Robinson+Cole

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Also admitted in Massachusetts

February 6, 2015

Melanie A. Bachman
Acting Executive Director
Connecticut Siting Council
10 Franklin Square
New Britain, CT 06051

Re: **Notice of Exempt Modification – Facility Modification**
8 Meetinghouse Lane, Madison, Connecticut

Dear Ms. Bachman:

Cellco Partnership d/b/a Verizon Wireless ("Cellco") currently maintains twelve (12) antennas at the 140-foot level on the existing 148-foot tower at 8 Meetinghouse Lane in Madison, Connecticut (the "Property"). The tower is owned by American Tower Corporation. Cellco's shared use of this tower was approved by the Council in 2000. Cellco now intends to modify its facility by replacing all of its existing antennas with three (3) model LNX-6514DS-VTM, 700 MHz antennas; two (2) model LNX-8513DS-VTM 850 MHz antennas; one (1) model LNX-6514DS-VTM, 850 MHz antenna; three (3) model HBXX-6516DS-VTM, 1900 MHz antennas; and three (3) model HBXX-6516DS-VTM, 2100 MHz antennas, all at the same 140-foot level on the tower. Cellco also intends to install three (3) remote radio heads ("RRHs") behind its 2100 MHz antennas and one (1) HYBRIFLEX™ antenna cable. Included in Attachment 1 are specifications for Cellco's replacement antennas, RRHs and HYBRIFLEX™ cable.

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 Fillmore McPherson, First Selectman of the Town of Madison. The Town of Madison is the owner of the Property.

The planned modifications to the facility fall 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 an increase in the height of the existing tower. Cellco's replacement antennas and RRHs will be installed on its existing antenna platform at the 140-foot level of the 148-foot tower.

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

3. The proposed modifications will not increase noise levels at the facility by six decibels or more, or to levels that exceed state and local criteria.

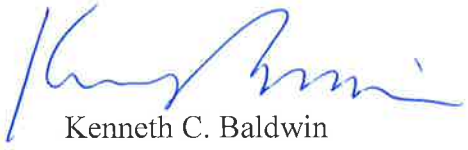
4. The operation of the replacement antennas will not increase radio frequency (RF) emissions at the facility to a level at or above the Federal Communications Commission (FCC) safety standard. A cumulative General Power Density table for Cellco's modified facility is included in Attachment 2.

5. The proposed modifications will not cause a change or alteration in the physical or environmental characteristics of the site.

6. The tower and its foundation can support Cellco's proposed modifications. (*See* Structural Analysis Report included in Attachment 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:
Fillmore McPherson, Madison First Selectman
Sandy M. Carter

ATTACHMENT 1

Product Specifications

COMMSCOPE®

LNX-6514DS-VTM

Andrew® Antenna, 698–896 MHz, 65° horizontal beamwidth, RET compatible

POWERED BY ANDREW.

Electrical Specifications

Frequency Band, MHz	698–806	806–896
Gain, dBi	15.7	16.3
Beamwidth, Horizontal, degrees	65	65
Beamwidth, Horizontal Tolerance, degrees	±3	±3
Beamwidth, Vertical, degrees	12.5	11.2
Beam Tilt, degrees	0–10	0–10
USLS, typical, dB	17	18
Front-to-Back Ratio at 180°, dB	32	30
CPR at Boresight, dB	20	20
CPR at Sector, dB	10	10
Isolation, dB	30	30
VSWR | Return Loss, dB	1.4 | 15.6	1.4 | 15.6
PIM, 3rd Order, 2 x 20 W, dBc	-153	-153
Input Power per Port, maximum, watts	400	400
Polarization	±45°	±45°

Mechanical Specifications

Color | Radome Material	Light gray | Fiberglass, UV resistant
Connector Interface | Location | Quantity	7-16 DIN Female | Bottom | 2
Wind Loading, maximum	617.7 N @ 150 km/h 138.9 lbf @ 150 km/h
Wind Speed, maximum	241.0 km/h | 149.8 mph
Antenna Dimensions, L x W x D	1847.0 mm x 301.0 mm x 181.0 mm | 72.7 in x 11.9 in x 7.1 in
Net Weight	17.6 kg | 38.8 lb
Model with factory installed AISG 2.0 RET	LNX-6514DS-A1M

Product Specifications

COMMSCOPE®

LNX-8513DS-VTM

Andrew® Teletilt® Antenna, 698–896 MHz, 85° horizontal beamwidth, RET compatible

POWERED BY ANDREW.

Electrical Specifications

Frequency Band, MHz	698–806	806–896
Gain, dBi	14.6	15.3
Beamwidth, Horizontal, degrees	85	85
Beamwidth, Vertical, degrees	12.2	11.0
Beam Tilt, degrees	0–10	0–10
USLS, typical, dB	17	17
Front-to-Back Ratio at 180°, dB	25	26
Isolation, dB	30	30
VSWR | Return Loss, dB	1.4 | 15.6	1.4 | 15.6
PIM, 3rd Order, 2 x 20 W, dBc	-153	-153
Input Power per Port, maximum, watts	400	400
Polarization	±45°	±45°

Mechanical Specifications

Color | Radome Material	Light gray | Fiberglass, UV resistant
Connector Interface | Location | Quantity	7-16 DIN Female | Bottom | 2
Wind Loading, maximum	617.7 N @ 150 km/h 138.9 lbf @ 150 km/h
Wind Speed, maximum	241.0 km/h | 149.8 mph
Antenna Dimensions, L x W x D	1847.0 mm x 301.0 mm x 181.0 mm | 72.7 in x 11.9 in x 7.1 in
Net Weight	17.8 kg | 39.2 lb
Model with factory installed AISG 2.0 RET	LNX-8513DS-A1M

Product Specifications

COMMSCOPE®

POWERED BY ANDREW.

HBXX-6516DS-VTM

Andrew® Quad Port Teletilt® Antenna, 1710–2180 MHz, 65° horizontal beamwidth, RET compatible

- Each DualPol® array can be independently adjusted for greater flexibility
- Excellent gain, VSWR, front-to-back ratio, and PIM specifications for robust network performance
- Ideal choice for site collocations and tough zoning restrictions
- Great solution to maximize network coverage and capacity
- The values presented on this datasheet have been calculated based on N-P-BASTA White Paper version 9.6 by the NGMN Alliance

Electrical Specifications

Frequency Band, MHz	**1710–1880**	**1850–1990**	**1920–2180**
Gain by all Beam Tilts, average, dBi	17.2	17.2	17.5
Gain by all Beam Tilts Tolerance, dB	±0.3	±0.3	±0.5
Gain by Beam Tilt, average, dBi	0 ° | 17.0	0 ° | 17.1	0 ° | 17.4
	5 ° | 17.3	5 ° | 17.4	5 ° | 17.7
	10 ° | 17.0	10 ° | 17.0	10 ° | 17.2
Beamwidth, Horizontal, degrees	67	66	64
Beamwidth, Horizontal Tolerance, degrees	±2.7	±2.3	±3.5
Beamwidth, Vertical, degrees	7.5	7.0	6.6
Beamwidth, Vertical Tolerance, degrees	±0.5	±0.4	±0.4
Beam Tilt, degrees	0–10	0–10	0–10
USLS, dB	18	19	19
Front-to-Back Total Power at 180° ± 30°, dB	26	26	26
CPR at Boresight, dB	22	22	22
CPR at Sector, dB	9	9	9
Isolation, dB	30	30	30
VSWR | Return Loss, dB	1.4 | 15.6	1.4 | 15.6	1.4 | 15.6
PIM, 3rd Order, 2 x 20 W, dBc	-153	-153	-153
Input Power per Port, maximum, watts	350	350	350
Polarization	±45°	±45°	±45°
Impedance	50 ohm	50 ohm	50 ohm

General Specifications

Antenna Brand	Andrew®
Antenna Type	DualPol® single band, quad
Band	Single band
Brand	DualPol® | Teletilt®
Operating Frequency Band	1710 – 2180 MHz
Number of Ports, all types	4

Mechanical Specifications

Color	Light gray
Lightning Protection	dc Ground
Radiator Material	Low loss circuit board
Radome Material	PVC, UV resistant
RF Connector Interface	7-16 DIN Female

Product Specifications

HBXX-6516DS-VTM

RF Connector Location	Bottom
RF Connector Quantity, total	4
Wind Loading, maximum	419.0 N @ 150 km/h 94.2 lbf @ 150 km/h
Wind Speed, maximum	241.0 km/h | 149.8 mph

Dimensions

Depth	166.0 mm | 6.5 in
Length	1294.0 mm | 50.9 in
Width	305.0 mm | 12.0 in
Net Weight	13.9 kg | 30.6 lb

Remote Electrical Tilt (RET) Information

Model with Factory Installed AISG 1.1 Actuator	HBXX-6516DS-R2M
Model with Factory Installed AISG 2.0 Actuator	HBXX-6516DS-A2M
RET System	Teletilt®

Regulatory Compliance/Certifications

Agency	Classification
RoHS 2011/65/EU	Compliant by Exemption
China RoHS SJ/T 11364-2006	Above Maximum Concentration Value (MCV)
ISO 9001:2008	Designed, manufactured and/or distributed under this quality management system

Included Products

600899A-2 — Downtilt Mounting Kit for 2.4 - 4.5 in (60 - 115 mm) OD round members. Kit contains one scissor top bracket set and one bottom bracket set.

ALCATEL-LUCENT
WIRELESS PRODUCT DATASHEET
RRH2X60-AWS FOR BAND 4 APPLICATIONS

The Alcatel-Lucent RRH2x60-AWS is a high power, small form factor Remote Radio Head operating in the AWS frequency band (3GPP Band 4) for LTE technology. It is designed with an eco-efficient approach, providing operators with the means to achieve high quality and high capacity coverage with minimum site requirements and efficient operation.

A distributed Node B expands the deployment options by using two components, a Base Band Unit (BBU) containing the digital assets and a separate RRH containing the radio-frequency (RF) elements. This modular design optimizes available space and allows the main components of a Node B to be installed separately, within the same site or several kilometers apart.

The Alcatel-Lucent RRH2x60-AWS is linked to the BBU by an optical-fiber connection carrying downlink and uplink digital radio signals along with operations, administration and maintenance (OA&M) information.

SUPERIOR RF PERFORMANCE

The Alcatel-Lucent RRH2x60-AWS integrates all the latest technologies. This allows to offer best-in-class characteristics.

It delivers an outstanding 120 watts of total RF power thanks to its two transmit RF paths of 60 W each.

It is ideally suited to support multiple-input multiple-output (MIMO) 2x2 operation.

It includes four RF receivers to natively support 4-way uplink reception diversity. This improves the radio uplink coverage and this can be used to extend the cell radius commensurate with 2x2MIMO 2x60 W for the downlink.

It supports multiple discontinuous LTE carriers within an instantaneous bandwidth of 45 MHz corresponding to the entire AWS B4 spectrum.

The latest generation power amplifiers (PA) used in this product achieve high efficiency (>40%), resulting in improved power consumption figures.

OPTIMIZED TCO

The Alcatel-Lucent RRH2x60-AWS is designed to make available all the benefits of a distributed Node B, with excellent RF characteristics, with low capital expenditures (CAPEX) and low operating expenditures (OPEX).

The Alcatel-Lucent RRH2x60-AWS is a very cost-effective solution to deploy LTE MIMO.

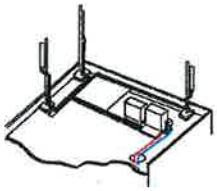
EASY INSTALLATION

The RRH2x60-AWS includes a reversible mounting bracket which allows for ease of installation behind an antenna, or on a rooftop knee wall while providing easy access to the mid body RF connectors.

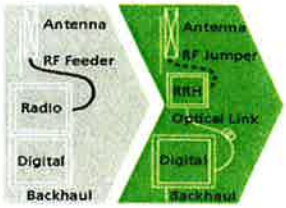
The limited space available in some sites may prevent the installation of traditional single-cabinet BTS equipment. However, many of these sites can host an Alcatel-Lucent RRH2x60-AWS installation, providing more flexible site selection and improved network quality along with greatly reduced installation time and costs.

The Alcatel-Lucent RRH2x60-AWS is a zero-footprint solution and is convection cooled without fans for silent operation, simplifying negotiations with site property owners and minimizing environmental impacts.

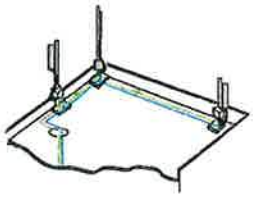
Installation can easily be done by a single person as the Alcatel-Lucent RRH2x60-AWS is compact and weighs about 20 kg, eliminating the need for a crane to hoist the BTS cabinet to the rooftop. A site can be in operation in less than one day.



Macro



RRH for space-constrained cell sites



Distributed

FEATURES

- RRH2x60-AWS integrates two power amplifiers of 60W rating (at each antenna connector)
- Support multiple carriers over the entire 3GPP band 4
- RRH2x60-AWS is optimized for LTE operation
- RRH2x60-AWS is a very compact and lightweight product
- Advanced power management techniques are embedded to provide power savings, such as PA bias control

BENEFITS

- MIMO LTE operation with only one single unit per sector
- Improved uplink coverage with built-in 4-way receive diversity capability
- RRH can be mounted close to the antenna, eliminating nearly all losses in RF cables and thus reducing power consumption by 50% compared to conventional solutions
- Distributed configurations provide easily deployable and cost-effective solutions, near zero footprint and silent solutions, with minimum impact on the neighborhood, which ease the deployment
- RETA and TMA support without additional hardware thanks to the AISG v2.0 port and the integrated Bias-Tees. Bias-Tees support AISG DC supply and signaling.

TECHNICAL SPECIFICATIONS

Specifications listed are hardware capabilities. Some capabilities depend on support in a specific software release or future release.

Dimensions and weights

- HxWxD : 510x285x186mm (27 l with solar shield)
- Weight : 20 kg (44 lbs)

Electrical Data

- Power Supply : -48V DC (-40.5 to -57V)
- Power Consumption (ETSI average traffic load reference) : 250W @2x60W

RF Characteristics

- Frequency band: 1710-1755, UL / 2110-2155 MHz, DL (3GPP band 4)
- Output power: 2x60W at antenna connectors
- Technology supported: LTE
- Instantaneous bandwidth: 45 MHz
- Rx diversity: 2-way and 4-way uplink reception
- Typical sensitivity without Rx diversity: -105 dBm for LTE

Connectivity

- Two CPRI optical ports for daisychaining and up to six RRHs per fiber
- Type of optical fiber: Single-Mode (SM) and Multi-Mode (MM) SFPs
- Optical fiber length: up to 500m using MM fiber, up to 20km using SM fiber
- TMA/RETA : AISG 2.0 (RS485 connector and internal Bias-Tee)
- Six external alarms
- Surge protection for all external ports (DC and RF)

Environmental specifications

- Operating temperature: -40°C to 55°C including solar load
- Operating relative humidity: 8% to 100%
- Environmental Conditions : ETS 300 019-1-4 class 4.1E
- Ingress Protection : IEC 60529 IP65
- Acoustic Noise : Noiseless (natural convection cooling)

Safety and Regulatory Data

- EMC : 3GPP 25113, EN 301 489-1, EN 301 489-23, GR 1089, GR 3108, OET-65
- Safety : IEC60950-1, EN 60825-1, UL, ANSI/NFPA 70, CAN/CSA-C22.2
- Regulatory : FCC Part 15 Class B, CE Mark – European Directive : 2002/95/EC (ROHS); 2002/96/EC (WEEE); 1999/5/EC (R&TTE)
- Health : EN 50385

Alcatel·Lucent

AT THE SPEED OF IDEAS™

Product Data Sheet HB158-1-08U8-S8J18

HYBRIFLEX™ RRH Hybrid Feeder Cabling Solution, 1-5/8", Single-Mode Fiber

Product Description

RFS' HYBRIFLEX Remote Radio Head (RRH) hybrid feeder cabling solution combines optical fiber and DC power for RRHs in a single lightweight aluminum corrugated cable, making it the world's most innovative solution for RRH deployments.

It was developed to reduce installation complexity and costs at Cellular sites. HYBRIFLEX allows mobile operators deploying an RRH architecture to standardize the RRH installation process and eliminate the need for and cost of cable grounding. HYBRIFLEX combines optical fiber (multi-mode or single-mode) and power in a single corrugated cable. It eliminates the need for junction boxes and can connect multiple RRHs with a single feeder. Standard RFS CELLFLEX® accessories can be used with HYBRIFLEX cable. Both pre-connectorized and on-site options are available.

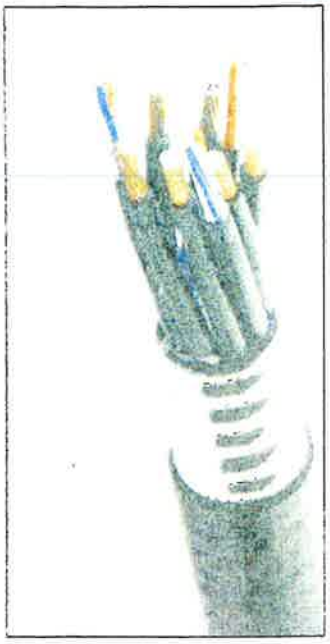


Figure 1: HYBRIFLEX Series

Features/Benefits

- Aluminum corrugated armor with outstanding bending characteristics – minimizes installation time and enables mechanical protection and shielding
- Same accessories as 1 5/8" coaxial cable
- Outer conductor grounding – Eliminates typical grounding requirements and saves on installation costs
- Lightweight solution and compact design – Decreases tower loading
- Robust cabling – Eliminates need for expensive cable trays and ducts
- Installation of tight bundled fiber optic cable pairs directly to the RRH – Reduces CAPEX and wind load by eliminating need for interconnection
- Optical fiber and power cables housed in single corrugated cable – Saves CAPEX by standardizing RRH cable installation and reducing installation requirements
- Outdoor polyethylene jacket – Ensures long-lasting cable protection

Technical Specifications

Outer Conductor Armor	Corrugated Aluminum	[mm (in)]	46.5 (1.83)
Jacket	Polyethylene, PE	[mm (in)]	50.3 (1.98)
UV-Protection	Individual and External Jacket		Yes
Weight, Approximate		[kg/m (lb/ft)]	1.9 (1.30)
Minimum Bending Radius, Single Bending		[mm (in)]	200 (8)
Minimum Bending Radius, Repeated Bending		[mm (in)]	500 (20)
Recommended/Maximum Clamp Spacing		[m (ft)]	1.0 / 1.2 (3.25 / 4.0)
DC-Resistance Outer Conductor Armor		[Ω/km (Ω/1000ft)]	.068 (0.205)
DC-Resistance Power Cable 8.4mm²(8AWG)		[Ω/km (Ω/1000ft)]	2.1 (0.307)
Version			Single-mode OM3
Quantity, Fiber Count			16 (8 pairs)
Core/Clad		[µm]	50/125
Primary Coating (Acrylate)		[µm]	245
Buffer Diameter, Nominal		[µm]	900
Secondary Protection, Jacket, Nominal		[mm (in)]	2.0 (0.08)
Minimum Bending Radius		[mm (in)]	104 (4.1)
Insertion Loss @ wavelength 850nm		dB/km	3.0
Insertion Loss @ wavelength 1310nm		dB/km	1.0
Standards (Meets or exceeds)			UL94-V0, UL1666 RoHS Compliant
Size (Power)		[mm² (AWG)]	8.4 (8)
Quantity, Wire Count (Power)			16 (8 pairs)
Size (Alarm)		[mm² (AWG)]	0.8 (18)
Quantity, Wire Count (Alarm)			4 (2 pairs)
Type			UV protected
Strands			19
Primary Jacket Diameter, Nominal		[mm (in)]	6.8 (0.27)
Standards (Meets or exceeds)			NFPA 130, ICEA S-95-658 UL Type XHHW-2, UL 44 UL-LS Limited Smoke, UL VW-1 IEEE-383 (1974), IEEE1202/FT4 RoHS Compliant
Installation Temperature		[°C (°F)]	-40 to +65 (-40 to149)
Operation Temperature		[°C (°F)]	-40 to +65 (-40 to149)

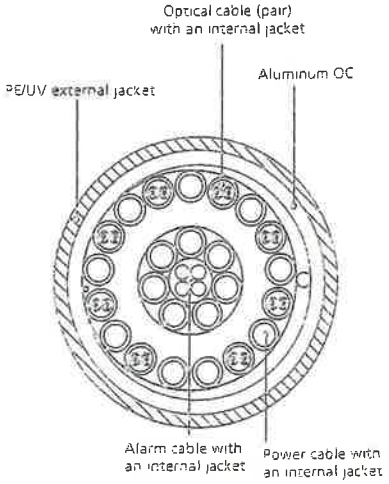


Figure 2: Construction Detail

* This data is provisional and subject to change

ATTACHMENT 2

	General	Power	Density					
Site Name: Madison 2								
Tower Height: 148ft								
CARRIER	**# OF CHAN.**	**WATTS ERP**	**HEIGHT**	**CALC. POWER DENS**	**FREQ.**	**MAX. PERMISS. EXP.**	**FRACTION MPE**	**Total**
*AT&T UMTS	1	500	132	0.0103	880	0.5867	1.76%	
*AT&T UMTS	1	500	132	0.0103	1900	1.0000	1.03%	
*AT&T GSM	6	296	132	0.0367	880	0.5867	6.25%	
*AT&T GSM	6	427	132	0.0529	1900	1.0000	5.29%	
*AT&T LTE	1	500	132	0.0103	740	0.4933	2.09%	
*Pocket (now MetroPCS)	3	631	86	0.0920	2130	1.0000	9.20%	
*Nextel	11	100	150	0.0176	851	0.5673	3.10%	
*T-Mobile GSM	8	188	120	0.0376	1945	1.0000	3.76%	
*T-Mobile UMTS	2	750	120	0.0375	2100	1.0000	3.75%	
*Town			154	0.0036		0.2000	1.80%	
*Town Fire Dept			153	0.0032	461	0.3073	1.04%	
*Sprint CDMA/LTE	2	693	97.5	0.0524	1900	1.0000	5.24%	
*Sprint CDMA/LTE	1	390	97.5	0.0148	850	0.5667	2.60%	
*Sprint CDMA/LTE	2	693	97.5	0.0524	2500	1.0000	5.24%	
Verizon PCS	**7**	**287**	**140**	**0.0369**	**1970**	**1.0000**	**3.69%**	
Verizon Cellular	**9**	**327**	**140**	**0.0540**	**869**	**0.5793**	**9.32%**	
Verizon AWS	**1**	**2133**	**140**	**0.0391**	**2145**	**1.0000**	**3.91%**	
Verizon 700	**1**	**678**	**140**	**0.0124**	**746**	**0.4973**	**2.50%**	
								71.57%
* Source: Siting Council								

ATTACHMENT 3

AMERICAN TOWER®
CORPORATION

This report was prepared for American Tower Corporation by

SEMAAN
ENGINEERING SOLUTIONS

Structural Analysis Report

Structure	:	**148 ft Monopole**
ATC Site Name	:	**Madison CT 6, CT**
ATC Site Number	:	**302540**
Engineering Number	:	**57827323**
Proposed Carrier	:	**Verizon Wireless**
Carrier Site Name	:	**Madison 2**
Carrier Site Number	:	**117597**
Site Location	:	**8 Old 79** **Madison, CT 06443-2685** **41.285533, -72.60134167**
County	:	**New Haven**
Date	:	**December 9, 2014**
Max Usage	:	**90%**
Result	:	**Pass**

Laura Paulson
Structural Engineer III

Eng. Number 57827323
December 9, 2014

Table of Contents

SEMAAN
ENGINEERING SOLUTIONS

Introduction

The purpose of this report is to summarize results of a structural analysis performed on the 148 ft monopole to reflect the change in loading by Verizon Wireless.

Supporting Documents

Tower Drawings	Summit, PJF Job #29299-729, dated November 12, 1999
Foundation Drawing	Spectrasite Project #F301896.00, dated August 13, 2003
Geotechnical Report	Dr. Clarence Welti, P.E., P.C., Site: Madison Police Station, dated November 19, 1999
Modifications	N/A

Analysis

The tower was analyzed using American Tower Corporation's tower analysis software. This program considers an elastic three-dimensional model and second-order effects per ANSI/EIA-222.

Basic Wind Speed:	85 mph (Fastest Mile) / 105 mph (3-sec gust)
Basic Wind Speed w/ Ice:	74 mph (Fastest Mile)w/ 1/2" radial ice concurrent
Code:	ANSI/TIA/EIA-222-F / 2003 IBC , Sec. 1609.1.1, Exception (4) & Sec. 3108.4 w/ 2005 CT Supplement & 2009 CT Amendment

Conclusion

Based on the analysis results, the structure meets the requirements per the applicable codes listed above. The tower and foundation can support the equipment as described in this report.

If you have any questions or require additional information, please contact American Tower via email at Engineering@americantower.com. Please include the American Tower site name, site number, and engineering number in the subject line for any questions.

SEMAAN ENGINEERING SOLUTIONS

Existing and Reserved Equipment

Elevation[1] (ft)		Qty	Antenna	Mount Type	Lines	Carrier
Mount	RAD					
148.0	149.0	9	48" x 12" Panel	Low Profile Platform	(12) 1 5/8" Coax (5) 7/8" Coax	Sprint Nextel
		3	72" x 12" Panel			
	156.0	1	11' Dipole			Town Of Branford
	153.0	1	6' Omni			
		1	6' Dipole			
140.0	140.0	6	RFS FD9R6004/1C-3L	Low Profile Platform	(12) 1 5/8" Coax	Verizon
134.0	135.0	1	Raycap DC6-48-60-18-8F	Flush	(2) 1.1" Hybrid (1) 0.28" RG6 (1) 3" Conduit	AT&T Mobility
		6	Ericsson RRUS 11 (Band 12)			
132.0	132.0	6	Powerwave LGP13519	Low Profile Platform	(12) 1 5/8" Coax	
		6	ADC DD700			
		2	KMW AM-X-CD-14-65-00T-RET			
		6	Powerwave 7770.00			
		1	Kathrein 800 10736			
120.0	120.0	4	Ericsson KRY 112 144/1	Low Profile Platform	(16) 1 5/8" Coax (outside) (1) 1 5/8" Fiber	T-Mobile
		4	Ericsson AIR 21, 1.3M, B2A B4P			
		4	Ericsson AIR 21, 1.3M, B4A B2P			
106.0	107.0	2	2" x 4" GPS	Flush	-	--
		3	60" x 8" Panel			
96.0	97.5	3	Alcatel-Lucent 800MHz 2X50W w/Filter	Low Profile Platform	(4) 1 1/4" Hybriflex	Sprint Nextel
		3	Alcatel-Lucent 1900MHz 4x45			
		3	Alcatel TD-RRH8x20-25 w/ SS			
		3	RFS APXV9TM14-ALU-I20			
		3	RFS APXVSPP18-C-A20			
86.0	86.0	3	RFS APXV18-206517S-C	Collar	(6) 1 5/8" Coax	Metro PCS
70.0	73.0	1	GPS	Flush	(1) 1/2" Coax	Sprint Nextel

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Equipment to be Removed

Elevation[1] (ft)		Qty	Antenna	Mount Type	Lines	Carrier
Mount	RAD					
140.0	140.0	3	Antel BXA-171085-8BF-EDIN-X	-	-	Verizon
		2	Antel LPA-80063/6CF			
		4	Antel LPA-80080/6CF			
		3	Antel BXA-70063-6CF-EDIN-2			

Proposed Equipment

Elevation[1] (ft)		Qty	Antenna	Mount Type	Lines	Carrier
Mount	RAD					
140.0	140.0	3	Alcatel-Lucent RRH 2X60-AWS	Low Profile Platform	(1) 1 5/8" Fiber	Verizon
		6	Andrew HBX-6516DS-VTM			
		1	RFS DB-T1-6Z-8AB-0Z			
		2	Andrew LNX-8513DS-VTM			
		4	Andrew LNX-6514DS-A1M			

[1]Mount elevation is defined as height above bottom of steel structure to the bottom of mount, RAD elevation is defined as center of antenna above ground level (AGL).

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Structure Usages

Structural Component	Controlling Usage	Pass/Fail
Anchor Bolts	72%	Pass
Shaft	76%	Pass
Base Plate	90%	Pass

Foundations

Reaction Component	Original Design Reactions	Analysis Reactions	% of Design
Moment (Kips-Ft)	5,050.0	3925.8	78%
Shear (Kips)	47.0	36.7	78%

The structure base reactions resulting from this analysis are acceptable when compared to those shown on the original structure drawings, therefore no modification or reinforcement of the foundation will be required.

Deflection and Sway*

Antenna Elevation (ft)	Deflection (ft)	Sway (Rotation) (°)
140.0	1.771	-1.434

***Deflection and Sway was evaluated considering a design wind speed of 50 mph (Fastest Mile) per ANSI/TIA/EIA-222-F.**

Standard Conditions

All engineering services are performed on the basis that the information used is current and correct. This information may consist of, but is not necessary limited, to:

-- Information supplied by the client regarding the structure itself, antenna, mounts and feed line loading on the structure and its components, or other relevant information.

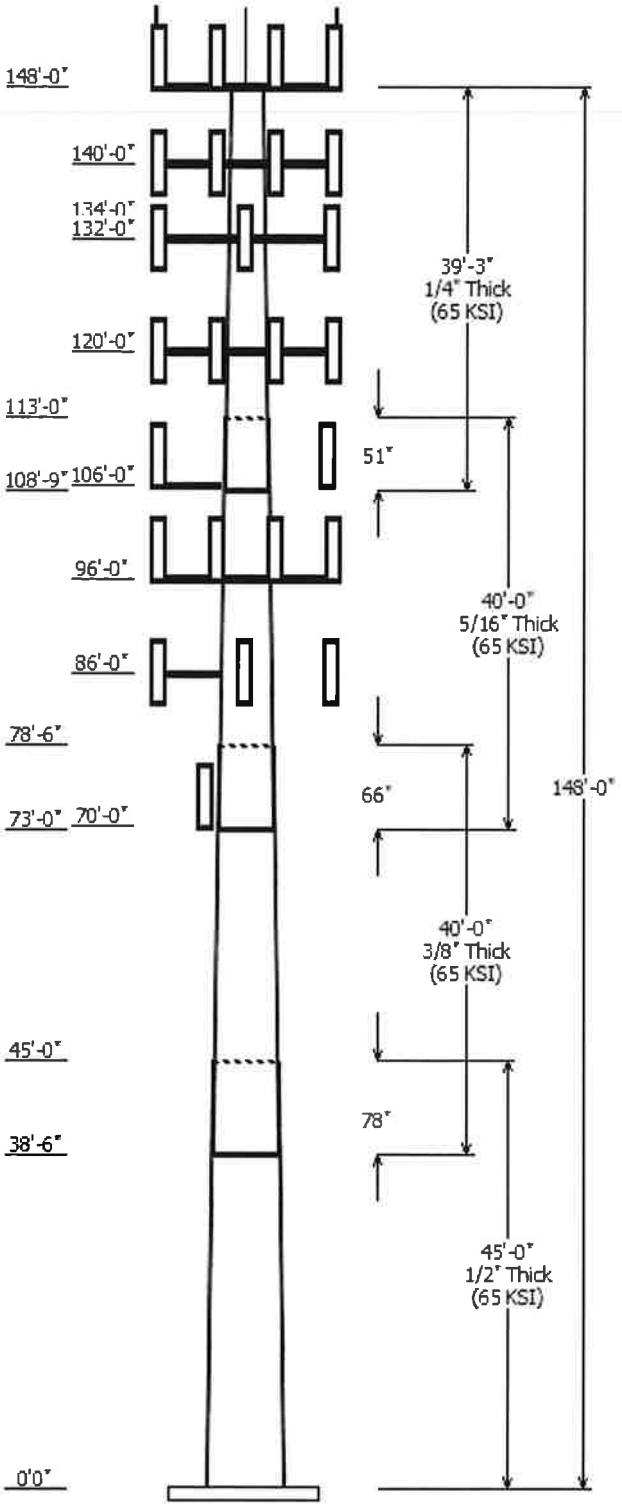
-- Information from drawings in the possession of Semaan Engineering Solutions, or generated by field inspections or measurements of the structure.

It is the responsibility of the client to ensure that the information provided to Semaan Engineering Solutions Holdings and used in the performance of our engineering services is correct and complete. In the absence of information to the contrary, we assume that all structures were constructed in accordance with the drawings and specifications and that their capacity has not significantly changed from the "as new" condition.

Unless explicitly agreed by both the client and Semaan Engineering Solutions, all services will be performed in accordance with the current revision of ANSI/TIA -222. The design basic wind speed will be determined based on the minimum basic wind speed as prescribed in ANSI/TIA-222. Although every effort is taken to ensure that the loading considered is adequate to meet the requirements of all applicable regulatory entities, we can provide no assurance to meet any other local and state codes or requirements. If wind and ice loads or other relevant parameters are to be different from the minimum values recommended by the codes, the client shall specify the exact requirement.

All services are performed, results obtained, and recommendations made in accordance with generally accepted engineering principles and practices. Semaan Engineering Solutions Holdings is not responsible for the conclusions, opinions and recommendations made by others based on the information we supply.

SEMAAN ENGINEERING SOLUTIONS, LLC
1079 N 205th Street
Elkhorn, NE 68022
Phone: 402-289-1888
Fax: 402-289-1861



Job Information

Pole :	302540 Code: TIA/EIA-222 Rev F
Description :	148 ft Summit Monopole
Client :	Verizon Wireless
Location :	Madison CT 6, CT
Shape :	18 Sides
Height :	148.00 (ft)
Base Elev (ft):	0.00
Taper:	0.26300(in/ft)

Sections Properties

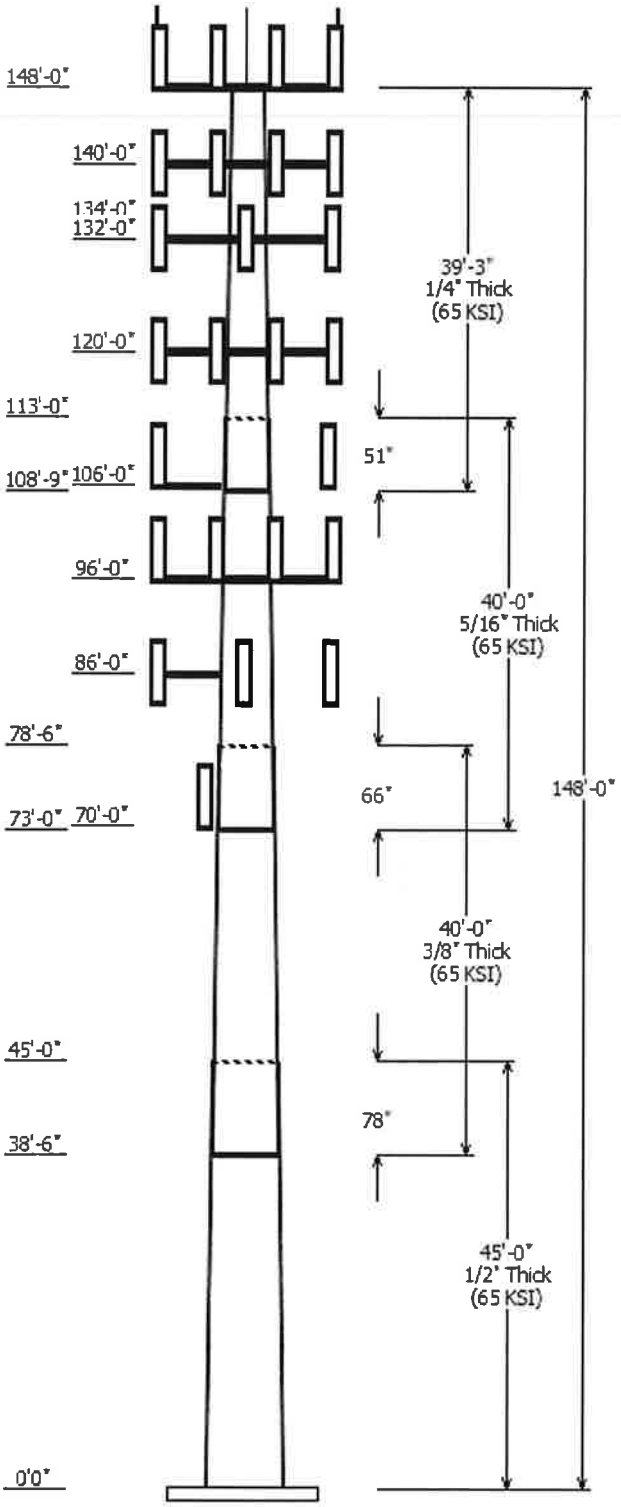
Shaft Section	Length (ft)	Diameter (in) Accross Flats Top	Bottom	Thick (in)	Joint Type	Overlap Length (in)	Taper (in/ft)	Steel Grade (ksi)
1	45.000	49.21	61.05	0.500		0.000	0.263000	65
2	40.000	41.15	51.67	0.375	Slip Joint	78.000	0.263000	65
3	40.000	32.70	43.22	0.313	Slip Joint	66.000	0.263000	65
4	39.250	24.00	34.32	0.250	Slip Joint	51.000	0.263000	65

Discrete Appurtenance

Attach Elev (ft)	Force Elev (ft)	Qty	Description
148.000	149.000	3	72" x 12" Panel
148.000	149.000	9	48" x 12" Panel
148.000	153.000	1	6' Dipole
148.000	148.000	1	Flat Low Profile Platform
148.000	156.000	1	11' Dipole
148.000	153.000	1	6' Omni
140.000	140.000	3	Alcatel-Lucent RRH 2X60-AWS
140.000	140.000	6	RFS FD9R6004/1C-3L
140.000	140.000	6	Andrew HBX-6516DS-VTM
140.000	140.000	1	Flat Low Profile Platform
140.000	140.000	1	RFS DB-T1-6Z-8AB-0Z
140.000	140.000	2	Andrew LNX-8513DS-VTM
140.000	140.000	4	Andrew LNX-6514DS-VTM
134.000	135.000	6	Ericsson RRUS 11 (Band 12)
134.000	135.000	1	Raycap DC6-48-60-18-8F
132.000	132.000	1	Kathrein 800 10736
132.000	132.000	6	Powerwave 7770.00
132.000	132.000	2	KMW AM-X-CD-14-65-00T-RET
132.000	132.000	1	Flat Low Profile Platform
132.000	132.000	6	Powerwave Allgon LGP13519
132.000	132.000	6	ADC DD700
120.000	120.000	4	Ericsson AIR 21, 1.3M, B4A B2P
120.000	120.000	4	Ericsson AIR 21, 1.3M, B2A B4P
120.000	120.000	4	Ericsson KRY 112 144/1
120.000	120.000	1	Flat Low Profile Platform
106.000	107.000	2	2" x 4" GPS
106.000	106.000	1	Flush
106.000	107.000	3	60" x 8" Panel
96.000	96.000	1	Flat Low Profile Platform
96.000	97.500	3	RFS APXV9TM14-ALU-I20
96.000	97.500	3	Alcatel TD-RRH8x20-25 w/ SS
96.000	97.500	3	Alcatel-Lucent 1900 MHz 4x45
96.000	97.500	3	Alcatel-Lucent 800 MHz 2X50W
96.000	97.500	3	RFS APXVSPP18-C-A20
86.000	86.000	1	Collar
86.000	86.000	3	RFS APXV18-206517S-C
70.000	73.000	1	GPS

Linear Appurtenance

Elev (ft) From	To	Description	Exposed To Wind
0.000	70.000	1/2" Coax	Yes



0.000	86.000	1 5/8" Coax	No
0.000	96.000	1 1/4" Hybriflex	No
0.000	120.0	1 5/8" Coax	Yes
0.000	120.0	1 5/8" Fiber	No
0.000	132.0	1 5/8" Coax	No
0.000	134.0	0.28" RG6	No
0.000	134.0	1.1" Hybrid	No
0.000	134.0	3" Conduit	No
0.000	140.0	1 5/8" Coax	No
0.000	140.0	1 5/8" Fiber	No
0.000	148.0	1 5/8" Coax	No
0.000	148.0	7/8" Coax	No

Load Cases

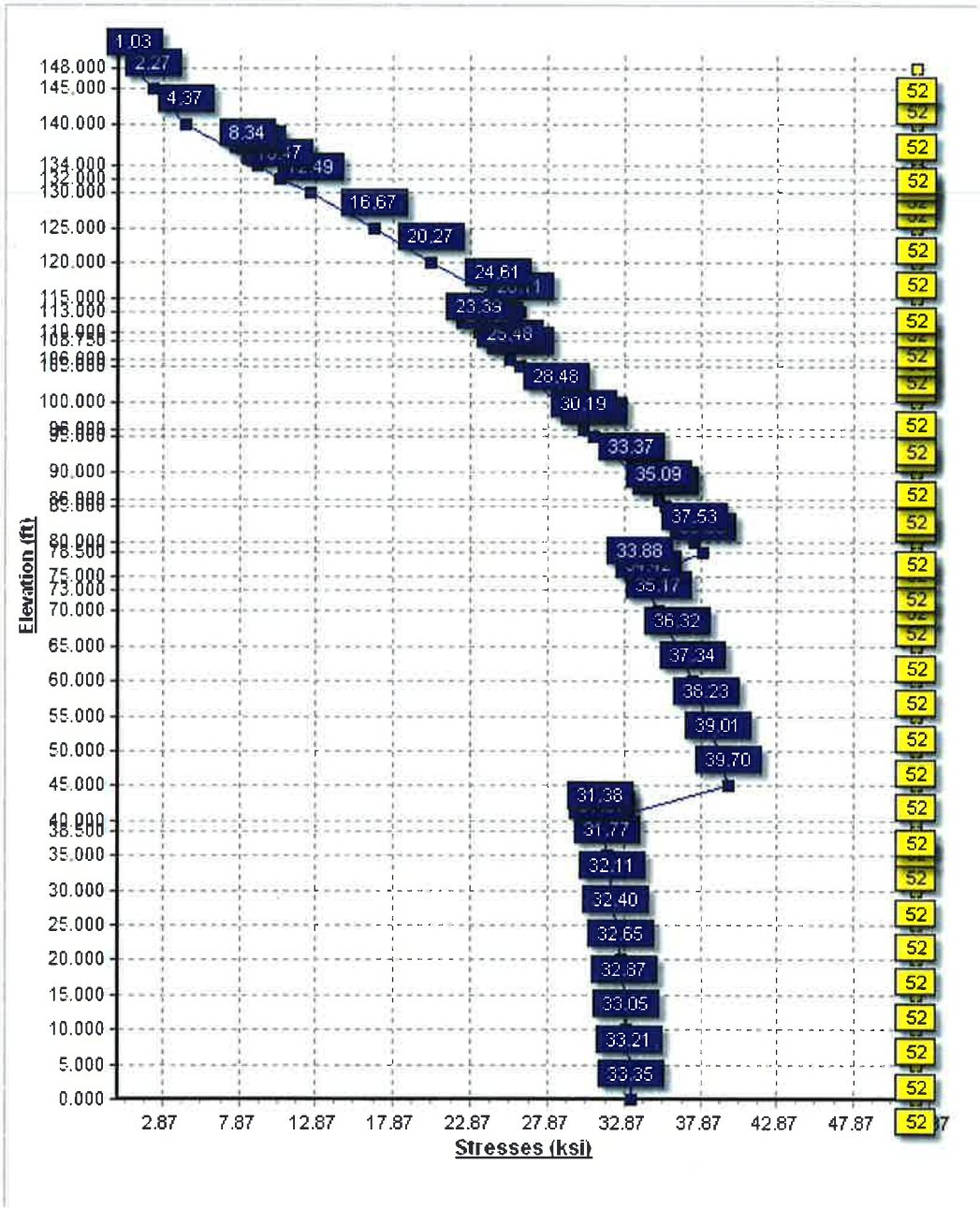
No Ice	85.00 mph Wind with No Ice
Ice	73.61 mph Wind with Ice
Twist/Sway	50.00 mph Wind with No Ice

Reactions

Load Case	Moment (kip-ft)	Shear (kip)	Axial (kip)
No Ice	3925.76	36.74	49.28
Ice	3355.71	30.97	59.81
Twist/Sway	1359.26	12.71	49.32

Dish Deflections

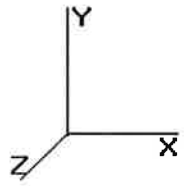
Load Case	Attach Elev (ft)	Deflection (in)	Rotation (deg)
	0.00	0.000	0.000


1.03
2.27
4.37
8.34
16.67
20.27
24.61
23.39
25.48
28.48
30.19
33.37
35.09
37.53
33.88
36.32
37.34
38.23
39.01
39.70
31.38
31.77
32.11
32.40
32.65
32.87
33.05
33.21
33.35
52
148.000
145.000
140.000
125.000
120.000
100.000
90.000
65.000
60.000
55.000
50.000
45.000
35.000
30.000
25.000
20.000
15.000
10.000
5.000
0.000
2.87
7.87
12.87
17.87
22.87
27.87
32.87
37.87
42.87
47.87
Elevation (ft)
Stresses (ksi)

Pole : 302540
Location : Madison CT 6, CT
Height : 148.0 (ft)
Base Dia : 61.05 (in)
Top Dia : 24.00 (in)
Shape : 18 Sides
Taper : 0.263000 (in/ft)

Code: TIA/EIA-222 Rev F

Base Elev : 0.000 (ft)



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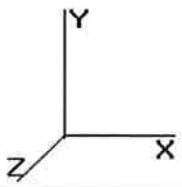
Shaft Section Properties

Sect Info	Length (ft)	Thick (in)	Fy (ksi)	Joint Type	Slip Joint Len (in)	Weight (lb)	Bottom Dia (in)	Bottom Elev (ft)	Bottom Area (sqin)	Bottom Ix (in^4)	Bottom W/t Ratio	Bottom D/t Ratio	Top Dia (in)	Top Elev (ft)	Top Area (sqin)	Top Ix (in^4)	Top W/t Ratio	Top D/t Ratio	Taper (in/ft)
1-18	45.000	0.5000	65		0.00	13,276	61.05	0.00	96.09	44509.7	20.12	122.10	49.21	45.00	77.31	23179.3	15.95	98.43	0.263000
2-18	40.000	0.3750	65	Slip	78.00	7,458	51.67	38.50	61.06	20300.8	22.89	137.80	41.15	78.50	48.54	10197.6	17.94	109.74	0.263000
3-18	40.000	0.3125	65	Slip	66.00	5,083	43.22	73.00	42.56	9903.1	22.98	138.32	32.70	113.00	32.13	4259.6	17.04	104.66	0.263000
4-18	39.250	0.2500	65	Slip	51.00	3,064	34.32	108.75	27.04	3965.9	22.80	137.29	24.00	148.00	18.85	1343.1	15.52	96.00	0.263000
					Shaft Weight	28,881													

Discrete Appurtenance Properties

Attach Elev (ft)	Description	Qty	No Ice Weight (lb)	No Ice EPAa (sf)	No Ice Orientation Factor	Ice Weight (lb)	Ice EPAa (sf)	Ice Orientation Factor	Distance From Face (ft)	Vert Ecc (ft)
148.00	11' Dipole	1	40.00	3.580	1.00	25.00	4.000	1.00	0.000	8.000
148.00	48" x 12" Panel	9	30.00	5.600	0.78	63.00	6.190	0.78	0.000	1.000
148.00	6' Dipole	1	20.00	2.220	1.00	39.30	3.000	1.00	0.000	5.000
148.00	6' Omni	1	25.00	1.760	1.00	38.24	2.130	1.00	0.000	5.000
148.00	72" x 12" Panel	3	45.00	8.400	0.79	92.28	9.230	0.79	0.000	1.000
148.00	Flat Low Profile Platform	1	1500.00	26.100	1.00	1,700.00	31.600	1.00	0.000	0.000
140.00	Alcatel-Lucent RRH 2X60-	3	39.60	2.190	0.82	55.40	2.500	0.82	0.000	0.000
140.00	Andrew HBX-6516DS-VTM	6	9.92	3.330	0.75	28.96	3.840	0.75	0.000	0.000
140.00	Andrew LNX-6514DS-VTM	4	38.80	8.410	0.80	89.30	9.240	0.80	0.000	0.000
140.00	Andrew LNX-8513DS-VTM	2	39.20	8.380	0.80	76.20	12.320	0.80	0.000	0.000
140.00	Flat Low Profile Platform	1	1500.00	26.100	1.00	1,700.00	31.600	1.00	0.000	0.000
140.00	RFS DB-T1-6Z-8AB-0Z	1	44.00	5.600	1.00	44.30	3.280	1.00	0.000	0.000
140.00	RFS FD9R6004/1C-3L	6	3.10	0.370	0.67	5.40	0.500	0.67	0.000	0.000
134.00	Ericsson RRUS 11 (Band 12)	6	55.00	2.940	0.71	69.90	3.340	0.71	0.000	1.000
134.00	Raycap DC6-48-60-18-8F	1	31.80	1.470	1.00	49.50	1.670	1.00	0.000	1.000
132.00	ADC DD700	6	15.90	1.250	0.67	23.40	1.480	0.67	0.000	0.000
132.00	Flat Low Profile Platform	1	1500.00	26.100	1.00	1,700.00	31.600	1.00	0.000	0.000
132.00	Kathrein 800 10736	1	33.10	11.390	0.73	87.40	12.310	0.73	0.000	0.000
132.00	KMW AM-X-CD-14-65-00T-	2	36.40	5.510	0.78	68.30	6.100	0.78	0.000	0.000
132.00	Powerwave 7770.00	6	35.00	5.880	0.77	67.63	6.530	0.77	0.000	0.000
132.00	Powerwave Allgon LGP13519	6	5.30	0.340	0.81	14.00	0.440	0.81	0.000	0.000
120.00	Ericsson AIR 21, 1.3M, B2A	4	83.00	6.530	1.00	132.60	7.200	1.00	0.000	0.000
120.00	Ericsson AIR 21, 1.3M, B4A	4	81.50	6.590	1.00	132.60	7.200	1.00	0.000	0.000
120.00	Ericsson KRY 112 144/1	4	11.00	0.410	1.00	14.10	0.550	1.00	0.000	0.000
120.00	Flat Low Profile Platform	1	1500.00	26.100	1.00	1,700.00	31.600	1.00	0.000	0.000
106.00	2" x 4" GPS	2	5.00	0.040	1.00	2.50	0.260	1.00	0.000	1.000
106.00	60" x 8" Panel	3	30.00	4.720	0.79	56.74	5.400	0.79	0.000	1.000
106.00	Flush	1	560.00	8.500	1.00	680.00	10.500	1.00	0.000	0.000
96.00	Alcatel TD-RRH8x20-25 w/ SS	3	70.00	4.720	0.67	97.10	5.160	0.67	0.000	1.500
96.00	Alcatel-Lucent 1900 MHz	3	60.00	2.710	0.67	83.10	3.070	0.67	0.000	1.500
96.00	Alcatel-Lucent 800 MHz	3	64.00	2.400	0.67	86.10	2.720	0.67	0.000	1.500
96.00	Flat Low Profile Platform	1	1500.00	26.100	1.00	1,700.00	31.600	1.00	0.000	0.000
96.00	RFS APXV9TM14-ALU-I20	3	55.10	6.900	0.78	94.60	7.570	0.78	0.000	1.500
96.00	RFS APXVSPP18-C-A20	3	57.00	8.260	0.83	106.50	9.080	0.83	0.000	1.500
86.00	Collar	1	560.00	8.500	1.00	680.00	10.500	1.00	0.000	0.000
86.00	RFS APXV18-206517S-C	3	26.40	5.170	0.80	53.13	5.850	0.80	0.000	0.000
70.00	GPS	1	10.00	1.000	1.00	15.00	1.300	1.00	0.000	3.000
	Totals	108	12198.92			15,924.73			Number of Loadings :	37

Pole :	302540	Code: TIA/EIA-222 Rev F	12/9/2014 2:25:13 PM
Location :	Madison CT 6, CT		Page: 2
Height :	148.0 (ft)		
Base Dia :	61.05 (in)		
Top Dia :	24.00 (in)	Base Elev : 0.000 (ft)	
Shape :	18 Sides		
Taper :	0.263000 (in/ft)		



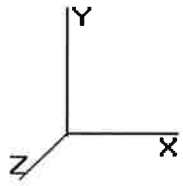
Linear Appurtenance Properties

Elev From (ft)	Elev To (ft)	Description	No Ice Weight (lb/ft)	No Ice CaAa (sf/ft)	Ice Weight (lb/ft)	Ice CaAa (sf/ft)	Exposed To Wind
0.00	148.00	(12) 1 5/8" Coax	9.84	0.00	9.84	0.00	N
0.00	148.00	(5) 7/8" Coax	1.65	0.00	1.65	0.00	N
0.00	140.00	(12) 1 5/8" Coax	9.84	0.00	9.84	0.00	N
0.00	140.00	(1) 1 5/8" Fiber	1.61	0.00	1.61	0.00	N
0.00	134.00	(1) 0.28" RG6	0.03	0.00	0.03	0.00	N
0.00	134.00	(2) 1.1" Hybrid	0.98	0.00	0.98	0.00	N
0.00	134.00	(1) 3" Conduit	7.58	0.00	7.58	0.00	N
0.00	132.00	(12) 1 5/8" Coax	9.84	0.00	9.84	0.00	N
0.00	120.00	(16) 1 5/8" Coax	13.12	0.40	37.36	0.60	Y
0.00	120.00	(1) 1 5/8" Fiber	1.61	0.00	1.61	0.00	N
0.00	96.00	(4) 1 1/4" Hybriflex	3.00	0.00	3.00	0.00	N
0.00	86.00	(6) 1 5/8" Coax	4.92	0.00	4.92	0.00	N
0.00	70.00	(1) 1/2" Coax	0.15	0.00	0.15	0.00	Y
		Total Weight	8,242.52 (lb)		11,151.47 (lb)		

Pole : 302540
Location : Madison CT 6, CT
Height : 148.0 (ft)
Base Dia : 61.05 (in)
Top Dia : 24.00 (in)
Shape : 18 Sides
Taper : 0.263000 (in/ft)

Code: TIA/EIA-222 Rev F

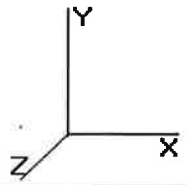
Base Elev : 0.000 (ft)



Segment Properties (Max Len : 5 ft)

Seg Top Elev (ft)	Description	Thick (in)	Flat Dia (in)	Area (in^2)	Ix (in^4)	W/t Ratio	D/t Ratio	Fy (ksi)	Fb (ksi)	Weight (lb)
0.00		0.5000	61.050	96.089	44,509.7	20.12	122.10	65	52	0.0
5.00		0.5000	59.735	94.002	41,672.3	19.66	119.47	65	52	1,617.1
10.00		0.5000	58.420	91.916	38,958.1	19.19	116.84	65	52	1,581.6
15.00		0.5000	57.105	89.829	36,364.4	18.73	114.21	65	52	1,546.1
20.00		0.5000	55.790	87.742	33,888.5	18.26	111.58	65	52	1,510.6
25.00		0.5000	54.475	85.655	31,527.5	17.80	108.95	65	52	1,475.1
30.00		0.5000	53.160	83.568	29,278.9	17.34	106.32	65	52	1,439.6
35.00		0.5000	51.845	81.481	27,139.8	16.87	103.69	65	52	1,404.1
38.50	Bot - Section 2	0.5000	50.924	80.021	25,706.1	16.55	101.85	65	52	961.7
40.00		0.5000	50.530	79.395	25,107.5	16.41	101.06	65	52	717.3
45.00	Top - Section 1	0.3750	49.965	59.022	18,338.1	22.08	133.24	65	52	2,350.6
50.00		0.3750	48.650	57.457	16,917.6	21.46	129.73	65	52	990.9
55.00		0.3750	47.335	55.892	15,572.5	20.85	126.23	65	52	964.3
60.00		0.3750	46.020	54.327	14,300.5	20.23	122.72	65	52	937.6
65.00		0.3750	44.705	52.762	13,099.8	19.61	119.21	65	52	911.0
70.00		0.3750	43.390	51.197	11,968.3	18.99	115.71	65	52	884.4
73.00	Bot - Section 3	0.3750	42.601	50.258	11,321.7	18.62	113.60	65	52	517.8
75.00		0.3750	42.075	49.632	10,903.9	18.37	112.20	65	52	627.8
78.50	Top - Section 2	0.3125	41.779	41.128	8,935.1	22.16	133.69	65	52	1,079.8
80.00		0.3125	41.385	40.737	8,682.5	21.94	132.43	65	52	208.9
85.00		0.3125	40.070	39.433	7,875.0	21.20	128.22	65	52	682.0
86.00		0.3125	39.807	39.172	7,719.7	21.05	127.38	65	52	133.7
90.00		0.3125	38.755	38.129	7,119.1	20.46	124.02	65	52	526.1
95.00		0.3125	37.440	36.824	6,413.2	19.71	119.81	65	52	637.6
96.00		0.3125	37.177	36.564	6,277.9	19.57	118.97	65	52	124.9
100.0		0.3125	36.125	35.520	5,755.7	18.97	115.60	65	52	490.6
105.0		0.3125	34.810	34.216	5,144.6	18.23	111.39	65	52	593.2
106.0		0.3125	34.547	33.955	5,027.9	18.08	110.55	65	52	116.0
108.7	Bot - Section 4	0.3125	33.824	33.238	4,715.9	17.67	108.24	65	52	314.4
110.0		0.3125	33.495	32.912	4,578.4	17.49	107.18	65	52	255.1
113.0	Top - Section 3	0.2500	33.206	26.150	3,588.3	22.01	132.82	65	52	602.1
115.0		0.2500	32.680	25.732	3,419.2	21.64	130.72	65	52	176.5
120.0		0.2500	31.365	24.689	3,019.9	20.71	125.46	65	52	428.9
125.0		0.2500	30.050	23.645	2,652.9	19.78	120.20	65	52	411.2
130.0		0.2500	28.735	22.602	2,317.0	18.86	114.94	65	52	393.4
132.0		0.2500	28.209	22.185	2,191.0	18.49	112.84	65	52	152.4
134.0		0.2500	27.683	21.767	2,069.7	18.11	110.73	65	52	149.6
135.0		0.2500	27.420	21.559	2,010.7	17.93	109.68	65	52	73.7
140.0		0.2500	26.105	20.515	1,732.7	17.00	104.42	65	52	357.9
145.0		0.2500	24.790	19.472	1,481.5	16.07	99.16	65	52	340.2
148.0		0.2500	24.001	18.846	1,343.1	15.52	96.00	65	52	195.6
										28,881.3

Pole :	302540	Code: TIA/EIA-222 Rev F	12/9/2014 2:25:13 PM
Location :	Madison CT 6, CT		Page: 4
Height :	148.0 (ft)		
Base Dia :	61.05 (in)		
Top Dia :	24.00 (in)	Base Elev : 0.000 (ft)	
Shape :	18 Sides		
Taper :	0.263000 (in/ft)		



Load Case: No Ice — 85.00 mph Wind with No Ice — 21 Iterations

Gust Response Factor : 1.69
Dead Load Factor : 1.00
Wind Load Factor : 1.00

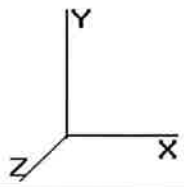
Shaft Segment Forces

Seg Top Elev (ft)	Description		Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Ap (sf)	EPAs (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		0.00	1.00	18.496	31.25	432.43	0.650	0.000	0.00	0.000	0.00	0.0	0.0	0.0
5.00		0.00	1.00	18.496	31.25	423.12	0.650	0.000	5.00	25.163	16.36	511.3	0.0	1,617.1
10.00		0.00	1.00	18.496	31.25	413.80	0.650	0.000	5.00	24.616	16.00	500.1	0.0	1,581.6
15.00		0.00	1.00	18.496	31.25	404.49	0.650	0.000	5.00	24.068	15.64	489.0	0.0	1,546.1
20.00		0.00	1.00	18.496	31.25	395.17	0.650	0.000	5.00	23.520	15.29	477.9	0.0	1,510.6
25.00		0.00	1.00	18.496	31.25	385.86	0.650	0.000	5.00	22.972	14.93	466.7	0.0	1,475.1
30.00		0.00	1.00	18.496	31.25	376.54	0.650	0.000	5.00	22.424	14.58	455.6	0.0	1,439.6
35.00		0.00	1.01	18.810	31.78	370.33	0.650	0.000	5.00	21.876	14.22	452.0	0.0	1,404.1
38.50	Bot - Section 2	0.00	1.04	19.329	32.66	368.74	0.650	0.000	3.50	14.987	9.74	318.2	0.0	961.7
40.00		0.00	1.05	19.541	33.02	367.89	0.650	0.000	1.50	6.435	4.18	138.1	0.0	717.3
45.00	Top - Section 1	0.00	1.09	20.210	34.15	364.39	0.650	0.000	5.00	21.093	13.71	468.3	0.0	2,350.6
50.00		0.00	1.12	20.827	35.19	365.67	0.650	0.000	5.00	20.545	13.35	470.0	0.0	990.9
55.00		0.00	1.15	21.402	36.17	360.67	0.650	0.000	5.00	19.997	13.00	470.1	0.0	964.3
60.00		0.00	1.18	21.941	37.08	355.03	0.650	0.000	5.00	19.449	12.64	468.8	0.0	937.6
65.00		0.00	1.21	22.449	37.93	348.85	0.650	0.000	5.00	18.901	12.29	466.1	0.0	911.0
70.00	Appertunance(s)	0.00	1.24	22.929	38.75	342.20	0.650	0.000	5.00	18.353	11.93	462.3	0.0	884.4
73.00	Bot - Section 3	0.00	1.25	23.206	39.21	337.99	0.650	0.000	3.00	10.749	6.99	274.0	0.0	517.8
75.00		0.00	1.26	23.386	39.52	335.11	0.650	0.000	2.00	7.160	4.65	183.9	0.0	627.8
78.50	Top - Section 2	0.00	1.28	23.692	40.04	329.92	0.650	0.000	3.50	12.320	8.01	320.6	0.0	1,079.8
80.00		0.00	1.28	23.821	40.25	332.67	0.650	0.000	1.50	5.198	3.38	136.0	0.0	208.9
85.00		0.00	1.31	24.237	40.96	324.90	0.650	0.000	5.00	16.970	11.03	451.8	0.0	682.0
86.00	Appertunance(s)	0.00	1.31	24.318	41.09	323.31	0.650	0.000	1.00	3.328	2.16	88.9	0.0	133.7
90.00		0.00	1.33	24.636	41.63	316.81	0.650	0.000	4.00	13.094	8.51	354.3	0.0	526.1
95.00		0.00	1.35	25.020	42.28	308.44	0.650	0.000	5.00	15.874	10.32	436.3	0.0	637.6
96.00	Appertunance(s)	0.00	1.35	25.095	42.41	306.73	0.650	0.000	1.00	3.109	2.02	85.7	0.0	124.9
100.0		0.00	1.37	25.389	42.90	299.79	0.650	0.000	4.00	12.217	7.94	340.7	0.0	490.6
105.0		0.00	1.39	25.745	43.51	290.90	0.650	0.000	5.00	14.778	9.61	417.9	0.0	593.2
106.0	Appertunance(s)	0.00	1.39	25.815	43.62	289.09	0.650	0.000	1.00	2.890	1.88	82.0	0.0	116.0
108.7	Bot - Section 4	0.00	1.40	26.005	43.94	284.08	0.650	0.000	2.75	7.834	5.09	223.8	0.0	314.4
110.0		0.00	1.41	26.090	44.09	281.78	0.650	0.000	1.25	3.558	2.31	102.0	0.0	255.1
113.0	Top - Section 3	0.00	1.42	26.291	44.43	276.20	0.650	0.000	3.00	8.400	5.46	242.6	0.0	602.1
115.0		0.00	1.42	26.423	44.65	276.67	0.650	0.000	2.00	5.490	3.57	159.4	0.0	176.5
120.0	Appertunance(s)	0.00	1.44	26.747	45.20	267.16	0.650	0.000	5.00	13.343	8.67	392.0	0.0	428.9
125.0		0.00	1.46	27.060	45.73	257.45	0.650	0.000	5.00	12.795	8.32	380.3	0.0	411.2
130.0		0.00	1.48	27.365	46.24	247.57	0.650	0.000	5.00	12.247	7.96	368.1	0.0	393.4
132.0	Appertunance(s)	0.00	1.48	27.485	46.45	243.57	0.650	0.000	2.00	4.745	3.08	143.3	0.0	152.4
134.0	Appertunance(s)	0.00	1.49	27.603	46.65	239.54	0.650	0.000	2.00	4.658	3.03	141.2	0.0	149.6
135.0		0.00	1.49	27.662	46.74	237.52	0.650	0.000	1.00	2.296	1.49	69.8	0.0	73.7
140.0	Appertunance(s)	0.00	1.51	27.951	47.23	227.31	0.650	0.000	5.00	11.151	7.25	342.4	0.0	357.9
145.0		0.00	1.52	28.233	47.71	216.94	0.650	0.000	5.00	10.603	6.89	328.8	0.0	340.2
148.0	Appertunance(s)	0.00	1.53	28.398	47.99	210.65	0.650	0.000	3.00	6.099	3.96	190.3	0.0	195.6
						Totals:			148.00			12,870.8	0.0	28,881.3

Pole : 302540
Location : Madison CT 6, CT
Height : 148.0 (ft)
Base Dia : 61.05 (in)
Top Dia : 24.00 (in)
Shape : 18 Sides
Taper : 0.263000 (in/ft)

Code: TIA/EIA-222 Rev F

Base Elev : 0.000 (ft)



Load Case: No Ice — 85.00 mph Wind with No Ice — 21 Iterations

Gust Response Factor : 1.69
Dead Load Factor : 1.00
Wind Load Factor : 1.00

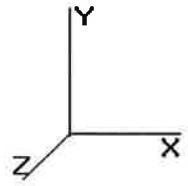
Discrete Appurtenance Segment Forces

Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	Orientation Factor	Total EPAa (sf)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)	Dead Load (lb)
70.00	GPS	1	23.206	39.218	1.00	1.00	0.000	3.000	39.22	0.00	117.65	10.00
86.00	RFS APXV18-206517S-	3	24.318	41.098	0.80	12.36	0.000	0.000	508.03	0.00	0.00	79.20
86.00	Collar	1	24.318	41.098	1.00	8.50	0.000	0.000	349.33	0.00	0.00	560.00
96.00	RFS APXVSPP18-C-	3	25.206	42.598	0.83	20.57	0.000	1.500	876.13	0.00	1,314.20	171.00
96.00	Alcatel-Lucent 800 M	3	25.206	42.598	0.67	4.82	0.000	1.500	205.49	0.00	308.24	192.00
96.00	Alcatel-Lucent 1900	3	25.206	42.598	0.67	5.45	0.000	1.500	232.04	0.00	348.05	180.00
96.00	Alcatel TD-RRH8x20-2	3	25.206	42.598	0.67	9.49	0.000	1.500	404.14	0.00	606.21	210.00
96.00	RFS APXV9TM14-ALU-	3	25.206	42.598	0.78	16.15	0.000	1.500	687.79	0.00	1,031.68	165.30
96.00	Flat Low Profile Pla	1	25.095	42.410	1.00	26.10	0.000	0.000	1,106.90	0.00	0.00	1,500.00
106.0	60" x 8" Panel	3	25.885	43.745	0.79	11.19	0.000	1.000	489.35	0.00	489.35	90.00
106.0	Flush	1	25.815	43.628	1.00	8.50	0.000	0.000	370.84	0.00	0.00	560.00
106.0	2" x 4" GPS	2	25.885	43.745	1.00	0.08	0.000	1.000	3.50	0.00	3.50	10.00
120.0	Flat Low Profile Pla	1	26.747	45.202	1.00	26.10	0.000	0.000	1,179.77	0.00	0.00	1,500.00
120.0	Ericsson KRY 112 144	4	26.747	45.202	1.00	1.64	0.000	0.000	74.13	0.00	0.00	44.00
120.0	Ericsson AIR 21, 1.3	4	26.747	45.202	1.00	26.12	0.000	0.000	1,180.67	0.00	0.00	332.00
120.0	Ericsson AIR 21, 1.3	4	26.747	45.202	1.00	26.36	0.000	0.000	1,191.52	0.00	0.00	326.00
132.0	ADC DD700	6	27.485	46.450	0.67	5.03	0.000	0.000	233.41	0.00	0.00	95.40
132.0	Powerwave Allgon	6	27.485	46.450	0.81	1.65	0.000	0.000	76.75	0.00	0.00	31.80
132.0	Flat Low Profile Pla	1	27.485	46.450	1.00	26.10	0.000	0.000	1,212.33	0.00	0.00	1,500.00
132.0	KMW AM-X-CD-14-65-	2	27.485	46.450	0.78	8.60	0.000	0.000	399.26	0.00	0.00	72.80
132.0	Powerwave 7770.00	6	27.485	46.450	0.77	27.17	0.000	0.000	1,261.83	0.00	0.00	210.00
132.0	Kathrein 800 10736	1	27.485	46.450	0.73	8.31	0.000	0.000	386.21	0.00	0.00	33.10
134.0	Raycap DC6-48-60-18-	1	27.662	46.749	1.00	1.47	0.000	1.000	68.72	0.00	68.72	31.80
134.0	Ericsson RRUS 11 (Ba	6	27.662	46.749	0.71	12.52	0.000	1.000	585.50	0.00	585.50	330.00
140.0	Andrew LNX-6514DS-	4	27.951	47.237	0.80	26.91	0.000	0.000	1,271.24	0.00	0.00	155.20
140.0	Andrew LNX-8513DS-	2	27.951	47.237	0.80	13.41	0.000	0.000	633.35	0.00	0.00	78.40
140.0	RFS DB-T1-6Z-8AB-0Z	1	27.951	47.237	1.00	5.60	0.000	0.000	264.53	0.00	0.00	44.00
140.0	Flat Low Profile Pla	1	27.951	47.237	1.00	26.10	0.000	0.000	1,232.89	0.00	0.00	1,500.00
140.0	Andrew HBX-6516DS-	6	27.951	47.237	0.75	14.98	0.000	0.000	707.85	0.00	0.00	59.52
140.0	RFS FD9R6004/1C-3L	6	27.951	47.237	0.67	1.49	0.000	0.000	70.26	0.00	0.00	18.60
140.0	Alcatel-Lucent RRH 2	3	27.951	47.237	0.82	5.39	0.000	0.000	254.48	0.00	0.00	118.80
148.0	6' Omni	1	28.669	48.451	1.00	1.76	0.000	5.000	85.27	0.00	426.37	25.00
148.0	11' Dipole	1	28.829	48.720	1.00	3.58	0.000	8.000	174.42	0.00	1,395.35	40.00
148.0	Flat Low Profile Pla	1	28.398	47.993	1.00	26.10	0.000	0.000	1,252.62	0.00	0.00	1,500.00
148.0	6' Dipole	1	28.669	48.451	1.00	2.22	0.000	5.000	107.56	0.00	537.80	20.00
148.0	48" x 12" Panel	9	28.453	48.085	0.78	39.31	0.000	1.000	1,890.34	0.00	1,890.34	270.00
148.0	72" x 12" Panel	3	28.453	48.085	0.79	19.91	0.000	1.000	957.29	0.00	957.29	135.00
									22,024.95			12,198.92

Pole : 302540
Location : Madison CT 6, CT
Height : 148.0 (ft)
Base Dia : 61.05 (in)
Top Dia : 24.00 (in)
Shape : 18 Sides
Taper : 0.263000 (in/ft)

Code: TIA/EIA-222 Rev F

Base Elev : 0.000 (ft)

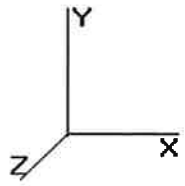


Load Case: No Ice — 85.00 mph Wind with No Ice — 21 Iterations

Gust Response Factor : 1.69
Dead Load Factor : 1.00
Wind Load Factor : 1.00

Linear Appurtenance Segment Forces

Seg Top Elev (ft)	Description	Exposed To Wind	Length (ft)	Weight (lb/ft)	CaAa (sf/ft)	qz (psf)	F X (lb)	Dead Load (lb)
5.00	(16) 1 5/8" Coax	Yes	5.00	13.12	0.40	18.496	62.52	65.60
5.00	(1) 1/2" Coax	Yes	5.00	0.15	0.00	18.496	0.00	0.75
10.00	(16) 1 5/8" Coax	Yes	5.00	13.12	0.40	18.496	62.52	65.60
10.00	(1) 1/2" Coax	Yes	5.00	0.15	0.00	18.496	0.00	0.75
15.00	(16) 1 5/8" Coax	Yes	5.00	13.12	0.40	18.496	62.52	65.60
15.00	(1) 1/2" Coax	Yes	5.00	0.15	0.00	18.496	0.00	0.75
20.00	(16) 1 5/8" Coax	Yes	5.00	13.12	0.40	18.496	62.52	65.60
20.00	(1) 1/2" Coax	Yes	5.00	0.15	0.00	18.496	0.00	0.75
25.00	(16) 1 5/8" Coax	Yes	5.00	13.12	0.40	18.496	62.52	65.60
25.00	(1) 1/2" Coax	Yes	5.00	0.15	0.00	18.496	0.00	0.75
30.00	(16) 1 5/8" Coax	Yes	5.00	13.12	0.40	18.496	62.52	65.60
30.00	(1) 1/2" Coax	Yes	5.00	0.15	0.00	18.496	0.00	0.75
35.00	(16) 1 5/8" Coax	Yes	5.00	13.12	0.40	18.810	63.58	65.60
35.00	(1) 1/2" Coax	Yes	5.00	0.15	0.00	18.810	0.00	0.75
38.50	(16) 1 5/8" Coax	Yes	3.50	13.12	0.40	19.329	45.73	45.92
38.50	(1) 1/2" Coax	Yes	3.50	0.15	0.00	19.329	0.00	0.53
40.00	(16) 1 5/8" Coax	Yes	1.50	13.12	0.40	19.541	19.81	19.68
40.00	(1) 1/2" Coax	Yes	1.50	0.15	0.00	19.541	0.00	0.23
45.00	(16) 1 5/8" Coax	Yes	5.00	13.12	0.40	20.210	68.31	65.60
45.00	(1) 1/2" Coax	Yes	5.00	0.15	0.00	20.210	0.00	0.75
50.00	(16) 1 5/8" Coax	Yes	5.00	13.12	0.40	20.827	70.40	65.60
50.00	(1) 1/2" Coax	Yes	5.00	0.15	0.00	20.827	0.00	0.75
55.00	(16) 1 5/8" Coax	Yes	5.00	13.12	0.40	21.402	72.34	65.60
55.00	(1) 1/2" Coax	Yes	5.00	0.15	0.00	21.402	0.00	0.75
60.00	(16) 1 5/8" Coax	Yes	5.00	13.12	0.40	21.941	74.16	65.60
60.00	(1) 1/2" Coax	Yes	5.00	0.15	0.00	21.941	0.00	0.75
65.00	(16) 1 5/8" Coax	Yes	5.00	13.12	0.40	22.449	75.88	65.60
65.00	(1) 1/2" Coax	Yes	5.00	0.15	0.00	22.449	0.00	0.75
70.00	(16) 1 5/8" Coax	Yes	5.00	13.12	0.40	22.929	77.50	65.60
70.00	(1) 1/2" Coax	Yes	5.00	0.15	0.00	22.929	0.00	0.75
73.00	(16) 1 5/8" Coax	Yes	3.00	13.12	0.40	23.206	47.06	39.36
75.00	(16) 1 5/8" Coax	Yes	2.00	13.12	0.40	23.386	31.62	26.24
78.50	(16) 1 5/8" Coax	Yes	3.50	13.12	0.40	23.692	56.06	45.92
80.00	(16) 1 5/8" Coax	Yes	1.50	13.12	0.40	23.821	24.15	19.68
85.00	(16) 1 5/8" Coax	Yes	5.00	13.12	0.40	24.237	81.92	65.60
86.00	(16) 1 5/8" Coax	Yes	1.00	13.12	0.40	24.318	16.44	13.12
90.00	(16) 1 5/8" Coax	Yes	4.00	13.12	0.40	24.636	66.62	52.48
95.00	(16) 1 5/8" Coax	Yes	5.00	13.12	0.40	25.020	84.57	65.60
96.00	(16) 1 5/8" Coax	Yes	1.00	13.12	0.40	25.095	16.96	13.12
100.0	(16) 1 5/8" Coax	Yes	4.00	13.12	0.40	25.389	68.65	52.48
105.0	(16) 1 5/8" Coax	Yes	5.00	13.12	0.40	25.745	87.02	65.60
106.0	(16) 1 5/8" Coax	Yes	1.00	13.12	0.40	25.815	17.45	13.12
108.7	(16) 1 5/8" Coax	Yes	2.75	13.12	0.40	26.005	48.34	36.08
110.0	(16) 1 5/8" Coax	Yes	1.25	13.12	0.40	26.090	22.05	16.40
113.0	(16) 1 5/8" Coax	Yes	3.00	13.12	0.40	26.291	53.32	39.36
115.0	(16) 1 5/8" Coax	Yes	2.00	13.12	0.40	26.423	35.72	26.24
120.0	(16) 1 5/8" Coax	Yes	5.00	13.12	0.40	26.747	90.40	65.60
						Totals:	1,791.16	1,584.89



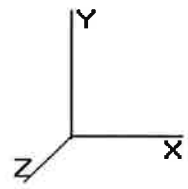
Load Case: No Ice — 85.00 mph Wind with No Ice — 21 Iterations

Gust Response Factor : 1.69
Dead Load Factor : 1.00
Wind Load Factor : 1.00

Applied Segment Forces Summary

Seg Elev (ft)	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00	0.00	0.00	0.00	0.00
5.00	573.78	1,937.94	0.00	0.00
10.00	562.65	1,902.44	0.00	0.00
15.00	551.52	1,866.93	0.00	0.00
20.00	540.39	1,831.43	0.00	0.00
25.00	529.25	1,795.92	0.00	0.00
30.00	518.12	1,760.42	0.00	0.00
35.00	515.59	1,724.91	0.00	0.00
38.50	363.95	1,186.31	0.00	0.00
40.00	157.94	813.54	0.00	0.00
45.00	536.58	2,671.41	0.00	0.00
50.00	540.44	1,311.73	0.00	0.00
55.00	542.48	1,285.10	0.00	0.00
60.00	542.93	1,258.47	0.00	0.00
65.00	541.97	1,231.84	0.00	0.00
70.00	578.99	1,215.21	0.00	117.65
73.00	321.07	709.90	0.00	0.00
75.00	215.56	755.83	0.00	0.00
78.50	376.69	1,303.91	0.00	0.00
80.00	160.17	304.96	0.00	0.00
85.00	533.73	1,002.10	0.00	0.00
86.00	962.70	836.96	0.00	0.00
90.00	420.97	762.47	0.00	0.00
95.00	520.85	933.12	0.00	0.00
96.00	3,615.15	2,602.26	0.00	3,608.38
100.0	409.38	714.96	0.00	0.00
105.0	504.96	873.73	0.00	0.00
106.0	963.08	832.08	0.00	492.85
108.7	272.13	468.65	0.00	0.00
110.0	124.02	325.25	0.00	0.00
113.0	295.92	770.41	0.00	0.00
115.0	195.09	288.74	0.00	0.00
120.0	4,108.51	2,911.42	0.00	0.00
125.0	380.33	618.02	0.00	0.00
130.0	368.15	600.27	0.00	0.00
132.0	3,713.07	2,178.24	0.00	0.00
134.0	795.45	574.42	0.00	654.22
135.0	69.77	96.65	0.00	0.00
140.0	4,776.99	2,447.14	0.00	0.00
145.0	328.84	397.62	0.00	0.00
148.0	4,657.75	2,220.05	0.00	5,207.14
Totals:	36,686.93	49,322.76	0.00	10,080.25

Pole :	302540	Code: TIA/EIA-222 Rev F	12/9/2014 2:25:13 PM
Location :	Madison CT 6, CT		Page: 8
Height :	148.0 (ft)		
Base Dia :	61.05 (in)		
Top Dia :	24.00 (in)	Base Elev : 0.000 (ft)	
Shape :	18 Sides		
Taper :	0.263000 (in/ft)		



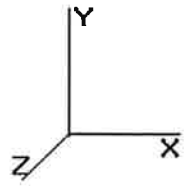
Load Case: No Ice — 85.00 mph Wind with No Ice — 21 Iterations

Gust Response Factor : 1.69
Dead Load Factor : 1.00
Wind Load Factor : 1.00

Calculated Shaft Forces and Deflections

Seg Elev (ft)	Lateral FX (-) (kips)	Axial FY (-) (kips)	Lateral FZ (kips)	Moment MX (ft-kips)	Torsion MY (ft-kips)	Moment MZ (ft-kips)	X Deflect (in)	Z Deflect (in)	Total Deflect (in)	Rotation (deg)
0.00	-36.740	-49.282	0.000	0.000	0.000	-3,925.763	0.000	0.000	0.000	0.000
5.00	-36.266	-47.267	0.000	0.000	0.000	-3,742.067	-0.066	0.000	0.066	-0.123
10.00	-35.797	-45.288	0.000	0.000	0.000	-3,560.740	-0.262	0.000	0.262	-0.247
15.00	-35.332	-43.345	0.000	0.000	0.000	-3,381.759	-0.589	0.000	0.589	-0.374
20.00	-34.871	-41.439	0.000	0.000	0.000	-3,205.103	-1.051	0.000	1.051	-0.503
25.00	-34.416	-39.569	0.000	0.000	0.000	-3,030.749	-1.648	0.000	1.648	-0.634
30.00	-33.964	-37.736	0.000	0.000	0.000	-2,858.674	-2.383	0.000	2.383	-0.767
35.00	-33.496	-35.951	0.000	0.000	0.000	-2,688.856	-3.259	0.000	3.259	-0.901
38.50	-33.154	-34.731	0.000	0.000	0.000	-2,571.622	-3.956	0.000	3.956	-0.998
40.00	-33.036	-33.868	0.000	0.000	0.000	-2,521.892	-4.277	0.000	4.277	-1.040
45.00	-32.523	-31.129	0.000	0.000	0.000	-2,356.716	-5.441	0.000	5.441	-1.178
50.00	-32.037	-29.740	0.000	0.000	0.000	-2,194.104	-6.750	0.000	6.750	-1.318
55.00	-31.551	-28.371	0.000	0.000	0.000	-2,033.922	-8.227	0.000	8.227	-1.496
60.00	-31.058	-27.031	0.000	0.000	0.000	-1,876.168	-9.890	0.000	9.890	-1.674
65.00	-30.559	-25.721	0.000	0.000	0.000	-1,720.879	-11.740	0.000	11.740	-1.853
70.00	-30.000	-24.452	0.000	0.000	0.000	-1,567.968	-13.778	0.000	13.778	-2.032
73.00	-29.691	-23.707	0.000	0.000	0.000	-1,477.969	-15.090	0.000	15.090	-2.140
75.00	-29.487	-22.909	0.000	0.000	0.000	-1,418.588	-16.003	0.000	16.003	-2.213
78.50	-29.092	-21.576	0.000	0.000	0.000	-1,315.387	-17.672	0.000	17.672	-2.338
80.00	-28.967	-21.214	0.000	0.000	0.000	-1,271.749	-18.416	0.000	18.416	-2.392
85.00	-28.431	-20.178	0.000	0.000	0.000	-1,126.919	-21.028	0.000	21.028	-2.589
86.00	-27.464	-19.339	0.000	0.000	0.000	-1,098.489	-21.575	0.000	21.575	-2.629
90.00	-27.063	-18.517	0.000	0.000	0.000	-988.634	-23.844	0.000	23.844	-2.783
95.00	-26.529	-17.561	0.000	0.000	0.000	-853.322	-26.858	0.000	26.858	-2.967
96.00	-22.807	-15.115	0.000	0.000	0.000	-823.185	-27.484	0.000	27.484	-3.004
100.0	-22.399	-14.362	0.000	0.000	0.000	-731.958	-30.061	0.000	30.061	-3.145
105.0	-21.869	-13.481	0.000	0.000	0.000	-619.966	-33.445	0.000	33.445	-3.312
106.0	-20.872	-12.684	0.000	0.000	0.000	-597.605	-34.143	0.000	34.143	-3.346
108.7	-20.587	-12.209	0.000	0.000	0.000	-540.207	-36.096	0.000	36.096	-3.434
110.0	-20.457	-11.869	0.000	0.000	0.000	-514.474	-37.000	0.000	37.000	-3.474
113.0	-20.129	-11.092	0.000	0.000	0.000	-453.104	-39.212	0.000	39.212	-3.564
115.0	-19.936	-10.779	0.000	0.000	0.000	-412.848	-40.717	0.000	40.717	-3.622
120.0	-15.668	-8.101	0.000	0.000	0.000	-313.168	-44.593	0.000	44.593	-3.773
125.0	-15.262	-7.478	0.000	0.000	0.000	-234.830	-48.615	0.000	48.615	-3.902
130.0	-14.862	-6.887	0.000	0.000	0.000	-158.519	-52.759	0.000	52.759	-4.007
132.0	-11.008	-4.969	0.000	0.000	0.000	-128.795	-54.445	0.000	54.445	-4.043
134.0	-10.176	-4.448	0.000	0.000	0.000	-106.125	-56.144	0.000	56.144	-4.073
135.0	-10.102	-4.351	0.000	0.000	0.000	-95.950	-56.999	0.000	56.999	-4.087
140.0	-5.163	-2.250	0.000	0.000	0.000	-45.442	-61.306	0.000	61.306	-4.137
145.0	-4.807	-1.876	0.000	0.000	0.000	-19.627	-65.652	0.000	65.652	-4.164
148.0	-4.658	0.000	0.000	0.000	0.000	-5.207	-68.269	0.000	68.269	-4.171

Pole :	302540	Code: TIA/EIA-222 Rev F	12/9/2014 2:25:13 PM
Location :	Madison CT 6, CT		Page: 9
Height :	148.0 (ft)		
Base Dia :	61.05 (in)		
Top Dia :	24.00 (in)	Base Elev : 0.000 (ft)	
Shape :	18 Sides		
Taper :	0.263000 (in/ft)		



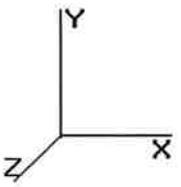
Load Case: No Ice — 85.00 mph Wind with No Ice — 21 Iterations

Gust Response Factor : 1.69
Dead Load Factor : 1.00
Wind Load Factor : 1.00

Calculated Stresses

Seg Elev (ft)	Applied Stresses							Allowable Stress (Fb) (ksi)		Stress Ratio
	Axial (Y) (ksi)	Shear (X) (ksi)	Shear (Z) (ksi)	Torsion (ksi)	Bending (X) (ksi)	Bending (Z) (ksi)	Combined (ksi)			
0.00	0.51	0.77	0.00	0.00	0.00	32.81	33.35	52.0	0.0	0.642
5.00	0.50	0.78	0.00	0.00	0.00	32.68	33.21	52.0	0.0	0.639
10.00	0.49	0.78	0.00	0.00	0.00	32.53	33.05	52.0	0.0	0.636
15.00	0.48	0.79	0.00	0.00	0.00	32.35	32.87	52.0	0.0	0.632
20.00	0.47	0.80	0.00	0.00	0.00	32.15	32.65	52.0	0.0	0.628
25.00	0.46	0.81	0.00	0.00	0.00	31.90	32.40	52.0	0.0	0.623
30.00	0.45	0.82	0.00	0.00	0.00	31.62	32.11	52.0	0.0	0.618
35.00	0.44	0.83	0.00	0.00	0.00	31.29	31.77	52.0	0.0	0.611
38.50	0.43	0.84	0.00	0.00	0.00	31.04	31.51	52.0	0.0	0.606
40.00	0.43	0.84	0.00	0.00	0.00	30.92	31.38	52.0	0.0	0.604
45.00	0.53	1.11	0.00	0.00	0.00	39.12	39.70	52.0	0.0	0.764
50.00	0.52	1.12	0.00	0.00	0.00	38.44	39.01	52.0	0.0	0.750
55.00	0.51	1.14	0.00	0.00	0.00	37.67	38.23	52.0	0.0	0.735
60.00	0.50	1.15	0.00	0.00	0.00	36.78	37.34	52.0	0.0	0.718
65.00	0.49	1.17	0.00	0.00	0.00	35.78	36.32	52.0	0.0	0.699
70.00	0.48	1.18	0.00	0.00	0.00	34.63	35.17	52.0	0.0	0.677
73.00	0.47	1.19	0.00	0.00	0.00	33.88	34.42	52.0	0.0	0.662
75.00	0.46	1.20	0.00	0.00	0.00	33.35	33.88	52.0	0.0	0.652
78.50	0.52	1.43	0.00	0.00	0.00	37.47	38.08	52.0	0.0	0.733
80.00	0.52	1.43	0.00	0.00	0.00	36.93	37.53	52.0	0.0	0.722
85.00	0.51	1.45	0.00	0.00	0.00	34.94	35.54	52.0	0.0	0.684
86.00	0.49	1.41	0.00	0.00	0.00	34.51	35.09	52.0	0.0	0.675
90.00	0.49	1.43	0.00	0.00	0.00	32.79	33.37	52.0	0.0	0.642
95.00	0.48	1.45	0.00	0.00	0.00	30.35	30.93	52.0	0.0	0.595
96.00	0.41	1.26	0.00	0.00	0.00	29.70	30.19	52.0	0.0	0.581
100.00	0.40	1.27	0.00	0.00	0.00	27.99	28.48	52.0	0.0	0.548
105.00	0.39	1.29	0.00	0.00	0.00	25.56	26.05	52.0	0.0	0.501
106.00	0.37	1.24	0.00	0.00	0.00	25.02	25.48	52.0	0.0	0.490
108.75	0.37	1.25	0.00	0.00	0.00	23.61	24.07	52.0	0.0	0.463
110.00	0.36	1.25	0.00	0.00	0.00	22.93	23.39	52.0	0.0	0.450
113.00	0.42	1.55	0.00	0.00	0.00	25.55	26.11	52.0	0.0	0.502
115.00	0.42	1.56	0.00	0.00	0.00	24.04	24.61	52.0	0.0	0.473
120.00	0.33	1.28	0.00	0.00	0.00	19.82	20.27	52.0	0.0	0.390
125.00	0.32	1.30	0.00	0.00	0.00	16.21	16.67	52.0	0.0	0.321
130.00	0.30	1.33	0.00	0.00	0.00	11.98	12.49	52.0	0.0	0.240
132.00	0.22	1.00	0.00	0.00	0.00	10.10	10.47	52.0	0.0	0.201
134.00	0.20	0.94	0.00	0.00	0.00	8.65	9.00	52.0	0.0	0.173
135.00	0.20	0.94	0.00	0.00	0.00	7.97	8.34	52.0	0.0	0.160
140.00	0.11	0.51	0.00	0.00	0.00	4.17	4.37	52.0	0.0	0.084
145.00	0.10	0.50	0.00	0.00	0.00	2.00	2.27	52.0	0.0	0.044
148.00	0.00	0.50	0.00	0.00	0.00	0.57	1.03	52.0	0.0	0.020

Pole :	302540	Code: TIA/EIA-222 Rev F	12/9/2014 2:25:13 PM
Location :	Madison CT 6, CT		Page: 10
Height :	148.0 (ft)		
Base Dia :	61.05 (in)		
Top Dia :	24.00 (in)	Base Elev : 0.000 (ft)	
Shape :	18 Sides		
Taper :	0.263000 (in/ft)		



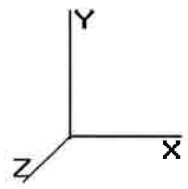
Load Case: Ice — 73.61 mph Wind with Ice — 21 Iterations

Gust Response Factor : 1.69
Dead Load Factor : 1.00
Wind Load Factor : 1.00

Shaft Segment Forces

Seg Top Elev (ft)	Description		Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Ap (sf)	EPAs (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		0.00	1.00	13.871	23.44	374.49	0.650	0.500	0.00	0.000	0.00	0.0	0.0	0.0
5.00		0.00	1.00	13.871	23.44	366.42	0.650	0.500	5.00	25.580	16.63	389.8	185.9	1,803.0
10.00		0.00	1.00	13.871	23.44	358.35	0.650	0.500	5.00	25.032	16.27	381.4	181.8	1,763.4
15.00		0.00	1.00	13.871	23.44	350.29	0.650	0.500	5.00	24.484	15.91	373.1	177.8	1,723.8
20.00		0.00	1.00	13.871	23.44	342.22	0.650	0.500	5.00	23.936	15.56	364.7	173.7	1,684.3
25.00		0.00	1.00	13.871	23.44	334.15	0.650	0.500	5.00	23.389	15.20	356.4	169.6	1,644.7
30.00		0.00	1.00	13.871	23.44	326.09	0.650	0.500	5.00	22.841	14.85	348.0	165.6	1,605.2
35.00		0.00	1.01	14.106	23.84	320.71	0.650	0.500	5.00	22.293	14.49	345.4	161.5	1,565.6
38.50	Bot - Section 2	0.00	1.04	14.496	24.49	319.33	0.650	0.500	3.50	15.279	9.93	243.3	111.1	1,072.8
40.00		0.00	1.05	14.655	24.76	318.59	0.650	0.500	1.50	6.560	4.26	105.6	47.9	765.2
45.00	Top - Section 1	0.00	1.09	15.156	25.61	315.56	0.650	0.500	5.00	21.509	13.98	358.1	155.7	2,506.3
50.00		0.00	1.12	15.620	26.39	316.67	0.650	0.500	5.00	20.961	13.62	359.7	151.7	1,142.5
55.00		0.00	1.15	16.051	27.12	312.34	0.650	0.500	5.00	20.413	13.27	359.9	147.6	1,111.9
60.00		0.00	1.18	16.455	27.80	307.46	0.650	0.500	5.00	19.866	12.91	359.1	143.5	1,081.2
65.00		0.00	1.21	16.836	28.45	302.11	0.650	0.500	5.00	19.318	12.56	357.3	139.5	1,050.5
70.00	Appertunance(s)	0.00	1.24	17.196	29.06	296.34	0.650	0.500	5.00	18.770	12.20	354.6	135.4	1,019.8
73.00	Bot - Section 3	0.00	1.25	17.403	29.41	292.70	0.650	0.500	3.00	10.999	7.15	210.3	79.8	597.6
75.00		0.00	1.26	17.538	29.64	290.21	0.650	0.500	2.00	7.327	4.76	141.2	53.3	681.1
78.50	Top - Section 2	0.00	1.28	17.768	30.02	285.71	0.650	0.500	3.50	12.612	8.20	246.2	91.3	1,171.2
80.00		0.00	1.28	17.865	30.19	288.09	0.650	0.500	1.50	5.323	3.46	104.5	38.8	247.7
85.00		0.00	1.31	18.177	30.71	281.36	0.650	0.500	5.00	17.386	11.30	347.2	125.2	807.2
86.00	Appertunance(s)	0.00	1.31	18.238	30.82	279.98	0.650	0.500	1.00	3.412	2.22	68.3	24.9	158.6
90.00		0.00	1.33	18.476	31.22	274.36	0.650	0.500	4.00	13.427	8.73	272.5	96.9	623.0
95.00		0.00	1.35	18.764	31.71	267.11	0.650	0.500	5.00	16.291	10.59	335.8	117.1	754.7
96.00	Appertunance(s)	0.00	1.35	18.820	31.80	265.63	0.650	0.500	1.00	3.192	2.08	66.0	23.3	148.1
100.0		0.00	1.37	19.041	32.17	259.62	0.650	0.500	4.00	12.550	8.16	262.5	90.4	581.0
105.0		0.00	1.39	19.308	32.63	251.92	0.650	0.500	5.00	15.195	9.88	322.3	109.0	702.2
106.0	Appertunance(s)	0.00	1.39	19.360	32.71	250.35	0.650	0.500	1.00	2.973	1.93	63.2	21.6	137.6
108.7	Bot - Section 4	0.00	1.40	19.502	32.95	246.01	0.650	0.500	2.75	8.063	5.24	172.7	58.3	372.6
110.0		0.00	1.41	19.566	33.06	244.02	0.650	0.500	1.25	3.662	2.38	78.7	26.6	281.7
113.0	Top - Section 3	0.00	1.42	19.717	33.32	239.19	0.650	0.500	3.00	8.650	5.62	187.4	62.4	664.5
115.0		0.00	1.42	19.816	33.49	239.60	0.650	0.500	2.00	5.657	3.68	123.1	41.0	217.5
120.0	Appertunance(s)	0.00	1.44	20.059	33.89	231.36	0.650	0.500	5.00	13.759	8.94	303.2	98.3	527.3
125.0		0.00	1.46	20.294	34.29	222.96	0.650	0.500	5.00	13.211	8.59	294.5	94.3	505.4
130.0		0.00	1.48	20.523	34.68	214.40	0.650	0.500	5.00	12.663	8.23	285.5	90.2	483.6
132.0	Appertunance(s)	0.00	1.48	20.613	34.83	210.93	0.650	0.500	2.00	4.912	3.19	111.2	35.4	187.8
134.0	Appertunance(s)	0.00	1.49	20.701	34.98	207.44	0.650	0.500	2.00	4.824	3.14	109.7	34.8	184.3
135.0		0.00	1.49	20.745	35.06	205.69	0.650	0.500	1.00	2.379	1.55	54.2	17.2	90.9
140.0	Appertunance(s)	0.00	1.51	20.962	35.42	196.85	0.650	0.500	5.00	11.568	7.52	266.4	82.1	440.0
145.0		0.00	1.52	21.173	35.78	187.87	0.650	0.500	5.00	11.020	7.16	256.3	78.0	418.2
148.0	Appertunance(s)	0.00	1.53	21.297	35.99	182.42	0.650	0.500	3.00	6.349	4.13	148.5	45.4	240.9
							Totals:		148.00			9,887.7	3,883.8	32,765.1

Pole :	302540	Code: TIA/EIA-222 Rev F	12/9/2014 2:25:13 PM
Location :	Madison CT 6, CT		Page: 11
Height :	148.0 (ft)		
Base Dia :	61.05 (in)		
Top Dia :	24.00 (in)	Base Elev : 0.000 (ft)	
Shape :	18 Sides		
Taper :	0.263000 (in/ft)		



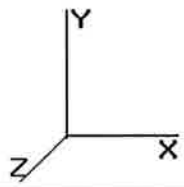
Load Case: Ice — 73.61 mph Wind with Ice — 21 Iterations

Gust Response Factor : 1.69
Dead Load Factor : 1.00
Wind Load Factor : 1.00

Discrete Appurtenance Segment Forces

Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	Orientation Factor	Total EPAa (sf)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)	Dead Load (lb)
70.00	GPS	1	17.403	29.411	1.00	1.30	0.000	3.000	38.23	0.00	114.70	15.00
86.00	RFS APXV18-206517S-	3	18.238	30.821	0.80	13.99	0.000	0.000	431.11	0.00	0.00	159.39
86.00	Collar	1	18.238	30.821	1.00	10.50	0.000	0.000	323.63	0.00	0.00	680.00
96.00	RFS APXVSPP18-C-	3	18.903	31.947	0.83	22.61	0.000	1.500	722.29	0.00	1,083.43	319.50
96.00	Alcatel-Lucent 800 M	3	18.903	31.947	0.67	5.47	0.000	1.500	174.66	0.00	261.99	258.30
96.00	Alcatel-Lucent 1900	3	18.903	31.947	0.67	6.17	0.000	1.500	197.13	0.00	295.70	249.30
96.00	Alcatel TD-RRH8x20-2	3	18.903	31.947	0.67	10.37	0.000	1.500	331.34	0.00	497.01	291.30
96.00	RFS APXV9TM14-ALU-	3	18.903	31.947	0.78	17.71	0.000	1.500	565.90	0.00	848.85	283.80
96.00	Flat Low Profile Pla	1	18.820	31.806	1.00	31.60	0.000	0.000	1,005.05	0.00	0.00	1,700.00
106.0	60" x 8" Panel	3	19.412	32.807	0.79	12.80	0.000	1.000	419.86	0.00	419.86	170.22
106.0	Flush	1	19.360	32.719	1.00	10.50	0.000	0.000	343.55	0.00	0.00	680.00
106.0	2" x 4" GPS	2	19.412	32.807	1.00	0.52	0.000	1.000	17.06	0.00	17.06	5.00
120.0	Flat Low Profile Pla	1	20.059	33.899	1.00	31.60	0.000	0.000	1,071.22	0.00	0.00	1,700.00
120.0	Ericsson KRY 112 144	4	20.059	33.899	1.00	2.20	0.000	0.000	74.58	0.00	0.00	56.40
120.0	Ericsson AIR 21, 1.3	4	20.059	33.899	1.00	28.80	0.000	0.000	976.30	0.00	0.00	530.40
120.0	Ericsson AIR 21, 1.3	4	20.059	33.899	1.00	28.80	0.000	0.000	976.30	0.00	0.00	530.40
132.0	ADC DD700	6	20.613	34.835	0.67	5.95	0.000	0.000	207.26	0.00	0.00	140.40
132.0	Powerwave Allgon	6	20.613	34.835	0.81	2.14	0.000	0.000	74.49	0.00	0.00	84.00
132.0	Flat Low Profile Pla	1	20.613	34.835	1.00	31.60	0.000	0.000	1,100.79	0.00	0.00	1,700.00
132.0	KMW AM-X-CD-14-65-	2	20.613	34.835	0.78	9.52	0.000	0.000	331.49	0.00	0.00	136.60
132.0	Powerwave 7770.00	6	20.613	34.835	0.77	30.17	0.000	0.000	1,050.93	0.00	0.00	405.78
132.0	Kathrein 800 10736	1	20.613	34.835	0.73	8.99	0.000	0.000	313.04	0.00	0.00	87.40
134.0	Raycap DC6-48-60-18-	1	20.745	35.060	1.00	1.67	0.000	1.000	58.55	0.00	58.55	49.50
134.0	Ericsson RRUS 11 (Ba	6	20.745	35.060	0.71	14.23	0.000	1.000	498.84	0.00	498.84	419.40
140.0	Andrew LNX-6514DS-	4	20.962	35.426	0.80	29.57	0.000	0.000	1,047.47	0.00	0.00	357.20
140.0	Andrew LNX-8513DS-	2	20.962	35.426	0.80	19.71	0.000	0.000	698.31	0.00	0.00	152.40
140.0	RFS DB-T1-6Z-8AB-0Z	1	20.962	35.426	1.00	3.28	0.000	0.000	116.20	0.00	0.00	44.30
140.0	Flat Low Profile Pla	1	20.962	35.426	1.00	31.60	0.000	0.000	1,119.45	0.00	0.00	1,700.00
140.0	Andrew HBX-6516DS-	6	20.962	35.426	0.75	17.28	0.000	0.000	612.16	0.00	0.00	173.76
140.0	RFS FD9R6004/1C-3L	6	20.962	35.426	0.67	2.01	0.000	0.000	71.21	0.00	0.00	32.40
140.0	Alcatel-Lucent RRH 2	3	20.962	35.426	0.82	6.15	0.000	0.000	217.87	0.00	0.00	166.20
148.0	6' Omni	1	21.501	36.336	1.00	2.13	0.000	5.000	77.40	0.00	386.98	38.24
148.0	11' Dipole	1	21.620	36.538	1.00	4.00	0.000	8.000	146.15	0.00	1,169.22	25.00
148.0	Flat Low Profile Pla	1	21.297	35.993	1.00	31.60	0.000	0.000	1,137.37	0.00	0.00	1,700.00
148.0	6' Dipole	1	21.501	36.336	1.00	3.00	0.000	5.000	109.01	0.00	545.04	39.30
148.0	48" x 12" Panel	9	21.338	36.062	0.78	43.45	0.000	1.000	1,567.03	0.00	1,567.03	567.00
148.0	72" x 12" Panel	3	21.338	36.062	0.79	21.88	0.000	1.000	788.86	0.00	788.86	276.84
									19,012.07			15,924.73

Pole :	302540	Code: TIA/EIA-222 Rev F	12/9/2014 2:25:13 PM
Location :	Madison CT 6, CT		Page: 12
Height :	148.0 (ft)		
Base Dia :	61.05 (in)		
Top Dia :	24.00 (in)	Base Elev : 0.000 (ft)	
Shape :	18 Sides		
Taper :	0.263000 (in/ft)		



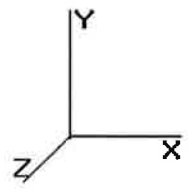
Load Case: Ice — 73.61 mph Wind with Ice — 21 Iterations

Gust Response Factor : 1.69
Dead Load Factor : 1.00
Wind Load Factor : 1.00

Linear Appurtenance Segment Forces

Seg Top Elev (ft)	Description	Exposed To Wind	Length (ft)	Weight (lb/ft)	CaAa (sf/ft)	qz (psf)	F X (lb)	Dead Load (lb)
5.00	(16) 1 5/8" Coax	Yes	5.00	37.36	0.60	13.871	70.33	186.80
5.00	(1) 1/2" Coax	Yes	5.00	0.15	0.00	13.871	0.00	0.75
10.00	(16) 1 5/8" Coax	Yes	5.00	37.36	0.60	13.871	70.33	186.80
10.00	(1) 1/2" Coax	Yes	5.00	0.15	0.00	13.871	0.00	0.75
15.00	(16) 1 5/8" Coax	Yes	5.00	37.36	0.60	13.871	70.33	186.80
15.00	(1) 1/2" Coax	Yes	5.00	0.15	0.00	13.871	0.00	0.75
20.00	(16) 1 5/8" Coax	Yes	5.00	37.36	0.60	13.871	70.33	186.80
20.00	(1) 1/2" Coax	Yes	5.00	0.15	0.00	13.871	0.00	0.75
25.00	(16) 1 5/8" Coax	Yes	5.00	37.36	0.60	13.871	70.33	186.80
25.00	(1) 1/2" Coax	Yes	5.00	0.15	0.00	13.871	0.00	0.75
30.00	(16) 1 5/8" Coax	Yes	5.00	37.36	0.60	13.871	70.33	186.80
30.00	(1) 1/2" Coax	Yes	5.00	0.15	0.00	13.871	0.00	0.75
35.00	(16) 1 5/8" Coax	Yes	5.00	37.36	0.60	14.106	71.52	186.80
35.00	(1) 1/2" Coax	Yes	5.00	0.15	0.00	14.106	0.00	0.75
38.50	(16) 1 5/8" Coax	Yes	3.50	37.36	0.60	14.496	51.45	130.76
38.50	(1) 1/2" Coax	Yes	3.50	0.15	0.00	14.496	0.00	0.53
40.00	(16) 1 5/8" Coax	Yes	1.50	37.36	0.60	14.655	22.29	56.04
40.00	(1) 1/2" Coax	Yes	1.50	0.15	0.00	14.655	0.00	0.23
45.00	(16) 1 5/8" Coax	Yes	5.00	37.36	0.60	15.156	76.84	186.80
45.00	(1) 1/2" Coax	Yes	5.00	0.15	0.00	15.156	0.00	0.75
50.00	(16) 1 5/8" Coax	Yes	5.00	37.36	0.60	15.620	79.19	186.80
50.00	(1) 1/2" Coax	Yes	5.00	0.15	0.00	15.620	0.00	0.75
55.00	(16) 1 5/8" Coax	Yes	5.00	37.36	0.60	16.051	81.38	186.80
55.00	(1) 1/2" Coax	Yes	5.00	0.15	0.00	16.051	0.00	0.75
60.00	(16) 1 5/8" Coax	Yes	5.00	37.36	0.60	16.455	83.43	186.80
60.00	(1) 1/2" Coax	Yes	5.00	0.15	0.00	16.455	0.00	0.75
65.00	(16) 1 5/8" Coax	Yes	5.00	37.36	0.60	16.836	85.36	186.80
65.00	(1) 1/2" Coax	Yes	5.00	0.15	0.00	16.836	0.00	0.75
70.00	(16) 1 5/8" Coax	Yes	5.00	37.36	0.60	17.196	87.18	186.80
70.00	(1) 1/2" Coax	Yes	5.00	0.15	0.00	17.196	0.00	0.75
73.00	(16) 1 5/8" Coax	Yes	3.00	37.36	0.60	17.403	52.94	112.08
75.00	(16) 1 5/8" Coax	Yes	2.00	37.36	0.60	17.538	35.57	74.72
78.50	(16) 1 5/8" Coax	Yes	3.50	37.36	0.60	17.768	63.06	130.76
80.00	(16) 1 5/8" Coax	Yes	1.50	37.36	0.60	17.865	27.17	56.04
85.00	(16) 1 5/8" Coax	Yes	5.00	37.36	0.60	18.177	92.16	186.80
86.00	(16) 1 5/8" Coax	Yes	1.00	37.36	0.60	18.238	18.49	37.36
90.00	(16) 1 5/8" Coax	Yes	4.00	37.36	0.60	18.476	74.94	149.44
95.00	(16) 1 5/8" Coax	Yes	5.00	37.36	0.60	18.764	95.13	186.80
96.00	(16) 1 5/8" Coax	Yes	1.00	37.36	0.60	18.820	19.08	37.36
100.0	(16) 1 5/8" Coax	Yes	4.00	37.36	0.60	19.041	77.23	149.44
105.0	(16) 1 5/8" Coax	Yes	5.00	37.36	0.60	19.308	97.89	186.80
106.0	(16) 1 5/8" Coax	Yes	1.00	37.36	0.60	19.360	19.63	37.36
108.7	(16) 1 5/8" Coax	Yes	2.75	37.36	0.60	19.502	54.38	102.74
110.0	(16) 1 5/8" Coax	Yes	1.25	37.36	0.60	19.566	24.80	46.70
113.0	(16) 1 5/8" Coax	Yes	3.00	37.36	0.60	19.717	59.98	112.08
115.0	(16) 1 5/8" Coax	Yes	2.00	37.36	0.60	19.816	40.19	74.72
120.0	(16) 1 5/8" Coax	Yes	5.00	37.36	0.60	20.059	101.70	186.80
						Totals:	2,014.94	4,493.69

Pole :	302540	Code: TIA/EIA-222 Rev F	12/9/2014 2:25:13 PM
Location :	Madison CT 6, CT		Page: 13
Height :	148.0 (ft)		
Base Dia :	61.05 (in)		
Top Dia :	24.00 (in)	Base Elev : 0.000 (ft)	
Shape :	18 Sides		
Taper :	0.263000 (in/ft)		



Load Case: Ice — 73.61 mph Wind with Ice — 21 Iterations

Gust Response Factor : 1.69
Dead Load Factor : 1.00
Wind Load Factor : 1.00

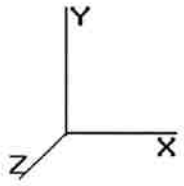
Applied Segment Forces Summary

Seg Elev (ft)	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00	0.00	0.00	0.00	0.00
5.00	460.10	2,245.01	0.00	0.00
10.00	451.76	2,205.45	0.00	0.00
15.00	443.41	2,165.89	0.00	0.00
20.00	435.06	2,126.32	0.00	0.00
25.00	426.71	2,086.76	0.00	0.00
30.00	418.36	2,047.20	0.00	0.00
35.00	416.96	2,007.63	0.00	0.00
38.50	294.74	1,382.23	0.00	0.00
40.00	127.89	897.83	0.00	0.00
45.00	434.96	2,948.34	0.00	0.00
50.00	438.85	1,584.59	0.00	0.00
55.00	441.31	1,553.90	0.00	0.00
60.00	442.51	1,523.22	0.00	0.00
65.00	442.61	1,492.53	0.00	0.00
70.00	479.97	1,476.84	0.00	114.70
73.00	263.21	862.41	0.00	0.00
75.00	176.73	857.63	0.00	0.00
78.50	309.22	1,480.07	0.00	0.00
80.00	131.63	380.09	0.00	0.00
85.00	439.31	1,248.48	0.00	0.00
86.00	841.57	1,086.26	0.00	0.00
90.00	347.45	956.33	0.00	0.00
95.00	430.91	1,171.39	0.00	0.00
96.00	3,081.45	3,333.65	0.00	2,986.98
100.0	339.73	902.34	0.00	0.00
105.0	420.17	1,103.89	0.00	0.00
106.0	863.33	1,073.17	0.00	436.92
108.7	227.13	593.57	0.00	0.00
110.0	103.52	382.16	0.00	0.00
113.0	247.34	905.54	0.00	0.00
115.0	163.33	378.17	0.00	0.00
120.0	3,503.28	3,746.15	0.00	0.00
125.0	294.52	712.29	0.00	0.00
130.0	285.49	690.48	0.00	0.00
132.0	3,189.22	2,824.75	0.00	0.00
134.0	667.10	716.30	0.00	557.39
135.0	54.22	113.88	0.00	0.00
140.0	4,149.02	3,180.97	0.00	0.00
145.0	256.31	475.65	0.00	0.00
148.0	3,974.35	2,921.79	0.00	4,457.13
Totals:	30,914.73	59,841.18	0.00	8,553.12

Pole : 302540
Location : Madison CT 6, CT
Height : 148.0 (ft)
Base Dia : 61.05 (in)
Top Dia : 24.00 (in)
Shape : 18 Sides
Taper : 0.263000 (in/ft)

Code: TIA/EIA-222 Rev F

Base Elev : 0.000 (ft)



Load Case: Ice — 73.61 mph Wind with Ice — 21 Iterations

Gust Response Factor : 1.69
Dead Load Factor : 1.00
Wind Load Factor : 1.00

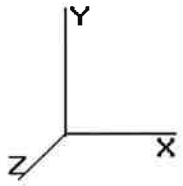
Calculated Shaft Forces and Deflections

Seg Elev (ft)	Lateral FX (-) (kips)	Axial FY (-) (kips)	Lateral FZ (kips)	Moment MX (ft-kips)	Torsion MY (ft-kips)	Moment MZ (ft-kips)	X Deflect (in)	Z Deflect (in)	Total Deflect (in)	Rotation (deg)
0.00	-30.970	-59.812	0.000	0.000	0.000	-3,355.709	0.000	0.000	0.000	0.000
5.00	-30.614	-57.511	0.000	0.000	0.000	-3,200.862	-0.057	0.000	0.057	-0.105
10.00	-30.260	-55.250	0.000	0.000	0.000	-3,047.796	-0.224	0.000	0.224	-0.211
15.00	-29.908	-53.029	0.000	0.000	0.000	-2,896.500	-0.504	0.000	0.504	-0.320
20.00	-29.558	-50.848	0.000	0.000	0.000	-2,746.964	-0.899	0.000	0.899	-0.430
25.00	-29.209	-48.708	0.000	0.000	0.000	-2,599.180	-1.410	0.000	1.410	-0.543
30.00	-28.863	-46.607	0.000	0.000	0.000	-2,453.136	-2.040	0.000	2.040	-0.657
35.00	-28.498	-44.556	0.000	0.000	0.000	-2,308.823	-2.790	0.000	2.790	-0.772
38.50	-28.228	-43.149	0.000	0.000	0.000	-2,209.082	-3.388	0.000	3.388	-0.855
40.00	-28.144	-42.215	0.000	0.000	0.000	-2,166.740	-3.662	0.000	3.662	-0.891
45.00	-27.742	-39.216	0.000	0.000	0.000	-2,026.021	-4.660	0.000	4.660	-1.010
50.00	-27.364	-37.575	0.000	0.000	0.000	-1,887.312	-5.783	0.000	5.783	-1.130
55.00	-26.986	-35.958	0.000	0.000	0.000	-1,750.495	-7.050	0.000	7.050	-1.283
60.00	-26.600	-34.375	0.000	0.000	0.000	-1,615.566	-8.477	0.000	8.477	-1.437
65.00	-26.207	-32.824	0.000	0.000	0.000	-1,482.567	-10.065	0.000	10.065	-1.591
70.00	-25.751	-31.307	0.000	0.000	0.000	-1,351.422	-11.815	0.000	11.815	-1.745
73.00	-25.503	-30.418	0.000	0.000	0.000	-1,274.170	-12.942	0.000	12.942	-1.839
75.00	-25.342	-29.529	0.000	0.000	0.000	-1,223.166	-13.726	0.000	13.726	-1.901
78.50	-25.020	-28.027	0.000	0.000	0.000	-1,134.470	-15.161	0.000	15.161	-2.009
80.00	-24.928	-27.604	0.000	0.000	0.000	-1,096.941	-15.800	0.000	15.800	-2.056
85.00	-24.489	-26.330	0.000	0.000	0.000	-972.304	-18.045	0.000	18.045	-2.225
86.00	-23.643	-25.242	0.000	0.000	0.000	-947.816	-18.515	0.000	18.515	-2.260
90.00	-23.319	-24.241	0.000	0.000	0.000	-853.248	-20.466	0.000	20.466	-2.393
95.00	-22.875	-23.052	0.000	0.000	0.000	-736.658	-23.059	0.000	23.059	-2.551
96.00	-19.674	-19.833	0.000	0.000	0.000	-710.796	-23.597	0.000	23.597	-2.584
100.0	-19.338	-18.903	0.000	0.000	0.000	-632.100	-25.814	0.000	25.814	-2.705
105.0	-18.891	-17.793	0.000	0.000	0.000	-535.414	-28.726	0.000	28.726	-2.850
106.0	-17.990	-16.747	0.000	0.000	0.000	-516.087	-29.326	0.000	29.326	-2.879
108.7	-17.749	-16.149	0.000	0.000	0.000	-466.614	-31.007	0.000	31.007	-2.955
110.0	-17.641	-15.755	0.000	0.000	0.000	-444.428	-31.785	0.000	31.785	-2.989
113.0	-17.363	-14.845	0.000	0.000	0.000	-391.505	-33.689	0.000	33.689	-3.067
115.0	-17.203	-14.448	0.000	0.000	0.000	-356.780	-34.984	0.000	34.984	-3.117
120.0	-13.520	-10.874	0.000	0.000	0.000	-270.766	-38.321	0.000	38.321	-3.248
125.0	-13.203	-10.156	0.000	0.000	0.000	-203.168	-41.784	0.000	41.784	-3.360
130.0	-12.886	-9.471	0.000	0.000	0.000	-137.156	-45.353	0.000	45.353	-3.451
132.0	-9.536	-6.840	0.000	0.000	0.000	-111.383	-46.805	0.000	46.805	-3.481
134.0	-8.828	-6.163	0.000	0.000	0.000	-91.755	-48.269	0.000	48.269	-3.508
135.0	-8.770	-6.048	0.000	0.000	0.000	-82.927	-49.005	0.000	49.005	-3.520
140.0	-4.434	-3.127	0.000	0.000	0.000	-39.076	-52.715	0.000	52.715	-3.563
145.0	-4.149	-2.667	0.000	0.000	0.000	-16.905	-56.458	0.000	56.458	-3.586
148.0	-3.974	0.000	0.000	0.000	0.000	-4.457	-58.713	0.000	58.713	-3.592

Pole : 302540
Location : Madison CT 6, CT
Height : 148.0 (ft)
Base Dia : 61.05 (in)
Top Dia : 24.00 (in)
Shape : 18 Sides
Taper : 0.263000 (in/ft)

Code: TIA/EIA-222 Rev F

Base Elev : 0.000 (ft)



Load Case: Ice — 73.61 mph Wind with Ice — 21 Iterations

Gust Response Factor : 1.69
Dead Load Factor : 1.00
Wind Load Factor : 1.00

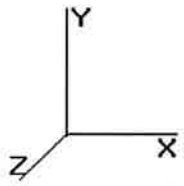
Calculated Stresses

Seg Elev (ft)	Applied Stresses							Allowable Stress (Fb) (ksi)		Stress Ratio
	Axial (Y) (ksi)	Shear (X) (ksi)	Shear (Z) (ksi)	Torsion (ksi)	Bending (X) (ksi)	Bending (Z) (ksi)	Combined (ksi)			
0.00	0.62	0.65	0.00	0.00	0.00	28.04	28.69	52.0	0.0	0.552
5.00	0.61	0.66	0.00	0.00	0.00	27.95	28.59	52.0	0.0	0.550
10.00	0.60	0.66	0.00	0.00	0.00	27.85	28.47	52.0	0.0	0.548
15.00	0.59	0.67	0.00	0.00	0.00	27.71	28.33	52.0	0.0	0.545
20.00	0.58	0.68	0.00	0.00	0.00	27.55	28.16	52.0	0.0	0.542
25.00	0.57	0.69	0.00	0.00	0.00	27.36	27.96	52.0	0.0	0.538
30.00	0.56	0.70	0.00	0.00	0.00	27.14	27.72	52.0	0.0	0.533
35.00	0.55	0.70	0.00	0.00	0.00	26.87	27.45	52.0	0.0	0.528
38.50	0.54	0.71	0.00	0.00	0.00	26.66	27.23	52.0	0.0	0.524
40.00	0.53	0.71	0.00	0.00	0.00	26.57	27.13	52.0	0.0	0.522
45.00	0.66	0.95	0.00	0.00	0.00	33.63	34.34	52.0	0.0	0.661
50.00	0.65	0.96	0.00	0.00	0.00	33.07	33.76	52.0	0.0	0.649
55.00	0.64	0.97	0.00	0.00	0.00	32.42	33.10	52.0	0.0	0.637
60.00	0.63	0.99	0.00	0.00	0.00	31.68	32.35	52.0	0.0	0.622
65.00	0.62	1.00	0.00	0.00	0.00	30.83	31.49	52.0	0.0	0.606
70.00	0.61	1.01	0.00	0.00	0.00	29.85	30.51	52.0	0.0	0.587
73.00	0.61	1.02	0.00	0.00	0.00	29.21	29.87	52.0	0.0	0.575
75.00	0.59	1.03	0.00	0.00	0.00	28.76	29.40	52.0	0.0	0.566
78.50	0.68	1.23	0.00	0.00	0.00	32.32	33.07	52.0	0.0	0.636
80.00	0.68	1.23	0.00	0.00	0.00	31.86	32.60	52.0	0.0	0.627
85.00	0.67	1.25	0.00	0.00	0.00	30.14	30.89	52.0	0.0	0.594
86.00	0.64	1.22	0.00	0.00	0.00	29.78	30.49	52.0	0.0	0.587
90.00	0.64	1.23	0.00	0.00	0.00	28.30	29.01	52.0	0.0	0.558
95.00	0.63	1.25	0.00	0.00	0.00	26.20	26.91	52.0	0.0	0.518
96.00	0.54	1.08	0.00	0.00	0.00	25.64	26.25	52.0	0.0	0.505
100.00	0.53	1.10	0.00	0.00	0.00	24.17	24.78	52.0	0.0	0.477
105.00	0.52	1.11	0.00	0.00	0.00	22.07	22.67	52.0	0.0	0.436
106.00	0.49	1.07	0.00	0.00	0.00	21.60	22.18	52.0	0.0	0.427
108.75	0.49	1.08	0.00	0.00	0.00	20.39	20.96	52.0	0.0	0.403
110.00	0.48	1.08	0.00	0.00	0.00	19.81	20.37	52.0	0.0	0.392
113.00	0.57	1.34	0.00	0.00	0.00	22.07	22.76	52.0	0.0	0.438
115.00	0.56	1.35	0.00	0.00	0.00	20.78	21.46	52.0	0.0	0.413
120.00	0.44	1.10	0.00	0.00	0.00	17.13	17.68	52.0	0.0	0.340
125.00	0.43	1.13	0.00	0.00	0.00	14.02	14.58	52.0	0.0	0.281
130.00	0.42	1.15	0.00	0.00	0.00	10.36	10.96	52.0	0.0	0.211
132.00	0.31	0.87	0.00	0.00	0.00	8.74	9.17	52.0	0.0	0.176
134.00	0.28	0.82	0.00	0.00	0.00	7.48	7.89	52.0	0.0	0.152
135.00	0.28	0.82	0.00	0.00	0.00	6.89	7.31	52.0	0.0	0.141
140.00	0.15	0.44	0.00	0.00	0.00	3.59	3.81	52.0	0.0	0.073
145.00	0.14	0.43	0.00	0.00	0.00	1.72	2.00	52.0	0.0	0.039
148.00	0.00	0.43	0.00	0.00	0.00	0.49	0.88	52.0	0.0	0.017

Pole : 302540
Location : Madison CT 6, CT
Height : 148.0 (ft)
Base Dia : 61.05 (in)
Top Dia : 24.00 (in)
Shape : 18 Sides
Taper : 0.263000 (in/ft)

Code: TIA/EIA-222 Rev F

Base Elev : 0.000 (ft)



Load Case: Twist/Sway — 50.00 mph Wind with No Ice — 21 Iterations

Gust Response Factor : 1.69
Dead Load Factor : 1.00
Wind Load Factor : 1.00

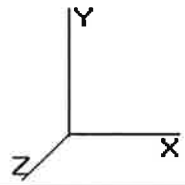
Shaft Segment Forces

Seg Top Elev (ft)	Description		Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Ap (sf)	EPAs (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		0.00	1.00	6.400	10.81	254.37	0.650	0.000	0.00	0.000	0.00	0.0	0.0	0.0
5.00		0.00	1.00	6.400	10.81	248.89	0.650	0.000	5.00	25.163	16.36	176.9	0.0	1,617.1
10.00		0.00	1.00	6.400	10.81	243.41	0.650	0.000	5.00	24.616	16.00	173.1	0.0	1,581.6
15.00		0.00	1.00	6.400	10.81	237.93	0.650	0.000	5.00	24.068	15.64	169.2	0.0	1,546.1
20.00		0.00	1.00	6.400	10.81	232.45	0.650	0.000	5.00	23.520	15.29	165.4	0.0	1,510.6
25.00		0.00	1.00	6.400	10.81	226.97	0.650	0.000	5.00	22.972	14.93	161.5	0.0	1,475.1
30.00		0.00	1.00	6.400	10.81	221.50	0.650	0.000	5.00	22.424	14.58	157.6	0.0	1,439.6
35.00		0.00	1.01	6.509	10.99	217.84	0.650	0.000	5.00	21.876	14.22	156.4	0.0	1,404.1
38.50	Bot - Section 2	0.00	1.04	6.688	11.30	216.90	0.650	0.000	3.50	14.987	9.74	110.1	0.0	961.7
40.00		0.00	1.05	6.762	11.42	216.40	0.650	0.000	1.50	6.435	4.18	47.8	0.0	717.3
45.00	Top - Section 1	0.00	1.09	6.993	11.81	214.35	0.650	0.000	5.00	21.093	13.71	162.0	0.0	2,350.6
50.00		0.00	1.12	7.207	12.17	215.10	0.650	0.000	5.00	20.545	13.35	162.6	0.0	990.9
55.00		0.00	1.15	7.406	12.51	212.16	0.650	0.000	5.00	19.997	13.00	162.7	0.0	964.3
60.00		0.00	1.18	7.592	12.83	208.84	0.650	0.000	5.00	19.449	12.64	162.2	0.0	937.6
65.00		0.00	1.21	7.768	13.12	205.21	0.650	0.000	5.00	18.901	12.29	161.3	0.0	911.0
70.00	Appertunance(s)	0.00	1.24	7.934	13.40	201.29	0.650	0.000	5.00	18.353	11.93	160.0	0.0	884.4
73.00	Bot - Section 3	0.00	1.25	8.030	13.57	198.82	0.650	0.000	3.00	10.749	6.99	94.8	0.0	517.8
75.00		0.00	1.26	8.092	13.67	197.12	0.650	0.000	2.00	7.160	4.65	63.6	0.0	627.8
78.50	Top - Section 2	0.00	1.28	8.198	13.85	194.07	0.650	0.000	3.50	12.320	8.01	110.9	0.0	1,079.8
80.00		0.00	1.28	8.242	13.93	195.69	0.650	0.000	1.50	5.198	3.38	47.1	0.0	208.9
85.00		0.00	1.31	8.387	14.17	191.12	0.650	0.000	5.00	16.970	11.03	156.3	0.0	682.0
86.00	Appertunance(s)	0.00	1.31	8.415	14.22	190.18	0.650	0.000	1.00	3.328	2.16	30.8	0.0	133.7
90.00		0.00	1.33	8.525	14.40	186.36	0.650	0.000	4.00	13.094	8.51	122.6	0.0	526.1
95.00		0.00	1.35	8.657	14.63	181.43	0.650	0.000	5.00	15.874	10.32	151.0	0.0	637.6
96.00	Appertunance(s)	0.00	1.35	8.683	14.67	180.43	0.650	0.000	1.00	3.109	2.02	29.7	0.0	124.9
100.0		0.00	1.37	8.785	14.84	176.35	0.650	0.000	4.00	12.217	7.94	117.9	0.0	490.6
105.0		0.00	1.39	8.908	15.05	171.12	0.650	0.000	5.00	14.778	9.61	144.6	0.0	593.2
106.0	Appertunance(s)	0.00	1.39	8.933	15.09	170.05	0.650	0.000	1.00	2.890	1.88	28.4	0.0	116.0
108.7	Bot - Section 4	0.00	1.40	8.998	15.20	167.10	0.650	0.000	2.75	7.834	5.09	77.4	0.0	314.4
110.0		0.00	1.41	9.028	15.25	165.75	0.650	0.000	1.25	3.558	2.31	35.3	0.0	255.1
113.0	Top - Section 3	0.00	1.42	9.097	15.37	162.47	0.650	0.000	3.00	8.400	5.46	83.9	0.0	602.1
115.0		0.00	1.42	9.143	15.45	162.75	0.650	0.000	2.00	5.490	3.57	55.1	0.0	176.5
120.0	Appertunance(s)	0.00	1.44	9.255	15.64	157.15	0.650	0.000	5.00	13.343	8.67	135.6	0.0	428.9
125.0		0.00	1.46	9.363	15.82	151.44	0.650	0.000	5.00	12.795	8.32	131.6	0.0	411.2
130.0		0.00	1.48	9.469	16.00	145.63	0.650	0.000	5.00	12.247	7.96	127.4	0.0	393.4
132.0	Appertunance(s)	0.00	1.48	9.510	16.07	143.27	0.650	0.000	2.00	4.745	3.08	49.6	0.0	152.4
134.0	Appertunance(s)	0.00	1.49	9.551	16.14	140.91	0.650	0.000	2.00	4.658	3.03	48.9	0.0	149.6
135.0		0.00	1.49	9.572	16.17	139.72	0.650	0.000	1.00	2.296	1.49	24.1	0.0	73.7
140.0	Appertunance(s)	0.00	1.51	9.672	16.34	133.71	0.650	0.000	5.00	11.151	7.25	118.5	0.0	357.9
145.0		0.00	1.52	9.769	16.51	127.61	0.650	0.000	5.00	10.603	6.89	113.8	0.0	340.2
148.0	Appertunance(s)	0.00	1.53	9.826	16.60	123.91	0.650	0.000	3.00	6.099	3.96	65.8	0.0	195.6
							Totals:		148.00			4,453.6	0.0	28,881.3

Pole : 302540
Location : Madison CT 6, CT
Height : 148.0 (ft)
Base Dia : 61.05 (in)
Top Dia : 24.00 (in)
Shape : 18 Sides
Taper : 0.263000 (in/ft)

Code: TIA/EIA-222 Rev F

Base Elev : 0.000 (ft)



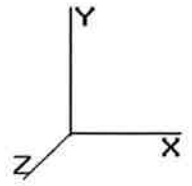
Load Case: Twist/Sway — 50.00 mph Wind with No Ice — 21 Iterations

Gust Response Factor : 1.69
Dead Load Factor : 1.00
Wind Load Factor : 1.00

Discrete Appurtenance Segment Forces

Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	Orientation Factor	Total EPAa (sf)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)	Dead Load (lb)
70.00	GPS	1	8.030	13.570	1.00	1.00	0.000	3.000	13.57	0.00	40.71	10.00
86.00	RFS APXV18-206517S-	3	8.415	14.221	0.80	12.36	0.000	0.000	175.79	0.00	0.00	79.20
86.00	Collar	1	8.415	14.221	1.00	8.50	0.000	0.000	120.88	0.00	0.00	560.00
96.00	RFS APXVSPP18-C-	3	8.722	14.740	0.83	20.57	0.000	1.500	303.16	0.00	454.74	171.00
96.00	Alcatel-Lucent 800 M	3	8.722	14.740	0.67	4.82	0.000	1.500	71.10	0.00	106.66	192.00
96.00	Alcatel-Lucent 1900	3	8.722	14.740	0.67	5.45	0.000	1.500	80.29	0.00	120.43	180.00
96.00	Alcatel TD-RRH8x20-2	3	8.722	14.740	0.67	9.49	0.000	1.500	139.84	0.00	209.76	210.00
96.00	RFS APXV9TM14-ALU-	3	8.722	14.740	0.78	16.15	0.000	1.500	237.99	0.00	356.98	165.30
96.00	Flat Low Profile Pla	1	8.683	14.675	1.00	26.10	0.000	0.000	383.01	0.00	0.00	1,500.00
106.0	60" x 8" Panel	3	8.957	15.137	0.79	11.19	0.000	1.000	169.32	0.00	169.32	90.00
106.0	Flush	1	8.933	15.096	1.00	8.50	0.000	0.000	128.32	0.00	0.00	560.00
106.0	2" x 4" GPS	2	8.957	15.137	1.00	0.08	0.000	1.000	1.21	0.00	1.21	10.00
120.0	Flat Low Profile Pla	1	9.255	15.641	1.00	26.10	0.000	0.000	408.22	0.00	0.00	1,500.00
120.0	Ericsson KRY 112 144	4	9.255	15.641	1.00	1.64	0.000	0.000	25.65	0.00	0.00	44.00
120.0	Ericsson AIR 21, 1.3	4	9.255	15.641	1.00	26.12	0.000	0.000	408.54	0.00	0.00	332.00
120.0	Ericsson AIR 21, 1.3	4	9.255	15.641	1.00	26.36	0.000	0.000	412.29	0.00	0.00	326.00
132.0	ADC DD700	6	9.510	16.073	0.67	5.03	0.000	0.000	80.76	0.00	0.00	95.40
132.0	Powerwave Allgon	6	9.510	16.073	0.81	1.65	0.000	0.000	26.56	0.00	0.00	31.80
132.0	Flat Low Profile Pla	1	9.510	16.073	1.00	26.10	0.000	0.000	419.49	0.00	0.00	1,500.00
132.0	KMW AM-X-CD-14-65-	2	9.510	16.073	0.78	8.60	0.000	0.000	138.15	0.00	0.00	72.80
132.0	Powerwave 7770.00	6	9.510	16.073	0.77	27.17	0.000	0.000	436.62	0.00	0.00	210.00
132.0	Kathrein 800 10736	1	9.510	16.073	0.73	8.31	0.000	0.000	133.64	0.00	0.00	33.10
134.0	Raycap DC6-48-60-18-	1	9.572	16.176	1.00	1.47	0.000	1.000	23.78	0.00	23.78	31.80
134.0	Ericsson RRUS 11 (Ba	6	9.572	16.176	0.71	12.52	0.000	1.000	202.60	0.00	202.60	330.00
140.0	Andrew LNX-6514DS-	4	9.672	16.345	0.80	26.91	0.000	0.000	439.88	0.00	0.00	155.20
140.0	Andrew LNX-8513DS-	2	9.672	16.345	0.80	13.41	0.000	0.000	219.15	0.00	0.00	78.40
140.0	RFS DB-T1-6Z-8AB-0Z	1	9.672	16.345	1.00	5.60	0.000	0.000	91.53	0.00	0.00	44.00
140.0	Flat Low Profile Pla	1	9.672	16.345	1.00	26.10	0.000	0.000	426.60	0.00	0.00	1,500.00
140.0	Andrew HBX-6516DS-	6	9.672	16.345	0.75	14.98	0.000	0.000	244.93	0.00	0.00	59.52
140.0	RFS FD9R6004/1C-3L	6	9.672	16.345	0.67	1.49	0.000	0.000	24.31	0.00	0.00	18.60
140.0	Alcatel-Lucent RRH 2	3	9.672	16.345	0.82	5.39	0.000	0.000	88.06	0.00	0.00	118.80
148.0	6' Omni	1	9.920	16.765	1.00	1.76	0.000	5.000	29.51	0.00	147.53	25.00
148.0	11' Dipole	1	9.975	16.858	1.00	3.58	0.000	8.000	60.35	0.00	482.82	40.00
148.0	Flat Low Profile Pla	1	9.826	16.607	1.00	26.10	0.000	0.000	433.43	0.00	0.00	1,500.00
148.0	6' Dipole	1	9.920	16.765	1.00	2.22	0.000	5.000	37.22	0.00	186.09	20.00
148.0	48" x 12" Panel	9	9.845	16.639	0.78	39.31	0.000	1.000	654.10	0.00	654.10	270.00
148.0	72" x 12" Panel	3	9.845	16.639	0.79	19.91	0.000	1.000	331.24	0.00	331.24	135.00
									7,621.09			12,198.92

Pole :	302540	Code: TIA/EIA-222 Rev F	12/9/2014 2:25:13 PM
Location :	Madison CT 6, CT		Page: 18
Height :	148.0 (ft)		
Base Dia :	61.05 (in)		
Top Dia :	24.00 (in)	Base Elev : 0.000 (ft)	
Shape :	18 Sides		
Taper :	0.263000 (in/ft)		

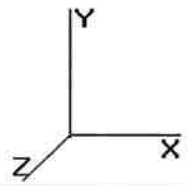


Load Case: Twist/Sway — 50.00 mph Wind with No Ice — 21 Iterations

Gust Response Factor : 1.69
Dead Load Factor : 1.00
Wind Load Factor : 1.00

Linear Appurtenance Segment Forces

Seg Top Elev (ft)	Description	Exposed To Wind	Length (ft)	Weight (lb/ft)	CaAa (sf/ft)	qz (psf)	FX (lb)	Dead Load (lb)
5.00	(16) 1 5/8" Coax	Yes	5.00	13.12	0.40	6.400	21.63	65.60
5.00	(1) 1/2" Coax	Yes	5.00	0.15	0.00	6.400	0.00	0.75
10.00	(16) 1 5/8" Coax	Yes	5.00	13.12	0.40	6.400	21.63	65.60
10.00	(1) 1/2" Coax	Yes	5.00	0.15	0.00	6.400	0.00	0.75
15.00	(16) 1 5/8" Coax	Yes	5.00	13.12	0.40	6.400	21.63	65.60
15.00	(1) 1/2" Coax	Yes	5.00	0.15	0.00	6.400	0.00	0.75
20.00	(16) 1 5/8" Coax	Yes	5.00	13.12	0.40	6.400	21.63	65.60
20.00	(1) 1/2" Coax	Yes	5.00	0.15	0.00	6.400	0.00	0.75
25.00	(16) 1 5/8" Coax	Yes	5.00	13.12	0.40	6.400	21.63	65.60
25.00	(1) 1/2" Coax	Yes	5.00	0.15	0.00	6.400	0.00	0.75
30.00	(16) 1 5/8" Coax	Yes	5.00	13.12	0.40	6.400	21.63	65.60
30.00	(1) 1/2" Coax	Yes	5.00	0.15	0.00	6.400	0.00	0.75
35.00	(16) 1 5/8" Coax	Yes	5.00	13.12	0.40	6.509	22.00	65.60
35.00	(1) 1/2" Coax	Yes	5.00	0.15	0.00	6.509	0.00	0.75
38.50	(16) 1 5/8" Coax	Yes	3.50	13.12	0.40	6.688	15.82	45.92
38.50	(1) 1/2" Coax	Yes	3.50	0.15	0.00	6.688	0.00	0.53
40.00	(16) 1 5/8" Coax	Yes	1.50	13.12	0.40	6.762	6.86	19.68
40.00	(1) 1/2" Coax	Yes	1.50	0.15	0.00	6.762	0.00	0.23
45.00	(16) 1 5/8" Coax	Yes	5.00	13.12	0.40	6.993	23.64	65.60
45.00	(1) 1/2" Coax	Yes	5.00	0.15	0.00	6.993	0.00	0.75
50.00	(16) 1 5/8" Coax	Yes	5.00	13.12	0.40	7.207	24.36	65.60
50.00	(1) 1/2" Coax	Yes	5.00	0.15	0.00	7.207	0.00	0.75
55.00	(16) 1 5/8" Coax	Yes	5.00	13.12	0.40	7.406	25.03	65.60
55.00	(1) 1/2" Coax	Yes	5.00	0.15	0.00	7.406	0.00	0.75
60.00	(16) 1 5/8" Coax	Yes	5.00	13.12	0.40	7.592	25.66	65.60
60.00	(1) 1/2" Coax	Yes	5.00	0.15	0.00	7.592	0.00	0.75
65.00	(16) 1 5/8" Coax	Yes	5.00	13.12	0.40	7.768	26.25	65.60
65.00	(1) 1/2" Coax	Yes	5.00	0.15	0.00	7.768	0.00	0.75
70.00	(16) 1 5/8" Coax	Yes	5.00	13.12	0.40	7.934	26.82	65.60
70.00	(1) 1/2" Coax	Yes	5.00	0.15	0.00	7.934	0.00	0.75
73.00	(16) 1 5/8" Coax	Yes	3.00	13.12	0.40	8.030	16.28	39.36
75.00	(16) 1 5/8" Coax	Yes	2.00	13.12	0.40	8.092	10.94	26.24
78.50	(16) 1 5/8" Coax	Yes	3.50	13.12	0.40	8.198	19.40	45.92
80.00	(16) 1 5/8" Coax	Yes	1.50	13.12	0.40	8.242	8.36	19.68
85.00	(16) 1 5/8" Coax	Yes	5.00	13.12	0.40	8.387	28.35	65.60
86.00	(16) 1 5/8" Coax	Yes	1.00	13.12	0.40	8.415	5.69	13.12
90.00	(16) 1 5/8" Coax	Yes	4.00	13.12	0.40	8.525	23.05	52.48
95.00	(16) 1 5/8" Coax	Yes	5.00	13.12	0.40	8.657	29.26	65.60
96.00	(16) 1 5/8" Coax	Yes	1.00	13.12	0.40	8.683	5.87	13.12
100.0	(16) 1 5/8" Coax	Yes	4.00	13.12	0.40	8.785	23.75	52.48
105.0	(16) 1 5/8" Coax	Yes	5.00	13.12	0.40	8.908	30.11	65.60
106.0	(16) 1 5/8" Coax	Yes	1.00	13.12	0.40	8.933	6.04	13.12
108.7	(16) 1 5/8" Coax	Yes	2.75	13.12	0.40	8.998	16.73	36.08
110.0	(16) 1 5/8" Coax	Yes	1.25	13.12	0.40	9.028	7.63	16.40
113.0	(16) 1 5/8" Coax	Yes	3.00	13.12	0.40	9.097	18.45	39.36
115.0	(16) 1 5/8" Coax	Yes	2.00	13.12	0.40	9.143	12.36	26.24
120.0	(16) 1 5/8" Coax	Yes	5.00	13.12	0.40	9.255	31.28	65.60
						Totals:	619.78	1,584.89



Load Case: Twist/Sway — 50.00 mph Wind with No Ice — 21 Iterations

Gust Response Factor : 1.69
Dead Load Factor : 1.00
Wind Load Factor : 1.00

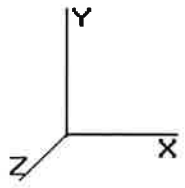
Applied Segment Forces Summary

Seg Elev (ft)	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00	0.00	0.00	0.00	0.00
5.00	198.54	1,937.94	0.00	0.00
10.00	194.69	1,902.44	0.00	0.00
15.00	190.84	1,866.93	0.00	0.00
20.00	186.99	1,831.43	0.00	0.00
25.00	183.13	1,795.92	0.00	0.00
30.00	179.28	1,760.42	0.00	0.00
35.00	178.40	1,724.91	0.00	0.00
38.50	125.93	1,186.31	0.00	0.00
40.00	54.65	813.54	0.00	0.00
45.00	185.67	2,671.41	0.00	0.00
50.00	187.00	1,311.73	0.00	0.00
55.00	187.71	1,285.10	0.00	0.00
60.00	187.86	1,258.47	0.00	0.00
65.00	187.53	1,231.84	0.00	0.00
70.00	200.34	1,215.21	0.00	40.71
73.00	111.10	709.90	0.00	0.00
75.00	74.59	755.83	0.00	0.00
78.50	130.34	1,303.91	0.00	0.00
80.00	55.42	304.96	0.00	0.00
85.00	184.68	1,002.10	0.00	0.00
86.00	333.12	836.96	0.00	0.00
90.00	145.66	762.47	0.00	0.00
95.00	180.22	933.12	0.00	0.00
96.00	1,250.92	2,602.26	0.00	1,248.58
100.0	141.65	714.96	0.00	0.00
105.0	174.73	873.73	0.00	0.00
106.0	333.25	832.08	0.00	170.54
108.7	94.16	468.65	0.00	0.00
110.0	42.92	325.25	0.00	0.00
113.0	102.39	770.41	0.00	0.00
115.0	67.51	288.74	0.00	0.00
120.0	1,421.63	2,911.42	0.00	0.00
125.0	131.60	618.02	0.00	0.00
130.0	127.39	600.27	0.00	0.00
132.0	1,284.80	2,178.24	0.00	0.00
134.0	275.24	574.42	0.00	226.37
135.0	24.14	96.65	0.00	0.00
140.0	1,652.94	2,447.14	0.00	0.00
145.0	113.78	397.62	0.00	0.00
148.0	1,611.68	2,220.05	0.00	1,801.78
Totals:	12,694.44	49,322.76	0.00	3,487.97

Pole : 302540
Location : Madison CT 6, CT
Height : 148.0 (ft)
Base Dia : 61.05 (in)
Top Dia : 24.00 (in)
Shape : 18 Sides
Taper : 0.263000 (in/ft)

Code: TIA/EIA-222 Rev F

Base Elev : 0.000 (ft)



Load Case: Twist/Sway — 50.00 mph Wind with No Ice — 21 Iterations

Gust Response Factor : 1.69
Dead Load Factor : 1.00
Wind Load Factor : 1.00

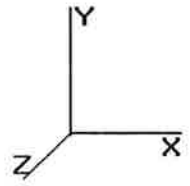
Calculated Shaft Forces and Deflections

Seg Elev (ft)	Lateral FX (-) (kips)	Axial FY (-) (kips)	Lateral FZ (kips)	Moment MX (ft-kips)	Torsion MY (ft-kips)	Moment MZ (ft-kips)	X Deflect (in)	Z Deflect (in)	Total Deflect (in)	Rotation (deg)
0.00	-12.713	-49.318	0.000	0.000	0.000	-1,359.257	0.000	0.000	0.000	0.000
5.00	-12.549	-47.371	0.000	0.000	0.000	-1,295.695	-0.023	0.000	0.023	-0.042
10.00	-12.387	-45.459	0.000	0.000	0.000	-1,232.951	-0.091	0.000	0.091	-0.086
15.00	-12.226	-43.583	0.000	0.000	0.000	-1,171.019	-0.204	0.000	0.204	-0.129
20.00	-12.067	-41.743	0.000	0.000	0.000	-1,109.890	-0.364	0.000	0.364	-0.174
25.00	-11.909	-39.938	0.000	0.000	0.000	-1,049.557	-0.571	0.000	0.571	-0.219
30.00	-11.754	-38.169	0.000	0.000	0.000	-990.011	-0.825	0.000	0.825	-0.265
35.00	-11.592	-36.437	0.000	0.000	0.000	-931.244	-1.128	0.000	1.128	-0.312
38.50	-11.474	-35.246	0.000	0.000	0.000	-890.674	-1.370	0.000	1.370	-0.346
40.00	-11.433	-34.427	0.000	0.000	0.000	-873.463	-1.481	0.000	1.481	-0.360
45.00	-11.256	-31.747	0.000	0.000	0.000	-816.299	-1.884	0.000	1.884	-0.408
50.00	-11.089	-30.426	0.000	0.000	0.000	-760.019	-2.338	0.000	2.338	-0.456
55.00	-10.921	-29.131	0.000	0.000	0.000	-704.577	-2.849	0.000	2.849	-0.518
60.00	-10.752	-27.863	0.000	0.000	0.000	-649.971	-3.425	0.000	3.425	-0.580
65.00	-10.580	-26.622	0.000	0.000	0.000	-596.215	-4.066	0.000	4.066	-0.642
70.00	-10.387	-25.400	0.000	0.000	0.000	-543.277	-4.772	0.000	4.772	-0.704
73.00	-10.280	-24.686	0.000	0.000	0.000	-512.116	-5.226	0.000	5.226	-0.741
75.00	-10.210	-23.925	0.000	0.000	0.000	-491.556	-5.543	0.000	5.543	-0.767
78.50	-10.074	-22.618	0.000	0.000	0.000	-455.820	-6.121	0.000	6.121	-0.810
80.00	-10.032	-22.306	0.000	0.000	0.000	-440.709	-6.379	0.000	6.379	-0.829
85.00	-9.847	-21.300	0.000	0.000	0.000	-390.552	-7.284	0.000	7.284	-0.897
86.00	-9.513	-20.462	0.000	0.000	0.000	-380.705	-7.473	0.000	7.473	-0.911
90.00	-9.375	-19.693	0.000	0.000	0.000	-342.655	-8.259	0.000	8.259	-0.964
95.00	-9.191	-18.757	0.000	0.000	0.000	-295.782	-9.304	0.000	9.304	-1.028
96.00	-7.902	-16.173	0.000	0.000	0.000	-285.343	-9.521	0.000	9.521	-1.041
100.0	-7.761	-15.454	0.000	0.000	0.000	-253.736	-10.414	0.000	10.414	-1.089
105.0	-7.578	-14.579	0.000	0.000	0.000	-214.929	-11.587	0.000	11.587	-1.147
106.0	-7.234	-13.751	0.000	0.000	0.000	-207.181	-11.829	0.000	11.829	-1.159
108.7	-7.135	-13.282	0.000	0.000	0.000	-187.289	-12.506	0.000	12.506	-1.190
110.0	-7.090	-12.955	0.000	0.000	0.000	-178.370	-12.819	0.000	12.819	-1.204
113.0	-6.977	-12.184	0.000	0.000	0.000	-157.100	-13.586	0.000	13.586	-1.235
115.0	-6.911	-11.892	0.000	0.000	0.000	-143.146	-14.108	0.000	14.108	-1.255
120.0	-5.432	-9.009	0.000	0.000	0.000	-108.591	-15.451	0.000	15.451	-1.307
125.0	-5.292	-8.390	0.000	0.000	0.000	-81.431	-16.846	0.000	16.846	-1.352
130.0	-5.154	-7.791	0.000	0.000	0.000	-54.970	-18.283	0.000	18.283	-1.389
132.0	-3.817	-5.644	0.000	0.000	0.000	-44.662	-18.867	0.000	18.867	-1.401
134.0	-3.529	-5.076	0.000	0.000	0.000	-36.801	-19.456	0.000	19.456	-1.411
135.0	-3.503	-4.979	0.000	0.000	0.000	-33.273	-19.753	0.000	19.753	-1.416
140.0	-1.791	-2.574	0.000	0.000	0.000	-15.756	-21.246	0.000	21.246	-1.434
145.0	-1.667	-2.179	0.000	0.000	0.000	-6.803	-22.753	0.000	22.753	-1.443
148.0	-1.612	0.000	0.000	0.000	0.000	-1.802	-23.661	0.000	23.661	-1.445

Pole : 302540
Location : Madison CT 6, CT
Height : 148.0 (ft)
Base Dia : 61.05 (in)
Top Dia : 24.00 (in)
Shape : 18 Sides
Taper : 0.263000 (in/ft)

Code: TIA/EIA-222 Rev F

Base Elev : 0.000 (ft)



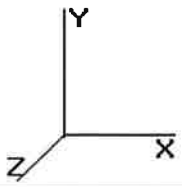
Load Case: Twist/Sway — 50.00 mph Wind with No Ice — 21 Iterations

Gust Response Factor : 1.69
Dead Load Factor : 1.00
Wind Load Factor : 1.00

Calculated Stresses

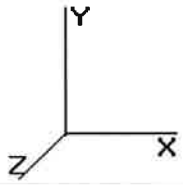
Seg Elev (ft)	Applied Stresses: Axial (Y) (ksi)	Shear (X) (ksi)	Shear (Z) (ksi)	Torsion (ksi)	Bending (X) (ksi)	Bending (Z) (ksi)	Combined (ksi)	Allowable Stress (Fb) (ksi)		Stress Ratio
0.00	0.51	0.27	0.00	0.00	0.00	11.36	11.88	52.0	0.0	0.229
5.00	0.50	0.27	0.00	0.00	0.00	11.32	11.83	52.0	0.0	0.228
10.00	0.49	0.27	0.00	0.00	0.00	11.26	11.77	52.0	0.0	0.226
15.00	0.49	0.27	0.00	0.00	0.00	11.20	11.70	52.0	0.0	0.225
20.00	0.48	0.28	0.00	0.00	0.00	11.13	11.62	52.0	0.0	0.224
25.00	0.47	0.28	0.00	0.00	0.00	11.05	11.53	52.0	0.0	0.222
30.00	0.46	0.28	0.00	0.00	0.00	10.95	11.42	52.0	0.0	0.220
35.00	0.45	0.29	0.00	0.00	0.00	10.84	11.30	52.0	0.0	0.217
38.50	0.44	0.29	0.00	0.00	0.00	10.75	11.20	52.0	0.0	0.215
40.00	0.43	0.29	0.00	0.00	0.00	10.71	11.15	52.0	0.0	0.215
45.00	0.54	0.38	0.00	0.00	0.00	13.55	14.10	52.0	0.0	0.271
50.00	0.53	0.39	0.00	0.00	0.00	13.32	13.86	52.0	0.0	0.267
55.00	0.52	0.39	0.00	0.00	0.00	13.05	13.59	52.0	0.0	0.261
60.00	0.51	0.40	0.00	0.00	0.00	12.74	13.27	52.0	0.0	0.255
65.00	0.50	0.40	0.00	0.00	0.00	12.40	12.92	52.0	0.0	0.249
70.00	0.50	0.41	0.00	0.00	0.00	12.00	12.52	52.0	0.0	0.241
73.00	0.49	0.41	0.00	0.00	0.00	11.74	12.25	52.0	0.0	0.236
75.00	0.48	0.41	0.00	0.00	0.00	11.56	12.06	52.0	0.0	0.232
78.50	0.55	0.49	0.00	0.00	0.00	12.99	13.56	52.0	0.0	0.261
80.00	0.55	0.50	0.00	0.00	0.00	12.80	13.37	52.0	0.0	0.257
85.00	0.54	0.50	0.00	0.00	0.00	12.11	12.68	52.0	0.0	0.244
86.00	0.52	0.49	0.00	0.00	0.00	11.96	12.51	52.0	0.0	0.241
90.00	0.52	0.50	0.00	0.00	0.00	11.36	11.91	52.0	0.0	0.229
95.00	0.51	0.50	0.00	0.00	0.00	10.52	11.06	52.0	0.0	0.213
96.00	0.44	0.44	0.00	0.00	0.00	10.29	10.76	52.0	0.0	0.207
100.00	0.44	0.44	0.00	0.00	0.00	9.70	10.17	52.0	0.0	0.196
105.00	0.43	0.45	0.00	0.00	0.00	8.86	9.32	52.0	0.0	0.179
106.00	0.40	0.43	0.00	0.00	0.00	8.67	9.11	52.0	0.0	0.175
108.75	0.40	0.43	0.00	0.00	0.00	8.18	8.62	52.0	0.0	0.166
110.00	0.39	0.43	0.00	0.00	0.00	7.95	8.38	52.0	0.0	0.161
113.00	0.47	0.54	0.00	0.00	0.00	8.86	9.37	52.0	0.0	0.180
115.00	0.46	0.54	0.00	0.00	0.00	8.34	8.85	52.0	0.0	0.170
120.00	0.36	0.44	0.00	0.00	0.00	6.87	7.28	52.0	0.0	0.140
125.00	0.35	0.45	0.00	0.00	0.00	5.62	6.03	52.0	0.0	0.116
130.00	0.34	0.46	0.00	0.00	0.00	4.15	4.57	52.0	0.0	0.088
132.00	0.25	0.35	0.00	0.00	0.00	3.50	3.81	52.0	0.0	0.073
134.00	0.23	0.33	0.00	0.00	0.00	3.00	3.28	52.0	0.0	0.063
135.00	0.23	0.33	0.00	0.00	0.00	2.76	3.05	52.0	0.0	0.059
140.00	0.13	0.18	0.00	0.00	0.00	1.45	1.60	52.0	0.0	0.031
145.00	0.11	0.17	0.00	0.00	0.00	0.69	0.86	52.0	0.0	0.017
148.00	0.00	0.17	0.00	0.00	0.00	0.20	0.36	52.0	0.0	0.007

Pole :	302540	Code: TIA/EIA-222 Rev F	12/9/2014 2:25:13 PM
Location :	Madison CT 6, CT		Page: 22
Height :	148.0 (ft)		
Base Dia :	61.05 (in)		
Top Dia :	24.00 (in)	Base Elev : 0.000 (ft)	
Shape :	18 Sides		
Taper :	0.263000 (in/ft)		



Analysis Summary

	Reactions						Max Stresses			
Load Case	Shear FX (kips)	Shear FZ (kips)	Axial FY (kips)	Moment MX (ft-kips)	Moment MY (ft-kips)	Moment MZ (ft-kips)	Combined Stress (ksi)	Allowable Stress (ksi)	Elev (ft)	Stress Ratio
No Ice	36.7	0.00	49.28	0.00	0.00	3925.76	39.70	52.0	45.00	0.764
Ice	31.0	0.00	59.81	0.00	0.00	3355.71	34.34	52.0	45.00	0.661
Twist/Sway	12.7	0.00	49.32	0.00	0.00	1359.26	14.10	52.0	45.00	0.271



Base Summary

Reactions

Original Design			Analysis			
Moment (kip-ft)	Axial (kip)	Shear (kip)	Moment (kip-ft)	Axial (kip)	Shear (kip)	Moment Design %
5,050.00	35.00	47.00	3,925.76	59.81	36.74	77.74

Base Plate

Yield (ksi)	Thick (in)	Width (in)	Style	Poly Sides	Clip Len (in)	Effective Len (in)	Moment (kip-in)	Allow Stress (ksi)	Applied Stress (ksi)	Stress Ratio
50.0	3.250	68.000	Clipped	0	15.00	7.024	554.67	50.00	44.86	0.90

Anchor Bolts

								Start	Compression			Tension		
Bolt Circle	Num Bolts	Bolt Type	Bolt Dia (in)	Yield (ksi)	Ultimate (ksi)	Arrange	Cluster Dist (in)	Angle (deg)	Force (kip)	Allow (kip)	Ratio	Force (kip)	Allow (kip)	Ratio
69.00	20	2.25" 18J	2.25	75.00	100.00	Clustered	6.00	45.0	139.54	195.00	0.72	133.56	195.00	0.68