### STATE OF CONNECTICUT



Daniel F. Caruso
Chairman
February 26, 2009

CONNECTICUT SITING COUNCIL
Ten Franklin Square, New Britain, CT 06051
Phone: (860) 827-2935 Fax: (860) 827-2950
E-Mail: siting.council@ct.gov
Internet: ct.gov/csc

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

RE: EM-CING-078-081215- New Cingular Wireless PCS, LLC notice of intent to modify an existing telecommunications facility located at 497 Middle Turnpike, Mansfield, Connecticut.

Dear Mr. Levine:

The Connecticut Siting Council (Council) hereby acknowledges your notice to modify this existing telecommunications facility, pursuant to Section 16-50j-73 of the Regulations of Connecticut State Agencies.

The proposed modifications are to be implemented as specified here and in your notice dated December 11, 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.

S. Perek Phelips Executive Director

SDP/MP/laf

c: The Honorable Elizabeth Patterson, Mayor, Town of Mansfield Matthew W. Hart, Town Manager, Town of Mansfield Gregory Padick, Town Planner, Town of Mansfield Christopher B. Fisher, Esq., Cuddy & Feder LLP





### 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 www.ct.gov/csc

December 16, 2008

The Honorable Elizabeth Patterson Mayor Town of Mansfield 4 South Eagleville Road Mansfield, CT 06268

RE: **EM-CING-078-081215-** New Cingular Wireless PCS, LLC notice of intent to modify an existing telecommunications facility located at 497 Middle Turnpike, Mansfield, Connecticut.

Dear Mayor Patterson:

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 December 30, 2008.

Thank you for your cooperation and consideration.

Executive Director

SDP/jb

Enclosure: Notice of Intent

c: Gregory Padick, Town Planner, Town of Mansfield Matthew W. Hart, Town Manager, Town of Mansfield





EM-CING-078-081215

New Cingular Wireless PCS, LLC

500 Enterprise Drive

Rocky Hill, Connecticut 06067-3900

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

ORIGINAL

Steven L. Levine Real Estate Consultant

HAND DELIVERED

December 11, 2008

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

DEC 15 2008

CONNECTICUT
SITING COUNCIL

Re: New Cingular Wireless PCS, LLC notice of intent to modify an existing telecommunications facility located at 497 Middle Turnpike, Mansfield (AT&T Corp.)

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**

497 Middle Turnpike, Mansfield

Site Number 5822 Former AT&T cell site Docket 247 approved 9/03

Tower Owner/Manager:

AT&T Corp.

**Equipment Configuration:** 

Monopole

Current and/or Approved: Nine Allgon 7250 panel antennas @ 120 ft AGL

Six runs 1 1/4 inch coax cable Concrete Pad with outdoor cabinets

**Planned Modifications:** 

Remove all existing antennas

Install six Powerwave 7770 antennas (or equivalent) @ 120 ft

Install six TMA's and six diplexers @ 120 ft Install six additional lines 1 1/4 inch coax

Remove one outdoor cabinet

Install one outdoor cabinet for UMTS

### **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 16.2 % of the standard adopted by the FCC. As depicted in the second table below, the total radio frequency electromagnetic radiation power density following proposed modifications would be approximately 23 % of the standard.

### Existing

Company	Centerline Ht (feet)	Frequency (MHz)	Number of Channels	Power Per Channel (Watts)	Power Density (mW/cm²)	Standard Limits (mW/cm²)	Percent of Limit
Other Users *							13.75
AT&T GSM	120	1900 Band	4	250	0.0250	1.0000	2.50
Total							16.2%

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

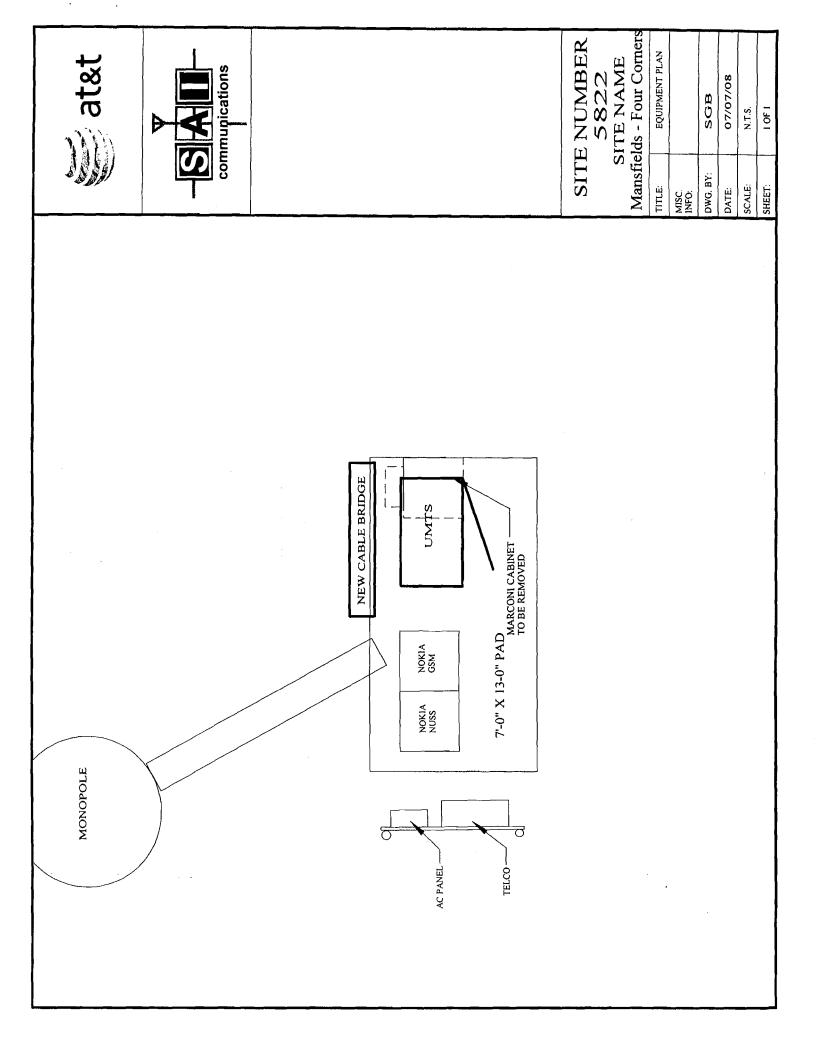
### Proposed

Company	Centerline Ht (feet)	Frequency (MHz)	Number of Channels	Power Per Channel (Watts)	Power Density (mW/cm²)	Standard Limits (mW/cm²)	Percent of Limit
Other Users							13.75
AT&T UMTS	120	880 - 894	1	500	0.0125	0.5867	2.13
AT&T GSM	120	1900 Band	2	427	0.0213	1.0000	2.13
AT&T GSM	120	880 - 894	4	296	0.0296	0.5867	5.04
illotal							23.0%

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

### **Structural information:**

The attached structural analysis demonstrates that the tower and foundation have adequate structural capacity to accommodate the proposed equipment modifications. (GPD Associates, 12/9/08)







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 11, 2008

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

Re: Telecommunications Facility – 497 Middle Turnpike

### Dear Mr. Hart:

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

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

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

Sincerely,

Steven L. Levine Real Estate Consultant

Enclosure



Karen L. Couture SAI Communications 500 Enterprise Drive Suite 3-A Rocky Hill, CT 06067 (860) 389-4924



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

GPD# 2008013.31 December 9, 2008

### STRUCTURAL ANALYSIS REPORT

AT&T DESIGNATION:

Site USID:

27067

Site FA:

10071108

Site Name:

**MANSFIELD FOUR CORNERS** 

**SAI DESIGNATION:** 

Site Number:

CT5822

**ANALYSIS CRITERIA:** 

Codes:

TIA/EIA-222-F & 2003 IBC

85-mph with 0" ice 74-mph with 1/2" ice

SITE DATA:

497 Middle Turnpike, Storrs Mansfield, CT 06268, Tolland County

Latitude 41° 49' 21.683" N, Longitude 72° 17' 10.679" W

120' PennSummit Monopole

Ms. Couture,

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. 120'

- (6) Powerwave 7770.00 Antennas on a PiROD 13' LP Platform w/ (6) LDF6-50A internal coax
- (6) Powerwave LGP21401 Tower Mounted Amplifiers mounted behind the antennas
- (6) Powerwave LGP21903 Diplexers mounted behind the antennas

Based on our analysis we have determined the <u>tower and its foundation are sufficient</u> for the proposed, existing, and reserved loadings 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 whether the existing structure is capable of carrying the proposed loading configuration as specified by AT&T to SAI. This report was commissioned by Ms. Karen L. Couture of SAI.

### **TOWER SUMMARY AND RESULTS**

Member	Capacity	Results
Monopole	46.2%	Pass
Base Plate	23.9%	Pass
Anchor Rods	27.2%	Pass
Foundation	37.8%	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 and is being provided without the benefit of a site visit.

### **DOCUMENTS PROVIDED**

Document	Remarks	Source
AT&T UMTS Document	AT&T Mobility TB 2009 UMTS Scope Meeting Notes, dated 9/11/08	M. Appleby
Previous Structural Analysis	Paul J. Ford and Company, Project #: 29207-104, dated 9/5/07	Siterra
Previous Structural Analysis	URS Corporation, Project #: 36915050, dated 10/15/03	Siterra

12/9/2008 Page 2 of 4

### **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. All prior structural modifications, if any, are assumed to be as per data supplied/available, to have been properly installed and to be fully effective.
- 9. Tower Mounted Amplifiers and Diplexers are assumed to be installed behind antennas.
- 10. All existing loading was obtained from the previous structural analysis by Paul J. Ford and Company, Project #: 29207-104, dated 9/5/07, the provided UMTS Document and site photos and is assumed to be accurate.
- 11. All proposed coax is assumed to be internal to the monopole.

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.

### 12/9/2008

# Tower Analysis Summary Form

## General Info

Site Name	MANSFIELD FOUR CORNERS
Site Number	Site Number 27:067
Site FA 10071108	
Date of Analysis	Date of Analysis
Company Performing Applyeis	See See See Col

10/13/2003 10/13/2003 9/26/2003 Date n/a URS Project #: 26915050 Paul J. Ford Project #: 29207-104 Paul J. Ford Job #: 29203-0309 Paul J. Ford Job #: 29203-0309 VN Engineering Pensum Description Tower Type (G. SST. MP)
Tower Height (top of steel AGL)
Tower Manufacturer
Tower Model Tower Design Foundation Design Geotech Report Tower Mapping Previous Structural Analysis Previous Structural Analysis

Design Parameters	
Design Code Used	TIA/EIA-222-F
Location of Tower (County, State)	Tolland, Connect
Basic Wind Speed (mph)	35-fastest
Ice Thickness (in)	, io, c)
Structure Classification (I, II, III)	
٥	

Analysis Re	Analysis Results (% Maximum Usage)
Existing Condition	ition
Tower	35.3%
Foundation	30.9%
Guy Wire	n/a

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

Proposed Condition	ndition
Tower	46.2%
Foundation	37.8%
Guy Wire	200

# Steel Yield Strength (ksi)

10/15/2003 9/5/2007

92	in in	738
Pole	Base Plate	Anchor Rods

Note: Strengths assumed from previous analysis.

# Existing/Reserved

		Anten	Antenna					Mount			1	Transmission Line	ine
Antenna Owner	Attachment Height (ft)	Quantity	Type	Model	EPA (ft²) each	Azimuth	Quantity	Туре	Model	EPA (ft²) Quantity total	Quantity	Size	Attachment Leg/Face
AT&T Mobility 3 Panel 7250.0	120	es.	Sanei	7250.03	4.89	3 Pipe mounts	67	Pipe mounts		shielded		1-1/4"	1-1/4" internal
Verizon Wireless	300		Parrel	LPA-80030/6CF	44 55	55.4	· gan	1 12' LP Platform		25.00	9	: 02/5°-	1-5/8" [nternal
Verizon Wireless	103	~		LPA-185080/12CF		3.53		on same mount	9		19	:	1-5/8" Internal
Verizon Wireless	108	_		186				on same mount					

## Proposed

	Ante	ına					Mount			1	ransmission	sion Line
Attachment Height (ft)	Quantity	Type	Model	EPA (ft²) each	Azimuth	Quantity	Type	Model	el EPA (ff²) Quantity (	Quantity	Šiž	Attachment Leg/Face
120	AT&T Mobility 5 Panel		5.88	5.88		44	113' LP Platform	PiROD	15.70	9	6 LDF6-50A In	Internal
ATAI Weblity 120	5 TMA LGP21401		LGP21401	shielded			on same mount					
120	8	Diplexer	LGP21903	shielded	shielded		on same mount					

The existing panel antennas at 120's half be removed prior to the installation of the proposed loading. The existing coax shall be reused for the proposed loading for a total of [12] 1-114" coax to 120's

### **RISATower**

GPD Associates 520 South Main Street, Suite 2531 Akron, OH 44311 Phone: (330) 572-2152

FAX: (330) 572-2102

Job		Page
	27067 MANSFIELD FOUR CORNERS	1 of 2
Project		Date
	2008013.31	13:59:09 12/09/08
Client	SAI	Designed by C. Roesink

### **Tower Input Data**

There is a pole section.

This tower is designed using the TIA/EIA-222-F standard.

The following design criteria apply:

Tower is located in Tolland County, Connecticut.

Basic wind speed of 85 mph.

Nominal ice thickness of 0.5000 in.

Ice density of 56 pcf.

A wind speed of 74 mph is used in combination with ice.

Temperature drop of 50 °F.

Deflections calculated using a wind speed of 50 mph.

A non-linear (P-delta) analysis was used.

Pressures are calculated at each section.

Stress ratio used in pole design is 1.333.

Local bending stresses due to climbing loads, feedline supports, and appurtenance mounts are not considered.

### Feed Line/Linear Appurtenances - Entered As Area

Description	Face	Allow	Component	Placement	Total		$C_A A_A$	Weight
	or.	Shield	Туре		Number			_
	Leg			ft	-		ft²/ft	plf
LDF7-50A (1-5/8	Α	No	Inside Pole	109.00 - 8.00	12	No Ice	0.00	0.82
FOAM)						1/2" Ice	0.00	0.82
LDF6-50A (1-1/4	C	No	Inside Pole	120.00 - 8.00	12	No Ice	0.00	0.66
FOAM)						1/2" Ice	0.00	0.66

### **Discrete Tower Loads**

Description	Face or Leg	Offset Type	Offsets: Horz Lateral	Azimuth Adjustment	Placement		C <sub>A</sub> A <sub>A</sub> Front	C <sub>A</sub> A <sub>A</sub> Side	Weigh
			Vert ft ft ft	o	ft		ft²	ft²	K
12' LP Platform	С	None		0.0000	109.00	No Ice 1/2" Ice	25.00 30.00	25.00 30.00	1.50 1.75
(2) LPA-80080/6CF	Α	From Centroid-Le g	3.75 0.00 0.00	0.0000	109.00	No Ice 1/2" Ice	4.33 4.76	5.18 5.63	0.01 0.04
(2) LPA-185080/12CF	Α	From Centroid-Le	3.75 0.00 0.00	0.0000	109.00	No Ice 1/2" Ice	3.53 3.96	4.57 5.01	0.01 0.04
(2) LPA-80080/6CF	В	From Centroid-Le	3.75 0.00 0.00	0.0000	109.00	No Ice 1/2" Ice	4.33 4.76	5.18 5.63	0.01 0.04
(2) LPA-185080/12CF	В	From Centroid-Le	3.75 0.00 0.00	0.0000	109.00	No Ice 1/2" Ice	3.53 3.96	4.57 5.01	0.01 0.04
(2) LPA-80080/6CF	С	From Centroid-Le	3.75 0.00 0.00	0.0000	109.00	No Ice 1/2" Ice	4.33 4.76	5.18 5.63	0.01 0.04
(2) LPA-185080/12CF	С	From Centroid-Le	3.75 0.00	0.0000	109.00	No Ice 1/2" Ice	3.53 3.96	4.57 5.01	0.01 0.04

### **RISATower**

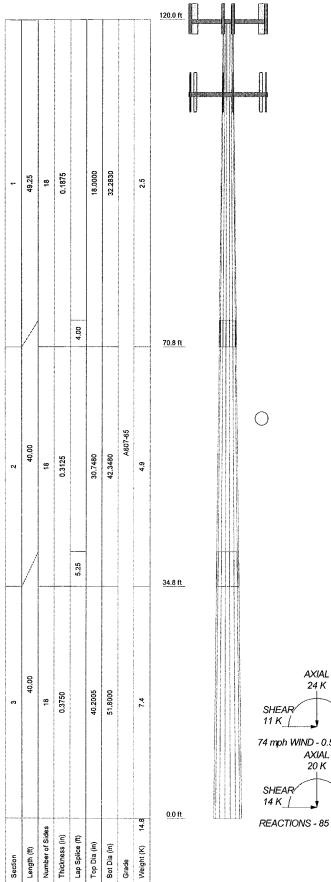
GPD Associates
520 South Main Street, Suite 2531
Akron, OH 44311
Phone: (330) 572-2152
FAX: (330) 572-2102

Job		Page
	27067 MANSFIELD FOUR CORNERS	2 of 2
Project		Date
	2008013.31	13:59:09 12/09/08
Client	~	Designed by
	SAI	C. Roesink

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert	Azimuth Adjustment	Placement		C <sub>A</sub> A <sub>A</sub> Front	C <sub>A</sub> A <sub>A</sub> Side	Weight
			fi fi fi fi	o	ft		ft <sup>2</sup>	ft <sup>2</sup>	K
***************************************		g	0.00	***************************************		••••••	······································	***************************************	
(2) TMA	Α	From	3.75	0.0000	109.00	No Ice	0.00	0.12	0.00
, ,		Centroid-Le	0.00			1/2" Ice	0.00	0.17	0.00
		g	0.00						
(2) TMA	В	From	3.75	0.0000	109.00	No Ice	0.00	0.12	0.00
` ,		Centroid-Le	0.00			1/2" Ice	0.00	0.17	0.00
		g	0.00						
(2) TMA	C	From	3.75	0.0000	109.00	No Ice	0.00	0.12	0.00
( )		Centroid-Le	0.00	******		1/2" Ice	0.00	0.17	0.00
		g	0.00			.,	0.00	· · · ·	0.00
(2) 7770.00	Α	From	3.75	0.0000	120.00	No Ice	5.88	2.93	0.04
(=)		Centroid-Le	0.00	0.0000	120.00	1/2" Ice	6.31	3.27	0.07
		g	0.00			1,2 100	0.51	3.27	0.07
(2) 7770.00	В	From	3.75	0.0000	120.00	No Ice	5.88	2.93	0.04
(2) ///0.00		Centroid-Le	0.00	0.0000	120.00	1/2" Ice	6.31	3.27	0.07
		g	0.00			1/2 100	0.51	3.21	0.07
(2) 7770.00	С	From	3.75	0.0000	120.00	No Ice	5.88	2.93	0.04
(2) 7770.00	C	Centroid-Le	0.00	0.0000	120.00	1/2" Ice	6.31	3.27	0.04
*			0.00			1/2 100	0.31	3.27	0.07
(2) LGP21401		g From		0.0000	120.00	N- I	0.00	0.22	0.01
(2) LGF21401	Α	Centroid-Le	3.75	0.0000	120.00	No Ice	0.00	0.23	0.01
			0.00			1/2" Ice	0.00	0.31	0.02
(2) I CD21401	ъ	g	0.00	0.0000	100.00		0.00	0.00	0.01
(2) LGP21401	В	From	3.75	0.0000	120.00	No Ice	0.00	0.23	0.01
		Centroid-Le	0.00			1/2" Ice	0.00	0.31	0.02
(a) I GDa1 (a)	_	g	0.00						
(2) LGP21401	C	From	3.75	0.0000	120.00	No Ice	0.00	0.23	0.01
		Centroid-Le	0.00			1/2" Ice	0.00	0.31	0.02
		g	0.00						
(2) LGP21903 Diplexer	Α	From	3.75	0.0000	120.00	No Ice	0.00	0.18	0.01
		Centroid-Le	0.00			1/2" Ice	0.00	0.25	0.01
		g	0.00						
(2) LGP21903 Diplexer	В	From	3.75	0.0000	120.00	No Ice	0.00	0.18	0.01
		Centroid-Le	0.00			1/2" Ice	0.00	0.25	0.01
		g	0.00						
(2) LGP21903 Diplexer	C	From	3.75	0.0000	120.00	No Ice	0.00	0.18	0.01
		Centroid-Le	0.00			1/2" Ice	0.00	0.25	0.01
		g	0.00						
PiROD 13' Low Profile	C	None		0.0000	120.00	No Ice	15.70	15.70	1.30
Platform (Monopole)						1/2" Ice	20.10	20.10	1.76

### **Section Capacity Table**

Section No.	Elevation ft	Component Type	Size	Critical Element	P K	SF*P <sub>allow</sub> K	% Capacity	Pass Fail
L1	120 - 70.75	Pole	TP32.283x18x0.1875	1	-6.04	916.12	46.2	Pass
L2	70.75 - 34.75	Pole	TP42.348x30.748x0.3125	2	-11.14	2089.04	34.3	Pass
L3	34.75 - 0	Pole	TP51.8x40.2005x0.375	3	-19.94	3182.06	32.3	Pass
							Summary	
						Pole (L1)	46.2	Pass
000000000000000000000000000000000000000						RATING =	46.2	Pass



### **DESIGNED APPURTENANCE LOADING**

TYPE	ELEVATION	TYPE	ELEVATION
(2) 7770.00	120	12' LP Platform	109
(2) 7770.00	120	(2) LPA-80080/6CF	109
(2) 7770.00	120	(2) LPA-185080/12CF	109
(2) LGP21401	120	(2) LPA-80080/6CF	109
(2) LGP21401	120	(2) LPA-185080/12CF	109
(2) LGP21401	120	(2) LPA-80080/6CF	109
(2) LGP21903 Diplexer	120	(2) LPA-185080/12CF	109
(2) LGP21903 Diplexer	120	(2) TMA	109
(2) LGP21903 Diplexer	120	(2) TMA	109
PiROD 13' Low Profile Platform (Monopole)	120	(2) TMA	109

### **MATERIAL STRENGTH**

GRADE	Fy	Fu	GRADE	Fy	Fu
A607-65	65 ksi	80 ksi			

### **TOWER DESIGN NOTES**

- 1. Tower is located in Tolland County, Connecticut.
- Tower is located in Tolland County, Corniecticut.
   Tower designed for a 85 mph basic wind in accordance with the TIA/EIA-222-F Standard.
   Tower is also designed for a 74 mph basic wind with 0.50 in ice.
   Deflections are based upon a 50 mph wind.
   TOWER RATING: 46.2%

