STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051
Phone: (860) 827-2935 Fax: (860) 827-2950
E-Mail: siting.council@po.state.ct.us
www.ct.gov/csc

December 22, 2004

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

RE: **EM-VER-155-041123** - Cellco Partnership d/b/a Verizon Wireless notice of intent to modify an existing telecommunications facility located at 3114 Albany Avenue, West Hartford, Connecticut.

Dear Attorney Baldwin:

At a public meeting held on December 21, 2004, the Connecticut Siting Council (Council) acknowledged your notice to modify this existing telecommunications facility, pursuant to Section 16-50j-73 of the Regulations of Connecticut State Agencies.

The proposed modifications are to be implemented as specified here and in your notice dated November 23, 2004, including the placement of all necessary equipment and shelters within the tower compound. The modifications are in compliance with the exception criteria in Section 16-50j-72 (b) of the Regulations of Connecticut State Agencies as changes to an existing facility site that would not increase tower height, extend the boundaries of the tower site, increase noise levels at the tower site boundary by six decibels, and increase the total radio frequencies electromagnetic radiation power density measured at the tower site boundary to or above the standard adopted by the State Department of Environmental Protection pursuant to General Statutes § 22a-162. This facility has also been carefully modeled to ensure that radio frequency emissions are conservatively below State and federal standards applicable to the frequencies now used on this tower.

This decision is under the exclusive jurisdiction of the Council. Any additional change to this facility will require explicit notice to this agency pursuant to Regulations of Connecticut State Agencies Section 16-50j-73. Such notice shall include all relevant information regarding the proposed change with cumulative worst-case modeling of radio frequency exposure at the closest point of uncontrolled access to the tower base, consistent with Federal Communications Commission, Office of Engineering and Technology, Bulletin 65. Any deviation from this format may result in the Council implementing enforcement proceedings pursuant to General Statutes § 16-50u including, without limitation, imposition of expenses resulting from such failure and of civil penalties in an amount not less than one thousand dollars per day for each day of construction or operation in material violation.

Thank you for your attention and cooperation.

Very truly yours,

Pamela B. Katz

Pamela B. Katz, P.E.
Chairman

PBK/laf

c: The Honorable Jonathan Harris, Mayor, Town of West Hartford
Mila Limson, Town Planner, Town of West Hartford
Marlin Broadcasting
Michele G. Briggs, Southwestern Bell Mobile Systems, LLC
Stephen J. Humes, Esq., McCarter & English, LLP
Christopher B. Fisher, Esq., Cuddy & Feder LLP

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CSC
CONNECTICUT SITING COUNCIL

Perrone, Michael

From: Mayo, Rachel [rmayo@RC.com]
Sent: Friday, December 03, 2004 11:38 AM
To: Perrone, Michael
Cc: Baldwin, Kenneth; Mayo, Rachel
Subject: FW: EM-VER-155-041123 3114 Albany Ave., West Hartford

Mike, the dimensions are as follows:

ht: 52"
width: 13"
depth: 11.4"

please let me know if you need additional info. thanks Rachel

-----Original Message-----
From: Perrone, Michael [mailto:Michael.Perrone@po.state.ct.us]
Sent: Thursday, December 02, 2004 2:54 PM
To: Baldwin, Kenneth
Subject: EM-VER-155-041123 3114 Albany Ave., West Hartford

Atty. Baldwin:

Would you have the dimensions (height and width) of Verizon's existing (panel) antennas on this tower? The spec sheets are provided for the proposed antennas, but I was just curious about the existing ones. (I understand that the spec sheet may no longer be available for the existing antennas due to their age; if that is the case, approximate dimensions are ok.)

Thanks.

Mike Perrone

CSC

Phone: 860-827-2943

ROBINSON & COLE LLP

EM-VER-155-041123

KENNETH C. BALDWIN

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

November 23, 2004

Via Hand Delivery

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

Re: **Notice of Exempt Modification – Antenna Modification**
3114 Albany Avenue Telecommunications Facility (WCCC Tower)
West Hartford, Connecticut

Dear Mr. Phelps:

Cellco Partnership d/b/a Verizon Wireless ("Cellco") currently maintains a wireless telecommunications facility on an existing tower owned by Marlin Broadcasting at 3114 Albany Avenue in West Hartford. This facility consists of eight (8) panel-type antennas at the 130-foot level of the 346-foot tower. Equipment associated with the antennas is located on the ground near the base of the tower.

The Connecticut Siting Council ("the Council") approved Cellco's use of this facility on November 29, 2001 (TS-VER-155-011101). The facility consists of eight (8) panel type cellular antennas. Cellco now intends to modify its facility by removing the existing cellular antennas and replacing them four (4) new cellular antennas and four (4) PCS antennas at the same level on the tower. Attached behind Tab 1 are specifications for the proposed cellular and PCS antennas to be used at the Albany Avenue facility.

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 West Hartford Town Manager, Barry M. Feldman.

The planned modifications to the Albany Avenue 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 any increase in the overall height of the existing structure. Cellco's replacement antennas will be mounted at the same 130-foot level on the 346-foot tower.

2. The proposed modifications will not affect ground-mounted equipment and will not require the extension of the site boundaries.

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

4. The proposed modifications will not result in radio frequency (RF) power density levels at the facility that exceed the Federal Communications Commission (FCC) adopted safety standard. Attached behind Tab 2 is a new Power Density Calculation Table.

Also attached behind Tab 3 is a Structural Report, prepared by URS Corporation, indicating that the tower can support the proposed modifications to the facility.

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

Sincerely,

Kenneth C. Baldwin

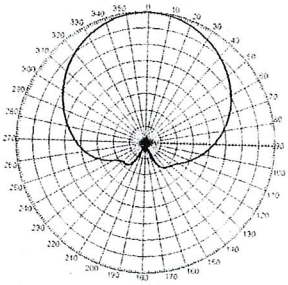
Enclosures
cc: Barry M Feldman, Town Manager
Sandy M. Carter

HORIZONTAL BEAMWIDTH	65°		65°
FREQUENCY RANGE	806-960 MHz 15.6 & 15.9 dBd / 4° Tilt		806-896 MHz 14.7 dBd / 5° Tilt
MODEL	848H65T4E-XY		848F65T5E-SX ← Proposed Cellular
TYPE	Directed Dipole®		Directed Dipole®
ELECTRICAL SPECIFICATIONS			
Frequency Range (MHz)	806-896	870-960	806-896
Gain (dBd/dBi)	15.6 / 17.7	15.9 / 18	14.7 / 16.8
Horizontal Beamwidth (Deg.)	65	65	65
Elevation Beamwidth (Deg.)	7.5	7.5	9
USLS (dB)	N/A	N/A	>15
Null Fill (dB) – Below Peak	N/A	N/A	12
Beam Tilt (Deg.)	4	4	5
VSWR	<1.4:1	<1.4:1	<1.5:1
Front-To-Back Ratio (dB)	40	40	40
Isolation (dB)	N/A	N/A	N/A
Max. Input Power (Watts)	500	500	500
Polarization	Vertical	Vertical	Vertical
Connector Location	Back	Back	Back
Connector Type	7-16 DIN - Female	7-16 DIN - Female	7-16 DIN - Female
Optional Connectors	N/A	N/A	N/A
MECHANICAL SPECIFICATIONS			
Length (inch/mm)	96 / 2,438	96 / 2,438	96 / 2,438
Width (inch/mm)	20.5 / 521	20.5 / 521	20.5 / 521
Depth (inch/mm)	8.5 / 216	8.5 / 216	8.5 / 216
Net Weight (lbs/kg)	39 / 17.7	39 / 17.7	39 / 17.7
Max. Flat Plate Area (ft²/m²)	6.57 / 0.61	6.57 / 0.61	6.57 / 0.61
Max. Wind Load at 100 mph (lbf/N)	364 / 1,619	364 / 1,619	364 / 1,619
Max. Wind Speed (mph/kmh)	125 / 201	125 / 201	125 / 201
Radome Material	ABS, UV Resistant	ABS, UV Resistant	ABS, UV Resistant
Reflector Material	Pass. Aluminum	Pass. Aluminum	Pass. Aluminum
Radiator Material	Brass	Brass	Brass
Hardware Material	Galvanized Steel	Galvanized Steel	Galvanized Steel
Color	Light Gray	Light Gray	Light Gray
Std. Mounting Hardware	DB380-3	DB380-3	DB380-3
Optional Downtilt Kit	DB5083D	DB5083D	DB5083D
Optional Special Mounting	N/A	N/A	N/A

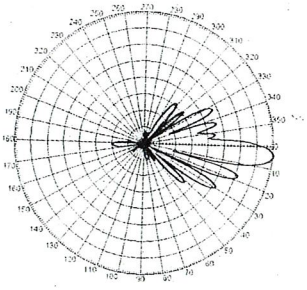
Specifications are subject to change. Please see our website for the latest information.

848H65T4E-XY

Azimuth Pattern



Elevation Pattern



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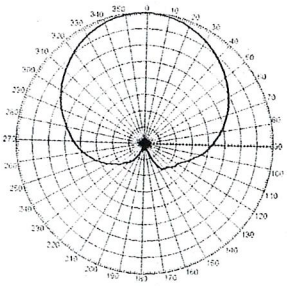
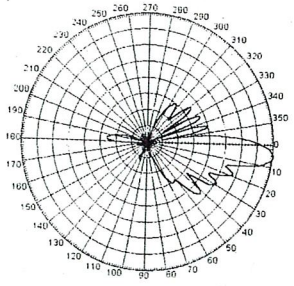




Scale: 10° radials, 5 dB per division

Vertically Polarized Directed Dipole® Panel Antennas

65° HORIZONTAL BEAMWIDTH

1710 - 2170 MHz

ANDREW®

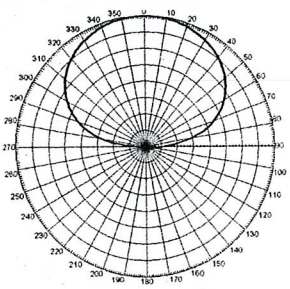
HORIZONTAL BEAMWIDTH	65°	65°	65°	65°
FREQUENCY RANGE	1850-1990 MHz	1850-1990 MHz	1850-1990 MHz	1710-1880 MHz
	17.7 dBi / 6° Tilt	18.1 dBi / 0° to 7° Tilt	18.1 dBi / 0° to 7° Tilt	16.8 dBi / 0° Tilt
MODEL	950F65T6E-M	950G65VTZE-M	*950G65RCZE-M	DB948F65E-KL
TYPE	Directed Dipole®	Directed Dipole® PCS PROPOSED	Directed Dipole®, No Screen w/Remote Control	Directed Dipole®
ELECTRICAL SPECIFICATIONS				
Frequency Range (MHz)	1850-1990	1850-1990	1850-1990	1710-1880
Gain (dBd/dBi)	15.6 / 17.7	16 / 18.1	16 / 18.1	14.7 / 16.8
Horizontal Beamwidth (Deg.)	65	65	65	65
Elevation Beamwidth (Deg.)	6.5	6.5	6.5	8.5
USLS (dB)	>18	>17	>17	>15
Null Fill (dB) – Below Peak	12	20	20	15
Beam Tilt (Deg.)	6	0-7	0-7	0
VSWR	<1.33:1	<1.4:1	<1.4:1	<1.33:1
Front-To-Back Ratio (dB)	40	40	40	40
Isolation (dB)	N/A	N/A	N/A	N/A
Max. Input Power (Watts)	250	250	250	250
Polarization	Vertical	Vertical	Vertical	Vertical
Connector Location	Bottom	Bottom	Bottom	Bottom
Connector Type	7-16 DIN - Female	7-16 DIN - Female	7-16 DIN - Female	7-16 DIN - Female
MECHANICAL SPECIFICATIONS				
Length (inch/mm)	60 / 1,524	60 / 1,524	60 / 1,524	48 / 1,219
Width (inch/mm)	10.5 / 267	6.5 / 165	6.5 / 165	10.5 / 267
Depth (inch/mm)	7 / 178	5 / 127	5 / 127	7 / 178
Net Weight (lbs/kg)	16 / 7.2	10 / 4.5	15 / 6.8	14 / 6.3
Max. Flat Plate Area (ft²/m²)	2.91 / 0.27	1.51 / 0.14	1.51 / 0.14	2.26 / 0.21
Max. Wind Load at 100 mph (lbf/N)	158 / 703	85 / 378	85 / 378	127 / 565
Max. Wind Speed (mph/kmh)	125 / 201	125 / 201	125 / 201	125 / 201
Radome Material	ABS, UV Resistant	ABS, UV Resistant	ABS, UV Resistant	ABS, UV Resistant
Reflector Material	Pass. Aluminum	Pass. Aluminum	Pass. Aluminum	Pass. Aluminum
Radiator Material	Low Loss Circuit Board	Low Loss Circuit Board	Low Loss Circuit Board	Low Loss Circuit Board
Hardware Material	Galvanized Steel	Galvanized Steel	Galvanized Steel	Galvanized Steel
Color	Light Gray	Light Gray	Light Gray	Light Gray
Std. Mounting Hardware	DB390	DB390	DB390	DB390
Optional Downtilt Kit	DB5098	DB5098	DB5098	DB5098
Optional Special Mounting	DB5094-AZ	DB5094-AZ	DB5094-AZ	DB5094-AZ

Specifications are subject to change. Please see our website for the latest information.
*TELETILT® compatible.

Azimuth Pattern

Elevation Pattern

950F65T6E-M



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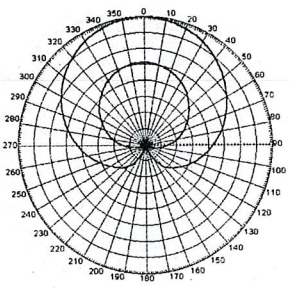
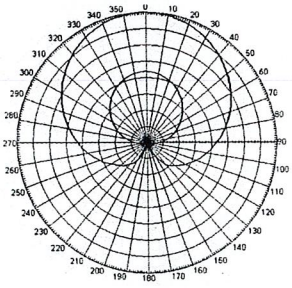
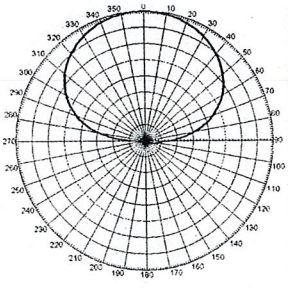
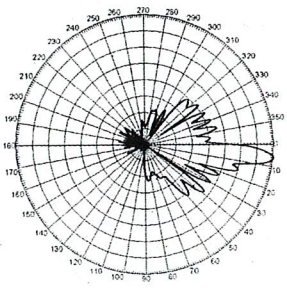


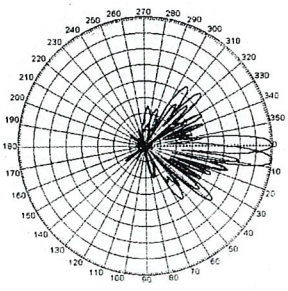
950G65RCZE-M

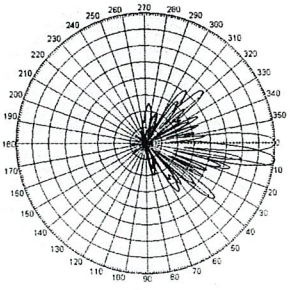


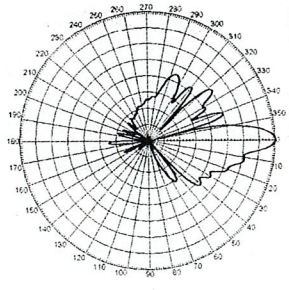
DB948F65E-KL











Scale: 10° radials, 5 dB per division

General Power Density

Site Name: Talcott 2, CT
Tower Height: 130 ft rad center

Operator	Operating Frequency	Number of Trans.	ERP Per Trans.	Total ERP	Distance to Target	Calculated Power Density	Maximum Permissable Exposure*	Fraction of MPE
	(MHz)		(watts)	(watts)	(feet)	(mW/cm^2)	(mW/cm^2)	(%)
Verizon	875	9	200	1800	130	0.0383	0.5833	6.57%
Verizon PCS	1900	3	200	600	130	0.0128	1.0	1.28%
Total Percentage of Maximum Permissible Exposure								7.84%

*Guidelines adopted by the FCC on August 1, 1996, 47 CFR Part 1 based on NCRP Report 86, 1986 and generally on ANSI/IEEE C95.1-1992

MHz = Megahertz
mW/cm^2 = milliwatts per square centimeter
ERP = Effective Radiated Power

Absolute worst case scenario, maximum values used.

DETAILED STRUCTURAL ANALYSIS AND EVALUATION OF EXISTING 346' GUYED LATTICE TOWER FOR PROPOSED ANTENNA MODIFICATION

Marlin Tower #2
3114 Albany Avenue
West Hartford, Connecticut

prepared for

verizonwireless

Verizon Wireless
99 East River Drive
East Hartford, Connecticut 06108

prepared by

URS

URS CORPORATION
795 BROOK STREET, BUILDING 5
ROCKY HILL, CT 06067
TEL. 860-529-8882

36929370.00000
VZ1-103

November 23, 2004

TABLE OF CONTENTS

1. EXECUTIVE SUMMARY

This report summarizes the structural analysis of the 346' guyed lattice tower located at 3114 Albany Avenue in West Hartford, Connecticut. The analysis was conducted in accordance with the TIA/EIA-222-F standard for wind velocity of 80 mph and 80 mph concurrent with ½" ice with reduction. The antenna loading considered in the analysis consists of all existing and proposed antennas, transmission lines, and ancillary items as outlined in the Analysis Methodology and Loading Condition Section of this report. The proposed Verizon Wireless modification is as follows:

Proposed Antenna and Mount	Carrier	Antenna Center Elevation
Remove (8) existing Allgon 7129.16 panel antennas and replace with (4) Decibel DB848F65T5E-SX antennas and (4) Decibel DB950G65VTZE-M antennas on existing PiROD T-frames.	**Verizon Wireless**	**@ 130'**

The results of the analysis indicate that the tower structure is in compliance with the proposed loading conditions. The tower and its foundation are considered structurally adequate with the TIA/EIA-222-F wind load classification specified above and all the existing and proposed antenna loading.

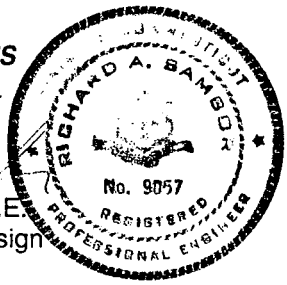
This analysis is based on:

1) The tower structure's theoretical capacity, not including any assessment of the condition of the tower.
2) Tower geometry and structural member sizes taken from original construction drawings (engineering file no. A-117361-F-1000698, drawing no. 150587-B, pages 1-14) prepared by PiROD Inc., signed and sealed August 4, 2000.
3) Antenna and mount configuration as specified on the following page of this report.

This report is only valid as per the assumptions and data utilized in this report for antenna inventory, mounts and associated cables. The user of this report shall field verify the assumption of the antenna and mount configuration. Notify the engineer in writing immediately if any of the information in this report is found to be other than specified.

If you should have any questions, please call.

Sincerely,
URS Corporation AES



Richard A. Sambor, P.E.
Manager Facilities Design

RAS/jri

cc: Mark Gauger – Verizon Wireless
D.R., CF – URS

2. INTRODUCTION

The subject tower is located at 3114 Albany Avenue in West Hartford, Connecticut. The structure is a 346' guyed lattice tower manufactured by PiROD Incorporated.

The tower is constructed of solid pipe legs, diagonals, and horizontal members. The tower sections are bolted together. The width of each face is 5'-0" (center-to-center of legs). The tower geometry and structure member sizes were taken from the original construction drawings (engineering file no. A-117361-F-1000698, drawing no. 150587-B, pages 1-14) prepared by PiROD Inc., signed and sealed August 4, 2000.

Existing tower inventory provided by Marlin Broadcasting and Connecticut Siting Council documents. URS conducted a field visit to verify the antenna arrangement and to record the transmission line sizes and locations. The inventory is summarized in the table below:

ANTENNA & MOUNT DESCRIPTION	CARRIER	CENTERLINE ELEVATION
(1) ERI high power, 3-bay CP antenna with (1) 3" coaxial cable	WCCC-FM (existing)	@ 336'
(1) LPTV antenna with (1) 3" coaxial cable	Channel 38 (existing)	@ 298'
(1) DB420B antenna, leg mounted, with (1) 1" coaxial cable	(existing)	@ 275'
(1) PR-450U antenna with (1) 1" coaxial cable	STL (existing)	@ 235'
(1) DB420B antenna, leg mounted, with (1) 1" coaxial cable	(existing)	@ 211'
(1) Shively 6810 1-bay FM with (1) 1" coaxial cable	WMNR (existing)	@ 165'
(9) EMS DR65-19-XXDPQ on Valmont low-profile platform with (36) 1 5/8" coaxial cables (12 per row)	T-Moblie (future)	@ 160'
(6) Allgon 7250.XX on 5' wide tower pipe frames (2 per sector) with (6) 1 5/8" coaxial cables	AT&T Wireless (existing and future)	@ 145'
(4) Decibel DB848F65T5E-SX antennas and (4) Decibel DB950G65VTZE-M antennas on existing PiROD T-frames with (8) 1 5/8" coaxial cables	**Verizon Wireless (proposed)**	**@ 130'**
(2) Decibel DB848F65T5E-SX antennas and (2) Decibel DB950G65VTZE-M antennas on existing PiROD T-frames with (4) 1 5/8" coaxial cables	Verizon Wireless (future)	@ 130'
(12) CSS DUO-1417-8686-40 antennas and (12) amplifiers with (12) 1 5/8" coaxial cables	Cingular (existing and future)	@ 115'

Please note that the antennas listed under "Verizon Wireless (future)" were added to the inventory to increase the wind load on the structure. It was conservatively assumed that the empty T-frame at this location is rented space and that antennas may legally be installed there.

This structural analysis of the communications tower was performed by URS Corporation, AES (URS) for Verizon Wireless. The purpose of this analysis was to investigate the structural integrity of the existing tower with its existing and proposed antenna loads. This analysis was conducted to evaluate stress on the tower, tension in the guy wires and the effect of forces to the foundation of the tower resulting from existing and proposed antenna arrangements.

3. ANALYSIS METHODOLOGY AND LOADING CONDITIONS

Methodology:

The structural analysis was done in accordance with the TIA/EIA-222-F, Structural Standard for Steel Antenna Towers and Antenna Supporting Structures, and the American Institute of Steel Construction (AISC) Manual of Steel Construction, Allowable Stress Design (ASD).

The analysis was conducted using ERI Tower 3.0. Two load conditions were evaluated as shown below which were then compared to allowable stresses according to AISC and TIA/EIA. The two load combinations were investigated in ERI Tower 3.0 to determine the stress, sway and rotation.

Load Condition 1 = 80 mph Wind Load + Tower Dead Load
Load Condition 2 = 69 mph Wind Load (with ice) + Ice Load + Tower Dead Load

The TIA/EIA standard permits a one-third increase in allowable stresses for towers and monopoles less than 700 feet tall. For the purposes of this analysis, in computing the load capacity allowable stresses of the tower members were increased by one-third. In addition, the appropriate "k" factors were assigned to each member.

4. FINDINGS AND EVALUATION

The combined axial and bending stresses on the tower structure were evaluated to compare with the allowable stress in accordance with AISC. The analysis indicates that the tower legs, diagonal and horizontal members, and guy wires have sufficient capacity to carry the loads applied. The foundation reactions were below the design values in the original design by PiROD.

5. CONCLUSIONS

The results of the analysis indicate that the structure is in compliance with the loading conditions and the materials and member sizes for the tower. The tower is considered structurally adequate for the TIA/EIA-222-F wind load classification specified above and the existing and proposed antenna loading.

Limitations/Assumptions:

This report is based on the following:

A. Tower is properly installed and maintained.
B. All members and their geometry are as specified in the original Construction Documents and are in good condition. Tower geometry and structural member sizes taken from original construction drawings (engineering file no. A-117361-F-1000698, drawing no. 150587-B, pages 1-14) prepared by PiROD Inc., signed and sealed August 4, 2000.
C. All required members are in place.
D. All bolts are in place and are properly tightened.
E. Tower is in plumb condition.
F. All member protective coatings are in good condition.
G. All tower members were properly designed, detailed, fabricated, installed, and have been properly maintained since erection.

URS is not responsible for any modifications completed prior to or hereafter in which URS is not or was not directly involved. Modifications include but are not limited to:

A. Adding antennas
B. Removing/replacing antennas
C. Adding coaxial cables

URS hereby states that this document represents the entire report and that it assumes no liability for any factual changes that may occur after the date of this report. All representations, recommendations, and conclusions are based upon information contained and set forth herein. If you are aware of any information which conflicts with that which is contained herein, or you are aware of any defects arising from original design, material, fabrication, or erection deficiencies, you should disregard this report and immediately contact URS. URS disclaims all liability for any representation, recommendation, or conclusion not expressly stated herein.

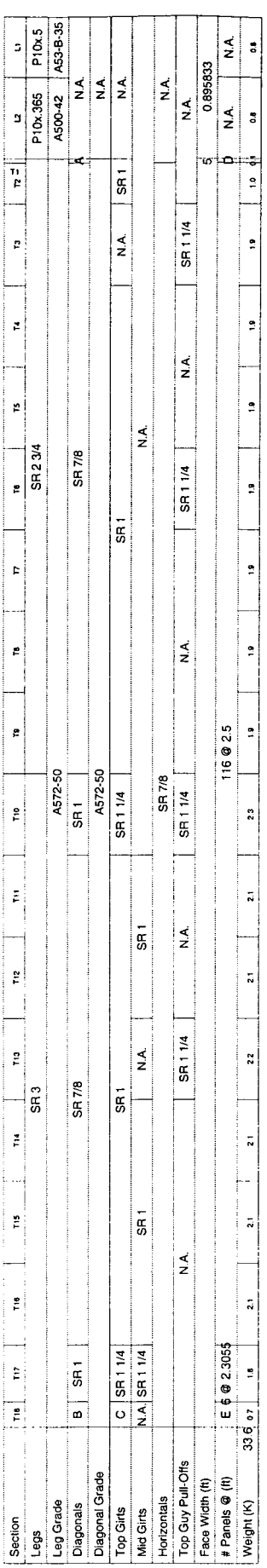
Ongoing and Periodic Inspection and Maintenance by the Owner:

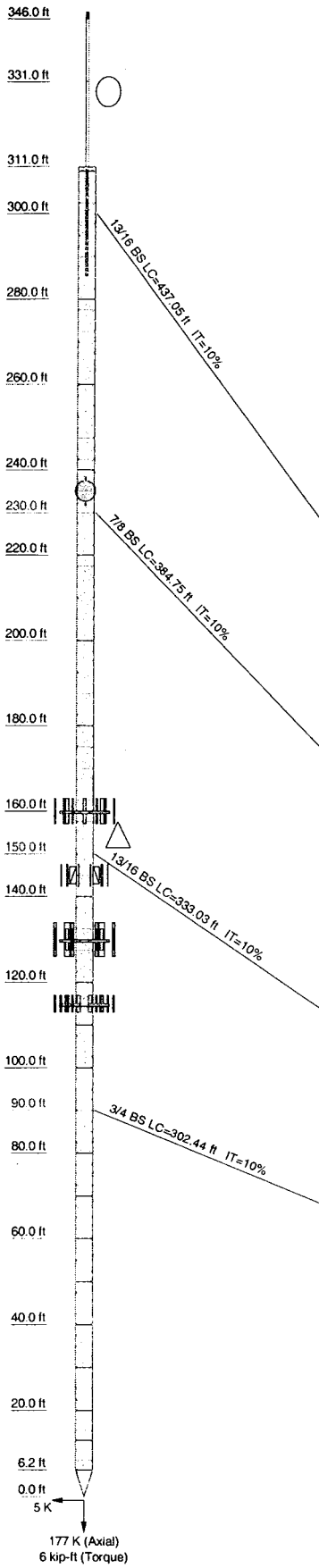
After the Contractor has successfully completed the installation and the work has been accepted, the tower owner will be responsible for the ongoing and periodic inspection and maintenance of the tower and reinforcing system.

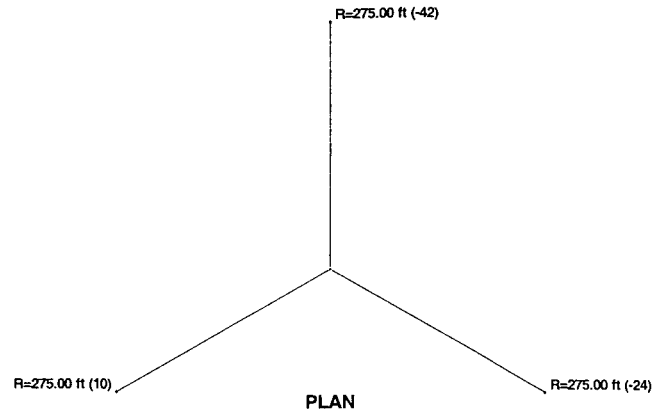
The owner shall refer to TIA/EIA-222-F for recommendations for maintenance and inspection. The frequency of the inspection and maintenance intervals is to be determined by the owner based upon actual site and environmental conditions. It is recommended that a complete and thorough inspection of the entire tower structural system be performed at least yearly and more frequently as conditions warrant. According to TIA/EIA-222-F section 14.1, Note 1, it is recommended that the structure be inspected after severe wind and/or ice storms or other extreme loading conditions.

6. DRAWINGS AND DATA

ERI TOWER INPUT / OUPUT SUMMARY







APPURTENANCES

TYPE	ELEVATION	TYPE	ELEVATION
Flash Beacon Lighting (Marlin Broadcasting)	346	(2) DB848F65E-SX (Verizon Wireless)	130
SHPX-3AE-Radomes (WCCC-FM)	336	(2) DB848F65E-SX (Verizon Wireless)	130
Generic LPTV Antenna - 25' Long (Channel 38 LPTV)	298	(2) DB848F65E-SX (Verizon Wireless)	130
DB420-B (VHF Master Transmit)	275	(2) DB950G65E-M (Verizon Wireless)	130
PR-460 (STL)	235	(2) DB950G65E-M (Verizon Wireless)	130
6'8"x4" Pipe Mount (STL)	235	(2) DB950G65E-M (Verizon Wireless)	130
DB420-B (VHF Master Receive)	211	PiROD 15' T-Frame (Verizon Wireless)	130
6810-2 (WMNR)	165	PiROD 15' T-Frame (Verizon Wireless)	130
6'8"x4" Pipe Mount (WMNR)	165	PiROD 15' T-Frame (Verizon Wireless)	130
(3) DR65-19-00DPQ (T-Mobile)	160	(4) DUO1417-8686 (Cingular)	115
(3) DR65-19-00DPQ (T-Mobile)	160	(4) DUO1417-8686 (Cingular)	115
(3) DR65-19-00DPQ (T-Mobile)	160	(4) DUO1417-8686 (Cingular)	115
PiROD 15' T-Frame (T-Mobile)	160	(4) Mast Head Amplifier (Cingular)	115
PiROD 15' T-Frame (T-Mobile)	160	(4) Mast Head Amplifier (Cingular)	115
PiROD 15' T-Frame (T-Mobile)	160	(4) Mast Head Amplifier (Cingular)	115
(2) 7250.xx (ATI Wireless)	145	PiROD 15' T-Frame (Cingular)	115
(2) 7250.xx (ATI Wireless)	145	PiROD 15' T-Frame (Cingular)	115
(2) 7250.xx (ATI Wireless)	145	PiROD 15' T-Frame (Cingular)	115
2' Standoff T-Arm (5' face width) (ATI Wireless)	145		
2' Standoff T-Arm (5' face width) (ATI Wireless)	145		
2' Standoff T-Arm (5' face width) (ATI Wireless)	145		

SYMBOL LIST

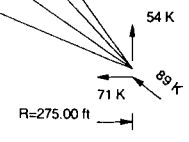
MARK	SIZE	MARK	SIZE
A	SR 3/4	D	1 @ 1
B	SR 1 1/4	E	2 @ 3.0835
C	SR 1 1/2		

MATERIAL STRENGTH

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

TOWER DESIGN NOTES

1. Tower is located in Hartford County, Connecticut.
2. Tower designed for a 80 mph basic wind in accordance with the TIA/EIA-222-F Standard.
3. Tower is also designed for a 69 mph basic wind with 0.50 in ice.
4. Deflections are based upon a 50 mph wind.
5. TOWER RATING: 65.6%



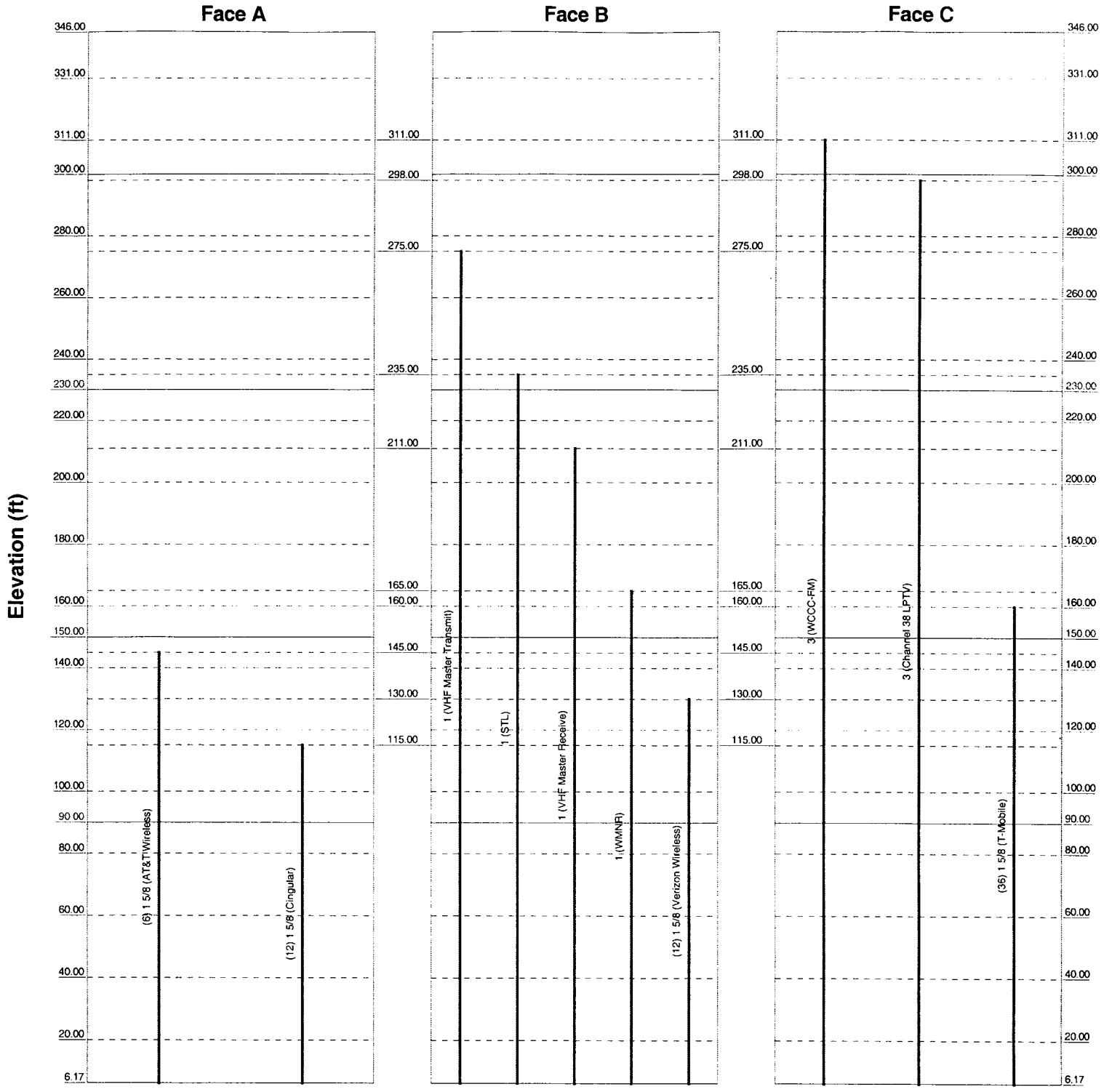
URS Corp. AES
795 Brook St
Rocky Hill, CT
Phone: (860) 529-8882
FAX: (860) 529-5566

Job: ***346' Guyed Lattice Tower***			
Project: ***Albany Ave, West Hartford, CT***			
Client: Verizon Wireless	Drawn by: Jon Ives		App'd:
Code: TIA/EIA-222-F	Date: 11/23/04		Scale: NTS
Path: P:\Telecom\F12\ERI Files\346' Guyed Tower.en			Dwg No. E-1

ERI TOWER FEEDLINE DISTRIBUTION CHART

Feedline Distribution Chart
6'2-1/32" - 346'

Round ____ Flat ____ App In Face ____ App Out Face ____ Truss Leg



URS Corp. AES 795 Brook St Rocky Hill, CT Phone: (860) 529-8882 FAX: (860) 529-5566	Job: ***346' Guyed Lattice Tower***		
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	Code: TIA/EIA-222-F	Date: 11/23/04	Scale: NTS
	Path: P:\Telecom\F12\ERI Files\346' Guyed Tower.eri		Dwg No. E-7

ERI TOWER DETAILED OUTPUT

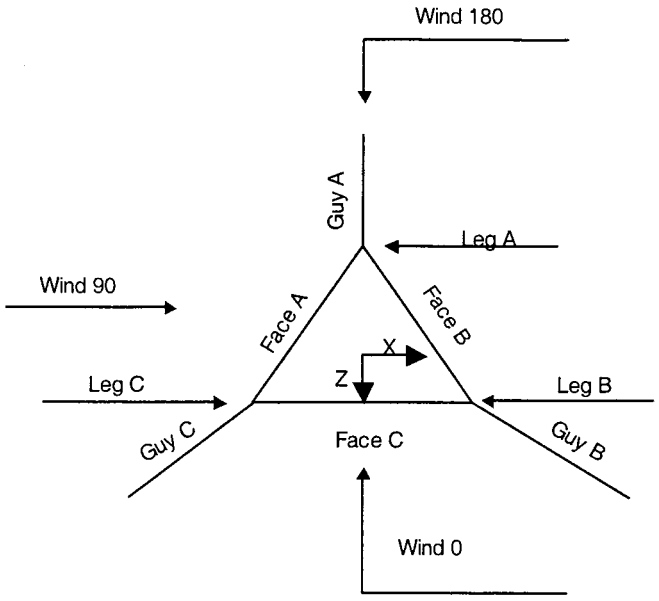
Tower Input Data

The main tower is a 3x guyed tower with an overall height of 346.00 ft above the ground line.
The base of the tower is set at an elevation of 0.00 ft above the ground line.
The face width of the tower is 5.00 ft at the top and tapered at the base.
An index plate is provided at the 3x guyed -tower connection.
There is a pole section.
This tower is designed using the TIA/EIA-222-F standard.
The following design criteria apply:

Tower is located in Hartford County, Connecticut.
Basic wind speed of 80 mph.
Nominal ice thickness of 0.5000 in.
Ice density of 56 pcf.
A wind speed of 69 mph is used in combination with ice.
Temperature drop of 50 °F.
Deflections calculated using a wind speed of 50 mph.
Pressures are calculated at each section.
Stress ratio used in pole design is 1.0664.
Safety factor used in guy design is 2.
Stress ratio used in tower member design is 1.333.
Local bending stresses due to climbing loads, feedline supports, and appurtenance mounts are not considered.

Options

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



Corner & Starmount Guyed Tower

Pole Section Geometry

Section	*Elevation* *ft*	*Section Length* *ft*	*Pole Size*	*Pole Grade*	*Socket Length* *ft*
L1	346.00-331.00	15.00	P10x.5	A53-B-35 (35 ksi)	
L2	331.00-311.00	20.00	P10x.365	A500-42 (42 ksi)	

Tower Elevation *ft*	*Gusset Area (per face)* ft^2	*Gusset Thickness* *in*	*Gusset Grade*	*Adjust. Factor* A_f	*Adjust. Factor* A_r	*Weight Mult.*	*Double Angle Stitch Bolt Spacing Diagonals* *in*	*Double Angle Stitch Bolt Spacing Horizontals* *in*
L1 346.00-331.00				1	1	1		
L2 331.00-311.00				1	1	1		

Tower Section Geometry

Tower Section	Tower Elevation ft	Assembly Database	Description	Section Width ft	Number of Sections	Section Length ft
T1	311.00-310.00			5.00	1	1.00
T2	310.00-300.00			5.00	1	10.00
T3-T9	300.00-160.00			5.00	7	20.00
T10	160.00-140.00			5.00	1	20.00
T11-T16	140.00-20.00			5.00	6	20.00
T17	20.00-6.17			5.00	1	13.83
T18	6.17-0.00			5.00	1	6.17

Tower Section Geometry *(cont'd)*

Tower Section	Tower Elevation ft	Diagonal Spacing ft	Bracing Type	Has K Brace End Panels	Has Horizontals	Top Girt Offset in	Bottom Girt Offset in
T1	311.00-310.00	1.00	X Brace	No	Yes	0.0000	0.0000
T2	310.00-300.00	2.50	X Brace	No	Steps	0.0000	0.0000
T3-T9	300.00-160.00	2.50	X Brace	No	Steps	0.0000	0.0000
T10	160.00-140.00	2.50	X Brace	No	Steps	0.0000	0.0000
T11-T16	140.00-20.00	2.50	X Brace	No	Steps	0.0000	0.0000
T17	20.00-6.17	2.31	X Brace	No	Yes	0.0000	0.0000
T18	6.17-0.00	3.08	X Brace	No	Yes	0.0000	0.0000

Tower Section Geometry *(cont'd)*

Tower Elevation ft	Leg Type	Leg Size	Leg Grade	Diagonal Type	Diagonal Size	Diagonal Grade
T1 311.00-310.00	Solid Round	2 3/4	A572-50 (50 ksi)	Solid Round	3/4	A572-50 (50 ksi)
T2 310.00-300.00	Solid Round	2 3/4	A572-50 (50 ksi)	Solid Round	7/8	A572-50 (50 ksi)
T3-T9 300.00-160.00	Solid Round	2 3/4	A572-50 (50 ksi)	Solid Round	7/8	A572-50 (50 ksi)
T10 160.00-140.00	Solid Round	3	A572-50 (50 ksi)	Solid Round	1	A572-50 (50 ksi)
T11-T16 140.00-20.00	Solid Round	3	A572-50 (50 ksi)	Solid Round	7/8	A572-50 (50 ksi)
T17 20.00-6.17	Solid Round	3	A572-50 (50 ksi)	Solid Round	1	A572-50 (50 ksi)
T18 6.17-0.00	Solid Round	3	A572-50 (50 ksi)	Solid Round	1 1/4	A572-50 (50 ksi)

Tower Section Geometry *(cont'd)*

Tower Elevation ft	Top Girt Type	Top Girt Size	Top Girt Grade	Bottom Girt Type	Bottom Girt Size	Bottom Girt Grade
T1 311.00-	Solid Round	1	A572-50	Solid Round	1	A572-50

Tower Elevation ft	Top Girt Type	Top Girt Size	Top Girt Grade	Bottom Girt Type	Bottom Girt Size	Bottom Girt Grade
310.00			(50 ksi)			(50 ksi)
T2 310.00-300.00	Solid Round	1	A572-50 (50 ksi)	Solid Round	1	A572-50 (50 ksi)
T3-T9 300.00-160.00	Solid Round	1	A572-50 (50 ksi)	Solid Round	1	A572-50 (50 ksi)
T10 160.00-140.00	Solid Round	1 1/4	A572-50 (50 ksi)	Solid Round	1 1/4	A572-50 (50 ksi)
T11-T16 140.00-20.00	Solid Round	1	A572-50 (50 ksi)	Solid Round	1	A572-50 (50 ksi)
T17 20.00-6.17	Solid Round	1 1/4	A572-50 (50 ksi)	Solid Round	1 1/4	A572-50 (50 ksi)
T18 6.17-0.00	Solid Round	1 1/2	A572-50 (50 ksi)	Solid Round	1 1/2	A572-50 (50 ksi)

Tower Section Geometry *(cont'd)*

Tower Elevation ft	No. of Mid Girts	Mid Girt Type	Mid Girt Size	Mid Girt Grade	Horizontal Type	Horizontal Size	Horizontal Grade
T2 310.00-300.00	None	Solid Round		A36 (36 ksi)	Solid Round	7/8	A572-50 (50 ksi)
T3-T9 300.00-160.00	None	Solid Round		A36 (36 ksi)	Solid Round	7/8	A572-50 (50 ksi)
T10 160.00-140.00	1	Solid Round	1 1/4	A572-50 (50 ksi)	Solid Round	7/8	A572-50 (50 ksi)
T11-T16 140.00-20.00	1	Solid Round	1	A572-50 (50 ksi)	Solid Round	7/8	A572-50 (50 ksi)
T17 20.00-6.17	1	Solid Round	1 1/4	A572-50 (50 ksi)	Solid Round	7/8	A572-50 (50 ksi)
T18 6.17-0.00	None	Solid Round		A36 (36 ksi)	Solid Round	7/8	A572-50 (50 ksi)

Tower Section Geometry *(cont'd)*

Tower Elevation ft	Gusset Area (per face) ft^2	Gusset Thickness in	Gusset Grade	Adjust. Factor A_f	Adjust. Factor A_r	Weight Mult.	Double Angle Stitch Bolt Spacing Diagonals in	Double Angle Stitch Bolt Spacing Horizontals in
T1 311.00-310.00	0.00	0.0000	A36 (36 ksi)	1	1	1	36.0000	36.0000
T2 310.00-300.00	0.00	0.0000	A36 (36 ksi)	1	1	1	36.0000	36.0000
T3-T9 300.00-160.00	0.00	0.0000	A36 (36 ksi)	1	1	1	36.0000	36.0000
T10 160.00-140.00	0.00	0.0000	A36 (36 ksi)	1	1	1	36.0000	36.0000
T11-T16 140.00-20.00	0.00	0.0000	A36 (36 ksi)	1	1	1	36.0000	36.0000
T17 20.00-6.17	0.00	0.0000	A36	1	1	1	36.0000	36.0000

Tower Elevation ft	Gusset Area (per face) ft²	Gusset Thickness in	Gusset Grade	Adjust. Factor A_f	Adjust. Factor A_r	Weight Mult.	Double Angle Stitch Bolt Spacing Diagonals in	Double Angle Stitch Bolt Spacing Horizontals in
T18 6.17-0.00	0.00	0.0000	(36 ksi) A36 (36 ksi)	1	1	1	36.0000	36.0000

Tower Section Geometry *(cont'd)*

Tower Elevation ft	Calc K Single Angles	Calc K Solid Rounds	K Factors[1] Legs	X Brace Diags X	X Brace Diags Y	Single Diags X	Single Diags Y	Girts X	Girts Y	Horiz. X	Horiz. Y	Sec. Horiz. X	Sec. Horiz. Y	Inner Brace X	Inner Brace Y
T1 311.00-310.00	No	No	1	1	1	1	1	1	1	1	1	1	1	1	1
T2 310.00-300.00	No	No	1	1	1	1	1	1	1	1	1	1	1	1	1
T3-T9 300.00-160.00	No	No	1	1	1	1	1	1	1	1	1	1	1	1	1
T10 160.00-140.00	No	No	1	1	1	1	1	1	1	1	1	1	1	1	1
T11-T16 140.00-20.00	No	No	1	1	1	1	1	1	1	1	1	1	1	1	1
T17 20.00-6.17	No	No	1	1	1	1	1	1	1	1	1	1	1	1	1
T18 6.17-0.00	No	No	1	1	1	1	1	1	1	1	1	1	1	1	1

[1]*Note: K factors are applied to member segment lengths. K-braces without inner supporting members will have the K factor in the out-of-plane direction applied to the overall length.*

Tower Section Geometry *(cont'd)*

Tower Elevation ft	Leg Net Width Deduct in	Leg U	Diagonal Net Width Deduct in	Diagonal U	Top Girt Net Width Deduct in	Top Girt U	Bottom Girt Net Width Deduct in	Bottom Girt U	Mid Girt Net Width Deduct in	Mid Girt U	Long Horizontal Net Width Deduct in	Long Horizontal U	Short Horizontal Net Width Deduct in	Short Horizontal U
T1 311.00-310.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T2 310.00-300.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T3-T9 300.00-160.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T10 160.00-140.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T11-T16 140.00-20.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T17 20.00-6.17	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75
T18 6.17-0.00	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	0.75

Guy Data

Guy Elevation ft	Guy Grade		Guy Size	Initial Tension K	%	Guy Modulus ksi	Guy Weight plf	L_u ft	Anchor Radius ft	Anchor Azimuth Adj. °	Anchor Elevation ft	End Fitting Efficiency %
300	BS	A	13/16	8.00	10%	24000	1.390	436.71	275.00	0.0000	-42.00	100%
		B	13/16	8.00	10%	24000	1.390	422.78	275.00	0.0000	-24.00	100%
		C	13/16	8.00	10%	24000	1.390	397.37	275.00	0.0000	10.00	100%
230	BS	A	7/8	9.20	10%	24000	1.610	384.45	275.00	0.0000	-42.00	100%
		B	7/8	9.20	10%	24000	1.610	371.95	275.00	0.0000	-24.00	100%
		C	7/8	9.20	10%	24000	1.610	349.66	275.00	0.0000	10.00	100%
150	BS	A	13/16	8.00	10%	24000	1.390	332.78	275.00	0.0000	-42.00	100%
		B	13/16	8.00	10%	24000	1.390	322.74	275.00	0.0000	-24.00	100%
		C	13/16	8.00	10%	24000	1.390	305.78	275.00	0.0000	10.00	100%
90	BS	A	3/4	6.80	10%	24000	1.180	302.21	275.00	0.0000	-42.00	100%
		B	3/4	6.80	10%	24000	1.180	294.81	275.00	0.0000	-24.00	100%
		C	3/4	6.80	10%	24000	1.180	283.42	275.00	0.0000	10.00	100%

Guy Data *(cont'd)*

Guy Elevation ft	Mount Type	Torque-Arm Spread ft	Torque-Arm Leg Angle °	Torque-Arm Style	Torque-Arm Grade	Torque-Arm Type	Torque-Arm Size
300	Corner						
230	Corner						
150	Corner						
90	Corner						

Guy Data *(cont'd)*

Guy Elevation ft	Diagonal Grade	Diagonal Type	Upper Diagonal Size	Lower Diagonal Size	Is Strap.	Pull-Off Grade	Pull-Off Type	Pull-Off Size
300.00	A572-50 (50 ksi)	Solid Round			No	A572-50 (50 ksi)	Solid Round	1 1/4
230.00	A572-50 (50 ksi)	Solid Round			No	A572-50 (50 ksi)	Solid Round	1 1/4
150.00	A572-50 (50 ksi)	Solid Round			No	A572-50 (50 ksi)	Solid Round	1 1/4
90.00	A572-50 (50 ksi)	Solid Round			No	A572-50 (50 ksi)	Solid Round	1 1/4

Guy Data *(cont'd)*

Guy Elevation ft	Cable Weight A K	Cable Weight B K	Cable Weight C K	Cable Weight D K	Tower Intercept A ft	Tower Intercept B ft	Tower Intercept C ft	Tower Intercept D ft
300	0.61	0.59	0.55		16.11 6.9 sec/pulse	15.12 6.7 sec/pulse	13.39 6.3 sec/pulse	
230	0.62	0.60	0.56		12.65 6.1 sec/pulse	11.85 5.9 sec/pulse	10.51 5.6 sec/pulse	
150	0.46	0.45	0.43		9.47 5.3 sec/pulse	8.92 5.2 sec/pulse	8.03 4.9 sec/pulse	
90	0.36	0.35	0.33		7.84 4.8 sec/pulse	7.47 4.7 sec/pulse	6.93 4.5 sec/pulse	

Guy Data *(cont'd)*

Guy Elevation ft	Calc K Single Angles	Calc K Solid Rounds	Torque Arm K_x	Torque Arm K_y	Pull Off K_x	Pull Off K_y	Diagonal K_x	Diagonal K_y
300	No	No			1	1	1	1
230	No	No			1	1	1	1
150	No	No			1	1	1	1
90	No	No			1	1	1	1

Guy Data *(cont'd)*

Guy Elevation ft	Torque-Arm Bolt Size in	Torque-Arm Number	Torque-Arm Net Width Deduct in	Torque-Arm U	Pull Off Bolt Size in	Pull Off Number	Pull Off Net Width Deduct in	Pull Off U	Diagonal Bolt Size in	Diagonal Number	Diagonal Net Width Deduct in	Diagonal U
300	0.6250 A325N	0	0.0000	0.75	0.6250 A325N	0	0.0000	0.75	0.6250 A325N	0	0.0000	0.75
230	0.6250 A325N	0	0.0000	0.75	0.6250 A325N	0	0.0000	0.75	0.6250 A325N	0	0.0000	0.75
150	0.6250 A325N	0	0.0000	0.75	0.6250 A325N	0	0.0000	0.75	0.6250 A325N	0	0.0000	0.75
90	0.6250 A325N	0	0.0000	0.75	0.6250 A325N	0	0.0000	0.75	0.6250 A325N	0	0.0000	0.75

Guy Pressures

Guy Elevation ft	Guy Location	z ft	q_z psf	q_z Ice psf	Ice Thickness in
300	A	129.00	24	18	0.5000
	B	138.00	25	18	0.5000
	C	155.00	25	19	0.5000
230	A	94.00	22	17	0.5000
	B	103.00	23	17	0.5000
	C	120.00	24	18	0.5000
150	A	54.00	19	14	0.5000
	B	63.00	20	15	0.5000

Guy Elevation ft	Guy Location	z ft	q_z psf	q_z Ice psf	Ice Thickness in
	C	80.00	21	16	0.5000
90	A	24.00	16	12	0.5000
	B	33.00	16	12	0.5000
	C	50.00	18	14	0.5000

Guy-Mast Forces (Excluding Wind) - No Ice

Guy Elevation ft	Guy Location	Chord Angle °	Guy Tension Top / Bottom K	F_x K	F_y K	F_z K	M_x kip-ft	M_y kip-ft	M_z kip-ft
300	A	51.4924	8.47	0.00	6.75	-5.13	-19.48	0.00	0.00
			8.00						
	B	49.9746	8.45	4.58	6.59	2.64	9.51	0.00	-16.48
			8.00						
	C	46.8226	8.40	-4.86	6.26	2.80	9.03	-0.00	15.64
			8.00						
			Sum:	**-0.28**	19.60	**0.32**	**-0.94**	0.00	**-0.84**
230	A	44.9881	9.64	0.00	6.97	-6.66	-20.11	0.00	0.00
			9.20						
	B	43.0282	9.61	5.95	6.72	3.44	9.69	0.00	-16.79
			9.20						
	C	38.9551	9.55	-6.31	6.18	3.64	8.91	-0.00	15.44
			9.20						
			Sum:	**-0.36**	19.86	**0.42**	**-1.51**	0.00	**-1.35**
150	A	35.2064	8.27	0.00	4.92	-6.64	-14.20	0.00	0.00
			8.00						
	B	32.5965	8.24	5.92	4.60	3.42	6.64	0.00	-11.50
			8.00						
	C	27.2254	8.19	-6.23	3.92	3.60	5.65	-0.00	9.79
			8.00						
			Sum:	**-0.31**	13.44	**0.38**	**-1.91**	0.00	**-1.71**
90	A	25.8777	6.96	0.00	3.18	-6.19	-9.18	0.00	0.00
			6.80						
	B	22.7309	6.93	5.48	2.83	3.17	4.08	0.00	-7.07
			6.80						
	C	16.3831	6.89	-5.69	2.10	3.28	3.03	-0.00	5.25
			6.80						
			Sum:	**-0.20**	8.11	**0.26**	**-2.07**	0.00	**-1.82**

Guy-Mast Forces (Excluding Wind) - Ice

Guy Elevation ft	Guy Location	Chord Angle °	Guy Tension Top / Bottom K	F_x K	F_y K	F_z K	M_x kip-ft	M_y kip-ft	M_z kip-ft
300	A	51.4924	11.93	0.00	9.52	-7.19	-27.48	0.00	0.00
			11.18						
	B	49.9746	11.90	6.42	9.30	3.71	13.42	0.00	-23.25
			11.19						
	C	46.8226	11.84	-6.82	8.83	3.94	12.75	-0.00	22.08

Guy Elevation	Guy Location	Chord Angle	Guy Tension Top / Bottom K	F_x	F_y	F_z	M_x	M_y	M_z
ft		°		K	K	K	kip-ft	kip-ft	kip-ft
			11.20						
			Sum:	**-0.40**	27.65	**0.46**	**-1.30**	0.00	**-1.16**
230	A	44.9881	13.52	0.00	9.79	-9.32	-28.27	0.00	0.00
			12.86						
	B	43.0282	13.49	8.34	9.45	4.81	13.63	0.00	-23.61
			12.87						
	C	38.9551	13.41	-8.84	8.69	5.11	12.54	-0.00	21.72
			12.87						
			Sum:	**-0.51**	27.93	**0.60**	**-2.10**	0.00	**-1.89**
150	A	35.2064	11.65	0.00	6.96	-9.34	-20.09	0.00	0.00
			11.23						
	B	32.5965	11.62	8.33	6.51	4.81	9.39	0.00	-16.27
			11.24						
	C	27.2254	11.55	-8.77	5.55	5.06	8.01	-0.00	13.87
			11.24						
			Sum:	**-0.44**	19.02	**0.53**	**-2.69**	0.00	**-2.40**
90	A	25.8777	9.89	0.00	4.55	-8.78	-13.14	0.00	0.00
			9.63						
	B	22.7309	9.86	7.78	4.05	4.49	5.85	0.00	-10.13
			9.63						
	C	16.3831	9.79	-8.07	3.02	4.66	4.35	-0.00	7.54
			9.64						
			Sum:	**-0.29**	11.62	**0.37**	**-2.94**	0.00	**-2.59**

Guy-Mast Forces (Excluding Wind) - Service

Guy Elevation	Guy Location	Chord Angle	Guy Tension Top / Bottom K	F_x	F_y	F_z	M_x	M_y	M_z
ft		°		K	K	K	kip-ft	kip-ft	kip-ft
300	A	51.4924	8.47	0.00	6.75	-5.13	-19.48	0.00	0.00
			8.00						
	B	49.9746	8.45	4.58	6.59	2.64	9.51	0.00	-16.48
			8.00						
	C	46.8226	8.40	-4.86	6.26	2.80	9.03	-0.00	15.64
			8.00						
			Sum:	**-0.28**	19.60	**0.32**	**-0.94**	0.00	**-0.84**
230	A	44.9881	9.64	0.00	6.97	-6.66	-20.11	0.00	0.00
			9.20						
	B	43.0282	9.61	5.95	6.72	3.44	9.69	0.00	-16.79
			9.20						
	C	38.9551	9.55	-6.31	6.18	3.64	8.91	-0.00	15.44
			9.20						
			Sum:	**-0.36**	19.86	**0.42**	**-1.51**	0.00	**-1.35**
150	A	35.2064	8.27	0.00	4.92	-6.64	-14.20	0.00	0.00
			8.00						
	B	32.5965	8.24	5.92	4.60	3.42	6.64	0.00	-11.50
			8.00						
	C	27.2254	8.19	-6.23	3.92	3.60	5.65	-0.00	9.79
			8.00						
			Sum:	**-0.31**	13.44	**0.38**	**-1.91**	0.00	**-1.71**
90	A	25.8777	6.96	0.00	3.18	-6.19	-9.18	0.00	0.00
			6.80						

Guy Elevation	Guy Location	Chord Angle	Guy Tension Top / Bottom K	F_x	F_y	F_z	M_x	M_y	M_z
ft		°		K	K	K	kip-ft	kip-ft	kip-ft
	B	22.7309	6.93	5.48	2.83	3.17	4.08	0.00	-7.07
			6.80						
	C	16.3831	6.89	-5.69	2.10	3.28	3.03	-0.00	5.25
			6.80						
			Sum:	**-0.20**	8.11	**0.26**	**-2.07**	0.00	**-1.82**

Guy-Tensioning Information

				Temperature At Time Of Tensioning													
				0 F		20 F		40 F		60 F		80 F		100 F		120 F	
Guy Elevation		H	V	Initial Tension	Intercept	Initial Tension	Intercept	Initial Tension	Intercept	Initial Tension	Intercept	Initial Tension	Intercept	Initial Tension	Intercept	Initial Tension	Intercept
ft		ft	ft	K	ft	K	ft	K	ft	K	ft	K	ft	K	ft	K	ft
300	A	272.11	342.00	11.301	11.49	10.162	12.75	9.057	14.27	8.000	16.11	7.008	18.32	6.103	20.94	5.304	23.96
	B	272.11	324.00	11.300	10.78	10.162	11.97	9.057	13.40	8.000	15.12	7.009	17.19	6.105	19.65	5.308	22.49
	C	272.11	290.00	11.299	9.55	10.160	10.60	9.056	11.86	8.000	13.39	7.010	15.24	6.108	17.42	5.314	19.93
230	A	272.11	272.00	13.015	9.00	11.697	9.99	10.420	11.19	9.200	12.65	8.059	14.39	7.022	16.46	6.110	18.83
	B	272.11	254.00	13.015	8.43	11.697	9.36	10.420	10.49	9.200	11.85	8.059	13.49	7.023	15.43	6.114	17.66
	C	272.11	220.00	13.006	7.47	11.690	8.30	10.416	9.30	9.200	10.51	8.046	11.98	7.015	13.71	6.112	15.68
150	A	272.11	192.00	11.288	6.74	10.152	7.49	9.052	8.39	8.000	9.47	7.016	10.78	6.120	12.33	5.317	14.15
	B	272.11	174.00	11.287	6.35	10.151	7.05	9.051	7.90	8.000	8.92	7.017	10.16	6.123	11.61	5.315	13.34
	C	272.11	140.00	11.284	5.71	10.149	6.35	9.050	7.11	8.000	8.03	7.019	9.14	6.127	10.46	5.343	11.97
90	A	272.11	132.00	9.602	5.57	8.634	6.19	7.696	6.94	6.800	7.84	5.963	8.93	5.203	10.22	4.536	11.70
	B	272.11	114.00	9.601	5.31	8.633	5.90	7.695	6.61	6.800	7.47	5.964	8.51	5.205	9.74	4.539	11.15
	C	272.11	80.00	9.599	4.92	8.631	5.46	7.694	6.13	6.800	6.93	5.965	7.89	5.208	9.03	4.545	10.34

Feed Line/Linear Appurtenances - Entered As Round Or Flat

Description	Face or Leg	Allow Shield	Component Type	Placement ft	Total Number	Number Per Row	Clear Spacing in	Width or Diameter in	Perimeter in	Weight plf
3 (WCCC-FM)	C	Yes	Ar (CfAe)	311.00 - 4.00	1	1	3.0100	3.0100		1.78
3 (Channel 38 LPTV)	C	Yes	Ar (CfAe)	298.00 - 4.00	1	1	3.0100	3.0100		1.78
1 (VHF Master Transmit)	B	Yes	Ar (CfAe)	275.00 - 4.00	1	1	1.2500	1.2500		0.58
1 (STL)	B	Yes	Ar (CfAe)	235.00 - 4.00	1	1	1.2500	1.2500		0.58
1 (VHF Master Receive)	B	Yes	Ar (CfAe)	211.00 - 4.00	1	1	1.2500	1.2500		0.58
1 (WMNR)	B	Yes	Ar (CfAe)	165.00 - 4.00	1	1	1.2500	1.2500		0.58
1 5/8 (T-Mobile)	C	Yes	Ar (CfAe)	160.00 - 4.00	36	12	1.9800	1.9800		1.04
1 5/8 (AT&T Wireless)	A	Yes	Ar (CfAe)	145.00 - 4.00	6	3	1.9800	1.9800		1.04
1 5/8 (Verizon Wireless)	B	Yes	Ar (CfAe)	130.00 - 4.00	12	12	1.9800	1.9800		1.04
1 5/8 (Cingular)	A	Yes	Ar (CfAe)	115.00 - 4.00	12	6	1.9800	1.9800		1.04

Feed Line/Linear Appurtenances Section Areas

Tower Section	Tower Elevation ft	Face	A_R ft^2	A_F ft^2	C_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight K
L1	346.00-331.00	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.000	0.00
L2	331.00-311.00	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.000	0.00
T1	311.00-310.00	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.251	0.000	0.000	0.000	0.00
T2	310.00-300.00	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	2.508	0.000	0.000	0.000	0.02
T3	300.00-280.00	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	9.532	0.000	0.000	0.000	0.07
T4	280.00-260.00	A	0.000	0.000	0.000	0.000	0.00
		B	1.563	0.000	0.000	0.000	0.01
		C	10.033	0.000	0.000	0.000	0.07
T5	260.00-240.00	A	0.000	0.000	0.000	0.000	0.00
		B	2.083	0.000	0.000	0.000	0.01
		C	10.033	0.000	0.000	0.000	0.07
T6	240.00-220.00	A	0.000	0.000	0.000	0.000	0.00
		B	3.646	0.000	0.000	0.000	0.02
		C	10.033	0.000	0.000	0.000	0.07
T7	220.00-200.00	A	0.000	0.000	0.000	0.000	0.00
		B	5.313	0.000	0.000	0.000	0.03
		C	10.033	0.000	0.000	0.000	0.07
T8	200.00-180.00	A	0.000	0.000	0.000	0.000	0.00
		B	6.250	0.000	0.000	0.000	0.03
		C	10.033	0.000	0.000	0.000	0.07
T9	180.00-160.00	A	0.000	0.000	0.000	0.000	0.00
		B	6.771	0.000	0.000	0.000	0.04
		C	10.033	0.000	0.000	0.000	0.07
T10	160.00-140.00	A	2.475	0.000	0.000	0.000	0.03
		B	8.333	0.000	0.000	0.000	0.05
		C	49.633	0.000	0.000	0.000	0.82
T11	140.00-120.00	A	9.900	0.000	0.000	0.000	0.12
		B	28.133	0.000	0.000	0.000	0.17
		C	49.633	0.000	0.000	0.000	0.82
T12	120.00-100.00	A	24.750	0.000	0.000	0.000	0.31
		B	47.933	0.000	0.000	0.000	0.30
		C	49.633	0.000	0.000	0.000	0.82
T13	100.00-80.00	A	29.700	0.000	0.000	0.000	0.37
		B	47.933	0.000	0.000	0.000	0.30
		C	49.633	0.000	0.000	0.000	0.82
T14	80.00-60.00	A	29.700	0.000	0.000	0.000	0.37
		B	47.933	0.000	0.000	0.000	0.30
		C	49.633	0.000	0.000	0.000	0.82
T15	60.00-40.00	A	29.700	0.000	0.000	0.000	0.37
		B	47.933	0.000	0.000	0.000	0.30
		C	49.633	0.000	0.000	0.000	0.82
T16	40.00-20.00	A	29.700	0.000	0.000	0.000	0.37
		B	47.933	0.000	0.000	0.000	0.30
		C	49.633	0.000	0.000	0.000	0.82
T17	20.00-6.17	A	20.542	0.000	0.000	0.000	0.26
		B	33.153	0.000	0.000	0.000	0.20

Tower Section	Tower Elevation ft	Face	A_R ft^2	A_F ft^2	C_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight K
		C	34.329	0.000	0.000	0.000	0.57
T18	6.17-0.00	A	3.218	0.000	0.000	0.000	0.04
		B	5.194	0.000	0.000	0.000	0.03
		C	5.378	0.000	0.000	0.000	0.09

Feed Line/Linear Appurtenances Section Areas - With Ice

Tower Section	Tower Elevation ft	Face or Leg	Ice Thickness in	A_R ft^2	A_F ft^2	C_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight K
L1	346.00-331.00	A	0.500	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	0.000	0.00
L2	331.00-311.00	A	0.500	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	0.000	0.00
T1	311.00-310.00	A	0.500	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	0.000	0.000	0.00
		C		0.334	0.000	0.000	0.000	0.00
T2	310.00-300.00	A	0.500	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	0.000	0.000	0.00
		C		3.342	0.000	0.000	0.000	0.04
T3	300.00-280.00	A	0.500	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	0.000	0.000	0.00
		C		12.698	0.000	0.000	0.000	0.15
T4	280.00-260.00	A	0.500	0.000	0.000	0.000	0.000	0.00
		B		2.813	0.000	0.000	0.000	0.02
		C		13.367	0.000	0.000	0.000	0.16
T5	260.00-240.00	A	0.500	0.000	0.000	0.000	0.000	0.00
		B		3.750	0.000	0.000	0.000	0.03
		C		13.367	0.000	0.000	0.000	0.16
T6	240.00-220.00	A	0.500	0.000	0.000	0.000	0.000	0.00
		B		6.563	0.000	0.000	0.000	0.06
		C		13.367	0.000	0.000	0.000	0.16
T7	220.00-200.00	A	0.500	0.000	0.000	0.000	0.000	0.00
		B		9.563	0.000	0.000	0.000	0.08
		C		13.367	0.000	0.000	0.000	0.16
T8	200.00-180.00	A	0.500	0.000	0.000	0.000	0.000	0.00
		B		11.250	0.000	0.000	0.000	0.10
		C		13.367	0.000	0.000	0.000	0.16
T9	180.00-160.00	A	0.500	0.000	0.000	0.000	0.000	0.00
		B		12.188	0.000	0.000	0.000	0.11
		C		13.367	0.000	0.000	0.000	0.16
T10	160.00-140.00	A	0.500	3.725	0.000	0.000	0.000	0.08
		B		15.000	0.000	0.000	0.000	0.13
		C		72.967	0.000	0.000	0.000	2.00
T11	140.00-120.00	A	0.500	14.900	0.000	0.000	0.000	0.31
		B		44.800	0.000	0.000	0.000	0.44
		C		72.967	0.000	0.000	0.000	2.00
T12	120.00-100.00	A	0.500	37.250	0.000	0.000	0.000	0.77
		B		74.600	0.000	0.000	0.000	0.75
		C		72.967	0.000	0.000	0.000	2.00
T13	100.00-80.00	A	0.500	44.700	0.000	0.000	0.000	0.92
		B		74.600	0.000	0.000	0.000	0.75
		C		72.967	0.000	0.000	0.000	2.00
T14	80.00-60.00	A	0.500	44.700	0.000	0.000	0.000	0.92
		B		74.600	0.000	0.000	0.000	0.75
		C		72.967	0.000	0.000	0.000	2.00

Tower Section	Tower Elevation ft	Face or Leg	Ice Thickness in	A_R ft^2	A_F ft^2	C_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight K
T15	60.00-40.00	A	0.500	44.700	0.000	0.000	0.000	0.92
		B		74.600	0.000	0.000	0.000	0.75
		C		72.967	0.000	0.000	0.000	2.00
T16	40.00-20.00	A	0.500	44.700	0.000	0.000	0.000	0.92
		B		74.600	0.000	0.000	0.000	0.75
		C		72.967	0.000	0.000	0.000	2.00
T17	20.00-6.17	A	0.500	30.917	0.000	0.000	0.000	0.64
		B		51.597	0.000	0.000	0.000	0.52
		C		50.467	0.000	0.000	0.000	1.38
T18	6.17-0.00	A	0.500	4.843	0.000	0.000	0.000	0.10
		B		8.083	0.000	0.000	0.000	0.08
		C		7.906	0.000	0.000	0.000	0.22

Feed Line Shielding

Section	Elevation ft	Face	A_R ft^2	A_R Ice ft^2	A_F ft^2	A_F Ice ft^2
L1	346.00-331.00		0.000	0.000	0.000	0.000
			0.000	0.000	0.000	0.000
			0.000	0.000	0.000	0.000
L2	331.00-311.00		0.000	0.000	0.000	0.000
			0.000	0.000	0.000	0.000
			0.000	0.000	0.000	0.000
T1	311.00-310.00	A	0.000	0.000	0.000	0.000
		B	0.000	0.000	0.000	0.000
		C	0.053	0.155	0.000	0.000
T2	310.00-300.00	A	0.000	0.000	0.000	0.000
		B	0.000	0.000	0.000	0.000
		C	0.239	0.679	0.000	0.000
T3	300.00-280.00	A	0.000	0.000	0.000	0.000
		B	0.000	0.000	0.000	0.000
		C	0.915	2.588	0.000	0.000
T4	280.00-260.00	A	0.000	0.000	0.000	0.000
		B	0.108	0.416	0.000	0.000
		C	0.952	2.710	0.000	0.000
T5	260.00-240.00	A	0.000	0.000	0.000	0.000
		B	0.145	0.555	0.000	0.000
		C	0.952	2.710	0.000	0.000
T6	240.00-220.00	A	0.000	0.000	0.000	0.000
		B	0.272	1.033	0.000	0.000
		C	0.968	2.731	0.000	0.000
T7	220.00-200.00	A	0.000	0.000	0.000	0.000
		B	0.369	1.416	0.000	0.000
		C	0.952	2.710	0.000	0.000
T8	200.00-180.00	A	0.000	0.000	0.000	0.000
		B	0.434	1.666	0.000	0.000
		C	0.952	2.710	0.000	0.000
T9	180.00-160.00	A	0.000	0.000	0.000	0.000
		B	0.470	1.805	0.000	0.000
		C	0.952	2.710	0.000	0.000
T10	160.00-140.00	A	0.210	0.625	0.000	0.000
		B	0.708	2.517	0.000	0.000
		C	5.302	15.666	0.000	0.000
T11	140.00-120.00	A	0.728	2.331	0.000	0.000
		B	2.069	7.008	0.000	0.000
		C	4.736	14.834	0.000	0.000

Section	Elevation	Face	A_R	A_R Ice	A_F	A_F Ice
	ft		ft^2	ft^2	ft^2	ft^2
T12	120.00-100.00	A	1.820	5.827	0.000	0.000
		B	3.526	11.669	0.000	0.000
		C	4.736	14.834	0.000	0.000
T13	100.00-80.00	A	2.215	7.039	0.000	0.000
		B	3.576	11.747	0.000	0.000
		C	4.788	14.910	0.000	0.000
T14	80.00-60.00	A	2.184	6.992	0.000	0.000
		B	3.526	11.669	0.000	0.000
		C	4.736	14.834	0.000	0.000
T15	60.00-40.00	A	2.184	6.992	0.000	0.000
		B	3.526	11.669	0.000	0.000
		C	4.736	14.834	0.000	0.000
T16	40.00-20.00	A	2.184	6.992	0.000	0.000
		B	3.526	11.669	0.000	0.000
		C	4.736	14.834	0.000	0.000
T17	20.00-6.17	A	2.378	7.157	0.000	0.000
		B	3.838	11.945	0.000	0.000
		C	3.974	11.683	0.000	0.000
T18	6.17-0.00	A	0.243	0.665	0.000	0.000
		B	0.392	1.110	0.000	0.000
		C	0.406	1.085	0.000	0.000

Feed Line Center of Pressure

Section	Elevation	CP_X	CP_Z	CP_X Ice	CP_Z Ice
	ft	in	in	in	in
L1	346.00-331.00	0.0000	0.0000	0.0000	0.0000
L2	331.00-311.00	0.0000	0.0000	0.0000	0.0000
T1	311.00-310.00	0.0000	0.8119	0.0000	0.3876
T2	310.00-300.00	0.0000	1.5482	0.0000	1.0887
T3	300.00-280.00	0.0000	2.7630	0.0000	1.9926
T4	280.00-260.00	0.3746	2.6173	0.3793	1.8247
T5	260.00-240.00	0.4954	2.5250	0.5017	1.7375
T6	240.00-220.00	0.8273	2.2151	0.8326	1.4592
T7	220.00-200.00	1.2039	1.9836	1.2184	1.2271
T8	200.00-180.00	1.3972	1.8358	1.4139	1.0880
T9	180.00-160.00	1.5024	1.7555	1.5202	1.0123
T10	160.00-140.00	0.7122	7.8265	0.8446	6.6379
T11	140.00-120.00	1.8750	4.7934	1.8955	3.9830
T12	120.00-100.00	1.8081	2.0017	1.8290	1.5126
T13	100.00-80.00	1.2822	1.6701	1.3348	1.2146
T14	80.00-60.00	1.2848	1.6738	1.3370	1.2169
T15	60.00-40.00	1.2848	1.6738	1.3370	1.2169
T16	40.00-20.00	1.2848	1.6738	1.3370	1.2169
T17	20.00-6.17	1.1867	1.6733	1.1895	1.3485
T18	6.17-0.00	0.6684	1.0666	0.7197	0.9278

Discrete Tower Loads

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
Flash Beacon Lighting	A	None		0.0000	346.00	No Ice	2.70	2.70	0.05
(Marlin Broadcasting)						1/2" Ice	3.10	3.10	0.07
SHPX-3AE-Radomes	B	From Leg	4.00	0.0000	336.00	No Ice	29.00	29.00	0.48
(WCCC-FM)			0.00			1/2" Ice	33.00	33.00	0.95
			0.00						
Generic LPTV Antenna - 25'	A	From Leg	2.00	0.0000	298.00	No Ice	20.00	20.00	0.24
Long			0.00			1/2" Ice	22.57	22.57	0.37
(Channel 38 LPTV)			0.00						
DB420-B	B	From Leg	10.00	0.0000	275.00	No Ice	3.33	3.33	0.03
(VHF Master Transmit)			0.00			1/2" Ice	5.99	5.99	0.04
			0.00						
PR-460	A	From Leg	0.00	0.0000	235.00	No Ice	6.35	6.35	0.04
(STL)			0.00			1/2" Ice	11.43	11.43	0.05
			0.00						
6'8"x4" Pipe Mount	A	From Leg	0.00	0.0000	235.00	No Ice	2.60	2.60	0.07
(STL)			0.00			1/2" Ice	3.01	3.01	0.09
			0.00						
DB420-B	B	From Leg	10.00	0.0000	211.00	No Ice	3.33	3.33	0.03
(VHF Master Receive)			0.00			1/2" Ice	5.99	5.99	0.04
			0.00						
6810-2	B	From Leg	0.00	0.0000	165.00	No Ice	10.80	10.80	0.25
(WMNR)			0.00			1/2" Ice	19.44	19.44	0.32
			0.00						
6'8"x4" Pipe Mount	B	From Leg	0.00	0.0000	165.00	No Ice	2.60	2.60	0.07
(WMNR)			0.00			1/2" Ice	3.01	3.01	0.09
			0.00						
(3) DR65-19-00DPQ	A	From Leg	4.00	0.0000	160.00	No Ice	8.40	3.53	0.03
(T-Mobile)			0.00			1/2" Ice	8.95	3.97	0.07
			0.00						
(3) DR65-19-00DPQ	B	From Leg	4.00	0.0000	160.00	No Ice	8.40	3.53	0.03
(T-Mobile)			0.00			1/2" Ice	8.95	3.97	0.07
			0.00						
(3) DR65-19-00DPQ	C	From Leg	4.00	0.0000	160.00	No Ice	8.40	3.53	0.03
(T-Mobile)			0.00			1/2" Ice	8.95	3.97	0.07
			0.00						
PiROD 15' T-Frame	A	From Leg	2.00	0.0000	160.00	No Ice	15.00	15.00	0.50
(T-Mobile)			0.00			1/2" Ice	20.60	20.60	0.65
			0.00						
PiROD 15' T-Frame	B	From Leg	2.00	0.0000	160.00	No Ice	15.00	15.00	0.50
(T-Mobile)			0.00			1/2" Ice	20.60	20.60	0.65
			0.00						
PiROD 15' T-Frame	C	From Leg	2.00	0.0000	160.00	No Ice	15.00	15.00	0.50
(T-Mobile)			0.00			1/2" Ice	20.60	20.60	0.65
			0.00						
(2) 7250.xx	A	From Leg	2.00	0.0000	145.00	No Ice	4.00	1.87	0.02
(AT&T Wireless)			0.00			1/2" Ice	4.39	2.33	0.04
			0.00						
(2) 7250.xx	B	From Leg	2.00	0.0000	145.00	No Ice	4.00	1.87	0.02
(AT&T Wireless)			0.00			1/2" Ice	4.39	2.33	0.04
			0.00						
(2) 7250.xx	C	From Leg	2.00	0 0000	145.00	No Ice	4.00	1.87	0.02
(AT&T Wireless)			0.00			1/2" Ice	4.39	2.33	0.04
			0.00						
2' Standoff T-Arm (5' face	A	From Leg	1.00	0.0000	145.00	No Ice	3.50	3.50	0.09
width)			0.00			1/2" Ice	4.20	4.20	0.12
(AT&T Wireless)			0.00						
2' Standoff T-Arm (5' face	B	From Leg	1.00	0.0000	145.00	No Ice	3.50	3.50	0.09

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft / Vert ft / ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
width)			0.00			1/2" Ice	4.20	4.20	0.12
(AT&T Wireless)			0.00						
2' Standoff T-Arm (5' face	C	From Leg	1.00	0.0000	145.00	No Ice	3.50	3.50	0.09
width)			0.00			1/2" Ice	4.20	4.20	0.12
(AT&T Wireless)			0.00						
(2) DB848F65E-SX	A	From Leg	4.00	0.0000	130.00	No Ice	19.13	9.13	0.04
(Verizon Wireless)			0.00			1/2" Ice	19.89	9.73	0.14
			0.00						
(2) DB848F65E-SX	B	From Leg	4.00	0.0000	130.00	No Ice	19.13	9.13	0.04
(Verizon Wireless)			0.00			1/2" Ice	19.89	9.73	0.14
			0.00						
(2) DB848F65E-SX	C	From Leg	4.00	0.0000	130.00	No Ice	19.13	9.13	0.04
(Verizon Wireless)			0.00			1/2" Ice	19.89	9.73	0.14
			0.00						
(2) DB950G65E-M	A	From Leg	4.00	0.0000	130.00	No Ice	6.13	4.24	0.02
(Verizon Wireless)			0.00			1/2" Ice	6.59	4.62	0.05
			0.00						
(2) DB950G65E-M	B	From Leg	4.00	0.0000	130.00	No Ice	6.13	4.24	0.02
(Verizon Wireless)			0.00			1/2" Ice	6.59	4.62	0.05
			0.00						
(2) DB950G65E-M	C	From Leg	4.00	0.0000	130.00	No Ice	6.13	4.24	0.02
(Verizon Wireless)			0.00			1/2" Ice	6.59	4.62	0.05
			0.00						
PiROD 15' T-Frame	A	From Leg	2.00	0.0000	130.00	No Ice	15.00	15.00	0.50
(Verizon Wireless)			0.00			1/2" Ice	20.60	20.60	0.65
			0.00						
PiROD 15' T-Frame	B	From Leg	2.00	0.0000	130.00	No Ice	15.00	15.00	0.50
(Verizon Wireless)			0.00			1/2" Ice	20.60	20.60	0.65
			0.00						
PiROD 15' T-Frame	C	From Leg	2.00	0.0000	130.00	No Ice	15.00	15.00	0.50
(Verizon Wireless)			0.00			1/2" Ice	20.60	20.60	0.65
			0.00						
(4) DUO1417-8686	A	From Leg	4.00	0.0000	115.00	No Ice	6.53	4.20	0.02
(Cingular)			0.00			1/2" Ice	6.94	4.57	0.06
			0.00						
(4) DUO1417-8686	B	From Leg	4.00	0.0000	115.00	No Ice	6.53	4.20	0.02
(Cingular)			0.00			1/2" Ice	6.94	4.57	0.06
			0.00						
(4) DUO1417-8686	C	From Leg	4.00	0.0000	115.00	No Ice	6.53	4.20	0.02
(Cingular)			0.00			1/2" Ice	6.94	4.57	0.06
			0.00						
(4) Mast Head Amplifier	A	From Leg	4.00	0.0000	115.00	No Ice	1.23	0.34	0.02
(Cingular)			0.00			1/2" Ice	1.38	0.45	0.02
			0.00						
(4) Mast Head Amplifier	B	From Leg	4.00	0.0000	115.00	No Ice	1.23	0.34	0.02
(Cingular)			0.00			1/2" Ice	1.38	0.45	0.02
			0.00						
(4) Mast Head Amplifier	C	From Leg	4.00	0.0000	115.00	No Ice	1.23	0.34	0.02
(Cingular)			0.00			1/2" Ice	1.38	0.45	0.02
			0.00						
PiROD 15' T-Frame	A	From Leg	2.00	0.0000	115.00	No Ice	15.00	15.00	0.50
(Cingular)			0.00			1/2" Ice	20.60	20.60	0.65
			0.00						
PiROD 15' T-Frame	B	From Leg	2.00	0.0000	115.00	No Ice	15.00	15.00	0.50
(Cingular)			0.00			1/2" Ice	20.60	20.60	0.65
			0.00						
PiROD 15' T-Frame	C	From Leg	2.00	0.0000	115.00	No Ice	15.00	15.00	0.50

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft	C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
(Cingular)			0.00 0.00		1/2" Ice	20.60	20.60	0.65

Tower Pressures - No Ice

$G_H = 1.085$

Section Elevation ft	z ft	K_Z	q_z psf	A_G ft^2	Face	A_F ft^2	A_R ft^2	A_{leg} ft^2	Leg % 	C_AA_A In Face ft^2	C_AA_A Out Face ft^2
L1 346.00-331.00	338.50	1.945	32	13.438	A	0.000	13.438	13.438	100.00	0.000	0.000
					B	0.000	13.438		100.00		
					C	0.000	13.438		100.00		
L2 331.00-311.00	321.00	1.916	31	17.917	A	0.000	17.917	17.917	100.00	0.000	0.000
					B	0.000	17.917		100.00		
					C	0.000	17.917		100.00		
T1 311.00-310.00	310.50	1.897	31	5.229	A	0.000	1.464	0.458	31.31	0.000	0.000
					B	0.000	1.464		31.31		
					C	0.000	1.662		27.58		
T2 310.00-300.00	305.00	1.888	31	52.292	A	0.000	8.092	4.583	56.64	0.000	0.000
					B	0.000	8.092		56.64		
					C	0.000	11.405		40.19		
T3 300.00-280.00	290.00	1.861	30	104.583	A	0.000	15.887	9.167	57.70	0.000	0.000
					B	0.000	15.887		57.70		
					C	0.000	26.939		34.03		
T4 280.00-260.00	270.00	1.823	30	104.583	A	0.000	15.787	9.167	58.06	0.000	0.000
					B	0.000	17.241		53.17		
					C	0.000	27.303		33.57		
T5 260.00-240.00	250.00	1.783	29	104.583	A	0.000	15.787	9.167	58.06	0.000	0.000
					B	0.000	17.726		51.71		
					C	0.000	27.303		33.57		
T6 240.00-220.00	230.00	1.741	29	104.583	A	0.000	16.284	9.167	56.29	0.000	0.000
					B	0.000	19.658		46.63		
					C	0.000	27.437		33.41		
T7 220.00-200.00	210.00	1.697	28	104.583	A	0.000	15.787	9.167	58.06	0.000	0.000
					B	0.000	20.731		44.22		
					C	0.000	27.303		33.57		
T8 200.00-180.00	190.00	1.649	27	104.583	A	0.000	15.787	9.167	58.06	0.000	0.000
					B	0.000	21.604		42.43		
					C	0.000	27.303		33.57		
T9 180.00-160.00	170.00	1.597	26	104.583	A	0.000	15.787	9.167	58.06	0.000	0.000
					B	0.000	22.088		41.50		
					C	0.000	27.303		33.57		
T10 160.00-140.00	150.00	1.541	25	105.000	A	0.000	20.339	10.000	49.17	0.000	0.000
					B	0.000	25.700		38.91		
					C	0.000	64.484		15.51		
T11 140.00-120.00	130.00	1.48	24	105.000	A	0.000	26.159	10.000	38.23	0.000	0.000
					B	0.000	43.052		23.23		
					C	0.000	63.963		15.63		

Section Elevation ft	z ft	K_Z	q_z psf	A_G ft²	Face	A_F ft²	A_R ft²	A_{leg} ft²	Leg %	C_AA_A In Face ft²	C_AA_A Out Face ft²
T12 120.00-100.00	110.00	1.411	23	105.000	A	0.000	39.917	10.000	25.05	0.000	0.000
					B	0.000	61.395		16.29		
					C	0.000	63.963		15.63		
T13 100.00-80.00	90.00	1.332	22	105.000	A	0.000	44.571	10.000	22.44	0.000	0.000
					B	0.000	61.444		16.27		
					C	0.000	64.010		15.62		
T14 80.00-60.00	70.00	1.24	20	105.000	A	0.000	44.503	10.000	22.47	0.000	0.000
					B	0.000	61.395		16.29		
					C	0.000	63.963		15.63		
T15 60.00-40.00	50.00	1.126	18	105.000	A	0.000	44.503	10.000	22.47	0.000	0.000
					B	0.000	61.395		16.29		
					C	0.000	63.963		15.63		
T16 40.00-20.00	30.00	1	16	105.000	A	0.000	44.503	10.000	22.47	0.000	0.000
					B	0.000	61.395		16.29		
					C	0.000	63.963		15.63		
T17 20.00-6.17	13.08	1	16	72.623	A	0.000	32.686	6.917	21.16	0.000	0.000
					B	0.000	43.838		15.78		
					C	0.000	44.877		15.41		
T18 6.17-0.00	3.08	1	16	17.081	A	0.000	8.093	3.405	42.07	0.000	0.000
					B	0.000	9.919		34.32		
					C	0.000	10.090		33.74		

Tower Pressure - With Ice

$G_H = 1.085$

Section Elevation ft	z ft	K_Z	q_z psf	t_Z in	A_G ft²	Face	A_F ft²	A_R ft²	A_{leg} ft²	Leg %	C_AA_A In Face ft²	C_AA_A Out Face ft²
L1 346.00-331.00	338.50	1.945	24	0.5000	14.688	A	0.000	14.688	14.688	100.00	0.000	0.000
						B	0.000	14.688		100.00		
						C	0.000	14.688		100.00		
L2 331.00-311.00	321.00	1.916	24	0.5000	19.583	A	0.000	19.583	19.583	100.00	0.000	0.000
						B	0.000	19.583		100.00		
						C	0.000	19.583		100.00		
T1 311.00-310.00	310.50	1.897	23	0.5000	5.313	A	0.000	2.839	0.625	22.01	0.000	0.000
						B	0.000	2.839		22.01		
						C	0.000	3.018		20.71		
T2 310.00-300.00	305.00	1.888	23	0.5000	53.125	A	0.000	13.713	6.250	45.58	0.000	0.000
						B	0.000	13.713		45.58		
						C	0.000	18.611		33.58		
T3 300.00-280.00	290.00	1.861	23	0.5000	106.250	A	0.000	26.729	12.500	46.76	0.000	0.000
						B	0.000	26.729		46.76		
						C	0.000	42.058		29.72		
T4 280.00-260.00	270.00	1.823	22	0.5000	106.250	A	0.000	26.630	12.500	46.94	0.000	0.000
						B	0.000	29.026		43.06		
						C	0.000	42.504		29.41		
T5 260.00-240.00	250.00	1.783	22	0.5000	106.250	A	0.000	26.630	12.500	46.94	0.000	0.000
						B	0.000	29.825		41.91		
						C	0.000	42.504		29.41		
T6 240.00-220.00	230.00	1.741	21	0.5000	106.250	A	0.000	27.525	12.500	45.41	0.000	0.000
						B	0.000	33.054		37.82		
						C	0.000	42.633		29.32		
T7 220.00-200.00	210.00	1.697	21	0.5000	106.250	A	0.000	26.630	12.500	46.94	0.000	0.000
						B	0.000	34.776		35.94		

Section Elevation ft	z ft	K_Z	q_z psf	t_Z in	A_G ft²	Face	A_F ft²	A_R ft²	A_{leg} ft²	Leg %	C_AA_A In Face ft²	C_AA_A Out Face ft²
						C	0.000	42.504		29.41		
T8 200.00-180.00	190.00	1.649	20	0.5000	106.250	A	0.000	26.630	12.500	46.94	0.000	0.000
						B	0.000	36.214		34.52		
						C	0.000	42.504		29.41		
T9 180.00-160.00	170.00	1.597	20	0.5000	106.250	A	0.000	26.630	12.500	46.94	0.000	0.000
						B	0.000	37.013		33.77		
						C	0.000	42.504		29.41		
T10 160.00-140.00	150.00	1.541	19	0.5000	106.667	A	0.000	32.384	13.333	41.17	0.000	0.000
						B	0.000	41.767		31.92		
						C	0.000	91.038		14.65		
T11 140.00-120.00	130.00	1.48	18	0.5000	106.667	A	0.000	40.763	13.333	32.71	0.000	0.000
						B	0.000	65.986		20.21		
						C	0.000	90.779		14.69		
T12 120.00-100.00	110.00	1.411	17	0.5000	106.667	A	0.000	59.617	13.333	22.37	0.000	0.000
						B	0.000	91.124		14.63		
						C	0.000	90.779		14.69		
T13 100.00-80.00	90.00	1.332	16	0.5000	106.667	A	0.000	65.954	13.333	20.22	0.000	0.000
						B	0.000	91.146		14.63		
						C	0.000	90.802		14.68		
T14 80.00-60.00	70.00	1.24	15	0.5000	106.667	A	0.000	65.901	13.333	20.23	0.000	0.000
						B	0.000	91.124		14.63		
						C	0.000	90.779		14.69		
T15 60.00-40.00	50.00	1.126	14	0.5000	106.667	A	0.000	65.901	13.333	20.23	0.000	0.000
						B	0.000	91.124		14.63		
						C	0.000	90.779		14.69		
T16 40.00-20.00	30.00	1	12	0.5000	106.667	A	0.000	65.901	13.333	20.23	0.000	0.000
						B	0.000	91.124		14.63		
						C	0.000	90.779		14.69		
T17 20.00-6.17	13.08	1	12	0.5000	73.776	A	0.000	48.193	9.222	19.14	0.000	0.000
						B	0.000	64.086		14.39		
						C	0.000	63.217		14.59		
T18 6.17-0.00	3.08	1	12	0.5000	17.636	A	0.000	11.779	4.539	38.54	0.000	0.000
						B	0.000	14.574		31.15		
						C	0.000	14.421		31.48		

Tower Pressure - Service

$G_H = 1.085$

Section Elevation ft	z ft	K_Z	q_z psf	A_G ft²	Face	A_F ft²	A_R ft²	A_{leg} ft²	Leg %	C_AA_A In Face ft²	C_AA_A Out Face ft²
L1 346.00-331.00	338.50	1.945	12	13.438	A	0.000	13.438	13.438	100.00	0.000	0.000
					B	0.000	13.438		100.00		
					C	0.000	13.438		100.00		
L2 331.00-311.00	321.00	1.916	12	17.917	A	0.000	17.917	17.917	100.00	0.000	0.000
					B	0.000	17.917		100.00		
					C	0.000	17.917		100.00		
T1 311.00-310.00	310.50	1.897	12	5.229	A	0.000	1.464	0.458	31.31	0.000	0.000
					B	0.000	1.464		31.31		
					C	0.000	1.662		27.58		
T2 310.00-300.00	305.00	1.888	12	52.292	A	0.000	8.092	4.583	56.64	0.000	0.000
					B	0.000	8.092		56.64		
					C	0.000	11.405		40.19		

Section Elevation ft	z ft	K_Z	q_z psf	A_G ft²	Face	A_F ft²	A_R ft²	A_{leg} ft²	Leg %	C_AA_A In Face ft²	C_AA_A Out Face ft²
T3 300.00-280.00	290.00	1.861	12	104.583	A	0.000	15.887	9.167	57.70	0.000	0.000
					B	0.000	15.887		57.70		
					C	0.000	26.939		34.03		
T4 280.00-260.00	270.00	1.823	12	104.583	A	0.000	15.787	9.167	58.06	0.000	0.000
					B	0.000	17.241		53.17		
					C	0.000	27.303		33.57		
T5 260.00-240.00	250.00	1.783	11	104.583	A	0.000	15.787	9.167	58.06	0.000	0.000
					B	0.000	17.726		51.71		
					C	0.000	27.303		33.57		
T6 240.00-220.00	230.00	1.741	11	104.583	A	0.000	16.284	9.167	56.29	0.000	0.000
					B	0.000	19.658		46.63		
					C	0.000	27.437		33.41		
T7 220.00-200.00	210.00	1.697	11	104.583	A	0.000	15.787	9.167	58.06	0.000	0.000
					B	0.000	20.731		44.22		
					C	0.000	27.303		33.57		
T8 200.00-180.00	190.00	1.649	11	104.583	A	0.000	15.787	9.167	58.06	0.000	0.000
					B	0.000	21.604		42.43		
					C	0.000	27.303		33.57		
T9 180.00-160.00	170.00	1.597	10	104.583	A	0.000	15.787	9.167	58.06	0.000	0.000
					B	0.000	22.088		41.50		
					C	0.000	27.303		33.57		
T10 160.00-140.00	150.00	1.541	10	105.000	A	0.000	20.339	10.000	49.17	0.000	0.000
					B	0.000	25.700		38.91		
					C	0.000	64.484		15.51		
T11 140.00-120.00	130.00	1.48	9	105.000	A	0.000	26.159	10.000	38.23	0.000	0.000
					B	0.000	43.052		23.23		
					C	0.000	63.963		15.63		
T12 120.00-100.00	110.00	1.411	9	105.000	A	0.000	39.917	10.000	25.05	0.000	0.000
					B	0.000	61.395		16.29		
					C	0.000	63.963		15.63		
T13 100.00-80.00	90.00	1.332	9	105.000	A	0.000	44.571	10.000	22.44	0.000	0.000
					B	0.000	61.444		16.27		
					C	0.000	64.010		15.62		
T14 80.00-60.00	70.00	1.24	8	105.000	A	0.000	44.503	10.000	22.47	0.000	0.000
					B	0.000	61.395		16.29		
					C	0.000	63.963		15.63		
T15 60.00-40.00	50.00	1.126	7	105.000	A	0.000	44.503	10.000	22.47	0.000	0.000
					B	0.000	61.395		16.29		
					C	0.000	63.963		15.63		
T16 40.00-20.00	30.00	1	6	105.000	A	0.000	44.503	10.000	22.47	0.000	0.000
					B	0.000	61.395		16.29		
					C	0.000	63.963		15.63		
T17 20.00-6.17	13.08	1	6	72.623	A	0.000	32.686	6.917	21.16	0.000	0.000
					B	0.000	43.838		15.78		
					C	0.000	44.877		15.41		
T18 6.17-0.00	3.08	1	6	17.081	A	0.000	8.093	3.405	42.07	0.000	0.000
					B	0.000	9.919		34.32		
					C	0.000	10.090		33.74		

Tower Forces - No Ice - Wind Normal To Face

Section Elevation ft	Add Weight K	Self Weight K	Face	e	C_F	R_R	D_F	D_R	A_E ft²	F K	w plf	Ctrl. Face
L1 346.00-331.00	0.00	0.82	A	1	0.59	1	1	1	13.438	0.27	18.28	C
			B	1	0.59	1	1	1	13.438			

Section Elevation ft	Add Weight K	Self Weight K	Face	e	C_F	R_R	D_F	D_R	A_E ft^2	F K	w plf	Ctrl. Face
			C	1	0.59	1	1	1	13.438			
L2 331.00-311.00	0.00	0.81	A	1	0.59	1	1	1	17.917	0.36	18.01	C
			B	1	0.59	1	1	1	17.917			
			C	1	0.59	1	1	1	17.917			
T1 311.00-310.00	0.00	0.15	A	0.28	2.351	0.61	1	1	0.893	0.08	78.42	C
			B	0.28	2.351	0.61	1	1	0.893			
			C	0.318	2.25	0.622	1	1	1.033			
T2 310.00-300.00	0.02	0.95	A	0.155	2.754	0.582	1	1	4.711	0.58	57.72	C
			B	0.155	2.754	0.582	1	1	4.711			
			C	0.218	2.537	0.594	1	1	6.778			
T3 300.00-280.00	0.07	1.90	A	0.152	2.765	0.582	1	1	9.242	1.30	65.00	C
			B	0.152	2.765	0.582	1	1	9.242			
			C	0.258	2.415	0.604	1	1	16.267			
T4 280.00-260.00	0.08	1.87	A	0.151	2.768	0.582	1	1	9.182	1.29	64.37	C
			B	0.165	2.718	0.584	1	1	10.066			
			C	0.261	2.405	0.605	1	1	16.512			
T5 260.00-240.00	0.08	1.87	A	0.151	2.768	0.582	1	1	9.182	1.26	62.97	C
			B	0.169	2.701	0.585	1	1	10.364			
			C	0.261	2.405	0.605	1	1	16.512			
T6 240.00-220.00	0.09	1.93	A	0.156	2.751	0.582	1	1	9.483	1.23	61.73	C
			B	0.188	2.637	0.588	1	1	11.559			
			C	0.262	2.401	0.605	1	1	16.602			
T7 220.00-200.00	0.10	1.87	A	0.151	2.768	0.582	1	1	9.182	1.20	59.91	C
			B	0.198	2.602	0.59	1	1	12.232			
			C	0.261	2.405	0.605	1	1	16.512			
T8 200.00-180.00	0.11	1.87	A	0.151	2.768	0.582	1	1	9.182	1.16	58.22	C
			B	0.207	2.574	0.592	1	1	12.784			
			C	0.261	2.405	0.605	1	1	16.512			
T9 180.00-160.00	0.11	1.87	A	0.151	2.768	0.582	1	1	9.182	1.13	56.40	C
			B	0.211	2.559	0.593	1	1	13.093			
			C	0.261	2.405	0.605	1	1	16.512			
T10 160.00-140.00	0.90	2.35	A	0.194	2.617	0.589	1	1	11.983	2.42	121.00	C
			B	0.245	2.453	0.601	1	1	15.434			
			C	0.614	1.796	0.762	1	1	49.159			
T11 140.00-120.00	1.12	2.13	A	0.249	2.44	0.602	1	1	15.739	2.30	114.92	C
			B	0.41	2.045	0.656	1	1	28.230			
			C	0.609	1.799	0.759	1	1	48.564			
T12 120.00-100.00	1.43	2.13	A	0.38	2.105	0.644	1	1	25.695	2.19	109.56	C
			B	0.585	1.814	0.744	1	1	45.700			
			C	0.609	1.799	0.759	1	1	48.564			
T13 100.00-80.00	1.49	2.16	A	0.424	2.018	0.662	1	1	29.501	2.07	103.56	C
			B	0.585	1.814	0.745	1	1	45.754			
			C	0.61	1.798	0.76	1	1	48.618			
T14 80.00-60.00	1.49	2.13	A	0.424	2.019	0.662	1	1	29.444	1.93	96.29	C
			B	0.585	1.814	0.744	1	1	45.700			
			C	0.609	1.799	0.759	1	1	48.564			
T15 60.00-40.00	1.49	2.13	A	0.424	2.019	0.662	1	1	29.444	1.75	87.46	C
			B	0.585	1.814	0.744	1	1	45.700			
			C	0.609	1.799	0.759	1	1	48.564			
T16 40.00-20.00	1.49	2.13	A	0.424	2.019	0.662	1	1	29.444	1.55	77.67	C
			B	0.585	1.814	0.744	1	1	45.700			
			C	0.609	1.799	0.759	1	1	48.564			
T17 20.00-6.17	1.03	1.78	A	0.45	1.973	0.673	1	1	22.008	1.09	79.16	C
			B	0.604	1.802	0.756	1	1	33.134			
			C	0.618	1.794	0.765	1	1	34.320			
T18 6.17-0.00	0.16	0.72	A	0.474	1.936	0.684	1	1	5.540	0.24	39.39	C
			B	0.581	1.817	0.742	1	1	7.360			
			C	0.591	1.81	0.748	1	1	7.547			
Sum Weight:	11.25	33.59								25.41		

ERITower

URS Corp. AES
795 Brook St
Rocky Hill, CT
Phone: (860) 529-8882
FAX: (860) 529-5566

Job	Page
346' Guyed Lattice Tower	22 of 65
Project	**Date**
Albany Ave, West Hartford, CT	09:31:27 11/23/04
Client	**Designed by**
Verizon Wireless	Jon Ives

Tower Forces - No Ice - Wind 45 To Face

Section Elevation *ft*	*Add Weight* *K*	*Self Weight* *K*	*Face*	*e*	C_F	R_R	D_F	D_R	A_E *ft²*	*F* *K*	*w* *plf*	*Ctrl. Face*
L1 346.00-331.00	0.00	0.82	A	1	0.59	1	1	1	13.438	0.27	18.28	C
			B	1	0.59	1	1	1	13.438			
			C	1	0.59	1	1	1	13.438			
L2 331.00-311.00	0.00	0.81	A	1	0.59	1	1	1	17.917	0.36	18.01	C
			B	1	0.59	1	1	1	17.917			
			C	1	0.59	1	1	1	17.917			
T1 311.00-310.00	0.00	0.15	A	0.28	2.351	0.61	0.825	1	0.893	0.08	78.42	C
			B	0.28	2.351	0.61	0.825	1	0.893			
			C	0.318	2.25	0.622	0.825	1	1.033			
T2 310.00-300.00	0.02	0.95	A	0.155	2.754	0.582	0.825	1	4.711	0.58	57.72	C
			B	0.155	2.754	0.582	0.825	1	4.711			
			C	0.218	2.537	0.594	0.825	1	6.778			
T3 300.00-280.00	0.07	1.90	A	0.152	2.765	0.582	0.825	1	9.242	1.30	65.00	C
			B	0.152	2.765	0.582	0.825	1	9.242			
			C	0.258	2.415	0.604	0.825	1	16.267			
T4 280.00-260.00	0.08	1.87	A	0.151	2.768	0.582	0.825	1	9.182	1.29	64.37	C
			B	0.165	2.718	0.584	0.825	1	10.066			
			C	0.261	2.405	0.605	0.825	1	16.512			
T5 260.00-240.00	0.08	1.87	A	0.151	2.768	0.582	0.825	1	9.182	1.26	62.97	C
			B	0.169	2.701	0.585	0.825	1	10.364			
			C	0.261	2.405	0.605	0.825	1	16.512			
T6 240.00-220.00	0.09	1.93	A	0.156	2.751	0.582	0.825	1	9.483	1.23	61.73	C
			B	0.188	2.637	0.588	0.825	1	11.559			
			C	0.262	2.401	0.605	0.825	1	16.602			
T7 220.00-200.00	0.10	1.87	A	0.151	2.768	0.582	0.825	1	9.182	1.20	59.91	C
			B	0.198	2.602	0.59	0.825	1	12.232			
			C	0.261	2.405	0.605	0.825	1	16.512			
T8 200.00-180.00	0.11	1.87	A	0.151	2.768	0.582	0.825	1	9.182	1.16	58.22	C
			B	0.207	2.574	0.592	0.825	1	12.784			
			C	0.261	2.405	0.605	0.825	1	16.512			
T9 180.00-160.00	0.11	1.87	A	0.151	2.768	0.582	0.825	1	9.182	1.13	56.40	C
			B	0.211	2.559	0.593	0.825	1	13.093			
			C	0.261	2.405	0.605	0.825	1	16.512			
T10 160.00-140.00	0.90	2.35	A	0.194	2.617	0.589	0.825	1	11.983	2.42	121.00	C
			B	0.245	2.453	0.601	0.825	1	15.434			
			C	0.614	1.796	0.762	0.825	1	49.159			
T11 140.00-120.00	1.12	2.13	A	0.249	2.44	0.602	0.825	1	15.739	2.30	114.92	C
			B	0.41	2.045	0.656	0.825	1	28.230			
			C	0.609	1.799	0.759	0.825	1	48.564			
T12 120.00-100.00	1.43	2.13	A	0.38	2.105	0.644	0.825	1	25.695	2.19	109.56	C
			B	0.585	1.814	0.744	0.825	1	45.700			
			C	0.609	1.799	0.759	0.825	1	48.564			
T13 100.00-80.00	1.49	2.16	A	0.424	2.018	0.662	0.825	1	29.501	2.07	103.56	C
			B	0.585	1.814	0.745	0.825	1	45.754			
			C	0.61	1.798	0.76	0.825	1	48.618			
T14 80.00-60.00	1.49	2.13	A	0.424	2.019	0.662	0.825	1	29.444	1.93	96.29	C
			B	0.585	1.814	0.744	0.825	1	45.700			
			C	0.609	1.799	0.759	0.825	1	48.564			
T15 60.00-40.00	1.49	2.13	A	0.424	2.019	0.662	0.825	1	29.444	1.75	87.46	C
			B	0.585	1.814	0.744	0.825	1	45.700			
			C	0.609	1.799	0.759	0.825	1	48.564			
T16 40.00-20.00	1.49	2.13	A	0.424	2.019	0.662	0.825	1	29.444	1.55	77.67	C
			B	0.585	1.814	0.744	0.825	1	45.700			

Section Elevation ft	Add Weight K	Self Weight K	Face	e	C_F	R_R	D_F	D_R	A_E ft²	F K	w plf	Ctrl. Face
			C	0.609	1.799	0.759	0.825	1	48.564			
T17 20.00-6.17	1.03	1.78	A	0.45	1.973	0.673	0.825	1	22.008	1.09	79.16	C
			B	0.604	1.802	0.756	0.825	1	33.134			
			C	0.618	1.794	0.765	0.825	1	34.320			
T18 6.17-0.00	0.16	0.72	A	0.474	1.936	0.684	0.825	1	5.540	0.24	39.39	C
			B	0.581	1.817	0.742	0.825	1	7.360			
			C	0.591	1.81	0.748	0.825	1	7.547			
Sum Weight:	11.25	33.59								25.41		

Tower Forces - No Ice - Wind 60 To Face

Section Elevation ft	Add Weight K	Self Weight K	Face	e	C_F	R_R	D_F	D_R	A_E ft²	F K	w plf	Ctrl. Face
L1 346.00-331.00	0.00	0.82	A	1	0.59	1	1	1	13.438	0.27	18.28	C
			B	1	0.59	1	1	1	13.438			
			C	1	0.59	1	1	1	13.438			
L2 331.00-311.00	0.00	0.81	A	1	0.59	1	1	1	17.917	0.36	18.01	C
			B	1	0.59	1	1	1	17.917			
			C	1	0.59	1	1	1	17.917			
T1 311.00-310.00	0.00	0.15	A	0.28	2.351	0.61	0.8	1	0.893	0.08	78.42	C
			B	0.28	2.351	0.61	0.8	1	0.893			
			C	0.318	2.25	0.622	0.8	1	1.033			
T2 310.00-300.00	0.02	0.95	A	0.155	2.754	0.582	0.8	1	4.711	0.58	57.72	C
			B	0.155	2.754	0.582	0.8	1	4.711			
			C	0.218	2.537	0.594	0.8	1	6.778			
T3 300.00-280.00	0.07	1.90	A	0.152	2.765	0.582	0.8	1	9.242	1.30	65.00	C
			B	0.152	2.765	0.582	0.8	1	9.242			
			C	0.258	2.415	0.604	0.8	1	16.267			
T4 280.00-260.00	0.08	1.87	A	0.151	2.768	0.582	0.8	1	9.182	1.29	64.37	C
			B	0.165	2.718	0.584	0.8	1	10.066			
			C	0.261	2.405	0.605	0.8	1	16.512			
T5 260.00-240.00	0.08	1.87	A	0.151	2.768	0.582	0.8	1	9.182	1.26	62.97	C
			B	0.169	2.701	0.585	0.8	1	10.364			
			C	0.261	2.405	0.605	0.8	1	16.512			
T6 240.00-220.00	0.09	1.93	A	0.156	2.751	0.582	0.8	1	9.483	1.23	61.73	C
			B	0.188	2.637	0.588	0.8	1	11.559			
			C	0.262	2.401	0.605	0.8	1	16.602			
T7 220.00-200.00	0.10	1.87	A	0.151	2.768	0.582	0.8	1	9.182	1.20	59.91	C
			B	0.198	2.602	0.59	0.8	1	12.232			
			C	0.261	2.405	0.605	0.8	1	16.512			
T8 200.00-180.00	0.11	1.87	A	0.151	2.768	0.582	0.8	1	9.182	1.16	58.22	C
			B	0.207	2.574	0.592	0.8	1	12.784			
			C	0.261	2.405	0.605	0.8	1	16.512			
T9 180.00-160.00	0.11	1.87	A	0.151	2.768	0.582	0.8	1	9.182	1.13	56.40	C
			B	0.211	2.559	0.593	0.8	1	13.093			
			C	0.261	2.405	0.605	0.8	1	16.512			
T10 160.00-140.00	0.90	2.35	A	0.194	2.617	0.589	0.8	1	11.983	2.42	121.00	C
			B	0.245	2.453	0.601	0.8	1	15.434			
			C	0.614	1.796	0.762	0.8	1	49.159			
T11 140.00-120.00	1.12	2.13	A	0.249	2.44	0.602	0.8	1	15.739	2.30	114.92	C
			B	0.41	2.045	0.656	0.8	1	28.230			
			C	0.609	1.799	0.759	0.8	1	48.564			
T12 120.00-100.00	1.43	2.13	A	0.38	2.105	0.644	0.8	1	25.695	2.19	109.56	C
			B	0.585	1.814	0.744	0.8	1	45.700			

Section Elevation ft	Add Weight K	Self Weight K	Face	e	C_F	R_R	D_F	D_R	A_E ft²	F K	w plf	Ctrl. Face
			C	0.609	1.799	0.759	0.8	1	48.564			
T13 100.00-80.00	1.49	2.16	A	0.424	2.018	0.662	0.8	1	29.501	2.07	103.56	C
			B	0.585	1.814	0.745	0.8	1	45.754			
			C	0.61	1.798	0.76	0.8	1	48.618			
T14 80.00-60.00	1.49	2.13	A	0.424	2.019	0.662	0.8	1	29.444	1.93	96.29	C
			B	0.585	1.814	0.744	0.8	1	45.700			
			C	0.609	1.799	0.759	0.8	1	48.564			
T15 60.00-40.00	1.49	2.13	A	0.424	2.019	0.662	0.8	1	29.444	1.75	87.46	C
			B	0.585	1.814	0.744	0.8	1	45.700			
			C	0.609	1.799	0.759	0.8	1	48.564			
T16 40.00-20.00	1.49	2.13	A	0.424	2.019	0.662	0.8	1	29.444	1.55	77.67	C
			B	0.585	1.814	0.744	0.8	1	45.700			
			C	0.609	1.799	0.759	0.8	1	48.564			
T17 20.00-6.17	1.03	1.78	A	0.45	1.973	0.673	0.8	1	22.008	1.09	79.16	C
			B	0.604	1.802	0.756	0.8	1	33.134			
			C	0.618	1.794	0.765	0.8	1	34.320			
T18 6.17-0.00	0.16	0.72	A	0.474	1.936	0.684	0.8	1	5.540	0.24	39.39	C
			B	0.581	1.817	0.742	0.8	1	7.360			
			C	0.591	1.81	0.748	0.8	1	7.547			
Sum Weight:	11.25	33.59								25.41		

Tower Forces - No Ice - Wind 90 To Face

Section Elevation ft	Add Weight K	Self Weight K	Face	e	C_F	R_R	D_F	D_R	A_E ft²	F K	w plf	Ctrl. Face
L1 346.00-331.00	0.00	0.82	A	1	0.59	1	1	1	13.438	0.27	18.28	C
			B	1	0.59	1	1	1	13.438			
			C	1	0.59	1	1	1	13.438			
L2 331.00-311.00	0.00	0.81	A	1	0.59	1	1	1	17.917	0.36	18.01	C
			B	1	0.59	1	1	1	17.917			
			C	1	0.59	1	1	1	17.917			
T1 311.00-310.00	0.00	0.15	A	0.28	2.351	0.61	0.85	1	0.893	0.08	78.42	C
			B	0.28	2.351	0.61	0.85	1	0.893			
			C	0.318	2.25	0.622	0.85	1	1.033			
T2 310.00-300.00	0.02	0.95	A	0.155	2.754	0.582	0.85	1	4.711	0.58	57.72	C
			B	0.155	2.754	0.582	0.85	1	4.711			
			C	0.218	2.537	0.594	0.85	1	6.778			
T3 300.00-280.00	0.07	1.90	A	0.152	2.765	0.582	0.85	1	9.242	1.30	65.00	C
			B	0.152	2.765	0.582	0.85	1	9.242			
			C	0.258	2.415	0.604	0.85	1	16.267			
T4 280.00-260.00	0.08	1.87	A	0.151	2.768	0.582	0.85	1	9.182	1.29	64.37	C
			B	0.165	2.718	0.584	0.85	1	10.066			
			C	0.261	2.405	0.605	0.85	1	16.512			
T5 260.00-240.00	0.08	1.87	A	0.151	2.768	0.582	0.85	1	9.182	1.26	62.97	C
			B	0.169	2.701	0.585	0.85	1	10.364			
			C	0.261	2.405	0.605	0.85	1	16.512			
T6 240.00-220.00	0.09	1.93	A	0.156	2.751	0.582	0.85	1	9.483	1.23	61.73	C
			B	0.188	2.637	0.588	0.85	1	11.559			
			C	0.262	2.401	0.605	0.85	1	16.602			
T7 220.00-200.00	0.10	1.87	A	0.151	2.768	0.582	0.85	1	9.182	1.20	59.91	C
			B	0.198	2.602	0.59	0.85	1	12.232			
			C	0.261	2.405	0.605	0.85	1	16.512			
T8 200.00-180.00	0.11	1.87	A	0.151	2.768	0.582	0.85	1	9.182	1.16	58.22	C
			B	0.207	2.574	0.592	0.85	1	12.784			

Section Elevation ft	Add Weight K	Self Weight K	Face	e	C_F	R_R	D_F	D_R	A_E ft^2	F K	w plf	Ctrl. Face
			C	0.261	2.405	0.605	0.85	1	16.512			
T9 180.00-160.00	0.11	1.87	A	0.151	2.768	0.582	0.85	1	9.182	1.13	56.40	C
			B	0.211	2.559	0.593	0.85	1	13.093			
			C	0.261	2.405	0.605	0.85	1	16.512			
T10 160.00-140.00	0.90	2.35	A	0.194	2.617	0.589	0.85	1	11.983	2.42	121.00	C
			B	0.245	2.453	0.601	0.85	1	15.434			
			C	0.614	1.796	0.762	0.85	1	49.159			
T11 140.00-120.00	1.12	2.13	A	0.249	2.44	0.602	0.85	1	15.739	2.30	114.92	C
			B	0.41	2.045	0.656	0.85	1	28.230			
			C	0.609	1.799	0.759	0.85	1	48.564			
T12 120.00-100.00	1.43	2.13	A	0.38	2.105	0.644	0.85	1	25.695	2.19	109.56	C
			B	0.585	1.814	0.744	0.85	1	45.700			
			C	0.609	1.799	0.759	0.85	1	48.564			
T13 100.00-80.00	1.49	2.16	A	0.424	2.018	0.662	0.85	1	29.501	2.07	103.56	C
			B	0.585	1.814	0.745	0.85	1	45.754			
			C	0.61	1.798	0.76	0.85	1	48.618			
T14 80.00-60.00	1.49	2.13	A	0.424	2.019	0.662	0.85	1	29.444	1.93	96.29	C
			B	0.585	1.814	0.744	0.85	1	45.700			
			C	0.609	1.799	0.759	0.85	1	48.564			
T15 60.00-40.00	1.49	2.13	A	0.424	2.019	0.662	0.85	1	29.444	1.75	87.46	C
			B	0.585	1.814	0.744	0.85	1	45.700			
			C	0.609	1.799	0.759	0.85	1	48.564			
T16 40.00-20.00	1.49	2.13	A	0.424	2.019	0.662	0.85	1	29.444	1.55	77.67	C
			B	0.585	1.814	0.744	0.85	1	45.700			
			C	0.609	1.799	0.759	0.85	1	48.564			
T17 20.00-6.17	1.03	1.78	A	0.45	1.973	0.673	0.85	1	22.008	1.09	79.16	C
			B	0.604	1.802	0.756	0.85	1	33.134			
			C	0.618	1.794	0.765	0.85	1	34.320			
T18 6.17-0.00	0.16	0.72	A	0.474	1.936	0.684	0.85	1	5.540	0.24	39.39	C
			B	0.581	1.817	0.742	0.85	1	7.360			
			C	0.591	1.81	0.748	0.85	1	7.547			
Sum Weight:	11.25	33.59								25.41		

Tower Forces - With Ice - Wind Normal To Face

Section Elevation ft	Add Weight K	Self Weight K	Face	e	C_F	R_R	D_F	D_R	A_E ft^2	F K	w plf	Ctrl. Face
L1 346.00-331.00	0.00	0.92	A	1	0.59	1	1	1	14.688	0.22	14.99	C
			B	1	0.59	1	1	1	14.688			
			C	1	0.59	1	1	1	14.688			
L2 331.00-311.00	0.00	0.95	A	1	0.59	1	1	1	19.583	0.30	14.76	C
			B	1	0.59	1	1	1	19.583			
			C	1	0.59	1	1	1	19.583			
T1 311.00-310.00	0.00	0.19	A	0.534	1.859	0.716	1	1	2.032	0.10	102.53	C
			B	0.534	1.859	0.716	1	1	2.032			
			C	0.568	1.827	0.735	1	1	2.217			
T2 310.00-300.00	0.04	1.15	A	0.258	2.413	0.604	1	1	8.282	0.64	64.35	C
			B	0.258	2.413	0.604	1	1	8.282			
			C	0.35	2.171	0.633	1	1	11.773			
T3 300.00-280.00	0.15	2.29	A	0.252	2.433	0.602	1	1	16.099	1.41	70.29	C
			B	0.252	2.433	0.602	1	1	16.099			
			C	0.396	2.072	0.65	1	1	27.334			
T4 280.00-260.00	0.18	2.26	A	0.251	2.436	0.602	1	1	16.032	1.39	69.50	C
			B	0.273	2.37	0.608	1	1	17.650			

Section Elevation ft	Add Weight K	Self Weight K	Face	e	C_F	R_R	D_F	D_R	A_E ft²	F K	w plf	Ctrl. Face
			C	0.4	2.064	0.652	1	1	27.697			
T5 260.00-240.00	0.19	2.26	A	0.251	2.436	0.602	1	1	16.032	1.36	67.99	C
			B	0.281	2.349	0.61	1	1	18.199			
			C	0.4	2.064	0.652	1	1	27.697			
T6 240.00-220.00	0.21	2.33	A	0.259	2.411	0.604	1	1	16.631	1.33	66.56	C
			B	0.311	2.267	0.619	1	1	20.472			
			C	0.401	2.062	0.652	1	1	27.801			
T7 220.00-200.00	0.24	2.26	A	0.251	2.436	0.602	1	1	16.032	1.29	64.69	C
			B	0.327	2.226	0.625	1	1	21.723			
			C	0.4	2.064	0.652	1	1	27.697			
T8 200.00-180.00	0.26	2.26	A	0.251	2.436	0.602	1	1	16.032	1.26	62.86	C
			B	0.341	2.193	0.629	1	1	22.788			
			C	0.4	2.064	0.652	1	1	27.697			
T9 180.00-160.00	0.26	2.26	A	0.251	2.436	0.602	1	1	16.032	1.22	60.90	C
			B	0.348	2.175	0.632	1	1	23.388			
			C	0.4	2.064	0.652	1	1	27.697			
T10 160.00-140.00	2.21	2.78	A	0.304	2.286	0.617	1	1	19.981	3.29	164.34	C
			B	0.392	2.081	0.648	1	1	27.073			
			C	0.853	1.865	0.942	1	1	85.713			
T11 140.00-120.00	2.74	2.54	A	0.382	2.1	0.644	1	1	26.271	3.13	156.73	C
			B	0.619	1.794	0.765	1	1	50.490			
			C	0.851	1.863	0.939	1	1	85.277			
T12 120.00-100.00	3.51	2.54	A	0.559	1.835	0.729	1	1	43.479	3.01	150.73	B
			B	0.854	1.866	0.942	1	1	85.858			
			C	0.851	1.863	0.939	1	1	85.277			
T13 100.00-80.00	3.66	2.56	A	0.618	1.794	0.765	1	1	50.453	2.85	142.41	B
			B	0.854	1.866	0.942	1	1	85.894			
			C	0.851	1.863	0.94	1	1	85.316			
T14 80.00-60.00	3.66	2.54	A	0.618	1.794	0.765	1	1	50.393	2.65	132.47	B
			B	0.854	1.866	0.942	1	1	85.858			
			C	0.851	1.863	0.939	1	1	85.277			
T15 60.00-40.00	3.66	2.54	A	0.618	1.794	0.765	1	1	50.393	2.41	120.33	B
			B	0.854	1.866	0.942	1	1	85.858			
			C	0.851	1.863	0.939	1	1	85.277			
T16 40.00-20.00	3.66	2.54	A	0.618	1.794	0.765	1	1	50.393	2.14	106.86	B
			B	0.854	1.866	0.942	1	1	85.858			
			C	0.851	1.863	0.939	1	1	85.277			
T17 20.00-6.17	2.53	2.13	A	0.653	1.781	0.788	1	1	37.958	1.54	111.09	B
			B	0.869	1.883	0.955	1	1	61.190			
			C	0.857	1.869	0.944	1	1	59.707			
T18 6.17-0.00	0.40	0.82	A	0.668	1.778	0.798	1	1	9.394	0.33	53.20	B
			B	0.826	1.838	0.918	1	1	13.383			
			C	0.818	1.83	0.911	1	1	13.138			
Sum Weight:	27.57	40.12								31.86		

Tower Forces - With Ice - Wind 45 To Face

Section Elevation ft	Add Weight K	Self Weight K	Face	e	C_F	R_R	D_F	D_R	A_E ft²	F K	w plf	Ctrl. Face
L1 346.00-331.00	0.00	0.92	A	1	0.59	1	1	1	14.688	0.22	14.99	C
			B	1	0.59	1	1	1	14.688			
			C	1	0.59	1	1	1	14.688			
L2 331.00-311.00	0.00	0.95	A	1	0.59	1	1	1	19.583	0.30	14.76	C
			B	1	0.59	1	1	1	19.583			

ERITower	Job: 346' Guyed Lattice Tower	Page: 27 of 65
URS Corp. AES 795 Brook St Rocky Hill, CT Phone: (860) 529-8882 FAX: (860) 529-5566	Project: Albany Ave, West Hartford, CT	Date: 09:31:27 11/23/04
	Client: Verizon Wireless	Designed by: Jon Ives

Section Elevation ft	Add Weight K	Self Weight K	Face	e	C_F	R_R	D_F	D_R	A_E ft^2	F K	w plf	Ctrl. Face
			C	1	0.59	1	1	1	19.583			
T1 311.00-310.00	0.00	0.19	A	0.534	1.859	0.716	0.825	1	2.032	0.10	102.53	C
			B	0.534	1.859	0.716	0.825	1	2.032			
			C	0.568	1.827	0.735	0.825	1	2.217			
T2 310.00-300.00	0.04	1.15	A	0.258	2.413	0.604	0.825	1	8.282	0.64	64.35	C
			B	0.258	2.413	0.604	0.825	1	8.282			
			C	0.35	2.171	0.633	0.825	1	11.773			
T3 300.00-280.00	0.15	2.29	A	0.252	2.433	0.602	0.825	1	16.099	1.41	70.29	C
			B	0.252	2.433	0.602	0.825	1	16.099			
			C	0.396	2.072	0.65	0.825	1	27.334			
T4 280.00-260.00	0.18	2.26	A	0.251	2.436	0.602	0.825	1	16.032	1.39	69.50	C
			B	0.273	2.37	0.608	0.825	1	17.650			
			C	0.4	2.064	0.652	0.825	1	27.697			
T5 260.00-240.00	0.19	2.26	A	0.251	2.436	0.602	0.825	1	16.032	1.36	67.99	C
			B	0.281	2.349	0.61	0.825	1	18.199			
			C	0.4	2.064	0.652	0.825	1	27.697			
T6 240.00-220.00	0.21	2.33	A	0.259	2.411	0.604	0.825	1	16.631	1.33	66.56	C
			B	0.311	2.267	0.619	0.825	1	20.472			
			C	0.401	2.062	0.652	0.825	1	27.801			
T7 220.00-200.00	0.24	2.26	A	0.251	2.436	0.602	0.825	1	16.032	1.29	64.69	C
			B	0.327	2.226	0.625	0.825	1	21.723			
			C	0.4	2.064	0.652	0.825	1	27.697			
T8 200.00-180.00	0.26	2.26	A	0.251	2.436	0.602	0.825	1	16.032	1.26	62.86	C
			B	0.341	2.193	0.629	0.825	1	22.788			
			C	0.4	2.064	0.652	0.825	1	27.697			
T9 180.00-160.00	0.26	2.26	A	0.251	2.436	0.602	0.825	1	16.032	1.22	60.90	C
			B	0.348	2.175	0.632	0.825	1	23.388			
			C	0.4	2.064	0.652	0.825	1	27.697			
T10 160.00-140.00	2.21	2.78	A	0.304	2.286	0.617	0.825	1	19.981	3.29	164.34	C
			B	0.392	2.081	0.648	0.825	1	27.073			
			C	0.853	1.865	0.942	0.825	1	85.713			
T11 140.00-120.00	2.74	2.54	A	0.382	2.1	0.644	0.825	1	26.271	3.13	156.73	C
			B	0.619	1.794	0.765	0.825	1	50.490			
			C	0.851	1.863	0.939	0.825	1	85.277			
T12 120.00-100.00	3.51	2.54	A	0.559	1.835	0.729	0.825	1	43.479	3.01	150.73	B
			B	0.854	1.866	0.942	0.825	1	85.858			
			C	0.851	1.863	0.939	0.825	1	85.277			
T13 100.00-80.00	3.66	2.56	A	0.618	1.794	0.765	0.825	1	50.453	2.85	142.41	B
			B	0.854	1.866	0.942	0.825	1	85.894			
			C	0.851	1.863	0.94	0.825	1	85.316			
T14 80.00-60.00	3.66	2.54	A	0.618	1.794	0.765	0.825	1	50.393	2.65	132.47	B
			B	0.854	1.866	0.942	0.825	1	85.858			
			C	0.851	1.863	0.939	0.825	1	85.277			
T15 60.00-40.00	3.66	2.54	A	0.618	1.794	0.765	0.825	1	50.393	2.41	120.33	B
			B	0.854	1.866	0.942	0.825	1	85.858			
			C	0.851	1.863	0.939	0.825	1	85.277			
T16 40.00-20.00	3.66	2.54	A	0.618	1.794	0.765	0.825	1	50.393	2.14	106.86	B
			B	0.854	1.866	0.942	0.825	1	85.858			
			C	0.851	1.863	0.939	0.825	1	85.277			
T17 20.00-6.17	2.53	2.13	A	0.653	1.781	0.788	0.825	1	37.958	1.54	111.09	B
			B	0.869	1.883	0.955	0.825	1	61.190			
			C	0.857	1.869	0.944	0.825	1	59.707			
T18 6.17-0.00	0.40	0.82	A	0.668	1.778	0.798	0.825	1	9.394	0.33	53.20	B
			B	0.826	1.838	0.918	0.825	1	13.383			
			C	0.818	1.83	0.911	0.825	1	13.138			
Sum Weight:	27.57	40.12								31.86		

Tower Forces - With Ice - Wind 60 To Face

Section Elevation ft	Add Weight K	Self Weight K	Face	e	C_F	R_R	D_F	D_R	A_E ft^2	F K	w plf	Ctrl. Face
L1 346.00-331.00	0.00	0.92	A	1	0.59	1	1	1	14.688	0.22	14.99	C
			B	1	0.59	1	1	1	14.688			
			C	1	0.59	1	1	1	14.688			
L2 331.00-311.00	0.00	0.95	A	1	0.59	1	1	1	19.583	0.30	14.76	C
			B	1	0.59	1	1	1	19.583			
			C	1	0.59	1	1	1	19.583			
T1 311.00-310.00	0.00	0.19	A	0.534	1.859	0.716	0.8	1	2.032	0.10	102.53	C
			B	0.534	1.859	0.716	0.8	1	2.032			
			C	0.568	1.827	0.735	0.8	1	2.217			
T2 310.00-300.00	0.04	1.15	A	0.258	2.413	0.604	0.8	1	8.282	0.64	64.35	C
			B	0.258	2.413	0.604	0.8	1	8.282			
			C	0.35	2.171	0.633	0.8	1	11.773			
T3 300.00-280.00	0.15	2.29	A	0.252	2.433	0.602	0.8	1	16.099	1.41	70.29	C
			B	0.252	2.433	0.602	0.8	1	16.099			
			C	0.396	2.072	0.65	0.8	1	27.334			
T4 280.00-260.00	0.18	2.26	A	0.251	2.436	0.602	0.8	1	16.032	1.39	69.50	C
			B	0.273	2.37	0.608	0.8	1	17.650			
			C	0.4	2.064	0.652	0.8	1	27.697			
T5 260.00-240.00	0.19	2.26	A	0.251	2.436	0.602	0.8	1	16.032	1.36	67.99	C
			B	0.281	2.349	0.61	0.8	1	18.199			
			C	0.4	2.064	0.652	0.8	1	27.697			
T6 240.00-220.00	0.21	2.33	A	0.259	2.411	0.604	0.8	1	16.631	1.33	66.56	C
			B	0.311	2.267	0.619	0.8	1	20.472			
			C	0.401	2.062	0.652	0.8	1	27.801			
T7 220.00-200.00	0.24	2.26	A	0.251	2.436	0.602	0.8	1	16.032	1.29	64.69	C
			B	0.327	2.226	0.625	0.8	1	21.723			
			C	0.4	2.064	0.652	0.8	1	27.697			
T8 200.00-180.00	0.26	2.26	A	0.251	2.436	0.602	0.8	1	16.032	1.26	62.86	C
			B	0.341	2.193	0.629	0.8	1	22.788			
			C	0.4	2.064	0.652	0.8	1	27.697			
T9 180.00-160.00	0.26	2.26	A	0.251	2.436	0.602	0.8	1	16.032	1.22	60.90	C
			B	0.348	2.175	0.632	0.8	1	23.388			
			C	0.4	2.064	0.652	0.8	1	27.697			
T10 160.00-140.00	2.21	2.78	A	0.304	2.286	0.617	0.8	1	19.981	3.29	164.34	C
			B	0.392	2.081	0.648	0.8	1	27.073			
			C	0.853	1.865	0.942	0.8	1	85.713			
T11 140.00-120.00	2.74	2.54	A	0.382	2.1	0.644	0.8	1	26.271	3.13	156.73	C
			B	0.619	1.794	0.765	0.8	1	50.490			
			C	0.851	1.863	0.939	0.8	1	85.277			
T12 120.00-100.00	3.51	2.54	A	0.559	1.835	0.729	0.8	1	43.479	3.01	150.73	B
			B	0.854	1.866	0.942	0.8	1	85.858			
			C	0.851	1.863	0.939	0.8	1	85.277			
T13 100.00-80.00	3.66	2.56	A	0.618	1.794	0.765	0.8	1	50.453	2.85	142.41	B
			B	0.854	1.866	0.942	0.8	1	85.894			
			C	0.851	1.863	0.94	0.8	1	85.316			
T14 80.00-60.00	3.66	2.54	A	0.618	1.794	0.765	0.8	1	50.393	2.65	132.47	B
			B	0.854	1.866	0.942	0.8	1	85.858			
			C	0.851	1.863	0.939	0.8	1	85.277			
T15 60.00-40.00	3.66	2.54	A	0.618	1.794	0.765	0.8	1	50.393	2.41	120.33	B
			B	0.854	1.866	0.942	0.8	1	85.858			
			C	0.851	1.863	0.939	0.8	1	85.277			
T16 40.00-20.00	3.66	2.54	A	0.618	1.794	0.765	0.8	1	50.393	2.14	106.86	B
			B	0.854	1.866	0.942	0.8	1	85.858			
			C	0.851	1.863	0.939	0.8	1	85.277			
T17 20.00-6.17	2.53	2.13	A	0.653	1.781	0.788	0.8	1	37.958	1.54	111.09	B
			B	0.869	1.883	0.955	0.8	1	61.190			
			C	0.857	1.869	0.944	0.8	1	59.707			

Section Elevation ft	Add Weight K	Self Weight K	Face	e	C_F	R_R	D_F	D_R	A_E ft²	F K	w plf	Ctrl. Face
T18 6.17-0.00	0.40	0.82	A	0.668	1.778	0.798	0.8	1	9.394	0.33	53.20	B
			B	0.826	1.838	0.918	0.8	1	13.383			
			C	0.818	1.83	0.911	0.8	1	13.138			
Sum Weight:	27.57	40.12								31.86		

Tower Forces - With Ice - Wind 90 To Face

Section Elevation ft	Add Weight K	Self Weight K	Face	e	C_F	R_R	D_F	D_R	A_E ft²	F K	w plf	Ctrl. Face
L1 346.00-331.00	0.00	0.92	A	1	0.59	1	1	1	14.688	0.22	14.99	C
			B	1	0.59	1	1	1	14.688			
			C	1	0.59	1	1	1	14.688			
L2 331.00-311.00	0.00	0.95	A	1	0.59	1	1	1	19.583	0.30	14.76	C
			B	1	0.59	1	1	1	19.583			
			C	1	0.59	1	1	1	19.583			
T1 311.00-310.00	0.00	0.19	A	0.534	1.859	0.716	0.85	1	2.032	0.10	102.53	C
			B	0.534	1.859	0.716	0.85	1	2.032			
			C	0.568	1.827	0.735	0.85	1	2.217			
T2 310.00-300.00	0.04	1.15	A	0.258	2.413	0.604	0.85	1	8.282	0.64	64.35	C
			B	0.258	2.413	0.604	0.85	1	8.282			
			C	0.35	2.171	0.633	0.85	1	11.773			
T3 300.00-280.00	0.15	2.29	A	0.252	2.433	0.602	0.85	1	16.099	1.41	70.29	C
			B	0.252	2.433	0.602	0.85	1	16.099			
			C	0.396	2.072	0.65	0.85	1	27.334			
T4 280.00-260.00	0.18	2.26	A	0.251	2.436	0.602	0.85	1	16.032	1.39	69.50	C
			B	0.273	2.37	0.608	0.85	1	17.650			
			C	0.4	2.064	0.652	0.85	1	27.697			
T5 260.00-240.00	0.19	2.26	A	0.251	2.436	0.602	0.85	1	16.032	1.36	67.99	C
			B	0.281	2.349	0.61	0.85	1	18.199			
			C	0.4	2.064	0.652	0.85	1	27.697			
T6 240.00-220.00	0.21	2.33	A	0.259	2.411	0.604	0.85	1	16.631	1.33	66.56	C
			B	0.311	2.267	0.619	0.85	1	20.472			
			C	0.401	2.062	0.652	0.85	1	27.801			
T7 220.00-200.00	0.24	2.26	A	0.251	2.436	0.602	0.85	1	16.032	1.29	64.69	C
			B	0.327	2.226	0.625	0.85	1	21.723			
			C	0.4	2.064	0.652	0.85	1	27.697			
T8 200.00-180.00	0.26	2.26	A	0.251	2.436	0.602	0.85	1	16.032	1.26	62.86	C
			B	0.341	2.193	0.629	0.85	1	22.788			
			C	0.4	2.064	0.652	0.85	1	27.697			
T9 180.00-160.00	0.26	2.26	A	0.251	2.436	0.602	0.85	1	16.032	1.22	60.90	C
			B	0.348	2.175	0.632	0.85	1	23.388			
			C	0.4	2.064	0.652	0.85	1	27.697			
T10 160.00-140.00	2.21	2.78	A	0.304	2.286	0.617	0.85	1	19.981	3.29	164.34	C
			B	0.392	2.081	0.648	0.85	1	27.073			
			C	0.853	1.865	0.942	0.85	1	85.713			
T11 140.00-120.00	2.74	2.54	A	0.382	2.1	0.644	0.85	1	26.271	3.13	156.73	C
			B	0.619	1.794	0.765	0.85	1	50.490			
			C	0.851	1.863	0.939	0.85	1	85.277			
T12 120.00-100.00	3.51	2.54	A	0.559	1.835	0.729	0.85	1	43.479	3.01	150.73	B
			B	0.854	1.866	0.942	0.85	1	85.858			
			C	0.851	1.863	0.939	0.85	1	85.277			
T13 100.00-80.00	3.66	2.56	A	0.618	1.794	0.765	0.85	1	50.453	2.85	142.41	B
			B	0.854	1.866	0.942	0.85	1	85.894			
			C	0.851	1.863	0.94	0.85	1	85.316			

Section Elevation ft	Add Weight K	Self Weight K	Face	e	C_F	R_R	D_F	D_R	A_E ft²	F K	w plf	Ctrl. Face
T14 80.00-60.00	3.66	2.54	A	0.618	1.794	0.765	0.85	1	50.393	2.65	132.47	B
			B	0.854	1.866	0.942	0.85	1	85.858			
			C	0.851	1.863	0.939	0.85	1	85.277			
T15 60.00-40.00	3.66	2.54	A	0.618	1.794	0.765	0.85	1	50.393	2.41	120.33	B
			B	0.854	1.866	0.942	0.85	1	85.858			
			C	0.851	1.863	0.939	0.85	1	85.277			
T16 40.00-20.00	3.66	2.54	A	0.618	1.794	0.765	0.85	1	50.393	2.14	106.86	B
			B	0.854	1.866	0.942	0.85	1	85.858			
			C	0.851	1.863	0.939	0.85	1	85.277			
T17 20.00-6.17	2.53	2.13	A	0.653	1.781	0.788	0.85	1	37.958	1.54	111.09	B
			B	0.869	1.883	0.955	0.85	1	61.190			
			C	0.857	1.869	0.944	0.85	1	59.707			
T18 6.17-0.00	0.40	0.82	A	0.668	1.778	0.798	0.85	1	9.394	0.33	53.20	B
			B	0.826	1.838	0.918	0.85	1	13.383			
			C	0.818	1.83	0.911	0.85	1	13.138			
Sum Weight:	27.57	40.12								31.86		

Tower Forces - Service - Wind Normal To Face

Section Elevation ft	Add Weight K	Self Weight K	Face	e	C_F	R_R	D_F	D_R	A_E ft²	F K	w plf	Ctrl. Face
L1 346.00-331.00	0.00	0.82	A	1	0.602	1	1	1	13.438	0.11	7.29	C
			B	1	0.602	1	1	1	13.438			
			C	1	0.602	1	1	1	13.438			
L2 331.00-311.00	0.00	0.81	A	1	0.608	1	1	1	17.917	0.14	7.25	C
			B	1	0.608	1	1	1	17.917			
			C	1	0.608	1	1	1	17.917			
T1 311.00-310.00	0.00	0.15	A	0.28	2.351	0.61	1	1	0.893	0.03	30.63	C
			B	0.28	2.351	0.61	1	1	0.893			
			C	0.318	2.25	0.622	1	1	1.033			
T2 310.00-300.00	0.02	0.95	A	0.155	2.754	0.582	1	1	4.711	0.23	22.55	C
			B	0.155	2.754	0.582	1	1	4.711			
			C	0.218	2.537	0.594	1	1	6.778			
T3 300.00-280.00	0.07	1.90	A	0.152	2.765	0.582	1	1	9.242	0.51	25.39	C
			B	0.152	2.765	0.582	1	1	9.242			
			C	0.258	2.415	0.604	1	1	16.267			
T4 280.00-260.00	0.08	1.87	A	0.151	2.768	0.582	1	1	9.182	0.50	25.14	C
			B	0.165	2.718	0.584	1	1	10.066			
			C	0.261	2.405	0.605	1	1	16.512			
T5 260.00-240.00	0.08	1.87	A	0.151	2.768	0.582	1	1	9.182	0.49	24.60	C
			B	0.169	2.701	0.585	1	1	10.364			
			C	0.261	2.405	0.605	1	1	16.512			
T6 240.00-220.00	0.09	1.93	A	0.156	2.751	0.582	1	1	9.483	0.48	24.11	C
			B	0.188	2.637	0.588	1	1	11.559			
			C	0.262	2.401	0.605	1	1	16.602			
T7 220.00-200.00	0.10	1.87	A	0.151	2.768	0.582	1	1	9.182	0.47	23.40	C
			B	0.198	2.602	0.59	1	1	12.232			
			C	0.261	2.405	0.605	1	1	16.512			
T8 200.00-180.00	0.11	1.87	A	0.151	2.768	0.582	1	1	9.182	0.45	22.74	C
			B	0.207	2.574	0.592	1	1	12.784			
			C	0.261	2.405	0.605	1	1	16.512			
T9 180.00-160.00	0.11	1.87	A	0.151	2.768	0.582	1	1	9.182	0.44	22.03	C
			B	0.211	2.559	0.593	1	1	13.093			
			C	0.261	2.405	0.605	1	1	16.512			

Section Elevation ft	Add Weight K	Self Weight K	Face	e	C_F	R_R	D_F	D_R	A_E ft²	F K	w plf	Ctrl. Face
T10 160.00-140.00	0.90	2.35	A	0.194	2.617	0.589	1	1	11.983	0.95	47.27	C
			B	0.245	2.453	0.601	1	1	15.434			
			C	0.614	1.796	0.762	1	1	49.159			
T11 140.00-120.00	1.12	2.13	A	0.249	2.44	0.602	1	1	15.739	0.90	44.89	C
			B	0.41	2.045	0.656	1	1	28.230			
			C	0.609	1.799	0.759	1	1	48.564			
T12 120.00-100.00	1.43	2.13	A	0.38	2.105	0.644	1	1	25.695	0.86	42.80	C
			B	0.585	1.814	0.744	1	1	45.700			
			C	0.609	1.799	0.759	1	1	48.564			
T13 100.00-80.00	1.49	2.16	A	0.424	2.018	0.662	1	1	29.501	0.81	40.45	C
			B	0.585	1.814	0.745	1	1	45.754			
			C	0.61	1.798	0.76	1	1	48.618			
T14 80.00-60.00	1.49	2.13	A	0.424	2.019	0.662	1	1	29.444	0.75	37.61	C
			B	0.585	1.814	0.744	1	1	45.700			
			C	0.609	1.799	0.759	1	1	48.564			
T15 60.00-40.00	1.49	2.13	A	0.424	2.019	0.662	1	1	29.444	0.68	34.16	C
			B	0.585	1.814	0.744	1	1	45.700			
			C	0.609	1.799	0.759	1	1	48.564			
T16 40.00-20.00	1.49	2.13	A	0.424	2.019	0.662	1	1	29.444	0.61	30.34	C
			B	0.585	1.814	0.744	1	1	45.700			
			C	0.609	1.799	0.759	1	1	48.564			
T17 20.00-6.17	1.03	1.78	A	0.45	1.973	0.673	1	1	22.008	0.43	30.92	C
			B	0.604	1.802	0.756	1	1	33.134			
			C	0.618	1.794	0.765	1	1	34.320			
T18 6.17-0.00	0.16	0.72	A	0.474	1.936	0.684	1	1	5.540	0.09	15.39	C
			B	0.581	1.817	0.742	1	1	7.360			
			C	0.591	1.81	0.748	1	1	7.547			
Sum Weight:	11.25	33.59								9.93		

Tower Forces - Service - Wind 45 To Face

Section Elevation ft	Add Weight K	Self Weight K	Face	e	C_F	R_R	D_F	D_R	A_E ft²	F K	w plf	Ctrl. Face
L1 346.00-331.00	0.00	0.82	A	1	0.602	1	1	1	13.438	0.11	7.29	C
			B	1	0.602	1	1	1	13.438			
			C	1	0.602	1	1	1	13.438			
L2 331.00-311.00	0.00	0.81	A	1	0.608	1	1	1	17.917	0.14	7.25	C
			B	1	0.608	1	1	1	17.917			
			C	1	0.608	1	1	1	17.917			
T1 311.00-310.00	0.00	0.15	A	0.28	2.351	0.61	0.825	1	0.893	0.03	30.63	C
			B	0.28	2.351	0.61	0.825	1	0.893			
			C	0.318	2.25	0.622	0.825	1	1.033			
T2 310.00-300.00	0.02	0.95	A	0.155	2.754	0.582	0.825	1	4.711	0.23	22.55	C
			B	0.155	2.754	0.582	0.825	1	4.711			
			C	0.218	2.537	0.594	0.825	1	6.778			
T3 300.00-280.00	0.07	1.90	A	0.152	2.765	0.582	0.825	1	9.242	0.51	25.39	C
			B	0.152	2.765	0.582	0.825	1	9.242			
			C	0.258	2.415	0.604	0.825	1	16.267			
T4 280.00-260.00	0.08	1.87	A	0.151	2.768	0.582	0.825	1	9.182	0.50	25.14	C
			B	0.165	2.718	0.584	0.825	1	10.066			
			C	0.261	2.405	0.605	0.825	1	16.512			
T5 260.00-240.00	0.08	1.87	A	0.151	2.768	0.582	0.825	1	9.182	0.49	24.60	C
			B	0.169	2.701	0.585	0.825	1	10.364			
			C	0.261	2.405	0.605	0.825	1	16.512			

Section Elevation ft	Add Weight K	Self Weight K	Face	e	C_F	R_R	D_F	D_R	A_E ft²	F K	w plf	Ctrl. Face
T6 240.00-220.00	0.09	1.93	A	0.156	2.751	0.582	0.825	1	9.483	0.48	24.11	C
			B	0.188	2.637	0.588	0.825	1	11.559			
			C	0.262	2.401	0.605	0.825	1	16.602			
T7 220.00-200.00	0.10	1.87	A	0.151	2.768	0.582	0.825	1	9.182	0.47	23.40	C
			B	0.198	2.602	0.59	0.825	1	12.232			
			C	0.261	2.405	0.605	0.825	1	16.512			
T8 200.00-180.00	0.11	1.87	A	0.151	2.768	0.582	0.825	1	9.182	0.45	22.74	C
			B	0.207	2.574	0.592	0.825	1	12.784			
			C	0.261	2.405	0.605	0.825	1	16.512			
T9 180.00-160.00	0.11	1.87	A	0.151	2.768	0.582	0.825	1	9.182	0.44	22.03	C
			B	0.211	2.559	0.593	0.825	1	13.093			
			C	0.261	2.405	0.605	0.825	1	16.512			
T10 160.00-140.00	0.90	2.35	A	0.194	2.617	0.589	0.825	1	11.983	0.95	47.27	C
			B	0.245	2.453	0.601	0.825	1	15.434			
			C	0.614	1.796	0.762	0.825	1	49.159			
T11 140.00-120.00	1.12	2.13	A	0.249	2.44	0.602	0.825	1	15.739	0.90	44.89	C
			B	0.41	2.045	0.656	0.825	1	28.230			
			C	0.609	1.799	0.759	0.825	1	48.564			
T12 120.00-100.00	1.43	2.13	A	0.38	2.105	0.644	0.825	1	25.695	0.86	42.80	C
			B	0.585	1.814	0.744	0.825	1	45.700			
			C	0.609	1.799	0.759	0.825	1	48.564			
T13 100.00-80.00	1.49	2.16	A	0.424	2.018	0.662	0.825	1	29.501	0.81	40.45	C
			B	0.585	1.814	0.745	0.825	1	45.754			
			C	0.61	1.798	0.76	0.825	1	48.618			
T14 80.00-60.00	1.49	2.13	A	0.424	2.019	0.662	0.825	1	29.444	0.75	37.61	C
			B	0.585	1.814	0.744	0.825	1	45.700			
			C	0.609	1.799	0.759	0.825	1	48.564			
T15 60.00-40.00	1.49	2.13	A	0.424	2.019	0.662	0.825	1	29.444	0.68	34.16	C
			B	0.585	1.814	0.744	0.825	1	45.700			
			C	0.609	1.799	0.759	0.825	1	48.564			
T16 40.00-20.00	1.49	2.13	A	0.424	2.019	0.662	0.825	1	29.444	0.61	30.34	C
			B	0.585	1.814	0.744	0.825	1	45.700			
			C	0.609	1.799	0.759	0.825	1	48.564			
T17 20.00-6.17	1.03	1.78	A	0.45	1.973	0.673	0.825	1	22.008	0.43	30.92	C
			B	0.604	1.802	0.756	0.825	1	33.134			
			C	0.618	1.794	0.765	0.825	1	34.320			
T18 6.17-0.00	0.16	0.72	A	0.474	1.936	0.684	0.825	1	5.540	0.09	15.39	C
			B	0.581	1.817	0.742	0.825	1	7.360			
			C	0.591	1.81	0.748	0.825	1	7.547			
Sum Weight:	11.25	33.59								9.93		

Tower Forces - Service - Wind 60 To Face

Section Elevation ft	Add Weight K	Self Weight K	Face	e	C_F	R_R	D_F	D_R	A_E ft²	F K	w plf	Ctrl. Face
L1 346.00-331.00	0.00	0.82	A	1	0.602	1	1	1	13.438	0.11	7.29	C
			B	1	0.602	1	1	1	13.438			
			C	1	0.602	1	1	1	13.438			
L2 331.00-311.00	0.00	0.81	A	1	0.608	1	1	1	17.917	0.14	7.25	C
			B	1	0.608	1	1	1	17.917			
			C	1	0.608	1	1	1	17.917			
T1 311.00-310.00	0.00	0.15	A	0.28	2.351	0.61	0.8	1	0.893	0.03	30.63	C
			B	0.28	2.351	0.61	0.8	1	0.893			
			C	0.318	2.25	0.622	0.8	1	1.033			

Section Elevation ft	Add Weight K	Self Weight K	Face	e	C_F	R_R	D_F	D_R	A_E ft²	F K	w plf	Ctrl. Face
T2 310.00-300.00	0.02	0.95	A	0.155	2.754	0.582	0.8	1	4.711	0.23	22.55	C
			B	0.155	2.754	0.582	0.8	1	4.711			
			C	0.218	2.537	0.594	0.8	1	6.778			
T3 300.00-280.00	0.07	1.90	A	0.152	2.765	0.582	0.8	1	9.242	0.51	25.39	C
			B	0.152	2.765	0.582	0.8	1	9.242			
			C	0.258	2.415	0.604	0.8	1	16.267			
T4 280.00-260.00	0.08	1.87	A	0.151	2.768	0.582	0.8	1	9.182	0.50	25.14	C
			B	0.165	2.718	0.584	0.8	1	10.066			
			C	0.261	2.405	0.605	0.8	1	16.512			
T5 260.00-240.00	0.08	1.87	A	0.151	2.768	0.582	0.8	1	9.182	0.49	24.60	C
			B	0.169	2.701	0.585	0.8	1	10.364			
			C	0.261	2.405	0.605	0.8	1	16.512			
T6 240.00-220.00	0.09	1.93	A	0.156	2.751	0.582	0.8	1	9.483	0.48	24.11	C
			B	0.188	2.637	0.588	0.8	1	11.559			
			C	0.262	2.401	0.605	0.8	1	16.602			
T7 220.00-200.00	0.10	1.87	A	0.151	2.768	0.582	0.8	1	9.182	0.47	23.40	C
			B	0.198	2.602	0.59	0.8	1	12.232			
			C	0.261	2.405	0.605	0.8	1	16.512			
T8 200.00-180.00	0.11	1.87	A	0.151	2.768	0.582	0.8	1	9.182	0.45	22.74	C
			B	0.207	2.574	0.592	0.8	1	12.784			
			C	0.261	2.405	0.605	0.8	1	16.512			
T9 180.00-160.00	0.11	1.87	A	0.151	2.768	0.582	0.8	1	9.182	0.44	22.03	C
			B	0.211	2.559	0.593	0.8	1	13.093			
			C	0.261	2.405	0.605	0.8	1	16.512			
T10 160.00-140.00	0.90	2.35	A	0.194	2.617	0.589	0.8	1	11.983	0.95	47.27	C
			B	0.245	2.453	0.601	0.8	1	15.434			
			C	0.614	1.796	0.762	0.8	1	49.159			
T11 140.00-120.00	1.12	2.13	A	0.249	2.44	0.602	0.8	1	15.739	0.90	44.89	C
			B	0.41	2.045	0.656	0.8	1	28.230			
			C	0.609	1.799	0.759	0.8	1	48.564			
T12 120.00-100.00	1.43	2.13	A	0.38	2.105	0.644	0.8	1	25.695	0.86	42.80	C
			B	0.585	1.814	0.744	0.8	1	45.700			
			C	0.609	1.799	0.759	0.8	1	48.564			
T13 100.00-80.00	1.49	2.16	A	0.424	2.018	0.662	0.8	1	29.501	0.81	40.45	C
			B	0.585	1.814	0.745	0.8	1	45.754			
			C	0.61	1.798	0.76	0.8	1	48.618			
T14 80.00-60.00	1.49	2.13	A	0.424	2.019	0.662	0.8	1	29.444	0.75	37.61	C
			B	0.585	1.814	0.744	0.8	1	45.700			
			C	0.609	1.799	0.759	0.8	1	48.564			
T15 60.00-40.00	1.49	2.13	A	0.424	2.019	0.662	0.8	1	29.444	0.68	34.16	C
			B	0.585	1.814	0.744	0.8	1	45.700			
			C	0.609	1.799	0.759	0.8	1	48.564			
T16 40.00-20.00	1.49	2.13	A	0.424	2.019	0.662	0.8	1	29.444	0.61	30.34	C
			B	0.585	1.814	0.744	0.8	1	45.700			
			C	0.609	1.799	0.759	0.8	1	48.564			
T17 20.00-6.17	1.03	1.78	A	0.45	1.973	0.673	0.8	1	22.008	0.43	30.92	C
			B	0.604	1.802	0.756	0.8	1	33.134			
			C	0.618	1.794	0.765	0.8	1	34.320			
T18 6.17-0.00	0.16	0.72	A	0.474	1.936	0.684	0.8	1	5.540	0.09	15.39	C
			B	0.581	1.817	0.742	0.8	1	7.360			
			C	0.591	1.81	0.748	0.8	1	7.547			
Sum Weight:	11.25	33.59								9.93		

Tower Forces - Service - Wind 90 To Face

Section Elevation ft	Add Weight K	Self Weight K	Face	e	C_F	R_R	D_F	D_R	A_E ft²	F K	w plf	Ctrl. Face
L1 346.00-331.00	0.00	0.82	A	1	0.602	1	1	1	13.438	0.11	7.29	C
			B	1	0.602	1	1	1	13.438			
			C	1	0.602	1	1	1	13.438			
L2 331.00-311.00	0.00	0.81	A	1	0.608	1	1	1	17.917	0.14	7.25	C
			B	1	0.608	1	1	1	17.917			
			C	1	0.608	1	1	1	17.917			
T1 311.00-310.00	0.00	0.15	A	0.28	2.351	0.61	0.85	1	0.893	0.03	30.63	C
			B	0.28	2.351	0.61	0.85	1	0.893			
			C	0.318	2.25	0.622	0.85	1	1.033			
T2 310.00-300.00	0.02	0.95	A	0.155	2.754	0.582	0.85	1	4.711	0.23	22.55	C
			B	0.155	2.754	0.582	0.85	1	4.711			
			C	0.218	2.537	0.594	0.85	1	6.778			
T3 300.00-280.00	0.07	1.90	A	0.152	2.765	0.582	0.85	1	9.242	0.51	25.39	C
			B	0.152	2.765	0.582	0.85	1	9.242			
			C	0.258	2.415	0.604	0.85	1	16.267			
T4 280.00-260.00	0.08	1.87	A	0.151	2.768	0.582	0.85	1	9.182	0.50	25.14	C
			B	0.165	2.718	0.584	0.85	1	10.066			
			C	0.261	2.405	0.605	0.85	1	16.512			
T5 260.00-240.00	0.08	1.87	A	0.151	2.768	0.582	0.85	1	9.182	0.49	24.60	C
			B	0.169	2.701	0.585	0.85	1	10.364			
			C	0.261	2.405	0.605	0.85	1	16.512			
T6 240.00-220.00	0.09	1.93	A	0.156	2.751	0.582	0.85	1	9.483	0.48	24.11	C
			B	0.188	2.637	0.588	0.85	1	11.559			
			C	0.262	2.401	0.605	0.85	1	16.602			
T7 220.00-200.00	0.10	1.87	A	0.151	2.768	0.582	0.85	1	9.182	0.47	23.40	C
			B	0.198	2.602	0.59	0.85	1	12.232			
			C	0.261	2.405	0.605	0.85	1	16.512			
T8 200.00-180.00	0.11	1.87	A	0.151	2.768	0.582	0.85	1	9.182	0.45	22.74	C
			B	0.207	2.574	0.592	0.85	1	12.784			
			C	0.261	2.405	0.605	0.85	1	16.512			
T9 180.00-160.00	0.11	1.87	A	0.151	2.768	0.582	0.85	1	9.182	0.44	22.03	C
			B	0.211	2.559	0.593	0.85	1	13.093			
			C	0.261	2.405	0.605	0.85	1	16.512			
T10 160.00-140.00	0.90	2.35	A	0.194	2.617	0.589	0.85	1	11.983	0.95	47.27	C
			B	0.245	2.453	0.601	0.85	1	15.434			
			C	0.614	1.796	0.762	0.85	1	49.159			
T11 140.00-120.00	1.12	2.13	A	0.249	2.44	0.602	0.85	1	15.739	0.90	44.89	C
			B	0.41	2.045	0.656	0.85	1	28.230			
			C	0.609	1.799	0.759	0.85	1	48.564			
T12 120.00-100.00	1.43	2.13	A	0.38	2.105	0.644	0.85	1	25.695	0.86	42.80	C
			B	0.585	1.814	0.744	0.85	1	45.700			
			C	0.609	1.799	0.759	0.85	1	48.564			
T13 100.00-80.00	1.49	2.16	A	0.424	2.018	0.662	0.85	1	29.501	0.81	40.45	C
			B	0.585	1.814	0.745	0.85	1	45.754			
			C	0.61	1.798	0.76	0.85	1	48.618			
T14 80.00-60.00	1.49	2.13	A	0.424	2.019	0.662	0.85	1	29.444	0.75	37.61	C
			B	0.585	1.814	0.744	0.85	1	45.700			
			C	0.609	1.799	0.759	0.85	1	48.564			
T15 60.00-40.00	1.49	2.13	A	0.424	2.019	0.662	0.85	1	29.444	0.68	34.16	C
			B	0.585	1.814	0.744	0.85	1	45.700			
			C	0.609	1.799	0.759	0.85	1	48.564			
T16 40.00-20.00	1.49	2.13	A	0.424	2.019	0.662	0.85	1	29.444	0.61	30.34	C
			B	0.585	1.814	0.744	0.85	1	45.700			
			C	0.609	1.799	0.759	0.85	1	48.564			
T17 20.00-6.17	1.03	1.78	A	0.45	1.973	0.673	0.85	1	22.008	0.43	30.92	C
			B	0.604	1.802	0.756	0.85	1	33.134			
			C	0.618	1.794	0.765	0.85	1	34.320			
T18 6.17-0.00	0.16	0.72	A	0.474	1.936	0.684	0.85	1	5.540	0.09	15.39	C
			B	0.581	1.817	0.742	0.85	1	7.360			
			C	0.591	1.81	0.748	0.85	1	7.547			

Section Elevation ft	Add Weight K	Self Weight K	Face	e	C_F	R_R	D_F	D_R	A_E ft^2	F K	w plf	Ctrl. Face
Sum Weight:	11.25	33.59								9.93		

Force Totals (Does not include forces on guys)

Load Case	Vertical Forces K	Sum of Forces X K	Sum of Forces Z K	Sum of Torques kip-ft
Leg Weight	22.38			
Bracing Weight	11.21			
Total Member Self-Weight	33.59			
Guy Weight	5.90			
Total Weight	58.01			
Wind 0 deg - No Ice		0.00	-41.02	9.44
Wind 30 deg - No Ice		20.51	-35.52	11.08
Wind 45 deg - No Ice		29.01	-29.01	10.78
Wind 60 deg - No Ice		35.52	-20.51	9.75
Wind 90 deg - No Ice		41.02	0.00	5.80
Wind 120 deg - No Ice		35.52	20.51	0.30
Wind 135 deg - No Ice		29.01	29.01	-2.58
Wind 150 deg - No Ice		20.51	35.52	-5.28
Wind 180 deg - No Ice		0.00	41.02	-9.44
Wind 210 deg - No Ice		-20.51	35.52	-11.08
Wind 225 deg - No Ice		-29.01	29.01	-10.78
Wind 240 deg - No Ice		-35.52	20.51	-9.75
Wind 270 deg - No Ice		-41.02	0.00	-5.80
Wind 300 deg - No Ice		-35.52	-20.51	-0.30
Wind 315 deg - No Ice		-29.01	-29.01	2.58
Wind 330 deg - No Ice		-20.51	-35.52	5.28
Member Ice	6.53			
Guy Ice	3.38			
Total Weight Ice	88.29			
Wind 0 deg - Ice		0.00	-45.67	10.73
Wind 30 deg - Ice		22.83	-39.55	12.46
Wind 45 deg - Ice		32.29	-32.29	12.07
Wind 60 deg - Ice		39.55	-22.83	10.85
Wind 90 deg - Ice		45.67	0.00	6.34
Wind 120 deg - Ice		39.55	22.83	0.12
Wind 135 deg - Ice		32.29	32.29	-3.11
Wind 150 deg - Ice		22.83	39.55	-6.12
Wind 180 deg - Ice		0.00	45.67	-10.73
Wind 210 deg - Ice		-22.83	39.55	-12.46
Wind 225 deg - Ice		-32.29	32.29	-12.07
Wind 240 deg - Ice		-39.55	22.83	-10.85
Wind 270 deg - Ice		-45.67	0.00	-6.34
Wind 300 deg - Ice		-39.55	-22.83	-0.12
Wind 315 deg - Ice		-32.29	-32.29	3.11
Wind 330 deg - Ice		-22.83	-39.55	6.12
Total Weight	58.01			
Wind 0 deg - Service		0.00	-16.03	3.69
Wind 30 deg - Service		8.02	-13.88	4.33
Wind 45 deg - Service		11.33	-11.33	4.21
Wind 60 deg - Service		13.88	-8.02	3.81
Wind 90 deg - Service		16.03	0.00	2.27
Wind 120 deg - Service		13.88	8.02	0.12
Wind 135 deg - Service		11.33	11.33	-1.01

Load Case	Vertical Forces K	Sum of Forces X K	Sum of Forces Z K	Sum of Torques kip-ft
Wind 150 deg - Service		8.02	13.88	-2.06
Wind 180 deg - Service		0.00	16.03	-3.69
Wind 210 deg - Service		-8.02	13.88	-4.33
Wind 225 deg - Service		-11.33	11.33	-4.21
Wind 240 deg - Service		-13.88	8.02	-3.81
Wind 270 deg - Service		-16.03	0.00	-2.27
Wind 300 deg - Service		-13.88	-8.02	-0.12
Wind 315 deg - Service		-11.33	-11.33	1.01
Wind 330 deg - Service		-8.02	-13.88	2.06

Load Combinations

Comb. No.	Description
1	Dead Only
2	Dead+Wind 0 deg - No Ice+Guy
3	Dead+Wind 30 deg - No Ice+Guy
4	Dead+Wind 45 deg - No Ice+Guy
5	Dead+Wind 60 deg - No Ice+Guy
6	Dead+Wind 90 deg - No Ice+Guy
7	Dead+Wind 120 deg - No Ice+Guy
8	Dead+Wind 135 deg - No Ice+Guy
9	Dead+Wind 150 deg - No Ice+Guy
10	Dead+Wind 180 deg - No Ice+Guy
11	Dead+Wind 210 deg - No Ice+Guy
12	Dead+Wind 225 deg - No Ice+Guy
13	Dead+Wind 240 deg - No Ice+Guy
14	Dead+Wind 270 deg - No Ice+Guy
15	Dead+Wind 300 deg - No Ice+Guy
16	Dead+Wind 315 deg - No Ice+Guy
17	Dead+Wind 330 deg - No Ice+Guy
18	Dead+Ice+Temp+Guy
19	Dead+Wind 0 deg+Ice+Temp+Guy
20	Dead+Wind 30 deg+Ice+Temp+Guy
21	Dead+Wind 45 deg+Ice+Temp+Guy
22	Dead+Wind 60 deg+Ice+Temp+Guy
23	Dead+Wind 90 deg+Ice+Temp+Guy
24	Dead+Wind 120 deg+Ice+Temp+Guy
25	Dead+Wind 135 deg+Ice+Temp+Guy
26	Dead+Wind 150 deg+Ice+Temp+Guy
27	Dead+Wind 180 deg+Ice+Temp+Guy
28	Dead+Wind 210 deg+Ice+Temp+Guy
29	Dead+Wind 225 deg+Ice+Temp+Guy
30	Dead+Wind 240 deg+Ice+Temp+Guy
31	Dead+Wind 270 deg+Ice+Temp+Guy
32	Dead+Wind 300 deg+Ice+Temp+Guy
33	Dead+Wind 315 deg+Ice+Temp+Guy
34	Dead+Wind 330 deg+Ice+Temp+Guy
35	Dead+Wind 0 deg - Service+Guy
36	Dead+Wind 30 deg - Service+Guy
37	Dead+Wind 45 deg - Service+Guy
38	Dead+Wind 60 deg - Service+Guy
39	Dead+Wind 90 deg - Service+Guy
40	Dead+Wind 120 deg - Service+Guy

Comb. No.	Description
41	Dead+Wind 135 deg - Service+Guy
42	Dead+Wind 150 deg - Service+Guy
43	Dead+Wind 180 deg - Service+Guy
44	Dead+Wind 210 deg - Service+Guy
45	Dead+Wind 225 deg - Service+Guy
46	Dead+Wind 240 deg - Service+Guy
47	Dead+Wind 270 deg - Service+Guy
48	Dead+Wind 300 deg - Service+Guy
49	Dead+Wind 315 deg - Service+Guy
50	Dead+Wind 330 deg - Service+Guy

Maximum Member Forces

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Force K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
L1	346 - 331	Pole	Max Tension	22	0.00	-0.01	0.02
			Max. Compression	18	-1.94	-3.70	-2.13
			Max. Mx	23	-1.93	-11.01	-2.17
			Max. My	10	-1.33	-2.07	-9.67
			Max. Vy	6	1.38	-10.48	-1.13
			Max. Vx	10	1.41	-2.07	-9.67
			Max. Torque	3			-4.48
L2	331 - 311	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	30	-2.90	25.03	-19.49
			Max. Mx	6	-2.17	-41.78	-1.34
			Max. My	10	-2.16	-2.86	-40.98
			Max. Vy	6	1.73	-41.78	-1.34
			Max. Vx	10	1.74	-2.86	-40.98
			Max. Torque	3			-4.48
T1	311 - 310	Leg	Max Tension	5	8.98	0.34	0.09
			Max. Compression	7	-10.73	-0.06	-0.03
			Max. Mx	30	-8.61	-1.73	0.76
			Max. My	19	-8.62	-0.19	-1.85
			Max. Vy	30	-2.35	0.61	-0.29
			Max. Vx	19	-2.50	0.02	0.64
		Diagonal	Max Tension	27	0.80	0.00	0.00
			Max. Compression	2	-0.46	0.00	0.00
			Max. Mx	28	0.68	-0.00	-0.00
			Max. My	12	-0.41	-0.00	-0.00
			Max. Vy	28	0.00	-0.00	-0.00
			Max. Vx	28	0.00	-0.00	-0.00
		Top Girt	Max Tension	29	0.00	0.00	0.00
			Max. Compression	29	-0.00	0.00	0.00
			Max. Mx	18	0.00	0.01	0.00
			Max. My	29	-0.00	0.00	-0.00
			Max. Vy	18	-0.01	0.00	0.00
			Max. Vx	29	0.00	0.00	0.00
T2	310 - 300	Leg	Max Tension	10	12.65	0.01	0.16
			Max. Compression	7	-15.56	-0.01	-0.01
			Max. Mx	23	-9.57	-0.61	-0.27
			Max. My	19	-9.08	0.02	0.64
			Max. Vy	30	0.30	0.61	-0.29
			Max. Vx	19	0.28	0.02	0.64
		Diagonal	Max Tension	22	1.83	0.00	0.00
			Max. Compression	10	-1.40	0.00	0.00
			Max. Mx	28	0.14	-0.00	-0.00
			Max. My	10	-1.39	-0.00	-0.00
			Max. Vy	28	0.01	-0.00	-0.00

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Force K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Max. Vx	27	0.00	-0.00	-0.00
		Horizontal	Max Tension	27	0.28	0.00	0.00
			Max. Compression	19	-0.55	0.00	0.00
			Max. Mx	18	-0.31	0.01	0.00
			Max. My	29	-0.24	0.00	-0.00
			Max. Vy	18	-0.01	0.00	0.00
			Max. Vx	29	0.00	0.00	0.00
		Top Girt	Max Tension	30	1.14	0.00	0.00
			Max. Compression	15	-0.05	0.00	0.00
			Max. Mx	18	1.09	0.01	0.00
			Max. My	29	1.04	0.00	-0.00
			Max. Vy	18	-0.01	0.00	0.00
			Max. Vx	29	0.00	0.00	0.00
T3	300 - 280	Leg	Max Tension	5	1.06	0.08	-0.05
			Max. Compression	24	-19.93	0.02	0.03
			Max. Mx	22	-3.60	-0.26	0.21
			Max. My	27	-5.44	-0.03	-0.35
			Max. Vy	6	0.50	-0.10	0.12
			Max. Vx	12	0.35	0.05	-0.10
		Diagonal	Max Tension	4	1.30	0.00	0.00
			Max. Compression	23	-0.85	0.00	0.00
			Max. Mx	28	0.52	-0.00	-0.00
			Max. My	10	-0.75	-0.00	-0.00
			Max. Vy	28	0.01	-0.00	-0.00
			Max. Vx	10	0.00	-0.00	-0.00
		Horizontal	Max Tension	27	0.28	0.00	0.00
			Max. Compression	20	-0.25	0.00	0.00
			Max. Mx	18	0.16	0.01	0.00
			Max. My	29	0.21	0.00	-0.00
			Max. Vy	18	-0.01	0.00	0.00
			Max. Vx	29	0.00	0.00	0.00
		Guy A	Bottom Tension	27	19.20		
			Top Tension	27	19.95		
			Top Cable Vert	27	16.07		
			Top Cable Norm	27	11.82		
			Top Cable Tan	27	0.00		
			Bot Cable Vert	27	-14.52		
			Bot Cable Norm	27	12.57		
			Bot Cable Tan	27	0.00		
		Guy B	Bottom Tension	32	18.72		
			Top Tension	32	19.43		
			Top Cable Vert	32	15.34		
			Top Cable Norm	32	11.93		
			Top Cable Tan	32	0.00		
			Bot Cable Vert	32	-13.83		
			Bot Cable Norm	32	12.62		
			Bot Cable Tan	32	0.00		
		Guy C	Bottom Tension	22	18.06		
			Top Tension	22	18.69		
			Top Cable Vert	22	14.09		
			Top Cable Norm	22	12.29		
			Top Cable Tan	22	0.00		
			Bot Cable Vert	22	-12.67		
			Bot Cable Norm	22	12.86		
			Bot Cable Tan	22	0.00		
		Top Guy Pull-Off	Max Tension	23	5.04	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	18	3.11	0.02	0.00
			Max. My	29	2.83	0.00	-0.00
			Max. Vy	18	-0.01	0.00	0.00
			Max. Vx	29	0.00	0.00	0.00

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Force K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
T4	280 - 260	Leg	Max Tension	5	0.09	-0.01	0.02
			Max. Compression	24	-23.73	-0.02	-0.03
			Max. Mx	20	-17.18	-0.02	0.02
			Max. My	19	-22.91	-0.00	0.04
			Max. Vy	28	-0.18	0.02	0.00
			Max. Vx	28	-0.23	-0.01	0.01
		Diagonal	Max Tension	19	0.97	0.00	0.00
			Max. Compression	19	-1.09	0.00	0.00
			Max. Mx	28	0.15	-0.00	-0.00
			Max. My	2	-0.91	-0.00	0.00
			Max. Vy	28	0.00	-0.00	-0.00
			Max. Vx	2	-0.00	-0.00	0.00
		Horizontal	Max Tension	27	0.26	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	18	0.18	0.01	0.00
			Max. My	29	0.24	0.00	-0.00
			Max. Vy	18	-0.01	0.00	0.00
			Max. Vx	29	0.00	0.00	0.00
		Top Girt	Max Tension	27	0.22	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	18	0.10	0.01	0.00
			Max. My	29	0.20	0.00	-0.00
			Max. Vy	18	-0.01	0.00	0.00
			Max. Vx	29	0.00	0.00	0.00
T5	260 - 240	Leg	Max Tension	5	8.08	-0.02	0.02
			Max. Compression	24	-35.40	-0.03	-0.04
			Max. Mx	6	-11.18	-0.04	-0.01
			Max. My	19	-34.50	-0.00	0.05
			Max. Vy	23	-0.02	-0.04	-0.02
			Max. Vx	20	0.03	-0.01	0.05
		Diagonal	Max Tension	34	1.42	0.00	0.00
			Max. Compression	19	-1.53	0.00	0.00
			Max. Mx	20	0.82	-0.00	0.00
			Max. My	2	-1.31	-0.00	0.00
			Max. Vy	20	0.01	-0.00	0.00
			Max. Vx	2	-0.00	-0.00	0.00
		Horizontal	Max Tension	27	0.35	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	18	0.19	0.01	0.00
			Max. My	29	0.31	0.00	-0.00
			Max. Vy	18	-0.01	0.00	0.00
			Max. Vx	29	0.00	0.00	0.00
		Top Girt	Max Tension	27	0.27	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	18	0.11	0.01	0.00
			Max. My	29	0.24	0.00	-0.00
			Max. Vy	18	-0.01	0.00	0.00
			Max. Vx	29	0.00	0.00	0.00
T6	240 - 220	Leg	Max Tension	10	13.92	0.01	0.19
			Max. Compression	24	-45.67	-0.05	-0.04
			Max. Mx	22	11.54	-0.38	0.24
			Max. My	27	11.44	-0.04	-0.48
			Max. Vy	22	0.22	-0.38	0.24
			Max. Vx	27	0.29	-0.04	-0.48
		Diagonal	Max Tension	23	2.53	0.00	0.00
			Max. Compression	24	-2.45	0.00	0.00
			Max. Mx	28	-0.09	-0.01	-0.00
			Max. My	26	-2.02	-0.00	-0.00
			Max. Vy	28	0.01	-0.01	-0.00
			Max. Vx	27	0.00	-0.00	-0.00
		Horizontal	Max Tension	27	0.53	0.00	0.00

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Force K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Max. Compression	19	-0.54	0.00	0.00
			Max. Mx	18	0.32	0.01	0.00
			Max. My	29	0.42	0.00	-0.00
			Max. Vy	18	-0.01	0.00	0.00
			Max. Vx	29	0.00	0.00	0.00
		Top Girt	Max Tension	27	0.39	0.00	0.00
			Max. Compression	2	-0.02	0.00	0.00
			Max. Mx	18	0.12	0.01	0.00
			Max. My	29	0.33	0.00	-0.00
			Max. Vy	18	-0.01	0.00	0.00
			Max. Vx	29	0.00	0.00	0.00
		Guy A	Bottom Tension	27	23.58		
			Top Tension	27	24.24		
			Top Cable Vert	27	17.58		
			Top Cable Norm	27	16.70		
			Top Cable Tan	27	0.00		
			Bot Cable Vert	27	-16.18		
			Bot Cable Norm	27	17.15		
			Bot Cable Tan	27	0.00		
		Guy B	Bottom Tension	32	22.94		
			Top Tension	32	23.56		
			Top Cable Vert	32	16.52		
			Top Cable Norm	32	16.81		
			Top Cable Tan	32	0.00		
			Bot Cable Vert	32	-15.17		
			Bot Cable Norm	32	17.22		
			Bot Cable Tan	32	0.00		
		Guy C	Bottom Tension	22	21.89		
			Top Tension	22	22.43		
			Top Cable Vert	22	14.53		
			Top Cable Norm	22	17.08		
			Top Cable Tan	22	0.00		
			Bot Cable Vert	22	-13.29		
			Bot Cable Norm	22	17.40		
			Bot Cable Tan	22	0.00		
		Top Guy Pull-Off	Max Tension	23	6.49	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	18	4.22	0.02	0.00
			Max. My	29	3.40	0.00	-0.00
			Max. Vy	18	-0.01	0.00	0.00
			Max. Vx	29	0.00	0.00	0.00
T7	220 - 200	Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	19	-33.64	-0.00	-0.03
			Max. Mx	20	-26.20	-0.09	0.02
			Max. My	28	-28.40	0.01	0.10
			Max. Vy	28	0.11	-0.03	-0.00
			Max. Vx	28	0.14	0.01	-0.04
		Diagonal	Max Tension	2	1.97	0.00	0.00
			Max. Compression	24	-2.21	0.00	0.00
			Max. Mx	28	0.03	-0.00	-0.00
			Max. My	2	-1.82	-0.00	0.00
			Max. Vy	28	0.01	-0.00	-0.00
			Max. Vx	2	-0.00	-0.00	0.00
		Horizontal	Max Tension	34	0.46	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	18	0.35	0.01	0.00
			Max. My	29	0.36	0.00	-0.00
			Max. Vy	18	-0.01	0.00	0.00
			Max. Vx	29	0.00	0.00	0.00
		Top Girt	Max Tension	27	0.47	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Force K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Max. Mx	18	0.21	0.01	0.00
			Max. My	29	0.24	0.00	0.00
			Max. Vy	18	-0.01	0.00	0.00
			Max. Vx	29	-0.00	0.00	0.00
T8	200 - 180	Leg	Max Tension	13	8.79	-0.03	0.04
			Max. Compression	28	-41.65	0.00	0.08
			Max. Mx	13	-34.53	-0.05	-0.02
			Max. My	27	-41.62	0.00	0.08
			Max. Vy	13	-0.03	0.00	0.07
			Max. Vx	29	0.05	-0.03	-0.05
		Diagonal	Max Tension	2	1.70	0.00	0.00
			Max. Compression	2	-1.80	0.00	0.00
			Max. Mx	28	-0.27	-0.00	-0.00
			Max. My	2	-1.64	-0.00	0.00
			Max. Vy	28	0.01	-0.00	-0.00
			Max. Vx	28	0.00	-0.00	-0.00
		Horizontal	Max Tension	19	0.57	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	18	0.36	0.01	0.00
			Max. My	29	0.33	0.00	-0.00
			Max. Vy	18	-0.01	0.00	0.00
			Max. Vx	29	0.00	0.00	0.00
		Top Girt	Max Tension	34	0.46	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	18	0.21	0.01	0.00
			Max. My	29	0.20	0.00	0.00
			Max. Vy	18	-0.01	0.00	0.00
			Max. Vx	29	-0.00	0.00	0.00
T9	180 - 160	Leg	Max Tension	13	17.18	-0.03	0.04
			Max. Compression	29	-46.87	-0.07	0.11
			Max. Mx	7	-35.88	0.11	0.02
			Max. My	2	-35.70	-0.01	-0.15
			Max. Vy	30	0.21	-0.04	-0.01
			Max. Vx	27	-0.29	-0.02	0.03
		Diagonal	Max Tension	2	1.32	0.00	0.00
			Max. Compression	2	-1.42	0.00	0.00
			Max. Mx	28	-0.81	-0.00	-0.00
			Max. My	2	-1.05	-0.00	0.00
			Max. Vy	28	0.01	-0.00	-0.00
			Max. Vx	19	-0.00	-0.00	0.00
		Horizontal	Max Tension	19	0.65	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	18	0.39	0.01	0.00
			Max. My	29	0.28	0.00	-0.00
			Max. Vy	18	-0.01	0.00	0.00
			Max. Vx	29	0.00	0.00	0.00
		Top Girt	Max Tension	19	0.58	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	18	0.22	0.01	0.00
			Max. My	29	0.24	0.00	-0.00
			Max. Vy	18	-0.01	0.00	0.00
			Max. Vx	29	0.00	0.00	0.00
T10	160 - 140	Leg	Max Tension	13	23.41	-0.06	0.05
			Max. Compression	27	-70.70	-0.00	0.05
			Max. Mx	22	-36.27	-0.56	0.32
			Max. My	27	-39.83	-0.04	-0.65
			Max. Vy	6	-1.11	0.09	-0.02
			Max. Vx	10	-1.12	-0.01	0.04
		Diagonal	Max Tension	20	4.45	0.00	0.00
			Max. Compression	28	-4.19	0.00	0.00
			Max. Mx	28	2.03	-0.01	-0.00

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Force K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Max. My	28	-4.16	-0.00	-0.00
			Max. Vy	28	0.01	-0.01	-0.00
			Max. Vx	28	0.00	-0.00	-0.00
		Horizontal	Max Tension	19	0.94	0.00	0.00
			Max. Compression	13	-0.16	0.00	0.00
			Max. Mx	18	0.47	0.01	0.00
			Max. My	29	0.26	0.00	-0.00
			Max. Vy	18	-0.01	0.00	0.00
			Max. Vx	29	0.00	0.00	0.00
		Top Girt	Max Tension	19	1.13	0.00	0.00
			Max. Compression	15	-0.32	0.00	0.00
			Max. Mx	18	0.27	0.02	0.00
			Max. My	29	-0.01	0.00	-0.00
			Max. Vy	18	-0.01	0.00	0.00
			Max. Vx	29	0.00	0.00	0.00
		Guy A	Bottom Tension	27	25.55		
			Top Tension	27	25.97		
			Top Cable Vert	27	15.31		
			Top Cable Norm	27	20.98		
			Top Cable Tan	27	0.00		
			Bot Cable Vert	27	-14.33		
			Bot Cable Norm	27	21.16		
			Bot Cable Tan	27	0.00		
		Guy B	Bottom Tension	32	25.07		
			Top Tension	32	25.45		
			Top Cable Vert	32	14.05		
			Top Cable Norm	32	21.22		
			Top Cable Tan	32	0.00		
			Bot Cable Vert	32	-13.11		
			Bot Cable Norm	32	21.36		
			Bot Cable Tan	32	0.00		
		Guy C	Bottom Tension	22	24.25		
			Top Tension	22	24.56		
			Top Cable Vert	22	11.57		
			Top Cable Norm	22	21.66		
			Top Cable Tan	22	0.00		
			Bot Cable Vert	22	-10.72		
			Bot Cable Norm	22	21.76		
			Bot Cable Tan	22	0.00		
		Top Guy Pull-Off	Max Tension	30	7.90	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	18	4.30	0.02	0.00
			Max. My	29	3.57	0.00	-0.00
			Max. Vy	18	-0.01	0.00	0.00
			Max. Vx	29	0.00	0.00	0.00
T11	140 - 120	Leg	Max Tension	13	38.00	-0.17	0.08
			Max. Compression	27	-90.32	-0.00	0.15
			Max. Mx	13	-61.15	-0.23	0.06
			Max. My	2	-59.79	0.03	-0.28
			Max. Vy	14	1.68	-0.20	-0.04
			Max. Vx	2	1.70	0.00	-0.17
		Diagonal	Max Tension	28	3.10	0.00	0.00
			Max. Compression	20	-3.25	0.00	0.00
			Max. Mx	28	-0.92	-0.00	-0.00
			Max. My	28	-3.22	-0.00	-0.00
			Max. Vy	28	0.01	-0.00	-0.00
			Max. Vx	28	0.00	-0.00	-0.00
		Horizontal	Max Tension	19	0.96	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	18	0.48	0.01	0.00
			Max. My	21	0.80	0.00	0.00

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Force K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Max. Vy	18	-0.01	0.00	0.00
			Max. Vx	21	-0.00	0.00	0.00
		Top Girt	Max Tension	19	0.89	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	18	0.31	0.01	0.00
			Max. My	29	0.23	0.00	-0.00
			Max. Vy	18	-0.01	0.00	0.00
			Max. Vx	29	0.00	0.00	0.00
		Mid Girt	Max Tension	19	1.43	0.00	0.00
			Max. Compression	15	-0.55	0.00	0.00
			Max. Mx	18	0.30	0.01	0.00
			Max. My	28	1.04	0.00	0.00
			Max. Vy	18	-0.01	0.00	0.00
			Max. Vx	28	-0.00	0.00	0.00
T12	120 - 100	Leg	Max Tension	13	35.00	-0.07	0.01
			Max. Compression	27	-89.91	0.00	0.18
			Max. Mx	14	-40.55	-0.27	0.06
			Max. My	2	-59.07	0.02	-0.26
			Max. Vy	14	1.14	-0.15	-0.09
			Max. Vx	2	1.20	0.00	-0.09
		Diagonal	Max Tension	10	2.82	0.00	0.00
			Max. Compression	22	-3.07	0.00	0.00
			Max. Mx	28	-1.96	-0.00	-0.00
			Max. My	28	-2.21	-0.00	-0.00
			Max. Vy	28	0.01	-0.00	-0.00
			Max. Vx	28	0.00	-0.00	-0.00
		Horizontal	Max Tension	19	1.18	0.00	0.00
			Max. Compression	10	-0.25	0.00	0.00
			Max. Mx	18	0.53	0.01	0.00
			Max. My	30	0.40	0.00	0.00
			Max. Vy	18	-0.01	0.00	0.00
			Max. Vx	30	-0.00	0.00	0.00
		Top Girt	Max Tension	19	0.97	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	18	0.32	0.01	0.00
			Max. My	28	0.31	0.00	-0.00
			Max. Vy	18	-0.01	0.00	0.00
			Max. Vx	28	0.00	0.00	0.00
		Mid Girt	Max Tension	19	0.95	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	18	0.33	0.01	0.00
			Max. My	28	0.33	0.00	-0.00
			Max. Vy	18	-0.01	0.00	0.00
			Max. Vx	28	0.00	0.00	0.00
T13	100 - 80	Leg	Max Tension	13	7.93	-0.04	-0.00
			Max. Compression	28	-75.77	-0.05	-0.01
			Max. Mx	22	-54.70	-0.59	0.31
			Max. My	27	-57.48	-0.03	-0.65
			Max. Vy	22	0.35	-0.59	0.31
			Max. Vx	27	0.40	-0.03	-0.65
		Diagonal	Max Tension	27	3.66	0.00	0.00
			Max. Compression	31	-3.66	0.00	0.00
			Max. Mx	29	0.56	-0.01	-0.00
			Max. My	21	-3.27	-0.00	0.00
			Max. Vy	29	0.01	-0.01	-0.00
			Max. Vx	21	-0.00	-0.00	0.00
		Horizontal	Max Tension	19	0.91	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	27	0.41	0.01	0.00
			Max. My	29	0.50	0.00	0.00
			Max. Vy	27	-0.01	0.00	0.00

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Force K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Max. Vx	29	-0.00	0.00	0.00
		Top Girt	Max Tension	19	0.87	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	18	0.34	0.01	0.00
			Max. My	28	0.33	0.00	-0.00
			Max. Vy	18	-0.01	0.00	0.00
			Max. Vx	28	0.00	0.00	0.00
		Guy A	Bottom Tension	27	22.03		
			Top Tension	27	22.29		
			Top Cable Vert	27	10.01		
			Top Cable Norm	27	19.92		
			Top Cable Tan	27	0.00		
			Bot Cable Vert	27	-9.30		
			Bot Cable Norm	27	19.97		
			Bot Cable Tan	27	0.00		
		Guy B	Bottom Tension	32	21.66		
			Top Tension	32	21.88		
			Top Cable Vert	32	8.73		
			Top Cable Norm	32	20.06		
			Top Cable Tan	32	0.00		
			Bot Cable Vert	32	-8.06		
			Bot Cable Norm	32	20.10		
			Bot Cable Tan	32	0.00		
		Guy C	Bottom Tension	22	20.92		
			Top Tension	22	21.07		
			Top Cable Vert	22	6.21		
			Top Cable Norm	22	20.14		
			Top Cable Tan	22	0.00		
			Bot Cable Vert	22	-5.61		
			Bot Cable Norm	22	20.15		
			Bot Cable Tan	22	0.00		
		Top Guy Pull-Off	Max Tension	30	8.16	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	18	4.41	0.02	0.00
			Max. My	28	5.25	0.00	-0.00
			Max. Vy	18	-0.01	0.00	0.00
			Max. Vx	28	0.00	0.00	0.00
T14	80 - 60	Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	27	-89.72	-0.00	-0.07
			Max. Mx	30	-78.98	-0.11	-0.07
			Max. My	27	-89.72	-0.00	0.20
			Max. Vy	31	-0.04	-0.01	0.13
			Max. Vx	27	-0.11	-0.00	-0.07
		Diagonal	Max Tension	28	1.90	0.00	0.00
			Max. Compression	20	-2.14	0.00	0.00
			Max. Mx	28	-0.59	-0.00	-0.00
			Max. My	28	-2.08	-0.00	-0.00
			Max. Vy	28	0.01	-0.00	-0.00
			Max. Vx	28	0.00	-0.00	-0.00
		Horizontal	Max Tension	19	1.00	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	27	0.51	0.01	0.00
			Max. My	29	0.50	0.00	0.00
			Max. Vy	27	-0.01	0.00	0.00
			Max. Vx	29	-0.00	0.00	0.00
		Top Girt	Max Tension	19	0.92	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	18	0.39	0.01	0.00
			Max. My	28	0.40	0.00	-0.00
			Max. Vy	18	-0.01	0.00	0.00
			Max. Vx	28	0.00	0.00	0.00

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Force K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
		Mid Girt	Max Tension	19	0.98	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	18	0.40	0.01	0.00
			Max. My	28	0.41	0.00	-0.00
			Max. Vy	18	-0.01	0.00	0.00
			Max. Vx	28	0.00	0.00	0.00
T15	60 - 40	Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	27	-92.43	-0.00	-0.07
			Max. Mx	30	-79.39	-0.10	-0.07
			Max. My	27	-92.25	-0.00	0.20
			Max. Vy	31	-0.04	-0.01	0.13
			Max. Vx	27	-0.11	-0.00	-0.07
		Diagonal	Max Tension	19	1.18	0.00	0.00
			Max. Compression	29	-1.67	0.00	0.00
			Max. Mx	28	-0.88	-0.00	-0.00
			Max. My	28	-1.16	-0.00	-0.00
			Max. Vy	28	0.01	-0.00	-0.00
			Max. Vx	28	0.00	-0.00	-0.00
		Horizontal	Max Tension	19	1.02	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	27	0.48	0.01	0.00
			Max. My	29	0.54	0.00	0.00
			Max. Vy	27	-0.01	0.00	0.00
			Max. Vx	29	-0.00	0.00	0.00
		Top Girt	Max Tension	19	1.01	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	18	0.41	0.01	0.00
			Max. My	28	0.42	0.00	-0.00
			Max. Vy	18	-0.01	0.00	0.00
			Max. Vx	28	0.00	0.00	0.00
		Mid Girt	Max Tension	19	1.02	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	18	0.42	0.01	0.00
			Max. My	28	0.44	0.00	-0.00
			Max. Vy	18	-0.01	0.00	0.00
			Max. Vx	28	0.00	0.00	0.00
T16	40 - 20	Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	27	-90.78	-0.00	0.20
			Max. Mx	31	-58.66	-0.09	-0.10
			Max. My	27	-90.78	-0.00	0.20
			Max. Vy	30	-0.05	0.03	-0.04
			Max. Vx	27	0.12	-0.00	-0.08
		Diagonal	Max Tension	19	2.02	0.00	0.00
			Max. Compression	30	-2.56	0.00	0.00
			Max. Mx	28	-1.40	-0.00	-0.00
			Max. My	28	-1.61	-0.00	-0.00
			Max. Vy	28	0.01	-0.00	-0.00
			Max. Vx	28	0.00	-0.00	-0.00
		Horizontal	Max Tension	19	1.00	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	27	0.52	0.01	0.00
			Max. My	29	0.65	0.00	0.00
			Max. Vy	27	-0.01	0.00	0.00
			Max. Vx	29	-0.00	0.00	0.00
		Top Girt	Max Tension	19	1.00	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	18	0.43	0.01	0.00
			Max. My	28	0.45	0.00	-0.00
			Max. Vy	18	-0.01	0.00	0.00
			Max. Vx	28	0.00	0.00	0.00
		Mid Girt	Max Tension	19	0.97	0.00	0.00

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Force K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	18	0.44	0.01	0.00
			Max. My	28	0.47	0.00	-0.00
			Max. Vy	18	-0.01	0.00	0.00
			Max. Vx	28	0.00	0.00	0.00
T17	20 - 6.167	Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	27	-79.18	-0.02	0.11
			Max. Mx	28	-68.49	1.01	-0.57
			Max. My	20	-66.12	0.02	1.13
			Max. Vy	20	-0.55	-0.42	-0.04
			Max. Vx	20	-0.65	0.02	1.13
		Diagonal	Max Tension	30	4.47	0.00	0.00
			Max. Compression	30	-3.28	0.00	0.00
			Max. Mx	28	-2.13	-0.01	-0.00
			Max. My	28	-0.71	-0.00	-0.00
			Max. Vy	28	0.01	-0.01	-0.00
			Max. Vx	28	0.00	-0.00	-0.00
		Horizontal	Max Tension	30	1.00	0.00	0.00
			Max. Compression	27	-0.29	0.00	0.00
			Max. Mx	18	-0.23	0.01	0.00
			Max. My	28	0.72	0.00	-0.00
			Max. Vy	18	-0.01	0.00	0.00
			Max. Vx	28	0.00	0.00	0.00
		Top Girt	Max Tension	19	1.07	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	18	0.65	0.02	0.00
			Max. My	28	0.71	0.00	-0.00
			Max. Vy	18	-0.01	0.00	0.00
			Max. Vx	28	0.00	0.00	0.00
		Mid Girt	Max Tension	30	1.08	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	18	0.80	0.02	0.00
			Max. My	28	0.89	0.00	-0.00
			Max. Vy	18	-0.01	0.00	0.00
			Max. Vx	28	0.00	0.00	0.00
T18	6.167 - 0	Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	27	-74.31	-0.06	-2.93
			Max. Mx	27	-71.70	0.58	0.64
			Max. My	28	-56.37	-0.06	-4.03
			Max. Vy	32	0.26	-0.26	0.03
			Max. Vx	28	1.41	-0.01	-4.02
		Diagonal	Max Tension	3	0.21	0.00	0.00
			Max. Compression	28	-2.99	0.00	0.00
			Max. Mx	28	-0.24	-0.01	-0.01
			Max. My	28	-0.24	-0.01	-0.01
			Max. Vy	28	0.01	-0.01	-0.01
			Max. Vx	28	0.00	-0.01	-0.01
		Horizontal	Max Tension	30	1.93	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	18	1.59	0.00	0.00
			Max. My	28	1.77	0.00	-0.00
			Max. Vy	18	-0.00	0.00	0.00
			Max. Vx	28	0.00	0.00	0.00
		Top Girt	Max Tension	30	16.23	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	18	13.39	0.02	0.00
			Max. My	28	14.98	0.00	-0.00
			Max. Vy	18	0.02	0.00	0.00
			Max. Vx	28	-0.00	0.00	0.00

Maximum Reactions

Location	Condition	Gov. Load Comb.	Vertical K	Horizontal, X K	Horizontal, Z K
Mast	Max. Vert	27	177.46	0.02	-4.36
	Max. H_x	31	175.92	4.79	-0.17
	Max. H_z	19	169.21	0.02	5.29
	Max. M_x	1	0.00	-0.00	0.05
	Max. M_z	1	0.00	-0.00	0.05
	Max. Torsion	28	6.35	2.65	-3.91
	Min. Vert	1	113.08	-0.00	0.05
	Min. H_x	23	171.84	-4.76	-0.13
	Min. H_z	27	177.46	0.02	-4.36
	Min. M_x	1	0.00	-0.00	0.05
	Min. M_z	1	0.00	-0.00	0.05
	Min. Torsion	20	-6.18	-2.17	4.34
Guy C @ 275 ft Elev 10 ft Azimuth 240 deg	Max. Vert	13	-3.74	-4.87	2.82
	Max. H_x	13	-3.74	-4.87	2.82
	Max. H_z	22	-42.28	-62.51	36.07
	Min. Vert	22	-42.28	-62.51	36.07
	Min. H_x	22	-42.28	-62.51	36.07
	Min. H_z	13	-3.74	-4.87	2.82
Guy B @ 275 ft Elev -24 ft Azimuth 120 deg	Max. Vert	7	-4.66	4.84	2.79
	Max. H_x	32	-50.17	61.75	35.65
	Max. H_z	32	-50.17	61.75	35.65
	Min. Vert	32	-50.17	61.75	35.65
	Min. H_x	7	-4.66	4.84	2.79
	Min. H_z	7	-4.66	4.84	2.79
Guy A @ 275 ft Elev -42 ft Azimuth 0 deg	Max. Vert	2	-5.32	0.00	-5.75
	Max. H_x	31	-31.47	2.30	-39.71
	Max. H_z	2	-5.32	0.00	-5.75
	Min. Vert	27	-54.32	-0.01	-70.85
	Min. H_x	23	-32.40	-2.29	-40.72
	Min. H_z	27	-54.32	-0.01	-70.85

Tower Mast Reaction Summary

Load Combination	Vertical K	$Shear_x$ K	$Shear_z$ K	Overturning Moment, M_x kip-ft	Overturning Moment, M_z kip-ft	Torque kip-ft
Dead Only	113.08	0.00	-0.05	0.00	0.00	-0.00
Dead+Wind 0 deg - No Ice+Guy	123.20	-0.02	-3.98	0.00	0.00	4.49
Dead+Wind 30 deg - No Ice+Guy	124.15	1.55	-3.23	0.00	0.00	5.90
Dead+Wind 45 deg - No Ice+Guy	124.07	2.23	-2.52	0.00	0.00	5.70
Dead+Wind 60 deg - No Ice+Guy	124.07	2.81	-1.68	0.00	0.00	4.91

Load Combination	Vertical	$Shear_x$	$Shear_z$	Overturning Moment, M_x	Overturning Moment, M_z	Torque
	K	K	K	kip-ft	kip-ft	kip-ft
Dead+Wind 90 deg - No Ice+Guy	124.91	3.54	0.22	0.00	0.00	2.55
Dead+Wind 120 deg - No Ice+Guy	125.13	3.41	1.97	0.00	0.00	0.40
Dead+Wind 135 deg - No Ice+Guy	126.65	2.83	2.55	0.00	0.00	-0.65
Dead+Wind 150 deg - No Ice+Guy	127.67	2.01	2.94	0.00	0.00	-1.86
Dead+Wind 180 deg - No Ice+Guy	128.23	-0.02	3.23	0.00	0.00	-4.61
Dead+Wind 210 deg - No Ice+Guy	129.61	-2.06	2.95	0.00	0.00	-6.04
Dead+Wind 225 deg - No Ice+Guy	129.77	-2.88	2.55	0.00	0.00	-5.77
Dead+Wind 240 deg - No Ice+Guy	129.44	-3.44	1.96	0.00	0.00	-4.93
Dead+Wind 270 deg - No Ice+Guy	128.62	-3.60	0.25	0.00	0.00	-2.57
Dead+Wind 300 deg - No Ice+Guy	126.85	-2.83	-1.67	0.00	0.00	-0.42
Dead+Wind 315 deg - No Ice+Guy	126.41	-2.25	-2.53	0.00	0.00	0.64
Dead+Wind 330 deg - No Ice+Guy	125.90	-1.57	-3.24	0.00	0.00	1.85
Dead+Ice+Temp+Guy	157.50	0.01	-0.11	0.00	0.00	0.00
Dead+Wind 0 deg+Ice+Temp+Guy	169.21	-0.02	-5.29	0.00	0.00	4.61
Dead+Wind 30 deg+Ice+Temp+Guy	171.01	2.17	-4.34	0.00	0.00	6.18
Dead+Wind 45 deg+Ice+Temp+Guy	172.08	3.11	-3.44	0.00	0.00	5.85
Dead+Wind 60 deg+Ice+Temp+Guy	172.61	3.87	-2.36	0.00	0.00	4.85
Dead+Wind 90 deg+Ice+Temp+Guy	171.84	4.76	0.13	0.00	0.00	2.26
Dead+Wind 120 deg+Ice+Temp+Guy	170.86	4.52	2.53	0.00	0.00	0.32
Dead+Wind 135 deg+Ice+Temp+Guy	172.78	3.72	3.35	0.00	0.00	-0.59
Dead+Wind 150 deg+Ice+Temp+Guy	174.86	2.61	3.91	0.00	0.00	-1.74
Dead+Wind 180 deg+Ice+Temp+Guy	177.46	-0.02	4.36	0.00	0.00	-4.64
Dead+Wind 210 deg+Ice+Temp+Guy	177.01	-2.65	3.91	0.00	0.00	-6.35
Dead+Wind 225 deg+Ice+Temp+Guy	176.23	-3.76	3.35	0.00	0.00	-6.03
Dead+Wind 240 deg+Ice+Temp+Guy	175.52	-4.54	2.53	0.00	0.00	-4.98
Dead+Wind 270 deg+Ice+Temp+Guy	175.92	-4.79	0.17	0.00	0.00	-2.28
Dead+Wind 300 deg+Ice+Temp+Guy	175.86	-3.88	-2.34	0.00	0.00	-0.33
Dead+Wind 315 deg+Ice+Temp+Guy	174.76	-3.11	-3.43	0.00	0.00	0.57
Dead+Wind 330 deg+Ice+Temp+Guy	172.95	-2.18	-4.34	0.00	0.00	1.71
Dead+Wind 0 deg - Service+Guy	114.38	-0.00	-1.44	0.00	0.00	1.93
Dead+Wind 30 deg - Service+Guy	113.99	0.64	-1.23	0.00	0.00	2.54

Load Combination	Vertical	$Shear_x$	$Shear_z$	Overturning Moment, M_x	Overturning Moment, M_z	Torque
	K	K	K	kip-ft	kip-ft	kip-ft
Dead+Wind 45 deg - Service+Guy	113.87	0.91	-1.00	0.00	0.00	2.44
Dead+Wind 60 deg - Service+Guy	113.86	1.13	-0.70	0.00	0.00	2.10
Dead+Wind 90 deg - Service+Guy	114.19	1.34	-0.01	0.00	0.00	1.09
Dead+Wind 120 deg - Service+Guy	114.76	1.21	0.66	0.00	0.00	0.16
Dead+Wind 135 deg - Service+Guy	114.84	1.00	0.92	0.00	0.00	-0.30
Dead+Wind 150 deg - Service+Guy	114.84	0.71	1.11	0.00	0.00	-0.83
Dead+Wind 180 deg - Service+Guy	115.00	0.00	1.27	0.00	0.00	-1.97
Dead+Wind 210 deg - Service+Guy	115.44	-0.71	1.11	0.00	0.00	-2.58
Dead+Wind 225 deg - Service+Guy	115.73	-1.00	0.92	0.00	0.00	-2.48
Dead+Wind 240 deg - Service+Guy	115.83	-1.21	0.66	0.00	0.00	-2.12
Dead+Wind 270 deg - Service+Guy	115.24	-1.35	-0.01	0.00	0.00	-1.10
Dead+Wind 300 deg - Service+Guy	114.67	-1.13	-0.70	0.00	0.00	-0.16
Dead+Wind 315 deg - Service+Guy	114.51	-0.92	-1.00	0.00	0.00	0.30
Dead+Wind 330 deg - Service+Guy	114.44	-0.64	-1.24	0.00	0.00	0.82

Solution Summary

	Sum of Applied Forces			Sum of Reactions			
Load Comb.	PX	PY	PZ	PX	PY	PZ	% Error
	K	K	K	K	K	K	
1	0.00	-58.01	0.00	-0.00	58.01	0.00	0.002%
2	-0.07	-58.27	-46.06	0.07	58.27	46.06	0.002%
3	22.94	-57.90	-39.82	-22.94	57.90	39.81	0.005%
4	32.47	-57.65	-32.49	-32.47	57.65	32.48	0.005%
5	39.75	-57.55	-22.98	-39.75	57.55	22.98	0.001%
6	45.88	-57.94	0.03	-45.88	57.94	-0.03	0.008%
7	39.80	-58.34	23.10	-39.80	58.34	-23.09	0.009%
8	32.54	-58.26	32.62	-32.54	58.26	-32.62	0.005%
9	23.04	-58.05	39.94	-23.04	58.05	-39.93	0.010%
10	0.07	-57.75	46.06	-0.07	57.75	-46.06	0.003%
11	-22.94	-58.13	39.82	22.93	58.13	-39.81	0.009%
12	-32.47	-58.38	32.49	32.46	58.38	-32.49	0.005%
13	-39.75	-58.48	22.98	39.74	58.48	-22.98	0.005%
14	-45.88	-58.09	-0.03	45.88	58.09	0.04	0.008%
15	-39.80	-57.69	-23.10	39.80	57.69	23.10	0.006%
16	-32.54	-57.76	-32.62	32.55	57.76	32.62	0.006%
17	-23.04	-57.98	-39.94	23.04	57.98	39.93	0.006%
18	0.00	-88.29	0.00	-0.00	88.29	0.00	0.006%
19	-0.12	-88.72	-54.05	0.12	88.72	54.05	0.001%
20	26.86	-88.10	-46.68	-26.86	88.10	46.67	0.005%
21	38.04	-87.68	-38.08	-38.04	87.68	38.07	0.006%
22	46.57	-87.51	-26.94	-46.56	87.51	26.94	0.003%
23	53.75	-88.16	0.05	-53.75	88.16	-0.05	0.004%
24	46.66	-88.83	27.13	-46.66	88.83	-27.13	0.002%

Load Comb.	Sum of Applied Forces PX K	PY K	PZ K	Sum of Reactions PX K	PY K	PZ K	% Error
25	38.17	-88.71	38.30	-38.17	88.71	-38.30	0.004%
26	27.04	-88.35	46.88	-27.04	88.35	-46.88	0.005%
27	0.12	-87.86	54.05	-0.12	87.86	-54.05	0.001%
28	-26.86	-88.48	46.68	26.86	88.48	-46.68	0.008%
29	-38.04	-88.90	38.08	38.04	88.90	-38.07	0.004%
30	-46.57	-89.07	26.94	46.56	89.07	-26.94	0.004%
31	-53.75	-88.42	-0.05	53.74	88.42	0.06	0.007%
32	-46.66	-87.75	-27.13	46.66	87.75	27.13	0.005%
33	-38.17	-87.87	-38.30	38.17	87.87	38.30	0.006%
34	-27.04	-88.23	-46.88	27.04	88.23	46.88	0.006%
35	-0.03	-58.11	-18.00	0.03	58.11	18.00	0.002%
36	8.96	-57.97	-15.56	-8.96	57.97	15.56	0.001%
37	12.69	-57.87	-12.69	-12.69	57.87	12.69	0.002%
38	15.53	-57.83	-8.98	-15.53	57.83	8.98	0.004%
39	17.93	-57.98	0.01	-17.93	57.98	-0.01	0.005%
40	15.55	-58.14	9.02	-15.55	58.14	-9.02	0.003%
41	12.72	-58.11	12.75	-12.72	58.11	-12.75	0.003%
42	9.00	-58.03	15.61	-9.00	58.03	-15.61	0.004%
43	0.03	-57.91	18.00	-0.03	57.91	-18.00	0.004%
44	-8.96	-58.06	15.56	8.96	58.06	-15.56	0.003%
45	-12.69	-58.16	12.69	12.68	58.16	-12.69	0.005%
46	-15.53	-58.20	8.98	15.53	58.20	-8.98	0.005%
47	-17.93	-58.04	-0.01	17.93	58.04	0.01	0.004%
48	-15.55	-57.89	-9.02	15.55	57.89	9.03	0.003%
49	-12.72	-57.92	-12.75	12.72	57.92	12.75	0.001%
50	-9.00	-58.00	-15.61	9.00	58.00	15.60	0.002%

Non-Linear Convergence Results

Load Combination	Converged?	Number of Cycles	Displacement Tolerance	Force Tolerance
1	Yes	12	0.00000001	0.00003942
2	Yes	19	0.00000001	0.00010099
3	Yes	18	0.00009709	0.00009619
4	Yes	17	0.00011019	0.00013617
5	Yes	17	0.00000001	0.00010266
6	Yes	18	0.00014515	0.00006505
7	Yes	18	0.00013847	0.00012175
8	Yes	19	0.00008227	0.00005902
9	Yes	18	0.00014944	0.00009465
10	Yes	17	0.00000001	0.00011001
11	Yes	19	0.00013674	0.00011786
12	Yes	20	0.00008025	0.00007387
13	Yes	20	0.00007741	0.00009758
14	Yes	19	0.00013473	0.00006873
15	Yes	16	0.00012435	0.00004949
16	Yes	17	0.00009575	0.00007689
17	Yes	18	0.00009482	0.00006648
18	Yes	11	0.00015000	0.00006273
19	Yes	19	0.00000001	0.00008660
20	Yes	17	0.00012112	0.00006014
21	Yes	16	0.00014008	0.00008359
22	Yes	15	0.00008531	0.00013806
23	Yes	18	0.00009544	0.00002886
24	Yes	18	0.00000001	0.00007396
25	Yes	18	0.00008145	0.00008456

26	Yes	18	0.00008719	0.00005324
27	Yes	18	0.00000001	0.00009786
28	Yes	18	0.00014118	0.00012074
29	Yes	19	0.00008029	0.00013184
30	Yes	19	0.00007804	0.00013529
31	Yes	18	0.00014378	0.00007521
32	Yes	16	0.00011729	0.00004532
33	Yes	16	0.00010626	0.00010205
34	Yes	17	0.00010958	0.00008170
35	Yes	14	0.00000001	0.00010409
36	Yes	14	0.00000001	0.00006805
37	Yes	13	0.00000001	0.00008276
38	Yes	11	0.00000001	0.00013888
39	Yes	13	0.00000001	0.00007958
40	Yes	14	0.00000001	0.00005597
41	Yes	14	0.00000001	0.00006075
42	Yes	13	0.00000001	0.00012868
43	Yes	12	0.00000001	0.00004898
44	Yes	14	0.00000001	0.00008307
45	Yes	14	0.00000001	0.00013278
46	Yes	14	0.00000001	0.00013411
47	Yes	14	0.00000001	0.00004244
48	Yes	13	0.00000001	0.00001858
49	Yes	12	0.00000001	0.00011147
50	Yes	13	0.00000001	0.00011649

Maximum Tower Deflections - Service Wind

Section No.	*Elevation* ft	*Horz. Deflection* in	*Gov. Load Comb.*	*Tilt* °	*Twist* °
L1	346 - 331	4.388	43	0.4325	0.7553
L2	331 - 311	3.119	43	0.4015	0.7401
T1	311 - 310	2.145	43	0.0168	0.6706
T2	310 - 300	2.142	43	0.0171	0.6694
T3	300 - 280	2.118	43	0.0221	0.6567
T4	280 - 260	2.109	43	0.0272	0.6460
T5	260 - 240	2.116	43	0.0329	0.6292
T6	240 - 220	2.152	43	0.0440	0.6093
T7	220 - 200	2.266	43	0.0593	0.5940
T8	200 - 180	2.426	43	0.0596	0.5779
T9	180 - 160	2.556	43	0.0477	0.5572
T10	160 - 140	2.620	43	0.0286	0.5338
T11	140 - 120	2.662	45	0.0116	0.5123
T12	120 - 100	2.599	46	0.0431	0.4826
T13	100 - 80	2.353	46	0.0705	0.4493
T14	80 - 60	2.030	46	0.0817	0.4162
T15	60 - 40	1.658	46	0.1013	0.3837
T16	40 - 20	1.186	46	0.1233	0.3495
T17	20 - 6.167	0.620	46	0.1407	0.3137
T18	6.167 - 0	0.192	46	0.1470	0.2914

Critical Deflections and Radius of Curvature - Service Wind

Elevation	Appurtenance	Gov. Load Comb.	Deflection	Tilt	Twist	Radius of Curvature
ft			in	°	°	ft
346.00	Flash Beacon Lighting	43	4.388	0.4325	0.7661	19152
336.00	SHPX-3AE-Radomes	43	3.522	0.4486	0.7619	9576
300.00	Guy	43	2.118	0.0221	0.6567	54743
298.00	Generic LPTV Antenna - 25' Long	43	2.114	0.0228	0.6548	51578
275.00	DB420-B	43	2.110	0.0283	0.6429	364745
235.00	PR-460	43	2.173	0.0481	0.6052	53337
230.00	Guy	43	2.200	0.0524	0.6013	57302
211.00	DB420-B	43	2.337	0.0615	0.5872	182042
165.00	6810-2	43	2.610	0.0340	0.5394	63121
160.00	(3) DR65-19-00DPQ	43	2.620	0.0286	0.5338	65331
150.00	Guy	45	2.647	0.0175	0.5234	59324
145.00	(2) 7250.xx	45	2.657	0.0134	0.5181	56252
130.00	(2) DB848F65E-SX	45	2.652	0.0247	0.4984	27840
115.00	(4) DUO1417-8686	46	2.553	0.0516	0.4744	23779
90.00	Guy	46	2.196	0.0762	0.4326	125473

Maximum Tower Deflections - Design Wind

Section No.	Elevation	Horz. Deflection	Gov. Load Comb.	Tilt	Twist
	ft	in		°	°
L1	346 - 331	12.690	27	1.0067	1.7925
L2	331 - 311	9.886	27	0.9529	1.7536
T1	311 - 310	7.677	27	0.1585	1.5982
T2	310 - 300	7.665	27	0.1594	1.5953
T3	300 - 280	7.560	27	0.1705	1.5676
T4	280 - 260	7.433	27	0.1812	1.5514
T5	260 - 240	7.335	27	0.1945	1.5145
T6	240 - 220	7.310	27	0.2260	1.4685
T7	220 - 200	7.502	27	0.2692	1.4379
T8	200 - 180	7.837	27	0.2609	1.4046
T9	180 - 160	8.131	13	0.2116	1.3570
T10	160 - 140	8.731	13	0.1356	1.3017
T11	140 - 120	9.155	30	0.0669	1.2497
T12	120 - 100	9.183	30	0.1240	1.1790
T13	100 - 80	8.563	30	0.2173	1.0965
T14	80 - 60	7.573	30	0.2811	1.0164
T15	60 - 40	6.272	30	0.3649	0.9403
T16	40 - 20	4.523	30	0.4620	0.8585
T17	20 - 6.167	2.373	30	0.5362	0.7716
T18	6.167 - 0	0.737	30	0.5624	0.7166

Critical Deflections and Radius of Curvature - Design Wind

Elevation	Appurtenance	Gov. Load Comb.	Deflection	Tilt	Twist	Radius of Curvature
ft			in	°	°	ft
346.00	Flash Beacon Lighting	27	12.690	1.0067	1.8363	9166
336.00	SHPX-3AE-Radomes	27	10.780	1.0548	1.8258	4583
300.00	Guy	27	7.560	0.1705	1.5676	21855
298.00	Generic LPTV Antenna - 25' Long	27	7.542	0.1721	1.5639	20646
275.00	DB420-B	27	7.408	0.1836	1.5455	84077

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
235.00	PR-460	27	7.337	0.2381	1.4596	17153
230.00	Guy	27	7.379	0.2504	1.4519	19062
211.00	DB420-B	27	7.648	0.2724	1.4243	57595
165.00	6810-2	13	8.611	0.1566	1.3151	14995
160.00	(3) DR65-19-00DPQ	13	8.731	0.1356	1.3017	14905
150.00	Guy	30	8.972	0.0977	1.2765	14213
145.00	(2) 7250.xx	30	9.074	0.0815	1.2637	13864
130.00	(2) DB848F65E-SX	30	9.242	0.0794	1.2169	8232
115.00	(4) DUO1417-8686	30	9.084	0.1463	1.1587	7038
90.00	Guy	30	8.102	0.2525	1.0565	17381

Guy Design Data

Section No.	Elevation ft	Size	Initial Tension K	Breaking Load K	Actual T K	Allowable T_a K	Required S.F.	Actual S.F.
T3	300.00 (A) (990)	13/16 BS	8.00	80.00	19.95	40.00	2.000	4.010 ✓
	300.00 (B) (989)	13/16 BS	8.00	80.00	19.43	40.00	2.000	4.117 ✓
	300.00 (C) (988)	13/16 BS	8.00	80.00	18.69	40.00	2.000	4.280 ✓
T6	230.00 (A) (995)	7/8 BS	9.20	92.00	24.24	46.00	2.000	3.795 ✓
	230.00 (B) (994)	7/8 BS	9.20	92.00	23.56	46.00	2.000	3.904 ✓
	230.00 (C) (991)	7/8 BS	9.20	92.00	22.43	46.00	2.000	4.102 ✓
T10	150.00 (A) (998)	13/16 BS	8.00	80.00	25.97	40.00	2.000	3.080 ✓
	150.00 (B) (997)	13/16 BS	8.00	80.00	25.45	40.00	2.000	3.144 ✓
	150.00 (C) (996)	13/16 BS	8.00	80.00	24.56	40.00	2.000	3.258 ✓
T13	90.00 (A) (1001)	3/4 BS	6.80	68.00	22.29	34.00	2.000	3.051 ✓
	90.00 (B) (1000)	3/4 BS	6.80	68.00	21.88	34.00	2.000	3.108 ✓
	90.00 (C) (999)	3/4 BS	6.80	68.00	21.07	34.00	2.000	3.227 ✓

Compression Checks

Pole Design Data

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	F_a ksi	A in^2	Actual P K	Allow. P_a K	Ratio $\frac{P}{P_a}$
L1	346 - 331 (1)	P10x.5	15.00	35.00	115.8	10.799	16.1007	-1.93	173.87	0.011
L2	331 - 311 (2)	P10x.365	20.00	35.00	114.3	11.408	11.9083	-2.17	135.85	0.016

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	F_a ksi	A in^2	Actual P K	Allow. P_a K	Ratio $\frac{P}{P_a}$

Pole Bending Design Data

Section No.	Elevation ft	Size	Actual M_x kip-ft	Actual f_{bx} ksi	Allow. F_{bx} ksi	Ratio $\frac{f_{bx}}{F_{bx}}$	Actual M_y kip-ft	Actual f_{by} ksi	Allow. F_{by} ksi	Ratio $\frac{f_{by}}{F_{by}}$
L1	346 - 331 (1)	P10x.5	11.58	-3.522	23.100	0.152	0.00	0.000	23.100	0.000
L2	331 - 311 (2)	P10x.365	42.02	-16.863	27.720	0.608	0.00	0.000	27.720	0.000

Pole Interaction Design Data

Section No.	Elevation ft	Size	Ratio $\frac{P}{P_a}$	Ratio $\frac{f_{bx}}{F_{bx}}$	Ratio $\frac{f_{by}}{F_{by}}$	Comb. Stress Ratio	Allow. Stress Ratio	Criteria
L1	346 - 331 (1)	P10x.5	0.011	0.152	0.000	0.164 ✔	1.066	H1-3 ✔
L2	331 - 311 (2)	P10x.365	0.016	0.608	0.000	0.624 ✔	1.066	H1-3 ✔

Leg Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	Mast Stability Index	F_a ksi	A in^2	Actual P K	Allow. P_a K	Ratio $\frac{P}{P_a}$
T1	311 - 310	2 3/4	1.00	1.00	17.5 K=1.00	1.00	28.562	5.9396	-10.73	169.65	0.063
T2	310 - 300	2 3/4	10.00	2.50	43.6 K=1.00	1.00	25.311	5.9396	-15.56	150.34	0.103
T3	300 - 280	2 3/4	20.00	2.50	43.6 K=1.00	1.00	25.311	5.9396	-19.93	150.34	0.133
T4	280 - 260	2 3/4	20.00	2.50	43.6 K=1.00	1.00	25.311	5.9396	-23.73	150.34	0.158
T5	260 - 240	2 3/4	20.00	2.50	43.6 K=1.00	1.00	25.311	5.9396	-35.40	150.34	0.235
T6	240 - 220	2 3/4	20.00	2.50	43.6 K=1.00	1.00	25.311	5.9396	-45.67	150.34	0.304
T7	220 - 200	2 3/4	20.00	2.50	43.6 K=1.00	1.00	25.311	5.9396	-33.64	150.34	0.224
T8	200 - 180	2 3/4	20.00	2.50	43.6 K=1.00	1.00	25.311	5.9396	-41.65	150.34	0.277
T9	180 - 160	2 3/4	20.00	2.50	43.6 K=1.00	1.00	25.311	5.9396	-46.87	150.34	0.312
T10	160 - 140	3	20.00	2.50	40.0 K=1.00	1.00	25.832	7.0686	-70.70	182.60	0.387
T11	140 - 120	3	20.00	2.50	40.0 K=1.00	0.99	25.531	7.0686	-90.32	180.47	0.500
T12	120 - 100	3	20.00	2.50	40.0 K=1.00	0.99	25.528	7.0686	-89.91	180.45	0.498

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	Mast Stability Index	F_a ksi	A in^2	Actual P K	Allow. P_a K	Ratio $\frac{P}{P_a}$
T13	100 - 80	3	20.00	2.50	40.0 K=1.00	0.98	25.384	7.0686	-75.77	179.43	0.422
T14	80 - 60	3	20.00	2.50	40.0 K=1.00	0.98	25.436	7.0686	-89.72	179.80	0.499
T15	60 - 40	3	20.00	2.50	40.0 K=1.00	0.98	25.434	7.0686	-92.43	179.78	0.514
T16	40 - 20	3	20.00	2.50	40.0 K=1.00	0.98	25.423	7.0686	-90.78	179.70	0.505
T17	20 - 6.167	3	13.83	2.31	36.9 K=1.00	0.97	25.497	7.0686	-79.18	180.23	0.439
T18	6.167 - 0	3	6.81	3.40	54.5 K=1.00	1.00	23.638	7.0686	-58.07	167.09	0.348*

* DL controls

Leg Bending Design Data (Compression)

Section No.	Elevation ft	Size	Actual M_x kip-ft	Actual f_{bx} ksi	Allow. F_{bx} ksi	Ratio $\frac{f_{bx}}{F_{bx}}$	Actual M_y kip-ft	Actual f_{by} ksi	Allow. F_{by} ksi	Ratio $\frac{f_{by}}{F_{by}}$
T1	311 - 310	2 3/4	0.00	0.000	37.500	0.000	0.00	0.000	37.500	0.000
T2	310 - 300	2 3/4	0.00	0.000	37.500	0.000	0.00	0.000	37.500	0.000
T3	300 - 280	2 3/4	0.00	0.000	37.500	0.000	0.00	0.000	37.500	0.000
T4	280 - 260	2 3/4	0.00	0.000	37.500	0.000	0.00	0.000	37.500	0.000
T5	260 - 240	2 3/4	0.00	0.000	37.500	0.000	0.00	0.000	37.500	0.000
T6	240 - 220	2 3/4	0.00	0.000	37.500	0.000	0.00	0.000	37.500	0.000
T7	220 - 200	2 3/4	0.00	0.000	37.500	0.000	0.00	0.000	37.500	0.000
T8	200 - 180	2 3/4	0.00	0.000	37.500	0.000	0.00	0.000	37.500	0.000
T9	180 - 160	2 3/4	0.00	0.000	37.500	0.000	0.00	0.000	37.500	0.000
T10	160 - 140	3	0.00	0.000	37.500	0.000	0.00	0.000	37.500	0.000
T11	140 - 120	3	0.00	0.000	37.500	0.000	0.00	0.000	37.500	0.000
T12	120 - 100	3	0.00	0.000	37.500	0.000	0.00	0.000	37.500	0.000
T13	100 - 80	3	0.00	0.000	37.500	0.000	0.00	0.000	37.500	0.000
T14	80 - 60	3	0.00	0.000	37.500	0.000	0.00	0.000	37.500	0.000
T15	60 - 40	3	0.00	0.000	37.500	0.000	0.00	0.000	37.500	0.000
T16	40 - 20	3	0.00	0.000	37.500	0.000	0.00	0.000	37.500	0.000
T17	20 - 6.167	3	0.00	0.000	37.500	0.000	0.00	0.000	37.500	0.000
T18	6.167 - 0	3	0.00	0.000	37.500	0.000	0.00	0.000	37.500	0.000

Leg Interaction Design Data (Compression)

Section No.	Elevation ft	Size	Ratio $\frac{P}{P_a}$	Ratio $\frac{f_{bx}}{F_{bx}}$	Ratio $\frac{f_{by}}{F_{by}}$	Comb. Stress Ratio	Allow. Stress Ratio	Criteria
T1	311 - 310	2 3/4	0.063	0.000	0.000	0.063 ✓	1.333	H1-3 ✓
T2	310 - 300	2 3/4	0.103	0.000	0.000	0.103 ✓	1.333	H1-3 ✓
T3	300 - 280	2 3/4	0.133	0.000	0.000	0.133 ✓	1.333	H1-3 ✓

Section No.	Elevation ft	Size	Ratio $\frac{P}{P_a}$	Ratio $\frac{f_{bx}}{F_{bx}}$	Ratio $\frac{f_{by}}{F_{by}}$	Comb. Stress Ratio	Allow. Stress Ratio	Criteria
T4	280 - 260	2 3/4	0.158	0.000	0.000	0.158 ✓	1.333	H1-3 ✓
T5	260 - 240	2 3/4	0.235	0.000	0.000	0.235 ✓	1.333	H1-3 ✓
T6	240 - 220	2 3/4	0.304	0.000	0.000	0.304 ✓	1.333	H1-3 ✓
T7	220 - 200	2 3/4	0.224	0.000	0.000	0.224 ✓	1.333	H1-3 ✓
T8	200 - 180	2 3/4	0.277	0.000	0.000	0.277 ✓	1.333	H1-3 ✓
T9	180 - 160	2 3/4	0.312	0.000	0.000	0.312 ✓	1.333	H1-3 ✓
T10	160 - 140	3	0.387	0.000	0.000	0.387 ✓	1.333	H1-3 ✓
T11	140 - 120	3	0.500	0.000	0.000	0.500 ✓	1.333	H1-3 ✓
T12	120 - 100	3	0.498	0.000	0.000	0.498 ✓	1.333	H1-3 ✓
T13	100 - 80	3	0.422	0.000	0.000	0.422 ✓	1.333	H1-3 ✓
T14	80 - 60	3	0.499	0.000	0.000	0.499 ✓	1.333	H1-3 ✓
T15	60 - 40	3	0.514	0.000	0.000	0.514 ✓	1.333	H1-3 ✓
T16	40 - 20	3	0.505	0.000	0.000	0.505 ✓	1.333	H1-3 ✓
T17	20 - 6.167	3	0.439	0.000	0.000	0.439 ✓	1.333	H1-3 ✓
T18	6.167 - 0	3	0.348	0.000	0.000	0.348* ✓	1.000	H1-3 ✓

* DL controls

Diagonal Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	F_a ksi	A in^2	Actual P K	Allow. P_a K	Ratio $\frac{P}{P_a}$
T1	311 - 310	3/4	5.10	2.43	155.7 K=1.00	6.161	0.4418	-0.46	2.72	0.170 ✓
T2	310 - 300	7/8	5.59	2.67	146.3 K=1.00	6.977	0.6013	-1.40	4.20	0.335 ✓
T3	300 - 280	7/8	5.59	2.67	146.3 K=1.00	6.977	0.6013	-0.85	4.20	0.202 ✓
T4	280 - 260	7/8	5.59	2.67	146.3 K=1.00	6.977	0.6013	-1.09	4.20	0.259 ✓
T5	260 - 240	7/8	5.59	2.67	146.3 K=1.00	6.977	0.6013	-1.53	4.20	0.365 ✓
T6	240 - 220	7/8	5.59	2.67	146.3 K=1.00	6.977	0.6013	-2.45	4.20	0.583 ✓
T7	220 - 200	7/8	5.59	2.67	146.3 K=1.00	6.977	0.6013	-2.21	4.20	0.526 ✓
T8	200 - 180	7/8	5.59	2.67	146.3 K=1.00	6.977	0.6013	-1.80	4.20	0.429 ✓
T9	180 - 160	7/8	5.59	2.67	146.3 K=1.00	6.977	0.6013	-1.42	4.20	0.338 ✓
T10	160 - 140	1	5.59	2.66	127.5 K=1.00	9.192	0.7854	-4.19	7.22	0.580 ✓
T11	140 - 120	7/8	5.59	2.66	145.7 K=1.00	7.038	0.6013	-3.25	4.23	0.768 ✓

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	F_a ksi	A in^2	Actual P K	Allow. P_a K	Ratio $\frac{P}{P_a}$
T12	120 - 100	7/8	5.59	2.66	145.7 K=1.00	7.038	0.6013	-3.07	4.23	0.725 ✓
T13	100 - 80	7/8	5.59	2.66	145.7 K=1.00	7.038	0.6013	-3.66	4.23	0.865 ✓
T14	80 - 60	7/8	5.59	2.66	145.7 K=1.00	7.038	0.6013	-2.14	4.23	0.505 ✓
T15	60 - 40	7/8	5.59	2.66	145.7 K=1.00	7.038	0.6013	-1.67	4.23	0.393 ✓
T16	40 - 20	7/8	5.59	2.66	145.7 K=1.00	7.038	0.6013	-2.56	4.23	0.604 ✓
T17	20 - 6.167	1	5.51	2.62	125.5 K=1.00	9.476	0.7854	-3.28	7.44	0.441 ✓
T18	6.167 - 0	1 1/4	4.91	3.11	119.5 K=1.00	10.460	1.2272	-2.99	12.84	0.233 ✓

Horizontal Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	F_a ksi	A in^2	Actual P K	Allow. P_a K	Ratio $\frac{P}{P_a}$
T2	310 - 300	7/8	5.00	4.77	261.7 K=1.00	2.180	0.6013	-0.55	1.31	0.418 ✓
		KL/R > 200 (C) - 30								
T3	300 - 280	7/8	5.00	4.77	261.7 K=1.00	2.180	0.6013	-0.25	1.31	0.187 ✓
		KL/R > 200 (C) - 105								
T6	240 - 220	7/8	5.00	4.77	261.7 K=1.00	2.180	0.6013	-0.54	1.31	0.416 ✓
		KL/R > 200 (C) - 274								
T10	160 - 140	7/8	5.00	4.75	260.6 K=1.00	2.199	0.6013	-0.16	1.32	0.123 ✓
		KL/R > 200 (C) - 520								
T12	120 - 100	7/8	5.00	4.75	260.6 K=1.00	2.199	0.6013	-0.25	1.32	0.192 ✓
		KL/R > 200 (C) - 653								
T17	20 - 6.167	7/8	5.00	4.75	260.6 K=1.00	2.199	0.6013	-0.24	1.32	0.178* ✓
		KL/R > 200 (C) - 934								

* DL controls

Top Girt Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	F_a ksi	A in^2	Actual P K	Allow. P_a K	Ratio $\frac{P}{P_a}$
T1	311 - 310	1	5.00	4.77	229.0 K=1.00	2.848	0.7854	-0.00	2.24	0.000 ✓

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	F_a ksi	A in^2	Actual P K	Allow. P_a K	Ratio $\frac{P}{P_a}$
		KL/R > 200 (C) - 6								
T2	310 - 300	1	5.00	4.77	229.0 K=1.00	2.848	0.7854	-0.05	2.24	0.023 ✓
		KL/R > 200 (C) - 11								
T6	240 - 220	1	5.00	4.77	229.0 K=1.00	2.848	0.7854	-0.02	2.24	0.009 ✓
		KL/R > 200 (C) - 176								
T10	160 - 140	1 1/4	5.00	4.77	183.2 K=1.00	4.449	1.2272	-0.32	5.46	0.058 ✓

Mid Girt Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	F_a ksi	A in^2	Actual P K	Allow. P_a K	Ratio $\frac{P}{P_a}$
T11	140 - 120	1	5.00	4.75	228.0 K=1.00	2.873	0.7854	-0.55	2.26	0.243 ✓
		KL/R > 200 (C) - 549								

Tension Checks

Leg Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	F_a ksi	A in^2	Actual P K	Allow. P_a K	Ratio $\frac{P}{P_a}$
T1	311 - 310	2 3/4	1.00	1.00	17.5	30.000	5.9396	8.98	178.19	0.050
T2	310 - 300	2 3/4	10.00	2.50	43.6	30.000	5.9396	12.65	178.19	0.071
T3	300 - 280	2 3/4	20.00	2.50	43.6	30.000	5.9396	1.06	178.19	0.006
T4	280 - 260	2 3/4	20.00	2.50	43.6	30.000	5.9396	0.09	178.19	0.000
T5	260 - 240	2 3/4	20.00	2.50	43.6	30.000	5.9396	8.08	178.19	0.045
T6	240 - 220	2 3/4	20.00	2.50	43.6	30.000	5.9396	13.92	178.19	0.078
T8	200 - 180	2 3/4	20.00	2.50	43.6	30.000	5.9396	8.79	178.19	0.049
T9	180 - 160	2 3/4	20.00	2.50	43.6	30.000	5.9396	17.18	178.19	0.096
T10	160 - 140	3	20.00	2.50	40.0	30.000	7.0686	23.41	212.06	0.110
T11	140 - 120	3	20.00	2.50	40.0	30.000	7.0686	37.38	212.06	0.176
T12	120 - 100	3	20.00	2.50	40.0	30.000	7.0686	35.00	212.06	0.165
T13	100 - 80	3	20.00	2.50	40.0	30.000	7.0686	7.93	212.06	0.037

Leg Bending Design Data (Tension)

Section No.	Elevation ft	Size	Actual M_x kip-ft	Actual f_{bx} ksi	Allow. F_{bx} ksi	Ratio $\frac{f_{bx}}{F_{bx}}$	Actual M_y kip-ft	Actual f_{by} ksi	Allow. F_{by} ksi	Ratio $\frac{f_{by}}{F_{by}}$
T1	311 - 310	2 3/4	0.00	0.000	37.500	0.000	0.00	0.000	37.500	0.000

Section No.	Elevation ft	Size	Actual M_x kip-ft	Actual f_{bx} ksi	Allow. F_{bx} ksi	Ratio $\frac{f_{bx}}{F_{bx}}$	Actual M_y kip-ft	Actual f_{by} ksi	Allow. F_{by} ksi	Ratio $\frac{f_{by}}{F_{by}}$
T2	310 - 300	2 3/4	0.00	0.000	37.500	0.000	0.00	0.000	37.500	0.000
T3	300 - 280	2 3/4	0.00	0.000	37.500	0.000	0.00	0.000	37.500	0.000
T4	280 - 260	2 3/4	0.00	0.000	37.500	0.000	0.00	0.000	37.500	0.000
T5	260 - 240	2 3/4	0.00	0.000	37.500	0.000	0.00	0.000	37.500	0.000
T6	240 - 220	2 3/4	0.00	0.000	37.500	0.000	0.00	0.000	37.500	0.000
T8	200 - 180	2 3/4	0.00	0.000	37.500	0.000	0.00	0.000	37.500	0.000
T9	180 - 160	2 3/4	0.00	0.000	37.500	0.000	0.00	0.000	37.500	0.000
T10	160 - 140	3	0.00	0.000	37.500	0.000	0.00	0.000	37.500	0.000
T11	140 - 120	3	0.00	0.000	37.500	0.000	0.00	0.000	37.500	0.000
T12	120 - 100	3	0.00	0.000	37.500	0.000	0.00	0.000	37.500	0.000
T13	100 - 80	3	0.00	0.000	37.500	0.000	0.00	0.000	37.500	0.000

Leg Interaction Design Data (Tension)

Section No.	Elevation ft	Size	Ratio $\frac{P}{P_a}$	Ratio $\frac{f_{bx}}{F_{bx}}$	Ratio $\frac{f_{by}}{F_{by}}$	Comb. Stress Ratio	Allow. Stress Ratio	Criteria
T1	311 - 310	2 3/4	0.050	0.000	0.000	0.050 ✓	1.333	H2-1 ✓
T2	310 - 300	2 3/4	0.071	0.000	0.000	0.071 ✓	1.333	H2-1 ✓
T3	300 - 280	2 3/4	0.006	0.000	0.000	0.006 ✓	1.333	H2-1 ✓
T4	280 - 260	2 3/4	0.000	0.000	0.000	0.000 ✓	1.333	H2-1 ✓
T5	260 - 240	2 3/4	0.045	0.000	0.000	0.045 ✓	1.333	H2-1 ✓
T6	240 - 220	2 3/4	0.078	0.000	0.000	0.078 ✓	1.333	H2-1 ✓
T8	200 - 180	2 3/4	0.049	0.000	0.000	0.049 ✓	1.333	H2-1 ✓
T9	180 - 160	2 3/4	0.096	0.000	0.000	0.096 ✓	1.333	H2-1 ✓
T10	160 - 140	3	0.110	0.000	0.000	0.110 ✓	1.333	H2-1 ✓
T11	140 - 120	3	0.176	0.000	0.000	0.176 ✓	1.333	H2-1 ✓
T12	120 - 100	3	0.165	0.000	0.000	0.165 ✓	1.333	H2-1 ✓
T13	100 - 80	3	0.037	0.000	0.000	0.037 ✓	1.333	H2-1 ✓

Diagonal Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	F_a ksi	A in^2	Actual P K	Allow. P_a K	Ratio $\frac{P}{P_a}$
T1	311 - 310	3/4	5.10	2.43	155.7	30.000	0.4418	0.80	13.25	0.061 ✓
T2	310 - 300	7/8	5.59	2.67	146.3	30.000	0.6013	1.83	18.04	0.102 ✓
T3	300 - 280	7/8	5.59	2.67	146.3	30.000	0.6013	1.30	18.04	0.072 ✓
T4	280 - 260	7/8	5.59	2.67	146.3	30.000	0.6013	0.97	18.04	0.054 ✓
T5	260 - 240	7/8	5.59	2.67	146.3	30.000	0.6013	1.42	18.04	0.079 ✓

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	F_a ksi	A in^2	Actual P K	Allow. P_a K	Ratio $\frac{P}{P_a}$
T6	240 - 220	7/8	5.59	2.67	146.3	30.000	0.6013	2.53	18.04	0.140 ✓
T7	220 - 200	7/8	5.59	2.67	146.3	30.000	0.6013	1.97	18.04	0.109 ✓
T8	200 - 180	7/8	5.59	2.67	146.3	30.000	0.6013	1.70	18.04	0.094 ✓
T9	180 - 160	7/8	5.59	2.67	146.3	30.000	0.6013	1.32	18.04	0.073 ✓
T10	160 - 140	1	5.59	2.66	127.5	30.000	0.7854	4.45	23.56	0.189 ✓
T11	140 - 120	7/8	5.59	2.66	145.7	30.000	0.6013	3.10	18.04	0.172 ✓
T12	120 - 100	7/8	5.59	2.66	145.7	30.000	0.6013	2.82	18.04	0.156 ✓
T13	100 - 80	7/8	5.59	2.66	145.7	30.000	0.6013	3.66	18.04	0.203 ✓
T14	80 - 60	7/8	5.59	2.66	145.7	30.000	0.6013	1.90	18.04	0.106 ✓
T15	60 - 40	7/8	5.59	2.66	145.7	30.000	0.6013	1.18	18.04	0.065 ✓
T16	40 - 20	7/8	5.59	2.66	145.7	30.000	0.6013	2.02	18.04	0.112 ✓
T17	20 - 6.167	1	5.51	2.62	125.5	30.000	0.7854	4.47	23.56	0.190 ✓
T18	6.167 - 0	1 1/4	4.91	3.11	119.5	30.000	1.2272	0.21	36.82	0.006 ✓

Horizontal Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	F_a ksi	A in^2	Actual P K	Allow. P_a K	Ratio $\frac{P}{P_a}$
T2	310 - 300	7/8	5.00	4.77	261.7	30.000	0.6013	0.28	18.04	0.016 ✓
T3	300 - 280	7/8	5.00	4.77	261.7	30.000	0.6013	0.28	18.04	0.016 ✓
T4	280 - 260	7/8	5.00	4.77	261.7	30.000	0.6013	0.26	18.04	0.015 ✓
T5	260 - 240	7/8	5.00	4.77	261.7	30.000	0.6013	0.35	18.04	0.019 ✓
T6	240 - 220	7/8	5.00	4.77	261.7	30.000	0.6013	0.53	18.04	0.029 ✓
T7	220 - 200	7/8	5.00	4.77	261.7	30.000	0.6013	0.35	18.04	0.019 ✓
T8	200 - 180	7/8	5.00	4.77	261.7	30.000	0.6013	0.57	18.04	0.031 ✓
T9	180 - 160	7/8	5.00	4.77	261.7	30.000	0.6013	0.65	18.04	0.036 ✓
T10	160 - 140	7/8	5.00	4.75	260.6	30.000	0.6013	0.94	18.04	0.052 ✓

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	F_a ksi	A in^2	Actual P K	Allow. P_a K	Ratio $\frac{P}{P_a}$
T11	140 - 120	7/8	5.00	4.75	260.6	30.000	0.6013	0.96	18.04	0.053 ✓
T12	120 - 100	7/8	5.00	4.75	260.6	30.000	0.6013	1.18	18.04	0.065 ✓
T13	100 - 80	7/8	5.00	4.75	260.6	30.000	0.6013	0.91	18.04	0.051 ✓
T14	80 - 60	7/8	5.00	4.75	260.6	30.000	0.6013	1.00	18.04	0.056 ✓
T15	60 - 40	7/8	5.00	4.75	260.6	30.000	0.6013	1.02	18.04	0.056 ✓
T16	40 - 20	7/8	5.00	4.75	260.6	30.000	0.6013	1.00	18.04	0.055 ✓
T17	20 - 6.167	7/8	5.00	4.75	260.6	30.000	0.6013	0.78	18.04	0.043* ✓
T18	6.167 - 0	7/8	2.50	2.25	123.4	30.000	0.6013	1.60	18.04	0.089* ✓

* DL controls

Top Girt Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	F_a ksi	A in^2	Actual P K	Allow. P_a K	Ratio $\frac{P}{P_a}$
T1	311 - 310	1	5.00	4.77	229.0	30.000	0.7854	0.00	23.56	0.000 ✓
T2	310 - 300	1	5.00	4.77	229.0	30.000	0.7854	1.09	23.56	0.046* ✓
T4	280 - 260	1	5.00	4.77	229.0	30.000	0.7854	0.22	23.56	0.009 ✓
T5	260 - 240	1	5.00	4.77	229.0	30.000	0.7854	0.27	23.56	0.011 ✓
T6	240 - 220	1	5.00	4.77	229.0	30.000	0.7854	0.39	23.56	0.017 ✓
T7	220 - 200	1	5.00	4.77	229.0	30.000	0.7854	0.47	23.56	0.020 ✓
T8	200 - 180	1	5.00	4.77	229.0	30.000	0.7854	0.46	23.56	0.020 ✓
T9	180 - 160	1	5.00	4.77	229.0	30.000	0.7854	0.58	23.56	0.025 ✓
T10	160 - 140	1 1/4	5.00	4.77	183.2	30.000	1.2272	1.13	36.82	0.031 ✓
T11	140 - 120	1	5.00	4.75	228.0	30.000	0.7854	0.89	23.56	0.038 ✓
T12	120 - 100	1	5.00	4.75	228.0	30.000	0.7854	0.97	23.56	0.041 ✓
T13	100 - 80	1	5.00	4.75	228.0	30.000	0.7854	0.87	23.56	0.037 ✓
T14	80 - 60	1	5.00	4.75	228.0	30.000	0.7854	0.92	23.56	0.039 ✓

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	F_a ksi	A in^2	Actual P K	Allow. P_a K	Ratio $\frac{P}{P_a}$
T15	60 - 40	1	5.00	4.75	228.0	30.000	0.7854	1.01	23.56	0.043 ✓
T16	40 - 20	1	5.00	4.75	228.0	30.000	0.7854	1.00	23.56	0.043 ✓
T17	20 - 6.167	1 1/4	5.00	4.75	182.4	30.000	1.2272	1.07	36.82	0.029 ✓
T18	6.167 - 0	1 1/2	5.00	4.75	152.0	30.000	1.7672	13.41	53.01	0.253* ✓

* DL controls

Mid Girt Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	F_a ksi	A in^2	Actual P K	Allow. P_a K	Ratio $\frac{P}{P_a}$
T11	140 - 120	1	5.00	4.75	228.0	30.000	0.7854	1.43	23.56	0.061 ✓
T12	120 - 100	1	5.00	4.75	228.0	30.000	0.7854	0.95	23.56	0.040 ✓
T14	80 - 60	1	5.00	4.75	228.0	30.000	0.7854	0.98	23.56	0.042 ✓
T15	60 - 40	1	5.00	4.75	228.0	30.000	0.7854	1.02	23.56	0.043 ✓
T16	40 - 20	1	5.00	4.75	228.0	30.000	0.7854	0.97	23.56	0.041 ✓
T17	20 - 6.167	1 1/4	5.00	4.75	182.4	30.000	1.2272	1.08	36.82	0.029 ✓

Top Guy Pull-Off Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	F_a ksi	A in^2	Actual P K	Allow. P_a K	Ratio $\frac{P}{P_a}$
T3	300 - 280	1 1/4	5.00	4.77	183.2	30.000	1.2272	5.04	36.82	0.137 ✓
T6	240 - 220	1 1/4	5.00	4.77	183.2	30.000	1.2272	6.49	36.82	0.176 ✓
T10	160 - 140	1 1/4	5.00	4.75	182.4	30.000	1.2272	7.90	36.82	0.215 ✓
T13	100 - 80	1 1/4	5.00	4.75	182.4	30.000	1.2272	8.16	36.82	0.222 ✓

Section Capacity Table

Section No.	Elevation ft	Component Type	Size	Critical Element	P K	$SF*P_{allow}$ K	% Capacity	Pass Fail
L1	346 - 331	Pole	P10x.5	1	-1.93	185.41	15.3	Pass
L2	331 - 311	Pole	P10x.365	2	-2.17	144.87	58.5	Pass
T1	311 - 310	Leg	2 3/4	4	-10.73	226.14	4.7	Pass
T2	310 - 300	Leg	2 3/4	19	-15.56	200.40	7.8	Pass
T3	300 - 280	Leg	2 3/4	52	-19.93	200.40	9.9	Pass
T4	280 - 260	Leg	2 3/4	113	-23.73	200.40	11.8	Pass
T5	260 - 240	Leg	2 3/4	174	-35.40	200.40	17.7	Pass
T6	240 - 220	Leg	2 3/4	235	-45.67	200.40	22.8	Pass
T7	220 - 200	Leg	2 3/4	297	-33.64	200.40	16.8	Pass
T8	200 - 180	Leg	2 3/4	358	-41.65	200.40	20.8	Pass
T9	180 - 160	Leg	2 3/4	419	-46.87	200.40	23.4	Pass
T10	160 - 140	Leg	3	480	-70.70	243.40	29.0	Pass
T11	140 - 120	Leg	3	543	-90.32	240.57	37.5	Pass
T12	120 - 100	Leg	3	606	-89.91	240.53	37.4	Pass
T13	100 - 80	Leg	3	669	-75.77	239.18	31.7	Pass
T14	80 - 60	Leg	3	732	-89.72	239.67	37.4	Pass
T15	60 - 40	Leg	3	795	-92.43	239.65	38.6	Pass
T16	40 - 20	Leg	3	858	-90.78	239.55	37.9	Pass
T17	20 - 6.167	Leg	3	921	-79.18	240.24	33.0	Pass
T18	6.167 - 0	Leg	3	977	-58.07	167.09	34.8	Pass
T1	311 - 310	Diagonal	3/4	15	-0.46	3.63	12.7	Pass
T2	310 - 300	Diagonal	7/8	33	-1.40	5.59	25.1	Pass
T3	300 - 280	Diagonal	7/8	99	-0.85	5.59	15.2	Pass
T4	280 - 260	Diagonal	7/8	121	-1.09	5.59	19.4	Pass
T5	260 - 240	Diagonal	7/8	182	-1.53	5.59	27.4	Pass
T6	240 - 220	Diagonal	7/8	254	-2.45	5.59	43.7	Pass
T7	220 - 200	Diagonal	7/8	350	-2.21	5.59	39.5	Pass
T8	200 - 180	Diagonal	7/8	416	-1.80	5.59	32.2	Pass
T9	180 - 160	Diagonal	7/8	477	-1.42	5.59	25.3	Pass
T10	160 - 140	Diagonal	1	505	-4.19	9.62	43.5	Pass
T11	140 - 120	Diagonal	7/8	603	-3.25	5.64	57.6	Pass
T12	120 - 100	Diagonal	7/8	614	-3.07	5.64	54.4	Pass
T13	100 - 80	Diagonal	7/8	710	-3.66	5.64	64.9	Pass
T14	80 - 60	Diagonal	7/8	792	-2.14	5.64	37.9	Pass
T15	60 - 40	Diagonal	7/8	802	-1.67	5.64	29.5	Pass
T16	40 - 20	Diagonal	7/8	865	-2.56	5.64	45.3	Pass
T17	20 - 6.167	Diagonal	1	937	-3.28	9.92	33.1	Pass
T18	6.167 - 0	Diagonal	1 1/4	984	-2.99	17.11	17.5	Pass
T2	310 - 300	Horizontal	7/8	30	-0.55	1.75	31.4	Pass
T3	300 - 280	Horizontal	7/8	105	-0.25	1.75	14.0	Pass
T4	280 - 260	Horizontal	7/8	124	0.26	24.05	1.1	Pass
T5	260 - 240	Horizontal	7/8	185	0.35	24.05	1.5	Pass
T6	240 - 220	Horizontal	7/8	274	-0.54	1.75	31.2	Pass
T7	220 - 200	Horizontal	7/8	307	0.35	18.04	1.9	Pass
T8	200 - 180	Horizontal	7/8	368	0.57	24.05	2.4	Pass
T9	180 - 160	Horizontal	7/8	429	0.65	24.05	2.7	Pass
T10	160 - 140	Horizontal	7/8	520	-0.16	1.76	9.2	Pass
T11	140 - 120	Horizontal	7/8	556	0.96	24.05	4.0	Pass
T12	120 - 100	Horizontal	7/8	653	-0.25	1.76	14.4	Pass
T13	100 - 80	Horizontal	7/8	682	0.91	24.05	3.8	Pass
T14	80 - 60	Horizontal	7/8	745	1.00	24.05	4.2	Pass
T15	60 - 40	Horizontal	7/8	822	1.02	24.05	4.2	Pass
T16	40 - 20	Horizontal	7/8	912	1.00	24.05	4.2	Pass
T17	20 - 6.167	Horizontal	7/8	934	-0.24	1.32	17.8	Pass
T18	6.167 - 0	Horizontal	7/8	979	1.60	18.04	8.9	Pass
T1	311 - 310	Top Girt	1	6	-0.00	2.98	0.0	Pass
T2	310 - 300	Top Girt	1	10	1.09	23.56	4.6	Pass
T4	280 - 260	Top Girt	1	54	0.22	31.41	0.7	Pass
T5	260 - 240	Top Girt	1	115	0.27	31.41	0.9	Pass
T6	240 - 220	Top Girt	1	176	0.39	31.41	1.2	Pass

ERITower	Job: 346' Guyed Lattice Tower	Page: 64 of 65
URS Corp. AES 795 Brook St Rocky Hill, CT Phone: (860) 529-8882 FAX: (860) 529-5566	Project: Albany Ave, West Hartford, CT	Date: 09:31:27 11/23/04
	Client: Verizon Wireless	Designed by: Jon Ives

Section No.	Elevation ft	Component Type	Size	Critical Element	P K	$SF*P_{allow}$ K	% Capacity	Pass Fail
T7	220 - 200	Top Girt	1	237	0.47	31.41	1.5	Pass
T8	200 - 180	Top Girt	1	298	0.46	31.41	1.5	Pass
T9	180 - 160	Top Girt	1	359	0.58	31.41	1.9	Pass
T10	160 - 140	Top Girt	1 1/4	422	-0.32	7.28	4.3	Pass
T11	140 - 120	Top Girt	1	481	0.89	31.41	2.8	Pass
T12	120 - 100	Top Girt	1	544	0.97	31.41	3.1	Pass
T13	100 - 80	Top Girt	1	607	0.87	31.41	2.8	Pass
T14	80 - 60	Top Girt	1	670	0.92	31.41	2.9	Pass
T15	60 - 40	Top Girt	1	733	1.01	31.41	3.2	Pass
T16	40 - 20	Top Girt	1	796	1.00	31.41	3.2	Pass
T17	20 - 6.167	Top Girt	1 1/4	859	1.07	49.08	2.2	Pass
T18	6.167 - 0	Top Girt	1 1/2	922	13.41	53.01	25.3	Pass
T11	140 - 120	Mid Girt	1	549	-0.55	3.01	18.2	Pass
T12	120 - 100	Mid Girt	1	610	0.95	31.41	3.0	Pass
T14	80 - 60	Mid Girt	1	736	0.98	31.41	3.1	Pass
T15	60 - 40	Mid Girt	1	799	1.02	31.41	3.2	Pass
T16	40 - 20	Mid Girt	1	862	0.97	31.41	3.1	Pass
T17	20 - 6.167	Mid Girt	1 1/4	926	1.08	49.08	2.2	Pass
T3	300 - 280	Guy A@300	13/16	990	19.95	40.00	49.9	Pass
T6	240 - 220	Guy A@230	7/8	995	24.24	46.00	52.7	Pass
T10	160 - 140	Guy A@150	13/16	998	25.97	40.00	64.9	Pass
T13	100 - 80	Guy A@90	3/4	1001	22.29	34.00	65.6	Pass
T3	300 - 280	Guy B@300	13/16	989	19.43	40.00	48.6	Pass
T6	240 - 220	Guy B@230	7/8	994	23.56	46.00	51.2	Pass
T10	160 - 140	Guy B@150	13/16	997	25.45	40.00	63.6	Pass
T13	100 - 80	Guy B@90	3/4	1000	21.88	34.00	64.4	Pass
T3	300 - 280	Guy C@300	13/16	988	18.69	40.00	46.7	Pass
T6	240 - 220	Guy C@230	7/8	991	22.43	46.00	48.8	Pass
T10	160 - 140	Guy C@150	13/16	996	24.56	40.00	61.4	Pass
T13	100 - 80	Guy C@90	3/4	999	21.07	34.00	62.0	Pass
T3	300 - 280	Top Guy Pull-Off@300	1 1/4	23	5.04	49.08	10.3	Pass
T6	240 - 220	Top Guy Pull-Off@230	1 1/4	993	6.49	49.08	13.2	Pass
T10	160 - 140	Top Guy Pull-Off@150	1 1/4	485	7.90	49.08	16.1	Pass
T13	100 - 80	Top Guy Pull-Off@90	1 1/4	674	8.16	49.08	16.6	Pass

	Summary	
Pole (L2)	58.5	Pass
Leg (T15)	38.6	Pass
Diagonal (T13)	64.9	Pass
Horizontal (T2)	31.4	Pass
Top Girt (T18)	25.3	Pass
Mid Girt (T11)	18.2	Pass
Guy A (T13)	65.6	Pass
Guy B (T13)	64.4	Pass
Guy C (T13)	62.0	Pass
Top Guy Pull-Off (T13)	16.6	Pass
RATING =	**65.6**	**Pass**

Program Version 3.0.0.17 - 7/15/2004 File:P:/Telecom/F12/ERI Files/346' Guyed Tower.eri