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

July 18, 2011

Jennifer A. Herz, Esq.
Brown Rudnick LLP
CityPlace I, 185 Asylum Street
Hartford, CT 06103

RE: **EM-T-MOBILE-004-110630** - Omnipoint Communications, as subsidiary of T-Mobile USA, Inc., notice of intent to modify an existing telecommunications facility located at 376 Deercliff Road, Avon, Connecticut.

Dear Attorney Herz:

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

- Any deviation from the proposed modification as specified in this notice and supporting materials with Council shall render this acknowledgement invalid;
- Any material changes to this modification as proposed shall require the filing of a new notice with the Council;
- Not less than 45 days after completion of construction, the Council shall be notified in writing that construction has been completed;
- The validity of this action shall expire one year from the date of this letter; and
- The applicant may file a request for an extension of time beyond the one year deadline provided that such request is submitted to the Council not less than 60 days prior to the expiration;

The proposed modifications including the placement of all necessary equipment and shelters within the tower compound are to be implemented as specified here and in your notice dated June 30, 2011. The modifications are in compliance with the exception criteria in Section 16-50j-72 (b) of the Regulations of Connecticut State Agencies as changes to an existing facility site that would not increase tower height, extend the boundaries of the tower site, increase noise levels at the tower site boundary by six decibels, and increase the total radio frequencies electromagnetic radiation power density measured at the tower site boundary to or above the standard adopted by the State Department of Environmental Protection pursuant to General Statutes § 22a-162. This facility has also been carefully modeled to ensure that radio frequency emissions are conservatively below State and federal standards applicable to the frequencies now used on this tower.

This decision is under the exclusive jurisdiction of the Council. Please be advised that the validity of this action shall expire one year from the date of this letter. Any additional change to this facility will require explicit notice to this agency pursuant to Regulations of Connecticut State Agencies Section 16-50j-73. Such notice shall include all relevant information regarding the proposed change with cumulative worst-case modeling of radio frequency exposure at the closest point of uncontrolled access to the tower base, consistent with Federal Communications Commission, Office of Engineering and Technology, Bulletin 65. Thank you for your attention and cooperation.

Very truly yours,

Linda Roberts
Executive Director

LR/CDM/laf

c: The Honorable Mark W. Zacchio, Chairman Town Council, Town of Avon
Brandon Robertson, Town Manager, Town of Avon
Steven V. Kushner, Town Planner, Town of Avon
Crown Castle USA, Inc.

JENNIFER A. HERZ
Direct Dial: (860) 509-6527
jherz@brownrudnick.com

EM-T-MOBILE-004-110630

CityPlace I
185 Asylum
Street
Hartford
Connecticut
06103
tel 860.509.6500
fax 860.509.6501

Via Hand Delivery

June 30, 2011

RECEIVED
JUN 30 2011
CONNECTICUT
SITING COUNCIL

Robert Stein, Chairman
Connecticut Siting Council
Ten Franklin Square
New Britain, CT 06051

RE: **Notice of Exempt Modification / Avon @ 376 Deercliff Road**

Dear Chairman Stein:

On behalf of T-Mobile Northeast, LLC ("T-Mobile"), enclosed for filing is an original and 5 copies of T-Mobile's Notice of Exempt Modification for the Facility located at 376 Deercliff Road in Avon. A complete copy of the Structural Analysis is enclosed within the original filing and Sections 1-4 are included within all of the copies. Additional copies of the Structural Analysis will be submitted upon request.

I also enclose herewith a check in the amount of $625.00 representing the filing fee.

I would appreciate it if you would date-stamp the enclosed copy of this transmittal letter and return it to the courier delivering this package.

If you have any questions, please feel free to contact me.

Very truly yours,

BROWN RUDNICK LLP

Jennifer A. Herz

JH/bh
Enclosures

cc/encl: Mark W. Zacchio, Chairman

CONNECTICUT SITING COUNCIL

In re:

T-Mobile Northeast, LLC's Notice to Make an Exempt Modification to an Existing Facility at 376 Deercliff Road, Avon, Connecticut.	:	**EXEMPT MODIFICATION NO. _____**
	:	
	:	June 30, 2011

NOTICE OF EXEMPT MODIFICATION

Pursuant to Conn. Agencies Regs. §§ 16-50j-73 and 16-50j-72(b), T-Mobile Northeast, LLC ("T-Mobile") hereby gives notice to the Connecticut Siting Council ("Council") and the Town of Avon of T-Mobile's intent to make an exempt modification to the existing guyed tower (the "Tower") located at 376 Deercliff Road in Avon, Connecticut. Specifically, T-Mobile plans to upgrade its wireless system in Connecticut by implementing its Universal Mobile Telecommunications System ("UMTS"). UMTS is a third-generation ("3G") technology that utilizes a code division multiple access ("CDMA") base to allow for fast and large data transfers. To accomplish this upgrade, T-Mobile must modify its antenna and equipment configurations at many of its existing sites.

Once the UMTS upgrade is complete, T-Mobile will operate on a more unified communication system, allowing international wireless telephones to function world-wide. Furthermore, UMTS will enhance global positioning system ("GPS") navigation capabilities and provide emergency responders with more advanced tracking capabilities. The proposed UMTS technology is compatible with the existing second-generation ("2G") Global System for Mobile Communication ("GSM") currently on the Tower and the proposed upgrade is expected to enhance the existing 2G system. In order to accomplish the upgrade at this site, T-Mobile plans to add UMTS technology and install associated equipment at the base of the Tower.

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(860) 509-6500

Under the Council's regulations (Conn. Agencies Regs. § 16-50j-72(b)), T-Mobile's plans do not constitute a modification subject to the Council's review because T-Mobile will not change the height of the Tower, will not extend the boundaries of the site, will not increase the noise levels at the site, and will not increase the total radio frequency electromagnetic radiation power density at the site to levels above applicable standards.

The Tower is a 560-foot guyed tower located at 376 Deercliff Road in Avon, Connecticut (latitude N 41° 46' 29.95", longitude W -72° 48' 2.07"). The Tower is owned by Crown Castle. Multiple carriers are currently located on the Tower. Currently, T-Mobile has 2 panel antennas and 4 Tower Mounted Amplifiers ("TMA") with a centerline of 240 feet mounted on the Tower. A site plan with Tower specifications is attached.

T-Mobile plans to install 2 UMTS (Model No.APX16DWV) antennas on the Tower in the Beta and Gamma sectors. Additionally, T-Mobile plans to remove and replace its 4 existing TMA with 2 Twin PCS TMA and install 2 additional Twin AWS TMA on the Tower. The centerline of the new antennas and TMAs will remain at 240 feet. T-Mobile also plans to install 4 additional 1-5/8 inch coaxial cables that will run to the new antennas.

To confirm the Tower can support these changes, T-Mobile commissioned B&T Engineering to perform a Structural Analysis of the Tower (attached). According to the Structural Analysis Report, dated June 8, 2011, the Tower has "sufficient capacity" for T-Mobile's planned modifications (Structural Analysis Report, page 1).

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(860) 509-6500

Within the existing compound T-Mobile plans to locate its equipment cabinet on the existing 10-foot by 12-foot (approximately) steel, raised platform. Hence, no increase in the size of the boundaries of the site is necessary.

Excluding brief, minor, construction-related noise during the addition of the antennas, TMAs and the installation of the equipment cabinet, the proposed changes to the Tower will not increase noise levels at the site.

The proposed antennas will not adversely impact the health and safety of the surrounding community or the people working on the Tower. The total radio frequency exposure measured around the Tower will be well below the National Council on Radiation Protection and Measurements' ("NCRP") standard adopted by the Federal Communications Commission ("FCC"). The worst-case power density analysis measured at the base of the Tower indicates that T-Mobile's antennas will emit 1.17% of the NCRP's standard for maximum permissible exposure. Collectively, the antennas on the Tower will emit 77.83% of the NCRP's standard for maximum permissible exposure. Therefore, the power density levels will be below the FCC mandated radio frequency exposure limits in all locations around the Tower, even with extremely conservative assumptions. The power density analysis is attached.[1]

In conclusion, T-Mobile's proposed plan install antennas, TMAs and ground equipment at this site does not constitute a modification subject to the Council's jurisdiction because T-Mobile will not increase the height of the Tower, will not extend the boundaries of the site, will not increase the noise levels at the site, and the total radio frequency electromagnetic

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[1] Please note that Metro PCS's installation is referred to as Pocket on the Power Density analysis.

radiation power density will stay within all applicable standards. *See* Conn. Agencies Regs. § 16-50j-72.

T-MOBILE NORTHEAST, LLC

By: _____

Jennifer A. Herz
Brown Rudnick LLP
185 Asylum Street
Hartford, CT 06103-3402
Email - jherz@brownrudnick.com
Phone - 860.509.6527 /Fax - 860.509.6501

Certificate of Service

This is to certify that on this 30th day of June, 2011, the foregoing Notice of Exempt Modification was sent, via first class mail, to the following:

Chairman Mark W. Zacchio
Avon Town Hall
60 West Main Street
Avon, CT 06001

By: _____
Jennifer A. Herz

40284676 v1 - 029431/0001

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185 ASYLUM STREET
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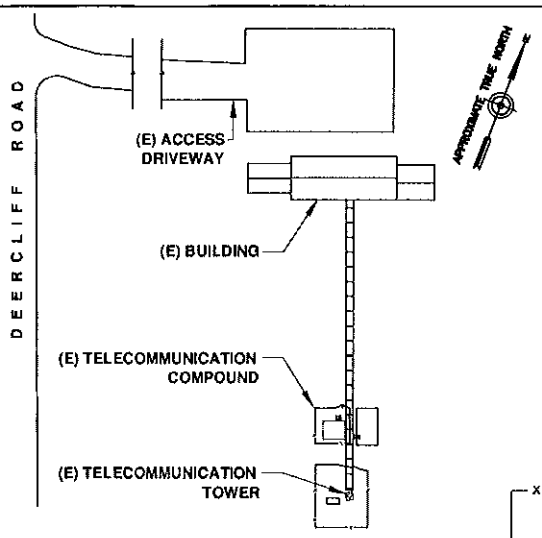
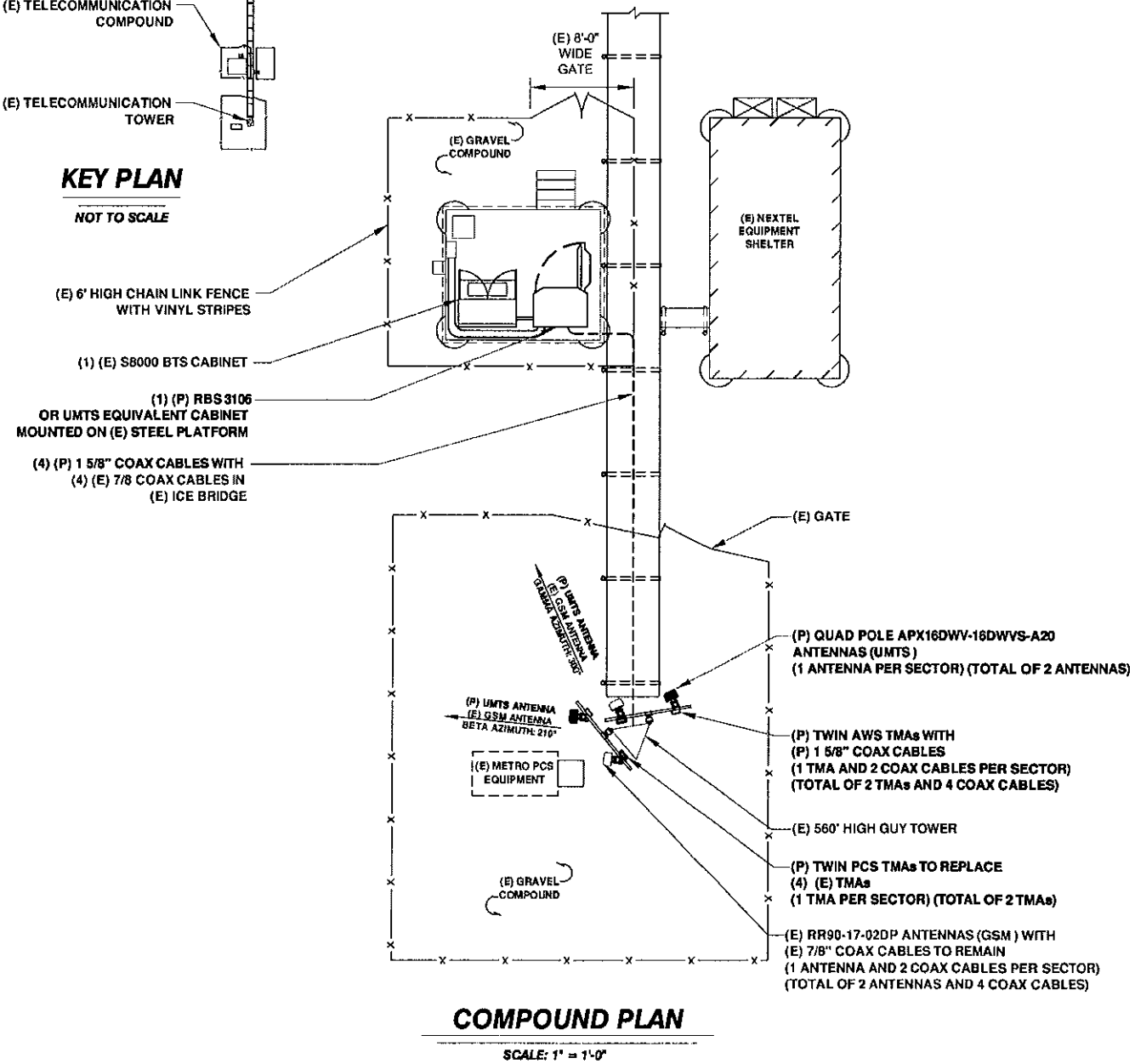
(860) 509-6500



KEY PLAN

NOT TO SCALE



COMPOUND PLAN

SCALE: 1" = 1'-0"

SUBMITTALS	
LE REV A	05-26-11
LE REV 0	05-31-11
LE REV 1	06-13-11

ATLANTIS GROUP
1340 Centre Street
Suite 203
Newton, MA 02459
Office: 617-965-0769
Fax: 617-213-5058

LEASE EXHIBIT

SITE NUMBER: CT11376A
SITE NAME: PINNACLE TOWER

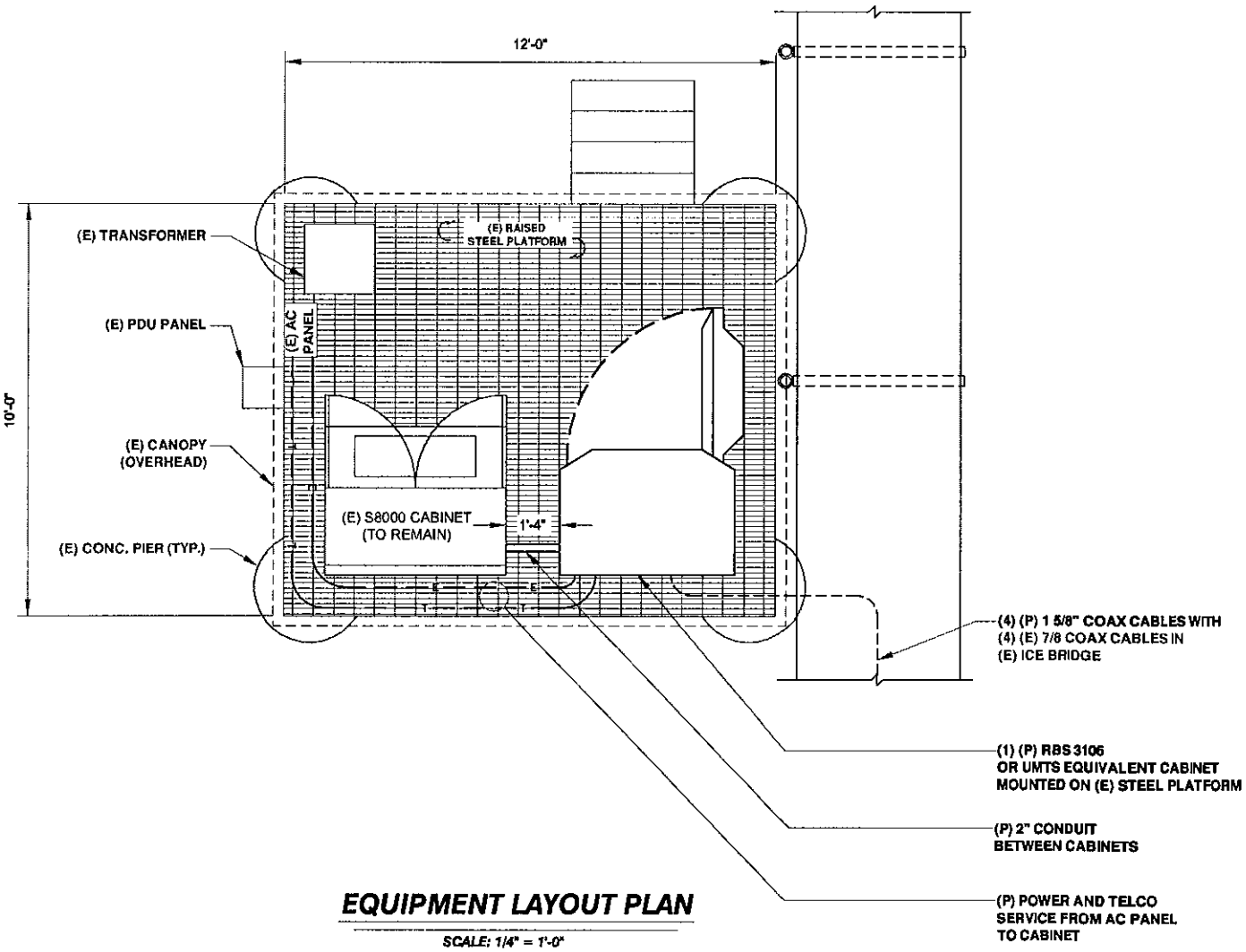
376 DEERCLIFF ROAD
AVON, CT 06001

NORTHEAST TOWERS
199 BRICKYARD ROAD
FARMINGTON, CT 06032
OFFICE: (860) 677-1999

FOR

T-MOBILE NORTHEAST, LLC
35 GRIFFIN ROAD SOUTH
BLOOMFIELD, CT 06002
OFFICE: (860) 692-7100
FAX: (860) 692-7159

DRAWN BY: SB | CHECKED BY: SM



EQUIPMENT LAYOUT PLAN

SCALE: 1/4" = 1'-0"

SUBMITTALS	
LE REV A	05-26-11
LE REV 0	05-31-11
LE REV 1	06-13-11

ATLANTIS GROUP
1340 Centre Street
Suite 203
Newton, MA 02459
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Fax: 617-213-5056

LEASE EXHIBIT

SITE NUMBER: CT11376A
SITE NAME: PINNACLE TOWER

376 DEERCLIFF ROAD
AVON, CT 06001

NORTHEAST TOWERS
99 BRICKYARD ROAD
FARMINGTON, CT 06032
OFFICE: (860) 677-1999

FOR

T-MOBILE NORTHEAST, LLC
35 GRIFFIN ROAD SOUTH
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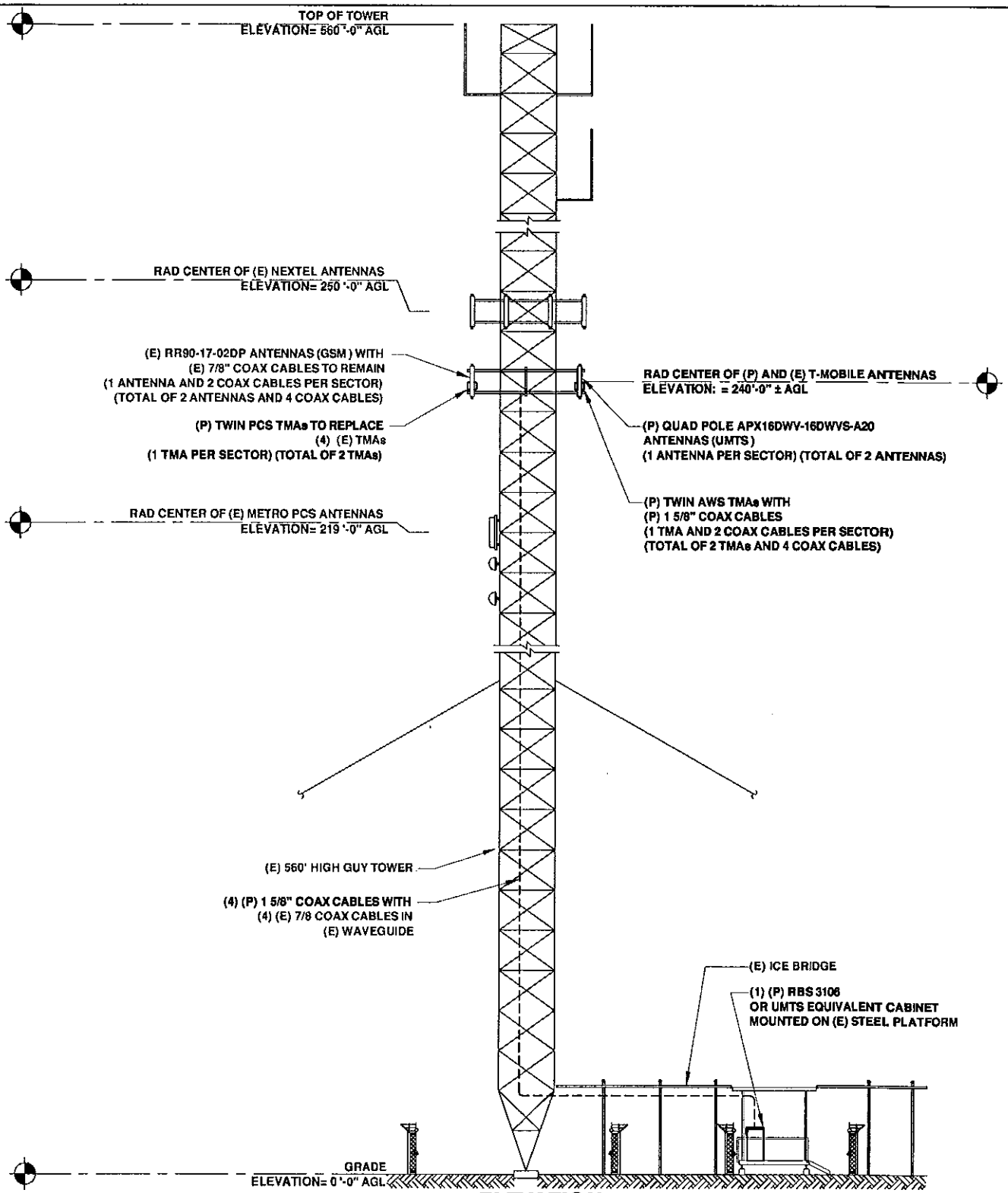

ELEVATION

SCALE: 1" = 20'-0"

SUBMITTALS	
LE REV A	05-26-11
LE REV 0	05-31-11
LE REV 1	06-13-11

ATLANTIS GROUP
1340 Centre Street
Suite 203
Newton, MA 02459
Office: 617-965-0789
Fax: 617-213-5058

LEASE EXHIBIT

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FAX: (860) 692-7159

DRAWN BY: SB | CHECKED BY: SM

June 08, 2011

Ms. Veronica Harris
Crown Castle USA Inc.
1200 McArthur Blvd
Mahwah, NJ 07430
(201) 236-9094

B&T Engineering, Inc.
1717 S. Boulder, Suite 300
Tulsa, OK 74119
(918) 587-4630
ctuttle@btengineering.com

Subject:	**Structural Analysis Report**	
Carrier Designation:	***T-Mobile* Co-Locate**	
	Carrier Site Number:	CT11376A
	Carrier Site Name:	Farmington 1/ RT 10
Crown Castle Designation:	**Crown Castle BU Number:**	870800
	Crown Castle Site Name:	Avon (Deercliff Rd.)
	Crown Castle JDE Job Number:	158867
	Crown Castle Work Order Number:	413213
Engineering Firm Designation:	**B&T Engineering, Inc. Project Number:**	83041
Site Data:	**376 Deercliff Road, Avon, CT, Hartford County**	
	Latitude *41° 46' 29.95"*, Longitude *-72° 48' 2.07"*	
	560 Foot - Guyed Tower	

Dear Ms. Harris,

B&T Engineering, Inc. is pleased to submit this **"Structural Analysis Report"** to determine the structural integrity of the above mentioned tower. This analysis has been performed in accordance with the Crown Castle Structural 'Statement of Work' and the terms of Crown Castle Purchase Order Number 417910, in accordance with application 123362, revision 3.

The purpose of the analysis is to determine acceptability of the tower stress level. Based on our analysis we have determined the tower stress level for the structure and foundation, under the following load case, to be:

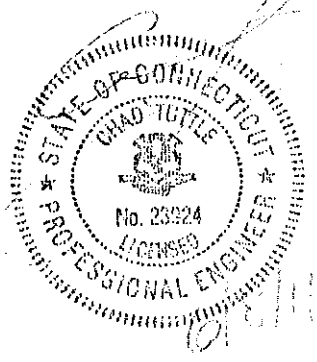
LC1: Existing + Reserved + Proposed Equipment **Sufficient Capacity**
Note: See Table I and Table II for the proposed and existing/reserved loading, respectively.

The analysis has been performed in accordance with the TIA/EIA-222-F standard and 2003 IBC; 2003 IRC (State Building Code, 2005 CT supplement) based upon a wind speed of 80 mph fastest mile.

All modifications and equipment proposed in this report shall be installed in accordance with the attached drawings for the determined available structural capacity to be effective.

We at *B&T Engineering, Inc.* appreciate the opportunity of providing our continuing professional services to you and Crown Castle USA Inc. If you have any questions or need further assistance on this or any other projects please give us a call.

Respectfully submitted by:



Kristin Mears, E.I.
Project Engineer

Chad E. Tuttle, P.E
President

RISA Tower Report - version 5.4.2.0

TABLE OF CONTENTS

1) INTRODUCTION

This tower is a 560 ft. guyed tower designed by Stainless Inc. in November of 1986. The tower was originally designed for a wind speed of 60 psf per EIA-222-C. The tower was modified by GPD Associates in April 2008, and those modifications are incorporated into this Analysis

2) ANALYSIS CRITERIA

The structural analysis was performed for this tower in accordance with the requirements of TIA/EIA-222-F Structural Standards for Steel Antenna Towers and Antenna Supporting Structures using a fastest mile wind speed of 80 mph with no ice, 37.6 mph with 1.00 inch ice thickness and 50 mph under service loads.

Table 1 - Proposed Antenna and Cable Information

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)	Note
240	242	2	Celwave	APX16DWV-16DWV-S-E-A20	4	7/8	--
		2	RFS	ATMAA1412D-1A20			
		2	RFS	ATMPP1412D-1CWA			

Table 2 - Existing and Reserved Antenna and Cable Information

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)	Note
518	528	1	Telewave	ANT150F6	1	1 1/4	1
	518	1	--	Side Arm Mount [SO 308-1]			
515	515	1	Andrew	PG1NOF-0093-8	1	1 5/8	1
		1	--	Side Arm Mount [SO 312-1]			
505	505	1	Telewave	ANT150F2	--	--	1
		1	--	Side Arm Mount [SO 309-1]			
500	508	1	Tx Rx Systems	101-68-10-0-03N	1	1 1/4	1
	500	1	--	Side Arm Mount [SO 310-1]			
495	495	**1**	**Andrew**	**ATW16G450-HSS-69**	**1**	**4 1/6**	**3**
		1	**--**	**Pipe Mount [PM 601-1]**			
		--	**--**	**--**	**1 (MLA)**	**6 1/8**	**4,3**
470	480	1	Telewave	ANT150F6	1	7/8	1
	470	1	--	Side Arm Mount [SO 309-1]			
445	452	1	Tx Rx Systems	101-68-10-0-03N	1	1 1/4	1
	445	1	--	Side Arm Mount [SO 310-1]			
442	452	2	Telewave	ANT150F6	1	1 1/4	1
	442	2	--	Side Arm Mount [SO 309-1]	1	7/8	
422	427	1	Swedcom	800/1850	1	1 1/4	1
		1	Tx Rx Systems	101D-90-06-0-03	1	1/2	
	422	1	--	Side Arm Mount [SO 310-1]			

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)	Note
395	402	1	Sinclair	SC233	1	1 1/4	1
	395	1	--	Side Arm Mount [SO 309-1]			
330	335	2	Decibel	DB636-C	2	1 1/4	1
	330	2	--	Side Arm Mount [SO 309-1]			
303	308	1	Decibel	DB636-C	1	7/8	1
	303	1	--	Side Arm Mount [SO 309-1]			
300	305	1	Decibel	DB636-C	1 1 1	1 1/4 1/2	1
	300	1	Radiowaves	SPD2-5.8			
		1	--	Side Arm Mount [SO 301-1]			
		1	--	Side Arm Mount [SO 309-1]			
289	294	1	Decibel	DB636-C	1	1 1/4	1
	289	1	--	Side Arm Mount [SO 309-1]			
254	259	1	Decibel	DB810M-XC	--	--	1
	254	1	--	Side Arm Mount [SO 309-1]			
250	260	4 (SLA)	Celwave	AP859012-42T0	--	--	2
		4 (SLA)	Decibel	844G65VTZASX			
	251	4	Celwave	AP859012-42T0	8	1 5/8	1
		4	Decibel	844G65VTZASX			
	250	2	--	Sector Mount [SM 305-1]			
240	242	**4**	**Ericsson**	**KRY 112 71 TMA**	**--**	**--**	**3**
		2	EMS Wireless	FR90-16-02DP	4	7/8	1
	240	2	--	Sector Mount [SM 201-1]			
219	219	1	Telewave	ANT150F6	1	7/8	1
		1	--	Side Arm Mount [SO 309-1]			
214	214	3	Kathrein/Scala	742 213 w/Mount Pipe	6	1 5/8	1
		1	--	Pipe Mount			
177	187	1	Telewave	ANT150F6	1	7/8	1
	177	1	--	Side Arm Mount [SO 309-1]			
145	145	1	--	Side Arm Mount [SO 202-1]	1	EW52	1
140	140	1	Radiowaves	SPD2-5.8	1	1/2	1
		1	--	Side Arm Mount [SO 301-1]			
135	135	1	Radiowaves	SPD2-5.8	1	1/2	1
		1	--	Pipe Mount [PM 601-1]			
116	120	1	RFS	201-8	1	3/8	1
	116	1	--	Pipe Mount [PM 601-1]			
91	94	1	□э □□□·製ÂN	ANT150F2	1	1/2	1
	91	1	--	Side Arm Mount [SO 309-1]			
79	80	1	Trimble	ACUTIME 2000 GPS	1	1/2	1
	79	1	--	Pipe Mount [PM 601-1]			

Notes:
1) Existing Equipment
2) SLA Equipment, Used with Installed Coax
3) **Equipment to be Removed**
4) MLA Equipment

Table 3 - Design Antenna and Cable Information

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)
560	560	1	Andrew	Ch. 18 Wave star	1	6-1/8 WR1800
		1	Harris	Ch. 18 Wave star	1	
550	550	6	--	2-Way Antennas	6	7/8
490	490	1	--	8' Microwave Parabolic Antenna	1	EW64
480	480	6	--	2-Way Antennas	6	7/8
320	320	1	--	8' Microwave Parabolic Antenna	1	EW64
315	315	1	--	4' Microwave Parabolic Antenna	1	EW64
300	300	1	--	2-Bay FM Antenna	1	3
200	200	1	--	PR450	1	7/8

3) ANALYSIS PROCEDURE

Table 4 - Documents Provided

Document	Remarks	Reference	Source
Online Application	T-Mobile Co-Locate Revision # 3	123362	Crown OTG
Tower Mapping Drawings	Pinnacle Tower Acquisition No. 0236-001	1579694	Crown OTG
Tower Modification Drawings	GPD Associates Project No. 2007287.82	2124272	Crown OTG
Foundation Mapping	Pinnacle Tower Acquisition No. 0263-001	1341932	Crown OTG
Geotech Report	United Consultants, Project No. 20004476-01	1579662	Crown OTG
Antenna Configuration	Crown CAD Package	Date: 5/27/11	Crown OTG

3.1) Analysis Method

RISA Tower (version 5.4.2.0), a commercially available analysis software package, was used to create a three-dimensional model of the tower and calculate member stresses for various loading cases. Selected output from the analysis is included in Appendix A.

3.2) Assumptions

1) Tower and structures were built in accordance with the manufacturer's specifications.
2) The tower and structures have been maintained in accordance with the manufacturer's specification.
3) The configuration of antennas, transmission cables, mounts and other appurtenances are as specified in Tables 1 and 2 and the referenced drawings.
4) When applicable, transmission cables are considered as structural components for calculating wind loads as allowed by TIA/EIA-222-F.
5) Manufacturer's drawings were not available, therefore, material grades were assumed.
6) Manufacturer's drawings were not available. Nominal thickness and sizes were assumed based on actual dimensions provided in the tower mapping.

This analysis may be affected if any assumptions are not valid or have been made in error. B&T Engineering, Inc. should be notified to determine the effect on the structural integrity of the tower.

4) ANALYSIS RESULTS

Table 5 - Section Capacity (Summary)

Section No.	Elevation (ft)	Component Type	Size	Critical Element	P (K)	SF*P_allow (K)	% Capacity	Pass / Fail
T1	560 - 535	Leg	4	2	-11.437	336.519	3.4	Pass
T2	535 - 510	Leg	4	44	-31.426	336.519	9.3	Pass
T3	510 - 485	Leg	4 1/2	86	-65.110	458.507	14.2	Pass
T4	485 - 460	Leg	4 1/2	128	-55.914	458.507	12.2	Pass
T5	460 - 435	Leg	4 1/4	169	-56.639	395.526	14.3	Pass
T6	435 - 410	Leg	4 1/4	211	-59.311	395.526	15.0	Pass
T7	410 - 385	Leg	4 1/4	254	-73.833	395.526	18.7	Pass
T8	385 - 360	Leg	4 1/4	296	-112.905	395.526	28.5	Pass
T9	360 - 335	Leg	4 3/4	338	-165.337	525.457	31.5	Pass
T10	335 - 310	Leg	5 1/4	380	-216.728	671.267	32.3	Pass
T11	310 - 285	Leg	4 3/4	422	-204.337	525.457	38.9	Pass
T12	285 - 260	Leg	4 3/4	464	-163.025	525.457	31.0	Pass
T13	260 - 235	Leg	4 3/4	506	-136.099	525.457	25.9	Pass
T14	235 - 210	Leg	4 3/4	548	-146.812	525.457	27.9	Pass
T15	210 - 185	Leg	5	590	-179.894	596.378	30.2	Pass
T16	185 - 160	Leg	5 1/4	631	-228.585	671.267	34.1	Pass
T17	160 - 135	Leg	5 1/2	673	-251.940	750.123	33.6	Pass
T18	135 - 110	Leg	5 1/4	716	-210.039	671.267	31.3	Pass
T19	110 - 85	Leg	5 1/4	758	-149.506	503.576	29.7	Pass
T20	85 - 60	Leg	5 1/4	800	-154.036	503.576	30.6	Pass
T21	60 - 35	Leg	5 1/4	842	-158.434	503.576	31.5	Pass
T22	35 - 10	Leg	5 1/4	884	-164.994	503.576	32.8	Pass
T23	10 - 0	Leg	5 1/4	926	-178.425	527.349	33.8	Pass
T1	560 - 535	Diagonal	1	39	3.930	16.965	23.2	Pass
T2	535 - 510	Diagonal	1	56	6.638	22.614	29.4	Pass
T3	510 - 485	Diagonal	1 1/4	107	10.143	35.334	28.7	Pass
T4	485 - 460	Diagonal	1	163	6.501	22.614	28.7	Pass
T5	460 - 435	Diagonal	5/8	206	3.277	8.834	37.1	Pass
T6	435 - 410	Diagonal	5/8	225	3.876	8.834	43.9	Pass
T7	410 - 385	Diagonal	5/8	267	6.290	8.834	71.2	Pass
T8	385 - 360	Diagonal	3/4	304	9.151	12.720	71.9	Pass
T9	360 - 335	Diagonal	1	346	12.300	22.614	54.4	Pass
T10	335 - 310	Diagonal	1 1/4	397	14.599	35.334	41.3	Pass
T11	310 - 285	Diagonal	1	458	11.352	22.614	50.2	Pass
T12	285 - 260	Diagonal	5/8	501	7.850	8.834	88.9	Pass
T13	260 - 235	Diagonal	5/8	543	4.373	8.834	49.5	Pass
T14	235 - 210	Diagonal	5/8	557	5.533	8.834	62.6	Pass

Section No.	Elevation (ft)	Component Type	Size	Critical Element	P (K)	SF*P_allow (K)	% Capacity	Pass / Fail
T15	210 - 185	Diagonal	7/8	599	9.623	17.314	55.6	Pass
T16	185 - 160	Diagonal	1	641	13.084	22.614	57.9	Pass
T17	160 - 135	Diagonal	1 1/4	709	14.376	35.334	40.7	Pass
T18	135 - 110	Diagonal	1	756	11.906	22.614	52.7	Pass
T19	110 - 85	Diagonal	7/8	798	8.907	17.314	51.4	Pass
T20	85 - 60	Diagonal	7/8	840	6.104	17.314	35.3	Pass
T21	60 - 35	Diagonal	7/8	882	3.679	17.314	21.2	Pass
T22	35 - 10	Diagonal	7/8	892	6.486	17.314	37.5	Pass
T1	560 - 535	Horizontal	L2 1/2x2 1/2x1/4	35	-5.787	12.897	44.9	Pass
T2	535 - 510	Horizontal	L2 1/2x2 1/2x1/4	77	-5.734	12.897	44.5	Pass
T3	510 - 485	Horizontal	L2 1/2x2 1/2x1/4	110	-7.639	12.951	59.0	Pass
T4	485 - 460	Horizontal	L2 1/2x2 1/2x1/4	143	-5.361	13.045	41.1	Pass
T5	460 - 435	Horizontal	L2x2x3/16	185	-2.346	6.135	38.2	Pass
T6	435 - 410	Horizontal	L2x2x3/16	245	-2.338	5.998	39.0	Pass
T7	410 - 385	Horizontal	L2x2x3/16	270	-4.727	7.996	59.1	Pass
T8	385 - 360	Horizontal	L2x2x1/4	310	-6.946	10.312	67.4	Pass
T9	360 - 335	Horizontal	L2 1/2x2 1/2x1/4	352	-9.329	17.209	54.2	Pass
T10	335 - 310	Horizontal	L2 1/2x2 1/2x1/4	403	-11.088	17.371	63.8	Pass
T11	310 - 285	Horizontal	L2 1/2x2 1/2x1/4	454	-8.637	17.550	49.2	Pass
T12	285 - 260	Horizontal	L2 1/2x2x3/16	497	-6.011	11.873	50.6	Pass
T13	260 - 235	Horizontal	L2 1/2x2x3/16	540	-2.177	8.907	24.4	Pass
T14	235 - 210	Horizontal	L2 1/2x2x3/16	562	-3.905	11.873	32.9	Pass
T15	210 - 185	Horizontal	L2 1/2x2x3/16	604	-7.058	11.897	59.3	Pass
T16	185 - 160	Horizontal	L2 1/2x2 1/2x1/4	646	-10.127	17.281	58.6	Pass
T17	160 - 135	Horizontal	L2 1/2x2 1/2x1/4	690	-10.626	17.407	61.0	Pass
T18	135 - 110	Horizontal	L2 1/2x2 1/2x1/4	750	-8.976	17.621	50.9	Pass
T19	110 - 85	Horizontal	L2x2x3/16	792	-6.552	8.303	78.9	Pass
T20	85 - 60	Horizontal	L2x2x3/16	834	-4.438	8.303	53.4	Pass
T21	60 - 35	Horizontal	L2x2x3/16	876	-3.009	6.229	48.3	Pass
T22	35 - 10	Horizontal	L2x2x3/16	900	-3.559	6.229	57.1	Pass
T23	10 - 0	Horizontal	L3x5x1/2	928	33.108	81.000	40.9	Pass
T1	560 - 535	Top Girt	L2 1/2x2 1/2x1/4	5	-3.094	12.897	24.0	Pass
T2	535 - 510	Top Girt	L2 1/2x2 1/2x1/4	47	-3.088	12.897	23.9	Pass
T3	510 - 485	Top Girt	L2 1/2x2 1/2x1/4	89	-3.650	12.951	28.2	Pass
T4	485 - 460	Top Girt	L2 1/2x2 1/2x1/4	131	-3.847	13.045	29.5	Pass
T5	460 - 435	Top Girt	L2x2x3/16	173	-1.531	6.135	25.0	Pass
T6	435 - 410	Top Girt	L2x2x3/16	215	-1.251	5.998	20.8	Pass
T7	410 - 385	Top Girt	L2x2x3/16	258	-1.738	7.996	21.7	Pass
T8	385 - 360	Top Girt	L2x2x3/16	300	-2.753	7.996	34.4	Pass
T9	360 - 335	Top Girt	L2 1/2x2 1/2x1/4	340	-4.956	17.083	29.0	Pass
T10	335 - 310	Top Girt	L2 1/2x2 1/2x1/4	382	-5.318	17.371	30.6	Pass
T11	310 - 285	Top Girt	L2 1/2x2 1/2x1/4	426	-3.769	13.166	28.6	Pass
T12	285 - 260	Top Girt	L2 1/2x2x3/16	467	-2.902	11.873	24.4	Pass
T13	260 - 235	Top Girt	L2 1/2x2x3/16	509	-2.053	11.873	17.3	Pass

Section No.	Elevation (ft)	Component Type	Size	Critical Element	P (K)	SF*P_allow (K)	% Capacity	Pass / Fail
T14	235 - 210	Top Girt	L2 1/2x2x3/16	552	-1.157	8.907	13.0	Pass
T15	210 - 185	Top Girt	L2 1/2x2x3/16	592	-2.640	11.897	22.2	Pass
T16	185 - 160	Top Girt	L2 1/2x2 1/2x1/4	634	-4.998	17.281	28.9	Pass
T17	160 - 135	Top Girt	L2 1/2x2 1/2x1/4	678	-3.946	13.059	30.2	Pass
T18	135 - 110	Top Girt	L2 1/2x2 1/2x1/4	720	-5.136	17.621	29.1	Pass
T19	110 - 85	Top Girt	L2x2x3/16	762	-2.924	8.303	35.2	Pass
T20	85 - 60	Top Girt	L2x2x3/16	804	-2.655	8.303	32.0	Pass
T21	60 - 35	Top Girt	L2x2x3/16	846	-1.704	6.229	27.3	Pass
T22	35 - 10	Top Girt	L2x2x3/16	888	-1.699	6.229	27.3	Pass
T1	560 - 535	Bottom Girt	L2 1/2x2 1/2x1/4	8	-3.088	12.897	23.9	Pass
T2	535 - 510	Bottom Girt	L2 1/2x2 1/2x1/4	50	-3.558	12.897	27.6	Pass
T3	510 - 485	Bottom Girt	L2 1/2x2 1/2x1/4	92	-3.855	12.951	29.8	Pass
T4	485 - 460	Bottom Girt	L2 1/2x2 1/2x1/4	134	-2.608	13.045	20.0	Pass
T5	460 - 435	Bottom Girt	L2x2x3/16	176	-1.251	6.135	20.4	Pass
T6	435 - 410	Bottom Girt	L2x2x3/16	219	-1.706	7.996	21.3	Pass
T7	410 - 385	Bottom Girt	L2x2x3/16	261	-2.725	7.996	34.1	Pass
T8	385 - 360	Bottom Girt	L2x2x3/16	301	-2.988	7.996	37.4	Pass
T9	360 - 335	Bottom Girt	L2 1/2x2 1/2x1/4	343	-5.259	17.083	30.8	Pass
T10	335 - 310	Bottom Girt	L2 1/2x2 1/2x1/4	387	-3.707	13.032	28.4	Pass
T11	310 - 285	Bottom Girt	L2 1/2x2 1/2x1/4	428	-4.235	17.550	24.1	Pass
T12	285 - 260	Bottom Girt	L2 1/2x2x3/16	470	-2.093	11.873	17.6	Pass
T13	260 - 235	Bottom Girt	L2 1/2x2x3/16	513	-1.157	8.907	13.0	Pass
T14	235 - 210	Bottom Girt	L2 1/2x2x3/16	553	-2.589	11.873	21.8	Pass
T15	210 - 185	Bottom Girt	L2 1/2x2x3/16	595	-3.420	11.897	28.7	Pass
T16	185 - 160	Bottom Girt	L2 1/2x2 1/2x1/4	637	-5.501	17.281	31.8	Pass
T17	160 - 135	Bottom Girt	L2 1/2x2 1/2x1/4	681	-5.169	17.407	29.7	Pass
T18	135 - 110	Bottom Girt	L2 1/2x2 1/2x1/4	723	-4.793	17.621	27.2	Pass
T19	110 - 85	Bottom Girt	L2x2x3/16	765	-2.680	8.303	32.3	Pass
T20	85 - 60	Bottom Girt	L2x2x3/16	807	-1.704	6.229	27.4	Pass
T21	60 - 35	Bottom Girt	L2x2x3/16	849	-1.696	6.229	27.2	Pass
T22	35 - 10	Bottom Girt	L2x2x3/16	889	6.505	11.983	54.3	Pass
T3	510 - 485	Guy A@491.292	1 1/4	951	59.046	96.000	61.5	Pass
T10	335 - 310	Guy A@316.292	1 1/2	945	69.577	138.000	50.4	Pass
T17	160 - 135	Guy A@153.708	1 3/4	939	65.410	188.000	34.8	Pass
T3	510 - 485	Guy B@491.292	1 1/4	950	59.304	96.000	61.8	Pass
T10	335 - 310	Guy B@316.292	1 1/2	944	69.543	138.000	50.4	Pass
T17	160 - 135	Guy B@153.708	1 3/4	938	65.191	188.000	34.7	Pass
T3	510 - 485	Guy C@491.292	1 1/4	946	58.977	96.000	61.4	Pass
T10	335 - 310	Guy C@316.292	1 1/2	940	69.818	138.000	50.6	Pass
T17	160 - 135	Guy C@153.708	1 3/4	934	65.550	188.000	34.9	Pass
T3	510 - 485	Top Guy Pull-Off@491.292	L2 1/2x2 1/2x1/4	947	-1.625	5.117	47.6	Pass
T10	335 - 310	Top Guy Pull-Off@316.292	L2 1/2x2 1/2x1/4	942	-1.230	6.934	21.8	Pass
T17	160 - 135	Top Guy Pull-	L2 1/2x2 1/2x1/4	936	4.892	25.704	33.0	Pass

Section No.	Elevation (ft)	Component Type	Size	Critical Element	P (K)	SF*P_allow (K)	% Capacity	Pass / Fail
		Off@153.708						
							Summary	
						Leg (T11)	38.9	Pass
						Diagonal (T12)	88.9	Pass
						Horizontal (T19)	78.9	Pass
						Top Girt (T19)	35.2	Pass
						Bottom Girt (T22)	54.3	Pass
						Guy A (T3)	61.5	Pass
						Guy B (T3)	61.8	Pass
						Guy C (T3)	61.4	Pass
						Top Guy Pull-Off (T3)	47.6	Pass
						Bolt Checks	87.5	Pass
						RATING =	**88.9**	**Pass**

Table 6 - Tower Component Stresses vs. Capacity - LC1

Notes	Component	Elevation (ft)	% Capacity	Pass / Fail
1	Base Foundation	Base	27.6	Pass
1	Guy Anchor Foundation	Base	93.5	Pass

Structure Rating (max from all components) =	93.5%

Notes:
1) See additional documentation in "Appendix C - Additional Calculations" for calculations supporting the % capacity listed.

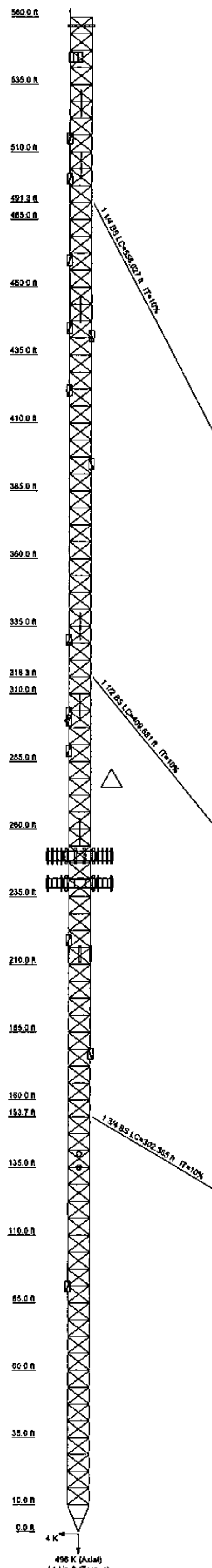
4.1) Recommendations

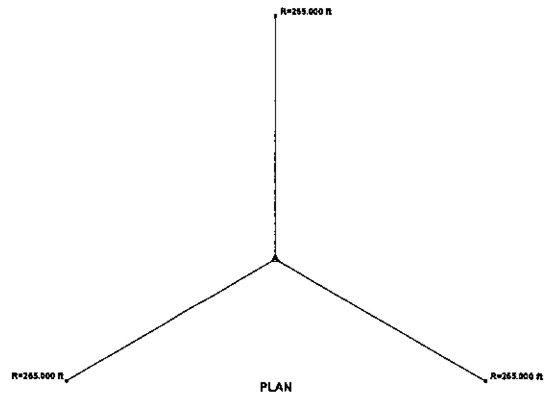
N/A

APPENDIX A

RISA TOWER OUTPUT

Section	T23	T22	T21	T20	T19	T18	T17	T16	T15	T14	T13	T12	T11	T10	T9	T8	T7	T6	T5	T4	T3	T2	T1
Legs	SR 5 1/4						SR 5 1/2	SR 5 1/4	SR 5	SR 4 3/4				SR 5 1/4	SR 4 3/4	SR 4 1/4				SR 4 1/2		SR 4	
Leg Grade	A572-50																						
Diagonals	N.A.	SR 7/8				SR 1	SR 1 1/4	SR 1	SR 7/8	SR 5/8			SR 1	SR 1 1/4	SR 1	SR 3/4	SR 5/8			SR 1	SR 1 1/4	SR 1	
Diagonal Grade	N.A.	A36																					
Top Girts	N.A.	L2x2x3/16				L2 1/2x2 1/2x1/4			L2 1/2x2x3/16				L2 1/2x2 1/2x1/4			L2x2x3/16				L2 1/2x2 1/2x1/4			
Bottom Girts	N.A.	L2x2x3/16				L2 1/2x2 1/2x1/4			L2 1/2x2x3/16				L2 1/2x2 1/2x1/4			L2x2x3/16				L2 1/2x2 1/2x1/4			
Horizontals	A	L2x2x3/16				L2 1/2x2 1/2x1/4			L2 1/2x2x3/16				L2 1/2x2 1/2x1/4			L2x2x1/4	L2x2x3/16			L2 1/2x2 1/2x1/4			
Top Guy Pull-Offs	N.A.						L2 1/2x2 1/2x1/4	N.A.						L2 1/2x2 1/2x1/4	N.A.						L2 1/2x2 1/2x1/4	N.A.	
Face Width (ft)	8																						
# Panels @ (ft)	8	88 @ 6.20833																					
Weight (K) 131.3	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]





DESIGNED APPURTENANCE LOADING

TYPE	ELEVATION	TYPE	ELEVATION
Lightning Rod (E)	561	Side Arm Mount [SO 309-1] (E)	288
Platform (E)	557	(4) AP858012-42T0 (SLA)	260
Platform w/ Handrail (E)	545	(4) 844G65VTZASX (SLA)	260
ANT150F6 (E)	528	DB810M-XC (E)	259
Side Arm Mount [SO 306-1] (E)	518	Side Arm Mount [SO 309-1] (E)	254
PG1NOF-0093-8 (E)	516	Sector Mount [SM 305-1] (E)	250
Side Arm Mount [SO 312-1] (E)	515	Sector Mount [SM 305-1] (E)	250
101-68-10-0-03N (E)	508	FR90-16-02DP (E)	242
Side Arm Mount [SO 309-1] (E)	505	APX16DWV-16DWV-S-E-A20 (P)	242
ANT150F2 (E)	505	APX16DWV-16DWV-S-E-A20 (P)	242
Side Arm Mount [SO 310-1] (E)	500	ATMAA1412D-1A20 (P)	242
ANT150F6 (E)	480	ATMAA1412D-1A20 (P)	242
Side Arm Mount [SO 309-1] (E)	470	ATMPP1412D-1CWA (P)	242
101-68-10-0-03N (E)	452	ATMPP1412D-1CWA (P)	242
ANT150F6 (E)	452	FR90-16-02DP (E)	242
ANT150F6 (E)	452	Sector Mount [SM 201-1] (E)	240
Side Arm Mount [SO 310-1] (E)	445	Sector Mount [SM 201-1] (E)	240
Side Arm Mount [SO 309-1] (E)	442	Side Arm Mount [SO 309-1] (E)	219
Side Arm Mount [SO 309-1] (E)	442	ANT150F6 (E)	219
101D-90-06-0-03 (E)	427	742 213 w/Mount Pipe (E)	214
600/1850 (E)	427	742 213 w/Mount Pipe (E)	214
Side Arm Mount [SO 310-1] (E)	422	742 213 w/Mount Pipe (E)	214
SC233 (E)	402	ANT150F6 (E)	187
Side Arm Mount [SO 309-1] (E)	395	Side Arm Mount [SO 309-1] (E)	177
DB636-C (E)	335	Side Arm Mount [SO 202-1] (Abandoned)	145
DB636-C (E)	335	Side Arm Mount [SO 301-1] (E)	140
Side Arm Mount [SO 309-1] (E)	330	SPD2-5.8 (E)	140
Side Arm Mount [SO 309-1] (E)	330	Pipe Mount [PM 601-1] (E)	135
DB636-C (E)	308	SPD2-5.8 (E)	135
DB636-C (E)	305	201-8 (E)	120
Side Arm Mount [SO 309-1] (E)	303	Pipe Mount [PM 601-1] (E)	118
Side Arm Mount [SO 301-1] (E)	300	ANT150F2 (E)	94
Side Arm Mount [SO 309-1] (E)	300	Side Arm Mount [SO 309-1] (E)	91
SPD2-5.8 (E)	300	ACUTIME 2000 GPS (E)	80
DB636-C (E)	294	Pipe Mount [PM 601-1] (E)	79

SYMBOL LIST

MARK	SIZE	MARK	SIZE
A	L3x5x1/2	B	2 @ 4.95833

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 38 mph basic wind with 1.00 in ice. Ice is considered to increase in thickness with height.
4. Deflections are based upon a 50 mph wind.
5. TOWER RATING: 88.9%

1 1/4 BS LC=558.027 ft IT=10%

1 1/2 BS LC=409.881 ft IT=10%

1 3/4 BS LC=302.365 ft IT=10%

134 K

129 K

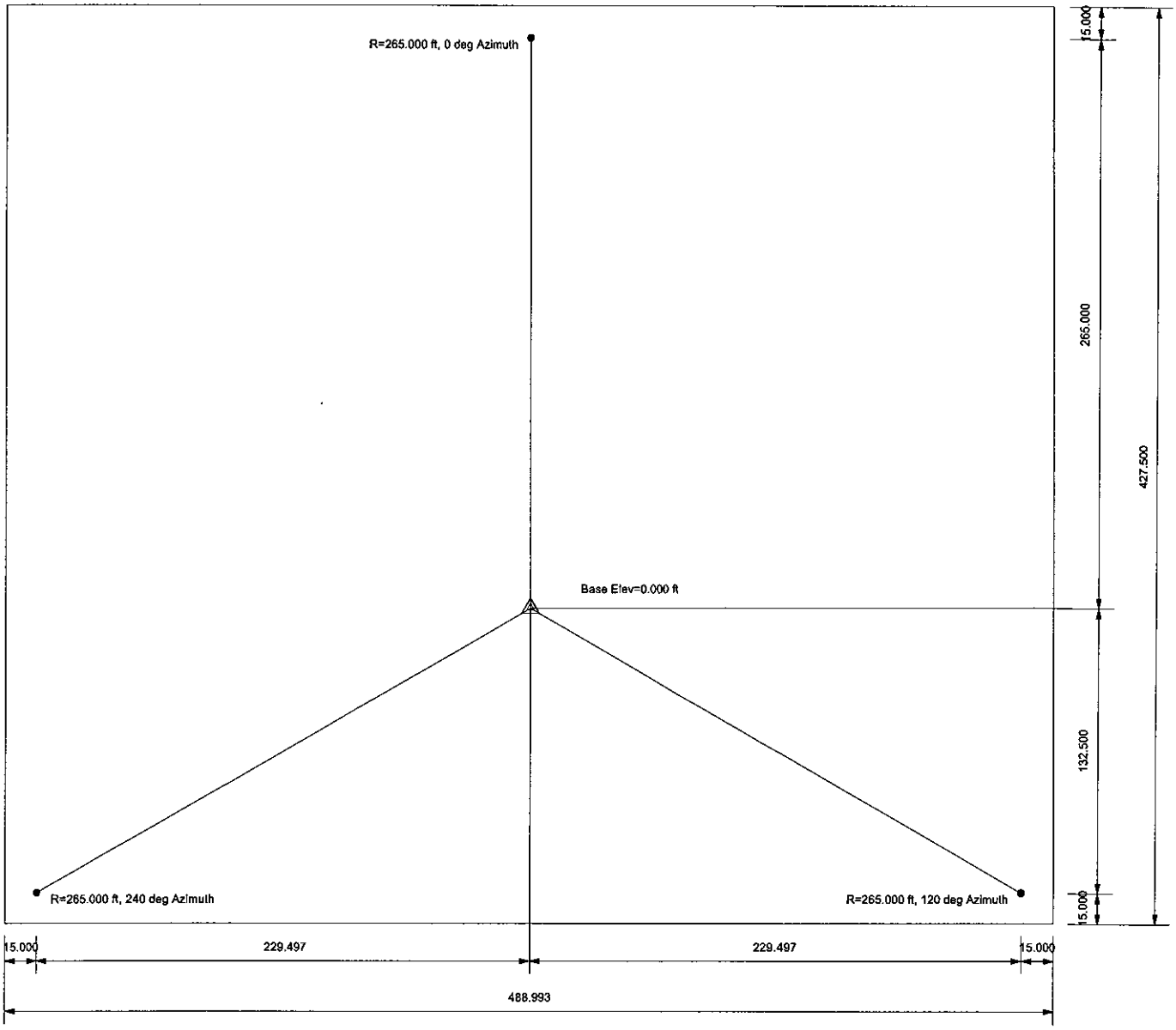
186 K

R=265.000 ft

B&T Engineering, Inc.
1717 S. Boulder, Suite 300
Tulsa, OK 74119
Phone: (918) 587-4630
FAX: (918) 295-0265

Job:	83041 - Avon (Deercliff Rd.), CT (BU# 87080…
Project:	560' Stainless GT/ App ID: 123362, Rev:3
Client: Crown Castle USA, Inc.	Drawn by: K. Mears · App'd:
Code: TIA/EIA-222-F	Date: 06/08/11 · Scale: NTS
Path:	Dwg No. E-1

Plot Plan
Total Area - 4.80 Acres



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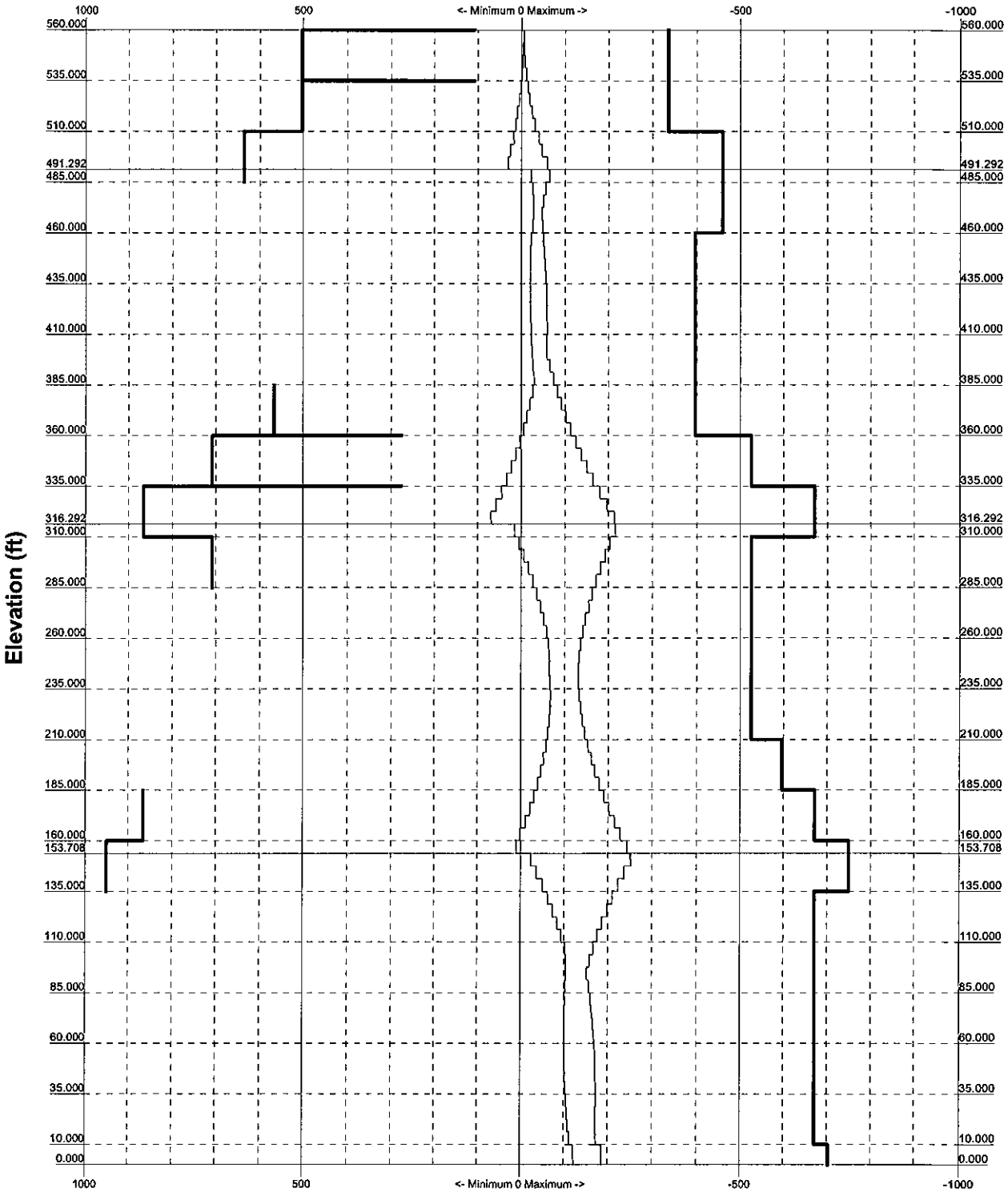
Job: *83041 - Avon (Deercliff Rd.), CT (BU# 870800*			
Project: *560' Stainless GT/ App ID: 123362, Rev:3*			
Client: Crown Castle USA, Inc.	Drawn by: K. Mears	App'd:	
Code: TIA/EIA-222-F	Date: 06/08/11	Scale: NTS	
Path:		Dwg No. E-2	

TIA/EIA-222-F - 80 mph/38 mph 1.000 in Ice

Leg Capacity ——— **Leg Compression (K)**



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Phone: (918) 587-4630
FAX: (918) 295-0265

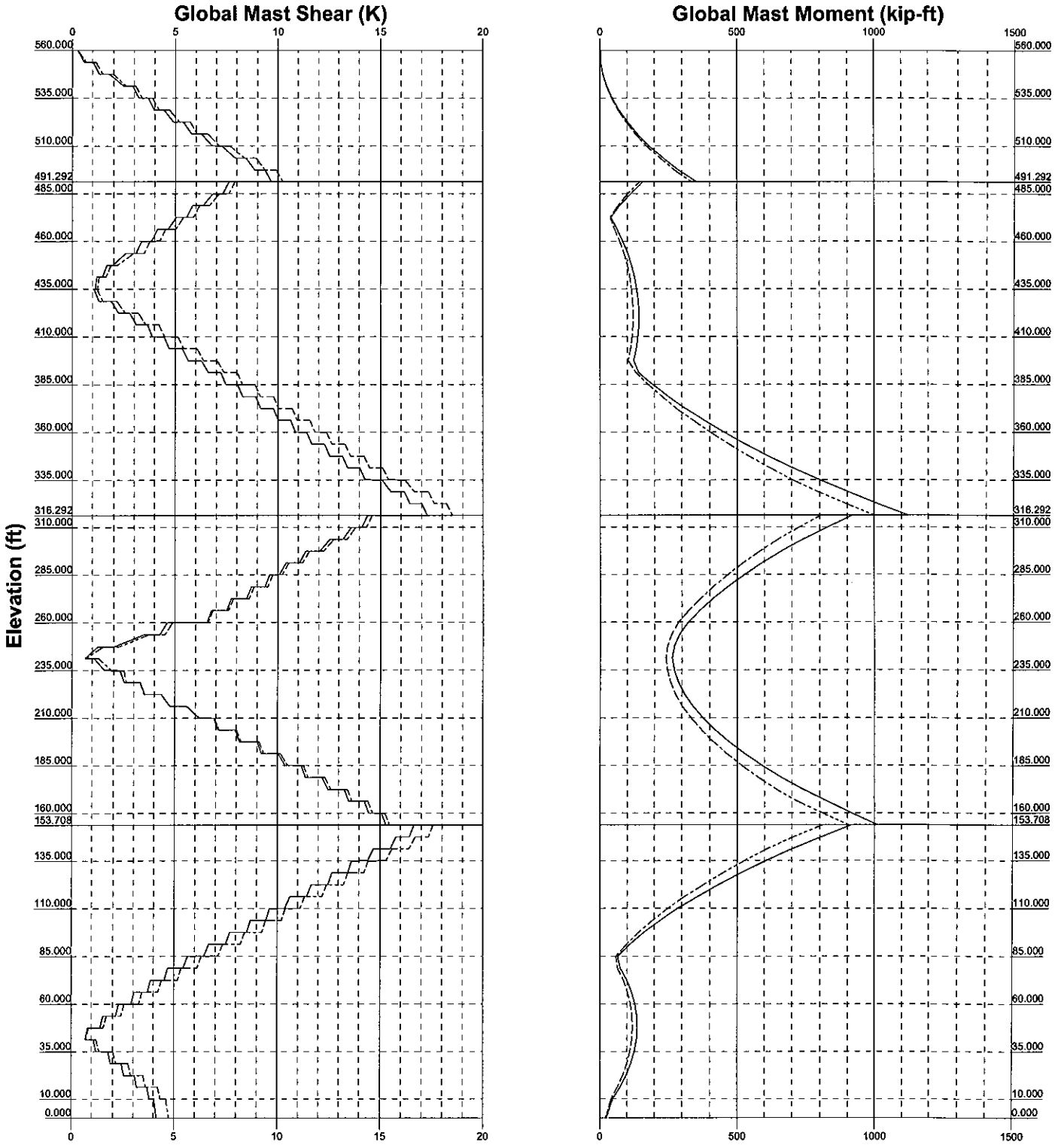
Job: *83041 - Avon (Deercliff Rd.), CT (BU# 870800*			
Project: *560' Stainless GT/ App ID: 123362, Rev:3*			
Client: Crown Castle USA, Inc.	Drawn by: K. Mears	App'd:	
Code: TIA/EIA-222-F	Date: 06/08/11	Scale: NTS	
Path:		Dwg No. E-3	

TIA/EIA-222-F - 80 mph/38 mph 1.000 in Ice

Vx Vz

Maximum Values

Mx Mz



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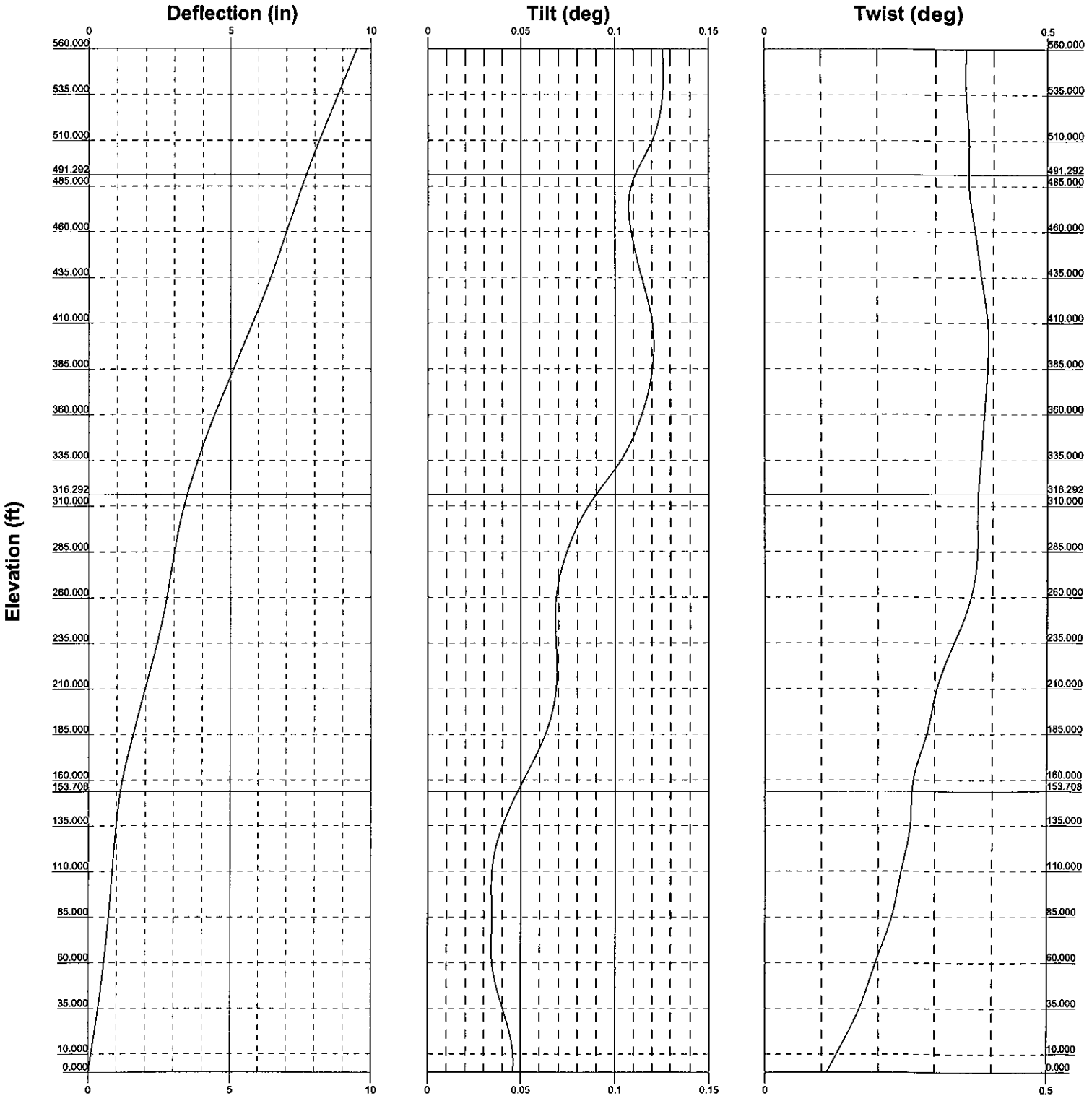
Phone: (918) 587-4630
FAX: (918) 295-0265

Job: *83041 - Avon (Deercliff Rd.), CT (BU# 870800*			
Project: *560' Stainless GT/ App ID: 123362, Rev:3*			
Client: Crown Castle USA, Inc.	Drawn by: K. Mears	App'd:	
Code: TIA/EIA-222-F	Date: 06/08/11	Scale: NTS	
Path:		Dwg No. E-4	

TIA/EIA-222-F - Service - 50 mph

Maximum Values



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1717 S. Boulder, Suite 300
Tulsa, OK 74119
Phone: (918) 587-4630
FAX: (918) 295-0265

Job: 83041 - Avon (Deercliff Rd.), CT (BU# 870800			
Project: 560' Stainless GT/ App ID: 123362, Rev:3			
Client: Crown Castle USA, Inc.	Drawn by: K. Mears	App'd:	
Code: TIA/EIA-222-F	Date: 06/08/11	Scale: NTS	
Path:		Dwg No. E-5	

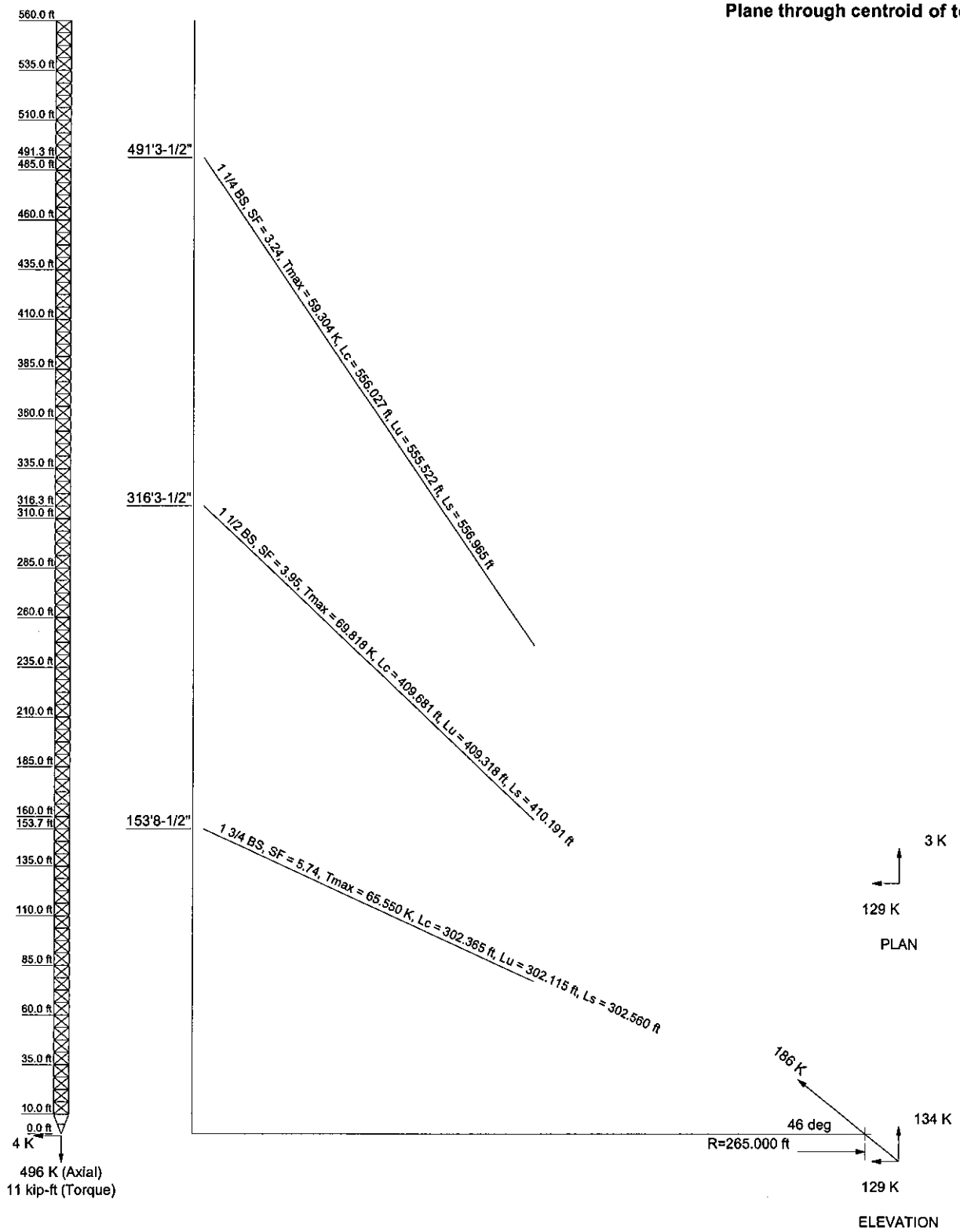
Guy Tensions and Tower Reactions

TIA/EIA-222-F - 80 mph/38 mph 1.000 in Ice

Maximum Values

Anchor 'C'@265 ft Azimuth 240 deg Elev 0 ft

Plane through centroid of tower

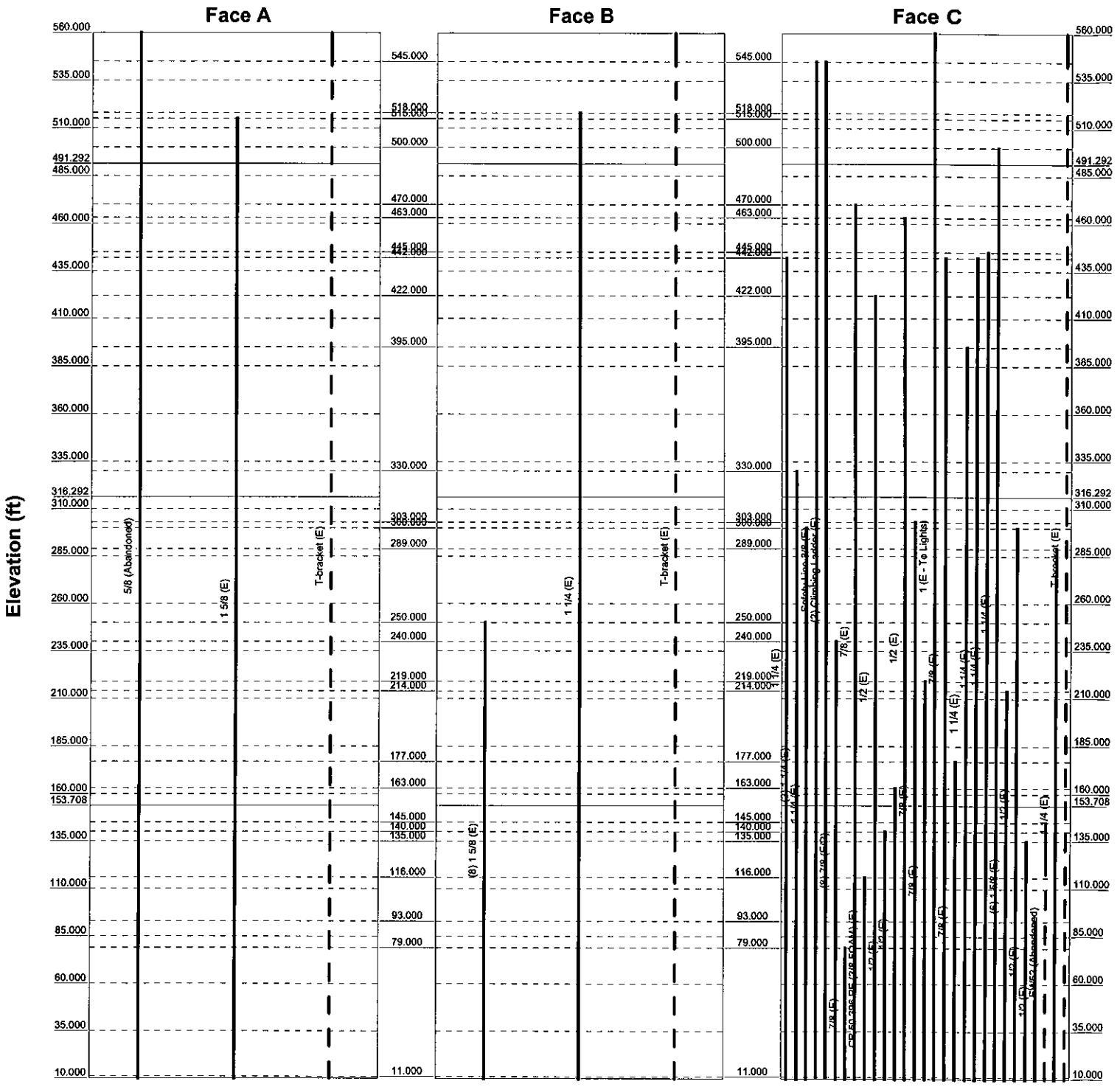


B&T Engineering, Inc.
1717 S. Boulder, Suite 300
Tulsa, OK 74119
Phone: (918) 587-4630
FAX: (918) 295-0265

Job: 83041 - Avon (Deercliff Rd.), CT (BU# 870800			
Project: 560' Stainless GT/ App ID: 123362, Rev:3			
Client: Crown Castle USA, Inc.	Drawn by: K. Mears	App'd:	
Code: TIA/EIA-222-F	Date: 06/08/11	Scale: NTS	
Path:		Dwg No. E-6	

Feedline Distribution Chart
10' - 560'

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



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Job: 83041 - Avon (Deercliff Rd.), CT (BU# 870800			
Project: 560' Stainless GT/ App ID: 123362, Rev:3			
Client: Crown Castle USA, Inc.	Drawn by: K. Mears	App'd:	
Code: TIA/EIA-222-F	Date: 06/08/11	Scale: NTS	
Path:		Dwg No. E-7	

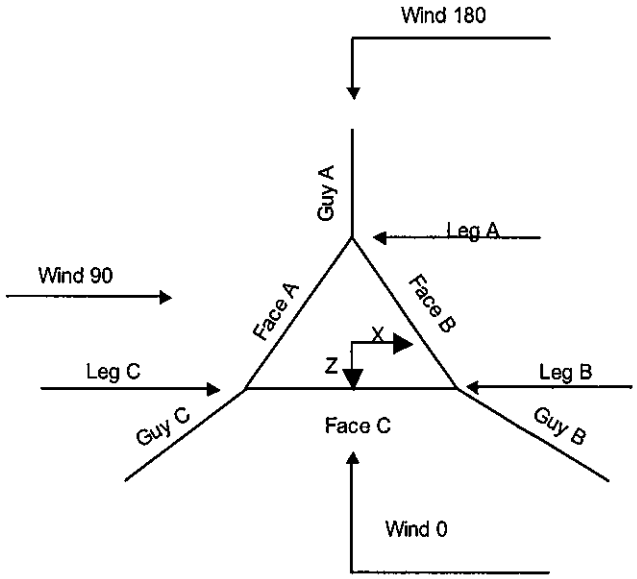
Tower Input Data

The main tower is a 3x guyed tower with an overall height of 560.000 ft above the ground line.
The base of the tower is set at an elevation of 0.000 ft above the ground line.
The face width of the tower is 8.000 ft at the top and tapered at the base.
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 1.000 in.
Ice thickness is considered to increase with height.
Ice density of 56.000 pcf.
A wind speed of 38 mph is used in combination with ice.
Deflections calculated using a wind speed of 50 mph.
Tension only take-up is 0.031 in.
Pressures are calculated at each section.
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

Tower Section Geometry

Tower Section	*Tower Elevation*	*Assembly Database*	*Description*	*Section Width*	*Number of Sections*	*Section Length*
	ft			*ft*		*ft*
T1	560.000-535.000			8.000	1	25.000
T2	535.000-510.000			8.000	1	25.000
T3	510.000-485.000			8.000	1	25.000
T4	485.000-460.000			8.000	1	25.000
T5	460.000-435.000			8.000	1	25.000
T6	435.000-410.000			8.000	1	25.000
T7	410.000-385.000			8.000	1	25.000
T8	385.000-360.000			8.000	1	25.000
T9	360.000-335.000			8.000	1	25.000
T10	335.000-310.000			8.000	1	25.000
T11	310.000-285.000			8.000	1	25.000
T12	285.000-260.000			8.000	1	25.000
T13	260.000-235.000			8.000	1	25.000
T14	235.000-210.000			8.000	1	25.000
T15	210.000-185.000			8.000	1	25.000
T16	185.000-160.000			8.000	1	25.000
T17	160.000-135.000			8.000	1	25.000
T18	135.000-110.000			8.000	1	25.000
T19	110.000-85.000			8.000	1	25.000
T20	85.000-60.000			8.000	1	25.000
T21	60.000-35.000			8.000	1	25.000
T22	35.000-10.000			8.000	1	25.000
T23	10.000-0.000			8.000	1	10.000

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	560.000-535.000	6.208	TX Brace	No	Yes	1.000	1.000
T2	535.000-510.000	6.208	TX Brace	No	Yes	1.000	1.000
T3	510.000-485.000	6.208	TX Brace	No	Yes	1.000	1.000
T4	485.000-460.000	6.208	TX Brace	No	Yes	1.000	1.000
T5	460.000-435.000	6.208	TX Brace	No	Yes	1.000	1.000
T6	435.000-410.000	6.208	TX Brace	No	Yes	1.000	1.000
T7	410.000-385.000	6.208	TX Brace	No	Yes	1.000	1.000
T8	385.000-360.000	6.208	TX Brace	No	Yes	1.000	1.000
T9	360.000-335.000	6.208	TX Brace	No	Yes	1.000	1.000
T10	335.000-310.000	6.208	TX Brace	No	Yes	1.000	1.000
T11	310.000-285.000	6.208	TX Brace	No	Yes	1.000	1.000
T12	285.000-260.000	6.208	TX Brace	No	Yes	1.000	1.000
T13	260.000-235.000	6.208	TX Brace	No	Yes	1.000	1.000
T14	235.000-210.000	6.208	TX Brace	No	Yes	1.000	1.000
T15	210.000-185.000	6.208	TX Brace	No	Yes	1.000	1.000
T16	185.000-160.000	6.208	TX Brace	No	Yes	1.000	1.000
T17	160.000-135.000	6.208	TX Brace	No	Yes	1.000	1.000
T18	135.000-110.000	6.208	TX Brace	No	Yes	1.000	1.000
T19	110.000-85.000	6.208	TX Brace	No	Yes	1.000	1.000
T20	85.000-60.000	6.208	TX Brace	No	Yes	1.000	1.000
T21	60.000-35.000	6.208	TX Brace	No	Yes	1.000	1.000
T22	35.000-10.000	6.208	TX Brace	No	Yes	1.000	1.000
T23	10.000-0.000	4.958	X Brace	No	Yes	1.000	0.000

Tower Section Geometry *(cont'd)*

Tower Elevation ft	Leg Type	Leg Size	Leg Grade	Diagonal Type	Diagonal Size	Diagonal Grade
T1 560.000-535.000	Solid Round	4	A572-50 (50 ksi)	Solid Round	1	A36 (36 ksi)
T2 535.000-510.000	Solid Round	4	A572-50 (50 ksi)	Solid Round	1	A36 (36 ksi)
T3 510.000-485.000	Solid Round	4 1/2	A572-50 (50 ksi)	Solid Round	1 1/4	A36 (36 ksi)
T4 485.000-460.000	Solid Round	4 1/2	A572-50 (50 ksi)	Solid Round	1	A36 (36 ksi)
T5 460.000-435.000	Solid Round	4 1/4	A572-50 (50 ksi)	Solid Round	5/8	A36 (36 ksi)
T6 435.000-410.000	Solid Round	4 1/4	A572-50 (50 ksi)	Solid Round	5/8	A36 (36 ksi)
T7 410.000-385.000	Solid Round	4 1/4	A572-50 (50 ksi)	Solid Round	5/8	A36 (36 ksi)
T8 385.000-360.000	Solid Round	4 1/4	A572-50 (50 ksi)	Solid Round	3/4	A36 (36 ksi)
T9 360.000-335.000	Solid Round	4 3/4	A572-50 (50 ksi)	Solid Round	1	A36 (36 ksi)
T10 335.000-310.000	Solid Round	5 1/4	A572-50 (50 ksi)	Solid Round	1 1/4	A36 (36 ksi)
T11 310.000-285.000	Solid Round	4 3/4	A572-50 (50 ksi)	Solid Round	1	A36 (36 ksi)
T12 285.000-260.000	Solid Round	4 3/4	A572-50 (50 ksi)	Solid Round	5/8	A36 (36 ksi)

Tower Elevation ft	Leg Type	Leg Size	Leg Grade	Diagonal Type	Diagonal Size	Diagonal Grade
T13 260.000-235.000	Solid Round	4 3/4	A572-50 (50 ksi)	Solid Round	5/8	A36 (36 ksi)
T14 235.000-210.000	Solid Round	4 3/4	A572-50 (50 ksi)	Solid Round	5/8	A36 (36 ksi)
T15 210.000-185.000	Solid Round	5	A572-50 (50 ksi)	Solid Round	7/8	A36 (36 ksi)
T16 185.000-160.000	Solid Round	5 1/4	A572-50 (50 ksi)	Solid Round	1	A36 (36 ksi)
T17 160.000-135.000	Solid Round	5 1/2	A572-50 (50 ksi)	Solid Round	1 1/4	A36 (36 ksi)
T18 135.000-110.000	Solid Round	5 1/4	A572-50 (50 ksi)	Solid Round	1	A36 (36 ksi)
T19 110.000-85.000	Solid Round	5 1/4	A572-50 (50 ksi)	Solid Round	7/8	A36 (36 ksi)
T20 85.000-60.000	Solid Round	5 1/4	A572-50 (50 ksi)	Solid Round	7/8	A36 (36 ksi)
T21 60.000-35.000	Solid Round	5 1/4	A572-50 (50 ksi)	Solid Round	7/8	A36 (36 ksi)
T22 35.000-10.000	Solid Round	5 1/4	A572-50 (50 ksi)	Solid Round	7/8	A36 (36 ksi)
T23 10.000-0.000	Solid Round	5 1/4	A572-50 (50 ksi)	Solid Round		A36 (36 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 560.000-535.000	Single Angle	L2 1/2x2 1/2x1/4	A36 (36 ksi)	Single Angle	L2 1/2x2 1/2x1/4	A36 (36 ksi)
T2 535.000-510.000	Single Angle	L2 1/2x2 1/2x1/4	A36 (36 ksi)	Single Angle	L2 1/2x2 1/2x1/4	A36 (36 ksi)
T3 510.000-485.000	Single Angle	L2 1/2x2 1/2x1/4	A36 (36 ksi)	Single Angle	L2 1/2x2 1/2x1/4	A36 (36 ksi)
T4 485.000-460.000	Single Angle	L2 1/2x2 1/2x1/4	A36 (36 ksi)	Single Angle	L2 1/2x2 1/2x1/4	A36 (36 ksi)
T5 460.000-435.000	Single Angle	L2x2x3/16	A36 (36 ksi)	Single Angle	L2x2x3/16	A36 (36 ksi)
T6 435.000-410.000	Single Angle	L2x2x3/16	A36 (36 ksi)	Single Angle	L2x2x3/16	A36 (36 ksi)
T7 410.000-385.000	Single Angle	L2x2x3/16	A36 (36 ksi)	Single Angle	L2x2x3/16	A36 (36 ksi)
T8 385.000-360.000	Single Angle	L2x2x3/16	A36 (36 ksi)	Single Angle	L2x2x3/16	A36 (36 ksi)
T9 360.000-335.000	Single Angle	L2 1/2x2 1/2x1/4	A36 (36 ksi)	Single Angle	L2 1/2x2 1/2x1/4	A36 (36 ksi)
T10 335.000-310.000	Single Angle	L2 1/2x2 1/2x1/4	A36 (36 ksi)	Single Angle	L2 1/2x2 1/2x1/4	A36 (36 ksi)
T11 310.000-285.000	Single Angle	L2 1/2x2 1/2x1/4	A36 (36 ksi)	Single Angle	L2 1/2x2 1/2x1/4	A36 (36 ksi)
T12 285.000-260.000	Single Angle	L2 1/2x2x3/16	A36 (36 ksi)	Single Angle	L2 1/2x2x3/16	A36 (36 ksi)
T13 260.000-235.000	Single Angle	L2 1/2x2x3/16	A36 (36 ksi)	Single Angle	L2 1/2x2x3/16	A36 (36 ksi)
T14 235.000-210.000	Single Angle	L2 1/2x2x3/16	A36 (36 ksi)	Single Angle	L2 1/2x2x3/16	A36 (36 ksi)
T15 210.000-185.000	Single Angle	L2 1/2x2x3/16	A36 (36 ksi)	Single Angle	L2 1/2x2x3/16	A36 (36 ksi)
T16	Single Angle	L2 1/2x2 1/2x1/4	A36	Single Angle	L2 1/2x2 1/2x1/4	A36

Tower Elevation ft	Top Girt Type	Top Girt Size	Top Girt Grade	Bottom Girt Type	Bottom Girt Size	Bottom Girt Grade
185.000-160.000			(36 ksi)			(36 ksi)
T17	Single Angle	L2 1/2x2 1/2x1/4	A36	Single Angle	L2 1/2x2 1/2x1/4	A36
160.000-135.000			(36 ksi)			(36 ksi)
T18	Single Angle	L2 1/2x2 1/2x1/4	A36	Single Angle	L2 1/2x2 1/2x1/4	A36
135.000-110.000			(36 ksi)			(36 ksi)
T19	Single Angle	L2x2x3/16	A36	Single Angle	L2x2x3/16	A36
110.000-85.000			(36 ksi)			(36 ksi)
T20	Single Angle	L2x2x3/16	A36	Single Angle	L2x2x3/16	A36
85.000-60.000			(36 ksi)			(36 ksi)
T21	Single Angle	L2x2x3/16	A36	Single Angle	L2x2x3/16	A36
60.000-35.000			(36 ksi)			(36 ksi)
T22	Single Angle	L2x2x3/16	A36	Single Angle	L2x2x3/16	A36
35.000-10.000			(36 ksi)			(36 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
T1	None	Flat Bar		A36	Single Angle	L2 1/2x2 1/2x1/4	A36
560.000-535.000				(36 ksi)			(36 ksi)
T2	None	Flat Bar		A36	Single Angle	L2 1/2x2 1/2x1/4	A36
535.000-510.000				(36 ksi)			(36 ksi)
T3	None	Flat Bar		A36	Single Angle	L2 1/2x2 1/2x1/4	A36
510.000-485.000				(36 ksi)			(36 ksi)
T4	None	Flat Bar		A36	Single Angle	L2 1/2x2 1/2x1/4	A36
485.000-460.000				(36 ksi)			(36 ksi)
T5	None	Flat Bar		A36	Single Angle	L2x2x3/16	A36
460.000-435.000				(36 ksi)			(36 ksi)
T6	None	Flat Bar		A36	Single Angle	L2x2x3/16	A36
435.000-410.000				(36 ksi)			(36 ksi)
T7	None	Flat Bar		A36	Single Angle	L2x2x3/16	A36
410.000-385.000				(36 ksi)			(36 ksi)
T8	None	Flat Bar		A36	Single Angle	L2x2x1/4	A36
385.000-360.000				(36 ksi)			(36 ksi)
T9	None	Flat Bar		A36	Single Angle	L2 1/2x2 1/2x1/4	A36
360.000-335.000				(36 ksi)			(36 ksi)
T10	None	Flat Bar		A36	Single Angle	L2 1/2x2 1/2x1/4	A36
335.000-310.000				(36 ksi)			(36 ksi)
T11	None	Flat Bar		A36	Single Angle	L2 1/2x2 1/2x1/4	A36
310.000-285.000				(36 ksi)			(36 ksi)
T12	None	Flat Bar		A36	Single Angle	L2 1/2x2x3/16	A36
285.000-260.000				(36 ksi)			(36 ksi)
T13	None	Flat Bar		A36	Single Angle	L2 1/2x2x3/16	A36
260.000-235.000				(36 ksi)			(36 ksi)
T14	None	Flat Bar		A36	Single Angle	L2 1/2x2x3/16	A36
235.000-210.000				(36 ksi)			(36 ksi)
T15	None	Flat Bar		A36	Single Angle	L2 1/2x2x3/16	A36
210.000-185.000				(36 ksi)			(36 ksi)
T16	None	Flat Bar		A36	Single Angle	L2 1/2x2 1/2x1/4	A36
185.000-160.000				(36 ksi)			(36 ksi)
T17	None	Flat Bar		A36	Single Angle	L2 1/2x2 1/2x1/4	A36
160.000-135.000				(36 ksi)			(36 ksi)
T18	None	Flat Bar		A36	Single Angle	L2 1/2x2 1/2x1/4	A36
135.000-110.000				(36 ksi)			(36 ksi)
T19	None	Flat Bar		A36	Single Angle	L2x2x3/16	A36
110.000-85.000				(36 ksi)			(36 ksi)
T20	None	Flat Bar		A36	Single Angle	L2x2x3/16	A36

Tower Elevation ft	No. of Mid Girts	Mid Girt Type	Mid Girt Size	Mid Girt Grade	Horizontal Type	Horizontal Size	Horizontal Grade
85.000-60.000				(36 ksi)			(36 ksi)
T21	None	Flat Bar		A36	Single Angle	L2x2x3/16	A36
60.000-35.000				(36 ksi)			(36 ksi)
T22	None	Flat Bar		A36	Single Angle	L2x2x3/16	A36
35.000-10.000				(36 ksi)			(36 ksi)
T23 10.000-0.000	None	Flat Bar		A36	Single Angle	L3x5x1/2	A36
				(36 ksi)			(36 ksi)

Tower Section Geometry *(cont'd)*

Tower Elevation ft	Secondary Horizontal Type	Secondary Horizontal Size	Secondary Horizontal Grade	Inner Bracing Type	Inner Bracing Size	Inner Bracing Grade
T1	Solid Round		A36	Single Angle	L3x3x1/4	A36
560.000-535.000			(36 ksi)			(36 ksi)
T2	Solid Round		A36	Single Angle	L3x3x1/4	A36
535.000-510.000			(36 ksi)			(36 ksi)
T3	Solid Round		A36	Single Angle	L3x3x1/4	A36
510.000-485.000			(36 ksi)			(36 ksi)
T4	Solid Round		A36	Single Angle	L3x3x1/4	A36
485.000-460.000			(36 ksi)			(36 ksi)
T5	Solid Round		A36	Single Angle	L3x3x1/4	A36
460.000-435.000			(36 ksi)			(36 ksi)
T6	Solid Round		A36	Single Angle	L3x3x1/4	A36
435.000-410.000			(36 ksi)			(36 ksi)
T7	Solid Round		A36	Single Angle	L3x3x1/4	A36
410.000-385.000			(36 ksi)			(36 ksi)
T8	Solid Round		A36	Single Angle	L3x3x1/4	A36
385.000-360.000			(36 ksi)			(36 ksi)
T9	Solid Round		A36	Single Angle	L3x3x1/4	A36
360.000-335.000			(36 ksi)			(36 ksi)
T10	Solid Round		A36	Single Angle	L3x3x1/4	A36
335.000-310.000			(36 ksi)			(36 ksi)
T11	Solid Round		A36	Single Angle	L3x3x1/4	A36
310.000-285.000			(36 ksi)			(36 ksi)
T12	Solid Round		A36	Single Angle	L3x3x1/4	A36
285.000-260.000			(36 ksi)			(36 ksi)
T13	Solid Round		A36	Single Angle	L3x3x1/4	A36
260.000-235.000			(36 ksi)			(36 ksi)
T14	Solid Round		A36	Single Angle	L3x3x1/4	A36
235.000-210.000			(36 ksi)			(36 ksi)
T15	Solid Round		A36	Single Angle	L3x3x1/4	A36
210.000-185.000			(36 ksi)			(36 ksi)
T16	Solid Round		A36	Single Angle	L3x3x1/4	A36
185.000-160.000			(36 ksi)			(36 ksi)
T17	Solid Round		A36	Single Angle	L3x3x1/4	A36
160.000-135.000			(36 ksi)			(36 ksi)
T18	Solid Round		A36	Single Angle	L3x3x1/4	A36
135.000-110.000			(36 ksi)			(36 ksi)
T19	Solid Round		A36	Single Angle	L3x3x1/4	A36
110.000-85.000			(36 ksi)			(36 ksi)
T20	Solid Round		A36	Single Angle	L3x3x1/4	A36
85.000-60.000			(36 ksi)			(36 ksi)
T21	Solid Round		A36	Single Angle	L3x3x1/4	A36
60.000-35.000			(36 ksi)			(36 ksi)
T22	Solid Round		A36	Single Angle	L3x3x1/4	A36
35.000-10.000			(36 ksi)			(36 ksi)

Tower Elevation ft	Secondary Horizontal Type	Secondary Horizontal Size	Secondary Horizontal Grade	Inner Bracing Type	Inner Bracing Size	Inner Bracing Grade
T23 10.000-0.000	Solid Round		A36 (36 ksi)	Single Angle	L3x3x5/16	A36 (36 ksi)

Tower Section Geometry *(cont'd)*

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
T1 560.000-535.000	0.000	0.000	A36 (36 ksi)	1	1	1.05	36.000	36.000
T2 535.000-510.000	0.000	0.000	A36 (36 ksi)	1	1	1.05	36.000	36.000
T3 510.000-485.000	0.000	0.000	A36 (36 ksi)	1	1	1.05	36.000	36.000
T4 485.000-460.000	0.000	0.000	A36 (36 ksi)	1	1	1.05	36.000	36.000
T5 460.000-435.000	0.000	0.000	A36 (36 ksi)	1	1	1.05	36.000	36.000
T6 435.000-410.000	0.000	0.000	A36 (36 ksi)	1	1	1.05	36.000	36.000
T7 410.000-385.000	0.000	0.000	A36 (36 ksi)	1	1	1.05	36.000	36.000
T8 385.000-360.000	0.000	0.000	A36 (36 ksi)	1	1	1.05	36.000	36.000
T9 360.000-335.000	0.000	0.000	A36 (36 ksi)	1	1	1.05	36.000	36.000
T10 335.000-310.000	0.000	0.000	A36 (36 ksi)	1	1	1.05	36.000	36.000
T11 310.000-285.000	0.000	0.000	A36 (36 ksi)	1	1	1.05	36.000	36.000
T12 285.000-260.000	0.000	0.000	A36 (36 ksi)	1	1	1.05	36.000	36.000
T13 260.000-235.000	0.000	0.000	A36 (36 ksi)	1	1	1.05	36.000	36.000
T14 235.000-210.000	0.000	0.000	A36 (36 ksi)	1	1	1.05	36.000	36.000
T15 210.000-185.000	0.000	0.000	A36 (36 ksi)	1	1	1.05	36.000	36.000
T16 185.000-160.000	0.000	0.000	A36 (36 ksi)	1	1	1.05	36.000	36.000

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
T17 160.000-135.000	0.000	0.000	A36 (36 ksi)	1	1	1.05	36.000	36.000
T18 135.000-110.000	0.000	0.000	A36 (36 ksi)	1	1	1.05	36.000	36.000
T19 110.000-85.000	0.000	0.000	A36 (36 ksi)	1	1	1.05	36.000	36.000
T20 85.000-60.000	0.000	0.000	A36 (36 ksi)	1	1	1.05	36.000	36.000
T21 60.000-35.000	0.000	0.000	A36 (36 ksi)	1	1	1.05	36.000	36.000
T22 35.000-10.000	0.000	0.000	A36 (36 ksi)	1	1	1.05	36.000	36.000
T23 10.000-0.000	0.000	0.000	A36 (36 ksi)	1	1	1.05	36.000	36.000

Tower Section Geometry *(cont'd)*

Tower Elevation ft	Calc K Single Angles	Calc K Solid Rounds	K Factors[1] Legs	X Brace Diags X Y	K Brace Diags X Y	Single Diags X Y	Girts X Y	Horiz. X Y	Sec. Horiz. X Y	Inner Brace X Y
T1 560.000-535.000	Yes	Yes	1	1 1	1 1	1 1	1 0.5	1 0.5	1 1	1 1
T2 535.000-510.000	Yes	Yes	1	1 1	1 1	1 1	1 0.5	1 0.5	1 1	1 1
T3 510.000-485.000	Yes	Yes	1	1 1	1 1	1 1	1 0.5	1 0.5	1 1	1 1
T4 485.000-460.000	Yes	Yes	1	1 1	1 1	1 1	1 0.5	1 0.5	1 1	1 1
T5 460.000-435.000	Yes	Yes	1	1 1	1 1	1 1	1 0.5	1 0.5	1 1	1 1
T6 435.000-410.000	Yes	Yes	1	1 1	1 1	1 1	1 0.5	1 0.5	1 1	1 1
T7 410.000-385.000	Yes	Yes	1	1 1	1 1	1 1	1 0.5	1 0.5	1 1	1 1
T8 385.000-360.000	Yes	Yes	1	1 1	1 1	1 1	1 0.5	1 0.5	1 1	1 1
T9 360.000-335.000	Yes	Yes	1	1 1	1 1	1 1	1 0.5	1 0.5	1 1	1 1
T10 335.000-310.000	Yes	Yes	1	1 1	1 1	1 1	1 0.5	1 0.5	1 1	1 1
T11	Yes	Yes	1	1	1	1	1	1	1	1

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
310.000-285.000				1	1	1		0.5		0.5		1		1	
T12 285.000-260.000	Yes	Yes	1	1	1	1		1		1		1		1	
T13 260.000-235.000	Yes	Yes	1	1	1	1		0.5		0.5		1		1	
T14 235.000-210.000	Yes	Yes	1	1	1	1		1		1		1		1	
T15 210.000-185.000	Yes	Yes	1	1	1	1		0.5		0.5		1		1	
T16 185.000-160.000	Yes	Yes	1	1	1	1		1		1		1		1	
T17 160.000-135.000	Yes	Yes	1	1	1	1		0.5		0.5		1		1	
T18 135.000-110.000	Yes	Yes	1	1	1	1		1		1		1		1	
T19 110.000-85.000	Yes	Yes	1	1	1	1		0.5		0.5		1		1	
T20 85.000-60.000	Yes	Yes	1	1	1	1		1		1		1		1	
T21 60.000-35.000	Yes	Yes	1	1	1	1		0.5		0.5		1		1	
T22 35.000-10.000	Yes	Yes	1	1	1	1		1		1		1		1	
T23 10.000-0.000	No	Yes	1	1	1	1		0.5		0.5		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 560.000-535.000	0.000	1	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T2 535.000-510.000	0.000	1	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75

Tower Elevation ft	Leg		Diagonal		Top Girt		Bottom Girt		Mid Girt		Long Horizontal		Short Horizontal	
	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U
T3 510.000-485.000	0.000	1	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T4 485.000-460.000	0.000	1	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T5 460.000-435.000	0.000	1	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T6 435.000-410.000	0.000	1	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T7 410.000-385.000	0.000	1	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T8 385.000-360.000	0.000	1	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T9 360.000-335.000	0.000	1	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T10 335.000-310.000	0.000	1	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T11 310.000-285.000	0.000	1	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T12 285.000-260.000	0.000	1	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T13 260.000-235.000	0.000	1	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T14 235.000-210.000	0.000	1	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T15 210.000-185.000	0.000	1	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T16 185.000-160.000	0.000	1	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T17 160.000-135.000	0.000	1	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T18 135.000-110.000	0.000	1	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T19 110.000-85.000	0.000	1	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T20 85.000-60.000	0.000	1	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T21 60.000-35.000	0.000	1	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75
T22 35.000-10.000	0.000	1	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75

Tower Elevation ft	Leg		Diagonal		Top Girt		Bottom Girt		Mid Girt		Long Horizontal		Short Horizontal	
	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U
T23 10.000-0.000	0.000	1	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75	0.000	0.75

Tower Section Geometry *(cont'd)*

Tower Elevation ft	Leg Connection Type	Leg		Diagonal		Top Girt		Bottom Girt		Mid Girt		Long Horizontal		Short Horizontal	
		Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.
T1 560.000-535.000	Flange	0.625 A325N	6	0.750 A325N	2	0.750 A325N	2	0.750 A325N	2	0.625 A325X	0	0.750 A325N	2	0.625 A325X	0
T2 535.000-510.000	Flange	0.625 A325N	6	0.750 A325N	2	0.750 A325N	2	0.750 A325N	2	0.625 A325X	0	0.750 A325N	2	0.625 A325X	0
T3 510.000-485.000	Flange	0.625 A325N	6	0.750 A325N	2	0.750 A325N	2	0.750 A325N	2	0.625 A325X	0	0.750 A325N	2	0.625 A325X	0
T4 485.000-460.000	Flange	0.625 A325N	6	0.875 A325N	2	0.875 A325N	2	0.875 A325N	2	0.625 A325X	0	0.875 A325N	2	0.625 A325X	0
T5 460.000-435.000	Flange	0.625 A325N	6	0.750 A325N	2	0.750 A325N	2	0.750 A325N	2	0.625 A325X	0	0.750 A325N	2	0.625 A325X	0
T6 435.000-410.000	Flange	0.625 A325N	6	0.500 A325N	2	0.500 A325N	2	0.500 A325N	2	0.625 A325X	0	0.500 A325N	2	0.625 A325X	0
T7 410.000-385.000	Flange	0.625 A325N	6	0.500 A325N	2	0.500 A325N	2	0.500 A325N	2	0.625 A325X	0	0.500 A325N	2	0.625 A325X	0
T8 385.000-360.000	Flange	0.625 A325N	6	0.625 A325N	2	0.500 A325N	2	0.500 A325N	2	0.625 A325X	0	0.500 A325N	2	0.625 A325X	0
T9 360.000-335.000	Flange	1.000 A325N	6	0.625 A325N	2	0.500 A325N	2	0.500 A325N	2	0.625 A325X	0	0.625 A325N	2	0.625 A325X	0
T10 335.000-310.000	Flange	1.000 A325N	6	0.750 A325N	2	0.750 A325N	2	0.750 A325N	2	0.625 A325X	0	0.750 A325N	2	0.625 A325X	0
T11 310.000-285.000	Flange	0.625 A325N	6	1.000 A325N	2	1.000 A325N	2	1.000 A325N	2	0.625 A325X	0	1.000 A325N	2	0.625 A325X	0
T12 285.000-260.000	Flange	0.625 A325N	6	0.500 A325N	2	0.500 A325N	2	0.500 A325N	2	0.625 A325X	0	0.500 A325N	2	0.625 A325X	0
T13 260.000-235.000	Flange	0.625 A325N	6	0.500 A325N	2	0.500 A325N	2	0.500 A325N	2	0.625 A325X	0	0.500 A325N	2	0.625 A325X	0
T14 235.000-210.000	Flange	0.625 A325N	6	0.500 A325N	2	0.500 A325N	2	0.500 A325N	2	0.625 A325X	0	0.500 A325N	2	0.625 A325X	0

Tower Elevation ft	Leg Connection Type	Leg		Diagonal		Top Girt		Bottom Girt		Mid Girt		Long Horizontal		Short Horizontal	
		Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.
T15 210.000-185.000	Flange	1.000 A325N	6	0.500 A325N	2	0.500 A325N	2	0.500 A325N	2	0.625 A325X	0	0.500 A325N	2	0.625 A325X	0
T16 185.000-160.000	Flange	1.000 A325N	6	0.625 A325N	2	0.625 A325N	2	0.625 A325N	2	0.625 A325X	0	0.625 A325N	2	0.625 A325X	0
T17 160.000-135.000	Flange	1.000 A325N	6	0.750 A325N	2	0.750 A325N	2	0.750 A325N	2	0.625 A325X	0	0.750 A325N	2	0.625 A325X	0
T18 135.000-110.000	Flange	1.000 A325N	6	1.000 A325N	2	1.000 A325N	2	1.000 A325N	2	0.625 A325X	0	1.000 A325N	2	0.625 A325X	0
T19 110.000-85.000	Flange	1.000 A325N	6	0.750 A325N	2	0.750 A325N	2	0.750 A325N	2	0.625 A325X	0	0.750 A325N	2	0.625 A325X	0
T20 85.000-60.000	Flange	1.000 A325N	6	0.750 A325N	2	0.750 A325N	2	0.750 A325N	2	0.625 A325X	0	0.750 A325N	2	0.625 A325X	0
T21 60.000-35.000	Flange	1.000 A325N	6	0.750 A325N	2	0.750 A325N	2	0.750 A325N	2	0.625 A325X	0	0.750 A325N	2	0.625 A325X	0
T22 35.000-10.000	Flange	0.625 A325N	6	0.750 A325N	2	0.750 A325N	2	0.750 A325N	2	0.625 A325X	0	0.750 A325N	2	0.625 A325X	0
T23 10.000-0.000	Flange	0.625 A325N	0	0.750 A325N	0	0.750 A325N	0	0.750 A325N	0	0.625 A325X	0	0.750 A325N	0	0.625 A325X	0

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 %
153.708	BS	A	1 3/4	37.600	10%	24000.000	6.430	302.129	265.000	0.0000	0.000	100%
		B	1 3/4	37.600	10%	24000.000	6.430	302.129	265.000	0.0000	0.000	100%
		C	1 3/4	37.600	10%	24000.000	6.430	302.129	265.000	0.0000	0.000	100%
316.292	BS	A	1 1/2	27.600	10%	24000.000	4.730	409.355	265.000	0.0000	0.000	100%
		B	1 1/2	27.600	10%	24000.000	4.730	409.355	265.000	0.0000	0.000	100%
		C	1 1/2	27.600	10%	24000.000	4.730	409.355	265.000	0.0000	0.000	100%
491.292	BS	A	1 1/4	19.200	10%	24000.000	3.280	555.575	265.000	0.0000	0.000	100%
		B	1 1/4	19.200	10%	24000.000	3.280	555.575	265.000	0.0000	0.000	100%
		C	1 1/4	19.200	10%	24000.000	3.280	555.575	265.000	0.0000	0.000	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
153.708	Corner						
316.292	Corner						
491.292	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
153.708	A36 (36 ksi)	Solid Round			Yes	A36 (36 ksi)	Single Angle	L2 1/2x2 1/2x1/4
316.292	A36 (36 ksi)	Solid Round			Yes	A36 (36 ksi)	Single Angle	L2 1/2x2 1/2x1/4
491.292	A36 (36 ksi)	Solid Round			Yes	A36 (36 ksi)	Single Angle	L2 1/2x2 1/2x1/4

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
153.708	1.943	1.943	1.943		7.712 4.8 sec/pulse	7.712 4.8 sec/pulse	7.712 4.8 sec/pulse	
316.292	1.936	1.936	1.936		13.995 6.5 sec/pulse	13.995 6.5 sec/pulse	13.995 6.5 sec/pulse	
491.292	1.822	1.822	1.822		25.331 8.7 sec/pulse	25.331 8.7 sec/pulse	25.331 8.7 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
153.708	No	No			1	1	1	1
316.292	No	No			1	1	1	1
491.292	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
153.708	0.625 A325N	0	0.000	0.75	0.625 A325N	0	0.000	0.75	0.625 A325N	0	0.000	0.75
316.292	0.000 A325N	0	0.000	1	0.625 A325N	0	0.000	0.75	0.625 A325N	0	0.000	0.75
491.292	0.000 A325N	0	0.000	1	0.625 A325N	0	0.000	0.75	0.625 A325N	0	0.000	0.75

Guy Pressures

Guy Elevation ft	Guy Location	z ft	q_z ksf	q_z Ice ksf	Ice Thickness in
153.708	A	76.854	0.021	0.005	1.107
	B	76.854	0.021	0.005	1.107
	C	76.854	0.021	0.005	1.107
316.292	A	158.146	0.026	0.006	1.207
	B	158.146	0.026	0.006	1.207
	C	158.146	0.026	0.006	1.207
491.292	A	245.646	0.029	0.006	1.272
	B	245.646	0.029	0.006	1.272
	C	245.646	0.029	0.006	1.272

Feed Line/Linear Appurtenances - Entered As Round Or Flat

Description	Face or Leg	Allow Shield	Component Type	Placement ft	Face Offset in	Lateral Offset (Frac FW)	#	# Per Row	Clear Spacing in	Width or Diameter in	Perimeter in	Weight klf
1 5/8 (E)	B	Yes	Ar (CfAe)	250.000 - 10.000	-4.000	-0.43	8	4	0.850 0.750	1.980		0.001
5/8 (Abandoned)	A	Yes	Ar (CfAe)	560.000 - 10.000	-38.000	0.25	1	1	0.850 0.750	0.880		0.000
1 5/8 (E)	A	Yes	Ar (CfAe)	515.000 - 10.000	-40.000	0.1	1	1	0.850 0.750	1.980		0.001
1 1/4 (E)	B	Yes	Ar (CfAe)	518.000 - 10.000	-4.000	0.05	1	1	0.850 0.750	1.550		0.001
1 1/4 (E)	C	Yes	Ar (CfAe)	442.000 - 10.000	-10.000	-0.12	1	1	0.850 0.750	1.550		0.001
1 1/4 (E)	C	Yes	Ar (CfAe)	330.000 - 10.000	-5.000	-0.08	2	2	0.850 0.750	1.550		0.001
1 1/4 (E)	C	Yes	Ar (CfAe)	300.000 - 10.000	-2.000	-0.08	1	1	0.850 0.750	1.550		0.001
Safety Line 3/8 (E)	C	Yes	Ar (CfAe)	545.000 - 11.000	-20.000	-0.1	1	1	0.850 0.750	0.375		0.000
Climbing Ladder (E) *****	C	Yes	Ar (CfAe)	545.000 - 11.000	-20.000	-0.1	2	2	0.850 0.750	0.750		0.008
7/8 (E/P)	C	Yes	Ar (CfAe)	240.000 - 10.000	-4.000	0.4	8	4	0.850 0.750	1.110		0.001
7/8 (E)	C	Yes	Ar (CfAe)	79.000 - 10.000	-4.000	0.35	1	1	0.850 0.750	1.110		0.001
7/8 (E)	C	Yes	Ar (CfAe)	470.000 - 10.000	-4.000	0.45	1	1	0.850 0.750	1.110		0.001
CR 50 396 PE (3/8 FOAM) (E)	C	Yes	Ar (CfAe)	116.000 - 10.000	-4.000	0.47	1	1	0.850 75.000	0.450		0.000
1/2 (E)	C	Yes	Ar (CfAe)	422.000 - 10.000	-5.000	0.25	1	1	0.850 0.750	0.580		0.000
1/2 (E)	C	Yes	Ar (CfAe)	140.000 - 10.000	-5.000	0.27	1	1	0.850 0.750	0.580		0.000
1/2 (E)	C	Yes	Ar (CfAe)	163.000 - 10.000	-5.000	0.29	1	1	0.850 0.750	0.580		0.000
1/2 (E)	C	Yes	Ar (CfAe)	463.000 - 10.000	-5.000	0.31	1	1	0.850 0.750	0.580		0.000
7/8 (E)	C	Yes	Ar (CfAe)	303.000 - 10.000	-0.500	0.25	1	1	0.850 0.750	1.110		0.001

Description	Face or Leg	Allow Shield	Component Type	Placement ft	Face Offset in	Lateral Offset (Frac FW)	#	# Per Row	Clear Spacing in	Width or Diameter in	Perimeter in	Weight klf
7/8 (E)	C	Yes	Ar (CfAe)	219.000 - 10.000	-0.500	0.27	1	1	0.850 0.750	1.110		0.001
1 (E - To Lights)	C	Yes	Ar (CfAe)	560.000 - 10.000	-2.500	0.24	1	1	0.850 0.750	1.250		0.001
7/8 (E)	C	Yes	Ar (CfAe)	442.000 - 10.000	-0.500	-0.15	1	1	0.850 0.750	1.110		0.001
7/8 (E)	C	Yes	Ar (CfAe)	177.000 - 10.000	-0.500	-0.17	1	1	0.850 0.750	1.110		0.001
1 1/4 (E)	C	Yes	Ar (CfAe)	395.000 - 10.000	-0.500	-0.2	1	1	0.850 0.750	1.550		0.001
1 1/4 (E)	C	Yes	Ar (CfAe)	442.000 - 10.000	-0.500	-0.43	1	1	0.850 0.750	1.550		0.001
1 1/4 (E)	C	Yes	Ar (CfAe)	445.000 - 10.000	-0.500	-0.45	1	1	0.850 0.750	1.550		0.001
1 1/4 (E) *****	C	Yes	Ar (CfAe)	500.000 - 10.000	-0.500	-0.47	1	1	0.850 0.750	1.550		0.001
1 5/8 (E)	C	Yes	Ar (CfAe)	214.000 - 10.000	-5.000	-0.4	6	3	0.850 0.750	1.980		0.001
1/2 (E)	C	Yes	Ar (CfAe)	300.000 - 10.000	-6.000	-0.34	1	1	0.850 0.750	0.580		0.000
1/2 (E)	C	Yes	Ar (CfAe)	135.000 - 10.000	-6.000	-0.32	1	1	0.580	0.580		0.000
1/2 (E)	C	Yes	Ar (CfAe)	93.000 - 10.000	-3.000	0.07	1	1	0.580	0.580		0.000
EW52 (Abandoned) *****	C	Yes	Af (CfAe)	145.000 - 10.000	-1.000	0.1	1	1	0.850 0.750	1.743	5.550	0.001
1 1/4 (E) *****	C	Yes	Ar (CfAe)	289.000 - 10.000	-4.000	0	1	1	0.850 0.750	1.550		0.001
The Square Rigid Conduit on the BL Drawing is no longer installed												
T-bracket (E)	A	No	Af (Leg)	560.000 - 10.000	0.000	0.05	1	1	0.850 0.750	2.000	4.500	0.000
T-bracket (E)	B	No	Af (Leg)	560.000 - 10.000	0.000	0.05	1	1	0.850 0.750	2.000	4.500	0.000
T-bracket (E)	C	No	Af (Leg)	560.000 - 10.000	0.000	0.05	1	1	0.850 0.750	2.000	4.500	0.000

Feed Line/Linear Appurtenances - Entered As Area

Description	Face or Leg	Allow Shield	Component Type	Placement ft	Total Number	C_AA_A ft^2/ft	Weight klf
*****							

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
T1	560.000-535.000	A	1.833	8.333	0.000	0.000	0.010
		B	0.000	8.333	0.000	0.000	0.000
		C	4.167	8.333	0.000	0.000	0.175
T2	535.000-510.000	A	2.658	8.333	0.000	0.000	0.015
		B	1.033	8.333	0.000	0.000	0.005
		C	6.510	8.333	0.000	0.000	0.415
T3	510.000-485.000	A	5.958	8.333	0.000	0.000	0.036
		B	3.229	8.333	0.000	0.000	0.017
		C	8.448	8.333	0.000	0.000	0.425
T4	485.000-460.000	A	5.958	8.333	0.000	0.000	0.036
		B	3.229	8.333	0.000	0.000	0.017
		C	10.810	8.333	0.000	0.000	0.438
T5	460.000-435.000	A	5.958	8.333	0.000	0.000	0.036
		B	3.229	8.333	0.000	0.000	0.017
		C	17.008	8.333	0.000	0.000	0.471
T6	435.000-410.000	A	5.958	8.333	0.000	0.000	0.036
		B	3.229	8.333	0.000	0.000	0.017
		C	25.840	8.333	0.000	0.000	0.517
T7	410.000-385.000	A	5.958	8.333	0.000	0.000	0.036
		B	3.229	8.333	0.000	0.000	0.017
		C	27.760	8.333	0.000	0.000	0.527
T8	385.000-360.000	A	5.958	8.333	0.000	0.000	0.036
		B	3.229	8.333	0.000	0.000	0.017
		C	29.698	8.333	0.000	0.000	0.537
T9	360.000-335.000	A	5.958	8.333	0.000	0.000	0.036
		B	3.229	8.333	0.000	0.000	0.017
		C	29.698	8.333	0.000	0.000	0.537
T10	335.000-310.000	A	5.958	8.333	0.000	0.000	0.036
		B	3.229	8.333	0.000	0.000	0.017
		C	34.865	8.333	0.000	0.000	0.563
T11	310.000-285.000	A	5.958	8.333	0.000	0.000	0.036
		B	3.229	8.333	0.000	0.000	0.017
		C	41.000	8.333	0.000	0.000	0.596
T12	285.000-260.000	A	5.958	8.333	0.000	0.000	0.036
		B	3.229	8.333	0.000	0.000	0.017
		C	46.135	8.333	0.000	0.000	0.623
T13	260.000-235.000	A	5.958	8.333	0.000	0.000	0.036
		B	13.129	8.333	0.000	0.000	0.141
		C	47.985	8.333	0.000	0.000	0.644
T14	235.000-210.000	A	5.958	8.333	0.000	0.000	0.036
		B	19.729	8.333	0.000	0.000	0.224
		C	58.198	8.333	0.000	0.000	0.761
T15	210.000-185.000	A	5.958	8.333	0.000	0.000	0.036
		B	19.729	8.333	0.000	0.000	0.224
		C	70.073	8.333	0.000	0.000	0.900
T16	185.000-160.000	A	5.958	8.333	0.000	0.000	0.036
		B	19.729	8.333	0.000	0.000	0.224
		C	71.790	8.333	0.000	0.000	0.910
T17	160.000-135.000	A	5.958	8.333	0.000	0.000	0.036
		B	19.729	8.333	0.000	0.000	0.224
		C	73.835	9.785	0.000	0.000	0.927
T18	135.000-110.000	A	5.958	8.333	0.000	0.000	0.036
		B	19.729	8.333	0.000	0.000	0.224
		C	76.235	11.964	0.000	0.000	0.948
T19	110.000-85.000	A	5.958	8.333	0.000	0.000	0.036
		B	19.729	8.333	0.000	0.000	0.224

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	77.335	11.964	0.000	0.000	0.952
T20	85.000-60.000	A	5.958	8.333	0.000	0.000	0.036
		B	19.729	8.333	0.000	0.000	0.224
		C	79.914	11.964	0.000	0.000	0.966
T21	60.000-35.000	A	5.958	8.333	0.000	0.000	0.036
		B	19.729	8.333	0.000	0.000	0.224
		C	80.469	11.964	0.000	0.000	0.969
T22	35.000-10.000	A	5.958	8.333	0.000	0.000	0.036
		B	19.729	8.333	0.000	0.000	0.224
		C	80.313	11.964	0.000	0.000	0.953
T23	10.000-0.000	A	0.000	0.000	0.000	0.000	0.000
		B	0.000	0.000	0.000	0.000	0.000
		C	0.000	0.000	0.000	0.000	0.000

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
T1	560.000-535.000	A	1.401	7.670	16.116	0.000	0.000	0.241
		B		0.000	16.116	0.000	0.000	0.134
		C		14.048	17.449	0.000	0.000	0.509
T2	535.000-510.000	A	1.393	9.623	16.072	0.000	0.000	0.273
		B		2.891	16.072	0.000	0.000	0.178
		C		22.360	19.406	0.000	0.000	0.877
T3	510.000-485.000	A	1.385	17.499	16.027	0.000	0.000	0.405
		B		8.999	16.027	0.000	0.000	0.272
		C		27.658	19.360	0.000	0.000	0.957
T4	485.000-460.000	A	1.376	17.427	15.979	0.000	0.000	0.402
		B		8.964	15.979	0.000	0.000	0.269
		C		35.167	19.313	0.000	0.000	1.066
T5	460.000-435.000	A	1.367	17.353	15.930	0.000	0.000	0.398
		B		8.926	15.930	0.000	0.000	0.267
		C		56.693	19.263	0.000	0.000	1.372
T6	435.000-410.000	A	1.358	17.274	15.877	0.000	0.000	0.395
		B		8.887	15.877	0.000	0.000	0.264
		C		83.574	19.211	0.000	0.000	1.768
T7	410.000-385.000	A	1.348	17.192	15.822	0.000	0.000	0.391
		B		8.846	15.822	0.000	0.000	0.262
		C		90.229	19.156	0.000	0.000	1.853
T8	385.000-360.000	A	1.338	17.105	15.764	0.000	0.000	0.386
		B		8.802	15.764	0.000	0.000	0.259
		C		95.013	19.098	0.000	0.000	1.918
T9	360.000-335.000	A	1.326	17.012	15.703	0.000	0.000	0.382
		B		8.756	15.703	0.000	0.000	0.256
		C		94.458	19.036	0.000	0.000	1.900
T10	335.000-310.000	A	1.315	16.914	15.637	0.000	0.000	0.378
		B		8.707	15.637	0.000	0.000	0.253
		C		100.832	22.970	0.000	0.000	2.064
T11	310.000-285.000	A	1.302	16.808	15.566	0.000	0.000	0.373
		B		8.654	15.566	0.000	0.000	0.249
		C		118.015	23.900	0.000	0.000	2.314
T12	285.000-260.000	A	1.288	16.694	15.491	0.000	0.000	0.367
		B		8.597	15.491	0.000	0.000	0.246
		C		132.599	23.824	0.000	0.000	2.508
T13	260.000-235.000	A	1.274	16.571	15.408	0.000	0.000	0.362
		B		14.194	26.021	0.000	0.000	0.748
		C		133.076	26.192	0.000	0.000	2.580

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
T14	235.000-210.000	A	1.257	16.436	15.319	0.000	0.000	0.356
		B		17.832	33.006	0.000	0.000	1.076
		C		142.175	37.789	0.000	0.000	3.095
T15	210.000-185.000	A	1.239	16.287	15.219	0.000	0.000	0.349
		B		17.683	32.907	0.000	0.000	1.065
		C		153.385	47.594	0.000	0.000	3.656
T16	185.000-160.000	A	1.220	16.121	15.109	0.000	0.000	0.341
		B		17.517	32.796	0.000	0.000	1.053
		C		157.504	47.484	0.000	0.000	3.678
T17	160.000-135.000	A	1.197	15.932	14.982	0.000	0.000	0.333
		B		17.328	32.670	0.000	0.000	1.039
		C		164.563	50.139	0.000	0.000	3.775
T18	135.000-110.000	A	1.170	15.712	14.836	0.000	0.000	0.324
		B		17.108	32.523	0.000	0.000	1.023
		C		174.472	54.092	0.000	0.000	3.912
T19	110.000-85.000	A	1.139	15.449	14.660	0.000	0.000	0.312
		B		16.844	32.348	0.000	0.000	1.004
		C		177.502	53.829	0.000	0.000	3.876
T20	85.000-60.000	A	1.099	15.117	14.439	0.000	0.000	0.298
		B		16.513	32.127	0.000	0.000	0.981
		C		182.479	53.497	0.000	0.000	3.857
T21	60.000-35.000	A	1.045	14.664	14.137	0.000	0.000	0.280
		B		16.060	31.825	0.000	0.000	0.949
		C		178.016	53.044	0.000	0.000	3.698
T22	35.000-10.000	A	1.000	14.292	13.889	0.000	0.000	0.265
		B		15.688	31.576	0.000	0.000	0.924
		C		172.563	52.539	0.000	0.000	3.533
T23	10.000-0.000	A	1.000	0.000	0.000	0.000	0.000	0.000
		B		0.000	0.000	0.000	0.000	0.000
		C		0.000	0.000	0.000	0.000	0.000

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
T1	560.000-535.000	A	0.062	1.342	0.076	0.320
		B	0.000	0.000	0.000	0.000
		C	0.141	2.692	0.174	0.641
T2	535.000-510.000	A	0.090	1.677	0.111	0.401
		B	0.035	0.504	0.043	0.120
		C	0.220	4.477	0.271	1.071
T3	510.000-485.000	A	0.251	3.344	0.298	0.875
		B	0.136	1.720	0.161	0.450
		C	0.356	5.922	0.422	1.550
T4	485.000-460.000	A	0.201	3.007	0.248	0.726
		B	0.109	1.547	0.135	0.373
		C	0.365	6.643	0.450	1.604
T5	460.000-435.000	A	0.126	2.759	0.199	0.578
		B	0.068	1.419	0.108	0.298
		C	0.359	9.543	0.567	2.001
T6	435.000-410.000	A	0.126	2.730	0.199	0.576
		B	0.068	1.404	0.108	0.296
		C	0.545	13.734	0.861	2.897
T7	410.000-385.000	A	0.126	2.700	0.199	0.573
		B	0.068	1.389	0.108	0.295
		C	0.586	14.693	0.925	3.119

Section	Elevation ft	Face	A_R ft^2	A_R Ice ft^2	A_F ft^2	A_F Ice ft^2
T8	385.000-360.000	A	0.151	2.740	0.199	0.570
		B	0.082	1.410	0.108	0.293
		C	0.752	15.755	0.990	3.278
T9	360.000-335.000	A	0.201	2.850	0.248	0.709
		B	0.109	1.467	0.135	0.365
		C	1.002	16.382	1.237	4.075
T10	335.000-310.000	A	0.251	3.104	0.298	0.846
		B	0.136	1.598	0.161	0.435
		C	1.471	19.851	1.743	5.408
T11	310.000-285.000	A	0.201	2.774	0.248	0.700
		B	0.109	1.428	0.135	0.361
		C	1.384	20.853	1.708	5.265
T12	285.000-260.000	A	0.126	2.521	0.248	0.696
		B	0.068	1.298	0.135	0.358
		C	0.973	21.283	1.922	5.872
T13	260.000-235.000	A	0.126	2.478	0.248	0.690
		B	0.277	3.709	0.547	1.034
		C	1.012	21.510	1.999	5.994
T14	235.000-210.000	A	0.126	2.431	0.248	0.685
		B	0.416	5.253	0.822	1.480
		C	1.228	24.350	2.425	6.860
T15	210.000-185.000	A	0.176	2.517	0.248	0.679
		B	0.583	5.466	0.822	1.474
		C	2.070	28.705	2.920	7.740
T16	185.000-160.000	A	0.201	2.527	0.248	0.672
		B	0.666	5.518	0.822	1.467
		C	2.423	29.761	2.991	7.912
T17	160.000-135.000	A	0.251	2.722	0.298	0.797
		B	0.832	5.983	0.986	1.751
		C	3.177	34.239	3.764	10.019
T18	135.000-110.000	A	0.201	2.385	0.248	0.655
		B	0.666	5.281	0.822	1.450
		C	2.696	32.688	3.328	8.973
T19	110.000-85.000	A	0.176	2.230	0.199	0.515
		B	0.583	4.986	0.658	1.151
		C	2.391	31.511	2.699	7.275
T20	85.000-60.000	A	0.176	2.122	0.199	0.504
		B	0.583	4.801	0.658	1.140
		C	2.467	31.311	2.785	7.435
T21	60.000-35.000	A	0.176	1.978	0.199	0.489
		B	0.583	4.552	0.658	1.125
		C	2.484	29.455	2.803	7.279
T22	35.000-10.000	A	0.176	1.863	0.199	0.476
		B	0.583	4.351	0.658	1.113
		C	2.479	27.718	2.798	7.087
T23	10.000-0.000	A	0.000	0.000	0.000	0.000
		B	0.000	0.000	0.000	0.000
		C	0.000	0.000	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
T1	560.000-535.000	-0.045	0.353	-0.002	0.321
T2	535.000-510.000	0.383	0.402	0.386	0.338
T3	510.000-485.000	1.471	0.516	1.532	0.487
T4	485.000-460.000	1.664	0.932	1.625	0.995
T5	460.000-435.000	1.963	2.050	1.475	2.322
T6	435.000-410.000	3.285	3.320	2.757	3.724
T7	410.000-385.000	3.307	3.594	2.672	4.075
T8	385.000-360.000	3.438	3.805	2.850	4.307
T9	360.000-335.000	3.067	3.394	2.688	4.060
T10	335.000-310.000	2.886	3.539	2.454	3.746
T11	310.000-285.000	3.139	4.583	2.646	4.764
T12	285.000-260.000	3.270	5.358	2.775	5.533
T13	260.000-235.000	2.720	2.841	2.505	4.505
T14	235.000-210.000	1.429	2.289	1.708	4.240
T15	210.000-185.000	2.842	3.275	1.930	4.528
T16	185.000-160.000	2.835	3.351	1.991	4.676
T17	160.000-135.000	2.475	3.429	1.550	4.787
T18	135.000-110.000	2.517	4.031	1.538	5.566
T19	110.000-85.000	2.461	4.280	1.196	5.892
T20	85.000-60.000	2.170	4.484	0.822	6.163
T21	60.000-35.000	2.089	4.526	0.738	6.176
T22	35.000-10.000	2.084	4.525	0.748	6.145
T23	10.000-0.000	0.000	0.000	0.000	0.000

Discrete Tower Loads

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft	Vert ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
Lightning Rod (E)	C	From Leg	0.000 0.000 0.000	0.0000		561.000	No Ice 1/2" Ice 1" Ice 2" Ice 4" Ice	0.500 0.750 1.000 1.500 2.500	0.500 0.750 1.000 1.500 2.500	0.100 0.200 0.300 0.500 0.900
****										
Platform (E)	C	From Face	0.000 0.000 0.000	0.0000		557.000	No Ice 1/2" Ice 1" Ice 2" Ice 4" Ice	2.300 3.500 4.700 7.100 11.900	0.883 1.216 1.549 2.215 3.547	0.050 0.080 0.110 0.170 0.290
Platform w/ Handrail (E)	A	From Face	0.000 0.000 0.000	0.0000		545.000	No Ice 1/2" Ice 1" Ice 2" Ice 4" Ice	12.000 17.000 22.000 32.000 52.000	6.000 7.500 9.000 12.000 18.000	0.050 0.080 0.110 0.170 0.290
****										
ANT150F6 (E)	A	From Leg	0.000 0.000 0.000	0.0000		528.000	No Ice 1/2" Ice 1" Ice	4.800 6.828 8.873	4.800 6.828 8.873	0.030 0.066 0.114

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
						2" Ice	13.013	13.013	0.249
						4" Ice	21.034	21.034	0.678
Side Arm Mount [SO 308-1]	A	From Leg	0.000	0.0000	518.000	No Ice	0.980	3.030	0.053
(E)			0.000			1/2" Ice	1.700	5.220	0.079
			0.000			1" Ice	2.420	7.410	0.105
						2" Ice	3.860	11.790	0.156
						4" Ice	6.740	20.550	0.259
****									
PG1NOF-0093-8	C	From Leg	0.000	0.0000	515.000	No Ice	2.980	2.980	0.030
(E)			0.000			1/2" Ice	4.010	4.010	0.050
			0.000			1" Ice	5.040	5.040	0.070
						2" Ice	7.100	7.100	0.110
						4" Ice	11.220	11.220	0.190
Side Arm Mount [SO 312-1]	C	From Leg	0.000	0.0000	515.000	No Ice	2.970	4.030	0.070
(E)			0.000			1/2" Ice	4.390	6.120	0.106
			0.000			1" Ice	5.810	8.210	0.143
						2" Ice	8.650	12.390	0.216
						4" Ice	14.330	20.750	0.361
****									
ANT150F2	A	From Leg	0.000	0.0000	505.000	No Ice	1.230	1.230	0.010
(E)			0.000			1/2" Ice	1.530	1.530	0.020
			0.000			1" Ice	1.830	1.830	0.030
						2" Ice	2.430	2.430	0.050
						4" Ice	3.630	3.630	0.090
Side Arm Mount [SO 309-1]	A	From Leg	0.000	0.0000	505.000	No Ice	2.820	2.200	0.040
(E)			0.000			1/2" Ice	4.070	3.160	0.062
			0.000			1" Ice	5.320	4.120	0.084
						2" Ice	7.820	6.040	0.128
						4" Ice	12.820	9.880	0.216
****									
101-68-10-0-03N	C	From Leg	0.000	0.0000	508.000	No Ice	5.480	5.480	0.070
(E)			0.000			1/2" Ice	7.090	7.090	0.110
			0.000			1" Ice	8.700	8.700	0.150
						2" Ice	11.920	11.920	0.230
						4" Ice	18.360	18.360	0.390
Side Arm Mount [SO 310-1]	C	From Leg	0.000	0.0000	500.000	No Ice	2.970	2.990	0.055
(E)			0.000			1/2" Ice	4.400	4.580	0.083
			0.000			1" Ice	5.830	6.170	0.112
						2" Ice	8.690	9.350	0.169
						4" Ice	14.410	15.710	0.282
****									
****									
ANT150F6	C	From Leg	0.000	0.0000	480.000	No Ice	4.800	4.800	0.030
(E)			0.000			1/2" Ice	6.828	6.828	0.066
			0.000			1" Ice	8.873	8.873	0.114
						2" Ice	13.013	13.013	0.249
						4" Ice	21.034	21.034	0.678
Side Arm Mount [SO 309-1]	C	From Leg	0.000	0.0000	470.000	No Ice	2.820	2.200	0.040
(E)			0.000			1/2" Ice	4.070	3.160	0.062
			0.000			1" Ice	5.320	4.120	0.084
						2" Ice	7.820	6.040	0.128
						4" Ice	12.820	9.880	0.216
****									
101-68-10-0-03N	C	From Leg	0.000	0.0000	452.000	No Ice	5.480	5.480	0.070
(E)			0.000			1/2" Ice	7.090	7.090	0.110
			0.000			1" Ice	8.700	8.700	0.150
						2" Ice	11.920	11.920	0.230

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
						4" Ice	18.360	18.360	0.390
Side Arm Mount [SO 310-1]	C	From Leg	0.000	0.0000	445.000	No Ice	2.970	2.990	0.055
(E)			0.000			1/2" Ice	4.400	4.580	0.083
			0.000			1" Ice	5.830	6.170	0.112
						2" Ice	8.690	9.350	0.169
						4" Ice	14.410	15.710	0.282
****									
ANT150F6	B	From Leg	0.000	0.0000	452.000	No Ice	4.800	4.800	0.030
(E)			0.000			1/2" Ice	6.828	6.828	0.066
			0.000			1" Ice	8.873	8.873	0.114
						2" Ice	13.013	13.013	0.249
						4" Ice	21.034	21.034	0.678
ANT150F6	A	From Leg	0.000	0.0000	452.000	No Ice	4.800	4.800	0.030
(E)			0.000			1/2" Ice	6.828	6.828	0.066
			0.000			1" Ice	8.873	8.873	0.114
						2" Ice	13.013	13.013	0.249
						4" Ice	21.034	21.034	0.678
Side Arm Mount [SO 309-1]	B	From Leg	0.000	0.0000	442.000	No Ice	2.820	2.200	0.040
(E)			0.000			1/2" Ice	4.070	3.160	0.062
			0.000			1" Ice	5.320	4.120	0.084
						2" Ice	7.820	6.040	0.128
						4" Ice	12.820	9.880	0.216
Side Arm Mount [SO 309-1]	A	From Leg	0.000	0.0000	442.000	No Ice	2.820	2.200	0.040
(E)			0.000			1/2" Ice	4.070	3.160	0.062
			0.000			1" Ice	5.320	4.120	0.084
						2" Ice	7.820	6.040	0.128
						4" Ice	12.820	9.880	0.216
****									
101D-90-06-0-03	C	From Leg	0.000	0.0000	427.000	No Ice	3.500	3.500	0.040
(E)			0.000			1/2" Ice	4.540	4.540	0.070
			0.000			1" Ice	5.580	5.580	0.100
						2" Ice	7.660	7.660	0.160
						4" Ice	11.820	11.820	0.280
800/1850	C	From Leg	0.000	0.0000	427.000	No Ice	1.020	0.290	0.000
(E)			0.000			1/2" Ice	1.160	0.390	0.010
			0.000			1" Ice	1.300	0.490	0.000
						2" Ice	1.580	0.690	0.000
						4" Ice	2.140	1.090	0.000
Side Arm Mount [SO 310-1]	C	From Leg	0.000	0.0000	422.000	No Ice	2.970	2.990	0.055
(E)			0.000			1/2" Ice	4.400	4.580	0.083
			0.000			1" Ice	5.830	6.170	0.112
						2" Ice	8.690	9.350	0.169
						4" Ice	14.410	15.710	0.282
****									
SC233	B	From Leg	0.000	0.0000	402.000	No Ice	1.475	1.475	0.003
(E)			0.000			1/2" Ice	2.479	2.479	0.015
			0.000			1" Ice	3.500	3.500	0.034
						2" Ice	5.300	5.300	0.090
						4" Ice	7.807	7.807	0.286
Side Arm Mount [SO 309-1]	B	From Leg	0.000	0.0000	395.000	No Ice	2.820	2.200	0.040
(E)			0.000			1/2" Ice	4.070	3.160	0.062
			0.000			1" Ice	5.320	4.120	0.084
						2" Ice	7.820	6.040	0.128
						4" Ice	12.820	9.880	0.216
****									
DB636-C	C	From Leg	0.000	0.0000	335.000	No Ice	2.512	2.512	0.030
(E)			0.000			1/2" Ice	3.587	3.587	0.049

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
			0.000			1" Ice	4.679	4.679	0.074
						2" Ice	6.304	6.304	0.147
						4" Ice	8.973	8.973	0.379
DB636-C	A	From Leg	0.000	0.0000	335.000	No Ice	2.512	2.512	0.030
(E)			0.000			1/2" Ice	3.587	3.587	0.049
			0.000			1" Ice	4.679	4.679	0.074
						2" Ice	6.304	6.304	0.147
						4" Ice	8.973	8.973	0.379
Side Arm Mount [SO 309-1]	C	From Leg	0.000	0.0000	330.000	No Ice	2.820	2.200	0.040
(E)			0.000			1/2" Ice	4.070	3.160	0.062
			0.000			1" Ice	5.320	4.120	0.084
						2" Ice	7.820	6.040	0.128
						4" Ice	12.820	9.880	0.216
Side Arm Mount [SO 309-1]	A	From Leg	0.000	0.0000	330.000	No Ice	2.820	2.200	0.040
(E)			0.000			1/2" Ice	4.070	3.160	0.062
			0.000			1" Ice	5.320	4.120	0.084
						2" Ice	7.820	6.040	0.128
						4" Ice	12.820	9.880	0.216
****									
DB636-C	C	From Leg	0.000	0.0000	308.000	No Ice	2.512	2.512	0.030
(E)			0.000			1/2" Ice	3.587	3.587	0.049
			0.000			1" Ice	4.679	4.679	0.074
						2" Ice	6.304	6.304	0.147
						4" Ice	8.973	8.973	0.379
Side Arm Mount [SO 309-1]	C	From Leg	0.000	0.0000	303.000	No Ice	2.820	2.200	0.040
(E)			0.000			1/2" Ice	4.070	3.160	0.062
			0.000			1" Ice	5.320	4.120	0.084
						2" Ice	7.820	6.040	0.128
						4" Ice	12.820	9.880	0.216
****									
DB636-C	A	From Leg	0.000	0.0000	305.000	No Ice	2.512	2.512	0.030
(E)			0.000			1/2" Ice	3.587	3.587	0.049
			0.000			1" Ice	4.679	4.679	0.074
						2" Ice	6.304	6.304	0.147
						4" Ice	8.973	8.973	0.379
Side Arm Mount [SO 301-1]	C	From Leg	0.000	0.0000	300.000	No Ice	1.000	0.900	0.023
(E)			0.000			1/2" Ice	1.390	1.420	0.033
			0.000			1" Ice	1.780	1.940	0.042
						2" Ice	2.560	2.980	0.061
						4" Ice	4.120	5.060	0.100
Side Arm Mount [SO 309-1]	A	From Leg	0.000	0.0000	300.000	No Ice	2.820	2.200	0.040
(E)			0.000			1/2" Ice	4.070	3.160	0.062
			0.000			1" Ice	5.320	4.120	0.084
						2" Ice	7.820	6.040	0.128
						4" Ice	12.820	9.880	0.216
****									
DB636-C	C	From Leg	0.000	0.0000	294.000	No Ice	2.512	2.512	0.030
(E)			0.000			1/2" Ice	3.587	3.587	0.049
			0.000			1" Ice	4.679	4.679	0.074
						2" Ice	6.304	6.304	0.147
						4" Ice	8.973	8.973	0.379
Side Arm Mount [SO 309-1]	C	From Leg	0.000	0.0000	289.000	No Ice	2.820	2.200	0.040
(E)			0.000			1/2" Ice	4.070	3.160	0.062
			0.000			1" Ice	5.320	4.120	0.084
						2" Ice	7.820	6.040	0.128
						4" Ice	12.820	9.880	0.216
****									

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
DB810M-XC	A	From Leg	0.000	0.0000	259.000	No Ice	2.115	2.115	0.030
(E)			0.000			1/2" Ice	3.141	3.141	0.046
			0.000			1" Ice	4.184	4.184	0.069
						2" Ice	5.766	5.766	0.134
						4" Ice	8.323	8.323	0.350
Side Arm Mount [SO 309-1]	A	From Leg	0.000	0.0000	254.000	No Ice	2.820	2.200	0.040
(E)			0.000			1/2" Ice	4.070	3.160	0.062
			0.000			1" Ice	5.320	4.120	0.084
						2" Ice	7.820	6.040	0.128
						4" Ice	12.820	9.880	0.216
****									
(4) AP859012-42T0	C	From Face	0.000	0.0000	260.000	No Ice	2.867	3.733	0.007
(SLA)			0.000			1/2" Ice	3.177	4.101	0.032
			0.000			1" Ice	3.517	4.477	0.062
						2" Ice	4.269	5.254	0.134
						4" Ice	5.877	6.914	0.339
(4) 844G65VTZASX	B	From Face	0.000	0.0000	260.000	No Ice	5.833	3.967	0.016
(SLA)			0.000			1/2" Ice	6.230	4.337	0.054
			0.000			1" Ice	6.635	4.716	0.097
						2" Ice	7.471	5.501	0.198
						4" Ice	9.247	7.173	0.465
Sector Mount [SM 305-1]	C	None		0.0000	250.000	No Ice	20.780	20.170	0.651
(E)						1/2" Ice	28.950	28.950	0.944
						1" Ice	37.120	37.730	1.237
						2" Ice	53.460	55.290	1.824
						4" Ice	86.140	90.410	2.996
Sector Mount [SM 305-1]	B	None		0.0000	250.000	No Ice	20.780	20.170	0.651
(E)						1/2" Ice	28.950	28.950	0.944
						1" Ice	37.120	37.730	1.237
						2" Ice	53.460	55.290	1.824
						4" Ice	86.140	90.410	2.996
****									
FR90-16-02DP	C	From Face	0.000	0.0000	242.000	No Ice	4.356	1.974	0.018
(E)			0.000			1/2" Ice	4.775	2.312	0.040
			0.000			1" Ice	5.202	2.658	0.067
						2" Ice	6.084	3.371	0.136
						4" Ice	7.951	4.888	0.335
FR90-16-02DP	B	From Face	0.000	0.0000	242.000	No Ice	4.356	1.974	0.018
(E)			0.000			1/2" Ice	4.775	2.312	0.040
			0.000			1" Ice	5.202	2.658	0.067
						2" Ice	6.084	3.371	0.136
						4" Ice	7.951	4.888	0.335
APX16DWV-16DWV-S-E-A	C	From Face	0.000	0.0000	242.000	No Ice	7.228	2.150	0.041
20			0.000			1/2" Ice	7.681	2.490	0.074
(P)			0.000			1" Ice	8.143	2.837	0.113
						2" Ice	9.091	3.554	0.205
						4" Ice	11.093	5.077	0.457
APX16DWV-16DWV-S-E-A	B	From Face	0.000	0.0000	242.000	No Ice	7.228	2.150	0.041
20			0.000			1/2" Ice	7.681	2.490	0.074
(P)			0.000			1" Ice	8.143	2.837	0.113
						2" Ice	9.091	3.554	0.205
						4" Ice	11.093	5.077	0.457
ATMAA1412D-1A20	C	From Face	0.000	0.0000	242.000	No Ice	1.167	0.467	0.013
(P)			0.000			1/2" Ice	1.314	0.575	0.021
			0.000			1" Ice	1.469	0.691	0.030
						2" Ice	1.806	0.951	0.056
						4" Ice	2.584	1.573	0.137

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft / Vert ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
ATMAA1412D-1A20	B	From Face	0.000	0.0000	242.000	No Ice	1.167	0.467	0.013
(P)			0.000			1/2" Ice	1.314	0.575	0.021
			0.000			1" Ice	1.469	0.691	0.030
						2" Ice	1.806	0.951	0.056
						4" Ice	2.584	1.573	0.137
ATMPP1412D-1CWA	C	From Face	0.000	0.0000	242.000	No Ice	1.167	0.416	0.013
(P)			0.000			1/2" Ice	1.317	0.530	0.020
			0.000			1" Ice	1.476	0.652	0.028
						2" Ice	1.820	0.923	0.052
						4" Ice	2.610	1.569	0.131
ATMPP1412D-1CWA	B	From Face	0.000	0.0000	242.000	No Ice	1.167	0.416	0.013
(P)			0.000			1/2" Ice	1.317	0.530	0.020
			0.000			1" Ice	1.476	0.652	0.028
						2" Ice	1.820	0.923	0.052
						4" Ice	2.610	1.569	0.131
Sector Mount [SM 201-1]	C	None		0.0000	240.000	No Ice	17.890	5.840	0.361
(E)						1/2" Ice	24.350	9.070	0.497
						1" Ice	30.810	12.300	0.632
						2" Ice	43.730	18.760	0.903
						4" Ice	69.570	31.680	1.445
Sector Mount [SM 201-1]	B	None		0.0000	240.000	No Ice	17.890	5.840	0.361
(E)						1/2" Ice	24.350	9.070	0.497
						1" Ice	30.810	12.300	0.632
						2" Ice	43.730	18.760	0.903
						4" Ice	69.570	31.680	1.445
****									
ANT150F6	C	From Leg	0.000	0.0000	219.000	No Ice	4.800	4.800	0.030
(E)			0.000			1/2" Ice	6.828	6.828	0.066
			0.000			1" Ice	8.873	8.873	0.114
						2" Ice	13.013	13.013	0.249
						4" Ice	21.034	21.034	0.678
Side Arm Mount [SO 309-1]	C	From Leg	0.000	0.0000	219.000	No Ice	2.820	2.200	0.040
(E)			0.000			1/2" Ice	4.070	3.160	0.062
			0.000			1" Ice	5.320	4.120	0.084
						2" Ice	7.820	6.040	0.128
						4" Ice	12.820	9.880	0.216
****									
742 213 w/Mount Pipe	C	From Leg	0.000	0.0000	214.000	No Ice	5.169	4.416	0.041
(E)			0.000			1/2" Ice	5.645	5.496	0.080
			0.000			1" Ice	6.128	6.331	0.130
						2" Ice	7.117	8.049	0.255
						4" Ice	9.183	11.686	0.634
742 213 w/Mount Pipe	B	From Leg	0.000	0.0000	214.000	No Ice	5.169	4.416	0.041
(E)			0.000			1/2" Ice	5.645	5.496	0.080
			0.000			1" Ice	6.128	6.331	0.130
						2" Ice	7.117	8.049	0.255
						4" Ice	9.183	11.686	0.634
742 213 w/Mount Pipe	A	From Leg	0.000	0.0000	214.000	No Ice	5.169	4.416	0.041
(E)			0.000			1/2" Ice	5.645	5.496	0.080
			0.000			1" Ice	6.128	6.331	0.130
						2" Ice	7.117	8.049	0.255
						4" Ice	9.183	11.686	0.634
****									
ANT150F6	B	From Leg	0.000	0.0000	187.000	No Ice	4.800	4.800	0.030
(E)			0.000			1/2" Ice	6.828	6.828	0.066
			0.000			1" Ice	8.873	8.873	0.114
						2" Ice	13.013	13.013	0.249

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
						4" Ice	21.034	21.034	0.678
Side Arm Mount [SO 309-1]	B	From Leg	0.000	0.0000	177.000	No Ice	2.820	2.200	0.040
(E)			0.000			1/2" Ice	4.070	3.160	0.062
			0.000			1" Ice	5.320	4.120	0.084
						2" Ice	7.820	6.040	0.128
						4" Ice	12.820	9.880	0.216
****									
Side Arm Mount [SO 202-1]	C	From Face	0.000	0.0000	145.000	No Ice	2.960	2.530	0.110
(Abandoned)			0.000			1/2" Ice	4.100	3.510	0.134
			0.000			1" Ice	5.240	4.490	0.157
						2" Ice	7.520	6.450	0.204
						4" Ice	12.080	10.370	0.298
****									
Side Arm Mount [SO 301-1]	A	From Leg	0.000	0.0000	140.000	No Ice	1.000	0.900	0.023
(E)			0.000			1/2" Ice	1.390	1.420	0.033
			0.000			1" Ice	1.780	1.940	0.042
						2" Ice	2.560	2.980	0.061
						4" Ice	4.120	5.060	0.100
****									
Pipe Mount [PM 601-1]	A	From Leg	0.000	0.0000	135.000	No Ice	3.000	0.900	0.065
(E)			0.000			1/2" Ice	3.740	1.120	0.079
			0.000			1" Ice	4.480	1.340	0.093
						2" Ice	5.960	1.780	0.122
						4" Ice	8.920	2.660	0.178
****									
201-8	C	From Leg	0.000	0.0000	120.000	No Ice	1.060	1.060	0.000
(E)			0.000			1/2" Ice	1.890	1.890	0.010
			0.000			1" Ice	2.720	2.720	0.000
						2" Ice	4.380	4.380	0.000
						4" Ice	7.700	7.700	0.000
Pipe Mount [PM 601-1]	C	From Leg	0.000	0.0000	116.000	No Ice	3.000	0.900	0.065
(E)			0.000			1/2" Ice	3.740	1.120	0.079
			0.000			1" Ice	4.480	1.340	0.093
						2" Ice	5.960	1.780	0.122
						4" Ice	8.920	2.660	0.178
****									
ANT150F2	C	From Leg	0.000	0.0000	94.000	No Ice	1.230	1.230	0.010
(E)			0.000			1/2" Ice	1.530	1.530	0.020
			0.000			1" Ice	1.830	1.830	0.030
						2" Ice	2.430	2.430	0.050
						4" Ice	3.630	3.630	0.090
Side Arm Mount [SO 309-1]	C	From Leg	0.000	0.0000	91.000	No Ice	2.820	2.200	0.040
(E)			0.000			1/2" Ice	4.070	3.160	0.062
			0.000			1" Ice	5.320	4.120	0.084
						2" Ice	7.820	6.040	0.128
						4" Ice	12.820	9.880	0.216
****									
ACUTIME 2000 GPS	C	From Leg	0.000	0.0000	80.000	No Ice	0.170	0.170	0.005
(E)			0.000			1/2" Ice	0.237	0.237	0.008
			0.000			1" Ice	0.316	0.316	0.012
						2" Ice	0.506	0.506	0.024
						4" Ice	1.020	1.020	0.066
Pipe Mount [PM 601-1]	C	From Leg	0.000	0.0000	79.000	No Ice	3.000	0.900	0.065
(E)			0.000			1/2" Ice	3.740	1.120	0.079
			0.000			1" Ice	4.480	1.340	0.093
						2" Ice	5.960	1.780	0.122
						4" Ice	8.920	2.660	0.178

Description	Face or Leg	Offset Type	Offsets: Horz Lateral ft Vert ft	Azimuth Adjustment °	Placement ft	C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
****								

Dishes

Description	Face or Leg	Dish Type	Offset Type	Offsets: Horz Lateral ft Vert ft	Azimuth Adjustment °	3 dB Beam Width °	Elevation ft	Outside Diameter ft		Aperture Area ft^2	Weight K
SPD2-5.8 (E)	C	Paraboloid w/Radome	From Leg	0.000 0.000 0.000	0.0000		300.000	2.000	No Ice 1/2" Ice 1" Ice 2" Ice 4" Ice	3.140 3.407 3.674 4.208 5.277	0.022 0.039 0.057 0.092 0.162
****											
SPD2-5.8 (E)	A	Paraboloid w/Radome	From Leg	0.000 0.000 0.000	0.0000		140.000	2.000	No Ice 1/2" Ice 1" Ice 2" Ice 4" Ice	3.140 3.407 3.674 4.208 5.277	0.022 0.039 0.057 0.092 0.162
****											
SPD2-5.8 (E)	A	Paraboloid w/Radome	From Leg	0.000 0.000 0.000	0.0000		135.000	2.000	No Ice 1/2" Ice 1" Ice 2" Ice 4" Ice	3.140 3.407 3.674 4.208 5.277	0.022 0.039 0.057 0.092 0.162
****											

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 60 deg - No Ice+Guy
5	Dead+Wind 90 deg - No Ice+Guy
6	Dead+Wind 120 deg - No Ice+Guy
7	Dead+Wind 150 deg - No Ice+Guy
8	Dead+Wind 180 deg - No Ice+Guy
9	Dead+Wind 210 deg - No Ice+Guy
10	Dead+Wind 240 deg - No Ice+Guy
11	Dead+Wind 270 deg - No Ice+Guy
12	Dead+Wind 300 deg - No Ice+Guy
13	Dead+Wind 330 deg - No Ice+Guy
14	Dead+Ice+Guy
15	Dead+Wind 0 deg+Ice+Guy
16	Dead+Wind 30 deg+Ice+Guy

Comb. No.	Description
17	Dead+Wind 60 deg+Ice+Guy
18	Dead+Wind 90 deg+Ice+Guy
19	Dead+Wind 120 deg+Ice+Guy
20	Dead+Wind 150 deg+Ice+Guy
21	Dead+Wind 180 deg+Ice+Guy
22	Dead+Wind 210 deg+Ice+Guy
23	Dead+Wind 240 deg+Ice+Guy
24	Dead+Wind 270 deg+Ice+Guy
25	Dead+Wind 300 deg+Ice+Guy
26	Dead+Wind 330 deg+Ice+Guy
27	Dead+Wind 0 deg - Service+Guy
28	Dead+Wind 30 deg - Service+Guy
29	Dead+Wind 60 deg - Service+Guy
30	Dead+Wind 90 deg - Service+Guy
31	Dead+Wind 120 deg - Service+Guy
32	Dead+Wind 150 deg - Service+Guy
33	Dead+Wind 180 deg - Service+Guy
34	Dead+Wind 210 deg - Service+Guy
35	Dead+Wind 240 deg - Service+Guy
36	Dead+Wind 270 deg - Service+Guy
37	Dead+Wind 300 deg - Service+Guy
38	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
T1	560 - 535	Leg	Max Tension	12	4.490	-0.011	-0.008
			Max. Compression	6	-11.437	0.200	0.114
			Max. Mx	6	-11.437	0.200	0.114
			Max. My	2	-8.167	0.003	-0.220
			Max. Vy	6	1.606	0.066	0.038
			Max. Vx	2	-1.785	-0.000	-0.071
		Diagonal	Max Tension	11	5.223	0.000	0.000
		Horizontal	Max Tension	6	0.198	0.000	0.000
			Max. Compression	8	-5.873	0.000	0.000
			Max. Mx	14	0.127	-0.102	0.000
			Max. My	5	0.181	0.000	-0.000
			Max. Vy	14	0.051	0.000	0.000
			Max. Vx	5	0.000	0.000	0.000
		Top Girt	Max Tension	1	0.000	0.000	0.000
			Max. Compression	8	-3.147	0.000	0.000
			Max. Mx	14	-3.092	-0.102	0.000
			Max. My	5	-3.095	0.000	-0.000
			Max. Vy	14	0.051	0.000	0.000
			Max. Vx	5	0.000	0.000	0.000
		Bottom Girt	Max Tension	1	0.000	0.000	0.000
			Max. Compression	6	-3.106	0.000	0.000
			Max. Mx	14	-3.074	-0.102	0.000
			Max. My	5	-3.084	0.000	-0.000
			Max. Vy	14	0.051	0.000	0.000
			Max. Vx	5	0.000	0.000	0.000
T2	535 - 510	Leg	Max Tension	12	21.133	0.144	0.051
			Max. Compression	6	-31.426	0.176	0.130
			Max. Mx	11	18.116	0.337	0.057
			Max. My	8	20.515	0.038	-0.353
			Max. Vy	6	4.077	-0.164	-0.064
			Max. Vx	2	-4.600	-0.039	0.172

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Force K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
		Diagonal	Max Tension	9	6.638	0.000	0.000
		Horizontal	Max Tension	6	0.544	0.000	0.000
			Max. Compression	2	-5.760	0.000	0.000
			Max. Mx	14	0.176	-0.101	0.000
			Max. My	5	0.468	0.000	-0.000
			Max. Vy	14	0.051	0.000	0.000
			Max. Vx	5	0.000	0.000	0.000
		Top Girt	Max Tension	1	0.000	0.000	0.000
			Max. Compression	4	-3.112	0.000	0.000
			Max. Mx	14	-3.074	-0.101	0.000
			Max. My	5	-3.086	0.000	-0.000
			Max. Vy	14	0.051	0.000	0.000
			Max. Vx	5	0.000	0.000	0.000
		Bottom Girt	Max Tension	1	0.000	0.000	0.000
			Max. Compression	6	-3.701	0.000	0.000
			Max. Mx	14	-3.527	-0.101	0.000
			Max. My	5	-3.555	0.000	-0.000
			Max. Vy	14	0.051	0.000	0.000
			Max. Vx	5	0.000	0.000	0.000
T3	510 - 485	Leg	Max Tension	12	30.684	-0.190	-0.117
			Max. Compression	6	-65.110	-0.521	-0.264
			Max. Mx	11	-27.128	0.793	0.257
			Max. My	8	-23.565	-0.011	-0.850
			Max. Vy	10	4.877	0.537	-0.240
			Max. Vx	2	5.370	0.028	0.583
		Diagonal	Max Tension	9	10.143	0.000	0.000
		Horizontal	Max Tension	6	1.463	0.000	0.000
			Max. Compression	6	-8.669	0.000	0.000
			Max. Mx	14	0.687	-0.101	0.000
			Max. My	5	1.009	0.000	-0.000
			Max. Vy	14	0.050	0.000	0.000
			Max. Vx	5	0.000	0.000	0.000
		Top Girt	Max Tension	1	0.000	0.000	0.000
			Max. Compression	6	-3.715	0.000	0.000
			Max. Mx	14	-3.617	-0.101	0.000
			Max. My	5	-3.645	0.000	-0.000
			Max. Vy	14	0.050	0.000	0.000
			Max. Vx	5	0.000	0.000	0.000
		Bottom Girt	Max Tension	1	0.000	0.000	0.000
			Max. Compression	6	-4.036	0.000	0.000
			Max. Mx	14	-3.785	-0.101	0.000
			Max. My	5	-3.822	0.000	-0.000
			Max. Vy	14	0.050	0.000	0.000
			Max. Vx	5	0.000	0.000	0.000
		Guy A	Bottom Tension	8	57.444		
			Top Tension	8	59.046		
			Top Cable Vert	8	52.667		
			Top Cable Norm	8	26.696		
			Top Cable Tan	8	0.003		
			Bot Cable Vert	8	-50.069		
			Bot Cable Norm	8	28.159		
			Bot Cable Tan	8	0.003		
		Guy B	Bottom Tension	12	57.702		
			Top Tension	12	59.304		
			Top Cable Vert	12	52.893		
			Top Cable Norm	12	26.819		
			Top Cable Tan	12	0.006		
			Bot Cable Vert	12	-50.296		
			Bot Cable Norm	12	28.282		
			Bot Cable Tan	12	0.006		
		Guy C	Bottom Tension	4	57.375		

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Force K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Top Tension	4	58.977		
			Top Cable Vert	4	52.606		
			Top Cable Norm	4	26.663		
			Top Cable Tan	4	0.009		
			Bot Cable Vert	4	-50.009		
			Bot Cable Norm	4	28.126		
			Bot Cable Tan	4	0.009		
		Top Guy Pull-Off	Max Tension	6	1.463	0.000	0.000
			Max. Compression	4	-2.806	0.000	0.000
			Max. Mx	14	-1.623	-0.101	0.000
			Max. My	5	-0.663	0.000	-0.000
			Max. Vy	14	0.050	0.000	0.000
			Max. Vx	5	0.000	0.000	0.000
T4	485 - 460	Leg	Max Tension	1	0.000	0.000	0.000
			Max. Compression	6	-55.914	-0.182	-0.094
			Max. Mx	4	-42.042	-0.485	0.098
			Max. My	8	-41.483	-0.130	-0.461
			Max. Vy	10	4.875	0.132	-0.042
			Max. Vx	2	5.368	0.011	0.135
		Diagonal	Max Tension	11	6.501	0.000	0.000
		Horizontal	Max Tension	6	0.968	0.000	0.000
			Max. Compression	28	-5.397	0.000	0.000
			Max. Mx	14	0.689	-0.100	0.000
			Max. My	5	0.866	0.000	-0.000
			Max. Vy	14	0.050	0.000	0.000
			Max. Vx	5	0.000	0.000	0.000
		Top Girt	Max Tension	1	0.000	0.000	0.000
			Max. Compression	6	-4.132	0.000	0.000
			Max. Mx	14	-3.782	-0.100	0.000
			Max. My	5	-3.834	0.000	-0.000
			Max. Vy	14	0.050	0.000	0.000
			Max. Vx	5	0.000	0.000	0.000
		Bottom Girt	Max Tension	1	0.000	0.000	0.000
			Max. Compression	4	-2.673	0.000	0.000
			Max. Mx	14	-2.520	-0.100	0.000
			Max. My	5	-2.545	0.000	-0.000
			Max. Vy	14	0.050	0.000	0.000
			Max. Vx	5	0.000	0.000	0.000
T5	460 - 435	Leg	Max Tension	1	0.000	0.000	0.000
			Max. Compression	17	-56.639	-0.069	0.024
			Max. Mx	4	-42.047	-0.361	0.057
			Max. My	8	-41.487	-0.107	-0.335
			Max. Vy	10	2.026	0.118	0.040
			Max. Vx	2	2.128	0.082	0.082
		Diagonal	Max Tension	4	3.277	0.000	0.000
		Horizontal	Max Tension	17	0.981	0.000	0.000
			Max. Compression	4	-2.471	0.000	0.000
			Max. Mx	14	0.703	-0.077	0.000
			Max. My	5	0.886	0.000	-0.000
			Max. Vy	14	0.039	0.000	0.000
			Max. Vx	5	0.000	0.000	0.000
		Top Girt	Max Tension	1	0.000	0.000	0.000
			Max. Compression	29	-1.554	0.000	0.000
			Max. Mx	14	-1.479	-0.077	0.000
			Max. My	5	-1.500	0.000	-0.000
			Max. Vy	14	0.039	0.000	0.000
			Max. Vx	5	0.000	0.000	0.000
		Bottom Girt	Max Tension	1	0.000	0.000	0.000
			Max. Compression	4	-1.309	0.000	0.000
			Max. Mx	14	-1.197	-0.077	0.000
			Max. My	5	-1.187	0.000	-0.000

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Force K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Max. Vy	14	0.039	0.000	0.000
			Max. Vx	5	0.000	0.000	0.000
T6	435 - 410	Leg	Max Tension	1	0.000	0.000	0.000
			Max. Compression	17	-59.311	0.001	-0.013
			Max. Mx	6	-47.882	0.351	0.182
			Max. My	2	-46.068	0.066	-0.382
			Max. Vy	6	2.308	0.158	0.079
			Max. Vx	2	-2.566	0.043	-0.168
		Diagonal	Max Tension	2	3.876	0.000	0.000
		Horizontal	Max Tension	17	1.027	0.000	0.000
			Max. Compression	2	-2.815	0.000	0.000
			Max. Mx	14	0.754	-0.077	0.000
			Max. My	5	0.891	0.000	-0.000
			Max. Vy	14	0.038	0.000	0.000
			Max. Vx	5	0.000	0.000	0.000
		Top Girt	Max Tension	1	0.000	0.000	0.000
			Max. Compression	4	-1.309	0.000	0.000
			Max. Mx	14	-1.196	-0.077	0.000
			Max. My	5	-1.189	0.000	-0.000
			Max. Vy	14	0.038	0.000	0.000
			Max. Vx	5	0.000	0.000	0.000
		Bottom Girt	Max Tension	1	0.000	0.000	0.000
			Max. Compression	2	-1.706	0.000	0.000
			Max. Mx	14	-1.181	-0.077	0.000
			Max. My	10	-1.617	0.000	0.000
			Max. Vy	14	0.038	0.000	0.000
			Max. Vx	10	-0.000	0.000	0.000
T7	410 - 385	Leg	Max Tension	1	0.000	0.000	0.000
			Max. Compression	6	-73.833	-0.227	-0.113
			Max. Mx	6	-29.805	-0.477	-0.203
			Max. My	2	-30.667	-0.064	0.517
			Max. Vy	6	4.060	-0.227	-0.113
			Max. Vx	2	-4.600	-0.023	0.249
		Diagonal	Max Tension	3	6.290	0.000	0.000
		Horizontal	Max Tension	6	1.279	0.000	0.000
			Max. Compression	2	-4.727	0.000	0.000
			Max. Mx	14	0.810	-0.076	0.000
			Max. My	10	1.237	0.000	0.000
			Max. Vy	14	0.038	0.000	0.000
			Max. Vx	10	-0.000	0.000	0.000
		Top Girt	Max Tension	1	0.000	0.000	0.000
			Max. Compression	2	-1.738	0.000	0.000
			Max. Mx	14	-1.181	-0.076	0.000
			Max. My	10	-1.650	0.000	0.000
			Max. Vy	14	0.038	0.000	0.000
			Max. Vx	10	-0.000	0.000	0.000
		Bottom Girt	Max Tension	1	0.000	0.000	0.000
			Max. Compression	2	-2.725	0.000	0.000
			Max. Mx	14	-1.369	-0.076	0.000
			Max. My	10	-2.611	0.000	0.000
			Max. Vy	14	0.038	0.000	0.000
			Max. Vx	10	-0.000	0.000	0.000
T8	385 - 360	Leg	Max Tension	12	3.275	0.400	0.171
			Max. Compression	6	-112.905	-0.612	-0.316
			Max. Mx	5	-2.019	-1.000	-0.162
			Max. My	2	-13.629	-0.145	0.993
			Max. Vy	12	-5.388	0.849	0.417
			Max. Vx	8	6.097	0.017	-0.937
		Diagonal	Max Tension	5	9.151	0.000	0.000
		Horizontal	Max Tension	6	1.956	0.000	0.000
			Max. Compression	5	-6.946	0.000	0.000

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Force K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Max. Mx	14	0.880	-0.082	0.000
			Max. My	10	1.908	0.000	0.000
			Max. Vy	14	0.041	0.000	0.000
			Max. Vx	10	-0.000	0.000	0.000
		Top Girt	Max Tension	1	0.000	0.000	0.000
			Max. Compression	2	-2.753	0.000	0.000
			Max. Mx	14	-1.384	-0.076	0.000
			Max. My	10	-2.639	0.000	0.000
			Max. Vy	14	0.038	0.000	0.000
			Max. Vx	10	-0.000	0.000	0.000
		Bottom Girt	Max Tension	1	0.000	0.000	0.000
			Max. Compression	5	-2.988	0.000	0.000
			Max. Mx	14	-1.588	-0.076	0.000
			Max. My	10	-2.688	0.000	0.000
			Max. Vy	14	0.038	0.000	0.000
			Max. Vx	10	-0.000	0.000	0.000
T9	360 - 335	Leg	Max Tension	12	45.046	0.535	0.243
			Max. Compression	6	-165.337	-0.551	-0.302
			Max. Mx	5	-3.153	-1.438	-0.049
			Max. My	8	2.300	0.024	-1.446
			Max. Vy	6	7.310	-0.551	-0.302
			Max. Vx	2	-8.314	0.014	0.622
		Diagonal	Max Tension	5	12.300	0.000	0.000
		Horizontal	Max Tension	6	2.864	0.000	0.000
			Max. Compression	5	-9.329	0.000	0.000
			Max. Mx	14	0.974	-0.097	0.000
			Max. My	10	2.810	0.000	0.000
			Max. Vy	14	0.048	0.000	0.000
			Max. Vx	10	-0.000	0.000	0.000
		Top Girt	Max Tension	1	0.000	0.000	0.000
			Max. Compression	5	-4.956	0.000	0.000
			Max. Mx	14	-2.679	-0.097	0.000
			Max. My	10	-4.489	0.000	0.000
			Max. Vy	14	0.048	0.000	0.000
			Max. Vx	10	-0.000	0.000	0.000
		Bottom Girt	Max Tension	1	0.000	0.000	0.000
			Max. Compression	5	-5.259	0.000	0.000
			Max. Mx	14	-3.166	-0.097	0.000
			Max. My	10	-4.592	0.000	0.000
			Max. Vy	14	0.048	0.000	0.000
			Max. Vx	10	-0.000	0.000	0.000
T10	335 - 310	Leg	Max Tension	12	70.109	-0.133	-0.182
			Max. Compression	6	-216.728	-1.464	-0.822
			Max. Mx	5	1.761	-2.613	0.441
			Max. My	9	55.515	0.633	-2.440
			Max. Vy	6	7.354	-1.165	-0.635
			Max. Vx	2	-8.372	0.015	1.319
		Diagonal	Max Tension	5	14.599	0.000	0.000
		Horizontal	Max Tension	10	4.390	0.000	0.000
			Max. Compression	5	-11.088	0.000	0.000
			Max. Mx	14	1.572	-0.096	0.000
			Max. My	10	3.697	0.000	0.000
			Max. Vy	14	0.048	0.000	0.000
			Max. Vx	10	-0.000	0.000	0.000
		Top Girt	Max Tension	1	0.000	0.000	0.000
			Max. Compression	5	-5.318	0.000	0.000
			Max. Mx	14	-3.221	-0.096	0.000
			Max. My	10	-4.679	0.000	0.000
			Max. Vy	14	0.048	0.000	0.000
			Max. Vx	10	-0.000	0.000	0.000
		Bottom Girt	Max Tension	1	0.000	0.000	0.000

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Force K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Max. Compression	4	-4.628	0.000	0.000
			Max. Mx	14	-3.526	-0.096	0.000
			Max. My	10	-4.023	0.000	0.000
			Max. Vy	14	0.048	0.000	0.000
			Max. Vx	10	-0.000	0.000	0.000
		Guy A	Bottom Tension	8	68.086		
			Top Tension	8	69.577		
			Top Cable Vert	8	54.349		
			Top Cable Norm	8	43.441		
			Top Cable Tan	8	0.004		
			Bot Cable Vert	8	-51.786		
			Bot Cable Norm	8	44.202		
			Bot Cable Tan	8	0.004		
		Guy B	Bottom Tension	12	68.052		
			Top Tension	12	69.543		
			Top Cable Vert	12	54.323		
			Top Cable Norm	12	43.420		
			Top Cable Tan	12	0.009		
			Bot Cable Vert	12	-51.760		
			Bot Cable Norm	12	44.181		
			Bot Cable Tan	12	0.009		
		Guy C	Bottom Tension	4	68.327		
			Top Tension	4	69.818		
			Top Cable Vert	4	54.534		
			Top Cable Norm	4	43.596		
			Top Cable Tan	4	0.013		
			Bot Cable Vert	4	-51.972		
			Bot Cable Norm	4	44.357		
			Bot Cable Tan	4	0.013		
		Top Guy Pull-Off	Max Tension	10	4.390	0.000	0.000
			Max. Compression	4	-1.230	0.000	0.000
			Max. Mx	14	0.869	-0.096	0.000
			Max. My	10	0.304	0.000	0.000
			Max. Vy	14	0.048	0.000	0.000
			Max. Vx	10	-0.000	0.000	0.000
T11	310 - 285	Leg	Max Tension	12	16.800	0.348	0.187
			Max. Compression	6	-204.337	-0.347	-0.198
			Max. Mx	5	-34.996	-1.978	0.014
			Max. My	8	-29.028	-0.128	-2.078
			Max. Vy	11	6.557	1.051	0.116
			Max. Vx	2	7.375	0.038	1.053
		Diagonal	Max Tension	5	11.352	0.000	0.000
		Horizontal	Max Tension	6	3.539	0.000	0.000
			Max. Compression	5	-8.637	0.000	0.000
			Max. Mx	14	1.567	-0.095	0.000
			Max. My	10	3.481	0.000	0.000
			Max. Vy	14	0.048	0.000	0.000
			Max. Vx	10	-0.000	0.000	0.000
		Top Girt	Max Tension	1	0.000	0.000	0.000
			Max. Compression	4	-4.862	0.000	0.000
			Max. Mx	14	-3.597	-0.095	0.000
			Max. My	10	-4.149	0.000	0.000
			Max. Vy	14	0.048	0.000	0.000
			Max. Vx	10	-0.000	0.000	0.000
		Bottom Girt	Max Tension	1	0.000	0.000	0.000
			Max. Compression	7	-4.235	0.000	0.000
			Max. Mx	14	-2.080	-0.095	0.000
			Max. My	10	-3.702	0.000	0.000
			Max. Vy	14	0.048	0.000	0.000
			Max. Vx	10	-0.000	0.000	0.000
T12	285 - 260	Leg	Max Tension	1	0.000	0.000	0.000

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Force K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Max. Compression	6	-163.025	-0.173	-0.132
			Max. Mx	5	-35.001	-1.625	-0.094
			Max. My	2	-45.595	0.111	1.678
			Max. Vy	4	-4.637	-1.447	0.794
			Max. Vx	8	-5.301	-0.117	-1.637
		Diagonal	Max Tension	7	7.850	0.000	0.000
		Horizontal	Max Tension	6	2.824	0.000	0.000
			Max. Compression	7	-6.011	0.000	0.000
			Max. Mx	14	1.596	-0.079	0.000
			Max. My	10	2.760	0.000	0.000
			Max. Vy	14	0.040	0.000	0.000
			Max. Vx	10	-0.000	0.000	0.000
		Top Girt	Max Tension	1	0.000	0.000	0.000
			Max. Compression	7	-2.902	0.000	0.000
			Max. Mx	14	-1.382	-0.079	0.000
			Max. My	10	-2.518	0.000	0.000
			Max. Vy	14	0.040	0.000	0.000
			Max. Vx	10	-0.000	0.000	0.000
		Bottom Girt	Max Tension	1	0.000	0.000	0.000
			Max. Compression	7	-2.093	0.000	0.000
			Max. Mx	14	-1.065	-0.079	0.000
			Max. My	10	-1.968	0.000	0.000
			Max. Vy	14	0.040	0.000	0.000
			Max. Vx	10	-0.000	0.000	0.000
T13	260 - 235	Leg	Max Tension	1	0.000	0.000	0.000
			Max. Compression	6	-136.099	-0.227	-0.084
			Max. Mx	5	-116.352	0.727	0.029
			Max. My	2	-132.908	-0.078	-0.706
			Max. Vy	10	2.659	-0.481	0.189
			Max. Vx	2	3.137	-0.074	-0.444
		Diagonal	Max Tension	7	4.373	0.000	0.000
		Horizontal	Max Tension	6	2.357	0.000	0.000
			Max. Compression	7	-2.747	0.000	0.000
			Max. Mx	14	1.695	-0.079	0.000
			Max. My	10	2.288	0.000	0.000
			Max. Vy	14	0.039	0.000	0.000
			Max. Vx	10	-0.000	0.000	0.000
		Top Girt	Max Tension	1	0.000	0.000	0.000
			Max. Compression	7	-2.053	0.000	0.000
			Max. Mx	14	-1.065	-0.079	0.000
			Max. My	10	-1.923	0.000	0.000
			Max. Vy	14	0.039	0.000	0.000
			Max. Vx	10	-0.000	0.000	0.000
		Bottom Girt	Max Tension	1	0.000	0.000	0.000
			Max. Compression	29	-1.190	0.000	0.000
			Max. Mx	14	-1.042	-0.079	0.000
			Max. My	10	-1.081	0.000	0.000
			Max. Vy	14	0.039	0.000	0.000
			Max. Vx	10	-0.000	0.000	0.000
T14	235 - 210	Leg	Max Tension	1	0.000	0.000	0.000
			Max. Compression	6	-146.812	-0.541	-0.188
			Max. Mx	11	-59.266	1.058	-0.225
			Max. My	2	-63.864	0.133	0.913
			Max. Vy	10	-3.467	0.568	-0.193
			Max. Vx	2	-3.726	0.009	0.576
		Diagonal	Max Tension	11	5.533	0.000	0.000
		Horizontal	Max Tension	6	2.543	0.000	0.000
			Max. Compression	11	-3.905	0.000	0.000
			Max. Mx	14	1.761	-0.078	0.000
			Max. My	10	2.505	0.000	0.000
			Max. Vy	14	0.039	0.000	0.000

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Force K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Max. Vx	10	-0.000	0.000	0.000
		Top Girt	Max Tension	1	0.000	0.000	0.000
			Max. Compression	29	-1.192	0.000	0.000
			Max. Mx	14	-1.042	-0.078	0.000
			Max. My	10	-1.082	0.000	0.000
			Max. Vy	14	0.039	0.000	0.000
			Max. Vx	10	-0.000	0.000	0.000
		Bottom Girt	Max Tension	1	0.000	0.000	0.000
			Max. Compression	11	-2.589	0.000	0.000
			Max. Mx	14	-1.372	-0.078	0.000
			Max. My	10	-1.744	0.000	0.000
			Max. Vy	14	0.039	0.000	0.000
			Max. Vx	10	-0.000	0.000	0.000
T15	210 - 185	Leg	Max Tension	1	0.000	0.000	0.000
			Max. Compression	6	-179.894	-0.231	-0.121
			Max. Mx	5	-60.875	-1.250	-0.181
			Max. My	8	-58.408	-0.029	-1.115
			Max. Vy	4	5.410	-0.884	0.315
			Max. Vx	8	5.869	-0.045	-0.906
		Diagonal	Max Tension	11	9.623	0.000	0.000
		Horizontal	Max Tension	6	3.116	0.000	0.000
			Max. Compression	11	-7.058	0.000	0.000
			Max. Mx	14	1.861	-0.077	0.000
			Max. My	10	3.097	0.000	0.000
			Max. Vy	14	0.038	0.000	0.000
			Max. Vx	10	-0.000	0.000	0.000
		Top Girt	Max Tension	1	0.000	0.000	0.000
			Max. Compression	11	-2.640	0.000	0.000
			Max. Mx	14	-1.414	-0.077	0.000
			Max. My	10	-1.793	0.000	0.000
			Max. Vy	14	0.038	0.000	0.000
			Max. Vx	10	-0.000	0.000	0.000
		Bottom Girt	Max Tension	1	0.000	0.000	0.000
			Max. Compression	11	-3.420	0.000	0.000
			Max. Mx	14	-1.663	-0.077	0.000
			Max. My	10	-2.369	0.000	0.000
			Max. Vy	14	0.038	0.000	0.000
			Max. Vx	10	-0.000	0.000	0.000
T16	185 - 160	Leg	Max Tension	4	13.047	-0.076	-0.386
			Max. Compression	10	-228.585	1.565	-0.522
			Max. Mx	5	-199.030	-1.737	0.274
			Max. My	2	-227.779	0.162	1.624
			Max. Vy	11	-7.427	1.736	0.257
			Max. Vx	2	-8.122	0.162	1.624
		Diagonal	Max Tension	11	13.084	0.000	0.000
		Horizontal	Max Tension	10	3.959	0.000	0.000
			Max. Compression	11	-10.127	0.000	0.000
			Max. Mx	14	1.957	-0.090	0.000
			Max. My	10	3.959	0.000	0.000
			Max. Vy	14	0.045	0.000	0.000
			Max. Vx	10	-0.000	0.000	0.000
		Top Girt	Max Tension	1	0.000	0.000	0.000
			Max. Compression	11	-4.998	0.000	0.000
			Max. Mx	14	-2.444	-0.090	0.000
			Max. My	10	-3.481	0.000	0.000
			Max. Vy	14	0.045	0.000	0.000
			Max. Vx	10	-0.000	0.000	0.000
		Bottom Girt	Max Tension	1	0.000	0.000	0.000
			Max. Compression	11	-5.501	0.000	0.000
			Max. Mx	14	-3.851	-0.090	0.000
			Max. My	10	-4.329	0.000	0.000

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Force K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Max. Vy	14	0.045	0.000	0.000
			Max. Vx	10	-0.000	0.000	0.000
T17	160 - 135	Leg	Max Tension	4	13.041	-0.491	-0.226
			Max. Compression	10	-251.940	1.300	-0.796
			Max. Mx	5	-34.624	-3.252	0.801
			Max. My	9	-1.696	0.872	-3.312
			Max. Vy	11	-7.424	2.354	0.020
			Max. Vx	2	-8.119	0.176	2.301
		Diagonal	Max Tension	4	14.376	0.000	0.000
		Horizontal	Max Tension	10	7.058	0.000	0.000
			Max. Compression	9	-10.626	0.000	0.000
			Max. Mx	14	2.467	-0.089	0.000
			Max. My	10	4.364	0.000	0.000
			Max. Vy	14	0.044	0.000	0.000
			Max. Vx	10	-0.000	0.000	0.000
		Top Girt	Max Tension	1	0.000	0.000	0.000
			Max. Compression	11	-5.214	0.000	0.000
			Max. Mx	14	-3.698	-0.089	0.000
			Max. My	10	-4.146	0.000	0.000
			Max. Vy	14	0.044	0.000	0.000
			Max. Vx	10	-0.000	0.000	0.000
		Bottom Girt	Max Tension	1	0.000	0.000	0.000
			Max. Compression	9	-5.169	0.000	0.000
			Max. Mx	14	-2.582	-0.089	0.000
			Max. My	10	-4.910	0.000	0.000
			Max. Vy	14	0.044	0.000	0.000
			Max. Vx	10	-0.000	0.000	0.000
		Guy A	Bottom Tension	8	64.423		
			Top Tension	8	65.410		
			Top Cable Vert	8	34.075		
			Top Cable Norm	8	55.833		
			Top Cable Tan	8	0.005		
			Bot Cable Vert	8	-31.875		
			Bot Cable Norm	8	55.986		
			Bot Cable Tan	8	0.005		
		Guy B	Bottom Tension	12	64.204		
			Top Tension	12	65.191		
			Top Cable Vert	12	33.964		
			Top Cable Norm	12	55.644		
			Top Cable Tan	12	0.006		
			Bot Cable Vert	12	-31.763		
			Bot Cable Norm	12	55.796		
			Bot Cable Tan	12	0.006		
		Guy C	Bottom Tension	4	64.563		
			Top Tension	4	65.550		
			Top Cable Vert	4	34.146		
			Top Cable Norm	4	55.954		
			Top Cable Tan	4	0.011		
			Bot Cable Vert	4	-31.946		
			Bot Cable Norm	4	56.106		
			Bot Cable Tan	4	0.011		
		Top Guy Pull-Off	Max Tension	10	7.058	0.000	0.000
			Max. Compression	1	0.000	0.000	0.000
			Max. Mx	14	4.892	-0.089	0.000
			Max. My	10	3.153	0.000	0.000
			Max. Vy	14	0.044	0.000	0.000
			Max. Vx	10	-0.000	0.000	0.000
T18	135 - 110	Leg	Max Tension	1	0.000	0.000	0.000
			Max. Compression	6	-210.039	-0.448	-0.280
			Max. Mx	5	-57.504	-1.230	-0.138
			Max. My	2	-77.250	-0.196	1.304

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Force K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Max. Vy	6	-6.817	-0.475	-0.269
			Max. Vx	2	7.899	-0.024	0.537
		Diagonal	Max Tension	9	11.907	0.000	0.000
		Horizontal	Max Tension	6	3.638	0.000	0.000
			Max. Compression	9	-8.976	0.000	0.000
			Max. Mx	14	2.525	-0.087	0.000
			Max. My	10	3.637	0.000	0.000
			Max. Vy	14	0.044	0.000	0.000
			Max. Vx	10	-0.000	0.000	0.000
		Top Girt	Max Tension	1	0.000	0.000	0.000
			Max. Compression	9	-5.136	0.000	0.000
			Max. Mx	14	-2.559	-0.087	0.000
			Max. My	10	-4.854	0.000	0.000
			Max. Vy	14	0.044	0.000	0.000
			Max. Vx	10	-0.000	0.000	0.000
		Bottom Girt	Max Tension	1	0.000	0.000	0.000
			Max. Compression	9	-4.793	0.000	0.000
			Max. Mx	14	-2.265	-0.087	0.000
			Max. My	10	-4.680	0.000	0.000
			Max. Vy	14	0.044	0.000	0.000
			Max. Vx	10	-0.000	0.000	0.000
T19	110 - 85	Leg	Max Tension	1	0.000	0.000	0.000
			Max. Compression	6	-166.616	-0.428	-0.311
			Max. Mx	6	-103.768	-0.778	-0.180
			Max. My	3	-96.329	-0.327	0.910
			Max. Vy	12	4.516	0.623	0.478
			Max. Vx	8	-5.394	0.110	-0.782
		Diagonal	Max Tension	9	8.907	0.000	0.000
		Horizontal	Max Tension	6	2.886	0.000	0.000
			Max. Compression	9	-6.552	0.000	0.000
			Max. Mx	14	2.590	-0.065	0.000
			Max. My	23	2.705	0.000	0.000
			Max. Vy	14	0.032	0.000	0.000
			Max. Vx	23	-0.000	0.000	0.000
		Top Girt	Max Tension	1	0.000	0.000	0.000
			Max. Compression	9	-2.924	0.000	0.000
			Max. Mx	14	-1.372	-0.065	0.000
			Max. My	23	-1.498	0.000	0.000
			Max. Vy	14	0.032	0.000	0.000
			Max. Vx	23	-0.000	0.000	0.000
		Bottom Girt	Max Tension	1	0.000	0.000	0.000
			Max. Compression	10	-2.680	0.000	0.000
			Max. Mx	14	-1.490	-0.065	0.000
			Max. My	18	-1.471	0.000	-0.000
			Max. Vy	14	0.032	0.000	0.000
			Max. Vx	18	0.000	0.000	0.000
T20	85 - 60	Leg	Max Tension	1	0.000	0.000	0.000
			Max. Compression	25	-168.863	0.145	0.114
			Max. Mx	6	-137.102	0.626	0.452
			Max. My	2	-136.464	0.078	-0.762
			Max. Vy	6	-3.028	0.374	0.282
			Max. Vx	2	3.605	0.057	-0.461
		Diagonal	Max Tension	10	6.104	0.000	0.000
		Horizontal	Max Tension	25	2.925	0.000	0.000
			Max. Compression	10	-4.438	0.000	0.000
			Max. Mx	14	2.668	-0.063	0.000
			Max. My	18	2.894	0.000	-0.000
			Max. Vy	14	0.031	0.000	0.000
			Max. Vx	18	0.000	0.000	0.000
		Top Girt	Max Tension	1	0.000	0.000	0.000
			Max. Compression	10	-2.655	0.000	0.000

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Force K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Max. Mx	14	-1.489	-0.063	0.000
			Max. My	18	-1.470	0.000	-0.000
			Max. Vy	14	0.031	0.000	0.000
			Max. Vx	18	0.000	0.000	0.000
		Bottom Girt	Max Tension	1	0.000	0.000	0.000
			Max. Compression	4	-1.743	0.000	0.000
			Max. Mx	14	-1.466	-0.063	0.000
			Max. My	18	-1.446	0.000	-0.000
			Max. Vy	14	0.031	0.000	0.000
			Max. Vx	18	0.000	0.000	0.000
T21	60 - 35	Leg	Max Tension	1	0.000	0.000	0.000
			Max. Compression	25	-173.309	0.091	0.091
			Max. Mx	4	-112.681	0.340	0.059
			Max. My	2	-121.701	0.020	-0.404
			Max. Vy	6	-1.114	0.245	0.140
			Max. Vx	2	1.434	-0.002	-0.284
		Diagonal	Max Tension	10	3.679	0.000	0.000
		Horizontal	Max Tension	25	3.002	0.000	0.000
			Max. Compression	37	-3.075	0.000	0.000
			Max. Mx	14	2.744	-0.060	0.000
			Max. My	18	2.972	0.000	-0.000
			Max. Vy	14	0.030	0.000	0.000
			Max. Vx	18	0.000	0.000	0.000
		Top Girt	Max Tension	1	0.000	0.000	0.000
			Max. Compression	4	-1.739	0.000	0.000
			Max. Mx	14	-1.465	-0.060	0.000
			Max. My	18	-1.446	0.000	-0.000
			Max. Vy	14	0.030	0.000	0.000
			Max. Vx	18	0.000	0.000	0.000
		Bottom Girt	Max Tension	1	0.000	0.000	0.000
			Max. Compression	4	-1.728	0.000	0.000
			Max. Mx	14	-1.451	-0.060	0.000
			Max. My	18	-1.431	0.000	-0.000
			Max. Vy	14	0.030	0.000	0.000
			Max. Vx	18	0.000	0.000	0.000
T22	35 - 10	Leg	Max Tension	1	0.000	0.000	0.000
			Max. Compression	25	-173.382	-0.261	-0.161
			Max. Mx	17	-161.499	4.748	1.206
			Max. My	21	-167.578	0.355	-5.083
			Max. Vy	17	16.453	-3.700	3.795
			Max. Vx	21	18.571	0.355	-5.083
		Diagonal	Max Tension	4	6.486	0.000	0.000
		Horizontal	Max Tension	25	3.003	0.000	0.000
			Max. Compression	4	-3.844	0.000	0.000
			Max. Mx	14	2.858	-0.058	0.000
			Max. My	18	2.989	0.000	-0.000
			Max. Vy	14	0.029	0.000	0.000
			Max. Vx	18	0.000	0.000	0.000
		Top Girt	Max Tension	1	0.000	0.000	0.000
			Max. Compression	4	-1.735	0.000	0.000
			Max. Mx	14	-1.455	-0.058	0.000
			Max. My	18	-1.433	0.000	-0.000
			Max. Vy	14	0.029	0.000	0.000
			Max. Vx	18	0.000	0.000	0.000
		Bottom Girt	Max Tension	15	6.749	0.000	0.000
			Max. Compression	1	0.000	0.000	0.000
			Max. Mx	14	6.501	-0.058	0.000
			Max. My	18	6.643	0.000	-0.000
			Max. Vy	14	0.029	0.000	0.000
			Max. Vx	18	0.000	0.000	0.000
T23	10 - 0	Leg	Max Tension	1	0.000	0.000	0.000

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Force K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Max. Compression	25	-186.246	-0.383	-2.134
			Max. Mx	25	-160.299	5.109	0.988
			Max. My	4	-134.332	-0.289	3.928
			Max. Vy	24	53.489	0.170	1.114
			Max. Vx	4	-1.520	-0.034	-1.447
		Horizontal	Max Tension	15	34.342	0.148	-0.060
			Max. Compression	1	0.000	0.000	0.000
			Max. Mx	4	0.259	0.276	0.298
			Max. My	4	25.643	0.084	0.467
			Max. Vy	4	0.137	0.276	0.298
			Max. Vx	4	0.158	0.276	0.298

Maximum Reactions

Location	Condition	Gov. Load Comb.	Vertical K	Horizontal, X K	Horizontal, Z K
Mast	Max. Vert	19	495.673	-1.847	-0.974
	Max. H_x	12	376.379	3.659	2.118
	Max. H_z	2	407.435	0.027	2.933
	Max. M_x	1	0.000	0.023	0.019
	Max. M_z	1	0.000	0.023	0.019
	Max. Torsion	10	10.546	2.529	-1.429
	Min. Vert	1	338.877	0.023	0.019
	Min. H_x	4	376.410	-3.591	2.109
	Min. H_z	8	376.265	0.024	-4.179
	Min. M_x	1	0.000	0.023	0.019
	Min. M_z	1	0.000	0.023	0.019
	Min. Torsion	4	-10.845	-3.591	2.109
Guy C @ 265 ft Elev 0 ft Azimuth 240 deg	Max. Vert	10	-9.852	-12.118	7.000
	Max. H_x	10	-9.852	-12.118	7.000
	Max. H_z	4	-133.926	-111.378	64.266
	Min. Vert	4	-133.926	-111.378	64.266
	Min. H_x	4	-133.926	-111.378	64.266
	Min. H_z	10	-9.852	-12.118	7.000
Guy B @ 265 ft Elev 0 ft Azimuth 120 deg	Max. Vert	6	-9.913	12.233	7.065
	Max. H_x	12	-133.819	111.086	64.111
	Max. H_z	12	-133.819	111.086	64.111
	Min. Vert	12	-133.819	111.086	64.111
	Min. H_x	6	-9.913	12.233	7.065
	Min. H_z	6	-9.913	12.233	7.065
Guy A @ 265 ft Elev 0 ft Azimuth 0 deg	Max. Vert	2	-9.894	0.001	-14.061
	Max. H_x	11	-73.711	2.696	-73.082
	Max. H_z	2	-9.894	0.001	-14.061
	Min. Vert	8	-133.730	-0.012	-128.347
	Min. H_x	5	-73.751	-2.697	-72.844
	Min. H_z	8	-133.730	-0.012	-128.347

Tower Mast Reaction Summary

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 Only	338.877	-0.023	-0.019	0.000	0.000	-0.000
Dead+Wind 0 deg - No Ice+Guy	407.435	-0.027	-2.933	0.000	0.000	4.729
Dead+Wind 30 deg - No Ice+Guy	391.265	2.236	-2.740	0.000	0.000	8.562
Dead+Wind 60 deg - No Ice+Guy	376.410	3.591	-2.109	0.000	0.000	10.845
Dead+Wind 90 deg - No Ice+Guy	391.864	3.443	-0.616	0.000	0.000	10.065
Dead+Wind 120 deg - No Ice+Guy	408.066	2.481	1.432	0.000	0.000	5.820
Dead+Wind 150 deg - No Ice+Guy	391.628	1.192	3.303	0.000	0.000	0.274
Dead+Wind 180 deg - No Ice+Guy	376.265	-0.024	4.179	0.000	0.000	-4.787
Dead+Wind 210 deg - No Ice+Guy	391.423	-1.236	3.310	0.000	0.000	-8.538
Dead+Wind 240 deg - No Ice+Guy	407.861	-2.529	1.429	0.000	0.000	-10.546
Dead+Wind 270 deg - No Ice+Guy	391.643	-3.501	-0.638	0.000	0.000	-10.020
Dead+Wind 300 deg - No Ice+Guy	376.379	-3.659	-2.118	0.000	0.000	-6.142
Dead+Wind 330 deg - No Ice+Guy	391.252	-2.299	-2.739	0.000	0.000	-0.328
Dead+Ice+Guy	485.439	-0.068	-0.129	0.000	0.000	-0.000
Dead+Wind 0 deg+Ice+Guy	495.352	-0.070	-2.356	0.000	0.000	1.893
Dead+Wind 30 deg+Ice+Guy	494.543	1.103	-2.120	0.000	0.000	6.034
Dead+Wind 60 deg+Ice+Guy	493.967	1.963	-1.300	0.000	0.000	7.838
Dead+Wind 90 deg+Ice+Guy	494.763	2.235	-0.153	0.000	0.000	7.587
Dead+Wind 120 deg+Ice+Guy	495.673	1.847	0.974	0.000	0.000	5.809
Dead+Wind 150 deg+Ice+Guy	494.744	1.057	1.876	0.000	0.000	2.652
Dead+Wind 180 deg+Ice+Guy	493.980	-0.071	2.214	0.000	0.000	-1.924
Dead+Wind 210 deg+Ice+Guy	494.640	-1.204	1.882	0.000	0.000	-5.965
Dead+Wind 240 deg+Ice+Guy	495.514	-1.998	0.981	0.000	0.000	-7.693
Dead+Wind 270 deg+Ice+Guy	494.658	-2.380	-0.151	0.000	0.000	-7.531
Dead+Wind 300 deg+Ice+Guy	493.934	-2.104	-1.298	0.000	0.000	-5.941
Dead+Wind 330 deg+Ice+Guy	494.543	-1.242	-2.117	0.000	0.000	-2.782
Dead+Wind 0 deg - Service+Guy	341.449	-0.028	-1.936	0.000	0.000	2.175
Dead+Wind 30 deg - Service+Guy	342.085	0.879	-1.637	0.000	0.000	4.379
Dead+Wind 60 deg - Service+Guy	342.495	1.548	-0.924	0.000	0.000	4.870
Dead+Wind 90 deg - Service+Guy	342.096	1.831	0.011	0.000	0.000	4.145
Dead+Wind 120 deg - Service+Guy	341.451	1.638	0.944	0.000	0.000	2.910
Dead+Wind 150 deg - Service+Guy	342.074	0.931	1.582	0.000	0.000	0.766
Dead+Wind 180 deg - Service+Guy	342.473	-0.018	1.804	0.000	0.000	-2.047
Dead+Wind 210 deg - Service+Guy	342.091	-0.970	1.577	0.000	0.000	-4.373
Dead+Wind 240 deg - Service+Guy	341.483	-1.679	0.935	0.000	0.000	-5.088
Dead+Wind 270 deg - Service+Guy	342.093	-1.879	0.002	0.000	0.000	-4.137

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+Wind 300 deg - Service+Guy	342.479	-1.601	-0.933	0.000	0.000	-2.823
Dead+Wind 330 deg - Service+Guy	342.066	-0.934	-1.643	0.000	0.000	-0.782

Solution Summary

	Sum of Applied Forces			Sum of Reactions			
Load Comb.	PX K	PY K	PZ K	PX K	PY K	PZ K	% Error
1	0.000	-170.751	0.000	0.000	170.751	0.001	0.001%
2	0.190	-171.172	-101.358	-0.190	171.172	101.353	0.002%
3	49.277	-170.751	-85.015	-49.277	170.751	85.012	0.001%
4	84.211	-170.331	-48.625	-84.211	170.331	48.627	0.001%
5	98.217	-170.751	-0.160	-98.215	170.751	0.161	0.001%
6	87.838	-171.172	50.526	-87.835	171.172	-50.525	0.001%
7	48.976	-170.751	84.830	-48.972	170.751	-84.828	0.002%
8	-0.175	-170.331	96.978	0.178	170.331	-96.979	0.002%
9	-49.285	-170.751	85.030	49.283	170.751	-85.029	0.001%
10	-88.015	-171.172	50.848	88.013	171.172	-50.846	0.001%
11	-98.189	-170.751	0.203	98.187	170.751	-0.201	0.001%
12	-83.988	-170.331	-48.294	83.990	170.331	48.295	0.001%
13	-48.930	-170.751	-84.804	48.931	170.751	84.800	0.002%
14	0.000	-303.019	0.000	0.001	303.019	0.002	0.001%
15	0.009	-303.254	-55.497	-0.009	303.253	55.494	0.001%
16	27.438	-303.019	-47.453	-27.438	303.019	47.451	0.001%
17	47.316	-302.784	-27.281	-47.313	302.784	27.281	0.001%
18	54.859	-303.019	-0.001	-54.857	303.019	0.002	0.001%
19	48.122	-303.254	27.744	-48.121	303.253	-27.743	0.000%
20	27.430	-303.019	47.445	-27.428	303.019	-47.444	0.001%
21	-0.005	-302.784	54.562	0.006	302.784	-54.560	0.001%
22	-27.440	-303.019	47.456	27.438	303.019	-47.456	0.001%
23	-48.128	-303.254	27.757	48.125	303.253	-27.756	0.001%
24	-54.851	-303.019	0.012	54.850	303.019	-0.011	0.001%
25	-47.298	-302.784	-27.265	47.296	302.784	27.265	0.001%
26	-27.418	-303.019	-47.438	27.418	303.019	47.436	0.001%
27	0.074	-170.916	-39.593	-0.074	170.916	39.591	0.001%
28	19.249	-170.751	-33.209	-19.249	170.751	33.208	0.001%
29	32.895	-170.587	-18.994	-32.894	170.587	18.993	0.001%
30	38.366	-170.751	-0.062	-38.365	170.751	0.063	0.001%
31	34.312	-170.916	19.737	-34.310	170.916	-19.736	0.001%
32	19.131	-170.751	33.137	-19.130	170.751	-33.136	0.001%
33	-0.069	-170.587	37.882	0.069	170.587	-37.879	0.002%
34	-19.252	-170.751	33.215	19.251	170.751	-33.215	0.001%
35	-34.381	-170.916	19.862	34.379	170.916	-19.861	0.001%
36	-38.355	-170.751	0.079	38.354	170.751	-0.078	0.001%
37	-32.808	-170.587	-18.865	32.806	170.587	18.863	0.002%
38	-19.113	-170.751	-33.127	19.114	170.751	33.125	0.001%

Non-Linear Convergence Results

Load Combination	Converged?	Number of Cycles	Displacement Tolerance	Force Tolerance

1	Yes	6	0.00000001	0.00002842
2	Yes	22	0.00009156	0.00013741
3	Yes	22	0.00005717	0.00011176
4	Yes	14	0.00005442	0.00009902
5	Yes	22	0.00005795	0.00012950
6	Yes	23	0.00005281	0.00008908
7	Yes	21	0.00010376	0.00010683
8	Yes	13	0.00008645	0.00009950
9	Yes	22	0.00005735	0.00011193
10	Yes	23	0.00005230	0.00013099
11	Yes	22	0.00005763	0.00012842
12	Yes	13	0.00000001	0.00007642
13	Yes	21	0.00010309	0.00010562
14	Yes	8	0.00000001	0.00001725
15	Yes	17	0.00014321	0.00006406
16	Yes	17	0.00008982	0.00006659
17	Yes	13	0.00011234	0.00011317
18	Yes	17	0.00010187	0.00008928
19	Yes	18	0.00008118	0.00005881
20	Yes	17	0.00010225	0.00005139
21	Yes	13	0.00010579	0.00005654
22	Yes	17	0.00009303	0.00006868
23	Yes	17	0.00014863	0.00012683
24	Yes	17	0.00009527	0.00008303
25	Yes	13	0.00009869	0.00008671
26	Yes	17	0.00009216	0.00004654
27	Yes	13	0.00000001	0.00006501
28	Yes	14	0.00000001	0.00005623
29	Yes	12	0.00000001	0.00006503
30	Yes	14	0.00000001	0.00005661
31	Yes	13	0.00011219	0.00007479
32	Yes	14	0.00000001	0.00003764
33	Yes	11	0.00013962	0.00008027
34	Yes	14	0.00000001	0.00005666
35	Yes	13	0.00000001	0.00009928
36	Yes	14	0.00000001	0.00005456
37	Yes	11	0.00013933	0.00011332
38	Yes	14	0.00000001	0.00003596

Maximum Tower Deflections - Service Wind

Section No.	*Elevation*	*Horz. Deflection*	*Gov. Load Comb.*	*Tilt*	*Twist*
	ft	*in*		°	°
T1	560 - 535	9.491	37	0.1248	0.3522
T2	535 - 510	8.831	37	0.1241	0.3523
T3	510 - 485	8.168	37	0.1194	0.3542
T4	485 - 460	7.553	37	0.1115	0.3570
T5	460 - 435	7.000	37	0.1113	0.3640
T6	435 - 410	6.434	37	0.1157	0.3786
T7	410 - 385	5.799	37	0.1207	0.3879
T8	385 - 360	5.113	29	0.1224	0.3887
T9	360 - 335	4.425	31	0.1172	0.3830
T10	335 - 310	3.838	35	0.1047	0.3769
T11	310 - 285	3.355	35	0.0871	0.3732
T12	285 - 260	3.021	35	0.0744	0.3718
T13	260 - 235	2.751	35	0.0699	0.3588
T14	235 - 210	2.407	35	0.0702	0.3342
T15	210 - 185	1.985	35	0.0703	0.3035
T16	185 - 160	1.571	35	0.0652	0.2843

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
T17	160 - 135	1.196	35	0.0526	0.2653
T18	135 - 110	0.981	35	0.0389	0.2563
T19	110 - 85	0.846	35	0.0329	0.2428
T20	85 - 60	0.716	35	0.0332	0.2206
T21	60 - 35	0.551	35	0.0369	0.1941
T22	35 - 10	0.343	35	0.0414	0.1636
T23	10 - 0	0.095	35	0.0444	0.1259

Critical Deflections and Radius of Curvature - Service Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
561.000	Lightning Rod	37	9.491	0.1248	0.3522	Inf
557.000	Platform	37	9.412	0.1248	0.3521	Inf
545.000	Platform w/ Handrail	37	9.096	0.1247	0.3521	627583
528.000	ANT150F6	37	8.644	0.1234	0.3527	Inf
518.000	Side Arm Mount [SO 308-1]	37	8.378	0.1215	0.3535	216893
515.000	PG1NOF-0093-8	37	8.299	0.1208	0.3537	169697
508.000	101-68-10-0-03N	37	8.116	0.1188	0.3543	120012
505.000	ANT150F2	37	8.040	0.1178	0.3546	112356
500.000	Side Arm Mount [SO 310-1]	37	7.914	0.1160	0.3551	102349
491.292	Guy	37	7.701	0.1131	0.3561	88604
480.000	ANT150F6	37	7.439	0.1107	0.3578	106022
470.000	Side Arm Mount [SO 309-1]	37	7.217	0.1104	0.3602	282993
452.000	101-68-10-0-03N	37	6.824	0.1124	0.3683	165923
445.000	Side Arm Mount [SO 310-1]	37	6.667	0.1137	0.3726	111412
442.000	Side Arm Mount [SO 309-1]	37	6.598	0.1143	0.3745	97661
427.000	101D-90-06-0-03	37	6.239	0.1174	0.3825	79382
422.000	Side Arm Mount [SO 310-1]	37	6.114	0.1184	0.3845	81780
402.000	SC233	29	5.582	0.1218	0.3891	114871
395.000	Side Arm Mount [SO 309-1]	29	5.390	0.1224	0.3893	156276
335.000	DB636-C	35	3.838	0.1047	0.3769	69279
330.000	Side Arm Mount [SO 309-1]	35	3.731	0.1013	0.3759	60902
316.292	Guy	35	3.463	0.0914	0.3737	44810
308.000	DB636-C	35	3.323	0.0858	0.3732	41907
305.000	DB636-C	35	3.277	0.0839	0.3731	44367
303.000	Side Arm Mount [SO 309-1]	35	3.248	0.0827	0.3731	46413
300.000	SPD2-5.8	35	3.205	0.0810	0.3731	49861
294.000	DB636-C	35	3.127	0.0780	0.3730	58552
289.000	Side Arm Mount [SO 309-1]	35	3.066	0.0758	0.3725	67860
260.000	(4) AP859012-42T0	35	2.751	0.0699	0.3588	74716
259.000	DB810M-XC	35	2.740	0.0698	0.3580	72612
254.000	Side Arm Mount [SO 309-1]	35	2.678	0.0698	0.3539	71079
250.000	Sector Mount [SM 305-1]	35	2.626	0.0698	0.3503	71646
242.000	FR90-16-02DP	35	2.514	0.0700	0.3422	72806
240.000	Sector Mount [SM 201-1]	35	2.485	0.0701	0.3400	73103
219.000	ANT150F6	35	2.140	0.0705	0.3137	724180
214.000	742 213 w/Mount Pipe	35	2.053	0.0705	0.3078	356072
187.000	ANT150F6	35	1.604	0.0659	0.2858	Inf
177.000	Side Arm Mount [SO 309-1]	35	1.441	0.0619	0.2779	112167
153.708	Guy	35	1.127	0.0489	0.2623	40558
145.000	Side Arm Mount [SO 202-1]	35	1.050	0.0438	0.2594	58215
140.000	SPD2-5.8	35	1.014	0.0412	0.2579	77616
135.000	SPD2-5.8	35	0.981	0.0389	0.2563	109817
120.000	201-8	35	0.896	0.0343	0.2493	262599
116.000	Pipe Mount [PM 601-1]	35	0.876	0.0336	0.2469	399408

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
94.000	ANT150F2	35	0.766	0.0326	0.2293	280178
91.000	Side Arm Mount [SO 309-1]	35	0.750	0.0327	0.2265	233448
80.000	ACUTIME 2000 GPS	35	0.686	0.0337	0.2155	177369
79.000	Pipe Mount [PM 601-1]	35	0.680	0.0338	0.2145	177839

Maximum Tower Deflections - Design Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
T1	560 - 535	46.680	6	0.6627	0.9093
T2	535 - 510	43.192	6	0.6609	0.9090
T3	510 - 485	39.695	6	0.6475	0.9124
T4	485 - 460	36.329	6	0.6248	0.9171
T5	460 - 435	33.135	6	0.6200	0.9350
T6	435 - 410	29.915	6	0.6233	0.9728
T7	410 - 385	26.557	6	0.6240	0.9931
T8	385 - 360	22.998	6	0.6112	0.9671
T9	360 - 335	19.512	6	0.5748	0.9526
T10	335 - 310	16.380	10	0.5192	0.9284
T11	310 - 285	13.752	10	0.4515	0.9172
T12	285 - 260	11.828	10	0.3914	0.9325
T13	260 - 235	10.336	10	0.3531	0.9218
T14	235 - 210	8.638	10	0.3270	0.8794
T15	210 - 185	6.831	10	0.2993	0.7991
T16	185 - 160	5.134	10	0.2619	0.7288
T17	160 - 135	3.633	10	0.2083	0.6728
T18	135 - 110	2.812	10	0.1557	0.6263
T19	110 - 85	2.351	10	0.1239	0.5778
T20	85 - 60	1.977	10	0.1116	0.4869
T21	60 - 35	1.494	10	0.1116	0.4219
T22	35 - 10	0.915	10	0.1170	0.3586
T23	10 - 0	0.258	10	0.1218	0.2691

Critical Deflections and Radius of Curvature - Design Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
561.000	Lightning Rod	6	46.680	0.6627	0.9093	750028
557.000	Platform	6	46.263	0.6627	0.9092	750028
545.000	Platform w/ Handrail	6	44.590	0.6624	0.9088	250008
528.000	ANT150F6	6	42.209	0.6586	0.9098	Inf
518.000	Side Arm Mount [SO 308-1]	6	40.807	0.6535	0.9112	86917
515.000	PG1NOF-0093-8	6	40.388	0.6515	0.9117	67972
508.000	101-68-10-0-03N	6	39.419	0.6458	0.9127	47915
505.000	ANT150F2	6	39.007	0.6429	0.9131	44714
500.000	Side Arm Mount [SO 310-1]	6	38.326	0.6379	0.9137	40531
491.292	Guy	6	37.157	0.6296	0.9153	34853
480.000	ANT150F6	6	35.681	0.6222	0.9192	42664
470.000	Side Arm Mount [SO 309-1]	6	34.404	0.6199	0.9253	140374
452.000	101-68-10-0-03N	6	32.115	0.6209	0.9456	77742

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
445.000	Side Arm Mount [SO 310-1]	6	31.214	0.6218	0.9564	57964
442.000	Side Arm Mount [SO 309-1]	6	30.826	0.6223	0.9613	52266
427.000	101D-90-06-0-03	6	28.862	0.6242	0.9850	37904
422.000	Side Arm Mount [SO 310-1]	6	28.194	0.6246	0.9908	35008
402.000	SC233	6	25.431	0.6220	0.9818	43152
395.000	Side Arm Mount [SO 309-1]	6	24.432	0.6188	0.9643	68059
335.000	DB636-C	10	16.380	0.5192	0.9284	17634
330.000	Side Arm Mount [SO 309-1]	10	15.809	0.5062	0.9242	15144
316.292	Guy	10	14.353	0.4687	0.9170	10388
308.000	DB636-C	10	13.572	0.4461	0.9179	9380
305.000	DB636-C	10	13.310	0.4382	0.9194	9713
303.000	Side Arm Mount [SO 309-1]	10	13.143	0.4330	0.9206	9993
300.000	SPD2-5.8	10	12.899	0.4254	0.9228	10443
294.000	DB636-C	10	12.443	0.4109	0.9273	11478
289.000	Side Arm Mount [SO 309-1]	10	12.092	0.3997	0.9306	12514
260.000	(4) AP859012-42T0	10	10.336	0.3531	0.9218	16530
259.000	DB810M-XC	10	10.274	0.3520	0.9208	16236
254.000	Side Arm Mount [SO 309-1]	10	9.955	0.3464	0.9151	17899
250.000	Sector Mount [SM 305-1]	10	9.690	0.3422	0.9097	20445
242.000	FR90-16-02DP	10	9.138	0.3341	0.8957	28576
240.000	Sector Mount [SM 201-1]	10	8.996	0.3321	0.8915	31731
219.000	ANT150F6	10	7.475	0.3098	0.8285	83898
214.000	742 213 w/Mount Pipe	10	7.115	0.3041	0.8118	52680
187.000	ANT150F6	10	5.267	0.2655	0.7348	156136
177.000	Side Arm Mount [SO 309-1]	10	4.608	0.2461	0.7030	24212
153.708	Guy	10	3.363	0.1940	0.6652	9604
145.000	Side Arm Mount [SO 202-1]	10	3.070	0.1751	0.6475	13745
140.000	SPD2-5.8	10	2.933	0.1650	0.6341	18267
135.000	SPD2-5.8	10	2.812	0.1557	0.6263	25662
120.000	201-8	10	2.514	0.1339	0.6031	42840
116.000	Pipe Mount [PM 601-1]	10	2.446	0.1295	0.5940	50484
94.000	ANT150F2	10	2.117	0.1142	0.5216	73330
91.000	Side Arm Mount [SO 309-1]	10	2.072	0.1132	0.5100	59499
80.000	ACUTIME 2000 GPS	10	1.891	0.1108	0.4705	46509
79.000	Pipe Mount [PM 601-1]	10	1.873	0.1107	0.4677	48149

Bolt Design Data

Section No.	Elevation ft	Component Type	Bolt Grade	Bolt Size in	Number Of Bolts	Maximum Load per Bolt K	Allowable Load K	Ratio Load / Allowable	Allowable Ratio	Criteria
T1	560	Leg	A325N	0.625	6	0.748	13.486	0.055 ✓	1.333	Bolt Tension
		Diagonal	A325N	0.750	2	2.612	9.278	0.282 ✓	1.333	Bolt Shear
		Horizontal	A325N	0.750	2	2.937	9.278	0.317 ✓	1.333	Bolt Shear
		Top Girt	A325N	0.750	2	1.574	9.278	0.170 ✓	1.333	Bolt Shear
		Bottom Girt	A325N	0.750	2	1.553	9.278	0.167 ✓	1.333	Bolt Shear
T2	535	Leg	A325N	0.625	6	3.522	13.472	0.261 ✓	1.333	Bolt Tension
		Diagonal	A325N	0.750	2	3.319	9.278	0.358 ✓	1.333	Bolt Shear
		Horizontal	A325N	0.750	2	2.880	9.278	0.310 ✓	1.333	Bolt Shear
		Top Girt	A325N	0.750	2	1.556	9.278	0.168 ✓	1.333	Bolt Shear

Section No.	Elevation ft	Component Type	Bolt Grade	Bolt Size in	Number Of Bolts	Maximum Load per Bolt K	Allowable Load K	Ratio Load / Allowable	Allowable Ratio	Criteria
		Bottom Girt	A325N	0.750	2	1.851	9.278	0.199 ✓	1.333	Bolt Shear
T3	510	Leg	A325N	0.625	6	0.000	13.366	0.000 ✓	1.333	Bolt Tension
		Diagonal	A325N	0.750	2	5.072	9.278	0.547 ✓	1.333	Bolt Shear
		Horizontal	A325N	0.750	2	4.335	9.278	0.467 ✓	1.333	Bolt Shear
		Top Girt	A325N	0.750	2	1.858	9.278	0.200 ✓	1.333	Bolt Shear
		Bottom Girt	A325N	0.750	2	2.018	9.278	0.217 ✓	1.333	Bolt Shear
T4	485	Leg	A325N	0.625	6	0.000	13.478	0.000 ✓	1.333	Bolt Tension
		Diagonal	A325N	0.875	2	3.251	12.628	0.257 ✓	1.333	Bolt Shear
		Horizontal	A325N	0.875	2	2.681	12.628	0.212 ✓	1.333	Bolt Shear
		Top Girt	A325N	0.875	2	2.066	12.628	0.164 ✓	1.333	Bolt Shear
		Bottom Girt	A325N	0.875	2	1.337	12.628	0.106 ✓	1.333	Bolt Shear
T5	460	Leg	A325N	0.625	6	0.000	13.497	0.000 ✓	1.333	Bolt Tension
		Diagonal	A325N	0.750	2	1.638	9.278	0.177 ✓	1.333	Bolt Shear
		Horizontal	A325N	0.750	2	1.236	9.278	0.133 ✓	1.333	Bolt Shear
		Top Girt	A325N	0.750	2	0.777	9.278	0.084 ✓	1.333	Bolt Shear
		Bottom Girt	A325N	0.750	2	0.654	9.278	0.071 ✓	1.333	Bolt Shear
T6	435	Leg	A325N	0.625	6	0.000	13.468	0.000 ✓	1.333	Bolt Tension
		Diagonal	A325N	0.500	2	1.938	4.123	0.470 ✓	1.333	Bolt Shear
		Horizontal	A325N	0.500	2	1.408	4.123	0.341 ✓	1.333	Bolt Shear
		Top Girt	A325N	0.500	2	0.654	4.123	0.159 ✓	1.333	Bolt Shear
		Bottom Girt	A325N	0.500	2	0.853	4.123	0.207 ✓	1.333	Bolt Shear
T7	410	Leg	A325N	0.625	6	0.000	13.402	0.000 ✓	1.333	Bolt Tension
		Diagonal	A325N	0.500	2	3.145	4.123	0.763 ✓	1.333	Bolt Shear
		Horizontal	A325N	0.500	2	2.363	4.123	0.573 ✓	1.333	Bolt Shear
		Top Girt	A325N	0.500	2	0.869	4.123	0.211 ✓	1.333	Bolt Shear
		Bottom Girt	A325N	0.500	2	1.363	4.123	0.330 ✓	1.333	Bolt Shear
T8	385	Leg	A325N	0.625	6	0.546	13.327	0.041 ✓	1.333	Bolt Tension
		Diagonal	A325N	0.625	2	4.576	6.443	0.710 ✓	1.333	Bolt Shear
		Horizontal	A325N	0.500	2	3.473	4.123	0.842 ✓	1.333	Bolt Shear
		Top Girt	A325N	0.500	2	1.377	4.123	0.334 ✓	1.333	Bolt Shear
		Bottom Girt	A325N	0.500	2	1.494	4.123	0.362 ✓	1.333	Bolt Shear
T9	360	Leg	A325N	1.000	6	7.508	34.482	0.218 ✓	1.333	Bolt Tension
		Diagonal	A325N	0.625	2	6.150	6.443	0.955 ✓	1.333	Bolt Shear
		Horizontal	A325N	0.625	2	4.665	6.443	0.724 ✓	1.333	Bolt Shear
		Top Girt	A325N	0.500	2	2.478	4.123	0.601 ✓	1.333	Bolt Shear
		Bottom Girt	A325N	0.500	2	2.629	4.123	0.638 ✓	1.333	Bolt Shear
T10	335	Leg	A325N	1.000	6	2.801	34.512	0.081 ✓	1.333	Bolt Tension
		Diagonal	A325N	0.750	2	7.300	9.278	0.787 ✓	1.333	Bolt Shear
		Horizontal	A325N	0.750	2	5.544	9.278	0.598 ✓	1.333	Bolt Shear
		Top Girt	A325N	0.750	2	2.659	9.278	0.287 ✓	1.333	Bolt Shear

Section No.	Elevation ft	Component Type	Bolt Grade	Bolt Size in	Number Of Bolts	Maximum Load per Bolt K	Allowable Load K	Ratio Load / Allowable	Allowable Ratio	Criteria
		Bottom Girt	A325N	0.750	2	2.314	9.278	0.249 ✓	1.333	Bolt Shear
T11	310	Leg	A325N	0.625	6	0.000	13.369	0.000 ✓	1.333	Bolt Tension
		Diagonal	A325N	1.000	2	5.676	16.493	0.344 ✓	1.333	Bolt Shear
		Horizontal	A325N	1.000	2	4.318	16.493	0.262 ✓	1.333	Bolt Shear
		Top Girt	A325N	1.000	2	2.431	16.493	0.147 ✓	1.333	Bolt Shear
		Bottom Girt	A325N	1.000	2	2.118	16.493	0.128 ✓	1.333	Bolt Shear
T12	285	Leg	A325N	0.625	6	0.000	13.443	0.000 ✓	1.333	Bolt Tension
		Diagonal	A325N	0.500	2	3.925	4.123	0.952 ✓	1.333	Bolt Shear
		Horizontal	A325N	0.500	2	3.006	4.123	0.729 ✓	1.333	Bolt Shear
		Top Girt	A325N	0.500	2	1.451	4.123	0.352 ✓	1.333	Bolt Shear
		Bottom Girt	A325N	0.500	2	1.046	4.123	0.254 ✓	1.333	Bolt Shear
T13	260	Leg	A325N	0.625	6	0.000	13.494	0.000 ✓	1.333	Bolt Tension
		Diagonal	A325N	0.500	2	2.186	4.123	0.530 ✓	1.333	Bolt Shear
		Horizontal	A325N	0.500	2	1.374	4.123	0.333 ✓	1.333	Bolt Shear
		Top Girt	A325N	0.500	2	1.027	4.123	0.249 ✓	1.333	Bolt Shear
		Bottom Girt	A325N	0.500	2	0.594	4.123	0.144 ✓	1.333	Bolt Shear
T14	235	Leg	A325N	0.625	6	0.000	13.433	0.000 ✓	1.333	Bolt Tension
		Diagonal	A325N	0.500	2	2.767	4.123	0.671 ✓	1.333	Bolt Shear
		Horizontal	A325N	0.500	2	1.952	4.123	0.473 ✓	1.333	Bolt Shear
		Top Girt	A325N	0.500	2	0.595	4.123	0.144 ✓	1.333	Bolt Shear
		Bottom Girt	A325N	0.500	2	1.294	4.123	0.314 ✓	1.333	Bolt Shear
T15	210	Leg	A325N	1.000	6	0.000	34.494	0.000 ✓	1.333	Bolt Tension
		Diagonal	A325N	0.500	2	4.811	4.123	1.167 ✓	1.333	Bolt Shear
		Horizontal	A325N	0.500	2	3.529	4.123	0.856 ✓	1.333	Bolt Shear
		Top Girt	A325N	0.500	2	1.320	4.123	0.320 ✓	1.333	Bolt Shear
		Bottom Girt	A325N	0.500	2	1.710	4.123	0.415 ✓	1.333	Bolt Shear
T16	185	Leg	A325N	1.000	6	2.175	34.507	0.063 ✓	1.333	Bolt Tension
		Diagonal	A325N	0.625	2	6.542	6.443	1.015 ✓	1.333	Bolt Shear
		Horizontal	A325N	0.625	2	5.063	6.443	0.786 ✓	1.333	Bolt Shear
		Top Girt	A325N	0.625	2	2.499	6.443	0.388 ✓	1.333	Bolt Shear
		Bottom Girt	A325N	0.625	2	2.751	6.443	0.427 ✓	1.333	Bolt Shear
T17	160	Leg	A325N	1.000	6	0.000	34.445	0.000 ✓	1.333	Bolt Tension
		Diagonal	A325N	0.750	2	7.188	9.278	0.775 ✓	1.333	Bolt Shear
		Horizontal	A325N	0.750	2	5.313	9.278	0.573 ✓	1.333	Bolt Shear
		Top Girt	A325N	0.750	2	2.607	9.278	0.281 ✓	1.333	Bolt Shear
		Bottom Girt	A325N	0.750	2	2.585	9.278	0.279 ✓	1.333	Bolt Shear
T18	135	Leg	A325N	1.000	6	0.000	34.505	0.000 ✓	1.333	Bolt Tension
		Diagonal	A325N	1.000	2	5.953	16.493	0.361 ✓	1.333	Bolt Shear
		Horizontal	A325N	1.000	2	4.488	16.493	0.272 ✓	1.333	Bolt Shear
		Top Girt	A325N	1.000	2	2.568	16.493	0.156 ✓	1.333	Bolt Shear

Section No.	Elevation ft	Component Type	Bolt Grade	Bolt Size in	Number Of Bolts	Maximum Load per Bolt K	Allowable Load K	Ratio Load / Allowable	Allowable Ratio	Criteria
		Bottom Girt	A325N	1.000	2	2.396	16.493	0.145 ✓	1.333	Bolt Shear
T19	110	Leg	A325N	1.000	6	0.000	34.534	0.000 ✓	1.333	Bolt Tension
		Diagonal	A325N	0.750	2	4.454	9.278	0.480 ✓	1.333	Bolt Shear
		Horizontal	A325N	0.750	2	3.276	9.278	0.353 ✓	1.333	Bolt Shear
		Top Girt	A325N	0.750	2	1.462	9.278	0.158 ✓	1.333	Bolt Shear
		Bottom Girt	A325N	0.750	2	1.340	9.278	0.144 ✓	1.333	Bolt Shear
T20	85	Leg	A325N	1.000	6	0.000	34.553	0.000 ✓	1.333	Bolt Tension
		Diagonal	A325N	0.750	2	3.052	9.278	0.329 ✓	1.333	Bolt Shear
		Horizontal	A325N	0.750	2	2.219	9.278	0.239 ✓	1.333	Bolt Shear
		Top Girt	A325N	0.750	2	1.327	9.278	0.143 ✓	1.333	Bolt Shear
		Bottom Girt	A325N	0.750	2	0.872	9.278	0.094 ✓	1.333	Bolt Shear
T21	60	Leg	A325N	1.000	6	0.000	34.555	0.000 ✓	1.333	Bolt Tension
		Diagonal	A325N	0.750	2	1.839	9.278	0.198 ✓	1.333	Bolt Shear
		Horizontal	A325N	0.750	2	1.536	9.278	0.166 ✓	1.333	Bolt Shear
		Top Girt	A325N	0.750	2	0.870	9.278	0.094 ✓	1.333	Bolt Shear
		Bottom Girt	A325N	0.750	2	0.864	9.278	0.093 ✓	1.333	Bolt Shear
T22	35	Leg	A325N	0.625	6	0.000	11.813	0.000 ✓	1.333	Bolt Tension
		Diagonal	A325N	0.750	2	3.243	9.278	0.350 ✓	1.333	Bolt Shear
		Horizontal	A325N	0.750	2	1.922	9.278	0.207 ✓	1.333	Bolt Shear
		Top Girt	A325N	0.750	2	0.868	9.278	0.094 ✓	1.333	Bolt Shear
		Bottom Girt	A325N	0.750	2	3.374	9.278	0.364 ✓	1.333	Bolt Shear

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	491.292 (A) (951)	1 1/4 BS	19.200	192.000	59.046	96.000	2.000	3.252 ✓
	491.292 (B) (950)	1 1/4 BS	19.200	192.000	59.304	96.000	2.000	3.238 ✓
	491.292 (C) (946)	1 1/4 BS	19.200	192.000	58.977	96.000	2.000	3.255 ✓
T10	316.292 (A) (945)	1 1/2 BS	27.600	275.999	69.577	138.000	2.000	3.967 ✓
	316.292 (B) (944)	1 1/2 BS	27.600	275.999	69.543	138.000	2.000	3.969 ✓
	316.292 (C) (940)	1 1/2 BS	27.600	275.999	69.818	138.000	2.000	3.953 ✓
T17	153.708 (A) (939)	1 3/4 BS	37.600	376.000	65.410	188.000	2.000	5.748 ✓
	153.708 (B) (938)	1 3/4 BS	37.600	376.000	65.191	188.000	2.000	5.768 ✓

Section No.	Elevation ft	Size	Initial Tension K	Breaking Load K	Actual T K	Allowable T_a K	Required S.F.	Actual S.F.
	153.708 (C) (934)	1 3/4 BS	37.600	376.000	65.550	188.000	2.000	5.736 ✓

Compression Checks

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	560 - 535	4	25.000	6.208	74.5 K=1.00	1.00	20.090	12.566	-11.437	252.452	0.045 ✓
T2	535 - 510	4	25.000	6.208	74.5 K=1.00	1.00	20.090	12.566	-31.426	252.452	0.124 ✓
T3	510 - 485	4 1/2	25.000	6.208	66.2 K=1.00	1.00	21.627	15.904	-65.110	343.966	0.189 ✓
T4	485 - 460	4 1/2	25.000	6.208	66.2 K=1.00	1.00	21.627	15.904	-55.914	343.966	0.163 ✓
T5	460 - 435	4 1/4	25.000	6.208	70.1 K=1.00	1.00	20.916	14.186	-56.639	296.719	0.191 ✓
T6	435 - 410	4 1/4	25.000	6.208	70.1 K=1.00	1.00	20.916	14.186	-59.311	296.719	0.200 ✓
T7	410 - 385	4 1/4	25.000	6.208	70.1 K=1.00	1.00	20.916	14.186	-73.833	296.719	0.249 ✓
T8	385 - 360	4 1/4	25.000	6.208	70.1 K=1.00	1.00	20.916	14.186	-112.905	296.719	0.381 ✓
T9	360 - 335	4 3/4	25.000	6.208	62.7 K=1.00	1.00	22.245	17.721	-165.337	394.191	0.419 ✓
T10	335 - 310	5 1/4	25.000	6.208	56.8 K=1.00	1.00	23.262	21.647	-216.728	503.576	0.430 ✓
T11	310 - 285	4 3/4	25.000	6.208	62.7 K=1.00	1.00	22.245	17.721	-204.337	394.191	0.518 ✓
T12	285 - 260	4 3/4	25.000	6.208	62.7 K=1.00	1.00	22.245	17.721	-163.025	394.191	0.414 ✓
T13	260 - 235	4 3/4	25.000	6.208	62.7 K=1.00	1.00	22.245	17.721	-136.099	394.191	0.345 ✓
T14	235 - 210	4 3/4	25.000	6.208	62.7 K=1.00	1.00	22.245	17.721	-146.812	394.191	0.372 ✓
T15	210 - 185	5	25.000	6.208	59.6 K=1.00	1.00	22.786	19.635	-179.894	447.395	0.402 ✓
T16	185 - 160	5 1/4	25.000	6.208	56.8 K=1.00	1.00	23.262	21.647	-228.585	503.576	0.454 ✓
T17	160 - 135	5 1/2	25.000	6.208	54.2 K=1.00	1.00	23.686	23.758	-251.940	562.733	0.448 ✓
T18	135 - 110	5 1/4	25.000	6.208	56.8 K=1.00	1.00	23.262	21.647	-210.039	503.576	0.417 ✓
T19	110 - 85	5 1/4	25.000	6.208	56.8 K=1.00	1.00	23.262	21.647	-149.506	503.576	0.297 ✓

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 $\frac{P}{P_a}$
T20	85 - 60	5 1/4	25.000	6.208	56.8 K=1.00	1.00	23.262	21.647	-154.036	503.576	0.306* ✓
T21	60 - 35	5 1/4	25.000	6.208	56.8 K=1.00	1.00	23.262	21.647	-158.434	503.576	0.315* ✓
T22	35 - 10	5 1/4	25.000	6.208	56.8 K=1.00	1.00	23.262	21.647	-164.994	503.576	0.328* ✓
T23	10 - 0	5 1/4	11.015	5.462	49.9 K=1.00	1.00	24.361	21.647	-178.425	527.349	0.338* ✓

* DL controls

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 $\frac{P}{P_a}$
T1	560 - 535	L2 1/2x2 1/2x1/4	8.000	7.188	116.1 K=1.03	10.838	1.190	-5.787	12.897	0.449* ✓
T2	535 - 510	L2 1/2x2 1/2x1/4	8.000	7.188	116.1 K=1.03	10.838	1.190	-5.734	12.897	0.445* ✓
T3	510 - 485	L2 1/2x2 1/2x1/4	8.000	7.146	115.8 K=1.04	10.883	1.190	-7.639	12.951	0.590* ✓
T4	485 - 460	L2 1/2x2 1/2x1/4	8.000	7.073	115.2 K=1.04	10.962	1.190	-5.361	13.045	0.411* ✓
T5	460 - 435	L2x2x3/16	8.000	7.167	131.9 K=0.95	8.581	0.715	-2.346	6.135	0.382* ✓
T6	435 - 410	L2x2x3/16	8.000	7.292	133.4 K=0.94	8.389	0.715	-2.338	5.998	0.390* ✓
T7	410 - 385	L2x2x3/16	8.000	7.292	133.4 K=0.94	8.389	0.715	-4.727	5.998	0.788 ✓
T8	385 - 360	L2x2x1/4	8.000	7.292	134.6 K=0.94	8.247	0.938	-6.946	7.736	0.898 ✓
T9	360 - 335	L2 1/2x2 1/2x1/4	8.000	7.177	116.0 K=1.04	10.849	1.190	-9.329	12.910	0.723 ✓
T10	335 - 310	L2 1/2x2 1/2x1/4	8.000	7.083	115.3 K=1.04	10.951	1.190	-11.088	13.032	0.851 ✓
T11	310 - 285	L2 1/2x2 1/2x1/4	8.000	6.979	114.5 K=1.05	11.064	1.190	-8.637	13.166	0.656 ✓
T12	285 - 260	L2 1/2x2x3/16	8.000	7.250	114.8 K=1.05	11.010	0.809	-6.011	8.907	0.675 ✓
T13	260 - 235	L2 1/2x2x3/16	8.000	7.250	114.8 K=1.05	11.010	0.809	-2.177	8.907	0.244* ✓
T14	235 - 210	L2 1/2x2x3/16	8.000	7.250	114.8 K=1.05	11.010	0.809	-3.905	8.907	0.438 ✓
T15	210 - 185	L2 1/2x2x3/16	8.000	7.229	114.7 K=1.05	11.032	0.809	-7.058	8.925	0.791 ✓
T16	185 - 160	L2 1/2x2 1/2x1/4	8.000	7.135	115.7 K=1.04	10.894	1.190	-10.127	12.964	0.781

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 $\frac{P}{P_a}$
T17	160 - 135	L2 1/2x2 1/2x1/4	8.000	7.063	115.1 K=1.04	10.974	1.190	-10.626	13.059	0.814
T18	135 - 110	L2 1/2x2 1/2x1/4	8.000	6.938	114.1 K=1.05	11.109	1.190	-8.976	13.219	0.679
T19	110 - 85	L2x2x3/16	8.000	7.083	130.9 K=0.95	8.712	0.715	-6.552	6.229	1.052
T20	85 - 60	L2x2x3/16	8.000	7.083	130.9 K=0.95	8.712	0.715	-4.438	6.229	0.712
T21	60 - 35	L2x2x3/16	8.000	7.083	130.9 K=0.95	8.712	0.715	-3.009	6.229	0.483*
T22	35 - 10	L2x2x3/16	8.000	7.083	130.9 K=0.95	8.712	0.715	-3.559	6.229	0.571*

* 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	560 - 535	L2 1/2x2 1/2x1/4	8.000	7.188	116.1 K=1.03	10.838	1.190	-3.094	12.897	0.240*
T2	535 - 510	L2 1/2x2 1/2x1/4	8.000	7.188	116.1 K=1.03	10.838	1.190	-3.088	12.897	0.239*
T3	510 - 485	L2 1/2x2 1/2x1/4	8.000	7.146	115.8 K=1.04	10.883	1.190	-3.650	12.951	0.282*
T4	485 - 460	L2 1/2x2 1/2x1/4	8.000	7.073	115.2 K=1.04	10.962	1.190	-3.847	13.045	0.295*
T5	460 - 435	L2x2x3/16	8.000	7.167	131.9 K=0.95	8.581	0.715	-1.531	6.135	0.250*
T6	435 - 410	L2x2x3/16	8.000	7.292	133.4 K=0.94	8.389	0.715	-1.251	5.998	0.208*
T7	410 - 385	L2x2x3/16	8.000	7.292	133.4 K=0.94	8.389	0.715	-1.738	5.998	0.290
T8	385 - 360	L2x2x3/16	8.000	7.292	133.4 K=0.94	8.389	0.715	-2.753	5.998	0.459
T9	360 - 335	L2 1/2x2 1/2x1/4	8.000	7.250	116.6 K=1.03	10.769	1.190	-4.956	12.815	0.387
T10	335 - 310	L2 1/2x2 1/2x1/4	8.000	7.083	115.3 K=1.04	10.951	1.190	-5.318	13.032	0.408
T11	310 - 285	L2 1/2x2 1/2x1/4	8.000	6.979	114.5 K=1.05	11.064	1.190	-3.769	13.166	0.286*
T12	285 - 260	L2 1/2x2x3/16	8.000	7.250	114.8 K=1.05	11.010	0.809	-2.902	8.907	0.326
T13	260 - 235	L2 1/2x2x3/16	8.000	7.250	114.8 K=1.05	11.010	0.809	-2.053	8.907	0.231
T14	235 - 210	L2 1/2x2x3/16	8.000	7.250	114.8 K=1.05	11.010	0.809	-1.157	8.907	0.130*
T15	210 - 185	L2 1/2x2x3/16	8.000	7.229	114.7	11.032	0.809	-2.640	8.925	0.296

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 $\frac{P}{P_a}$
					K=1.05					✓
T16	185 - 160	L2 1/2x2 1/2x1/4	8.000	7.135	115.7 K=1.04	10.894	1.190	-4.998	12.964	0.386 ✓
T17	160 - 135	L2 1/2x2 1/2x1/4	8.000	7.063	115.1 K=1.04	10.974	1.190	-3.946	13.059	0.302* ✓
T18	135 - 110	L2 1/2x2 1/2x1/4	8.000	6.938	114.1 K=1.05	11.109	1.190	-5.136	13.219	0.389 ✓
T19	110 - 85	L2x2x3/16	8.000	7.083	130.9 K=0.95	8.712	0.715	-2.924	6.229	0.469 ✓
T20	85 - 60	L2x2x3/16	8.000	7.083	130.9 K=0.95	8.712	0.715	-2.655	6.229	0.426 ✓
T21	60 - 35	L2x2x3/16	8.000	7.083	130.9 K=0.95	8.712	0.715	-1.704	6.229	0.273* ✓
T22	35 - 10	L2x2x3/16	8.000	7.083	130.9 K=0.95	8.712	0.715	-1.699	6.229	0.273* ✓

* DL controls

Bottom 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	560 - 535	L2 1/2x2 1/2x1/4	8.000	7.188	116.1 K=1.03	10.838	1.190	-3.088	12.897	0.239* ✓
T2	535 - 510	L2 1/2x2 1/2x1/4	8.000	7.188	116.1 K=1.03	10.838	1.190	-3.558	12.897	0.276* ✓
T3	510 - 485	L2 1/2x2 1/2x1/4	8.000	7.146	115.8 K=1.04	10.883	1.190	-3.855	12.951	0.298* ✓
T4	485 - 460	L2 1/2x2 1/2x1/4	8.000	7.073	115.2 K=1.04	10.962	1.190	-2.608	13.045	0.200* ✓
T5	460 - 435	L2x2x3/16	8.000	7.167	131.9 K=0.95	8.581	0.715	-1.251	6.135	0.204* ✓
T6	435 - 410	L2x2x3/16	8.000	7.292	133.4 K=0.94	8.389	0.715	-1.706	5.998	0.284 ✓
T7	410 - 385	L2x2x3/16	8.000	7.292	133.4 K=0.94	8.389	0.715	-2.725	5.998	0.454 ✓
T8	385 - 360	L2x2x3/16	8.000	7.292	133.4 K=0.94	8.389	0.715	-2.988	5.998	0.498 ✓
T9	360 - 335	L2 1/2x2 1/2x1/4	8.000	7.250	116.6 K=1.03	10.769	1.190	-5.259	12.815	0.410 ✓
T10	335 - 310	L2 1/2x2 1/2x1/4	8.000	7.083	115.3 K=1.04	10.951	1.190	-3.707	13.032	0.284* ✓
T11	310 - 285	L2 1/2x2 1/2x1/4	8.000	6.979	114.5 K=1.05	11.064	1.190	-4.235	13.166	0.322 ✓
T12	285 - 260	L2 1/2x2x3/16	8.000	7.250	114.8 K=1.05	11.010	0.809	-2.093	8.907	0.235 ✓
T13	260 - 235	L2 1/2x2x3/16	8.000	7.250	114.8 K=1.05	11.010	0.809	-1.157	8.907	0.130* ✓
T14	235 - 210	L2 1/2x2x3/16	8.000	7.250	114.8	11.010	0.809	-2.589	8.907	0.291

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 $\frac{P}{P_a}$
					K=1.05					✓
T15	210 - 185	L2 1/2x2x3/16	8.000	7.229	114.7	11.032	0.809	-3.420	8.925	0.383
					K=1.05					✓
T16	185 - 160	L2 1/2x2 1/2x1/4	8.000	7.135	115.7	10.894	1.190	-5.501	12.964	0.424
					K=1.04					✓
T17	160 - 135	L2 1/2x2 1/2x1/4	8.000	7.063	115.1	10.974	1.190	-5.169	13.059	0.396
					K=1.04					✓
T18	135 - 110	L2 1/2x2 1/2x1/4	8.000	6.938	114.1	11.109	1.190	-4.793	13.219	0.363
					K=1.05					✓
T19	110 - 85	L2x2x3/16	8.000	7.083	130.9	8.712	0.715	-2.680	6.229	0.430
					K=0.95					✓
T20	85 - 60	L2x2x3/16	8.000	7.083	130.9	8.712	0.715	-1.704	6.229	0.274*
					K=0.95					✓
T21	60 - 35	L2x2x3/16	8.000	7.083	130.9	8.712	0.715	-1.696	6.229	0.272*
					K=0.95					✓

* DL controls

Top Guy Pull-Off 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 $\frac{P}{P_a}$
T3	510 - 485	L2 1/2x2 1/2x1/4	8.000	7.625	186.4	4.300	1.190	-1.625	5.117	0.318*
					K=1.00					
T10	335 - 310	L2 1/2x2 1/2x1/4	8.000	7.563	184.8	4.371	1.190	-1.230	5.202	0.236
					K=1.00					
T17	160 - 135	L2 1/2x2 1/2x1/4	8.000	7.542	117.7	21.600	1.190	0.000	5.231	0.000*
					K=1.00					

* DL controls

Top Guy Pull-Off 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 $\frac{f_{by}}{F_{by}}$
T3	510 - 485	L2 1/2x2 1/2x1/4	-0.071	-1.280	23.760	0.054	-0.071	-2.484	23.760	0.105
T10	335 - 310	L2 1/2x2 1/2x1/4	-0.024	-0.433	23.760	0.018	-0.024	-0.840	23.760	0.035
T17	160 - 135	L2 1/2x2 1/2x1/4	-0.063	-1.130	23.760	0.048	-0.063	-2.193	23.760	0.092

Top Guy Pull-Off 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
T3	510 - 485	L2 1/2x2 1/2x1/4	0.318	0.054	0.105	0.476* ✓	1.000	H1-3 ✓
T10	335 - 310	L2 1/2x2 1/2x1/4	0.236	0.018	0.035	0.290 ✓	1.333	H1-3 ✓
T17	160 - 135	L2 1/2x2 1/2x1/4	0.000	0.048	0.092	0.140* ✓	1.000	H1-3 ✓

* DL controls

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	560 - 535	4	25.000	6.208	74.5	30.000	12.566	4.490	376.991	0.012 ✓
T2	535 - 510	4	25.000	6.208	74.5	30.000	12.566	21.133	376.991	0.056 ✓
T3	510 - 485	4 1/2	25.000	6.208	66.2	30.000	15.904	30.684	477.129	0.064 ✓
T8	385 - 360	4 1/4	25.000	6.208	70.1	30.000	14.186	3.275	425.588	0.008 ✓
T9	360 - 335	4 3/4	25.000	6.208	62.7	30.000	17.721	45.046	531.616	0.085 ✓
T10	335 - 310	5 1/4	25.000	6.208	56.8	30.000	21.647	70.109	649.426	0.108 ✓
T11	310 - 285	4 3/4	25.000	6.208	62.7	30.000	17.721	16.799	531.616	0.032 ✓
T16	185 - 160	5 1/4	25.000	6.208	56.8	30.000	21.647	13.047	649.426	0.020 ✓
T17	160 - 135	5 1/2	25.000	6.208	54.2	30.000	23.758	13.041	712.749	0.018 ✓

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	560 - 535	1	10.126	9.704	465.8	21.600	0.785	3.930	16.965	0.232*
T2	535 - 510	1	10.126	9.704	465.8	21.600	0.785	6.638	16.965	0.391
T3	510 - 485	1 1/4	10.126	9.652	370.6	21.600	1.227	10.143	26.507	0.383
T4	485 - 460	1	10.126	9.652	463.3	21.600	0.785	6.501	16.965	0.383
T5	460 - 435	5/8	10.126	9.678	743.3	21.600	0.307	3.277	6.627	0.494
T6	435 - 410	5/8	10.126	9.678	743.3	21.600	0.307	3.876	6.627	0.585
T7	410 - 385	5/8	10.126	9.678	743.3	21.600	0.307	6.290	6.627	0.949
T8	385 - 360	3/4	10.126	9.678	619.4	21.600	0.442	9.151	9.543	0.959
T9	360 - 335	1	10.126	9.625	462.0	21.600	0.785	12.300	16.965	0.725
T10	335 - 310	1 1/4	10.126	9.573	367.6	21.600	1.227	14.599	26.507	0.551
T11	310 - 285	1	10.126	9.625	462.0	21.600	0.785	11.352	16.965	0.669
T12	285 - 260	5/8	10.126	9.625	739.2	21.600	0.307	7.850	6.627	1.185
T13	260 - 235	5/8	10.126	9.625	739.2	21.600	0.307	4.373	6.627	0.660
T14	235 - 210	5/8	10.126	9.625	739.2	21.600	0.307	5.533	6.627	0.835
T15	210 - 185	7/8	10.126	9.599	526.6	21.600	0.601	9.623	12.989	0.741
T16	185 - 160	1	10.126	9.573	459.5	21.600	0.785	13.084	16.965	0.771
T17	160 - 135	1 1/4	10.126	9.546	366.6	21.600	1.227	14.376	26.507	0.542
T18	135 - 110	1	10.126	9.573	459.5	21.600	0.785	11.906	16.965	0.702
T19	110 - 85	7/8	10.126	9.573	525.1	21.600	0.601	8.907	12.989	0.686
T20	85 - 60	7/8	10.126	9.573	525.1	21.600	0.601	6.104	12.989	0.470
T21	60 - 35	7/8	10.126	9.573	525.1	21.600	0.601	3.679	12.989	0.283
T22	35 - 10	7/8	10.126	9.573	525.1	21.600	0.601	6.486	12.989	0.499

* DL controls

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 $\frac{P}{P_a}$
T1	560 - 535	L2 1/2x2 1/2x1/4	8.000	7.188	119.6	29.000	0.728	0.198	21.125	0.009 ✓
T2	535 - 510	L2 1/2x2 1/2x1/4	8.000	7.188	119.6	29.000	0.728	0.544	21.125	0.026 ✓
T3	510 - 485	L2 1/2x2 1/2x1/4	8.000	7.146	119.0	29.000	0.728	1.463	21.125	0.069 ✓
T4	485 - 460	L2 1/2x2 1/2x1/4	8.000	7.073	119.0	29.000	0.705	0.968	20.445	0.047 ✓
T5	460 - 435	L2x2x3/16	8.000	7.167	148.7	29.000	0.413	0.981	11.983	0.082 ✓
T6	435 - 410	L2x2x3/16	8.000	7.292	148.7	29.000	0.448	1.027	13.002	0.079 ✓
T7	410 - 385	L2x2x3/16	8.000	7.292	148.7	29.000	0.448	1.279	13.002	0.098 ✓
T8	385 - 360	L2x2x1/4	8.000	7.292	150.7	29.000	0.586	1.956	17.003	0.115 ✓
T9	360 - 335	L2 1/2x2 1/2x1/4	8.000	7.177	118.7	29.000	0.752	2.864	21.804	0.131 ✓
T10	335 - 310	L2 1/2x2 1/2x1/4	8.000	7.083	118.0	29.000	0.728	4.390	21.125	0.208 ✓
T11	310 - 285	L2 1/2x2 1/2x1/4	8.000	6.979	118.7	29.000	0.682	3.539	19.765	0.179 ✓
T12	285 - 260	L2 1/2x2x3/16	8.000	7.250	152.1	29.000	0.519	2.824	15.047	0.188 ✓
T13	260 - 235	L2 1/2x2x3/16	8.000	7.250	152.1	29.000	0.519	2.357	15.047	0.157 ✓
T14	235 - 210	L2 1/2x2x3/16	8.000	7.250	152.1	29.000	0.519	2.543	15.047	0.169 ✓
T15	210 - 185	L2 1/2x2x3/16	8.000	7.229	151.7	29.000	0.519	3.116	15.047	0.207 ✓
T16	185 - 160	L2 1/2x2 1/2x1/4	8.000	7.135	118.0	29.000	0.752	3.959	21.804	0.182 ✓
T17	160 - 135	L2 1/2x2 1/2x1/4	8.000	7.063	117.7	29.000	0.728	7.058	21.125	0.334 ✓
T18	135 - 110	L2 1/2x2 1/2x1/4	8.000	6.938	118.0	29.000	0.682	3.638	19.765	0.184 ✓
T19	110 - 85	L2x2x3/16	8.000	7.083	147.1	29.000	0.413	2.590	11.983	0.216* ✓
T20	85 - 60	L2x2x3/16	8.000	7.083	147.1	29.000	0.413	2.668	11.983	0.223* ✓
T21	60 - 35	L2x2x3/16	8.000	7.083	147.1	29.000	0.413	2.744	11.983	0.229* ✓
T22	35 - 10	L2x2x3/16	8.000	7.083	147.1	29.000	0.413	2.858	11.983	0.238* ✓
T23	10 - 0	L3x5x1/2	7.933	7.496	108.5	21.600	3.750	33.108	81.000	0.409* ✓

* DL controls

Bottom Girt Design Data (Tension)

Section No.	Elevation	Size	L	L_u	Kl/r	F_a	A	Actual P	Allow. P_a	Ratio $\frac{P}{P_a}$
	ft		ft	ft		ksi	in^2	K	K	
T22	35 - 10	L2x2x3/16	8.000	7.083	147.1	29.000	0.413	6.505	11.983	0.543* ✓

* DL controls

Top Guy Pull-Off Design Data (Tension)

Section No.	Elevation	Size	L	L_u	Kl/r	F_a	A	Actual P	Allow. P_a	Ratio $\frac{P}{P_a}$
	ft		ft	ft		ksi	in^2	K	K	
T3	510 - 485	L2 1/2x2 1/2x1/4	8.000	7.625	119.0	21.600	1.190	1.463	25.704	0.057
T10	335 - 310	L2 1/2x2 1/2x1/4	8.000	7.563	118.0	21.600	1.190	2.601	25.704	0.101
T17	160 - 135	L2 1/2x2 1/2x1/4	8.000	7.542	117.7	21.600	1.190	4.892	25.704	0.190*

* DL controls

Top Guy Pull-Off Bending Design Data

Section No.	Elevation	Size	Actual M_x	Actual f_{bx}	Allow. F_{bx}	Ratio $\frac{f_{bx}}{F_{bx}}$	Actual M_y	Actual f_{by}	Allow. F_{by}	Ratio $\frac{f_{by}}{F_{by}}$
	ft		kip-ft	ksi	ksi		kip-ft	ksi	ksi	
T3	510 - 485	L2 1/2x2 1/2x1/4	-0.024	0.433	23.760	0.018	-0.024	0.849	23.760	0.036
T10	335 - 310	L2 1/2x2 1/2x1/4	-0.068	1.223	23.760	0.051	-0.068	2.397	23.760	0.101
T17	160 - 135	L2 1/2x2 1/2x1/4	-0.063	1.130	23.760	0.048	-0.063	2.215	23.760	0.093

Top Guy Pull-Off Interaction Design Data

Section No.	Elevation	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
	ft							
T3	510 - 485	L2 1/2x2 1/2x1/4	0.057	0.018	0.036	0.111 ✓	1.333	H2-1 ✓
T10	335 - 310	L2 1/2x2 1/2x1/4	0.101	0.051	0.101	0.253 ✓	1.333	H2-1 ✓
T17	160 - 135	L2 1/2x2 1/2x1/4	0.190	0.048	0.093	0.330* ✓	1.000	H2-1 ✓

* DL controls

Section Capacity Table

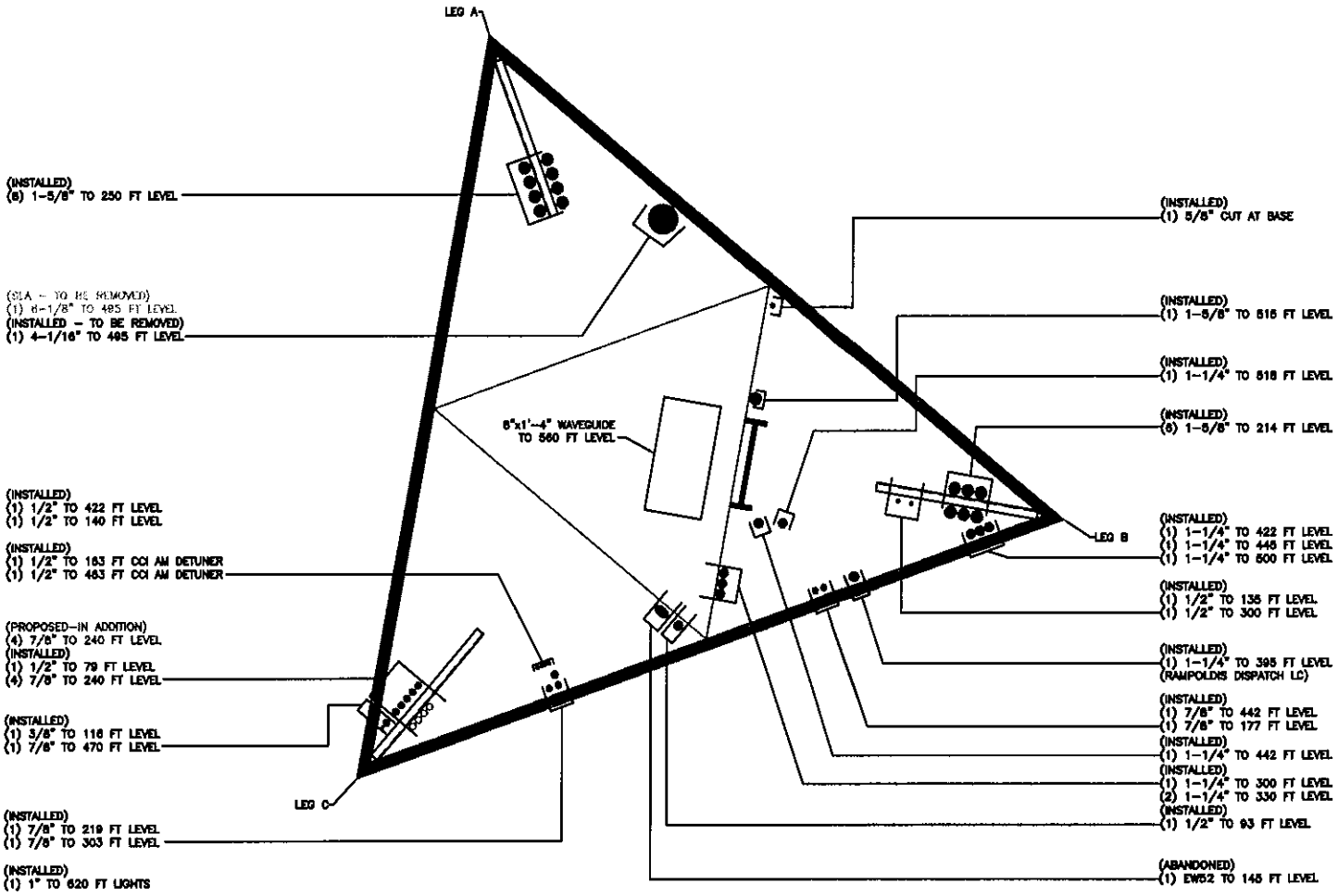
Section No.	Elevation ft	Component Type	Size	Critical Element	P K	$SF*P_{allow}$ K	% Capacity	Pass Fail
T1	560 - 535	Leg	4	2	-11.437	336.519	3.4	Pass
T2	535 - 510	Leg	4	44	-31.426	336.519	9.3	Pass
T3	510 - 485	Leg	4 1/2	86	-65.110	458.507	14.2	Pass
T4	485 - 460	Leg	4 1/2	128	-55.914	458.507	12.2	Pass
T5	460 - 435	Leg	4 1/4	169	-56.639	395.526	14.3	Pass
T6	435 - 410	Leg	4 1/4	211	-59.311	395.526	15.0	Pass
T7	410 - 385	Leg	4 1/4	254	-73.833	395.526	18.7	Pass
T8	385 - 360	Leg	4 1/4	296	-112.905	395.526	28.5	Pass
T9	360 - 335	Leg	4 3/4	338	-165.337	525.457	31.5	Pass
T10	335 - 310	Leg	5 1/4	380	-216.728	671.267	32.3	Pass
T11	310 - 285	Leg	4 3/4	422	-204.337	525.457	38.9	Pass
T12	285 - 260	Leg	4 3/4	464	-163.025	525.457	31.0	Pass
T13	260 - 235	Leg	4 3/4	506	-136.099	525.457	25.9	Pass
T14	235 - 210	Leg	4 3/4	548	-146.812	525.457	27.9	Pass
T15	210 - 185	Leg	5	590	-179.894	596.378	30.2	Pass
T16	185 - 160	Leg	5 1/4	631	-228.585	671.267	34.1	Pass
T17	160 - 135	Leg	5 1/2	673	-251.940	750.123	33.6	Pass
T18	135 - 110	Leg	5 1/4	716	-210.039	671.267	31.3	Pass
T19	110 - 85	Leg	5 1/4	758	-149.506	503.576	29.7	Pass
T20	85 - 60	Leg	5 1/4	800	-154.036	503.576	30.6	Pass
T21	60 - 35	Leg	5 1/4	842	-158.434	503.576	31.5	Pass
T22	35 - 10	Leg	5 1/4	884	-164.994	503.576	32.8	Pass
T23	10 - 0	Leg	5 1/4	926	-178.425	527.349	33.8	Pass
T1	560 - 535	Diagonal	1	39	3.930	16.965	23.2	Pass
T2	535 - 510	Diagonal	1	56	6.638	22.614	29.4	Pass
T3	510 - 485	Diagonal	1 1/4	107	10.143	35.334	28.7	Pass
T4	485 - 460	Diagonal	1	163	6.501	22.614	28.7	Pass
T5	460 - 435	Diagonal	5/8	206	3.277	8.834	37.1	Pass
T6	435 - 410	Diagonal	5/8	225	3.876	8.834	43.9	Pass
T7	410 - 385	Diagonal	5/8	267	6.290	8.834	71.2	Pass
T8	385 - 360	Diagonal	3/4	304	9.151	12.720	71.9	Pass
T9	360 - 335	Diagonal	1	346	12.300	22.614	54.4	Pass
T10	335 - 310	Diagonal	1 1/4	397	14.599	35.334	41.3	Pass
T11	310 - 285	Diagonal	1	458	11.352	22.614	50.2	Pass
T12	285 - 260	Diagonal	5/8	501	7.850	8.834	88.9	Pass
T13	260 - 235	Diagonal	5/8	543	4.373	8.834	49.5	Pass
T14	235 - 210	Diagonal	5/8	557	5.533	8.834	62.6	Pass
T15	210 - 185	Diagonal	7/8	599	9.623	17.314	55.6	Pass
T16	185 - 160	Diagonal	1	641	13.084	22.614	57.9	Pass
T17	160 - 135	Diagonal	1 1/4	709	14.376	35.334	40.7	Pass
T18	135 - 110	Diagonal	1	756	11.906	22.614	52.7	Pass
T19	110 - 85	Diagonal	7/8	798	8.907	17.314	51.4	Pass
T20	85 - 60	Diagonal	7/8	840	6.104	17.314	35.3	Pass
T21	60 - 35	Diagonal	7/8	882	3.679	17.314	21.2	Pass
T22	35 - 10	Diagonal	7/8	892	6.486	17.314	37.5	Pass
T1	560 - 535	Horizontal	L2 1/2x2 1/2x1/4	35	-5.787	12.897	44.9	Pass
T2	535 - 510	Horizontal	L2 1/2x2 1/2x1/4	77	-5.734	12.897	44.5	Pass
T3	510 - 485	Horizontal	L2 1/2x2 1/2x1/4	110	-7.639	12.951	59.0	Pass
T4	485 - 460	Horizontal	L2 1/2x2 1/2x1/4	143	-5.361	13.045	41.1	Pass
T5	460 - 435	Horizontal	L2x2x3/16	185	-2.346	6.135	38.2	Pass
T6	435 - 410	Horizontal	L2x2x3/16	245	-2.338	5.998	39.0	Pass
T7	410 - 385	Horizontal	L2x2x3/16	270	-4.727	7.996	59.1	Pass
T8	385 - 360	Horizontal	L2x2x1/4	310	-6.946	10.312	67.4	Pass
T9	360 - 335	Horizontal	L2 1/2x2 1/2x1/4	352	-9.329	17.209	54.2	Pass
T10	335 - 310	Horizontal	L2 1/2x2 1/2x1/4	403	-11.088	17.371	63.8	Pass
T11	310 - 285	Horizontal	L2 1/2x2 1/2x1/4	454	-8.637	17.550	49.2	Pass
T12	285 - 260	Horizontal	L2 1/2x2x3/16	497	-6.011	11.873	50.6	Pass
T13	260 - 235	Horizontal	L2 1/2x2x3/16	540	-2.177	8.907	24.4	Pass

Section No.	Elevation ft	Component Type	Size	Critical Element	P K	$SF*P_{allow}$ K	% Capacity	Pass Fail
T14	235 - 210	Horizontal	L2 1/2x2x3/16	562	-3.905	11.873	32.9	Pass
T15	210 - 185	Horizontal	L2 1/2x2x3/16	604	-7.058	11.897	59.3	Pass
T16	185 - 160	Horizontal	L2 1/2x2 1/2x1/4	646	-10.127	17.281	58.6	Pass
T17	160 - 135	Horizontal	L2 1/2x2 1/2x1/4	690	-10.626	17.407	61.0	Pass
T18	135 - 110	Horizontal	L2 1/2x2 1/2x1/4	750	-8.976	17.621	50.9	Pass
T19	110 - 85	Horizontal	L2x2x3/16	792	-6.552	8.303	78.9	Pass
T20	85 - 60	Horizontal	L2x2x3/16	834	-4.438	8.303	53.4	Pass
T21	60 - 35	Horizontal	L2x2x3/16	876	-3.009	6.229	48.3	Pass
T22	35 - 10	Horizontal	L2x2x3/16	900	-3.559	6.229	57.1	Pass
T23	10 - 0	Horizontal	L3x5x1/2	928	33.108	81.000	40.9	Pass
T1	560 - 535	Top Girt	L2 1/2x2 1/2x1/4	5	-3.094	12.897	24.0	Pass
T2	535 - 510	Top Girt	L2 1/2x2 1/2x1/4	47	-3.088	12.897	23.9	Pass
T3	510 - 485	Top Girt	L2 1/2x2 1/2x1/4	89	-3.650	12.951	28.2	Pass
T4	485 - 460	Top Girt	L2 1/2x2 1/2x1/4	131	-3.847	13.045	29.5	Pass
T5	460 - 435	Top Girt	L2x2x3/16	173	-1.531	6.135	25.0	Pass
T6	435 - 410	Top Girt	L2x2x3/16	215	-1.251	5.998	20.8	Pass
T7	410 - 385	Top Girt	L2x2x3/16	258	-1.738	7.996	21.7	Pass
T8	385 - 360	Top Girt	L2x2x3/16	300	-2.753	7.996	34.4	Pass
T9	360 - 335	Top Girt	L2 1/2x2 1/2x1/4	340	-4.956	17.083	29.0	Pass
T10	335 - 310	Top Girt	L2 1/2x2 1/2x1/4	382	-5.318	17.371	30.6	Pass
T11	310 - 285	Top Girt	L2 1/2x2 1/2x1/4	426	-3.769	13.166	28.6	Pass
T12	285 - 260	Top Girt	L2 1/2x2x3/16	467	-2.902	11.873	24.4	Pass
T13	260 - 235	Top Girt	L2 1/2x2x3/16	509	-2.053	11.873	17.3	Pass
T14	235 - 210	Top Girt	L2 1/2x2x3/16	552	-1.157	8.907	13.0	Pass
T15	210 - 185	Top Girt	L2 1/2x2x3/16	592	-2.640	11.897	22.2	Pass
T16	185 - 160	Top Girt	L2 1/2x2 1/2x1/4	634	-4.998	17.281	28.9	Pass
T17	160 - 135	Top Girt	L2 1/2x2 1/2x1/4	678	-3.946	13.059	30.2	Pass
T18	135 - 110	Top Girt	L2 1/2x2 1/2x1/4	720	-5.136	17.621	29.1	Pass
T19	110 - 85	Top Girt	L2x2x3/16	762	-2.924	8.303	35.2	Pass
T20	85 - 60	Top Girt	L2x2x3/16	804	-2.655	8.303	32.0	Pass
T21	60 - 35	Top Girt	L2x2x3/16	846	-1.704	6.229	27.3	Pass
T22	35 - 10	Top Girt	L2x2x3/16	888	-1.699	6.229	27.3	Pass
T1	560 - 535	Bottom Girt	L2 1/2x2 1/2x1/4	8	-3.088	12.897	23.9	Pass
T2	535 - 510	Bottom Girt	L2 1/2x2 1/2x1/4	50	-3.558	12.897	27.6	Pass
T3	510 - 485	Bottom Girt	L2 1/2x2 1/2x1/4	92	-3.855	12.951	29.8	Pass
T4	485 - 460	Bottom Girt	L2 1/2x2 1/2x1/4	134	-2.608	13.045	20.0	Pass
T5	460 - 435	Bottom Girt	L2x2x3/16	176	-1.251	6.135	20.4	Pass
T6	435 - 410	Bottom Girt	L2x2x3/16	219	-1.706	7.996	21.3	Pass
T7	410 - 385	Bottom Girt	L2x2x3/16	261	-2.725	7.996	34.1	Pass
T8	385 - 360	Bottom Girt	L2x2x3/16	301	-2.988	7.996	37.4	Pass
T9	360 - 335	Bottom Girt	L2 1/2x2 1/2x1/4	343	-5.259	17.083	30.8	Pass
T10	335 - 310	Bottom Girt	L2 1/2x2 1/2x1/4	387	-3.707	13.032	28.4	Pass
T11	310 - 285	Bottom Girt	L2 1/2x2 1/2x1/4	428	-4.235	17.550	24.1	Pass
T12	285 - 260	Bottom Girt	L2 1/2x2x3/16	470	-2.093	11.873	17.6	Pass
T13	260 - 235	Bottom Girt	L2 1/2x2x3/16	513	-1.157	8.907	13.0	Pass
T14	235 - 210	Bottom Girt	L2 1/2x2x3/16	553	-2.589	11.873	21.8	Pass
T15	210 - 185	Bottom Girt	L2 1/2x2x3/16	595	-3.420	11.897	28.7	Pass
T16	185 - 160	Bottom Girt	L2 1/2x2 1/2x1/4	637	-5.501	17.281	31.8	Pass
T17	160 - 135	Bottom Girt	L2 1/2x2 1/2x1/4	681	-5.169	17.407	29.7	Pass
T18	135 - 110	Bottom Girt	L2 1/2x2 1/2x1/4	723	-4.793	17.621	27.2	Pass
T19	110 - 85	Bottom Girt	L2x2x3/16	765	-2.680	8.303	32.3	Pass
T20	85 - 60	Bottom Girt	L2x2x3/16	807	-1.704	6.229	27.4	Pass
T21	60 - 35	Bottom Girt	L2x2x3/16	849	-1.696	6.229	27.2	Pass
T22	35 - 10	Bottom Girt	L2x2x3/16	889	6.505	11.983	54.3	Pass
T3	510 - 485	Guy A@491.292	1 1/4	951	59.046	96.000	61.5	Pass
T10	335 - 310	Guy A@316.292	1 1/2	945	69.577	138.000	50.4	Pass
T17	160 - 135	Guy A@153.708	1 3/4	939	65.410	188.000	34.8	Pass
T3	510 - 485	Guy B@491.292	1 1/4	950	59.304	96.000	61.8	Pass
T10	335 - 310	Guy B@316.292	1 1/2	944	69.543	138.000	50.4	Pass
T17	160 - 135	Guy B@153.708	1 3/4	938	65.191	188.000	34.7	Pass
T3	510 - 485	Guy C@491.292	1 1/4	946	58.977	96.000	61.4	Pass

Section No.	Elevation ft	Component Type	Size	Critical Element	P K	SF*P_{allow} K	% Capacity	Pass Fail
T10	335 - 310	Guy C@316.292	1 1/2	940	69.818	138.000	50.6	Pass
T17	160 - 135	Guy C@153.708	1 3/4	934	65.550	188.000	34.9	Pass
T3	510 - 485	Top Guy Pull-Off@491.292	L2 1/2x2 1/2x1/4	947	-1.625	5.117	47.6	Pass
T10	335 - 310	Top Guy Pull-Off@316.292	L2 1/2x2 1/2x1/4	942	-1.230	6.934	21.8	Pass
T17	160 - 135	Top Guy Pull-Off@153.708	L2 1/2x2 1/2x1/4	936	4.892	25.704	33.0	Pass
							Summary	
						Leg (T11)	38.9	Pass
						Diagonal (T12)	88.9	Pass
						Horizontal (T19)	78.9	Pass
						Top Girt (T19)	35.2	Pass
						Bottom Girt (T22)	54.3	Pass
						Guy A (T3)	61.5	Pass
						Guy B (T3)	61.8	Pass
						Guy C (T3)	61.4	Pass
						Top Guy Pull-Off (T3)	47.6	Pass
						Bolt Checks	87.5	Pass
						RATING =	**88.9**	**Pass**

APPENDIX B

BASE LEVEL DRAWING



BUSINESS UNIT: 870600 TOWER ID: C_BASELEVEL

APPENDIX C

ADDITIONAL CALCULATIONS

DEADMAN ANCHOR DESIGN

PROJECT	560' Guyed Tower
CLIENT:	Crown Castle USA, Inc.
SITE:	Avon (Deercliff Rd.), CT (BU#870800)
JOB NO.:	83041
DATE:	6/8/2011
BY:	DMB

NOTE:

Geotech Report by United Consulting, Project No. 20004476-01 Dated 02/08/2001

INPUTS:

DESIGN LOADS:

	Inner Anchor		
ANCHOR RADIUS	265		FEET
UPLIFT, Pv	134		KIPS (GROSS)
SHEAR FORCE, Ph	129		KIPS
Base Reaction Down	496	KIPS	

SOIL PROPERTIES:

(GAMMA)s=	115	PCF
Allowable Lat. Pressure(w/FS=2)	60	PCF
THETA=	0	DEGREES
Base Allowable Bearing	8	KSF
Sliding Friction Factor:	0	
Allowable Side Shear	200	PSF

ANCHOR ROD LENGTH

INNER ANGLE=	46.08914	DEGREES
Lmin INNER=	9.37	FEET
OFFSET INNER=	-0.52	FEET

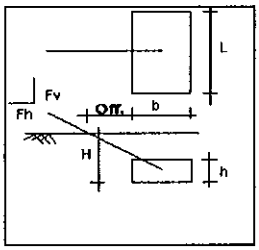
ANCHOR DIMENSIONS:

	Inner Anchor			Base
WIDTH(b)	7.33		FEET	15
LENGTH(L)	17.33		FEET	15
THICKNESS(h)	5.7		FEET	5.25
DEPTH TO B.O.C.(H)	6.12		FEET	9

DESIGN:

	Inner Anchor			Base		
Lat. Pr. @ Base of anchor (Hb)	1567		PSF	Bearing Pr.	2.20	ksf
Lat. Pr. @ Top of anchor(Ht)	1225		PSF	Result	Base OK	27.6%
Side Area (Aside)	98.78		SQ. FT			
Uplift Resistance w/Adhesion,Rv	60.33483		KIPS	Cohesion	1.2	ksf
Weight of Concrete, Wc=	108.6		KIPS		Results	
Weight of Soil, Ws=	6.1		KIPS	Inner Anchor		
Lateral Resitance(Rh w/FS=2.0)	137.8983		KIPS	93.5%		Lateral
Uplift Resistance, Rv=	150.2348		KIPS	89.2%		Uplift
Sliding Resistance, Rh=	0		KIPS			
TOP Ast REQUIRED	2.50		SQ. IN			
SIDE Ast REQUIRED	1.85		SQ. IN			

INNER DEADMAN IS ADEQUATE W/ F.S.>=2.0



PAD DESIGN EQUATIONS:

VERTICAL RESISTANCE, Rv IN KIPS=((Wc/1.25)+(Ws+Sk))/2.0

Rv=NET UPLIFT RESISTANCE @B.O.C. W/ F.S. OF 2.0
Wc=WT. OF CONC., IN KIPS=0.15*(b*L*h)
b=WIDTH OF DEADMAN IN FEET
L=LENGTH OF DEADMAN IN FEET
h=THICKNESS OF DEADMAN IN FEET

Ws=WT. OF SOIL IN KIPS=(GAMMA)s*(H-h)*(b*L+(b+L)*(H-h)*tan(PHI)+(4/3)*(H-h)^2*tan^2(PHI))/1000

(GAMMA)s=UNIT WT. OF SOIL IN PCF
H=DEPTH TO B.O.C. FROM SOIL SURFACE IN FEET
(PHI)=0.7(THETA), IN DEGREES
(THETA)=SOIL FRICTION ANGLE IN DEGREES

HORIZONTAL RESISTANCE, Rh IN KIPS=((Hb+Ht)/(2*1000)*Aside)

Lat. Pr. @ Base of Anchor(Hb)= Allowable Lat. Pressure(PCF)*Depth of Anchor base below grade
Lat. Pr. @ Top of Anchor(Hb)= Allowable Lat. Pressure(PCF)*Depth of Anchor Top below grade

T-Mobile

T-Mobile USA Inc.
35 Griffin Rd South, Bloomfield, CT 06002-1853
Phone: (860) 692-7100
Fax: (860) 692-7159

Technical Memo

To: Northeast Tower Inc
From: Amir Uzzaman - Radio Frequency Engineer
cc: Jason Overbey
Subject: Power Density Report for CT11376A
Date: June 24, 2011

1. Introduction:

This report is the result of an Electromagnetic Field Intensities (EMF - Power Densities) study for the T-Mobile antenna installation on a Utly Lattice Tower at 376 Deercliff Road, Avon, CT. This study incorporates the most conservative consideration for determining the practical combined worst case power density levels that would be theoretically encountered from locations surrounding the transmitting location.

2. Discussion:

The following assumptions were used in the calculations:

1) The emissions from T-Mobile transmitters are in the (1935-1944.8), (2140-2145), (2110-2120)MHz frequency Band.
2) The antenna array consists of two sectors, with 2 antennas per sector.
3) The model number of the antennas are RR90-17-02DP, RR90-17-02DP, APX16DWV-16DWV
3) The model number for UMTS antenna is APX16DWV-16DWV.
4) GSM antenna center line height is 242 ft.
4) UMTS antenna center line height is 242 ft.
5) The maximum transmit power from any GSM sector is 1232.88 Watts Effective Radiated Power (EiRP) assuming 8 channels per sector.
5) The maximum transmit power from any UMTS sector is 1737.36 Watts Effective Radiated Power (EiRP) assuming 2 channels per sector.
6) All the antennas are simultaneously transmitting and receiving, 24 hours a day.
7) Power levels emitting from the antennas are increased by a factor of 2.56 to account for possible in-phase reflections from the surrounding environment. This is rarely the case, and if so, is never continuous.
8) The average ground level of the studied area does not change significantly with respect to the transmitting location.

Equations given in "FCC OET Bulletin 65, Edition 97-01" were then used with the above information to perform the calculations.

3. Conclusion:

Based on the above worst case assumptions, the power density calculation from the T-Mobile antenna installation on a Utly Lattice Tower at 376 Deercliff Road, Avon, CT, is 0.0117 mW/cm^2. This value represents 1.17% of the Maximum Permissible Exposure (MPE) standard of 1 milliwatt per square centimeter (mW/cm^2) set forth in the FCC/ANSI/IEEE C95.1-1991. Furthermore, the proposed antenna location for T-Mobile will not interfere with existing public safety communications, AM or FM radio broadcasts, TV, Police Communications, HAM Radio communications or any other signals in the area.
The combined Power Density from other carriers is 76.66224%. The combined Power Density for the site is 77.832% of the M.P.E. standard.

VoiceStream Wireless Corporation Proprietary

Connecticut Market

T · ·Mobile·

Worst Case Power Density

Site:	**CT11376A**
Site Address:	**376 Deercliff Road**
Town:	**Avon**
Tower Height:	**560 ft.**
Tower Style:	**Utly Lattice Tower**

GSM Data		**UMTS Data**	
Base Station TX output	20 W	**Base Station TX output**	40 W
Number of channels	8	**Number of channels**	2
Antenna Model	RR90-17-02DP	**Antenna Model**	APX16DWV-16DWV
Cable Size	1 5/8 in.	**Cable Size**	1 5/8 in.
Cable Length	270 ft.	**Cable Length**	270 ft.
Antenna Height	242.0 ft.	**Antenna Height**	242.0 ft.
Ground Reflection	1.6	**Ground Reflection**	1.6
Frequency	1945.0 MHz	**Frequency**	2.1 GHz
Jumper & Connector loss	4.50 dB	**Jumper & Connector loss**	1.50 dB
Antenna Gain	16.5 dBi	**Antenna Gain**	18.0 dBi
Cable Loss per foot	0.0116 dB	**Cable Loss per foot**	0.0116 dB
Total Cable Loss	3.1320 dB	**Total Cable Loss**	3.1320 dB
Total Attenuation	7.6320 dB	**Total Attenuation**	4.6320 dB
Total EIRP per Channel	51.88 dBm	**Total EIRP per Channel**	59.39 dBm
(In Watts)	154.11 W	**(In Watts)**	868.68 W
Total EIRP per Sector	60.91 dBm	**Total EIRP per Sector**	62.40 dBm
(In Watts)	1232.88 W	**(In Watts)**	1737.36 W
nsg	8.8680	**nsg**	13.3680
Power Density (S) =	**0.004856 mW/cm^2**	**Power Density (S) =**	**0.006844 mW/cm^2**

T-Mobile Worst Case % MPE = 1.1700%

Equation Used :

Office of Engineering and Technology (OET) Bulletin 65, Edition 97-01, August 1997

Co-Location Total

Carrier	% of Standard
Marcus	0.0459 %
Marcus	0.2002 %
Marcus	0.2095 %
Pocket	1.4863 %
Marcus	0.0459 %
Arch Communications	3.2238 %
Hartford Data Dispatch	5.6157 %
Hartford Data Dispatch	1.1231 %
Pagemart	6.1408 %
Pagenet	4.0793 %
Preferred Network	8.1082 %
Roamer One	0.4926 %
Roamer One	1.2315 %
Nationwide	0.9211 %
WHCT TV (Ch 18)	42.8946 %
Nextel	0.8438 %
Other Antenna Systems	
Total Excluding T-Mobile	**76.6622 %**
T-Mobile	1.1700
Total % MPE for Site	**77.8322%**

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

July 1, 2011

The Honorable Mark W. Zacchio
Chairman Town Council
Town of Avon
60 West Main Street
Avon, CT 06001-3743

RE: **EM-T-MOBILE-004-110630** - Omnipoint Communications, as subsidiary of T-Mobile USA, Inc., notice of intent to modify an existing telecommunications facility located at 376 Deercliff Road, Avon, Connecticut.

Dear Chairman Town Council Zacchio:

The Connecticut Siting Council (Council) received this request to modify an existing telecommunications facility, pursuant to Regulations of Connecticut State Agencies Section 16-50j-72.

If you have any questions or comments regarding this proposal, please call me or inform the Council by July 18, 2011.

Thank you for your cooperation and consideration.

Very truly yours,

Linda Roberts

Linda Roberts
Executive Director

LR/jbw

Enclosure: Notice of Intent

c: Brandon Robertson, Town Manager, Town of Avon
Steven V. Kushner, Town Planner, Town of Avon

CSC
CONNECTICUT SITING COUNCIL