ROBINSON & COLE LLP

KENNETH C. BALDWIN

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Also admitted in Massachusetts

March 28, 2014

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

Re: **Notice of Exempt Modification – Facility Modification**
133 Horse Fence Hill Road, Southbury, Connecticut

Dear Ms. Bachman:

Cellco Partnership d/b/a Verizon Wireless ("Cellco") currently maintains twelve (12) wireless telecommunications antennas at the 111-foot level of the existing 150-foot tower at 133 Horse Fence Hill Road in Southbury, Connecticut (the "Property"). The tower is owned by American Tower Corporation. The Council approved Cellco's use of this tower in 2000. Cellco now intends to modify its facility by replacing six (6) of its existing antennas with three (3) model LNX-6514DS-VTM, 1900 MHz antennas and three (3) model HBX-6517DS-VTM, 2100 MHz antennas, all at the same 111-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 inside the monopole shaft. 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 to Edward Edelson, First Selectman for the Town of Southbury. A copy of this letter is being sent to Lynn Smith Revocable Family Trust Fund, 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. The replacement antennas and RRHs will be located at the 111-foot level on the 150-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 modified facility 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 behind is included behind 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:
Edward Edelson, Southbury First Selectman
Lynn Smith Revocable Family Trust Fund
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®

HBX-6517DS-VTM

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

POWERED BY ANDREW

Electrical Specifications

Frequency Band, MHz	1710–1880	1850–1990	1920–2180
Gain, dBi	19.0	19.1	19.2
Beamwidth, Horizontal, degrees	65	65	65
Beamwidth, Vertical, degrees	5.0	4.7	4.4
Beam Tilt, degrees	0–6	0–6	0–6
USLS, typical, dB	18	18	18
Front-to-Back Ratio at 180°, dB	30	30	30
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°

Mechanical Specifications

Color | Radome Material	Light gray | PVC, UV resistant
Connector Interface | Location | Quantity	7-16 DIN Female | Bottom | 2
Wind Loading, maximum	393.2 N @ 150 km/h 88.4 lbf @ 150 km/h
Wind Speed, maximum	241.0 km/h | 149.8 mph
Antenna Dimensions, L x W x D	1902.0 mm x 166.0 mm x 83.0 mm | 74.9 in x 6.5 in x 3.3 in
Net Weight	6.2 kg | 13.7 lb
Model with factory installed AISG 2.0 RET	HBX-6517DS-A1M

Alcatel-Lucent RRH2x40-AWS

REMOTE RADIO HEAD

The Alcatel-Lucent RRH2x40-AWS is a high-power, small form-factor Remote Radio Head (RRH) operating in the AWS frequency band (1700/2100MHz - 3GPP Band 4). The Alcatel-Lucent RRH2x40-AWS is designed with an eco-efficient approach, providing operators with the means to achieve high quality and capacity coverage with minimum site requirements.

A distributed eNodeB expands 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 an eNodeB to be installed separately, within the same site or several kilometres apart.

The Alcatel-Lucent RRH2x40-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. The Alcatel-Lucent RRH2x40-AWS has two transmit RF paths, 40 W RF output power per transmit path, and is designed to manage up to four-way receive diversity. The device is ideally suited to support macro coverage, with multiple-input multiple-output (MIMO) 2x2 operation in up to 20 MHz of bandwidth.

The Alcatel-Lucent RRH2x40-AWS is designed to make available all the benefits of a distributed eNodeB, with excellent RF characteristics, with low capital expenditures (CAPEX) and low operating expenditures (OPEX). The limited space available in some sites may prevent the installation of traditional single-cabinet BTS equipment or require costly cranes to be employed, leaving coverage holes. However, many of these sites can host an Alcatel-Lucent RRH2x40-AWS installation, providing more flexible site selection and improved network quality along with greatly reduced installation time and costs.

Fast, low-cost installation and deployment

The Alcatel-Lucent RRH2x40-AWS is a zero-footprint solution and operates noise-free, simplifying negotiations with site property owners and minimizing environmental impacts. Installation can easily be done by a single person because the Alcatel-Lucent RRH2x40-AWS is compact and weighs less than 20 kg (44 lb), 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 — a fraction of the time required for a traditional BTS.

Excellent RF performance

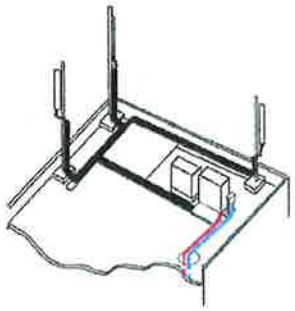
Because of its small size and weight, the Alcatel-Lucent RRH2x40-AWS can be installed close to the antenna. Operators can therefore locate the Alcatel-Lucent RRH2x40-AWS where RF engineering is deemed ideal, minimizing trade-offs between available sites and RF optimum sites. The RF feeder cost and installation costs are reduced or eliminated, and there is no need for a Tower Mounted Amplifier (TMA) because losses introduced by the RF feeder are greatly reduced.
The Alcatel-Lucent RRH2x40-AWS provides more RF power while at the same time consuming less electricity.

Features

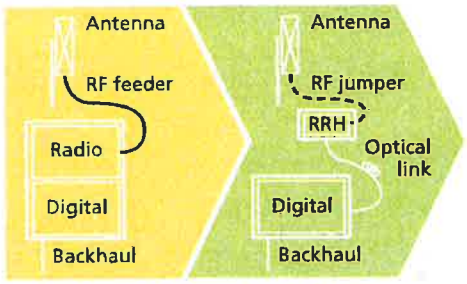
- Zero-footprint deployment
- Easy installation, with a lightweight unit can be carried and set up by one person
- Optimized RF power, with flexible site selection and elimination of a TMA
- Convection-cooled (fanless)
- Noise-free
- Best-in-class power efficiency, with significantly reduced energy consumption

Benefits

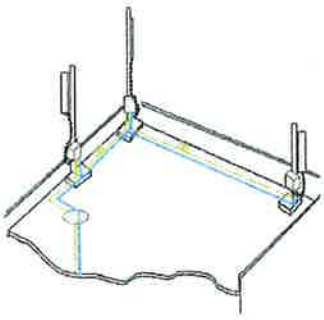
- Leverages existing real estate with lower site costs
- Reduces installation costs, with fewer installation materials and simplified logistics
- Decreases power costs and minimizes environmental impacts, with the potential for eco-sustainable power options
- Improves RF performance and adds flexibility to network planning



Macro



RRH for space-constrained cell sites



Distributed

Technical specifications

Physical dimensions

- Height: 620 mm (24.4 in.)
- Width: 270 mm (10.63 in.)
- Depth: 170m (6.7 in.)
- Weight (without mounting kit): less than 20 kg (44 lb)

Power

- Power supply: -48VDC

Operating environment

- Outdoor temperature range:
  - ¬ With solar load: -40°C to +50°C (-40°F to +122°F)
  - ¬ Without solar load: -40°C to +55°C (-40°F to +131°F)
- Passive convection cooling (no fans)
- Enclosure protection
  - ¬ IP65 (International Protection rating)

RF characteristics

- Frequency band: 1700/2100 MHz (AWS); 3GPP Band 4
- Bandwidth: up to 20 MHz
- RF output power at antenna port: 40 W nominal RF power for each Tx port
- Rx diversity: 2-way or 4-way with optional Rx Diversity module
- Noise figure: below 2.0 dB typical
- Antenna Line Device features
  - ¬ TMA and Remote electrical tilt (RET) support via AISG v2.0

Optical characteristics

Type/number of fibers

- Single-mode variant
  - ¬ One Single Mode Single Fiber per RRH2x, carrying UL and DL using CWDM
  - ¬ Single mode dual fiber (SM/DF)
- Multi-mode variant
  - ¬ Two Multi-mode fibers per RRH2x: one carrying UL, the other carrying DL

Optical fiber length

- Up to 500 m (0.31 mi), using MM fiber
- Up to 20 km (12.43 mi), using SM fiber

Digital Ports and Alarms

- Two optical ports to support daisy-chaining
- Six external alarms

Alcatel·Lucent

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.

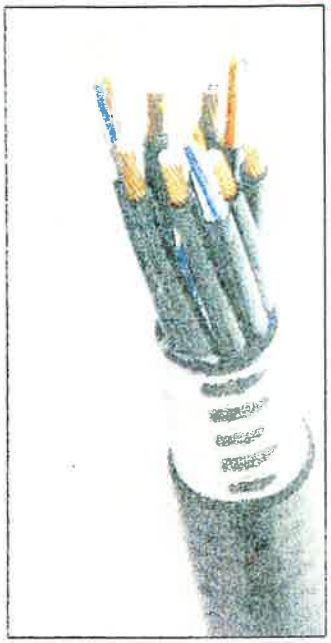


Figure 1: HYBRIFLEX Series

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
Mechanical Properties			
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)
Electrical Properties			
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)
Fiber Optic Properties			
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
DC Power Cable Properties			
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-93-638 UL Type XHHW-2, UL 44 UL-LS Limited Smoke, UL VW-1 IEEE-383 (1974), IEEE1202/FT4 RoHS Compliant
Environmental			
Installation Temperature		[°C (°F)]	-40 to +65 (-40 to149)
Operation Temperature		[°C (°F)]	-40 to +65 (-40 to149)

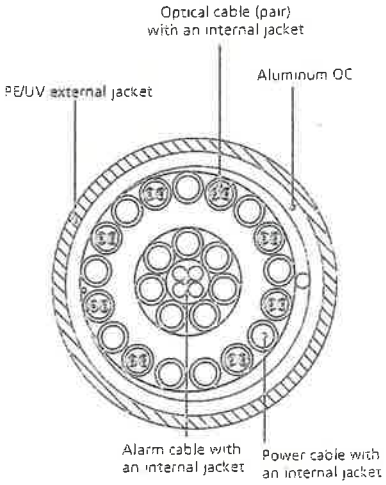


Figure 2: Construction Detail

* This data is provisional and subject to change

ATTACHMENT 2

	General	Power	Density					
Site Name: Southbury W								
Tower Height: 150Ft								
CARRIER	**# OF CHAN.**	**WATTS ERP**	**HEIGHT**	**CALC. POWER DENS**	**FREQ.**	**MAX. PERMISS. EXP.**	**FRACTION MPE**	**Total**
*AT&T GSM	1	283	152	0.0044	880	0.5867	0.75%	
*AT&T GSM	4	525	152	0.0327	1900	1.0000	3.27%	
*AT&T UMTS	2	565	152	0.0176	880	0.5867	3.00%	
*AT&T UMTS	2	875	152	0.0272	1900	1.0000	2.72%	
*AT&T LTE	1	1313	152	0.0204	734	0.4893	4.18%	
*PageNet	no power density numbers available							
Verizon	**7**	**253**	**111**	**0.0517**	**1970**	**1.0000**	**5.17%**	
Verizon	**9**	**350**	**111**	**0.0919**	**869**	**0.5793**	**15.87%**	
Verizon	**1**	**1915**	**111**	**0.0559**	**2145**	**1.0000**	**5.59%**	
Verizon	**1**	**658**	**111**	**0.0192**	**698**	**0.4653**	**4.13%**	
								44.67%
* Source: Siting Council								

ATTACHMENT 3

AMERICAN TOWER®
CORPORATION

Structural Analysis Report

Structure	:	**150 ft Monopole**
ATC Site Name	:	**Southbury CT, CT**
ATC Site Number	:	**302519**
Engineering Number	:	**56661423**
Proposed Carrier	:	**Verizon**
Carrier Site Name	:	**Southbury West**
Carrier Site Number	:	**N/A**
Site Location	:	**133 Horse Fence Hill Rd** **Southbury, CT 06488-2106** **41.459972,-73.245000**
County	:	**New Haven**
Date	:	**March 19, 2014**
Max Usage	:	**99%**
Result	:	**Pass**

Joshua L. Johnson, E.I.

Mar 19 2014 3:38 PM

AMERICAN TOWER®
CORPORATION

Eng. Number 56661423
March 19, 2014

Table of Contents

AMERICAN TOWER CORPORATION

Introduction

The purpose of this report is to summarize results of a structural analysis performed on the 150 ft monopole to reflect the change in loading by Verizon.

Supporting Documents

Tower Drawings	ITT Meyers Site #CT-0055, dated May 21, 2002
Foundation Drawing	Girard Project #1C140, dated November 19, 1987
Modifications	SpectraSite Site #CT-0055, dated May 21, 2002

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/TIA-222.

Basic Wind Speed:	95 mph (3-Second Gust)
Basic Wind Speed w/ Ice:	50 mph (3-Second Gust) w/ 3/4" radial ice concurrent
Code:	ANSI/TIA-222-G / 2003 IBC w/ 2005 CT Supplement & 2009 CT Amendment
Structure Class:	II
Exposure Category:	B
Topographic Category:	3
Crest Height:	147.5 ft

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.

Existing and Reserved Equipment

Elevation[1] (ft)		Qty	Antenna	Mount Type	Lines	Carrier
Mount	RAD					
150.0	153.0	6	Powerwave TT08-19DB111-001	Platform w/ Handrails	(2) 5/8" Hybriflex (12) 1 5/8" Coax (1) 3/8" Coax (1) 3" Conduit	AT&T Mobility
		1	Raycap DC6-48-60-18-8F			
		6	Ericsson RRUS 11			
		6	Powerwave 7770.00			
		3	KMW AM-X-CD-16-65-00T-RET			
111.0	111.0	6	RFS FD9R6004/2C-3L	T-Arms	(12) 1 5/8" Coax	Verizon
		3	Andrew 932DG90T2E-M			
		3	Powerwave P65-16-XL-2			

Equipment to be Removed

Elevation[1] (ft)		Qty	Antenna	Mount Type	Lines	Carrier
Mount	RAD					
111.0	111.0	3	Antel BXA-80063/4	-	-	Verizon
		3	Powerwave Allgon P65-16-XL-2			

Proposed Equipment

Elevation[1] (ft)		Qty	Antenna	Mount Type	Lines	Carrier
Mount	RAD					
111.0	111.0	3	Alcatel-Lucent RRH2x40-AWS	T-Arms	(1) 1 5/8" Hybriflex	Verizon
		1	RFS DB-T1-6Z-8AB-0Z			
		3	Andrew HBX-6517DS-VTM			
		3	Andrew LNX-6514DS-T4M			

[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).

Install proposed coax inside the pole shaft.

AMERICAN TOWER®
CORPORATION

Structure Usages

Structural Component	Controlling Usage	Pass/Fail
Anchor Bolts	67%	Pass
Shaft	99%	Pass
Base Plate	43%	Pass
Reinforcement	71%	Pass

Foundations

Reaction Component	Analysis Reactions
Moment (Kips-Ft)	2,236.1
Axial (Kips)	42.9
Shear (Kips)	24.4

The structure base reactions resulting from this analysis were found to be acceptable through analysis based on geotechnical and foundation information, therefore no modification or reinforcement of the foundation will be required.

Deflection and Sway*

Antenna Elevation (ft)	Deflection (ft)	Sway (Rotation) (°)
111.0	2.248	2.444

***Deflection and Sway was evaluated considering a design wind speed of 60 mph (3-Second Gust) per ANSI/TIA-222-G**

AMERICAN TOWER®
CORPORATION

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:

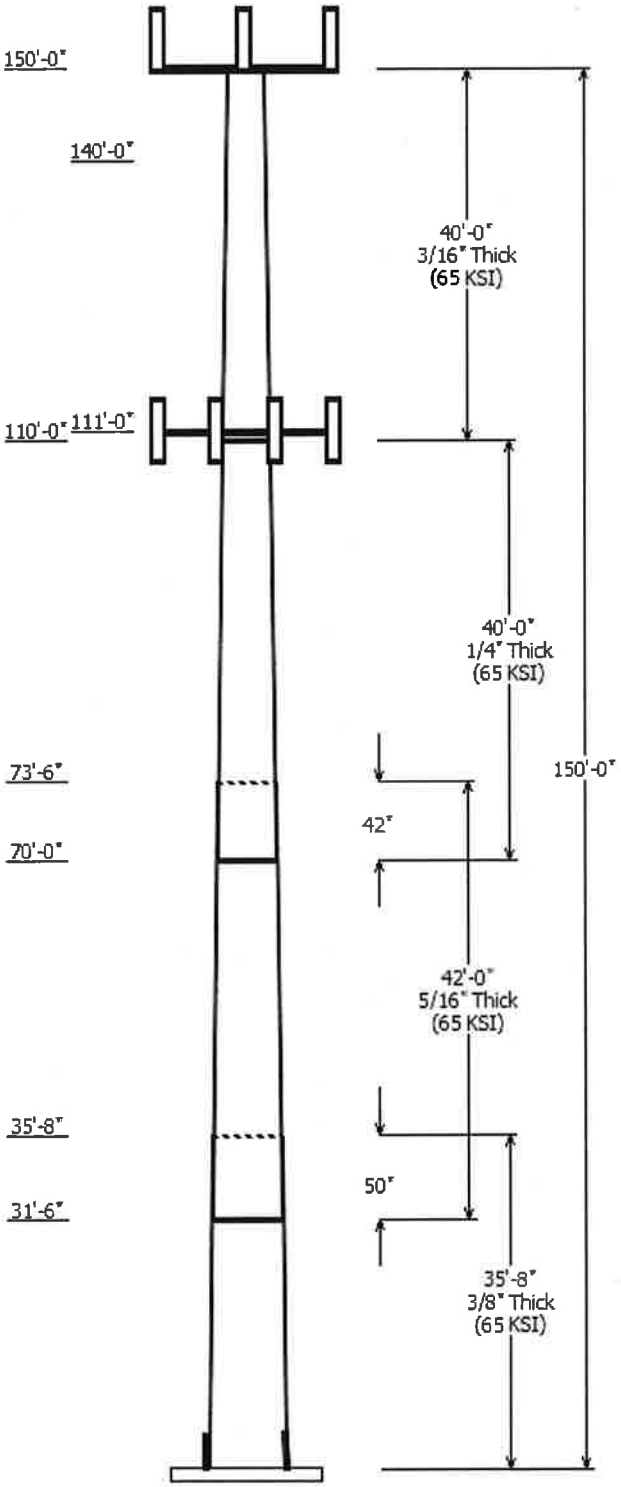
-- Information supplied by the client regarding the structure itself, antenna, mounts and feed line loading on the structure and its components, or other relevant information.

-- Information from drawings in the possession of American Tower Corporation, or generated by field inspections or measurements of the structure.

It is the responsibility of the client to ensure that the information provided to ATC Tower Services, Inc. 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 American Tower Corporation, 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. ATC Tower Services, Inc. is not responsible for the conclusions, opinions and recommendations made by others based on the information we supply.



Job Information

Pole :	302519	Code:	ANSI/TIA-222 Rev G
Description :	150 ft ITT Meyer Type "B" Monopole		
Client :	Verizon Wireless	Struct Class :	II
Location :	Southbury CT, CT		
Shape :	12 Sides	Exposure :	B
Height :	150.00 (ft)	Topo :	3
Base Elev (ft):	0.00		
Taper:	0.156709 (in/ft)		

Sections Properties

Shaft Section	Length (ft)	Diameter (in) Across Flats Top	Bottom	Thick (in)	Joint Type	Overlap Length (in)	Taper (in/ft)	Steel Grade (ksi)
1	35.667	31.78	37.37	0.375		0.000	0.156709	65
2	42.000	26.47	33.06	0.313	Slip Joint	50.000	0.156709	65
3	40.000	21.25	27.52	0.250	Slip Joint	42.000	0.156709	65
4	40.000	14.99	21.25	0.188	Butt Joint	0.000	0.156709	65

Discrete Appurtenance

Attach Elev (ft)	Force Elev (ft)	Qty	Description
150.000	153.000	3	KMW AM-X-CD-16-65-00T-RET
150.000	153.000	1	Raycap DC6-48-60-18-8F
150.000	153.000	6	Ericsson RRUS 11
150.000	150.000	1	Flat Platform w/ Handrails
150.000	153.000	6	Powerwave TT08-19DB111-001
150.000	153.000	6	Powerwave 7770.00
140.000	140.000	3	Flush Mounts
111.000	111.000	3	Andrew LNX-6514DS-T4M
111.000	111.000	1	RFS DB-T1-6Z-8AB-0Z
111.000	111.000	3	Andrew HBX-6517DS-VTM
111.000	111.000	3	Alcatel-Lucent RRH2x40-AWS
111.000	111.000	3	Round T-Arms
111.000	111.000	6	RFS FD9R6004/2C-3L
111.000	111.000	3	Powerwave P65-16-XL-2
111.000	111.000	3	Andrew 932DG90T2E-M_2

Linear Appurtenance

Elev (ft) From	To	Description	Exposed To Wind
10.000	111.0	1 5/8" Coax	No
10.000	150.0	1 5/8" Coax	No
10.000	150.0	3/8" Coax	No
10.000	150.0	5/8" Hybriflex	No
0.000	150.0	3" Conduit	No
0.000	22.000	#20 Dywidag	Yes
0.000	111.0	1 5/8" Hybriflex	No

Load Cases

1.2D + 1.6W	95.00 mph with No Ice
0.9D + 1.6W	95.00 mph with No Ice (Reduced DL)
1.2D + 1.0Di + 1.0Wi	50.00 mph with 0.75 in Radial Ice
1.0D + 1.0W	60.00 mph Serviceability

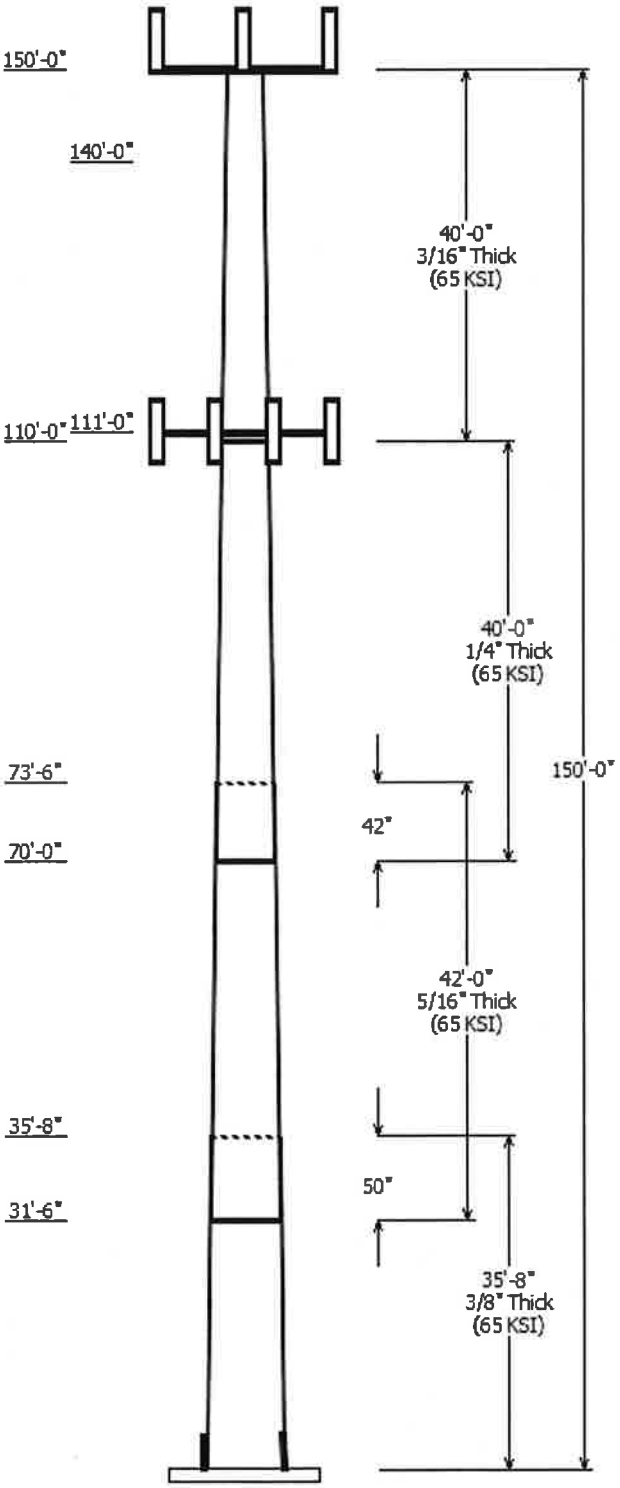
Reactions

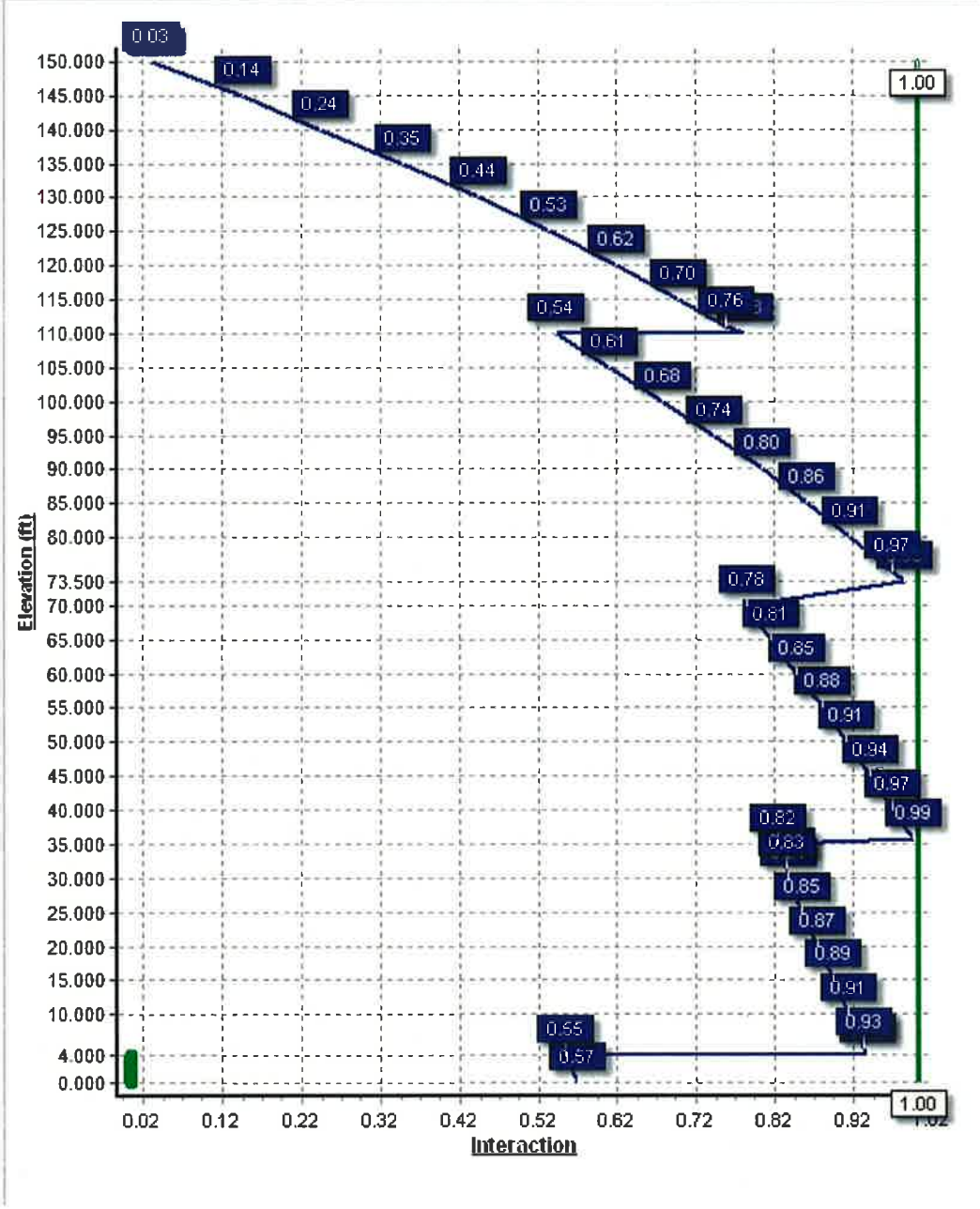
Load Case	Moment (kip-ft)	Shear (kip)	Axial (kip)
1.2D + 1.6W	2236.06	24.41	26.37
0.9D + 1.6W	2189.14	24.06	19.83

1.2D + 1.0Di + 1.0Wi	585.83	5.74	42.92
1.0D + 1.0W	552.15	6.00	22.05

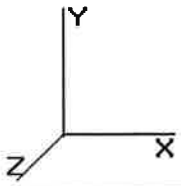
Dish Deflections

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




0.03
0.14
0.24
0.35
0.44
0.53
0.62
0.70
0.76
0.54
0.61
0.68
0.74
0.80
0.86
0.91
0.97
0.78
0.81
0.85
0.88
0.91
0.94
0.97
0.99
0.82
0.85
0.87
0.89
0.91
0.93
0.55
0.57
1.00
1.00
150.000
145.000
140.000
135.000
130.000
125.000
120.000
115.000
110.000
105.000
100.000
95.000
90.000
85.000
80.000
73.500
70.000
65.000
60.000
55.000
50.000
45.000
40.000
35.000
30.000
25.000
20.000
15.000
10.000
4.000
0.000
Elevation (ft)
0.02
0.12
0.22
0.32
0.42
0.52
0.62
0.72
0.82
0.92
Interaction

Pole :	302519	Code: ANSI/TIA-222 Rev G	3/19/2014 3:47:38 PM
Location :	Southbury CT, CT	Struct Class : II	Page: 1
Height :	150.0 (ft)	Exposure Category : B	
Base Dia :	37.37 (in)	Topographic Category : 3	
Top Dia :	14.99 (in)	Base Elev : 0.000 (ft)	
Shape :	12 Sides		
Taper :	0.156709 (in/ft)		



Shaft Section Properties

Sect Info	Length (ft)	Thick (in)	Fy (ksi)	Slip 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)
1-12	35.667	0.3750	65		0.00	5,012	37.37	0.00	44.67	7803.7	24.02	99.65	31.78	35.67	37.92	4774.1	20.03	84.75	0.156709
2-12	42.000	0.3130	65	Slip	50.00	4,243	33.06	31.50	33.00	4517.4	25.62	105.62	26.47	73.50	26.37	2304.3	19.99	84.59	0.156709
3-12	40.000	0.2500	65	Slip	42.00	2,645	27.52	70.00	21.96	2085.2	26.82	110.11	21.25	110.00	16.91	952.6	20.10	85.03	0.156709
4-12	40.000	0.1880	65	Butt	0.00	1,478	21.25	110.00	12.75	722.7	27.62	113.07	14.99	150.00	8.96	250.6	18.68	79.73	0.156709
				Shaft Weight		13,378													

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)
150.00	Ericsson RRUS 11	6	55.00	2.940	0.50	135.11	4.011	0.50	0.000	3.000
150.00	Flat Platform w/ Handrails	1	2000.00	42.400	1.00	3,485.73	64.325	1.00	0.000	0.000
150.00	KMW AM-X-CD-16-65-00T-	3	48.50	8.020	0.79	247.23	9.375	0.79	0.000	3.000
150.00	Powerwave 7770.00	6	35.00	5.500	0.65	177.42	6.614	0.65	0.000	3.000
150.00	Powerwave TT08-19DB111-	6	22.00	0.920	0.33	54.05	1.255	0.33	0.000	3.000
150.00	Raycap DC6-48-60-18-8F	1	31.80	1.280	1.00	78.12	1.746	1.00	0.000	3.000
140.00	Flush Mounts	3	200.00	3.500	1.00	563.81	7.320	1.00	0.000	0.000
111.00	Alcatel-Lucent RRH2x40-AWS	3	44.00	2.520	0.67	121.38	2.834	0.67	0.000	0.000
111.00	Andrew 932DG90T2E-M_2	3	9.50	3.490	0.66	99.70	4.446	0.66	0.000	0.000
111.00	Andrew HBX-6517DS-VTM	3	13.20	5.240	0.67	139.95	6.568	0.67	0.000	0.000
111.00	Andrew LNX-6514DS-T4M	3	38.80	8.170	0.67	252.24	9.532	0.67	0.000	0.000
111.00	Powerwave P65-16-XL-2	3	41.00	5.950	0.65	188.68	6.502	0.65	0.000	0.000
111.00	RFS DB-T1-6Z-8AB-0Z	1	44.00	4.800	0.67	194.75	5.712	0.67	0.000	0.000
111.00	RFS FD9R6004/2C-3L	6	3.10	0.370	0.33	7.61	0.504	0.33	0.000	0.000
111.00	Round T-Arms	3	250.00	9.700	0.67	468.05	18.301	0.67	0.000	0.000
	Totals	51	4701.40			12,246.83			Number of Loadings :	15

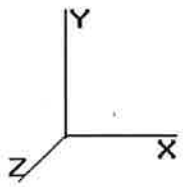
Linear Appurtenance Properties

Elev From (ft)	Elev To (ft)	Description	Exposed Width (in)	Exposed To Wind
0.00	150.00	(1) 3" Conduit	0.00	N
10.00	150.00	(12) 1 5/8" Coax	0.00	N
10.00	150.00	(1) 3/8" Coax	0.00	N
10.00	150.00	(2) 5/8" Hybriflex Cable	0.00	N
0.00	111.00	(1) 1 5/8" Hybriflex	0.00	N
10.00	111.00	(12) 1 5/8" Coax	0.00	N
0.00	22.00	(4) #20 Dywidag	5.00	Y

Additional Steel

Elev From (ft)	Elev To (ft)	Qty	Description	Fy (ksi)	Offset (in)	Intermediate Connections — Description	Spacing (in)	Len (in)	Connectors	Continuation?
0.00	4.00	4	SOL #20 All Thread	80	3.31	6" Angle Bracket	30.0	3.31	5/8" A36 U-Bolt	No

Pole :	302519	Code: ANSI/TIA-222 Rev G	
Location :	Southbury CT, CT	Struct Class : II	3/19/2014 3:47:38 PM
Height :	150.0 (ft)	Exposure Category : B	Page: 2
Base Dia :	37.37 (in)	Topographic Category : 3	
Top Dia :	14.99 (in)	Base Elev : 0.000 (ft)	
Shape :	12 Sides		
Taper :	0.156709 (in/ft)		

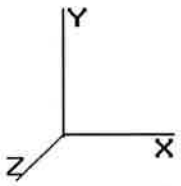


Segment Properties

(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)	S (in3)	Weight (lb)	Additional Reinforcing Area (in^2)	Additional Reinforcing Ix (in^4)	Additional Reinforcing Weight (lb)
0.00		0.3750	37.370	44.671	7,803.7	24.02	99.65	78.5	403.4	0.0	19.64	5,314	0.0
4.00	Reinf. Top	0.3750	36.743	43.915	7,413.7	23.57	97.98	79.0	389.8	602.9	19.64	5,172	267.2
5.00		0.3750	36.586	43.725	7,318.3	23.46	97.56	79.1	386.4	149.1			
10.00		0.3750	35.803	42.779	6,853.5	22.90	95.47	79.7	369.8	735.9			
15.00		0.3750	35.019	41.833	6,408.7	22.34	93.38	80.3	353.5	719.8			
20.00		0.3750	34.236	40.887	5,983.6	21.78	91.30	81.0	337.6	703.7			
25.00		0.3750	33.452	39.941	5,577.8	21.22	89.21	81.6	322.1	687.6			
30.00		0.3750	32.669	38.995	5,190.7	20.66	87.12	81.9	307.0	671.5			
31.50	Bot - Section 2	0.3750	32.434	38.711	5,078.2	20.50	86.49	81.9	302.5	198.3			
35.00		0.3750	31.885	38.049	4,822.0	20.10	85.03	81.9	292.2	846.9			
35.67	Top - Section 1	0.3130	32.407	32.346	4,252.5	25.06	103.54	77.4	253.5	159.7			
40.00		0.3130	31.728	31.662	3,988.2	24.48	101.37	78.0	242.8	471.9			
45.00		0.3130	30.944	30.872	3,697.2	23.81	98.86	78.7	230.8	532.0			
50.00		0.3130	30.161	30.082	3,420.7	23.14	96.36	79.5	219.1	518.5			
55.00		0.3130	29.377	29.292	3,158.3	22.47	93.86	80.2	207.7	505.1			
60.00		0.3130	28.593	28.503	2,909.7	21.80	91.35	80.9	196.6	491.7			
65.00		0.3130	27.810	27.713	2,674.5	21.13	88.85	81.7	185.8	478.2			
70.00	Bot - Section 3	0.3130	27.026	26.923	2,452.3	20.46	86.35	81.9	175.3	464.8			
73.50	Top - Section 2	0.2500	26.978	21.516	1,961.9	26.24	107.91	76.1	140.5	576.2			
75.00		0.2500	26.743	21.327	1,910.6	25.98	106.97	76.4	138.0	109.3			
80.00		0.2500	25.959	20.696	1,746.0	25.14	103.84	77.3	129.9	357.5			
85.00		0.2500	25.176	20.065	1,591.2	24.30	100.70	78.2	122.1	346.8			
90.00		0.2500	24.392	19.434	1,445.8	23.46	97.57	79.1	114.5	336.0			
95.00		0.2500	23.609	18.804	1,309.6	22.62	94.43	80.0	107.2	325.3			
100.0		0.2500	22.825	18.173	1,182.1	21.78	91.30	81.0	100.1	314.6			
105.0		0.2500	22.042	17.542	1,063.3	20.94	88.17	81.9	93.2	303.8			
110.0	Top - Section 3	0.2500	21.258	16.911	952.7	20.10	85.03	81.9	86.6	293.1			
110.0	Bot - Section 4	0.1880	21.258	12.755	722.8	27.62	113.07	74.6	65.7				
111.0		0.1880	21.101	12.660	706.7	27.40	112.24	74.8	64.7	43.2			
115.0		0.1880	20.474	12.281	645.1	26.50	108.91	75.8	60.9	169.7			
120.0		0.1880	19.691	11.806	573.2	25.39	104.74	77.0	56.2	204.9			
125.0		0.1880	18.907	11.332	506.8	24.27	100.57	78.2	51.8	196.8			
130.0		0.1880	18.124	10.858	445.8	23.15	96.40	79.5	47.5	188.8			
135.0		0.1880	17.340	10.383	389.9	22.03	92.24	80.7	43.4	180.7			
140.0		0.1880	16.557	9.909	338.9	20.92	88.07	81.9	39.5	172.6			
145.0		0.1880	15.773	9.435	292.5	19.80	83.90	81.9	35.8	164.6			
150.0		0.1880	14.990	8.960	250.6	18.68	79.73	81.9	32.3	156.5			
										13,377.9			267.2

Pole :	302519	Code: ANSI/TIA-222 Rev G	3/19/2014 3:47:38 PM
Location :	Southbury CT, CT	Struct Class : II	Page: 3
Height :	150.0 (ft)	Exposure Category : B	
Base Dia :	37.37 (in)	Topographic Category : 3	
Top Dia :	14.99 (in)	Base Elev : 0.000 (ft)	
Shape :	12 Sides		
Taper :	0.156709 (in/ft)		



Load Case: 1.2D + 1.6W — 95.00 mph with No Ice — 30 Iterations

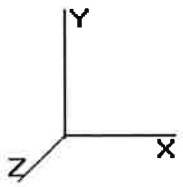
Gust Response Factor : 1.10
Dead Load Factor : 1.20
Wind Load Factor : 1.60

Wind Importance Factor : 1.00

Shaft Segment Forces (Factored)

Seg Top Elev (ft)	Description	Kzt	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		2.18	0.70	33.517	36.86	378.48	1.000		0.000	0.00	0.000	0.00	0.0	0.0	0.0
4.00	Reinf. Top	2.10	0.70	32.384	35.62	365.79	1.091	*	0.000	4.00	12.788	13.95	795.2	0.0	990.7
5.00		2.09	0.70	32.113	35.32	362.70	1.095	*	0.000	1.00	3.163	3.46	195.8	0.0	178.9
10.00		2.00	0.70	30.829	33.91	347.76	1.100	*	0.000	5.00	15.613	17.18	932.1	0.0	883.1
15.00		1.93	0.70	29.652	32.61	333.60	1.109	*	0.000	5.00	15.275	16.94	884.2	0.0	863.8
20.00		1.86	0.70	28.573	31.43	320.14	1.118	*	0.000	5.00	14.937	16.71	840.1	0.0	844.4
25.00		1.79	0.70	27.583	30.34	307.35	1.000		0.000	5.00	14.599	14.60	708.7	0.0	825.1
30.00		1.73	0.70	26.696	29.36	295.28	1.000		0.000	5.00	14.261	14.26	670.0	0.0	805.8
31.50	Bot - Section 2	1.71	0.71	26.808	29.48	293.78	1.000		0.000	1.50	4.212	4.21	198.7	0.0	238.0
35.00		1.68	0.73	27.023	29.72	289.96	1.000		0.000	3.50	9.900	9.90	470.8	0.0	1,016.3
35.67	Top - Section 1	1.67	0.73	27.057	29.76	289.20	1.000		0.000	0.67	1.867	1.87	88.9	0.0	191.6
40.00		1.63	0.76	27.238	29.96	289.68	1.000		0.000	4.33	11.988	11.99	574.7	0.0	566.3
45.00		1.58	0.78	27.374	30.11	283.23	1.000		0.000	5.00	13.517	13.52	651.2	0.0	638.4
50.00		1.54	0.81	27.455	30.20	276.46	1.000		0.000	5.00	13.179	13.18	636.8	0.0	622.2
55.00		1.50	0.83	27.496	30.24	269.48	1.000		0.000	5.00	12.841	12.84	621.4	0.0	606.1
60.00		1.46	0.85	27.511	30.26	262.36	1.000		0.000	5.00	12.503	12.50	605.4	0.0	590.0
65.00		1.43	0.87	27.507	30.25	255.16	1.000		0.000	5.00	12.165	12.17	588.9	0.0	573.9
70.00	Bot - Section 3	1.40	0.89	27.491	30.24	247.90	1.000		0.000	5.00	11.827	11.83	572.2	0.0	557.7
73.50	Top - Section 2	1.38	0.90	27.476	30.22	242.80	1.000		0.000	3.50	8.229	8.23	397.9	0.0	691.5
75.00		1.37	0.91	27.468	30.21	245.19	1.000		0.000	1.50	3.476	3.48	168.1	0.0	131.2
80.00		1.34	0.92	27.442	30.18	237.90	1.000		0.000	5.00	11.367	11.37	549.0	0.0	429.0
85.00		1.32	0.94	27.416	30.15	230.61	1.000		0.000	5.00	11.029	11.03	532.2	0.0	416.1
90.00		1.30	0.95	27.391	30.13	223.33	1.000		0.000	5.00	10.691	10.69	515.4	0.0	403.2
95.00		1.28	0.97	27.369	30.10	216.07	1.000		0.000	5.00	10.353	10.35	498.7	0.0	390.3
100.0		1.26	0.98	27.352	30.08	208.83	1.000		0.000	5.00	10.015	10.01	482.1	0.0	377.5
105.0		1.24	1.00	27.339	30.07	201.61	1.000		0.000	5.00	9.677	9.68	465.6	0.0	364.6
110.0	Top - Section 3	1.22	1.01	27.332	30.06	194.42	1.000		0.000	5.00	9.339	9.34	449.2	0.0	351.7
111.0	Appertunance(s)	1.22	1.01	27.331	30.06	192.98	1.000		0.000	1.00	1.827	1.83	87.9	0.0	51.9
115.0		1.21	1.02	27.331	30.06	187.25	1.000		0.000	4.00	7.174	7.17	345.1	0.0	203.7
120.0		1.19	1.04	27.335	30.06	180.10	1.000		0.000	5.00	8.663	8.66	416.8	0.0	245.9
125.0		1.18	1.05	27.346	30.08	172.97	1.000		0.000	5.00	8.325	8.32	400.7	0.0	236.2
130.0		1.17	1.06	27.363	30.09	165.85	1.000		0.000	5.00	7.987	7.99	384.6	0.0	226.5
135.0		1.15	1.07	27.386	30.12	158.75	1.000		0.000	5.00	7.649	7.65	368.7	0.0	216.8
140.0	Appertunance(s)	1.14	1.08	27.415	30.15	151.65	1.000		0.000	5.00	7.311	7.31	352.8	0.0	207.1
145.0		1.13	1.09	27.450	30.19	144.57	1.000		0.000	5.00	6.973	6.97	336.9	0.0	197.5
150.0	Appertunance(s)	1.12	1.11	27.490	30.23	137.48	1.000		0.000	5.00	6.635	6.63	321.0	0.0	187.8
* = Cf Adjusted By Linear Load Ra Effect							Totals:			150.00			17,108.1	0.0	16,320.7

Pole :	302519	Code:	ANSI/TIA-222 Rev G
Location :	Southbury CT, CT	Struct Class :	II
Height :	150.0 (ft)	Exposure Category :	B
Base Dia :	37.37 (in)	Topographic Category :	3
Top Dia :	14.99 (in)	Base Elev :	0.000 (ft)
Shape :	12 Sides		
Taper :	0.156709 (in/ft)		



Load Case: 1.2D + 1.6W — 95.00 mph with No Ice — 30 Iterations

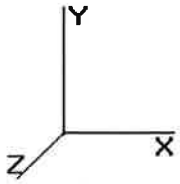
Gust Response Factor : 1.10
Dead Load Factor : 1.20
Wind Load Factor : 1.60

Wind Importance Factor : 1.00

Discrete Appurtenance Segment Forces (Factored)

Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	Orientation Factor	Ka	Total EPAa (sf)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)	Dead Load (lb)
111.0	Andrew 932DG90T2E-	3	27.331	30.064	0.66	0.80	5.53	0.000	0.000	265.92	0.00	0.00	34.20
111.0	Powerwave P65-16-	3	27.331	30.064	0.65	0.80	9.28	0.000	0.000	446.49	0.00	0.00	147.60
111.0	RFS FD9R6004/2C-3L	6	27.331	30.064	0.33	0.80	0.59	0.000	0.000	28.19	0.00	0.00	22.32
111.0	Round T-Arms	3	27.331	30.064	0.67	0.75	14.62	0.000	0.000	703.39	0.00	0.00	900.00
111.0	Alcatel-Lucent RRH2x	3	27.331	30.064	0.67	0.80	4.05	0.000	0.000	194.92	0.00	0.00	158.40
111.0	Andrew HBX-6517DS-	3	27.331	30.064	0.67	0.80	8.43	0.000	0.000	405.31	0.00	0.00	47.52
111.0	RFS DB-T1-6Z-8AB-0Z	1	27.331	30.064	0.67	0.80	2.57	0.000	0.000	123.76	0.00	0.00	52.80
111.0	Andrew LNX-6514DS-	3	27.331	30.064	0.67	0.80	13.14	0.000	0.000	631.94	0.00	0.00	139.68
140.0	Flush Mounts	3	27.415	30.156	1.00	1.00	10.50	0.000	0.000	506.63	0.00	0.00	720.00
150.0	Flat Platform w/ Han	1	27.490	30.239	1.00	1.00	42.40	0.000	0.000	2,051.39	0.00	0.00	2,400.00
150.0	Powerwave 7770.00	6	27.516	30.268	0.65	0.75	16.09	0.000	3.000	779.10	0.00	2,337.30	252.00
150.0	Powerwave TT08-	6	27.516	30.268	0.33	0.75	1.37	0.000	3.000	66.16	0.00	198.49	158.40
150.0	Ericsson RRUS 11	6	27.516	30.268	0.50	0.75	6.62	0.000	3.000	320.36	0.00	961.07	396.00
150.0	Raycap DC6-48-60-18-	1	27.516	30.268	1.00	0.75	0.96	0.000	3.000	46.49	0.00	139.48	38.16
150.0	KMW AM-X-CD-16-65-	3	27.516	30.268	0.79	0.75	14.26	0.000	3.000	690.38	0.00	2,071.14	174.60
										7,260.44			5,641.68

Pole :	302519	Code: ANSI/TIA-222 Rev G	
Location :	Southbury CT, CT	Struct Class : II	3/19/2014 3:47:38 PM
Height :	150.0 (ft)	Exposure Category : B	Page: 5
Base Dia :	37.37 (in)	Topographic Category : 3	
Top Dia :	14.99 (in)	Base Elev : 0.000 (ft)	
Shape :	12 Sides		
Taper :	0.156709 (in/ft)		



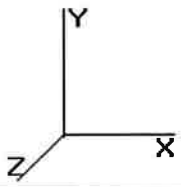
Load Case: 1.2D + 1.6W — 95.00 mph with No Ice — 30 Iterations

Gust Response Factor : 1.10
Dead Load Factor : 1.20
Wind Load Factor : 1.60
Wind Importance Factor : 1.00

Linear Appurtenance Segment Forces (Factored)

Seg Top Elev (ft)	Description	Exposed To Wind	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	qz (psf)	Ra	Cf Adjust Factor	F X (lb)	Dead Load (lb)
4.00	(4) #20 Dywidag	Yes	4.00	0.000	5.00	1.67	0.00	32.384	0.130	1.091	0.00	0.00
5.00	(4) #20 Dywidag	Yes	1.00	0.000	5.00	0.42	0.00	32.113	0.132	1.095	0.00	0.00
10.00	(4) #20 Dywidag	Yes	5.00	0.000	5.00	2.08	0.00	30.829	0.133	1.100	0.00	0.00
15.00	(4) #20 Dywidag	Yes	5.00	0.000	5.00	2.08	0.00	29.652	0.136	1.109	0.00	0.00
20.00	(4) #20 Dywidag	Yes	5.00	0.000	5.00	2.08	0.00	28.573	0.139	1.118	0.00	0.00
25.00	(4) #20 Dywidag	Yes	2.00	0.000	5.00	0.83	0.00	27.583	0.057	0.000	0.00	0.00
										Totals:	0.00	0.00

Pole :	302519	Code: ANSI/TIA-222 Rev G	
Location :	Southbury CT, CT	Struct Class : II	
Height :	150.0 (ft)	Exposure Category : B	
Base Dia :	37.37 (in)	Topographic Category : 3	
Top Dia :	14.99 (in)	Base Elev : 0.000 (ft)	
Shape :	12 Sides		
Taper :	0.156709 (in/ft)		



Load Case: 1.2D + 1.6W — 95.00 mph with No Ice — 30 Iterations

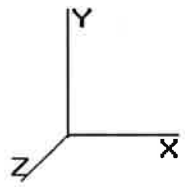
Gust Response Factor : 1.10
Dead Load Factor : 1.20
Wind Load Factor : 1.60

Wind Importance 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
4.00		795.19	1,033.27	0.00	0.00
5.00		195.80	189.59	0.00	0.00
10.00		932.12	936.35	0.00	0.00
15.00		884.19	1,037.38	0.00	0.00
20.00		840.11	1,018.07	0.00	0.00
25.00		708.72	998.75	0.00	0.00
30.00		670.05	979.43	0.00	0.00
31.50		198.74	290.05	0.00	0.00
35.00		470.85	1,137.81	0.00	0.00
35.67		88.89	214.73	0.00	0.00
40.00		574.72	716.78	0.00	0.00
45.00		651.24	811.99	0.00	0.00
50.00		636.83	795.87	0.00	0.00
55.00		621.43	779.75	0.00	0.00
60.00		605.39	763.62	0.00	0.00
65.00		588.94	747.50	0.00	0.00
70.00		572.24	731.37	0.00	0.00
73.50		397.93	813.03	0.00	0.00
75.00		168.05	183.30	0.00	0.00
80.00		549.01	602.61	0.00	0.00
85.00		532.17	589.74	0.00	0.00
90.00		515.39	576.86	0.00	0.00
95.00		498.70	563.98	0.00	0.00
100.0		482.11	551.10	0.00	0.00
105.0		465.62	538.22	0.00	0.00
110.0		449.24	525.34	0.00	0.00
111.0		2,887.83	1,589.14	0.00	0.00
115.0		345.07	289.12	0.00	0.00
120.0		416.78	352.69	0.00	0.00
125.0		400.67	343.00	0.00	0.00
130.0		384.64	333.32	0.00	0.00
135.0		368.68	323.63	0.00	0.00
140.0		859.39	1,033.95	0.00	0.00
145.0		336.87	304.27	0.00	0.00
150.0		4,274.90	3,713.74	0.00	5,707.48
	Totals:	24,368.50	26,409.36	0.00	5,707.48

Pole :	302519	Code: ANSI/TIA-222 Rev G	
Location :	Southbury CT, CT	Struct Class : II	
Height :	150.0 (ft)	Exposure Category : B	
Base Dia :	37.37 (in)	Topographic Category : 3	
Top Dia :	14.99 (in)	Base Elev : 0.000 (ft)	
Shape :	12 Sides		
Taper :	0.156709 (in/ft)		



Load Case: 1.2D + 1.6W — 95.00 mph with No Ice — 30 Iterations

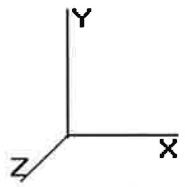
Gust Response Factor : 1.10
Dead Load Factor : 1.20
Wind Load Factor : 1.60

Wind Importance Factor : 1.00

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-26.37	-24.41	0.00	-2,236.06	0.00	2,236.06	3,156.63	1,578.31	4,810.15	2,375.55	0.00	0.00	0.566
4.00	-25.29	-23.67	0.00	-2,138.41	0.00	2,138.41	3,122.45	1,561.22	4,676.64	2,309.62	0.08	-0.19	0.551
4.00	-25.29	-23.67	0.00	-2,138.41	0.00	2,138.41	3,122.45	1,561.22	4,676.64	2,309.62	0.08	-0.19	0.934
5.00	-25.01	-23.57	0.00	-2,114.74	0.00	2,114.74	3,113.80	1,556.90	4,643.38	2,293.19	0.13	-0.24	0.930
10.00	-23.92	-22.80	0.00	-1,996.89	0.00	1,996.89	3,069.93	1,534.97	4,477.89	2,211.46	0.59	-0.64	0.911
15.00	-22.74	-22.06	0.00	-1,882.90	0.00	1,882.90	3,025.02	1,512.51	4,313.78	2,130.42	1.47	-1.04	0.892
20.00	-21.59	-21.35	0.00	-1,772.60	0.00	1,772.60	2,979.08	1,489.54	4,151.15	2,050.10	2.78	-1.45	0.872
25.00	-20.46	-20.76	0.00	-1,665.83	0.00	1,665.83	2,932.09	1,466.05	3,990.10	1,970.56	4.51	-1.85	0.853
30.00	-19.41	-20.15	0.00	-1,562.02	0.00	1,562.02	2,874.30	1,437.15	3,817.76	1,885.45	6.67	-2.27	0.835
31.50	-19.06	-20.01	0.00	-1,531.80	0.00	1,531.80	2,853.38	1,426.69	3,762.06	1,857.94	7.40	-2.39	0.831
35.00	-17.88	-19.54	0.00	-1,461.77	0.00	1,461.77	2,804.56	1,402.28	3,633.70	1,794.55	9.27	-2.69	0.821
35.67	-17.60	-19.51	0.00	-1,448.74	0.00	1,448.74	2,252.64	1,126.32	2,978.99	1,471.21	9.65	-2.74	0.993
40.00	-16.78	-19.02	0.00	-1,364.21	0.00	1,364.21	2,223.04	1,111.52	2,877.04	1,420.86	12.30	-3.11	0.968
45.00	-15.85	-18.45	0.00	-1,269.11	0.00	1,269.11	2,187.92	1,093.96	2,760.26	1,363.19	15.81	-3.58	0.939
50.00	-14.95	-17.89	0.00	-1,176.84	0.00	1,176.84	2,151.76	1,075.88	2,644.50	1,306.02	19.80	-4.05	0.908
55.00	-14.08	-17.33	0.00	-1,087.40	0.00	1,087.40	2,114.56	1,057.28	2,529.85	1,249.40	24.29	-4.52	0.877
60.00	-13.23	-16.77	0.00	-1,000.76	0.00	1,000.76	2,076.32	1,038.16	2,416.42	1,193.38	29.27	-4.99	0.845
65.00	-12.41	-16.22	0.00	-916.91	0.00	916.91	2,037.04	1,018.52	2,304.30	1,138.01	34.73	-5.46	0.812
70.00	-11.63	-15.66	0.00	-835.83	0.00	835.83	1,984.52	992.26	2,180.20	1,076.72	40.69	-5.92	0.782
73.50	-10.80	-15.22	0.00	-781.04	0.00	781.04	1,473.65	736.82	1,623.63	801.85	45.15	-6.25	0.982
75.00	-10.55	-15.09	0.00	-758.21	0.00	758.21	1,465.96	732.98	1,600.83	790.59	47.13	-6.39	0.967
80.00	-9.88	-14.57	0.00	-682.74	0.00	682.74	1,439.67	719.83	1,525.18	753.23	54.10	-6.93	0.914
85.00	-9.23	-14.05	0.00	-609.89	0.00	609.89	1,412.33	706.17	1,450.18	716.19	61.62	-7.46	0.859
90.00	-8.61	-13.54	0.00	-539.62	0.00	539.62	1,383.95	691.98	1,375.93	679.52	69.68	-7.97	0.801
95.00	-8.01	-13.04	0.00	-471.91	0.00	471.91	1,354.54	677.27	1,302.53	643.27	78.27	-8.47	0.740
100.00	-7.44	-12.54	0.00	-406.73	0.00	406.73	1,324.08	662.04	1,230.08	607.49	87.36	-8.95	0.676
105.00	-6.89	-12.04	0.00	-344.04	0.00	344.04	1,293.03	646.52	1,159.09	572.43	96.93	-9.40	0.607
110.00	-6.40	-11.54	0.00	-283.82	0.00	283.82	1,246.54	623.27	1,076.78	531.78	106.96	-9.82	0.539
110.00	-6.40	-11.54	0.00	-283.82	0.00	283.82	856.28	428.14	744.04	367.45	106.96	-9.82	0.781
111.00	-5.29	-8.45	0.00	-272.28	0.00	272.28	852.68	426.34	735.35	363.16	109.01	-9.90	0.756
115.00	-5.01	-8.10	0.00	-238.49	0.00	238.49	837.90	418.95	700.75	346.07	117.44	-10.31	0.695
120.00	-4.67	-7.66	0.00	-198.01	0.00	198.01	818.48	409.24	657.83	324.88	128.44	-10.79	0.616
125.00	-4.36	-7.23	0.00	-159.71	0.00	159.71	798.01	399.01	615.37	303.91	139.91	-11.24	0.531
130.00	-4.07	-6.82	0.00	-123.54	0.00	123.54	776.51	388.26	573.47	283.22	151.82	-11.63	0.442
135.00	-3.79	-6.41	0.00	-89.46	0.00	89.46	753.97	376.99	532.25	262.86	164.11	-11.97	0.346
140.00	-2.94	-5.36	0.00	-57.41	0.00	57.41	730.39	365.19	491.79	242.88	176.70	-12.24	0.241
145.00	-2.70	-4.98	0.00	-30.59	0.00	30.59	695.43	347.71	445.58	220.06	189.53	-12.43	0.143
150.00	0.00	-4.27	0.00	-5.71	0.00	5.71	660.46	330.23	401.65	198.36	202.50	-12.52	0.029

Pole :	302519	Code: ANSI/TIA-222 Rev G	3/19/2014 3:47:39 PM
Location :	Southbury CT, CT	Struct Class : II	
Height :	150.0 (ft)	Exposure Category : B	Page: 8
Base Dia :	37.37 (in)	Topographic Category : 3	
Top Dia :	14.99 (in)	Base Elev : 0.000 (ft)	
Shape :	12 Sides		
Taper :	0.156709 (in/ft)		



Load Case: 0.9D + 1.6W — 95.00 mph with No Ice (Reduced DL) — 29 Iterations

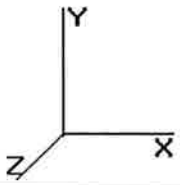
Gust Response Factor : 1.10
Dead Load Factor : 0.90
Wind Load Factor : 1.60

Wind Importance Factor : 1.00

Shaft Segment Forces (Factored)

Seg Top Elev (ft)	Description	Kzt	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		2.18	0.70	33.517	36.86	378.48	1.000		0.000	0.00	0.000	0.00	0.0	0.0	0.0
4.00	Reinf. Top	2.10	0.70	32.384	35.62	365.79	1.000	*	0.000	4.00	12.788	12.79	728.9	0.0	809.8
5.00		2.09	0.70	32.113	35.32	362.70	1.000	*	0.000	1.00	3.163	3.16	178.8	0.0	134.2
10.00		2.00	0.70	30.829	33.91	347.76	1.000	*	0.000	5.00	15.613	15.61	847.1	0.0	662.3
15.00		1.93	0.70	29.652	32.61	333.60	1.000	*	0.000	5.00	15.275	15.28	797.2	0.0	647.8
20.00		1.86	0.70	28.573	31.43	320.14	1.000	*	0.000	5.00	14.937	14.94	751.2	0.0	633.3
25.00		1.79	0.70	27.583	30.34	307.35	1.000		0.000	5.00	14.599	14.60	708.7	0.0	618.8
30.00		1.73	0.70	26.696	29.36	295.28	1.000		0.000	5.00	14.261	14.26	670.0	0.0	604.3
31.50	Bot - Section 2	1.71	0.71	26.808	29.48	293.78	1.000		0.000	1.50	4.212	4.21	198.7	0.0	178.5
35.00		1.68	0.73	27.023	29.72	289.96	1.000		0.000	3.50	9.900	9.90	470.8	0.0	762.2
35.67	Top - Section 1	1.67	0.73	27.057	29.76	289.20	1.000		0.000	0.67	1.867	1.87	88.9	0.0	143.7
40.00		1.63	0.76	27.238	29.96	289.68	1.000		0.000	4.33	11.988	11.99	574.7	0.0	424.7
45.00		1.58	0.78	27.374	30.11	283.23	1.000		0.000	5.00	13.517	13.52	651.2	0.0	478.8
50.00		1.54	0.81	27.455	30.20	276.46	1.000		0.000	5.00	13.179	13.18	636.8	0.0	466.7
55.00		1.50	0.83	27.496	30.24	269.48	1.000		0.000	5.00	12.841	12.84	621.4	0.0	454.6
60.00		1.46	0.85	27.511	30.26	262.36	1.000		0.000	5.00	12.503	12.50	605.4	0.0	442.5
65.00		1.43	0.87	27.507	30.25	255.16	1.000		0.000	5.00	12.165	12.17	588.9	0.0	430.4
70.00	Bot - Section 3	1.40	0.89	27.491	30.24	247.90	1.000		0.000	5.00	11.827	11.83	572.2	0.0	418.3
73.50	Top - Section 2	1.38	0.90	27.476	30.22	242.80	1.000		0.000	3.50	8.229	8.23	397.9	0.0	518.6
75.00		1.37	0.91	27.468	30.21	245.19	1.000		0.000	1.50	3.476	3.48	168.1	0.0	98.4
80.00		1.34	0.92	27.442	30.18	237.90	1.000		0.000	5.00	11.367	11.37	549.0	0.0	321.7
85.00		1.32	0.94	27.416	30.15	230.61	1.000		0.000	5.00	11.029	11.03	532.2	0.0	312.1
90.00		1.30	0.95	27.391	30.13	223.33	1.000		0.000	5.00	10.691	10.69	515.4	0.0	302.4
95.00		1.28	0.97	27.369	30.10	216.07	1.000		0.000	5.00	10.353	10.35	498.7	0.0	292.8
100.0		1.26	0.98	27.352	30.08	208.83	1.000		0.000	5.00	10.015	10.01	482.1	0.0	283.1
105.0		1.24	1.00	27.339	30.07	201.61	1.000		0.000	5.00	9.677	9.68	465.6	0.0	273.4
110.0	Top - Section 3	1.22	1.01	27.332	30.06	194.42	1.000		0.000	5.00	9.339	9.34	449.2	0.0	263.8
111.0	Appertunance(s)	1.22	1.01	27.331	30.06	192.98	1.000		0.000	1.00	1.827	1.83	87.9	0.0	38.9
115.0		1.21	1.02	27.331	30.06	187.25	1.000		0.000	4.00	7.174	7.17	345.1	0.0	152.8
120.0		1.19	1.04	27.335	30.06	180.10	1.000		0.000	5.00	8.663	8.66	416.8	0.0	184.4
125.0		1.18	1.05	27.346	30.08	172.97	1.000		0.000	5.00	8.325	8.32	400.7	0.0	177.2
130.0		1.17	1.06	27.363	30.09	165.85	1.000		0.000	5.00	7.987	7.99	384.6	0.0	169.9
135.0		1.15	1.07	27.386	30.12	158.75	1.000		0.000	5.00	7.649	7.65	368.7	0.0	162.6
140.0	Appertunance(s)	1.14	1.08	27.415	30.15	151.65	1.000		0.000	5.00	7.311	7.31	352.8	0.0	155.4
145.0		1.13	1.09	27.450	30.19	144.57	1.000		0.000	5.00	6.973	6.97	336.9	0.0	148.1
150.0	Appertunance(s)	1.12	1.11	27.490	30.23	137.48	1.000		0.000	5.00	6.635	6.63	321.0	0.0	140.8
* = Cf Adjusted By Linear Load Ra Effect							Totals:			150.00			16,763.8	0.0	12,307.3

Pole :	302519	Code: ANSI/TIA-222 Rev G	
Location :	Southbury CT, CT	Struct Class : II	3/19/2014 3:47:39 PM
Height :	150.0 (ft)	Exposure Category : B	Page: 9
Base Dia :	37.37 (in)	Topographic Category : 3	
Top Dia :	14.99 (in)	Base Elev : 0.000 (ft)	
Shape :	12 Sides		
Taper :	0.156709 (in/ft)		



Load Case: 0.9D + 1.6W — 95.00 mph with No Ice (Reduced DL) — 29 Iterations

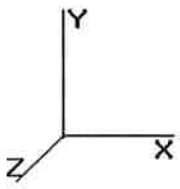
Gust Response Factor : 1.10
Dead Load Factor : 0.90
Wind Load Factor : 1.60

Wind Importance Factor : 1.00

Discrete Appurtenance Segment Forces (Factored)

Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	Orientation Factor	Ka	Total EPAa (sf)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)	Dead Load (lb)
111.0	Andrew 932DG90T2E-	3	27.331	30.064	0.66	0.80	5.53	0.000	0.000	265.92	0.00	0.00	25.65
111.0	Powerwave P65-16-	3	27.331	30.064	0.65	0.80	9.28	0.000	0.000	446.49	0.00	0.00	110.70
111.0	RFS FD9R6004/2C-3L	6	27.331	30.064	0.33	0.80	0.59	0.000	0.000	28.19	0.00	0.00	16.74
111.0	Round T-Arms	3	27.331	30.064	0.67	0.75	14.62	0.000	0.000	703.39	0.00	0.00	675.00
111.0	Alcatel-Lucent RRH2x	3	27.331	30.064	0.67	0.80	4.05	0.000	0.000	194.92	0.00	0.00	118.80
111.0	Andrew HBX-6517DS-	3	27.331	30.064	0.67	0.80	8.43	0.000	0.000	405.31	0.00	0.00	35.64
111.0	RFS DB-T1-6Z-8AB-0Z	1	27.331	30.064	0.67	0.80	2.57	0.000	0.000	123.76	0.00	0.00	39.60
111.0	Andrew LNX-6514DS-	3	27.331	30.064	0.67	0.80	13.14	0.000	0.000	631.94	0.00	0.00	104.76
140.0	Flush Mounts	3	27.415	30.156	1.00	1.00	10.50	0.000	0.000	506.63	0.00	0.00	540.00
150.0	Flat Platform w/ Han	1	27.490	30.239	1.00	1.00	42.40	0.000	0.000	2,051.39	0.00	0.00	1,800.00
150.0	Powerwave 7770.00	6	27.516	30.268	0.65	0.75	16.09	0.000	3.000	779.10	0.00	2,337.30	189.00
150.0	Powerwave TT08-	6	27.516	30.268	0.33	0.75	1.37	0.000	3.000	66.16	0.00	198.49	118.80
150.0	Ericsson RRUS 11	6	27.516	30.268	0.50	0.75	6.62	0.000	3.000	320.36	0.00	961.07	297.00
150.0	Raycap DC6-48-60-18-	1	27.516	30.268	1.00	0.75	0.96	0.000	3.000	46.49	0.00	139.48	28.62
150.0	KMW AM-X-CD-16-65-	3	27.516	30.268	0.79	0.75	14.26	0.000	3.000	690.38	0.00	2,071.14	130.95
										7,260.44			4,231.26

Pole :	302519	Code: ANSI/TIA-222 Rev G	
Location :	Southbury CT, CT	Struct Class : II	3/19/2014 3:47:39 PM
Height :	150.0 (ft)	Exposure Category : B	Page: 10
Base Dia :	37.37 (in)	Topographic Category : 3	
Top Dia :	14.99 (in)	Base Elev : 0.000 (ft)	
Shape :	12 Sides		
Taper :	0.156709 (in/ft)		



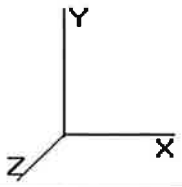
Load Case: 0.9D + 1.6W — 95.00 mph with No Ice (Reduced DL) — 29 Iterations

Gust Response Factor : 1.10
Dead Load Factor : 0.90
Wind Load Factor : 1.60
Wind Importance Factor : 1.00

Linear Appurtenance Segment Forces (Factored)

Seg Top Elev (ft)	Description	Exposed To Wind	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	qz (psf)	Ra	Cf Adjust Factor	F X (lb)	Dead Load (lb)
4.00	(4) #20 Dywidag	Yes	4.00	0.000	5.00	1.67	0.00	32.384	0.130	1.091	0.00	0.00
5.00	(4) #20 Dywidag	Yes	1.00	0.000	5.00	0.42	0.00	32.113	0.132	1.095	0.00	0.00
10.00	(4) #20 Dywidag	Yes	5.00	0.000	5.00	2.08	0.00	30.829	0.133	1.100	0.00	0.00
15.00	(4) #20 Dywidag	Yes	5.00	0.000	5.00	2.08	0.00	29.652	0.136	1.109	0.00	0.00
20.00	(4) #20 Dywidag	Yes	5.00	0.000	5.00	2.08	0.00	28.573	0.139	1.118	0.00	0.00
25.00	(4) #20 Dywidag	Yes	2.00	0.000	5.00	0.83	0.00	27.583	0.057	0.000	0.00	0.00
										Totals:	0.00	0.00

Pole :	302519	Code: ANSI/TIA-222 Rev G	
Location :	Southbury CT, CT	Struct Class : II	3/19/2014 3:47:39 PM
Height :	150.0 (ft)	Exposure Category : B	Page: 11
Base Dia :	37.37 (in)	Topographic Category : 3	
Top Dia :	14.99 (in)	Base Elev : 0.000 (ft)	
Shape :	12 Sides		
Taper :	0.156709 (in/ft)		



Load Case: 0.9D + 1.6W — 95.00 mph with No Ice (Reduced DL) — 29 Iterations

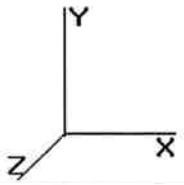
Gust Response Factor : 1.10
Dead Load Factor : 0.90
Wind Load Factor : 1.60

Wind Importance 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
4.00	728.87	841.76	0.00	0.00
5.00	178.78	142.19	0.00	0.00
10.00	847.14	702.26	0.00	0.00
15.00	797.17	778.04	0.00	0.00
20.00	751.16	763.55	0.00	0.00
25.00	708.72	749.06	0.00	0.00
30.00	670.05	734.57	0.00	0.00
31.50	198.74	217.54	0.00	0.00
35.00	470.85	853.36	0.00	0.00
35.67	88.89	161.05	0.00	0.00
40.00	574.72	537.59	0.00	0.00
45.00	651.24	609.00	0.00	0.00
50.00	636.83	596.90	0.00	0.00
55.00	621.43	584.81	0.00	0.00
60.00	605.39	572.72	0.00	0.00
65.00	588.94	560.63	0.00	0.00
70.00	572.24	548.53	0.00	0.00
73.50	397.93	609.77	0.00	0.00
75.00	168.05	137.48	0.00	0.00
80.00	549.01	451.96	0.00	0.00
85.00	532.17	442.30	0.00	0.00
90.00	515.39	432.64	0.00	0.00
95.00	498.70	422.99	0.00	0.00
100.0	482.11	413.33	0.00	0.00
105.0	465.62	403.67	0.00	0.00
110.0	449.24	394.00	0.00	0.00
111.0	2,887.83	1,191.86	0.00	0.00
115.0	345.07	216.84	0.00	0.00
120.0	416.78	264.51	0.00	0.00
125.0	400.67	257.25	0.00	0.00
130.0	384.64	249.99	0.00	0.00
135.0	368.68	242.73	0.00	0.00
140.0	859.39	775.46	0.00	0.00
145.0	336.87	228.20	0.00	0.00
150.0	4,274.90	2,785.31	0.00	5,707.48
Totals:	24,024.21	19,873.82	0.00	5,707.48

Pole :	302519	Code: ANSI/TIA-222 Rev G	
Location :	Southbury CT, CT	Struct Class : II	3/19/2014 3:47:39 PM
Height :	150.0 (ft)	Exposure Category : B	Page: 12
Base Dia :	37.37 (in)	Topographic Category : 3	
Top Dia :	14.99 (in)	Base Elev : 0.000 (ft)	
Shape :	12 Sides		
Taper :	0.156709 (in/ft)		



Load Case: 0.9D + 1.6W — 95.00 mph with No Ice (Reduced DL) — 29 Iterations

Gust Response Factor : 1.10
Dead Load Factor : 0.90
Wind Load Factor : 1.60

Wind Importance Factor : 1.00

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-19.83	-24.06	0.00	-2,189.14	0.00	2,189.14	3,156.63	1,578.31	4,810.15	2,375.55	0.00	0.00	0.553
4.00	-18.95	-23.36	0.00	-2,092.92	0.00	2,092.92	3,122.45	1,561.22	4,676.64	2,309.62	0.08	-0.19	0.538
4.00	-18.95	-23.36	0.00	-2,092.92	0.00	2,092.92	3,122.45	1,561.22	4,676.64	2,309.62	0.08	-0.19	0.912
5.00	-18.71	-23.26	0.00	-2,069.55	0.00	2,069.55	3,113.80	1,556.90	4,643.38	2,293.19	0.12	-0.23	0.909
10.00	-17.87	-22.53	0.00	-1,953.27	0.00	1,953.27	3,069.93	1,534.97	4,477.89	2,211.46	0.58	-0.62	0.889
15.00	-16.95	-21.84	0.00	-1,840.63	0.00	1,840.63	3,025.02	1,512.51	4,313.78	2,130.42	1.44	-1.02	0.870
20.00	-16.05	-21.18	0.00	-1,731.45	0.00	1,731.45	2,979.08	1,489.54	4,151.15	2,050.10	2.72	-1.41	0.850
25.00	-15.18	-20.56	0.00	-1,625.54	0.00	1,625.54	2,932.09	1,466.05	3,990.10	1,970.56	4.41	-1.81	0.830
30.00	-14.38	-19.93	0.00	-1,522.75	0.00	1,522.75	2,874.30	1,437.15	3,817.76	1,885.45	6.52	-2.21	0.813
31.50	-14.10	-19.77	0.00	-1,492.85	0.00	1,492.85	2,853.38	1,426.69	3,762.06	1,857.94	7.24	-2.34	0.809
35.00	-13.21	-19.30	0.00	-1,423.65	0.00	1,423.65	2,804.56	1,402.28	3,633.70	1,794.55	9.06	-2.62	0.798
35.67	-12.99	-19.26	0.00	-1,410.78	0.00	1,410.78	2,252.64	1,126.32	2,978.99	1,471.21	9.43	-2.68	0.965
40.00	-12.34	-18.74	0.00	-1,327.34	0.00	1,327.34	2,223.04	1,111.52	2,877.04	1,420.86	12.03	-3.03	0.940
45.00	-11.63	-18.15	0.00	-1,233.63	0.00	1,233.63	2,187.92	1,093.96	2,760.26	1,363.19	15.45	-3.49	0.911
50.00	-10.94	-17.56	0.00	-1,142.88	0.00	1,142.88	2,151.76	1,075.88	2,644.50	1,306.02	19.34	-3.95	0.880
55.00	-10.26	-16.98	0.00	-1,055.06	0.00	1,055.06	2,114.56	1,057.28	2,529.85	1,249.40	23.72	-4.40	0.850
60.00	-9.61	-16.41	0.00	-970.14	0.00	970.14	2,076.32	1,038.16	2,416.42	1,193.38	28.57	-4.86	0.818
65.00	-8.98	-15.85	0.00	-888.08	0.00	888.08	2,037.04	1,018.52	2,304.30	1,138.01	33.90	-5.31	0.785
70.00	-8.39	-15.28	0.00	-808.85	0.00	808.85	1,984.52	992.26	2,180.20	1,076.72	39.69	-5.77	0.756
73.50	-7.76	-14.85	0.00	-755.37	0.00	755.37	1,473.65	736.82	1,623.63	801.85	44.03	-6.08	0.948
75.00	-7.56	-14.71	0.00	-733.09	0.00	733.09	1,465.96	732.98	1,600.83	790.59	45.96	-6.22	0.933
80.00	-7.04	-14.18	0.00	-659.52	0.00	659.52	1,439.67	719.83	1,525.18	753.23	52.74	-6.74	0.881
85.00	-6.55	-13.66	0.00	-588.61	0.00	588.61	1,412.33	706.17	1,450.18	716.19	60.06	-7.25	0.827
90.00	-6.08	-13.14	0.00	-520.33	0.00	520.33	1,383.95	691.98	1,375.93	679.52	67.89	-7.74	0.770
95.00	-5.62	-12.64	0.00	-454.61	0.00	454.61	1,354.54	677.27	1,302.53	643.27	76.23	-8.22	0.711
100.00	-5.19	-12.14	0.00	-391.43	0.00	391.43	1,324.08	662.04	1,230.08	607.49	85.06	-8.68	0.649
105.00	-4.78	-11.65	0.00	-330.73	0.00	330.73	1,293.03	646.52	1,159.09	572.43	94.36	-9.12	0.582
110.00	-4.42	-11.16	0.00	-272.47	0.00	272.47	1,246.54	623.27	1,076.78	531.78	104.08	-9.52	0.516
110.00	-4.42	-11.16	0.00	-272.47	0.00	272.47	856.28	428.14	744.04	367.45	104.08	-9.52	0.747
111.00	-3.69	-8.13	0.00	-261.31	0.00	261.31	852.68	426.34	735.35	363.16	106.07	-9.60	0.724
115.00	-3.48	-7.78	0.00	-228.78	0.00	228.78	837.90	418.95	700.75	346.07	114.25	-10.00	0.666
120.00	-3.23	-7.35	0.00	-189.86	0.00	189.86	818.48	409.24	657.83	324.88	124.91	-10.46	0.589
125.00	-3.01	-6.93	0.00	-153.11	0.00	153.11	798.01	399.01	615.37	303.91	136.03	-10.88	0.508
130.00	-2.79	-6.52	0.00	-118.45	0.00	118.45	776.51	388.26	573.47	283.22	147.56	-11.26	0.422
135.00	-2.60	-6.13	0.00	-85.83	0.00	85.83	753.97	376.99	532.25	262.86	159.46	-11.59	0.330
140.00	-1.99	-5.14	0.00	-55.20	0.00	55.20	730.39	365.19	491.79	242.88	171.66	-11.85	0.230
145.00	-1.83	-4.76	0.00	-29.52	0.00	29.52	695.43	347.71	445.58	220.06	184.08	-12.02	0.137
150.00	0.00	-4.27	0.00	-5.71	0.00	5.71	660.46	330.23	401.65	198.36	196.64	-12.11	0.029

Pole :	302519	Code: ANSI/TIA-222 Rev G	3/19/2014 3:47:39 PM
Location :	Southbury CT, CT	Struct Class : II	Page: 13
Height :	150.0 (ft)	Exposure Category : B	
Base Dia :	37.37 (in)	Topographic Category : 3	
Top Dia :	14.99 (in)	Base Elev : 0.000 (ft)	
Shape :	12 Sides		
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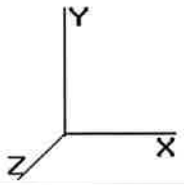


Load Case: 1.2D + 1.0Di + 1.0Wi — 50.00 mph with 0.75 in Radial Ice — 29 Iterations

Gust Response Factor : 1.10 — Ice Dead Load Factor : 1.00 — Wind Importance Factor : 1.00

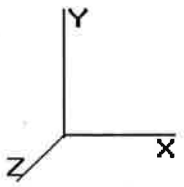
Dead Load Factor : 1.20 — Ice Importance Factor : 1.00

Wind Load Factor : 1.00

Shaft Segment Forces (Factored)

Seg Top Elev (ft)	Description	Kzt	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		2.18	0.70	9.285	10.21	0.000	1.200		0.000	0.00	0.000	0.00	0.0	0.0	0.0
4.00	Reinf. Top	2.10	0.70	8.971	9.868	0.000	1.200	*	1.577	4.00	13.839	16.61	163.9	312.9	1,303.5
5.00		2.09	0.70	8.896	9.785	0.000	1.200	*	1.608	1.00	3.431	4.12	40.3	79.5	258.4
10.00		2.00	0.70	8.540	9.394	0.000	1.200	*	1.699	5.00	17.029	20.43	192.0	412.3	1,295.3
15.00		1.93	0.70	8.214	9.035	0.000	1.200	*	1.745	5.00	16.729	20.08	181.4	415.2	1,278.9
20.00		1.86	0.70	7.915	8.706	0.000	1.200	*	1.773	5.00	16.414	19.70	171.5	413.1	1,257.5
25.00		1.79	0.70	7.641	8.405	0.000	1.200		1.791	5.00	16.091	19.31	162.3	408.3	1,233.4
30.00		1.73	0.70	7.395	8.134	0.000	1.200		1.802	5.00	15.763	18.92	153.9	402.0	1,207.8
31.50	Bot - Section 2	1.71	0.71	7.426	8.169	0.000	1.200		1.805	1.50	4.663	5.60	45.7	119.9	357.9
35.00		1.68	0.73	7.486	8.234	0.000	1.200		1.810	3.50	10.956	13.15	108.3	281.3	1,297.6
35.67	Top - Section 1	1.67	0.73	7.495	8.245	0.000	1.200		1.811	0.67	2.068	2.48	20.5	53.4	245.0
40.00		1.63	0.76	7.545	8.300	0.000	1.200		1.815	4.33	13.299	15.96	132.5	341.4	907.7
45.00		1.58	0.78	7.583	8.341	0.000	1.200		1.818	5.00	15.032	18.04	150.5	385.4	1,023.7
50.00		1.54	0.81	7.605	8.366	0.000	1.200		1.820	5.00	14.696	17.64	147.5	376.5	998.8
55.00		1.50	0.83	7.617	8.378	0.000	1.200		1.821	5.00	14.359	17.23	144.4	367.5	973.6
60.00		1.46	0.85	7.621	8.383	0.000	1.200		1.821	5.00	14.021	16.83	141.0	358.3	948.3
65.00		1.43	0.87	7.620	8.382	0.000	1.200		1.821	5.00	13.683	16.42	137.6	349.1	922.9
70.00	Bot - Section 3	1.40	0.89	7.615	8.377	0.000	1.200		1.821	5.00	13.344	16.01	134.1	339.7	897.5
73.50	Top - Section 2	1.38	0.90	7.611	8.372	0.000	1.200		1.820	3.50	9.291	11.15	93.3	237.4	928.8
75.00		1.37	0.91	7.609	8.370	0.000	1.200		1.820	1.50	3.931	4.72	39.5	100.9	232.1
80.00		1.34	0.92	7.602	8.362	0.000	1.200		1.820	5.00	12.883	15.46	129.3	326.9	755.9
85.00		1.32	0.94	7.594	8.354	0.000	1.200		1.819	5.00	12.545	15.05	125.8	317.6	733.7
90.00		1.30	0.95	7.588	8.346	0.000	1.200		1.818	5.00	12.206	14.65	122.3	308.2	711.4
95.00		1.28	0.97	7.582	8.340	0.000	1.200		1.818	5.00	11.868	14.24	118.8	298.9	689.2
100.0		1.26	0.98	7.577	8.334	0.000	1.200		1.818	5.00	11.530	13.84	115.3	289.6	667.1
105.0		1.24	1.00	7.573	8.330	0.000	1.200		1.817	5.00	11.191	13.43	111.9	280.3	644.9
110.0	Top - Section 3	1.22	1.01	7.571	8.328	0.000	1.200		1.817	5.00	10.853	13.02	108.5	271.1	622.8
111.0	Appertunance(s)	1.22	1.01	7.571	8.328	0.000	1.200		1.817	1.00	2.130	2.56	21.3	53.8	105.7
115.0		1.21	1.02	7.571	8.328	0.000	1.200		1.817	4.00	8.385	10.06	83.8	209.5	413.1
120.0		1.19	1.04	7.572	8.329	0.000	1.200		1.817	5.00	10.177	12.21	101.7	252.6	498.5
125.0		1.18	1.05	7.575	8.333	0.000	1.200		1.817	5.00	9.839	11.81	98.4	243.4	479.6
130.0		1.17	1.06	7.580	8.338	0.000	1.200		1.818	5.00	9.502	11.40	95.1	234.2	460.8
135.0		1.15	1.07	7.586	8.345	0.000	1.200		1.818	5.00	9.164	11.00	91.8	225.1	441.9
140.0	Appertunance(s)	1.14	1.08	7.594	8.354	0.000	1.200		1.819	5.00	8.827	10.59	88.5	215.9	423.1
145.0		1.13	1.09	7.604	8.364	0.000	1.200		1.820	5.00	8.490	10.19	85.2	206.8	404.3
150.0	Appertunance(s)	1.12	1.11	7.615	8.376	0.000	1.200		1.821	5.00	8.152	9.78	81.9	197.7	385.4
* = Cf Adjusted By Linear Load Ra Effect								Totals:		150.00			3,939.4	9,685.7	26,006.4

Pole :	302519	Code: ANSI/TIA-222 Rev G	3/19/2014 3:47:39 PM
Location :	Southbury CT, CT	Struct Class : II	Page: 14
Height :	150.0 (ft)	Exposure Category : B	
Base Dia :	37.37 (in)	Topographic Category : 3	
Top Dia :	14.99 (in)	Base Elev : 0.000 (ft)	
Shape :	12 Sides		
Taper :	0.156709 (in/ft)		



Load Case: 1.2D + 1.0Di + 1.0Wi — 50.00 mph with 0.75 in Radial Ice — 29 Iterations

Gust Response Factor : 1.10
Dead Load Factor : 1.20
Wind Load Factor : 1.00

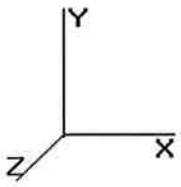
Ice Dead Load Factor : 1.00

Wind Importance Factor : 1.00
Ice Importance Factor : 1.00

Discrete Appurtenance Segment Forces (Factored)

Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	Orientation Factor	Ka	Total EPAa (sf)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)	Dead Load (lb)
111.0	Andrew 932DG90T2E-	3	7.571	8.328	0.66	0.80	7.04	0.000	0.000	58.65	0.00	0.00	304.81
111.0	Powerwave P65-16-	3	7.571	8.328	0.65	0.80	10.14	0.000	0.000	84.47	0.00	0.00	590.65
111.0	RFS FD9R6004/2C-3L	6	7.571	8.328	0.33	0.80	0.80	0.000	0.000	6.65	0.00	0.00	35.56
111.0	Round T-Arms	3	7.571	8.328	0.67	0.75	27.59	0.000	0.000	229.76	0.00	0.00	1,362.15
111.0	Alcatel-Lucent RRH2x	3	7.571	8.328	0.67	0.80	4.56	0.000	0.000	37.95	0.00	0.00	390.55
111.0	Andrew HBX-6517DS-	3	7.571	8.328	0.67	0.80	10.56	0.000	0.000	87.96	0.00	0.00	427.77
111.0	RFS DB-T1-6Z-8AB-0Z	1	7.571	8.328	0.67	0.80	3.06	0.000	0.000	25.50	0.00	0.00	203.55
111.0	Andrew LNX-6514DS-	3	7.571	8.328	0.67	0.80	15.33	0.000	0.000	127.65	0.00	0.00	779.99
140.0	Flush Mounts	3	7.594	8.354	1.00	1.00	21.96	0.000	0.000	183.44	0.00	0.00	1,511.42
150.0	Flat Platform w/ Han	1	7.615	8.376	1.00	1.00	64.32	0.000	0.000	538.81	0.00	0.00	3,435.73
150.0	Powerwave 7770.00	6	7.622	8.384	0.65	0.75	19.35	0.000	3.000	162.22	0.00	486.65	1,106.51
150.0	Powerwave TT08-	6	7.622	8.384	0.33	0.75	1.86	0.000	3.000	15.63	0.00	46.88	305.07
150.0	Ericsson RRUS 11	6	7.622	8.384	0.50	0.75	9.02	0.000	3.000	75.66	0.00	226.98	760.88
150.0	Raycap DC6-48-60-18-	1	7.622	8.384	1.00	0.75	1.31	0.000	3.000	10.98	0.00	32.94	66.78
150.0	KMW AM-X-CD-16-65-	3	7.622	8.384	0.79	0.75	16.66	0.000	3.000	139.72	0.00	419.15	770.78
										1,785.04			12,052.21

Pole :	302519	Code: ANSI/TIA-222 Rev G	
Location :	Southbury CT, CT	Struct Class : II	3/19/2014 3:47:39 PM
Height :	150.0 (ft)	Exposure Category : B	Page: 15
Base Dia :	37.37 (in)	Topographic Category : 3	
Top Dia :	14.99 (in)	Base Elev : 0.000 (ft)	
Shape :	12 Sides		
Taper :	0.156709 (in/ft)		



Load Case: 1.2D + 1.0Di + 1.0Wi — 50.00 mph with 0.75 in Radial Ice — 29 Iterations

Gust Response Factor : 1.10
Dead Load Factor : 1.20
Wind Load Factor : 1.00

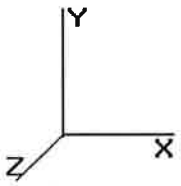
Ice Dead Load Factor : 1.00

Wind Importance Factor : 1.00
Ice Importance Factor : 1.00

Linear Appurtenance Segment Forces (Factored)

Seg Top Elev (ft)	Description	Exposed To Wind	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	qz (psf)	Ra	Cf Adjust Factor	F X (lb)	Dead Load (lb)
4.00	(4) #20 Dywidag	Yes	4.00	0.000	5.00	2.72	0.00	8.971	0.130	1.091	0.00	69.55
5.00	(4) #20 Dywidag	Yes	1.00	0.000	5.00	0.68	0.00	8.896	0.132	1.095	0.00	17.75
10.00	(4) #20 Dywidag	Yes	5.00	0.000	5.00	3.50	0.00	8.540	0.133	1.100	0.00	94.11
15.00	(4) #20 Dywidag	Yes	5.00	0.000	5.00	3.54	0.00	8.214	0.136	1.109	0.00	96.89
20.00	(4) #20 Dywidag	Yes	5.00	0.000	5.00	3.56	0.00	7.915	0.139	1.118	0.00	98.57
25.00	(4) #20 Dywidag	Yes	2.00	0.000	5.00	1.43	0.00	7.641	0.057	0.000	0.00	39.86
										Totals:	0.00	416.74

Pole :	302519	Code: ANSI/TIA-222 Rev G	3/19/2014 3:47:39 PM
Location :	Southbury CT, CT	Struct Class : II	Page: 16
Height :	150.0 (ft)	Exposure Category : B	
Base Dia :	37.37 (in)	Topographic Category : 3	
Top Dia :	14.99 (in)	Base Elev : 0.000 (ft)	
Shape :	12 Sides		
Taper :	0.156709 (in/ft)		



Load Case: 1.2D + 1.0Di + 1.0Wi — 50.00 mph with 0.75 in Radial Ice — 29 Iterations

Gust Response Factor : 1.10
Dead Load Factor : 1.20
Wind Load Factor : 1.00

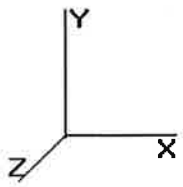
Ice Dead Load Factor : 1.00

Wind Importance Factor : 1.00
Ice Importance 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
4.00	163.87	1,415.72	0.00	0.00
5.00	40.29	286.83	0.00	0.00
10.00	191.96	1,442.73	0.00	0.00
15.00	181.38	1,549.44	0.00	0.00
20.00	171.49	1,529.71	0.00	0.00
25.00	162.29	1,446.93	0.00	0.00
30.00	153.87	1,381.39	0.00	0.00
31.50	45.71	409.99	0.00	0.00
35.00	108.25	1,419.16	0.00	0.00
35.67	20.46	268.18	0.00	0.00
40.00	132.46	1,058.15	0.00	0.00
45.00	150.46	1,197.36	0.00	0.00
50.00	147.53	1,172.41	0.00	0.00
55.00	144.36	1,147.25	0.00	0.00
60.00	141.04	1,121.95	0.00	0.00
65.00	137.62	1,096.56	0.00	0.00
70.00	134.14	1,071.10	0.00	0.00
73.50	93.34	1,050.39	0.00	0.00
75.00	39.48	284.19	0.00	0.00
80.00	129.28	929.54	0.00	0.00
85.00	125.76	907.30	0.00	0.00
90.00	122.25	885.08	0.00	0.00
95.00	118.77	862.88	0.00	0.00
100.0	115.31	840.70	0.00	0.00
105.0	111.87	818.54	0.00	0.00
110.0	108.46	796.39	0.00	0.00
111.0	679.88	4,235.50	0.00	0.00
115.0	83.80	498.58	0.00	0.00
120.0	101.72	605.30	0.00	0.00
125.0	98.39	586.42	0.00	0.00
130.0	95.07	567.56	0.00	0.00
135.0	91.77	548.72	0.00	0.00
140.0	271.93	2,041.31	0.00	0.00
145.0	85.21	511.06	0.00	0.00
150.0	1,024.95	6,938.01	0.00	1,212.59
Totals:	5,724.43	42,922.35	0.00	1,212.59

Pole :	302519	Code: ANSI/TIA-222 Rev G	3/19/2014 3:47:39 PM
Location :	Southbury CT, CT	Struct Class : II	Page: 17
Height :	150.0 (ft)	Exposure Category : B	
Base Dia :	37.37 (in)	Topographic Category : 3	
Top Dia :	14.99 (in)	Base Elev : 0.000 (ft)	
Shape :	12 Sides		
Taper :	0.156709 (in/ft)		



Load Case: 1.2D + 1.0Di + 1.0Wi — 50.00 mph with 0.75 in Radial Ice — 29 Iterations

Gust Response Factor : 1.10
Dead Load Factor : 1.20
Wind Load Factor : 1.00

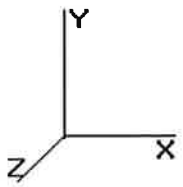
Ice Dead Load Factor : 1.00

Wind Importance Factor : 1.00
Ice Importance Factor : 1.00

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-42.92	-5.74	0.00	-585.83	0.00	585.83	3,156.63	1,578.31	4,810.15	2,375.55	0.00	0.00	0.156
4.00	-41.50	-5.60	0.00	-562.86	0.00	562.86	3,122.45	1,561.22	4,676.64	2,309.62	0.02	-0.05	0.153
4.00	-41.50	-5.60	0.00	-562.86	0.00	562.86	3,122.45	1,561.22	4,676.64	2,309.62	0.02	-0.05	0.257
5.00	-41.21	-5.60	0.00	-557.26	0.00	557.26	3,113.80	1,556.90	4,643.38	2,293.19	0.03	-0.06	0.256
10.00	-39.76	-5.48	0.00	-529.24	0.00	529.24	3,069.93	1,534.97	4,477.89	2,211.46	0.16	-0.17	0.252
15.00	-38.20	-5.37	0.00	-501.83	0.00	501.83	3,025.02	1,512.51	4,313.78	2,130.42	0.39	-0.28	0.248
20.00	-36.66	-5.26	0.00	-475.00	0.00	475.00	2,979.08	1,489.54	4,151.15	2,050.10	0.73	-0.38	0.244
25.00	-35.20	-5.15	0.00	-448.72	0.00	448.72	2,932.09	1,466.05	3,990.10	1,970.56	1.19	-0.49	0.240
30.00	-33.82	-5.03	0.00	-422.96	0.00	422.96	2,874.30	1,437.15	3,817.76	1,885.45	1.77	-0.60	0.236
31.50	-33.40	-5.01	0.00	-415.42	0.00	415.42	2,853.38	1,426.69	3,762.06	1,857.94	1.97	-0.64	0.235
35.00	-31.98	-4.91	0.00	-397.89	0.00	397.89	2,804.56	1,402.28	3,633.70	1,794.55	2.46	-0.72	0.233
35.67	-31.71	-4.92	0.00	-394.62	0.00	394.62	2,252.64	1,126.32	2,978.99	1,471.21	2.57	-0.73	0.282
40.00	-30.64	-4.83	0.00	-373.30	0.00	373.30	2,223.04	1,111.52	2,877.04	1,420.86	3.28	-0.83	0.277
45.00	-29.44	-4.73	0.00	-349.13	0.00	349.13	2,187.92	1,093.96	2,760.26	1,363.19	4.22	-0.96	0.270
50.00	-28.26	-4.63	0.00	-325.48	0.00	325.48	2,151.76	1,075.88	2,644.50	1,306.02	5.30	-1.09	0.262
55.00	-27.10	-4.52	0.00	-302.35	0.00	302.35	2,114.56	1,057.28	2,529.85	1,249.40	6.51	-1.22	0.255
60.00	-25.97	-4.41	0.00	-279.75	0.00	279.75	2,076.32	1,038.16	2,416.42	1,193.38	7.86	-1.35	0.247
65.00	-24.87	-4.31	0.00	-257.68	0.00	257.68	2,037.04	1,018.52	2,304.30	1,138.01	9.35	-1.49	0.239
70.00	-23.80	-4.19	0.00	-236.15	0.00	236.15	1,984.52	992.26	2,180.20	1,076.72	10.97	-1.62	0.231
73.50	-22.74	-4.09	0.00	-221.48	0.00	221.48	1,473.65	736.82	1,623.63	801.85	12.19	-1.71	0.292
75.00	-22.45	-4.08	0.00	-215.35	0.00	215.35	1,465.96	732.98	1,600.83	790.59	12.74	-1.75	0.288
80.00	-21.52	-3.98	0.00	-194.94	0.00	194.94	1,439.67	719.83	1,525.18	753.23	14.65	-1.90	0.274
85.00	-20.61	-3.88	0.00	-175.03	0.00	175.03	1,412.33	706.17	1,450.18	716.19	16.72	-2.05	0.259
90.00	-19.72	-3.77	0.00	-155.65	0.00	155.65	1,383.95	691.98	1,375.93	679.52	18.95	-2.20	0.243
95.00	-18.85	-3.67	0.00	-136.79	0.00	136.79	1,354.54	677.27	1,302.53	643.27	21.33	-2.34	0.227
100.00	-18.01	-3.56	0.00	-118.46	0.00	118.46	1,324.08	662.04	1,230.08	607.49	23.86	-2.48	0.209
105.00	-17.19	-3.45	0.00	-100.67	0.00	100.67	1,293.03	646.52	1,159.09	572.43	26.53	-2.62	0.189
110.00	-16.39	-3.32	0.00	-83.43	0.00	83.43	1,246.54	623.27	1,076.78	531.78	29.34	-2.74	0.170
110.00	-16.39	-3.32	0.00	-83.43	0.00	83.43	856.28	428.14	744.04	367.45	29.34	-2.74	0.246
111.00	-12.19	-2.46	0.00	-80.10	0.00	80.10	852.68	426.34	735.35	363.16	29.92	-2.76	0.235
115.00	-11.69	-2.38	0.00	-70.28	0.00	70.28	837.90	418.95	700.75	346.07	32.28	-2.88	0.217
120.00	-11.09	-2.27	0.00	-58.40	0.00	58.40	818.48	409.24	657.83	324.88	35.38	-3.03	0.193
125.00	-10.50	-2.16	0.00	-47.06	0.00	47.06	798.01	399.01	615.37	303.91	38.62	-3.16	0.168
130.00	-9.94	-2.05	0.00	-36.25	0.00	36.25	776.51	388.26	573.47	283.22	41.98	-3.27	0.141
135.00	-9.39	-1.94	0.00	-25.98	0.00	25.98	753.97	376.99	532.25	262.86	45.47	-3.37	0.111
140.00	-7.37	-1.56	0.00	-16.26	0.00	16.26	730.39	365.19	491.79	242.88	49.04	-3.45	0.077
145.00	-6.86	-1.45	0.00	-8.46	0.00	8.46	695.43	347.71	445.58	220.06	52.68	-3.50	0.048
150.00	0.00	-1.02	0.00	-1.21	0.00	1.21	660.46	330.23	401.65	198.36	56.36	-3.53	0.006

Pole :	302519	Code: ANSI/TIA-222 Rev G	3/19/2014 3:47:39 PM
Location :	Southbury CT, CT	Struct Class : II	Page: 18
Height :	150.0 (ft)	Exposure Category : B	
Base Dia :	37.37 (in)	Topographic Category : 3	
Top Dia :	14.99 (in)	Base Elev : 0.000 (ft)	
Shape :	12 Sides		
Taper :	0.156709 (in/ft)		



Load Case: 1.0D + 1.0W — 60.00 mph Serviceability — 28 Iterations

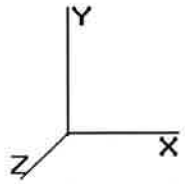
Gust Response Factor : 1.10
Dead Load Factor : 1.00
Wind Load Factor : 1.00

Wind Importance Factor : 1.00

Shaft Segment Forces (Factored)

Seg Top Elev (ft)	Description	Kzt	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		2.18	0.70	13.370	14.70	239.04	1.000		0.000	0.00	0.000	0.00	0.0	0.0	0.0
4.00	Reinf. Top	2.10	0.70	12.918	14.21	231.02	1.000	*	0.000	4.00	12.788	12.79	181.7	0.0	870.1
5.00		2.09	0.70	12.810	14.09	229.07	1.000	*	0.000	1.00	3.163	3.16	44.6	0.0	149.1
10.00		2.00	0.70	12.297	13.52	219.64	1.000	*	0.000	5.00	15.613	15.61	211.2	0.0	735.9
15.00		1.93	0.70	11.828	13.01	210.69	1.000	*	0.000	5.00	15.275	15.28	198.7	0.0	719.8
20.00		1.86	0.70	11.397	12.53	202.19	1.000	*	0.000	5.00	14.937	14.94	187.3	0.0	703.7
25.00		1.79	0.70	11.002	12.10	194.11	1.000		0.000	5.00	14.599	14.60	176.7	0.0	687.6
30.00		1.73	0.70	10.649	11.71	186.49	1.000		0.000	5.00	14.261	14.26	167.0	0.0	671.5
31.50	Bot - Section 2	1.71	0.71	10.694	11.76	185.54	1.000		0.000	1.50	4.212	4.21	49.5	0.0	198.3
35.00		1.68	0.73	10.779	11.85	183.13	1.000		0.000	3.50	9.900	9.90	117.4	0.0	846.9
35.67	Top - Section 1	1.67	0.73	10.793	11.87	182.65	1.000		0.000	0.67	1.867	1.87	22.2	0.0	159.7
40.00		1.63	0.76	10.865	11.95	182.95	1.000		0.000	4.33	11.988	11.99	143.3	0.0	471.9
45.00		1.58	0.78	10.919	12.01	178.88	1.000		0.000	5.00	13.517	13.52	162.4	0.0	532.0
50.00		1.54	0.81	10.952	12.04	174.61	1.000		0.000	5.00	13.179	13.18	158.8	0.0	518.5
55.00		1.50	0.83	10.968	12.06	170.20	1.000		0.000	5.00	12.841	12.84	154.9	0.0	505.1
60.00		1.46	0.85	10.974	12.07	165.70	1.000		0.000	5.00	12.503	12.50	150.9	0.0	491.7
65.00		1.43	0.87	10.972	12.06	161.15	1.000		0.000	5.00	12.165	12.17	146.8	0.0	478.2
70.00	Bot - Section 3	1.40	0.89	10.966	12.06	156.56	1.000		0.000	5.00	11.827	11.83	142.7	0.0	464.8
73.50	Top - Section 2	1.38	0.90	10.960	12.05	153.34	1.000		0.000	3.50	8.229	8.23	99.2	0.0	576.2
75.00		1.37	0.91	10.957	12.05	154.86	1.000		0.000	1.50	3.476	3.48	41.9	0.0	109.3
80.00		1.34	0.92	10.947	12.04	150.25	1.000		0.000	5.00	11.367	11.37	136.9	0.0	357.5
85.00		1.32	0.94	10.936	12.03	145.64	1.000		0.000	5.00	11.029	11.03	132.7	0.0	346.8
90.00		1.30	0.95	10.926	12.01	141.05	1.000		0.000	5.00	10.691	10.69	128.5	0.0	336.0
95.00		1.28	0.97	10.917	12.00	136.46	1.000		0.000	5.00	10.353	10.35	124.3	0.0	325.3
100.0		1.26	0.98	10.910	12.00	131.89	1.000		0.000	5.00	10.015	10.01	120.2	0.0	314.6
105.0		1.24	1.00	10.905	11.99	127.33	1.000		0.000	5.00	9.677	9.68	116.1	0.0	303.8
110.0	Top - Section 3	1.22	1.01	10.902	11.99	122.79	1.000		0.000	5.00	9.339	9.34	112.0	0.0	293.1
111.0	Appertunance(s)	1.22	1.01	10.902	11.99	121.88	1.000		0.000	1.00	1.827	1.83	21.9	0.0	43.2
115.0		1.21	1.02	10.902	11.99	118.26	1.000		0.000	4.00	7.174	7.17	86.0	0.0	169.7
120.0		1.19	1.04	10.904	11.99	113.74	1.000		0.000	5.00	8.663	8.66	103.9	0.0	204.9
125.0		1.18	1.05	10.908	11.99	109.24	1.000		0.000	5.00	8.325	8.32	99.9	0.0	196.8
130.0		1.17	1.06	10.915	12.00	104.75	1.000		0.000	5.00	7.987	7.99	95.9	0.0	188.8
135.0		1.15	1.07	10.924	12.01	100.26	1.000		0.000	5.00	7.649	7.65	91.9	0.0	180.7
140.0	Appertunance(s)	1.14	1.08	10.936	12.02	95.783	1.000		0.000	5.00	7.311	7.31	87.9	0.0	172.6
145.0		1.13	1.09	10.949	12.04	91.308	1.000		0.000	5.00	6.973	6.97	84.0	0.0	164.6
150.0	Appertunance(s)	1.12	1.11	10.965	12.06	86.835	1.000		0.000	5.00	6.635	6.63	80.0	0.0	156.5
* = Cf Adjusted By Linear Load Ra Effect								Totals:		150.00			4,179.3	0.0	13,645.1

Pole :	302519	Code: ANSI/TIA-222 Rev G	3/19/2014 3:47:39 PM
Location :	Southbury CT, CT	Struct Class : II	Page: 19
Height :	150.0 (ft)	Exposure Category : B	
Base Dia :	37.37 (in)	Topographic Category : 3	
Top Dia :	14.99 (in)	Base Elev : 0.000 (ft)	
Shape :	12 Sides		
Taper :	0.156709 (in/ft)		



Load Case: 1.0D + 1.0W — 60.00 mph Serviceability — 28 Iterations

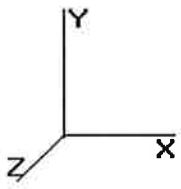
Gust Response Factor : 1.10
Dead Load Factor : 1.00
Wind Load Factor : 1.00

Wind Importance Factor : 1.00

Discrete Appurtenance Segment Forces (Factored)

Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	Orientation Factor	Ka	Total EPAa (sf)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)	Dead Load (lb)
111.0	Andrew 932DG90T2E-	3	10.902	11.992	0.66	0.80	5.53	0.000	0.000	66.30	0.00	0.00	28.50
111.0	Powerwave P65-16-	3	10.902	11.992	0.65	0.80	9.28	0.000	0.000	111.31	0.00	0.00	123.00
111.0	RFS FD9R6004/2C-3L	6	10.902	11.992	0.33	0.80	0.59	0.000	0.000	7.03	0.00	0.00	18.60
111.0	Round T-Arms	3	10.902	11.992	0.67	0.75	14.62	0.000	0.000	175.36	0.00	0.00	750.00
111.0	Alcatel-Lucent RRH2x	3	10.902	11.992	0.67	0.80	4.05	0.000	0.000	48.60	0.00	0.00	132.00
111.0	Andrew HBX-6517DS-	3	10.902	11.992	0.67	0.80	8.43	0.000	0.000	101.05	0.00	0.00	39.60
111.0	RFS DB-T1-6Z-8AB-0Z	1	10.902	11.992	0.67	0.80	2.57	0.000	0.000	30.85	0.00	0.00	44.00
111.0	Andrew LNX-6514DS-	3	10.902	11.992	0.67	0.80	13.14	0.000	0.000	157.55	0.00	0.00	116.40
140.0	Flush Mounts	3	10.936	12.029	1.00	1.00	10.50	0.000	0.000	126.31	0.00	0.00	600.00
150.0	Flat Platform w/ Han	1	10.965	12.062	1.00	1.00	42.40	0.000	0.000	511.43	0.00	0.00	2,000.00
150.0	Powerwave 7770.00	6	10.976	12.074	0.65	0.75	16.09	0.000	3.000	194.24	0.00	582.71	210.00
150.0	Powerwave TT08-	6	10.976	12.074	0.33	0.75	1.37	0.000	3.000	16.50	0.00	49.49	132.00
150.0	Ericsson RRUS 11	6	10.976	12.074	0.50	0.75	6.62	0.000	3.000	79.87	0.00	239.60	330.00
150.0	Raycap DC6-48-60-18-	1	10.976	12.074	1.00	0.75	0.96	0.000	3.000	11.59	0.00	34.77	31.80
150.0	KMW AM-X-CD-16-65-	3	10.976	12.074	0.79	0.75	14.26	0.000	3.000	172.12	0.00	516.35	145.50
										1,810.08			4,701.40

Pole :	302519	Code: ANSI/TIA-222 Rev G	
Location :	Southbury CT, CT	Struct Class : II	3/19/2014 3:47:39 PM
Height :	150.0 (ft)	Exposure Category : B	Page: 20
Base Dia :	37.37 (in)	Topographic Category : 3	
Top Dia :	14.99 (in)	Base Elev : 0.000 (ft)	
Shape :	12 Sides		
Taper :	0.156709 (in/ft)		



Load Case: 1.0D + 1.0W — 60.00 mph Serviceability — 28 Iterations

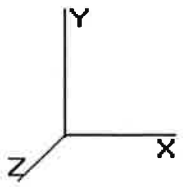
Gust Response Factor : 1.10
Dead Load Factor : 1.00
Wind Load Factor : 1.00

Wind Importance Factor : 1.00

Linear Appurtenance Segment Forces (Factored)

Seg Top Elev (ft)	Description	Exposed To Wind	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	qz (psf)	Ra	Cf Adjust Factor	F X (lb)	Dead Load (lb)
4.00	(4) #20 Dywidag	Yes	4.00	0.000	5.00	1.67	0.00	12.918	0.130	1.091	0.00	0.00
5.00	(4) #20 Dywidag	Yes	1.00	0.000	5.00	0.42	0.00	12.810	0.132	1.095	0.00	0.00
10.00	(4) #20 Dywidag	Yes	5.00	0.000	5.00	2.08	0.00	12.297	0.133	1.100	0.00	0.00
15.00	(4) #20 Dywidag	Yes	5.00	0.000	5.00	2.08	0.00	11.828	0.136	1.109	0.00	0.00
20.00	(4) #20 Dywidag	Yes	5.00	0.000	5.00	2.08	0.00	11.397	0.139	1.118	0.00	0.00
25.00	(4) #20 Dywidag	Yes	2.00	0.000	5.00	0.83	0.00	11.002	0.057	0.000	0.00	0.00
										Totals:	0.00	0.00

Pole :	302519	Code: ANSI/TIA-222 Rev G	3/19/2014 3:47:39 PM
Location :	Southbury CT, CT	Struct Class : II	Page: 21
Height :	150.0 (ft)	Exposure Category : B	
Base Dia :	37.37 (in)	Topographic Category : 3	
Top Dia :	14.99 (in)	Base Elev : 0.000 (ft)	
Shape :	12 Sides		
Taper :	0.156709 (in/ft)		



Load Case: 1.0D + 1.0W — 60.00 mph Serviceability — 28 Iterations

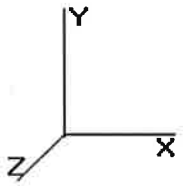
Gust Response Factor : 1.10
Dead Load Factor : 1.00
Wind Load Factor : 1.00

Wind Importance 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
4.00	181.71	905.60	0.00	0.00
5.00	44.57	157.99	0.00	0.00
10.00	211.20	780.29	0.00	0.00
15.00	198.74	864.49	0.00	0.00
20.00	187.27	848.39	0.00	0.00
25.00	176.69	832.29	0.00	0.00
30.00	167.05	816.19	0.00	0.00
31.50	49.55	241.71	0.00	0.00
35.00	117.39	948.17	0.00	0.00
35.67	22.16	178.94	0.00	0.00
40.00	143.28	597.32	0.00	0.00
45.00	162.36	676.66	0.00	0.00
50.00	158.77	663.23	0.00	0.00
55.00	154.93	649.79	0.00	0.00
60.00	150.93	636.35	0.00	0.00
65.00	146.83	622.92	0.00	0.00
70.00	142.66	609.47	0.00	0.00
73.50	99.21	677.52	0.00	0.00
75.00	41.90	152.75	0.00	0.00
80.00	136.87	502.18	0.00	0.00
85.00	132.67	491.45	0.00	0.00
90.00	128.49	480.72	0.00	0.00
95.00	124.33	469.98	0.00	0.00
100.0	120.19	459.25	0.00	0.00
105.0	116.08	448.52	0.00	0.00
110.0	112.00	437.78	0.00	0.00
111.0	719.96	1,324.28	0.00	0.00
115.0	86.03	240.93	0.00	0.00
120.0	103.91	293.91	0.00	0.00
125.0	99.89	285.84	0.00	0.00
130.0	95.89	277.77	0.00	0.00
135.0	91.91	269.70	0.00	0.00
140.0	214.25	861.62	0.00	0.00
145.0	83.99	253.55	0.00	0.00
150.0	1,065.76	3,094.78	0.00	1,422.92
Totals:	5,989.42	22,052.34	0.00	1,422.92

Pole :	302519	Code: ANSI/TIA-222 Rev G	3/19/2014 3:47:39 PM
Location :	Southbury CT, CT	Struct Class : II	Page: 22
Height :	150.0 (ft)	Exposure Category : B	
Base Dia :	37.37 (in)	Topographic Category : 3	
Top Dia :	14.99 (in)	Base Elev : 0.000 (ft)	
Shape :	12 Sides		
Taper :	0.156709 (in/ft)		



Load Case: 1.0D + 1.0W — 60.00 mph Serviceability — 28 Iterations

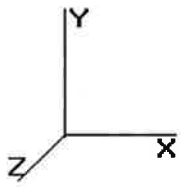
Gust Response Factor : 1.10
Dead Load Factor : 1.00
Wind Load Factor : 1.00

Wind Importance Factor : 1.00

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-22.05	-6.00	0.00	-552.15	0.00	552.15	3,156.63	1,578.31	4,810.15	2,375.55	0.00	0.00	0.143
4.00	-21.14	-5.83	0.00	-528.16	0.00	528.16	3,122.45	1,561.22	4,676.64	2,309.62	0.02	-0.05	0.139
4.00	-21.14	-5.83	0.00	-528.16	0.00	528.16	3,122.45	1,561.22	4,676.64	2,309.62	0.02	-0.05	0.235
5.00	-20.98	-5.80	0.00	-522.33	0.00	522.33	3,113.80	1,556.90	4,643.38	2,293.19	0.03	-0.06	0.235
10.00	-20.19	-5.62	0.00	-493.32	0.00	493.32	3,069.93	1,534.97	4,477.89	2,211.46	0.15	-0.16	0.230
15.00	-19.31	-5.46	0.00	-465.19	0.00	465.19	3,025.02	1,512.51	4,313.78	2,130.42	0.36	-0.26	0.225
20.00	-18.46	-5.30	0.00	-437.91	0.00	437.91	2,979.08	1,489.54	4,151.15	2,050.10	0.69	-0.36	0.220
25.00	-17.62	-5.15	0.00	-411.43	0.00	411.43	2,932.09	1,466.05	3,990.10	1,970.56	1.11	-0.46	0.215
30.00	-16.80	-4.99	0.00	-385.70	0.00	385.70	2,874.30	1,437.15	3,817.76	1,885.45	1.65	-0.56	0.210
31.50	-16.55	-4.95	0.00	-378.21	0.00	378.21	2,853.38	1,426.69	3,762.06	1,857.94	1.83	-0.59	0.209
35.00	-15.60	-4.84	0.00	-360.87	0.00	360.87	2,804.56	1,402.28	3,633.70	1,794.55	2.29	-0.66	0.207
35.67	-15.42	-4.83	0.00	-357.65	0.00	357.65	2,252.64	1,126.32	2,978.99	1,471.21	2.38	-0.68	0.250
40.00	-14.81	-4.70	0.00	-336.73	0.00	336.73	2,223.04	1,111.52	2,877.04	1,420.86	3.04	-0.77	0.244
45.00	-14.13	-4.56	0.00	-313.21	0.00	313.21	2,187.92	1,093.96	2,760.26	1,363.19	3.91	-0.88	0.236
50.00	-13.46	-4.42	0.00	-290.41	0.00	290.41	2,151.76	1,075.88	2,644.50	1,306.02	4.89	-1.00	0.229
55.00	-12.81	-4.28	0.00	-268.32	0.00	268.32	2,114.56	1,057.28	2,529.85	1,249.40	6.00	-1.12	0.221
60.00	-12.16	-4.14	0.00	-246.94	0.00	246.94	2,076.32	1,038.16	2,416.42	1,193.38	7.23	-1.23	0.213
65.00	-11.54	-4.00	0.00	-226.25	0.00	226.25	2,037.04	1,018.52	2,304.30	1,138.01	8.58	-1.35	0.204
70.00	-10.92	-3.86	0.00	-206.25	0.00	206.25	1,984.52	992.26	2,180.20	1,076.72	10.06	-1.46	0.197
73.50	-10.25	-3.75	0.00	-192.74	0.00	192.74	1,473.65	736.82	1,623.63	801.85	11.16	-1.54	0.247
75.00	-10.09	-3.72	0.00	-187.11	0.00	187.11	1,465.96	732.98	1,600.83	790.59	11.65	-1.58	0.244
80.00	-9.58	-3.59	0.00	-168.49	0.00	168.49	1,439.67	719.83	1,525.18	753.23	13.37	-1.71	0.230
85.00	-9.09	-3.47	0.00	-150.52	0.00	150.52	1,412.33	706.17	1,450.18	716.19	15.23	-1.84	0.217
90.00	-8.60	-3.34	0.00	-133.19	0.00	133.19	1,383.95	691.98	1,375.93	679.52	17.23	-1.97	0.202
95.00	-8.13	-3.22	0.00	-116.49	0.00	116.49	1,354.54	677.27	1,302.53	643.27	19.36	-2.09	0.187
100.00	-7.67	-3.10	0.00	-100.40	0.00	100.40	1,324.08	662.04	1,230.08	607.49	21.61	-2.21	0.171
105.00	-7.22	-2.98	0.00	-84.93	0.00	84.93	1,293.03	646.52	1,159.09	572.43	23.98	-2.32	0.154
110.00	-6.79	-2.85	0.00	-70.05	0.00	70.05	1,246.54	623.27	1,076.78	531.78	26.47	-2.42	0.137
110.00	-6.79	-2.85	0.00	-70.05	0.00	70.05	856.28	428.14	744.04	367.45	26.47	-2.42	0.199
111.00	-5.49	-2.08	0.00	-67.20	0.00	67.20	852.68	426.34	735.35	363.16	26.98	-2.44	0.192
115.00	-5.25	-2.00	0.00	-58.87	0.00	58.87	837.90	418.95	700.75	346.07	29.07	-2.55	0.176
120.00	-4.96	-1.89	0.00	-48.89	0.00	48.89	818.48	409.24	657.83	324.88	31.80	-2.66	0.157
125.00	-4.68	-1.78	0.00	-39.44	0.00	39.44	798.01	399.01	615.37	303.91	34.65	-2.77	0.136
130.00	-4.40	-1.68	0.00	-30.52	0.00	30.52	776.51	388.26	573.47	283.22	37.60	-2.87	0.113
135.00	-4.13	-1.58	0.00	-22.11	0.00	22.11	753.97	376.99	532.25	262.86	40.66	-2.96	0.090
140.00	-3.28	-1.33	0.00	-14.21	0.00	14.21	730.39	365.19	491.79	242.88	43.79	-3.02	0.063
145.00	-3.03	-1.23	0.00	-7.58	0.00	7.58	695.43	347.71	445.58	220.06	46.98	-3.07	0.039
150.00	0.00	-1.07	0.00	-1.42	0.00	1.42	660.46	330.23	401.65	198.36	50.21	-3.09	0.007

Pole :	302519	Code: ANSI/TIA-222 Rev G	3/19/2014 3:47:39 PM
Location :	Southbury CT, CT	Struct Class : II	Page: 23
Height :	150.0 (ft)	Exposure Category : B	
Base Dia :	37.37 (in)	Topographic Category : 3	
Top Dia :	14.99 (in)	Base Elev : 0.000 (ft)	
Shape :	12 Sides		
Taper :	0.156709 (in/ft)		



Analysis Summary

	Reactions						Max Usage	
Load Case	Shear FX (kips)	Shear FZ (kips)	Axial FY (kips)	Moment MX (ft-kips)	Moment MY (ft-kips)	Moment MZ (ft-kips)	Elev (ft)	Interaction Ratio
1.2D + 1.6W	24.41	0.00	26.37	0.00	0.00	2236.06	35.67	0.99
0.9D + 1.6W	24.06	0.00	19.83	0.00	0.00	2189.14	35.67	0.96
1.2D + 1.0Di + 1.0Wi	5.74	0.00	42.92	0.00	0.00	585.83	73.50	0.29
1.0D + 1.0W	6.00	0.00	22.05	0.00	0.00	552.15	35.67	0.25

Additional Steel Summary

		Intermediate Connectors			Upper Termination Connectors				Lower Termination Connectors				Max Member		
Elev From (ft)	Elev To (ft) Member	VQ/I (lb/in)	Shear Applied (kips)	Shear phiVn (kips)	MQ/I (kips)	phiVn (kips)	Num Reqd	Num Actual	MQ/I (kips)	phiVn (kips)	Num Reqd	Num Actual	Pu (kip)	phiPn (kip)	Ratio
0.00	4.00 (4) SOL-#20 All Thre	212.4	6.4	16.8	229.6	12.0	20	16	0.0	12.0	0	0	235.5	330.5	0.713

Base/Flange Plate	Plate Type	***Baseplate***	
	Pole Diameter	37.37	in
	Pole Thickness	0.375	in
	Plate Length	44	in
	Plate Thickness	2.5	in
	Plate Fy	60	ksi
	Weld Length	0.3125	in
	ϕ_s Resistance	1383.83	k-in
	Applied	591.94	k-in
Stiffeners	#	***0***	

Bolts	#	***8***	
	Bolt Circle	44	in
	(R)adial / (S)quare	S	
	Bolt Gap	6	in
	Diameter	2.25	in
	Hole Diameter	2.625	in
	Type	A615-75	
	Fy	75	ksi
	Fu	100	ksi
	ϕ_s Resistance	259.82	k
	Applied	175.13	k
Reinforcement	#	***4***	
	DYW. Circle	44	in
	Offset Angle	22.5	°
	Type	#20	
	Diameter	2.5	in
	Fu	100	ksi
Extra Bolts O	#	***0***	

Code Rev. ***G***

Moment 2236.1 k-ft
Axial 26.4 k

Date	3/19114
Engineer	J. Johnson
Site #	302519
Carrier	Alltel

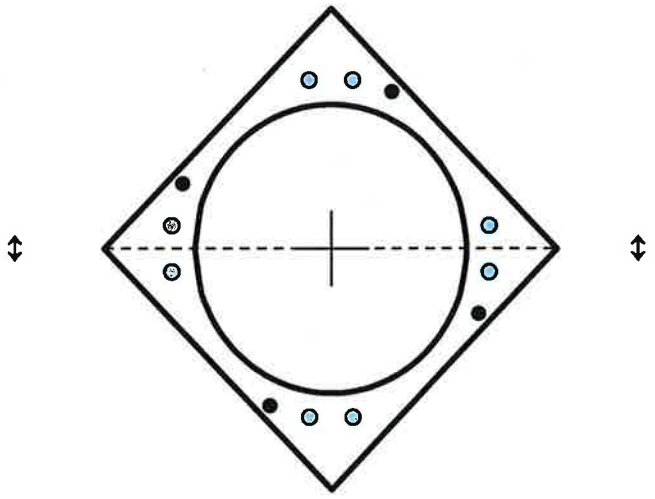
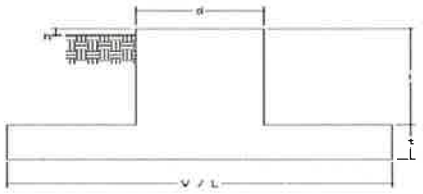


Plate Stress Ratio:
0.43 (Pass)

Bolt Stress Ratio:
0.67 (Pass)

Site Name:	Southbury, CT, CT	*Program Last Updated:*	*11/15/2012*
Site Number:	302519		
Engineering Number:	56661423		
Engineer:	J. Johnson		
Date:	03/19/14		
Tower Type:	MP		



Design Loads (Factored) - Analysis per TIA-222-G Standards

Design / Analysis / Mapping:	Analysis				
Compression/Leg:	26.4	k	Concrete Strength (f'_c):	3000	psi
Uplift/Leg:	0.0	k	Pad Tension Steel Depth:	32.00	in
Total Shear:	24.4	k	ϕ_{Shear}:	0.75	
Moment:	2236.1	k-ft	$\phi_{Flexure\ /\ Tension}$:	0.90	
Tower + Appurtenance Weight:	26.4	k	$\phi_{Compression}$:	0.65	
Depth to Base of Foundation (l + t - h):	8.00	ft	β:	0.85	
Diameter of Pier (d):	5.50	ft	Bottom Pad Rebar Size #:	10	
Height of Pier above Ground (h):	0.50		# of Bottom Pad Rebar:	36	
Width of Pad (W):	18.00	ft	Pad Bottom Steel Area:	45.72	in^2
Length of Pad (L):	18.00	ft	Pad Steel F_y:	60000	psi
Thickness of Pad (t):	3.00	ft	Top Pad Rebar Size #:	10	
Tower Leg Center to Center:	0.00	ft	# of Top Pad Rebar:	36	
Number of Tower Legs:	1.0	(1 if MP or GT)	Pad Top Steel Area:	45.72	in^2
Tower Center from Mat Center:	0.00	ft	Pier Rebar Size #:	11	
Depth Below Ground Surface to Water Table:	10.00	ft	Pier Steel Area (Single Bar):	1.56	in^2
Unit Weight of Concrete:	150.0	pcf	# of Pier Rebar:	52	
Unit Weight of Soil Above Water Table:	100.0	pcf	Pier Steel F_y:	60000	psi
Unit Weight of Water:	62.4	pcf	Pier Cage Diameter:	58.0	in
Unit Weight of Soil Below Water Table:	50.0	pcf	Rebar Strain Limit:	0.008	
Friction Angle of Uplift:	20.0	Degrees	Steel Elastic Modulus:	29000	ksi
Ultimate Coefficient of Shear Friction:	0.35		Tie Rebar Size #:	4	
Ultimate Compressive Bearing Pressure:	6000.0	psf	Tie Steel Area (Single Bar):	0.20	in^2
Ultimate Passive Pressure on Pad Face:	0.0	psf	Tie Spacing:	12	in
$\phi_{Soil\ and\ Concrete\ Weight}$:	0.9		Tie Steel F_y:	60000	psi
ϕ_{Soil}:	0.75				

Overturning Moment Usage

Design OTM:	2443.5	k-ft
OTM Resistance:	2993.7	k-ft
Design OTM / OTM Resistance:	0.82	Result: OK

Soil Bearing Pressure Usage

Net Bearing Pressure:	4537	psf
Factored Nominal Bearing Pressure:	4500	psf
Net Bearing Pressure/Factored Nominal Bearing Pressure:	1.01	Result: Acceptable
Load Direction Controling Design Bearing Pressure:	Diagonal to Pad Edge	

Sliding Factor of Safety

Total Factored Sliding Resistance:	88.6	k
Sliding Design / Sliding Resistance:	0.28	Result: OK

One Way Shear, Flexual Capacity, and Punching Shear

Factored One Way Shear (V_u):	153.2	k
One Way Shear Capacity (ϕV_c):	461.3	k - ACI11.3.1.1
$V_u / \phi V_c$:	0.33	Result: OK
Load Direction Controling Shear Capacity:	Diagonal to Pad Edge	
Lower Steel Pad Factored Moment (M_u):	871.5	k-ft
Lower Steel Pad Moment Capacity (ϕM_n):	6148.2	k-ft - ACI10.3
$M_u / \phi M_n$:	0.14	Result: OK
Load Direction Controling Flexural Capacity:	Parallel to Pad Edge	
Upper Steel Pad Factored Moment (M_u):	529.1	k-ft
Upper Steel Pad Moment Capacity (ϕM_n):	6148.2	k-ft
$M_u / \phi M_n$:	0.09	Result: OK
Lower Pad Flexural Reinforcement Ratio:	0.0066	OK - Minimum Reinforcement Ratio Met - ACI10.5.1
Upper Pad Flexural Reinforcement Ratio:	0.0066	OK - Minimum Reinforcement Ratio Met - ACI10.5.1
Lower Pad Reinforcement Spacing:	6	in - Pad Reinforcing Spacing OK - ACI7.12.2.2 & 10.5.4
Upper Pad Reinforcement Spacing:	6	in - Pad Reinforcing Spacing OK - ACI7.12.2.2 & 10.5.4
Factored Punching Shear (V_u):	0.0	k
Nominal Punching Shear Capacity ($\phi_c V_n$):	1618.9	k - ACI11.12.2.1
$V_u / \phi V_c$:	0.00	Result: OK
Factored Moment in Pier (M_u):	2370.3	k-ft
Pier Moment Capacity (ϕM_n):	10352.3	k-ft
$M_u / \phi M_n$:	0.23	Result: OK
Factored Shear in Pier (V_u):	24.4	k
Pier Shear Capacity (ϕV_n):	282.2	k
$V_u / \phi V_c$:	0.09	Result: OK
Pier Shear Reinforcement Ratio:	0.0006	No Ties Necessary for Shear - ACI11.5.6.1
Factored Tension in Pier (T_u):	0.0	k
Pier Tension Capacity (ϕT_n):	4380.5	k
$T_u / \phi T_n$:	0.00	Result: OK
Factored Compression in Pier (P_u):	26.4	k
Pier Compression Capacity (ϕP_n):	4428.9	k - ACI10.3.6.2
$P_u / \phi P_n$:	0.01	Result: OK
Pier Compression Reinforcement Ratio:	0.024	OK - Reinforcement Ratio Met - ACI10.9.1 & 10.8.4
$M_u/\phi_B M_n + T_u/\phi_T T_n$:	0.23	Result: OK

Nominal and Design Moment Capacity and Factored Design Loads