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
Internet: ct.gov/csc

Daniel F. Caruso
Chairman

February 6, 2008

Kenneth C. Baldwin
Robinson & Cole LLP
280 Trumbull Street
Hartford, CT 06103-3597

RE: **EM-VER-125-080115** – Cellco Partnership d/b/a Verizon Wireless notice of intent to modify an existing telecommunications facility located at 477 Route 7, Sharon, Connecticut.

Dear Attorney Baldwin:

At a public meeting held on January 24, 2008, the Connecticut Siting Council (Council) acknowledged 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 January 15, 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,

Daniel F. Caruso
Chairman

DFC/MP/cm

c: The Honorable Malcom M. Brown, First Selectman, Town of Sharon
Elizabeth H. Casey, Zoning Enforcement Officer, Town of Sharon
SBA

STATE OF CONNECTICUT

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Phone: (860) 827-2935 Fax: (860) 827-2950
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Daniel F. Caruso
Chairman

January 16, 2008

The Honorable Malcom M. Brown
First Selectman
Town of Sharon
Town Hall
63 Main Street
P. O. Box 224
Sharon, CT 06069-0224

RE: **EM-VER-125-080115** – Cellco Partnership d/b/a Verizon Wireless notice of intent to modify an existing telecommunications facility located at 477 Route 7, Sharon, Connecticut.

Dear Mr. Brown:

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 January 24, 2008, at 1:30 p.m. in Hearing Room One, Ten Franklin Square, New Britain, Connecticut.

If you have any questions or comments regarding this proposal, please call me or inform the Council by January 23, 2008.

Thank you for your cooperation and consideration.

Very truly yours,

S. Derek Phelps
Executive Director

SDP/jb

Enclosure: Notice of Intent

c: Elizabeth H. Casey, Zoning Enforcement Officer, Town of Sharon

ROBINSON & COLE

KENNETH C. BALDWIN

280 Trumbull Street
Hartford, CT 06103-3597
Main (860) 275-8200
Fax (860) 275-8299
kbaldwin@rc.com
Direct (860) 275-8345

EM-VER-125-080115

ORIGINAL

January 15, 2008

Via Hand Delivery

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

Re: **Notice of Exempt Modification – Antenna Swap**
477 Route 7, Sharon, Connecticut

Dear Mr. Phelps:

Cellco Partnership d/b/a Verizon Wireless ("Cellco") currently maintains a wireless telecommunications facility at the above referenced location. In its continuing effort to improve the quality and reliability of its wireless service, Cellco intends to replace and upgrade its antenna system at this existing facility.

The Council approved Cellco's shared use of this facility in Petition No. 798. Cellco now intends to modify its installation by replacing six (6) LPA-185080/12CF antennas with six (6) LPA-80080/6CF antennas at the same 130-foot level on the tower. Attached behind Tab 1 are the specifications for the existing and proposed replacement antennas.

Please accept this letter as notification pursuant to R.C.S.A. § 16-50j-73, for construction that constitutes an exempt modification pursuant to R.C.S.A. § 16-50j-72(b)(2). In accordance with R.C.S.A. § 16-50j-73, a copy of this letter is being sent to Malcolm M. Brown, First Selectman of the Town of Sharon. Pursuant to a Council directive, a copy of this letter is also being sent to Teresa Meisel, the owner of the property on which the facility is located.

The planned modifications to the facility falls squarely within those activities explicitly provided for in R.C.S.A. § 16-50j-72(b)(2).

1. The proposed modifications will not result in any increase in the overall height of the existing structures. Cellco's replacement antennas will be located at the same height and location as the existing antennas.

2. The proposed modifications will not involve any ground-mounted equipment and, therefore, will not require the extension of the site boundaries.

3. The proposed modifications will not increase noise levels at the facility by six decibels or more.

4. The operation of the replacement antennas will not increase radio frequency (RF) power density levels at the facility to a level at or above the Federal Communications Commission (FCC) adopted safety standard. A cumulative power density table for the facility is included behind Tab 2.

Also attached is a Detailed Structural Analysis confirming that the tower can support the proposed modifications. (See Tab 3).

For the foregoing reasons, Cellco respectfully submits that the proposed modifications to the above-referenced telecommunications facility constitutes an exempt modification under R.C.S.A. § 16-50j-72(b)(2).

Sincerely,

Kenneth C. Baldwin

Enclosures
Copy to:
Malcolm M. Brown, Sharon First Selectman
Teresa Meisel
Sandy M. Carter

Vertically Polarized, Log Periodic 80° / 17.5 dBi

LPA-185080/12CF __ 2°

When ordering replace "___" with connector type.

Mechanical specifications

Length	1806 mm	71.1 in
Width	104 mm	4.1 in
Depth	150 mm	5.9 in
Depth with t-bracket	178 mm	7.0 in
[4] Weight	4.8 kg	10.5 lbs
Wind Area		
Fore/Aft	0.19 m^2	2.0 ft^2
Side	0.27 m^2	2.9 ft^2
Rated Wind Velocity (Safety factor 2.0)	>270 km/hr	>168 mph
Wind Load @ 100 mph (161 km/hr)		
Fore/Aft	325 N	73.1 lbs
Side	440 N	98.9 lbs

Antenna consisting of aluminum alloy with brass feedlines covered by a UV safe fiberglass radome.

Mounting and Downtilting

Mounting brackets attach to a pipe diameter of Ø50-102 mm (2.0-4.0 in).

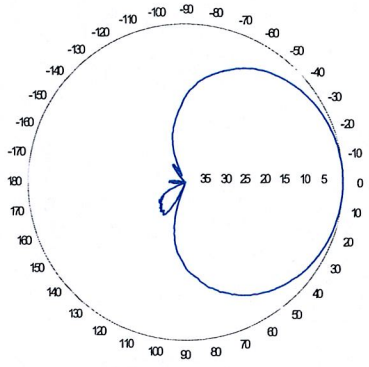
Mounting bracket kit #26799997
Downtilt bracket kit #26799999

The downtil bracket kit includes the mounting bracket kit.

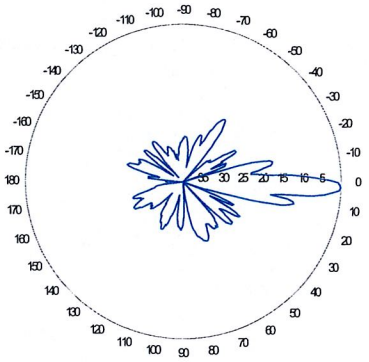
Electrical specifications

	Frequency Range	1850-1990 MHz
	Impedance	50Ω
[3]	Connector(s)	NE or E-DIN 1 port / center
[1]	VSWR	≤ 1.4:1
	Polarization	Vertical
[1]	Gain	17.5 dBi
[2]	Power Rating	250 W
[1]	Half Power Angle	
	H-Plane	80°
	E-Plane	5°
[1]	Electrical Downtilt	2°
[1]	Null Fill	10%
	Lightning Protection	Direct Ground

Radiation pattern[1]



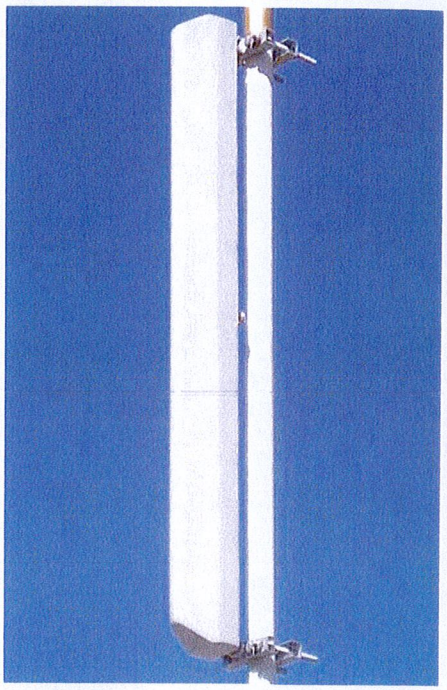
Horizontal



Vertical

Radiation patterns for all antennas are measured with the antenna mounted on a fiberglass pole.

Mounting on a metal pole will typically improve the Front-to-Back ratio.



Amphenol Antel's Exclusive 3T (True Transmission Line Technology) Antenna Design:

- True log-periodic design allows for superior front-to-side characteristics to minimize sector overlap.
- Unique feedline design eliminates the need for conventional solder joints in the signal path.
- A non-collinear system with access to every radiating element for broad band-width and superior performance.
- Air as insulation for virtually no internal signal loss.

This Amphenol Antel antenna is under a five-year limited warranty for repair or replacement.

Antenna available with center-fed connector only.

1) Typical values.
2) Power rating limited by connector only.
3) NE indicates an elongated N connector.
   E-DIN indicates an elongated DIN connector.
4) The antenna weight listed above does not include the bracket weight.

Improvements to mechanical and/or electrical performance of the antenna may be made without notice.

CF Denotes a Center-Fed Connector.

1850-1990 MHz

Amphenol Antel, Inc. 1300 Capital Drive Rockford, Illinois 61109 USA Tel. (815) 399-0001
Toll-Free (888) 417-9562 Fax. (815) 399-0156 antel@antelinc.com www.antelinc.com

Amphenol Antel, Inc. The Antenna Technology Company

Revision Date: 7/12/07

Vertically Polarized, Log Periodic 80° / 14 dBd

LPA-80080/6CF ___

When ordering replace "___" with connector type.

Mechanical specifications

Length	1800 mm	70.9 in
Width	140 mm	5.5 in
Depth	335 mm	13.2 in
Depth with z-bracket	375 mm	14.8 in
[4] Weight	9.5 kg	21.0 lbs
Wind Area		
Fore/Aft	0.25 m^2	2.7 ft^2
Side	0.60 m^2	6.5 ft^2
Rated Wind Velocity (Safety factor 2.0)	>295 km/hr	>183 mph
Wind Load @ 100 mph (161 km/hr)		
Fore/Aft	415 N	93.3 lbs
Side	870 N	195.6 lbs

Antenna consisting of aluminum alloy with brass feedlines covered by a UV safe fiberglass radome.

Mounting and Downtilting

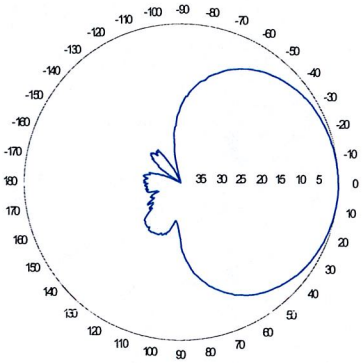
Mounting brackets attach to a pipe diameter of Ø50-102 mm (2.0-4.0 in). If the lock-down brace is used, the maximum diameter is Ø88.9 mm (3.5 in)

Mounting Bracket & Downtilt Bracket Kit #21699999

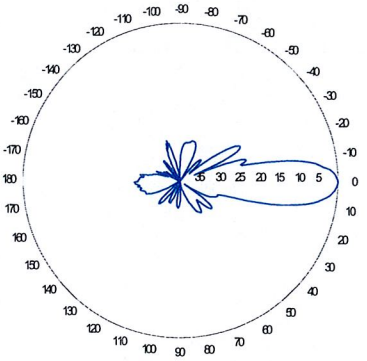
Electrical specifications

	Frequency Range	806-960 MHz
	Impedance	50Ω
[3]	Connector(s)	NE or E-DIN 1 port / center
[1]	VSWR	≤ 1.4:1
	Polarization	Vertical
[1]	Gain	14 dBd
[2]	Power Rating	500 W
[1]	Half Power Angle	
	H-Plane	80°
	E-Plane	10°
[1]	Electrical Downtilt	0°
[1]	Null Fill	10%
	Lightning Protection	Direct Ground

Radiation pattern[1]



Horizontal

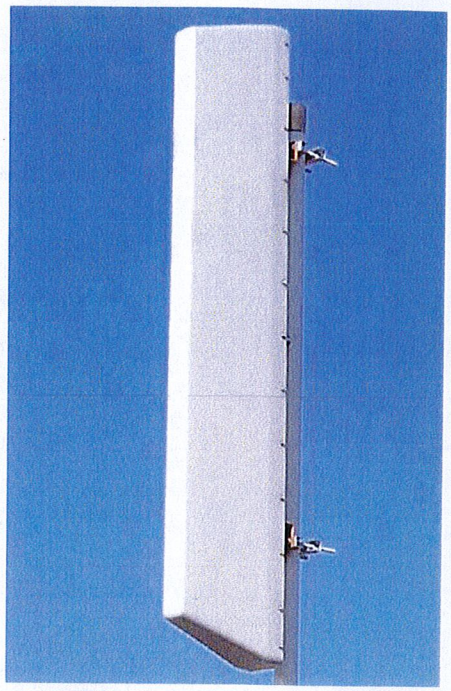


Vertical

Featuring upper side lobe suppression.

Radiation patterns for all antennas are measured with the antenna mounted on a fiberglass pole.

Mounting on a metal pole will typically improve the Front-to-Back ratio.



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- True log-periodic design allows for superior front-to-side characteristics to minimize sector overlap.
- Unique feedline design eliminates the need for conventional solder joints in the signal path.
- A non-collinear system with access to every radiating element for broad band-width and superior performance.
- Air as insulation for virtually no internal signal loss.

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Antenna available with center-fed connector only.

1) Typical values.
2) Power rating limited by connector only.
3) NE indicates an elongated N connector. E-DIN indicates an elongated DIN connector.
4) The antenna weight listed above does not include the bracket weight.

Improvements to mechanical and/or electrical performance of the antenna may be made without notice.

CF Denotes a Center-Fed Connector.

806-960 MHz

Amphenol Antel, Inc. 1300 Capital Drive Rockford, Illinois 61109 USA Tel. (815) 399-0001
Toll-Free (888) 417-9562 Fax. (815) 399-0156 antel@antelinc.com www.antelinc.com

Revision Date: 7/5/07

			General	Power	Density		
Site Name: Sharon N							
Tower Height: Verizon @ 130Ft.							
		ERP					
Carrier	**channels**	**watt/ch**	**distance (feet)**	**S (mW/cm^2)**	**f (MHz)**	**Smax**	**Percent MPE**
Nextel*	9	100	108	0.02776	851	0.5673	4.89
Sprint*	11	111	118	0.03155	1962	1.0000	3.15
Cingular*	6	296	98	0.06654	880	0.5867	11.33
Cingular*	3	427	98	0.04800	1930	1.0000	4.80
Verizon PCS	**9**	**485**	**130**	**0.09293**	**1900**	**1.0000**	**9.29**
Verizon	**9**	**200**	**130**	**0.03832**	**1900**	**0.5830**	**6.57**
*Source: Siting Council Records						**Total %MPE**	40.04

VERTICAL STRUCTURES, INC.

January 8, 2008

Mr. Mark Luther
SBA Network Services
723 Highland Ave.
Clarks Green, PA 18411
(570) 558-3450

Subject:

Structural Analysis Report
Verizon Wireless Change-Out
SBA Site Name: Sharon 3, CT
SBA Site Number: CT02408
130' Nudd MST-120 Monopine Tower
Vertical Structures Job Number: 2008-007-003

Dear Mr. Luther,

Vertical Structures is pleased to provide you with the results of the structural analysis performed on the 130' tall monopine tower at the Sharon 3 site in Sharon, Connecticut. The purpose of the analysis was to determine the suitability of the tower upon replacing six (6) existing Antel LPA-185080/12CF panel antennas mounted on three (3) 12' T-Arms at 130' with six (6) proposed Antel LPA-80080/6CF panel antennas for Verizon Wireless when combined with the existing and reserved equipment on the structure. This analysis has been performed in accordance with the TIA/EIA-222-F standard and local code requirements based upon an 80 MPH basic "fastest mile" wind speed, equivalent to a 100 MPH basic "3-second gust" wind speed per IBC Table 1609.3.1

Based on our analysis we have determined the tower superstructure and foundation are sufficient for the proposed loading.

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

Respectfully submitted,

Andy Cronin
Project Engineer

TABLE OF CONTENTS

INTRODUCTION

The subject tower is located in Sharon, Connecticut. The original 120' tall Nudd MST-120 monopine tower was designed and manufactured in 2001 and supplied to Concealment Concepts for SBA with the option of being extended 30' up to 150'. The tower was extended 10' up to 130' in 2007. The existing structure consists of three (3) 18-sided tapered polygonal tubes joined via slip joint connections and one (1) pipe section joined via a bolted flange connection and is founded on a 33' square by 4' thick mat bearing 8' below grade. The tower has artificial pine limbs from 75' to 130'.

ANALYSIS CRITERIA

The Sharon 3 monopine tower was analyzed in accordance with the current EIA-222-F publication, "Structural Standards for Steel Antenna Towers and Antenna Supporting Structures." The proposed, existing, and reserved antennas, lines and mounts considered in this analysis are listed in Table 1. Applied forces were derived from an 80 MPH basic "fastest mile" wind speed with no ice and a reduced 69 MPH basic "fastest mile" wind speed with a 1/2" of radial ice accumulation. The tower was originally designed for an 85 MPH basic "fastest mile" wind speed with no ice and a reduced 74 MPH basic "fastest mile" wind speed with a 1/2" of radial ice accumulation. The original design loads are listed in Table 2. The EIA minimum basic wind speed for Litchfield County, Connecticut is 80 MPH. All coax are assumed to be routed up the interior of the pole.

Table 1 – Proposed, Existing, and Reserved Loads

Mount Elevation	Carrier Name	Status	Antennas	Mounts	Feedlines
130'	**Verizon Wireless**	Existing	(6) Antel LPA-185080/12CF Panels	(3) 12' T-Arms	(12) 1 5/8" Coax
		Remove	**(6) Antel LPA-185080/12CF Panels**		
		Proposed	**(6) Antel LPA-80080/6CF Panels**		
120'	Sprint	Existing	(4) Decibel DB978H90-M Panels	(3) 12' T-Arms	(4) 1 5/8' Coax
		Reserved	(8) Decibel DB978H90-M Panels		(8) 1 5/8' Coax
110'	Nextel	Existing	(12) Decibel DB84490E-XY Panels	(3) 12' T-Arms	(12) 1 1/4" Coax
100'	Cingular	Existing	(6) Powerwave Technologies 7770 Panels	(3) 12' T-Arms	(12) 1 5/8" Coax
			(12) Powerwave Technologies LGP21401 TMAs		
			(6) Powerwave Technologies LGP Diplexors		

Table 2 – Original Design Loads

Mount Elevation	Carrier Name	Status	Antennas	Mounts	Feedlines
150'		Design	(12) Swedcom ALP9212 Panels	(3) 10' Clamp-on Arms	
140'		Design	(12) Swedcom ALP9212 Panels	(3) 10' Clamp-on Arms	
130'		Design	(12) Swedcom ALP9212 Panels	(3) 10' Clamp-on Arms	
120'		Design	(12) Swedcom ALP9212 Panels	(3) 10' Clamp-on Arms	
110'		Design	(12) Swedcom ALP9212 Panels	(3) 10' Clamp-on Arms	
100'		Design	(12) Swedcom ALP9212 Panels	(3) 10' Clamp-on Arms	
90'		Design	(12) Swedcom ALP9212 Panels	(3) 10' Clamp-on Arms	
80'		Design	(12) Swedcom ALP9212 Panels	(3) 10' Clamp-on Arms	

ANALYSIS PROCEDURE

Table 3 – Resources Utilized

Resource	Remarks
Proposed Loads	SBA Email Dated "December 13, 2007"
Existing Loads	Vertical Structures Job No. 2006-007-035
Tower Drawings	Nudd Drawing No. 01-8318-1
Foundation Drawings	Nudd Drawing No. 01-8318-2
Extension Drawings	Vertical Structures Job No. 2007-050-001

Analysis Methods

Risa Tower (Version 5.0), a commercially available software program, was used to create a three-dimensional model of the tower and calculate member stresses for various dead, live, wind, and ice load cases. All loads were computed in accordance with the ANSI/EIA/TIA-222-F or the local building code requirements. Selected output from the analysis is included in Appendix A.

Assumptions

1. Tower and structures were built in accordance with the manufacturer's specifications.
2. The tower and structures have been maintained in accordance with manufacturer's specifications.
3. The configuration of antennas, transmission cables, mounts and other appurtenances are as specified in Table 1 and any referenced drawings.
4. When applicable, transmission cables are considered to be structural components for calculating wind loads, as allowed by TIA/EIA-222-F.

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

ANALYSIS RESULTS

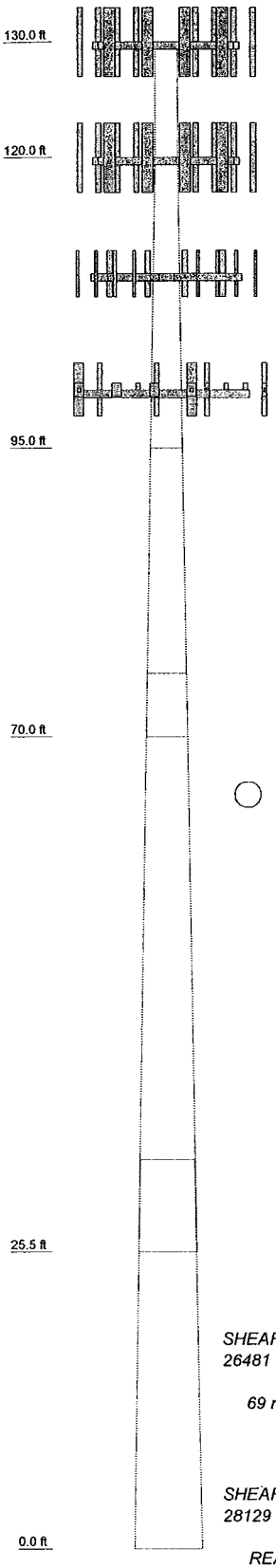
The Sharon 3 tower superstructure is found to be adequate for the intended loading at the wind and ice conditions considered. Calculated foundation reactions are within the original design limits. Table 4 summarizes the condition of the tower. Capacities up to 105% are considered acceptable based on the analysis procedures used.

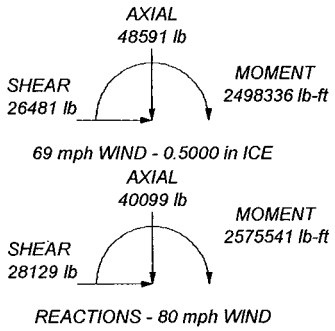
Table 4 – Tower Component Capacities

Section Number	Elevation	Percent Capacity Used		
		Pole	Flange Plate	Splice Bolts
1	130' – 120'	17.9	7.5	14.0
2	120' – 95'	28.2	-	-
3	95' – 70'	32.1	-	-
4	70' – 25.5'	33.7	-	-
5	25.5' – 0'	36.0	-	-
Anchor Bolts – Tension		43.1		
Base Plate – Bending		80.3		
Foundation – Moment		44.3		

APPENDIX A

Section	1	2	3	4	5
Length (ft)	10.00	25.00	25.00	50.00	33.50
Number of Sides	1	18	18	18	18
Thickness (in)	0.2500	0.3125	0.3750	0.4375	0.4375
Lap Splice (ft)			5.50	8.00	
Top Dia (in)	24.0000	24.0000	34.3750	41.7175	58.1948
Bot Dia (in)	24.0000	34.3750	44.7500	62.3750	72.0000
Grade	A53-B-35			A572-65	
Weight (lb) 29467.0	634.4	2436.4	3967.9	12193.0	10235.2





DESIGNED APPURTENANCE LOADING

TYPE	ELEVATION	TYPE	ELEVATION
12' T-Arm Mount (Verizon Wireless)	130	(4) DB844H90E-XY w/Mount Pipe	110
12' T-Arm Mount (Verizon Wireless)	130	12' T-Arm Mount	110
12' T-Arm Mount (Verizon Wireless)	130	12' T-Arm Mount	110
(2) LPA-185080/12CF w/ mount pipe (Verizon Wireless)	130	12' T-Arm Mount	110
		(4) DB844H90E-XY w/Mount Pipe	110
(2) LPA-80080/6CF w/Mount Pipe (Verizon Wireless)	130	(4) DB844H90E-XY w/Mount Pipe	110
		(15) 8' Limbs	110 - 100
(2) LPA-185080/12CF w/ mount pipe (Verizon Wireless)	130	(2) LGP Diplexor (VSI)	100
		(2) LGP Diplexor (VSI)	100
(2) LPA-80080/6CF w/Mount Pipe (Verizon Wireless)	130	(2) LGP Diplexor (VSI)	100
		(2) 7770.00 w/ mount pipe	100
(2) LPA-185080/12CF w/ mount pipe (Verizon Wireless)	130	(2) 7770.00 w/ mount pipe	100
		(2) 7770.00 w/ mount pipe	100
(2) LPA-80080/6CF w/Mount Pipe (Verizon Wireless)	130	12' T-Arm Mount	100
		12' T-Arm Mount	100
(15) 6' Limbs	130 - 120	12' T-Arm Mount	100
12' T-Arm Mount	120	12' T-Arm Mount	100
12' T-Arm Mount	120	(4) LGP21401 TMA (VSI)	100
(4) DB978H90-M w/Mount Pipe	120	(4) LGP21401 TMA (VSI)	100
(4) DB978H90-M w/Mount Pipe	120	(4) LGP21401 TMA (VSI)	100
(4) DB978H90-M w/Mount Pipe	120	(15) 9' Limbs	100 - 90
12' T-Arm Mount	120	(15) 9' Limbs	90 - 80
(19) 7' Limbs	120 - 110	(11) 9' Limbs	80 - 75

MATERIAL STRENGTH

GRADE	Fy	Fu	GRADE	Fy	Fu
A53-B-35	35 ksi	63 ksi	A572-65	65 ksi	80 ksi

TOWER DESIGN NOTES

1. Tower is located in Litchfield County, Connecticut.
2. Tower designed for a 80 mph basic wind in accordance with the TIA/EIA-222-F Standard.
3. Tower is also designed for a 69 mph basic wind with 0.50 in ice.
4. Deflections are based upon a 50 mph wind.
5. TOWER RATING: 36%

Vertical Structures, Inc.
309 Spangler Drive, Suite E
Richmond, Kentucky 40475
Phone: (859) 624-8360
FAX: (859) 624-8369

Job: *Sharon 3, CT (CT02408)*			
Project: *Vertical Structures Job No. 2008-007-003*			
Client: SBA	Drawn by: Andy Cronin	App'd:	
Code: TIA/EIA-222-F	Date: 01/08/08	Scale: NTS	
Path: \\Nas1\acronin\2008-007-003-Sharon 3 CT\RISA\Sharon 3.eri		Dwg No. E-1	

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 Litchfield County, Connecticut.
Basic wind speed of 80 mph.
Nominal ice thickness of 0.5000 in.
Ice density of 56 pcf.
A wind speed of 69 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.

Options

Consider Moments - Legs	Distribute Leg Loads As Uniform	√ Treat Feedline Bundles As Cylinder
Consider Moments - Horizontals	Assume Legs Pinned	Use ASCE 10 X-Brace Ly Rules
Consider Moments - Diagonals	√ Assume Rigid Index Plate	√ Calculate Redundant Bracing Forces
Use Moment Magnification	√ Use Clear Spans For Wind Area	Ignore Redundant Members in FEA
√ Use Code Stress Ratios	√ Use Clear Spans For KL/r	√ SR Leg Bolts Resist Compression
√ Use Code Safety Factors - Guys	√ Retension Guys To Initial Tension	√ All Leg Panels Have Same Allowable
Escalate Ice	√ Bypass Mast Stability Checks	Offset Girt At Foundation
Always Use Max Kz	√ Use Azimuth Dish Coefficients	√ Consider Feedline Torque
Use Special Wind Profile	√ Project Wind Area of Appurt.	Include Angle Block Shear Check
√ Include Bolts In Member Capacity	√ Autocalc Torque Arm Areas	Poles
√ Leg Bolts Are At Top Of Section	√ SR Members Have Cut Ends	Include Shear-Torsion Interaction
√ Secondary Horizontal Braces Leg	Sort Capacity Reports By Component	Always Use Sub-Critical Flow
Use Diamond Inner Bracing (4 Sided)	√ Triangulate Diamond Inner Bracing	Use Top Mounted Sockets
Add IBC .6D+W Combination		

Tapered Pole Section Geometry

Section	Elevation ft	Section Length ft	Splice Length ft	Number of Sides	Top Diameter in	Bottom Diameter in	Wall Thickness in	Bend Radius in	Pole Grade
L1	130.00-120.00	10.00	0.00	Round	24.0000	24.0000	0.2500		A53-B-35 (35 ksi)
L2	120.00-95.00	25.00	0.00	18	24.0000	34.3750	0.3125	1.2500	A572-65 (65 ksi)
L3	95.00-70.00	25.00	5.50	18	34.3750	44.7500	0.3750	1.5000	A572-65 (65 ksi)
L4	70.00-25.50	50.00	8.00	18	41.7175	62.3750	0.4375	1.7500	A572-65 (65 ksi)
L5	25.50-0.00	33.50		18	58.1948	72.0000	0.4375	1.7500	A572-65 (65 ksi)

Tapered Pole Properties

Section	Tip Dia.	Area	I	r	C	I/C	J	It/Q	w	w/t
	in	in^2	in^4	in	in	in^3	in^4	in^2	in	
L1	24.0000	18.6438	1316.2046	8.4075	12.0000	109.6837	2628.8235	9.3210	0.0000	0
	24.0000	18.6438	1316.2046	8.4075	12.0000	109.6837	2628.8235	9.3210	0.0000	0
L2	24.3702	23.4950	1665.5285	8.4091	12.1920	136.6083	3333.2486	11.7498	3.6740	11.757
	34.9053	33.7857	4952.4939	12.0922	17.4625	283.6074	9911.5045	16.8961	5.5000	17.6
L3	34.9053	40.4685	5910.3390	12.0700	17.4625	338.4589	11828.4550	20.2381	5.3900	14.373
	45.4403	52.8173	13139.8600	15.7531	22.7330	578.0082	26297.0098	26.4137	7.2160	19.243
L4	44.6684	57.3224	12340.7483	14.6544	21.1925	582.3171	24697.7349	28.6667	6.5723	15.022
	63.3372	86.0080	41685.3493	21.9878	31.6865	1315.5555	83425.5493	43.0122	10.2080	23.333
L5	62.4402	80.2032	33802.0530	20.5038	29.5630	1143.3921	67648.5837	40.1092	9.4723	21.651
	73.1107	99.3735	64295.2578	25.4047	36.5760	1757.8537	128675.117 0	49.6962	11.9020	27.205

Tower Elevation	Gusset Area (per face)	Gusset Thickness	Gusset Grade	Adjust. Factor A_f	Adjust. Factor A_r	Weight Mult.	Double Angle Stitch Bolt Spacing Diagonals	Double Angle Stitch Bolt Spacing Horizontals
ft	ft^2	in					in	in
L1 130.00-120.00				1	1	1		
L2 120.00-95.00				1	1	1		
L3 95.00-70.00				1	1	1		
L4 70.00-25.50				1	1	1		
L5 25.50-0.00				1	1	1		

Feed Line/Linear Appurtenances - Entered As Area

Description	Face or Leg	Allow Shield	Component Type	Placement	Total Number		C_AA_A	Weight
				ft			ft^2/ft	plf
LDF7-50A (1-5/8 FOAM)	A	No	Inside Pole	120.00 - 5.00	12	No Ice	0.00	0.82
						1/2" Ice	0.00	0.82
LDF6-50A (1-1/4 FOAM)	B	No	Inside Pole	110.00 - 5.00	12	No Ice	0.00	0.00
						1/2" Ice	0.00	0.00
LDF7-50A (1-5/8 FOAM)	C	No	Inside Pole	100.00 - 5.00	12	No Ice	0.00	0.66
						1/2" Ice	0.00	0.66
LDF7-50A (1-5/8 FOAM) (Verizon Wireless)	C	No	Inside Pole	130.00 - 5.00	12	No Ice	0.00	0.00
						1/2" Ice	0.00	0.00

Feed Line/Linear Appurtenances Section Areas

Tower Section	Tower Elevation	Face	A_R	A_F	C_AA_A In Face	C_AA_A Out Face	Weight
	ft		ft^2	ft^2	ft^2	ft^2	lb
L1	130.00-120.00	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.000	0.00
L2	120.00-95.00	A	0.000	0.000	0.000	0.000	246.00

Tower Section	Tower Elevation ft	Face	A_R ft^2	A_F ft^2	C_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight lb
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.000	39.60
L3	95.00-70.00	A	0.000	0.000	0.000	0.000	246.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.000	198.00
L4	70.00-25.50	A	0.000	0.000	0.000	0.000	437.88
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.000	352.44
L5	25.50-0.00	A	0.000	0.000	0.000	0.000	201.72
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.000	162.36

Feed Line/Linear Appurtenances Section Areas - With Ice

Tower Section	Tower Elevation ft	Face or Leg	Ice Thickness in	A_R ft^2	A_F ft^2	C_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight lb
L1	130.00-120.00	A	0.500	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	0.000	0.00
L2	120.00-95.00	A	0.500	0.000	0.000	0.000	0.000	246.00
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	0.000	39.60
L3	95.00-70.00	A	0.500	0.000	0.000	0.000	0.000	246.00
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	0.000	198.00
L4	70.00-25.50	A	0.500	0.000	0.000	0.000	0.000	437.88
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	0.000	352.44
L5	25.50-0.00	A	0.500	0.000	0.000	0.000	0.000	201.72
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	0.000	162.36

Feed Line Center of Pressure

Section	Elevation ft	CP_X in	CP_Z in	CP_X Ice in	CP_Z Ice in
L1	130.00-120.00	0.0000	0.0000	0.0000	0.0000
L2	120.00-95.00	0.0000	0.0000	0.0000	0.0000
L3	95.00-70.00	0.0000	0.0000	0.0000	0.0000
L4	70.00-25.50	0.0000	0.0000	0.0000	0.0000
L5	25.50-0.00	0.0000	0.0000	0.0000	0.0000

Discrete Tower Loads

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft Vert ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight lb
12' T-Arm Mount	A	From Centroid-Face	4.00 0.00 0.00	0.0000	120.00	No Ice 1/2" Ice	8.00 9.90	4.00 4.95	200.00 250.00
12' T-Arm Mount	B	From Centroid-Face	4.00 0.00 0.00	0.0000	120.00	No Ice 1/2" Ice	8.00 9.90	4.00 4.95	200.00 250.00
12' T-Arm Mount	C	From Centroid-Face	4.00 0.00 0.00	0.0000	120.00	No Ice 1/2" Ice	8.00 9.90	4.00 4.95	200.00 250.00
12' T-Arm Mount	A	From Centroid-Leg	4.25 0.00 0.00	0.0000	110.00	No Ice 1/2" Ice	8.00 9.90	4.00 4.95	200.00 250.00
12' T-Arm Mount	B	From Centroid-Leg	4.25 0.00 0.00	0.0000	110.00	No Ice 1/2" Ice	8.00 9.90	4.00 4.95	200.00 250.00
12' T-Arm Mount	C	From Centroid-Leg	4.25 0.00 0.00	0.0000	110.00	No Ice 1/2" Ice	8.00 9.90	4.00 4.95	200.00 250.00
12' T-Arm Mount	A	From Centroid-Face	3.76 2.17 0.00	30.0000	100.00	No Ice 1/2" Ice	8.00 9.90	4.00 4.95	200.00 250.00
12' T-Arm Mount	B	From Centroid-Face	3.76 2.17 0.00	30.0000	100.00	No Ice 1/2" Ice	8.00 9.90	4.00 4.95	200.00 250.00
12' T-Arm Mount	C	From Centroid-Face	3.76 2.17 0.00	30.0000	100.00	No Ice 1/2" Ice	8.00 9.90	4.00 4.95	200.00 250.00
12' T-Arm Mount (Verizon Wireless)	A	From Centroid-Face	4.00 0.00 0.00	0.0000	130.00	No Ice 1/2" Ice	8.00 9.90	4.00 4.95	200.00 250.00
12' T-Arm Mount (Verizon Wireless)	B	From Centroid-Face	4.00 0.00 0.00	0.0000	130.00	No Ice 1/2" Ice	8.00 9.90	4.00 4.95	200.00 250.00
12' T-Arm Mount (Verizon Wireless)	C	From Centroid-Face	4.00 0.00 0.00	0.0000	130.00	No Ice 1/2" Ice	8.00 9.90	4.00 4.95	200.00 250.00
(4) DB978H90-M w/Mount Pipe	A	From Centroid-Face	6.00 0.00 0.00	0.0000	120.00	No Ice 1/2" Ice	3.62 4.24	3.36 4.38	32.55 64.85
(4) DB978H90-M w/Mount Pipe	B	From Centroid-Face	6.00 0.00 0.00	0.0000	120.00	No Ice 1/2" Ice	3.62 4.24	3.36 4.38	32.55 64.85
(4) DB978H90-M w/Mount Pipe	C	From Centroid-Face	6.00 0.00 0.00	0.0000	120.00	No Ice 1/2" Ice	3.62 4.24	3.36 4.38	32.55 64.85
(4) DB844H90E-XY w/Mount Pipe	A	From Centroid-Leg	6.25 0.00 0.00	0.0000	110.00	No Ice 1/2" Ice	3.58 4.20	5.40 6.49	35.55 76.59
(4) DB844H90E-XY w/Mount Pipe	B	From Centroid-Leg	6.25 0.00 0.00	0.0000	110.00	No Ice 1/2" Ice	3.58 4.20	5.40 6.49	35.55 76.59
(4) DB844H90E-XY w/Mount Pipe	C	From Centroid-Leg	6.25 0.00 0.00	0.0000	110.00	No Ice 1/2" Ice	3.58 4.20	5.40 6.49	35.55 76.59
(2) 7770.00 w/ mount pipe	A	From Centroid-Face	5.50 2.75 0.00	30.0000	100.00	No Ice 1/2" Ice	6.22 6.77	4.35 5.20	56.90 102.99

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft Vert ft ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight lb
(2) 7770.00 w/ mount pipe	B	From Centroid-Face	5.50 2.75 0.00	30.0000	100.00	No Ice 1/2" Ice	6.22 6.77	4.35 5.20	56.90 102.99
(2) 7770.00 w/ mount pipe	C	From Centroid-Face	5.50 2.75 0.00	30.0000	100.00	No Ice 1/2" Ice	6.22 6.77	4.35 5.20	56.90 102.99
(4) LGP21401 TMA (VSI)	A	From Centroid-Face	5.50 2.75 0.00	30.0000	100.00	No Ice 1/2" Ice	1.29 1.45	0.36 0.48	14.10 21.26
(4) LGP21401 TMA (VSI)	B	From Centroid-Face	5.50 2.75 0.00	30.0000	100.00	No Ice 1/2" Ice	1.29 1.45	0.36 0.48	14.10 21.26
(4) LGP21401 TMA (VSI)	C	From Centroid-Face	5.50 2.75 0.00	30.0000	100.00	No Ice 1/2" Ice	1.29 1.45	0.36 0.48	14.10 21.26
(2) LGP Diplexor (VSI)	A	From Centroid-Face	5.50 2.75 0.00	30.0000	100.00	No Ice 1/2" Ice	0.15 0.21	0.11 0.15	5.30 6.98
(2) LGP Diplexor (VSI)	B	From Centroid-Face	5.50 2.75 0.00	30.0000	100.00	No Ice 1/2" Ice	0.15 0.21	0.11 0.15	5.30 6.98
(2) LGP Diplexor (VSI)	C	From Centroid-Face	5.50 2.75 0.00	30.0000	100.00	No Ice 1/2" Ice	0.15 0.21	0.11 0.15	5.30 6.98
(2) LPA-185080/12CF w/ mount pipe (Verizon Wireless)	A	From Centroid-Face	6.00 0.00 0.00	0.0000	130.00	No Ice 1/2" Ice	3.55 3.99	5.99 6.94	32.40 72.35
(2) LPA-80080/6CF w/Mount Pipe (Verizon Wireless)	A	From Centroid-Face	6.00 0.00 0.00	0.0000	130.00	No Ice 1/2" Ice	4.35 4.79	10.51 11.56	42.90 104.60
(2) LPA-185080/12CF w/ mount pipe (Verizon Wireless)	B	From Centroid-Face	6.00 0.00 0.00	0.0000	130.00	No Ice 1/2" Ice	3.55 3.99	5.99 6.94	32.40 72.35
(2) LPA-80080/6CF w/Mount Pipe (Verizon Wireless)	B	From Centroid-Face	6.00 0.00 0.00	0.0000	130.00	No Ice 1/2" Ice	4.35 4.79	10.51 11.56	42.90 104.60
(2) LPA-185080/12CF w/ mount pipe (Verizon Wireless)	C	From Centroid-Face	6.00 0.00 0.00	0.0000	130.00	No Ice 1/2" Ice	3.55 3.99	5.99 6.94	32.40 72.35
(2) LPA-80080/6CF w/Mount Pipe (Verizon Wireless)	C	From Centroid-Face	6.00 0.00 0.00	0.0000	130.00	No Ice 1/2" Ice	4.35 4.79	10.51 11.56	42.90 104.60
*****									
(15) 6' Limbs	C	None		0.0000	130.00 - 120.00	No Ice 1/2" Ice	21.60 37.80	21.60 37.80	583.00 875.00
(19) 7' Limbs	C	None		0.0000	120.00 - 110.00	No Ice 1/2" Ice	25.20 44.10	25.20 25.20	643.00 965.00
(15) 8' Limbs	C	None		0.0000	110.00 - 100.00	No Ice 1/2" Ice	28.80 50.40	28.80 28.80	702.00 1053.00
(15) 9' Limbs	C	None		0.0000	100.00 - 90.00	No Ice 1/2" Ice	32.40 56.70	32.40 32.40	859.00 1289.00
(15) 9' Limbs	C	None		0.0000	90.00 - 80.00	No Ice 1/2" Ice	32.40 56.70	32.40 32.40	875.00 1313.00
(11) 9' Limbs	C	None		0.0000	80.00 - 75.00	No Ice 1/2" Ice	32.40 56.70	32.40 32.40	875.00 1313.00

Load Combinations

Comb. No.	Description
1	Dead Only
2	Dead+Wind 0 deg - No Ice
3	Dead+Wind 30 deg - No Ice
4	Dead+Wind 60 deg - No Ice
5	Dead+Wind 90 deg - No Ice
6	Dead+Wind 120 deg - No Ice
7	Dead+Wind 150 deg - No Ice
8	Dead+Wind 180 deg - No Ice
9	Dead+Wind 210 deg - No Ice
10	Dead+Wind 240 deg - No Ice
11	Dead+Wind 270 deg - No Ice
12	Dead+Wind 300 deg - No Ice
13	Dead+Wind 330 deg - No Ice
14	Dead+Ice+Temp
15	Dead+Wind 0 deg+Ice+Temp
16	Dead+Wind 30 deg+Ice+Temp
17	Dead+Wind 60 deg+Ice+Temp
18	Dead+Wind 90 deg+Ice+Temp
19	Dead+Wind 120 deg+Ice+Temp
20	Dead+Wind 150 deg+Ice+Temp
21	Dead+Wind 180 deg+Ice+Temp
22	Dead+Wind 210 deg+Ice+Temp
23	Dead+Wind 240 deg+Ice+Temp
24	Dead+Wind 270 deg+Ice+Temp
25	Dead+Wind 300 deg+Ice+Temp
26	Dead+Wind 330 deg+Ice+Temp
27	Dead+Wind 0 deg - Service
28	Dead+Wind 30 deg - Service
29	Dead+Wind 60 deg - Service
30	Dead+Wind 90 deg - Service
31	Dead+Wind 120 deg - Service
32	Dead+Wind 150 deg - Service
33	Dead+Wind 180 deg - Service
34	Dead+Wind 210 deg - Service
35	Dead+Wind 240 deg - Service
36	Dead+Wind 270 deg - Service
37	Dead+Wind 300 deg - Service
38	Dead+Wind 330 deg - Service

Maximum Member Forces

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Force lb	Major Axis Moment lb-ft	Minor Axis Moment lb-ft
L1	130 - 120	Pole	Max Tension	14	0.00	0.00	0.00
			Max. Compression	14	-3470.67	0.00	0.00
			Max. Mx	5	-2119.29	-44606.54	0.00
			Max. My	2	-2119.29	0.00	44606.54
			Max. Vy	5	5154.07	-44606.54	0.00
			Max. Vx	2	-5154.07	0.00	44606.54
			Max. Torque	16			-0.00
L2	120 - 95	Pole	Max Tension	1	0.00	0.00	0.00

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Force lb	Major Axis Moment lb-ft	Minor Axis Moment lb-ft
			Max. Compression	14	-14175.55	0.00	0.00
			Max. Mx	5	-9534.63	-339845.04	0.00
			Max. My	2	-9534.63	0.00	339845.04
			Max. Vy	5	17058.19	-339845.04	0.00
			Max. Vx	2	-17058.19	0.00	339845.04
			Max. Torque	16			-0.00
L3	95 - 70	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	14	-21134.29	0.00	0.00
			Max. Mx	5	-15006.71	-710319.69	0.00
			Max. My	2	-15006.71	0.00	710319.69
			Max. Vy	24	-21404.54	689263.03	0.00
			Max. Vx	21	21404.54	0.00	-689263.03
			Max. Torque	16			-0.00
L4	70 - 25.5	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	14	-34210.54	0.00	0.00
			Max. Mx	5	-26912.12	-1686257.07	0.00
			Max. My	2	-26912.12	0.00	1686257.07
			Max. Vy	5	25016.80	-1686257.07	0.00
			Max. Vx	2	-25016.80	0.00	1686257.07
			Max. Torque	16			-0.00
L5	25.5 - 0	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	14	-48591.38	0.00	0.00
			Max. Mx	5	-40095.62	-2575540.98	0.00
			Max. My	2	-40095.62	0.00	2575540.98
			Max. Vy	5	28134.53	-2575540.98	0.00
			Max. Vx	2	-28134.53	0.00	2575540.98
			Max. Torque	16			-0.00

Compression Checks

Pole Design Data

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	F_a ksi	A in^2	Actual P lb	Allow. P_a lb	Ratio $\frac{P}{P_a}$
L1	130 - 120 (1)	TP24x24x0.25	10.00	0.00	0.0	20.968	18.6437	-2119.29	390930.00	0.005
L2	120 - 95 (2)	TP34.375x24x0.3125	25.00	0.00	0.0	39.000	33.7857	-9534.63	1317640.00	0.007
L3	95 - 70 (3)	TP44.75x34.375x0.375	25.00	0.00	0.0	39.000	50.1006	-15006.70	1953920.00	0.008
L4	70 - 25.5 (4)	TP62.375x41.7175x0.4375	50.00	0.00	0.0	39.000	81.4183	-26912.10	3175310.00	0.008
L5	25.5 - 0 (5)	TP72x58.1948x0.4375	33.50	0.00	0.0	37.489	99.3735	-40095.60	3725390.00	0.011

Pole Bending Design Data

Section No.	Elevation ft	Size	Actual M_x lb-ft	Actual f_{bx} ksi	Allow. F_{bx} ksi	Ratio $\frac{f_{bx}}{F_{bx}}$	Actual M_y lb-ft	Actual f_{by} ksi	Allow. F_{by} ksi	Ratio $\frac{f_{by}}{F_{by}}$

Section No.	Elevation ft	Size	Actual M_x lb-ft	Actual f_{bx} ksi	Allow. F_{bx} ksi	Ratio $\frac{f_{bx}}{F_{bx}}$	Actual M_y lb-ft	Actual f_{by} ksi	Allow. F_{by} ksi	Ratio $\frac{f_{by}}{F_{by}}$
L1	130 - 120 (1)	TP24x24x0.25	44606.58	-4.880	20.968	0.233	0.00	0.000	20.968	0.000
L2	120 - 95 (2)	TP34.375x24x0.3125	339845.00	-14.380	39.000	0.369	0.00	0.000	39.000	0.000
L3	95 - 70 (3)	TP44.75x34.375x0.375	710320.00	-16.397	39.000	0.420	0.00	0.000	39.000	0.000
L4	70 - 25.5 (4)	TP62.375x41.7175x0.4375	1686258.33	-17.171	39.000	0.440	0.00	0.000	39.000	0.000
L5	25.5 - 0 (5)	TP72x58.1948x0.4375	2575541.67	-17.582	37.489	0.469	0.00	0.000	37.489	0.000

Pole Interaction Design Data

Section No.	Elevation ft	Size	Ratio $\frac{P}{P_a}$	Ratio $\frac{f_{bx}}{F_{bx}}$	Ratio $\frac{f_{by}}{F_{by}}$	Comb. Stress Ratio	Allow. Stress Ratio	Criteria
L1	130 - 120 (1)	TP24x24x0.25	0.005	0.233	0.000	0.238 ✔	1.333	H1-3 ✔
L2	120 - 95 (2)	TP34.375x24x0.3125	0.007	0.369	0.000	0.376 ✔	1.333	H1-3 ✔
L3	95 - 70 (3)	TP44.75x34.375x0.375	0.008	0.420	0.000	0.428 ✔	1.333	H1-3 ✔
L4	70 - 25.5 (4)	TP62.375x41.7175x0.4375	0.008	0.440	0.000	0.449 ✔	1.333	H1-3 ✔
L5	25.5 - 0 (5)	TP72x58.1948x0.4375	0.011	0.469	0.000	0.480 ✔	1.333	H1-3 ✔

Section Capacity Table

Section No.	Elevation ft	Component Type	Size	Critical Element	P lb	$SF*P_{allow}$ lb	% Capacity	Pass Fail
L1	130 - 120	Pole	TP24x24x0.25	1	-2119.29	521109.67	17.9	Pass
L2	120 - 95	Pole	TP34.375x24x0.3125	2	-9534.63	1756414.05	28.2	Pass
L3	95 - 70	Pole	TP44.75x34.375x0.375	3	-15006.70	2604575.25	32.1	Pass
L4	70 - 25.5	Pole	TP62.375x41.7175x0.4375	4	-26912.10	4232688.05	33.7	Pass
L5	25.5 - 0	Pole	TP72x58.1948x0.4375	5	-40095.60	4965944.66	36.0	Pass
							Summary	
						Pole (L5)	36.0	Pass
						RATING =	**36.0**	**Pass**