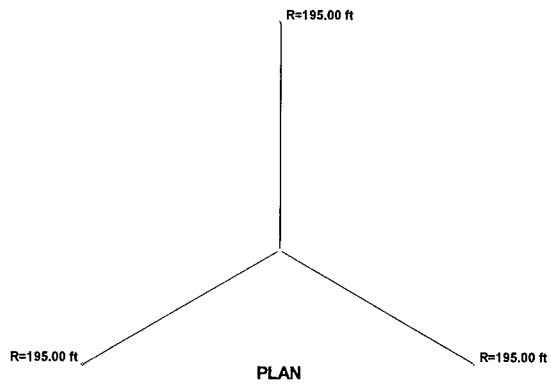
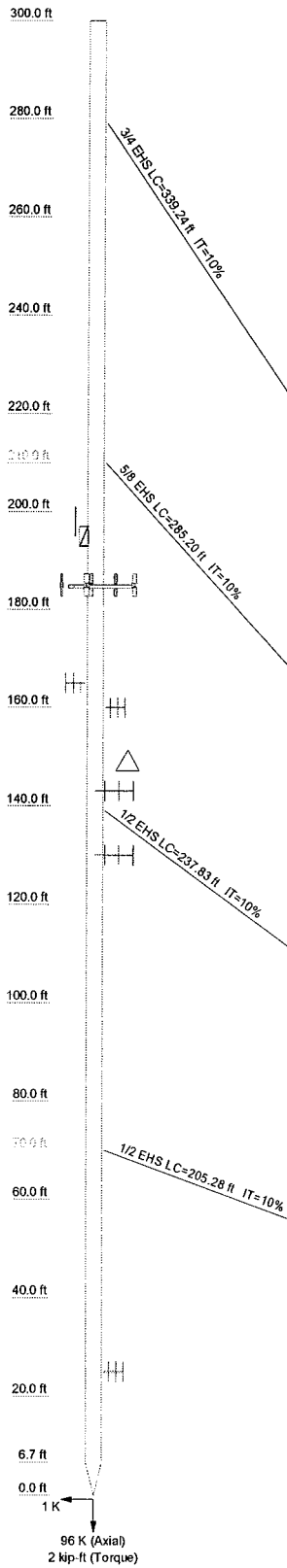
Note: Three Existing 1-5/8" AIR feed lines to be removed.

Proposed		Antenna				Mount				Transmission Line			
Antenna Owner	Attachment Height (ft)	Quantity	Type	Model	EPA (ft²) each	Azimuth	Quantity	Type	Model	EPA (ft²) total	Quantity	Size	Attachment Leg/Face
A&T Mobility	185	5	Panel	7776-00	8.88	23, 143, 263		On Existing Mount			6	1-5/8" Face C	
A&T Mobility	185	5	TMA	1 GP21461	Shielded	23, 143, 263		On Existing Mount					
A&T Mobility	160	5	Diaplex	1 GP21601 Diaplex	Shielded	23, 143, 263		On Existing Mount					

Note: Propose antennas and TMA's are to replace the existing DUO-1477-6686-4-0 antennas and TMA's at 175'.

Revision: 1.2  
Date: 12/15/06

Section	T16	T15	T14	T13	T12	T11	T10	T9	T8	T7	T6	T5	T4	T3	T2	T1
Legs	SR 2															
Leg Grade	SR 1 1/4															
Diagonals	A572-50															
Diagonal Grade	SR 1															
Top Chords	NA															
Horizontals	SR 7/8															
Face Width (ft)	3.5															
# Panels @ (ft)	4 @ 3.325															
Weight (K)	16.0 @ 0.3															



**DESIGNED APPURTENANCE LOADING**

TYPE	ELEVATION	TYPE	ELEVATION
4' Standoff	195	(2) LGP21401	185
6' x 3" Omri	195	(2) LGP21901	185
PIROD 12' T-Frame (GPD)	185	(2) LGP21901	185
PIROD 12' T-Frame (GPD)	185	(2) LGP21901	185
PIROD 12' T-Frame (GPD)	185	4' Yagi	165
(2) 7770.00 w/Mount Pipe	185	4' Yagi	160
(2) 7770.00 w/Mount Pipe	185	4' Yagi	143
(2) 7770.00 w/Mount Pipe	185	4' Yagi	130
(2) LGP21401	185	4' Yagi	25
(2) LGP21401	185		

**SYMBOL LIST**

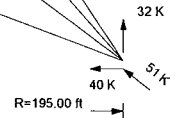
MARK	SIZE	MARK	SIZE
A	SR 1 1/4	B	2 @ 3.35


**MATERIAL STRENGTH**

GRADE	Fy	Fu	GRADE	Fy	Fu
A572-50	50 ksi	65 ksi	A36	36 ksi	58 ksi

**TOWER DESIGN NOTES**

1. Tower is located in Middlesex 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 60 mph wind.
5. TOWER RATING: 96.8%



 <p><b>GPD Associates</b> 520 South Main Street, Suite 2531 Akron, OH 44311 Phone: (330) 572-2100 FAX: (330) 572 2101</p>	Job: <b>CT2053</b>
	Project: <b>2008147.18</b>
	Client: HDG      Drawn by: bdaugherty      App'd:
	Code: TIA/EIA-222-F      Date: 11/20/08      Scale: NTS
	Path: G:\T\elec\com200814718\RI\SA\CT2053.dwg
	Dwg No: <b>E-1</b>