Robinson+Cole

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Also admitted in Massachusetts

January 3, 2019

Melanie A. Bachman, Esq.
Executive Director/Staff Attorney
Connecticut Siting Council
10 Franklin Square
New Britain, CT 06051

Re: **EM-VER-060-150609 – Cellco Partnership d/b/a Verizon Wireless ("Cellco")**
131 Manor Road, Guilford, Connecticut

Dear Ms. Bachman:

On June 29, 2015, the Siting Council acknowledged receipt of Cellco's notice of intent to modify its existing telecommunications facility at 131 Manor Road in Guilford, Connecticut. Cellco's modifications involved the replacement of antennas and remote radio heads.

As a condition of its approval, Cellco was required to provide the Council with a letter stating that it had complied with the recommendations made in the March 4, 2015 structural report, which was attached to the EM-VER-060-150609 filing. In preparation for construction of the approved modifications it was discovered that Cellco's antenna mounts needed to be modified. (*See* October 10, 2017 Mount Analysis prepared by Hudson Design Group attached).

To avoid any confusion, Cellco had a new structural analysis completed on March 23, 2018, which took into account the approved modifications in EM-VER-060-150609, as well as the modifications to the antenna mounts. A copy of the March 23, 2018 updated structural is attached. Also attached is a Notice of Completion Certification from a professional engineer verifying that Cellco's facility modifications were completed in accordance with the March 23, 2018 Structural Analysis Report. Cellco is not aware of any other modifications to the 131 Manor Road, Guilford tower site that were not incorporated into the March 23, 2018 Structural Analysis Report.

18834180-v1

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If you have any questions please do not hesitate to contact me.

Sincerely,

Kenneth C. Baldwin

Attachment
Copy to:
Tim Parks

HUDSON
Design Group LLC

December 11, 2018

Mr. Tim Parks
Verizon Wireless
99 East Drive
East Hartford, CT 06108

RE: Notice of Completion Certification

Project: Guilford CT
131 Manor Road
Guilford, CT 06437

Engineer: Derek J. Creaser, P.E.
Hudson Design Group LLC
45 Beechwood Drive
North Andover, MA 01845

CSC Exempt Mod Reference No.: EM-VER-060-150609

Dear Mr. Parks,

HDG is providing this "Notice of Completion Certification" with regard to the wireless telecommunications facility installation at the above referenced project.

The following are the basis for submitting compliance with following:

- Review of the Paul J. Ford & Company Structural Analyses dated March 23, 2018 prepared for Crown Castle for this site
- Review of the Hudson Design Group LLC Structural Mount Analysis and Mods dated October 10, 2017
- Field Observations by Hudson Design Group (Provertic Staff) personnel on December 15, 2018 of the Platform Modifications and Closeout Photos dated October 11, 2018 of the completed installation which was installed in general compliance with the aforementioned Structural Analysis.

The structural analysis of the tower prepared by prepared by Paul J. Ford & Company and the Mount analysis and modifications prepared by Hudson Design Group LLC demonstrates the tower and the Verizon Wireless Mount will not exceed 100 percent of the post construction structural rating. The work under this Contract has been reviewed and found, to the Engineer's best knowledge, information and belief, to be completed in general compliance with the document(s) referenced above. This certification is not a review of the adequacy or effectiveness of the modification/reinforcement solution.

Respectfully Submitted,
Hudson Design Group LLC

STATE OF CONNECTICUT
DEREK J. CREASER
No. 25551
LICENSED
PROFESSIONAL ENGINEER

Derek J. Creaser, P.E.

PAUL J. FORD & COMPANY

Date: **March 23, 2018**

Charles McGuirt
Crown Castle
3530 Toringdon Way, Suite 300
Charlotte, NC 28277

Paul J. Ford and Company
250 East Broad Street, Suite 600
Columbus, Ohio 43215
614-221-6679
gaustin@pjfweb.com

Subject: **Structural Analysis Report**

Carrier Designation:	***Verizon Wireless* Co-Locate**	
	Carrier Site Number:	N/A
	Carrier Site Name:	N/A
Crown Castle Designation:	**Crown Castle BU Number:**	806361
	Crown Castle Site Name:	NHV 102 943127
	Crown Castle JDE Job Number:	475887
	Crown Castle Work Order Number:	1504657
	Crown Castle Application Number:	419417 Rev. 1
Engineering Firm Designation:	**Paul J. Ford and Company Project Number:**	37517-4041.001.7805 Revised
Site Data:	**131 Manor Rd, GUILFORD, New Haven County, CT**	
	Latitude *41° 19' 48.09"*, Longitude *-72° 43' 18.51"*	
	150 Foot - Monopole Tower	

Dear Charles McGuirt,

Paul J. Ford and Company 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 1122351, in accordance with application 419417, revision 1.

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:

LC7: Existing + Reserved + Proposed Equipment **Sufficient Capacity**
Note: See Table I and Table II for the proposed and existing/reserved loading, respectively.

This analysis has been performed in accordance with the 2016 Connecticut State Building Code based upon an ultimate 3-second gust wind speed of 128 mph converted to a nominal 3-second gust wind speed of 99 mph per Section 1609.3 and Appendix N as required for use in the ANSI/TIA-222-G-2005 Standard, "Structural Standard for Antenna Supporting Structures and Antennas", with ANSI/TIA-222-G-1-2007 and ANSI/TIA-222-G-2-2009 Addenda per Exception #5 of Section 1609.1.1. Risk Category II, Exposure Category C and Topographic Category 1 were used in this analysis.

We at *Paul J. Ford and Company* appreciate the opportunity of providing our continuing professional services to you and Crown Castle. If you have any questions or need further assistance on this or any other projects please give us a call.

Respectfully submitted by:

Grant J. Austin
Structural Designer

STATE OF CONNECTICUT
JUSTIN T. KLINE
No. 30301
LICENSED
PROFESSIONAL ENGINEER

3-23-18

tnxTower Report - version 7.0.5.1

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1) INTRODUCTION

This tower is a 150 ft Monopole tower designed by VALMONT in August of 1986. The tower was originally designed for a wind load of 20 psf per EIA-222-C.

2) ANALYSIS CRITERIA

This analysis has been performed in accordance with the 2016 Connecticut State Building Code based upon an ultimate 3-second gust wind speed of 128 mph converted to a nominal 3-second gust wind speed of 99 mph per Section 1609.3 and Appendix N as required for use in the ANSI/TIA-222-G-2005 Standard, "Structural Standard for Antenna Supporting Structures and Antennas", with ANSI/TIA-222-G-1-2007 and ANSI/TIA-222-G-2-2009 Addenda per Exception #5 of Section 1609.1.1. Risk Category II, Exposure Category C and Topographic Category 1 were used in this analysis.

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
147.0	147.0	1	tower mounts	Miscellaneous mount modifications	--	--	--

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
147.0	150.0	6	alcatel lucent	RRH2X60-AWS	1 12 1	1/2 7/8 1-5/8	1
		3	antel	BXA-70063-6CF-2 w/ Mount Pipe			
		6	antel	LPA-80063/6CFX5 w/ Mount Pipe			
		6	commscope	HBXX-6517DS-A2M w/ Mount Pipe			
		1	rfs celwave	DB-T1-6Z-8AB-0Z			
	147.0	1	lucent	KS24019-L112A			
		6	rfs celwave	FD9R6004/2C-3L			
		1	tower mounts	Platform Mount [LP 713-1]			
132.0	137.0	3	cci antennas	HPA-65R-BUU-H6 w/ Mount Pipe	--	--	2
		3	ericsson	RRUS12/RRUS A2			
		6	powerwave technologies	7770.00 w/ Mount Pipe	1 2 12	3/8 3/4 1-1/4	1
	132.0	3	ericsson	RRUS-11			
		6	powerwave technologies	LGP21401			
		6	powerwave technologies	LGP21903			
		1	raycap	DC6-48-60-18-8F			
		1	tower mounts	Platform Mount [LP 713-1]			
126.0	128.0	6	ericsson	KRY 112 71	12	1-5/8	1
		3	rfs celwave	APX16DWV-16DWV-S-E-ACU w/ Mount Pipe			
	126.0	1	tower mounts	Side Arm Mount [SO 101-3]			

Notes:
1) Existing Equipment
2) Reserved Equipment

3) ANALYSIS PROCEDURE

Table 3 - Documents Provided

Document	Remarks	Reference	Source
4-GEOTECHNICAL REPORTS	Dr. Clarence Welti, 10/02/02	780506	CCISITES
4-POST-MODIFICATION INSPECTION	Vertical Solutions, 06240.01, 09/12/06	2045675	CCISITES
4-POST-MODIFICATION INSPECTION	PJF, 37511-1727, 02/10/12	3099221	CCISITES
4-POST-MODIFICATION INSPECTION	TEP, 127277, 10/2/12	3335575	CCISITES
4-POST-MODIFICATION INSPECTION	TEP, 25593, 9/24/2013	4037923	CCISITES
4-POST-MODIFICATION INSPECTION	TEP, 25593.31879, 08/04/2015	5823375	CCISITES
4-TOWER FOUNDATION DRAWINGS/DESIGN/SPECS	Valmont, 1983-14, 10/86	217669	CCISITES
4-TOWER MANUFACTURER DRAWINGS	Valmont, 10565-86, 08/13/86	217668	CCISITES

3.1) Analysis Method

tnxTower (version 7.0.5.1), 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) Anchor rod bolt circle is 50.62 inches.
5) The installed base plate stiffeners were ignored in this analysis.
6) Monopole was reinforced in conformance with the referenced modification drawings.

This analysis may be affected if any assumptions are not valid or have been made in error. Paul J. Ford and Company should be notified to determine the effect on the structural integrity of the tower.

4) ANALYSIS RESULTS

Table 4 - Section Capacity (Summary)

Section No.	Elevation (ft)	Component Type	Size	% Capacity	Pass / Fail
L1	150 - 145	Pole	TP16.937x16x0.1875	18.9%	Pass
L2	145 - 140	Pole	TP17.875x16.937x0.1875	38.7%	Pass
L3	140 - 135	Pole	TP18.812x17.875x0.1875	56.0%	Pass
L4	135 - 133.83	Pole	TP19.032x18.812x0.1875	59.7%	Pass
L5	133.83 - 133.58	Pole + Reinf.	TP19.079x19.032x0.4563	42.7%	Pass
L6	133.58 - 128.58	Pole + Reinf.	TP20.016x19.079x0.4375	61.2%	Pass
L7	128.58 - 123.58	Pole + Reinf.	TP20.953x20.016x0.425	77.4%	Pass
L8	123.58 - 119.5	Pole + Reinf.	TP21.718x20.953x0.4125	89.8%	Pass
L9	119.5 - 119.25	Pole + Reinf.	TP21.765x21.718x0.7625	59.2%	Pass
L10	119.25 - 118.75	Pole + Reinf.	TP21.859x21.765x0.7625	60.2%	Pass
L11	118.75 - 118.5	Pole + Reinf.	TP21.906x21.859x0.7625	60.7%	Pass
L12	118.5 - 113.5	Pole + Reinf.	TP22.843x21.906x0.7375	70.4%	Pass
L13	113.5 - 108.5	Pole + Reinf.	TP23.781x22.843x0.7	79.6%	Pass
L14	108.5 - 103.5	Pole + Reinf.	TP24.718x23.781x0.675	88.2%	Pass
L15	103.5 - 99.5	Pole + Reinf.	TP26.28x24.718x0.6625	94.8%	Pass
L16	99.5 - 94.17	Pole + Reinf.	TP26.093x25.093x0.7875	87.7%	Pass
L17	94.17 - 93.75	Pole + Reinf.	TP26.172x26.093x0.7875	88.2%	Pass
L18	93.75 - 93.5	Pole + Reinf.	TP26.219x26.172x0.9125	76.6%	Pass
L19	93.5 - 92.75	Pole + Reinf.	TP26.36x26.219x0.9125	77.3%	Pass
L20	92.75 - 92.5	Pole + Reinf.	TP26.406x26.36x1.1375	64.4%	Pass
L21	92.5 - 92	Pole + Reinf.	TP26.5x26.406x1.1125	64.8%	Pass
L22	92 - 91.75	Pole + Reinf.	TP26.547x26.5x0.8125	77.8%	Pass
L23	91.75 - 86.75	Pole + Reinf.	TP27.485x26.547x0.8	82.7%	Pass
L24	86.75 - 86.5	Pole + Reinf.	TP27.532x27.485x0.8	83.0%	Pass
L25	86.5 - 86.25	Pole + Reinf.	TP27.579x27.532x1.2125	57.7%	Pass
L26	86.25 - 85.75	Pole + Reinf.	TP27.673x27.579x1.1875	58.1%	Pass
L27	85.75 - 85.5	Pole + Reinf.	TP27.72x27.673x0.8625	74.9%	Pass
L28	85.5 - 80.5	Pole + Reinf.	TP28.658x27.72x0.8375	79.1%	Pass
L29	80.5 - 75.5	Pole + Reinf.	TP29.596x28.658x0.8125	83.1%	Pass
L30	75.5 - 70.5	Pole + Reinf.	TP30.534x29.596x0.7875	86.9%	Pass
L31	70.5 - 68.08	Pole + Reinf.	TP30.988x30.534x0.7875	88.7%	Pass
L32	68.08 - 67.83	Pole + Reinf.	TP31.035x30.988x0.8375	76.1%	Pass
L33	67.83 - 66.75	Pole + Reinf.	TP31.238x31.035x0.8375	76.8%	Pass
L34	66.75 - 66.5	Pole + Reinf.	TP31.284x31.238x1.0625	61.8%	Pass
L35	66.5 - 63.25	Pole + Reinf.	TP31.894x31.284x1.0375	63.5%	Pass
L36	63.25 - 63	Pole + Reinf.	TP31.941x31.894x1.2625	64.9%	Pass
L37	63 - 62.75	Pole + Reinf.	TP31.988x31.941x1.2625	65.1%	Pass
L38	62.75 - 62.5	Pole + Reinf.	TP32.035x31.988x0.9125	86.2%	Pass
L39	62.5 - 57.5	Pole + Reinf.	TP32.973x32.035x0.9	89.5%	Pass
L40	57.5 - 56.25	Pole + Reinf.	TP33.207x32.973x0.8875	90.3%	Pass
L41	56.25 - 56	Pole + Reinf.	TP33.254x33.207x0.8375	79.0%	Pass
L42	56 - 51	Pole + Reinf.	TP34.192x33.254x0.825	81.7%	Pass
L43	51 - 50	Pole + Reinf.	TP35.38x34.192x0.8125	82.2%	Pass
L44	50 - 43.67	Pole + Reinf.	TP34.942x33.755x0.875	81.2%	Pass

Section No.	Elevation (ft)	Component Type	Size	% Capacity	Pass / Fail
L45	43.67 - 38.67	Pole + Reinf.	TP35.879x34.942x0.8625	83.4%	Pass
L46	38.67 - 35.5	Pole + Reinf.	TP36.474x35.879x0.85	84.7%	Pass
L47	35.5 - 35.25	Pole + Reinf.	TP36.521x36.474x0.85	84.8%	Pass
L48	35.25 - 34.25	Pole + Reinf.	TP36.708x36.521x0.85	85.2%	Pass
L49	34.25 - 34	Pole + Reinf.	TP36.755x36.708x1.1	66.9%	Pass
L50	34 - 33.25	Pole + Reinf.	TP36.896x36.755x1.1	67.2%	Pass
L51	33.25 - 33	Pole + Reinf.	TP36.943x36.896x0.7875	91.6%	Pass
L52	33 - 28	Pole + Reinf.	TP37.88x36.943x0.775	93.6%	Pass
L53	28 - 26.25	Pole + Reinf.	TP38.208x37.88x0.775	94.2%	Pass
L54	26.25 - 26	Pole + Reinf.	TP38.255x38.208x1.1	67.3%	Pass
L55	26 - 25.25	Pole + Reinf.	TP38.396x38.255x1.1	67.6%	Pass
L56	25.25 - 25	Pole + Reinf.	TP38.443x38.396x0.8625	85.0%	Pass
L57	25 - 20	Pole + Reinf.	TP39.38x38.443x0.85	86.8%	Pass
L58	20 - 15	Pole + Reinf.	TP40.318x39.38x0.825	88.4%	Pass
L59	15 - 12.25	Pole + Reinf.	TP40.833x40.318x0.825	89.3%	Pass
L60	12.25 - 12	Pole + Reinf.	TP40.88x40.833x0.7875	90.2%	Pass
L61	12 - 9.25	Pole + Reinf.	TP41.396x40.88x0.775	91.0%	Pass
L62	9.25 - 9	Pole + Reinf.	TP41.443x41.396x0.8125	91.0%	Pass
L63	9 - 4	Pole + Reinf.	TP42.38x41.443x0.8	92.4%	Pass
L64	4 - 3	Pole + Reinf.	TP42.568x42.38x0.8	92.6%	Pass
L65	3 - 2.75	Pole + Reinf.	TP42.614x42.568x0.8375	91.4%	Pass
L66	2.75 - 0	Pole + Reinf.	TP43.13x42.614x0.825	92.1%	Pass
				Summary	
			Pole (L15)	94.8	Pass
			Rating =	94.8	Pass

Table 5 - Tower Component Stresses vs. Capacity – LC7

Notes	Component	Elevation (ft)	% Capacity	Pass / Fail
1	Anchor Rods	0	86.0	Pass
1	Base Plate	0	75.5	Pass
1	Base Foundation – Structural Steel	0	70.6	Pass
1	Base Foundation Soil Interaction	0	23.3	Pass

Structure Rating (max from all components) =	**94.8%**

Notes:
1) See additional documentation in "Appendix C – Additional Calculations" for calculations supporting the % capacity consumed.
2) Capacities up to 100% are considered acceptable based on analysis methods used.

4.1) Recommendations

The monopole and its foundation have sufficient capacity to carry the proposed loading configuration. No modifications are required at this time.

APPENDIX A

TNXTOWER OUTPUT

Tower Input Data

There is a pole section.
This tower is designed using the TIA-222-G standard.
The following design criteria apply:

1. Tower is located in New Haven County, Connecticut.
2. ASCE 7-10 Wind Data is used (wind speeds converted to nominal values).
3. Basic wind speed of 99.00 mph.
4. Structure Class II.
5. Exposure Category C.
6. Topographic Category 1.
7. Crest Height 0.0000 ft.
8. Nominal ice thickness of 0.7500 in.
9. Ice thickness is considered to increase with height.
10. Ice density of 56.00 pcf.
11. A wind speed of 50.00 mph is used in combination with ice.
12. Temperature drop of 50.00 °F.
13. Deflections calculated using a wind speed of 60.00 mph.
14. A non-linear (P-delta) analysis was used.
15. Pressures are calculated at each section.
16. Stress ratio used in pole design is 1.
17. Local bending stresses due to climbing loads, feed line supports, and appurtenance mounts are not considered.

Options

Consider Moments - Legs	Distribute Leg Loads As Uniform	Use ASCE 10 X-Brace Ly Rules
Consider Moments - Horizontals	Assume Legs Pinned	Calculate Redundant Bracing Forces
Consider Moments - Diagonals	√ Assume Rigid Index Plate	Ignore Redundant Members in FEA
Use Moment Magnification	√ Use Clear Spans For Wind Area	SR Leg Bolts Resist Compression
√ Use Code Stress Ratios	Use Clear Spans For KL/r	All Leg Panels Have Same Allowable
√ Use Code Safety Factors - Guys	Retension Guys To Initial Tension	Offset Girt At Foundation
Escalate Ice	√ Bypass Mast Stability Checks	√ Consider Feed Line Torque
Always Use Max Kz	√ Use Azimuth Dish Coefficients	Include Angle Block Shear Check
Use Special Wind Profile	√ Project Wind Area of Appurt.	Use TIA-222-G Bracing Resist. Exemption
Include Bolts In Member Capacity	Autocalc Torque Arm Areas	Use TIA-222-G Tension Splice Exemption
Leg Bolts Are At Top Of Section	Add IBC .6D+W Combination	**Poles**
Secondary Horizontal Braces Leg	Sort Capacity Reports By Component	√ Include Shear-Torsion Interaction
Use Diamond Inner Bracing (4 Sided)	Triangulate Diamond Inner Bracing	Always Use Sub-Critical Flow
SR Members Have Cut Ends	Treat Feed Line Bundles As Cylinder	Use Top Mounted Sockets
SR Members Are Concentric		

Tapered Pole Section Geometry

Section	Elevation ft	Section Length ft	Splice Length ft	Number of Sides	Top Diameter in	Bottom Diameter in	Wall Thickness in	Bend Radius in	Pole Grade
L1	150.0000-145.0000	5.0000	0.00	12	16.0000	16.9374	0.1875	0.7500	A572-65 (65 ksi)
L2	145.0000-140.0000	5.0000	0.00	12	16.9374	17.8749	0.1875	0.7500	A572-65 (65 ksi)
L3	140.0000-135.0000	5.0000	0.00	12	17.8749	18.8123	0.1875	0.7500	A572-65 (65 ksi)
L4	135.0000-133.8300	1.1700	0.00	12	18.8123	19.0317	0.1875	0.7500	A572-65 (65 ksi)
L5	133.8300-133.5800	0.2500	0.00	12	19.0317	19.0786	0.4562	1.8250	A572-65 (65 ksi)
L6	133.5800-	5.0000	0.00	12	19.0786	20.0160	0.4375	1.7500	A572-65

Section	Elevation ft	Section Length ft	Splice Length ft	Number of Sides	Top Diameter in	Bottom Diameter in	Wall Thickness in	Bend Radius in	Pole Grade
	128.5800								(65 ksi)
L7	128.5800-123.5800	5.0000	0.00	12	20.0160	20.9534	0.4250	1.7000	A572-65 (65 ksi)
L8	123.5800-119.5000	4.0800	0.00	12	20.9534	21.7184	0.4125	1.6500	A572-65 (65 ksi)
L9	119.5000-119.2500	0.2500	0.00	12	21.7184	21.7653	0.7625	3.0500	A572-65 (65 ksi)
L10	119.2500-118.7500	0.5000	0.00	12	21.7653	21.8590	0.7625	3.0500	A572-65 (65 ksi)
L11	118.7500-118.5000	0.2500	0.00	12	21.8590	21.9059	0.7625	3.0500	A572-65 (65 ksi)
L12	118.5000-113.5000	5.0000	0.00	12	21.9059	22.8433	0.7375	2.9500	A572-65 (65 ksi)
L13	113.5000-108.5000	5.0000	0.00	12	22.8433	23.7808	0.7000	2.8000	A572-65 (65 ksi)
L14	108.5000-103.5000	5.0000	0.00	12	23.7808	24.7182	0.6750	2.7000	A572-65 (65 ksi)
L15	103.5000-95.1700	8.3300	4.33	12	24.7182	26.2800	0.6625	2.6500	A572-65 (65 ksi)
L16	95.1700-94.1700	5.3300	0.00	12	25.0932	26.0932	0.7875	3.1500	A572-65 (65 ksi)
L17	94.1700-93.7500	0.4200	0.00	12	26.0932	26.1719	0.7875	3.1500	A572-65 (65 ksi)
L18	93.7500-93.5000	0.2500	0.00	12	26.1719	26.2189	0.9125	3.6500	A572-65 (65 ksi)
L19	93.5000-92.7500	0.7500	0.00	12	26.2189	26.3596	0.9125	3.6500	A572-65 (65 ksi)
L20	92.7500-92.5000	0.2500	0.00	12	26.3596	26.4065	1.1375	4.5500	A572-65 (65 ksi)
L21	92.5000-92.0000	0.5000	0.00	12	26.4065	26.5003	1.1125	4.4500	A572-65 (65 ksi)
L22	92.0000-91.7500	0.2500	0.00	12	26.5003	26.5472	0.8125	3.2500	A572-65 (65 ksi)
L23	91.7500-86.7500	5.0000	0.00	12	26.5472	27.4852	0.8000	3.2000	A572-65 (65 ksi)
L24	86.7500-86.5000	0.2500	0.00	12	27.4852	27.5321	0.8000	3.2000	A572-65 (65 ksi)
L25	86.5000-86.2500	0.2500	0.00	12	27.5321	27.5790	1.2125	4.8500	A572-65 (65 ksi)
L26	86.2500-85.7500	0.5000	0.00	12	27.5790	27.6729	1.1875	4.7500	A572-65 (65 ksi)
L27	85.7500-85.5000	0.2500	0.00	12	27.6729	27.7198	0.8625	3.4500	A572-65 (65 ksi)
L28	85.5000-80.5000	5.0000	0.00	12	27.7198	28.6578	0.8375	3.3500	A572-65 (65 ksi)
L29	80.5000-75.5000	5.0000	0.00	12	28.6578	29.5959	0.8125	3.2500	A572-65 (65 ksi)
L30	75.5000-70.5000	5.0000	0.00	12	29.5959	30.5340	0.7875	3.1500	A572-65 (65 ksi)
L31	70.5000-68.0800	2.4200	0.00	12	30.5340	30.9880	0.7875	3.1500	A572-65 (65 ksi)
L32	68.0800-67.8300	0.2500	0.00	12	30.9880	31.0349	0.8375	3.3500	A572-65 (65 ksi)
L33	67.8300-66.7500	1.0800	0.00	12	31.0349	31.2375	0.8375	3.3500	A572-65 (65 ksi)
L34	66.7500-66.5000	0.2500	0.00	12	31.2375	31.2844	1.0625	4.2500	A572-65 (65 ksi)
L35	66.5000-63.2500	3.2500	0.00	12	31.2844	31.8941	1.0375	4.1500	A572-65 (65 ksi)
L36	63.2500-63.0000	0.2500	0.00	12	31.8941	31.9411	1.2625	5.0500	A572-65 (65 ksi)
L37	63.0000-62.7500	0.2500	0.00	12	31.9411	31.9880	1.2625	5.0500	A572-65 (65 ksi)
L38	62.7500-62.5000	0.2500	0.00	12	31.9880	32.0349	0.9125	3.6500	A572-65 (65 ksi)

Section	Elevation ft	Section Length ft	Splice Length ft	Number of Sides	Top Diameter in	Bottom Diameter in	Wall Thickness in	Bend Radius in	Pole Grade
L39	62.5000-57.5000	5.0000	0.00	12	32.0349	32.9729	0.9000	3.6000	A572-65 (65 ksi)
L40	57.5000-56.2500	1.2500	0.00	12	32.9729	33.2074	0.8875	3.5500	A572-65 (65 ksi)
L41	56.2500-56.0000	0.2500	0.00	12	33.2074	33.2543	0.8375	3.3500	A572-65 (65 ksi)
L42	56.0000-51.0000	5.0000	0.00	12	33.2543	34.1924	0.8250	3.3000	A572-65 (65 ksi)
L43	51.0000-44.6700	6.3300	5.33	12	34.1924	35.3800	0.8125	3.2500	A572-65 (65 ksi)
L44	44.6700-43.6700	6.3300	0.00	12	33.7550	34.9419	0.8750	3.5000	A572-65 (65 ksi)
L45	43.6700-38.6700	5.0000	0.00	12	34.9419	35.8794	0.8625	3.4500	A572-65 (65 ksi)
L46	38.6700-35.5000	3.1700	0.00	12	35.8794	36.4738	0.8500	3.4000	A572-65 (65 ksi)
L47	35.5000-35.2500	0.2500	0.00	12	36.4738	36.5206	0.8500	3.4000	A572-65 (65 ksi)
L48	35.2500-34.2500	1.0000	0.00	12	36.5206	36.7081	0.8500	3.4000	A572-65 (65 ksi)
L49	34.2500-34.0000	0.2500	0.00	12	36.7081	36.7550	1.1000	4.4000	A572-65 (65 ksi)
L50	34.0000-33.2500	0.7500	0.00	12	36.7550	36.8956	1.1000	4.4000	A572-65 (65 ksi)
L51	33.2500-33.0000	0.2500	0.00	12	36.8956	36.9425	0.7875	3.1500	A572-65 (65 ksi)
L52	33.0000-28.0000	5.0000	0.00	12	36.9425	37.8800	0.7750	3.1000	A572-65 (65 ksi)
L53	28.0000-26.2500	1.7500	0.00	12	37.8800	38.2081	0.7750	3.1000	A572-65 (65 ksi)
L54	26.2500-26.0000	0.2500	0.00	12	38.2081	38.2550	1.1000	4.4000	A572-65 (65 ksi)
L55	26.0000-25.2500	0.7500	0.00	12	38.2550	38.3956	1.1000	4.4000	A572-65 (65 ksi)
L56	25.2500-25.0000	0.2500	0.00	12	38.3956	38.4425	0.8625	3.4500	A572-65 (65 ksi)
L57	25.0000-20.0000	5.0000	0.00	12	38.4425	39.3800	0.8500	3.4000	A572-65 (65 ksi)
L58	20.0000-15.0000	5.0000	0.00	12	39.3800	40.3175	0.8250	3.3000	A572-65 (65 ksi)
L59	15.0000-12.2500	2.7500	0.00	12	40.3175	40.8331	0.8250	3.3000	A572-65 (65 ksi)
L60	12.2500-12.0000	0.2500	0.00	12	40.8331	40.8800	0.7875	3.1500	A572-65 (65 ksi)
L61	12.0000-9.2500	2.7500	0.00	12	40.8800	41.3956	0.7750	3.1000	A572-65 (65 ksi)
L62	9.2500-9.0000	0.2500	0.00	12	41.3956	41.4425	0.8125	3.2500	A572-65 (65 ksi)
L63	9.0000-4.0000	5.0000	0.00	12	41.4425	42.3800	0.8000	3.2000	A572-65 (65 ksi)
L64	4.0000-3.0000	1.0000	0.00	12	42.3800	42.5675	0.8000	3.2000	A572-65 (65 ksi)
L65	3.0000-2.7500	0.2500	0.00	12	42.5675	42.6144	0.8375	3.3500	A572-65 (65 ksi)
L66	2.7500-0.0000	2.7500		12	42.6144	43.1300	0.8250	3.3000	A572-65 (65 ksi)

Tapered Pole Properties

Section	Tip Dia. in	Area in²	I in⁴	r in	C in	I/C in³	J in⁴	It/Q in²	w in	w/t
L1	16.5644	9.5468	304.6805	5.6609	8.2880	36.7616	617.3654	4.6986	3.7855	20.189
	17.5349	10.1128	362.1455	5.9965	8.7736	41.2767	733.8050	4.9772	4.0367	21.529
L2	17.5349	10.1128	362.1455	5.9965	8.7736	41.2767	733.8050	4.9772	4.0367	21.529
	18.5054	10.6788	426.4166	6.3321	9.2592	46.0533	864.0355	5.2558	4.2880	22.869
L3	18.5054	10.6788	426.4166	6.3321	9.2592	46.0533	864.0355	5.2558	4.2880	22.869
	19.4760	11.2447	497.8746	6.6677	9.7448	51.0914	1008.8289	5.5343	4.5392	24.209
L4	19.4760	11.2447	497.8746	6.6677	9.7448	51.0914	1008.8289	5.5343	4.5392	24.209
	19.7031	11.3772	515.6744	6.7462	9.8584	52.3080	1044.8961	5.5995	4.5980	24.523
L5	19.7031	27.2896	1201.8827	6.6500	9.8584	121.9144	2435.3402	13.4311	3.8777	8.499
	19.7516	27.3585	1211.0039	6.6668	9.8827	122.5378	2453.8223	13.4650	3.8903	8.527
L6	19.7516	26.2606	1164.7478	6.6735	9.8827	117.8573	2360.0948	12.9247	3.9406	9.007
	20.7221	27.5812	1349.4553	7.0091	10.3683	130.1521	2734.3624	13.5746	4.1918	9.581
L7	20.7221	26.8103	1313.4119	7.0136	10.3683	126.6758	2661.3286	13.1952	4.2253	9.942
	21.6926	28.0932	1511.1207	7.3492	10.8539	139.2239	3061.9402	13.8266	4.4765	10.533
L8	21.6926	27.2835	1469.3568	7.3537	10.8539	135.3761	2977.3153	13.4281	4.5100	10.933
	22.4845	28.2996	1639.7044	7.6275	11.2501	145.7498	3322.4857	13.9282	4.7150	11.43
L9	22.4845	51.4520	2884.0366	7.5022	11.2501	256.3558	5843.8400	25.3231	3.7770	4.953
	22.5331	51.5671	2903.4321	7.5190	11.2744	257.5240	5883.1406	25.3797	3.7896	4.97
L10	22.5331	51.5671	2903.4321	7.5190	11.2744	257.5240	5883.1406	25.3797	3.7896	4.97
	22.6301	51.7972	2942.4837	7.5526	11.3230	259.8685	5962.2696	25.4930	3.8147	5.003
L11	22.6301	51.7972	2942.4837	7.5526	11.3230	259.8685	5962.2696	25.4930	3.8147	5.003
	22.6786	51.9123	2962.1401	7.5693	11.3473	261.0447	6002.0988	25.5497	3.8273	5.019
L12	22.6786	50.2696	2875.1956	7.5783	11.3473	253.3826	5825.9257	24.7412	3.8943	5.28
	23.6492	52.4958	3274.3459	7.9139	11.8328	276.7167	6634.7125	25.8369	4.1455	5.621
L13	23.6492	49.9111	3123.6969	7.9273	11.8328	263.9852	6329.4569	24.5647	4.2460	6.066
	24.6197	52.0241	3537.4567	8.2629	12.3184	287.1675	7167.8463	25.6047	4.4972	6.425
L14	24.6197	50.2204	3422.2153	8.2719	12.3184	277.8123	6934.3359	24.7170	4.5642	6.762
	25.5902	52.2579	3855.8798	8.6075	12.8040	301.1456	7813.0578	25.7198	4.8155	7.134
L15	25.5902	51.3169	3790.3803	8.6119	12.8040	296.0301	7680.3380	25.2566	4.8490	7.319
	27.2071	54.6485	4577.6010	9.1711	13.6130	336.2659	9275.4608	26.8963	5.2675	7.951
L16	26.8194	61.6331	4647.4573	8.7014	12.9983	357.5445	9417.0085	30.3339	4.6145	5.86
	27.0136	64.1688	5244.9939	9.0594	13.5163	388.0509	10627.7796	31.5819	4.8825	6.2
L17	27.0136	64.1688	5244.9939	9.0594	13.5163	388.0509	10627.7796	31.5819	4.8825	6.2
	27.0952	64.3686	5294.1426	9.0876	13.5571	390.5079	10727.3683	31.6803	4.9036	6.227
L18	27.0952	74.2186	6044.3046	9.0429	13.5571	445.8415	12247.3999	36.5281	4.5686	5.007
	27.1438	74.3564	6078.0375	9.0597	13.5814	447.5277	12315.7518	36.5960	4.5812	5.02
L19	27.1438	74.3564	6078.0375	9.0597	13.5814	447.5277	12315.7518	36.5960	4.5812	5.02
	27.2894	74.7698	6179.9886	9.1100	13.6543	452.6054	12522.3324	36.7994	4.6189	5.062
L20	27.2894	92.3821	7501.2740	9.0295	13.6543	549.3727	15199.6149	45.4677	4.0159	3.53
	27.3380	92.5539	7543.2003	9.0463	13.6785	551.4620	15284.5688	45.5522	4.0284	3.541
L21	27.3380	90.6093	7399.3340	9.0552	13.6785	540.9444	14993.0568	44.5951	4.0954	3.681
	27.4351	90.9453	7481.9644	9.0888	13.7271	545.0490	15160.4883	44.7605	4.1206	3.704
L22	27.4351	67.2056	5660.3662	9.1962	13.7271	412.3485	11469.4366	33.0766	4.9246	6.061
	27.4837	67.3283	5691.4286	9.2130	13.7514	413.8788	11532.3775	33.1370	4.9371	6.076
L23	27.4837	66.3247	5612.0380	9.2175	13.7514	408.1056	11371.5105	32.6430	4.9706	6.213
	28.4548	68.7412	6248.0602	9.5533	14.2374	438.8498	12660.2640	33.8323	5.2220	6.528
L24	28.4548	68.7412	6248.0602	9.5533	14.2374	438.8498	12660.264	33.8323	5.2220	6.528

Section	Tip Dia. in	Area in²	I in⁴	r in	C in	I/C in³	J in⁴	It/Q in²	w in	w/t
	28.5034	68.8620	6281.0639	9.5701	14.2617	440.4163	12727.1380	33.8918	5.2346	6.543
L25	28.5034	102.7585	9085.8095	9.4224	14.2617	637.0798	18410.3133	50.5746	4.1291	3.405
	28.5519	102.9416	9134.4706	9.4392	14.2859	639.4025	18508.9138	50.6647	4.1417	3.416
L26	28.5519	100.9147	8971.6025	9.4482	14.2859	628.0020	18178.8990	49.6671	4.2087	3.544
	28.6490	101.2734	9067.6094	9.4818	14.3345	632.5707	18373.4349	49.8437	4.2338	3.565
L27	28.6490	74.4591	6831.3822	9.5981	14.3345	476.5680	13842.2325	36.6465	5.1048	5.919
	28.6976	74.5893	6867.2984	9.6149	14.3588	478.2629	13915.0084	36.7106	5.1174	5.933
L28	28.6976	72.4947	6686.8850	9.6238	14.3588	465.6983	13549.4419	35.6797	5.1844	6.19
	29.6688	75.0245	7411.6200	9.9597	14.8448	499.2754	15017.9515	36.9248	5.4358	6.491
L29	29.6688	72.8503	7209.7793	9.9686	14.8448	485.6787	14608.9676	35.8547	5.5028	6.773
	30.6399	75.3045	7963.2610	10.3045	15.3307	519.4333	16135.7257	37.0626	5.7542	7.082
L30	30.6399	73.0509	7738.3662	10.3134	15.3307	504.7637	15680.0279	35.9534	5.8212	7.392
	31.6111	75.4296	8519.1838	10.6492	15.8166	538.6234	17262.1760	37.1241	6.0726	7.711
L31	31.6111	75.4296	8519.1838	10.6492	15.8166	538.6234	17262.1760	37.1241	6.0726	7.711
	32.0811	76.5809	8915.2560	10.8118	16.0518	555.4063	18064.7257	37.6908	6.1943	7.866
L32	32.0811	81.3083	9434.2901	10.7939	16.0518	587.7413	19116.4295	40.0175	6.0603	7.236
	32.1297	81.4348	9478.3877	10.8107	16.0761	589.5961	19205.7831	40.0797	6.0728	7.251
L33	32.1297	81.4348	9478.3877	10.8107	16.0761	589.5961	19205.7831	40.0797	6.0728	7.251
	32.3394	81.9812	9670.4686	10.8832	16.1810	597.6425	19594.9911	40.3487	6.1272	7.316
L34	32.3394	103.2362	11998.1069	10.8027	16.1810	741.4923	24311.4174	50.8097	5.5242	5.199
	32.3880	103.3967	12054.1426	10.8194	16.2053	743.8385	24424.9609	50.8887	5.5367	5.211
L35	32.3880	101.0474	11799.7501	10.8284	16.2053	728.1404	23909.4927	49.7324	5.6037	5.401
	33.0193	103.0843	12527.8401	11.0467	16.5212	758.2902	25384.8004	50.7350	5.7671	5.559
L36	33.0193	124.5253	14913.6632	10.9661	16.5212	902.7002	30219.1250	61.2876	5.1641	4.09
	33.0678	124.7160	14982.2757	10.9829	16.5455	905.5216	30358.1525	61.3814	5.1767	4.1
L37	33.0678	124.7160	14982.2757	10.9829	16.5455	905.5216	30358.1525	61.3814	5.1767	4.1
	33.1164	124.9067	15051.0983	10.9997	16.5698	908.3473	30497.6057	61.4753	5.1893	4.11
L38	33.1164	91.3075	11254.5257	11.1250	16.5698	679.2208	22804.7204	44.9388	6.1273	6.715
	33.1649	91.4453	11305.5632	11.1418	16.5941	681.3020	22908.1362	45.0066	6.1398	6.729
L39	33.1649	90.2288	11164.1336	11.1463	16.5941	672.7790	22621.5615	44.4079	6.1733	6.859
	34.1361	92.9473	12203.9382	11.4821	17.0800	714.5173	24728.4875	45.7459	6.4247	7.139
L40	34.1361	91.6921	12048.5153	11.4866	17.0800	705.4176	24413.5586	45.1281	6.4582	7.277
	34.3789	92.3623	12314.643	11.5705	17.2015	715.9071	24952.806	45.4579	6.5211	7.348

Section	Tip Dia. in	Area in²	I in⁴	r in	C in	I/C in³	J in⁴	It/Q in²	w in	w/t
			4				1			
L41	34.3789	87.2936	11674.877	11.5884	17.2015	678.7146	23656.467	42.9633	6.6551	7.946
			7				4			
	34.4274	87.4201	11725.701	11.6052	17.2258	680.7077	23759.449	43.0255	6.6677	7.961
			1				4			
L42	34.4274	86.1486	11564.057	11.6097	17.2258	671.3239	23431.916	42.3997	6.7012	8.123
			7				0			
	35.3986	88.6405	12596.886	11.9455	17.7117	711.2197	25524.708	43.6262	6.9526	8.427
			9				1			
L43	35.3986	87.3302	12419.972	11.9500	17.7117	701.2311	25166.232	42.9813	6.9861	8.598
			7				0			
	36.6281	90.4372	13793.329	12.3752	18.3268	752.6300	27949.024	44.5104	7.3043	8.99
			3				8			
L44	35.9804	92.6395	12783.394	11.7710	17.4851	731.1021	25902.622	45.5943	6.7013	7.659
			2				5			
	36.1745	95.9835	14218.294	12.1959	18.0999	785.5454	28810.119	47.2401	7.0194	8.022
			6				6			
L45	36.1745	94.6470	14030.609	12.2004	18.0999	775.1760	28429.818	46.5824	7.0529	8.177
			3				4			
	37.1451	97.2507	15220.668	12.5360	18.5855	818.9528	30841.200	47.8638	7.3042	8.469
			4				6			
L46	37.1451	95.8754	15016.148	12.5405	18.5855	807.9486	30426.787	47.1870	7.3377	8.633
			5				8			
	37.7604	97.5022	15793.567	12.7533	18.8934	835.9299	32002.048	47.9876	7.4970	8.82
			0				7			
L47	37.7604	97.5022	15793.567	12.7533	18.8934	835.9299	32002.048	47.9876	7.4970	8.82
			0				7			
	37.8089	97.6305	15855.994	12.7701	18.9177	838.1569	32128.542	48.0508	7.5095	8.835
			1				9			
L48	37.8089	97.6305	15855.994	12.7701	18.9177	838.1569	32128.542	48.0508	7.5095	8.835
			1				9			
	38.0031	98.1437	16107.347	12.8372	19.0148	847.0946	32637.853	48.3034	7.5598	8.894
			6				2			
L49	38.0031	126.1240	20411.850	12.7477	19.0148	1073.4708	41359.943	62.0744	6.8898	6.263
			6				3			
	38.0516	126.2901	20492.567	12.7645	19.0391	1076.3413	41523.498	62.1561	6.9023	6.275
			9				3			
L50	38.0516	126.2901	20492.567	12.7645	19.0391	1076.3413	41523.498	62.1561	6.9023	6.275
			9				3			
	38.1972	126.7882	20735.995	12.8148	19.1119	1084.9759	42016.749	62.4013	6.9400	6.309
			7				1			
L51	38.1972	91.5612	15237.289	12.9267	19.1119	797.2654	30874.880	45.0636	7.7775	9.876
			9				3			
	38.2457	91.6801	15296.709	12.9435	19.1362	799.3589	30995.280	45.1221	7.7901	9.892
			2				0			
L52	38.2457	90.2560	15069.523	12.9480	19.1362	787.4868	30534.940	44.4213	7.8236	10.095
			6				4			
	39.2163	92.5956	16272.012	13.2836	19.6218	829.2804	32971.508	45.5727	8.0748	10.419
			5				9			
L53	39.2163	92.5956	16272.012	13.2836	19.6218	829.2804	32971.508	45.5727	8.0748	10.419
			5				9			
	39.5560	93.4144	16707.527	13.4011	19.7918	844.1635	33853.980	45.9757	8.1628	10.533
			5				3			
L54	39.5560	131.4370	23101.594	13.2847	19.7918	1167.2297	46810.092	64.6893	7.2918	6.629
			1				9			
	39.6045	131.6031	23189.250	13.3015	19.8161	1170.2230	46987.708	64.7710	7.3043	6.64
			4				2			
L55	39.6045	131.6031	23189.250	13.3015	19.8161	1170.2230	46987.708	64.7710	7.3043	6.64
			4				2			
	39.7501	132.1011	23453.548	13.3518	19.8889	1179.2257	47523.248	65.0162	7.3420	6.675
			9				6			
L56	39.7501	104.2389	18743.275	13.4369	19.8889	942.3969	37978.957	51.3032	7.9785	9.25
			6				9			
	39.7986	104.3691	18813.588	13.4536	19.9132	944.7788	38121.430	51.3673	7.9911	9.265
			4				7			
L57	39.7986	102.8907	18559.435	13.4581	19.9132	932.0157	37606.447	50.6397	8.0246	9.441

Section	Tip Dia. in	Area in²	I in⁴	r in	C in	I/C in³	J in⁴	It/Q in²	w in	w/t
			3				6			
	40.7692	105.4566	19982.879	13.7937	20.3988	979.6084	40490.732	51.9025	8.2758	9.736
			8				0			
L58	40.7692	102.4214	19432.925	13.8027	20.3988	952.6484	39376.376	50.4087	8.3428	10.113
			8				3			
	41.7398	104.9118	20885.259	14.1383	20.8845	1000.0379	42319.197	51.6344	8.5941	10.417
			3				6			
L59	41.7398	104.9118	20885.259	14.1383	20.8845	1000.0379	42319.197	51.6344	8.5941	10.417
			3				6			
	42.2736	106.2816	21714.035	14.3229	21.1516	1026.5925	43998.522	52.3086	8.7323	10.585
			5				9			
L60	42.2736	101.5457	20785.371	14.3363	21.1516	982.6873	42116.797	49.9777	8.8328	11.216
			5				8			
	42.3221	101.6646	20858.447	14.3531	21.1758	985.0114	42264.868	50.0362	8.8453	11.232
			1				7			
L61	42.3221	100.0820	20546.566	14.3576	21.1758	970.2833	41632.914	49.2573	8.8788	11.457
			6				3			
	42.8559	101.3688	21349.291	14.5422	21.4429	995.6328	43259.452	49.8906	9.0170	11.635
			2				0			
L62	42.8559	106.1756	22320.390	14.5288	21.4429	1040.9204	45227.161	52.2564	8.9165	10.974
			1				7			
	42.9044	106.2982	22397.821	14.5455	21.4672	1043.3500	45384.059	52.3168	8.9291	10.99
			9				5			
L63	42.9044	104.6951	22073.600	14.5500	21.4672	1028.2470	44727.099	51.5277	8.9626	11.203
			6				3			
	43.8750	107.1101	23636.617	14.8856	21.9528	1076.6997	47894.194	52.7163	9.2138	11.517
			1				4			
L64	43.8750	107.1101	23636.617	14.8856	21.9528	1076.6997	47894.194	52.7163	9.2138	11.517
			1				4			
	44.0691	107.5931	23957.819	14.9528	22.0500	1086.5241	48545.038	52.9540	9.2641	11.58
			8				2			
L65	44.0691	112.5354	25013.348	14.9393	22.0500	1134.3940	50683.825	55.3865	9.1636	10.942
			5				4			
	44.1176	112.6618	25097.734	14.9561	22.0742	1136.9690	50854.815	55.4487	9.1762	10.957
			9				3			
L66	44.1176	111.0135	24745.340	14.9606	22.0742	1121.0050	50140.768	54.6375	9.2097	11.163
			6				9			
	44.6515	112.3832	25672.660	15.1452	22.3413	1149.1101	52019.769	55.3116	9.3478	11.331
			0				3			

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	Double Angle Stitch Bolt Spacing Redundants in
L1 150.0000-145.0000				1	1	1			
L2 145.0000-140.0000				1	1	1			
L3 140.0000-135.0000				1	1	1			
L4 135.0000-133.8300				1	1	1			
L5 133.8300-133.5800				1	1	0.911045			
L6 133.5800-128.5800				1	1	0.924209			
L7 128.5800-123.5800				1	1	0.927513			
L8 123.5800-119.5000				1	1	0.937069			
L9 119.5000-119.2500				1	1	0.87893			
L10 119.2500-				1	1	0.876117			

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	Double Angle Stitch Bolt Spacing Redundants in
118.7500									
L11 118.7500-118.5000				1	1	0.87472			
L12 118.5000-113.5000				1	1	0.875778			
L13 113.5000-108.5000				1	1	0.894599			
L14 108.5000-103.5000				1	1	0.901426			
L15 103.5000-95.1700				1	1	0.89876			
L16 95.1700-94.1700				1	1	0.907575			
L17 94.1700-93.7500				1	1	0.90599			
L18 93.7500-93.5000				1	1	0.906141			
L19 93.5000-92.7500				1	1	0.903025			
L20 92.7500-92.5000				1	1	0.87609			
L21 92.5000-92.0000				1	1	0.892623			
L22 92.0000-91.7500				1	1	0.927548			
L23 91.7500-86.7500				1	1	0.922215			
L24 86.7500-86.5000				1	1	0.921283			
L25 86.5000-86.2500				1	1	0.872108			
L26 86.2500-85.7500				1	1	0.887406			
L27 85.7500-85.5000				1	1	0.903421			
L28 85.5000-80.5000				1	1	0.910763			
L29 80.5000-75.5000				1	1	0.91991			
L30 75.5000-70.5000				1	1	0.930899			
L31 70.5000-68.0800				1	1	0.92287			
L32 68.0800-67.8300				1	1	0.92378			
L33 67.8300-66.7500				1	1	0.92011			
L34 66.7500-66.5000				1	1	0.90433			
L35 66.5000-63.2500				1	1	0.913022			
L36 63.2500-63.0000				1	1	0.890541			
L37 63.0000-62.7500				1	1	0.889559			
L38 62.7500-62.5000				1	1	0.928112			
L39 62.5000-				1	1	0.923269			

Tower Elevation ft	Gusset Area (per face) ft^2	Gusset Thickness in	Gusset Grade	Adjust. Factor A_f	Adjust. Factor A_r	Weight Mult.	Double Angle Stitch Bolt Spacing Diagonals in	Double Angle Stitch Bolt Spacing Horizontals in	Double Angle Stitch Bolt Spacing Redundants in
57.5000									
L40 57.5000-56.2500				1	1	0.931672			
L41 56.2500-56.0000				1	1	0.929037			
L42 56.0000-51.0000				1	1	0.926895			
L43 51.0000-44.6700				1	1	0.937694			
L44 44.6700-43.6700				1	1	0.935665			
L45 43.6700-38.6700				1	1	0.935113			
L46 38.6700-35.5000				1	1	0.940061			
L47 35.5000-35.2500				1	1	0.939406			
L48 35.2500-34.2500				1	1	0.9368			
L49 34.2500-34.0000				1	1	0.921748			
L50 34.0000-33.2500				1	1	0.919466			
L51 33.2500-33.0000				1	1	0.944491			
L52 33.0000-28.0000				1	1	0.947379			
L53 28.0000-26.2500				1	1	0.943316			
L54 26.2500-26.0000				1	1	0.926835			
L55 26.0000-25.2500				1	1	0.924625			
L56 25.2500-25.0000				1	1	0.93697			
L57 25.0000-20.0000				1	1	0.938042			
L58 20.0000-15.0000				1	1	0.953703			
L59 15.0000-12.2500				1	1	0.94727			
L60 12.2500-12.0000				1	1	0.990847			
L61 12.0000-9.2500				1	1	0.99988			
L62 9.2500-9.0000				1	1	0.954044			
L63 9.0000-4.0000				1	1	0.957382			
L64 4.0000-3.0000				1	1	0.955188			
L65 3.0000-2.7500				1	1	0.912716			
L66 2.7500-0.0000				1	1	0.920519			

Feed Line/Linear Appurtenances - Entered As Area

Description	Face or Leg	Allow Shield	Component Type	Placement ft	Total Number		C_AA_A ft²/ft	Weight plf
LDF4-50A(1/2)	C	No	Inside Pole	147.0000 - 0.0000	1	No Ice	0.0000	0.15
						1/2" Ice	0.0000	0.15
						1" Ice	0.0000	0.15
LDF5-50A(7/8)	C	No	Inside Pole	147.0000 - 0.0000	12	No Ice	0.0000	0.33
						1/2" Ice	0.0000	0.33
						1" Ice	0.0000	0.33
HB158-1-08U8-S8J18(1-5/8)	C	No	Inside Pole	147.0000 - 0.0000	1	No Ice	0.0000	1.30
						1/2" Ice	0.0000	1.30
						1" Ice	0.0000	1.30
***								
LCF114-50J(1-1/4)	C	No	Inside Pole	132.0000 - 0.0000	12	No Ice	0.0000	0.70
						1/2" Ice	0.0000	0.70
						1" Ice	0.0000	0.70
FB-L98B-002-75000(3/8)	C	No	Inside Pole	132.0000 - 0.0000	1	No Ice	0.0000	0.06
						1/2" Ice	0.0000	0.06
						1" Ice	0.0000	0.06
WR-VG86ST-BRD(3/4)	C	No	Inside Pole	132.0000 - 0.0000	2	No Ice	0.0000	0.58
						1/2" Ice	0.0000	0.58
						1" Ice	0.0000	0.58
***								
LDF7-50A(1-5/8)	C	No	Inside Pole	126.0000 - 0.0000	12	No Ice	0.0000	0.82
						1/2" Ice	0.0000	0.82
						1" Ice	0.0000	0.82
***								
1 1/4" Flat Reinforcement	C	No	CaAa (Out Of Face)	125.0000 - 0.0000	1	No Ice	0.2083	0.00
						1/2" Ice	0.3194	0.00
						1" Ice	0.4306	0.00
1 1/4" Flat Reinforcement	C	No	CaAa (Out Of Face)	37.2500 - 22.2500	1	No Ice	0.2083	0.00
						1/2" Ice	0.3194	0.00
						1" Ice	0.4306	0.00
1" Flat Reinforcement	C	No	CaAa (Out Of Face)	22.2500 - 0.0000	1	No Ice	0.1667	0.00
						1/2" Ice	0.2778	0.00
						1" Ice	0.3889	0.00
1" Flat Reinforcement	C	No	CaAa (Out Of Face)	135.0000 - 37.2500	1	No Ice	0.1667	0.00
						1/2" Ice	0.2778	0.00
						1" Ice	0.3889	0.00

Feed Line/Linear Appurtenances Section Areas

Tower Section	Tower Elevation ft	Face	A_R ft²	A_F ft²	C_AA_A In Face ft²	C_AA_A Out Face ft²	Weight K
L1	150.0000-145.0000	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.000	0.01
L2	145.0000-140.0000	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.000	0.03
L3	140.0000-135.0000	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.000	0.03
L4	135.0000-133.8300	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.195	0.01
L5	133.8300-133.5800	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.042	0.00
L6	133.5800-128.5800	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.00

Tower Section	Tower Elevation ft	Face	A_R ft²	A_F ft²	C_AA_A In Face ft²	C_AA_A Out Face ft²	Weight K
		C	0.000	0.000	0.000	0.833	0.06
L7	128.5800-123.5800	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	1.129	0.10
L8	123.5800-119.5000	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	1.530	0.10
L9	119.5000-119.2500	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.094	0.01
L10	119.2500-118.7500	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.188	0.01
L11	118.7500-118.5000	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.094	0.01
L12	118.5000-113.5000	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	1.875	0.12
L13	113.5000-108.5000	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	1.875	0.12
L14	108.5000-103.5000	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	1.875	0.12
L15	103.5000-95.1700	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	3.124	0.21
L16	95.1700-94.1700	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.375	0.02
L17	94.1700-93.7500	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.158	0.01
L18	93.7500-93.5000	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.094	0.01
L19	93.5000-92.7500	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.281	0.02
L20	92.7500-92.5000	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.094	0.01
L21	92.5000-92.0000	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.188	0.01
L22	92.0000-91.7500	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.094	0.01
L23	91.7500-86.7500	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	1.875	0.12
L24	86.7500-86.5000	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.094	0.01
L25	86.5000-86.2500	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.094	0.01
L26	86.2500-85.7500	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.188	0.01
L27	85.7500-85.5000	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.094	0.01
L28	85.5000-80.5000	A	0.000	0.000	0.000	0.000	0.00

Tower Section	Tower Elevation ft	Face	A_R ft²	A_F ft²	C_AA_A In Face ft²	C_AA_A Out Face ft²	Weight K
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	1.875	0.12
L29	80.5000-75.5000	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	1.875	0.12
L30	75.5000-70.5000	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	1.875	0.12
L31	70.5000-68.0800	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.907	0.06
L32	68.0800-67.8300	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.094	0.01
L33	67.8300-66.7500	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.405	0.03
L34	66.7500-66.5000	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.094	0.01
L35	66.5000-63.2500	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	1.219	0.08
L36	63.2500-63.0000	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.094	0.01
L37	63.0000-62.7500	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.094	0.01
L38	62.7500-62.5000	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.094	0.01
L39	62.5000-57.5000	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	1.875	0.12
L40	57.5000-56.2500	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.469	0.03
L41	56.2500-56.0000	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.094	0.01
L42	56.0000-51.0000	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	1.875	0.12
L43	51.0000-44.6700	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	2.374	0.16
L44	44.6700-43.6700	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.375	0.02
L45	43.6700-38.6700	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	1.875	0.12
L46	38.6700-35.5000	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	1.262	0.08
L47	35.5000-35.2500	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.104	0.01
L48	35.2500-34.2500	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.417	0.02
L49	34.2500-34.0000	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.104	0.01

Tower Section	Tower Elevation ft	Face	A_R ft²	A_F ft²	C_AA_A In Face ft²	C_AA_A Out Face ft²	Weight K
L50	34.0000-33.2500	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.312	0.02
L51	33.2500-33.0000	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.104	0.01
L52	33.0000-28.0000	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	2.083	0.12
L53	28.0000-26.2500	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.729	0.04
L54	26.2500-26.0000	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.104	0.01
L55	26.0000-25.2500	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.312	0.02
L56	25.2500-25.0000	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.104	0.01
L57	25.0000-20.0000	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	1.990	0.12
L58	20.0000-15.0000	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	1.875	0.12
L59	15.0000-12.2500	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	1.031	0.07
L60	12.2500-12.0000	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.094	0.01
L61	12.0000-9.2500	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	1.031	0.07
L62	9.2500-9.0000	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.094	0.01
L63	9.0000-4.0000	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	1.875	0.12
L64	4.0000-3.0000	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.375	0.02
L65	3.0000-2.7500	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.094	0.01
L66	2.7500-0.0000	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	1.031	0.07

Feed Line/Linear Appurtenances Section Areas - With Ice

Tower Section	Tower Elevation ft	Face or Leg	Ice Thickness in	A_R ft²	A_F ft²	C_AA_A In Face ft²	C_AA_A Out Face ft²	Weight K
L1	150.0000-145.0000	A	1.742	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	0.000	0.01
L2	145.0000-140.0000	A	1.736	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	0.000	0.03

Tower Section	Tower Elevation ft	Face or Leg	Ice Thickness in	A_R ft²	A_F ft²	C_AA_A In Face ft²	C_AA_A Out Face ft²	Weight K
L3	140.0000-135.0000	A	1.730	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	0.000	0.03
L4	135.0000-133.8300	A	1.726	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	0.644	0.01
L5	133.8300-133.5800	A	1.725	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	0.138	0.00
L6	133.5800-128.5800	A	1.722	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	2.746	0.06
L7	128.5800-123.5800	A	1.715	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	3.576	0.10
L8	123.5800-119.5000	A	1.709	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	4.629	0.10
L9	119.5000-119.2500	A	1.706	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	0.283	0.01
L10	119.2500-118.7500	A	1.705	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	0.566	0.01
L11	118.7500-118.5000	A	1.705	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	0.283	0.01
L12	118.5000-113.5000	A	1.701	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	5.655	0.12
L13	113.5000-108.5000	A	1.693	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	5.638	0.12
L14	108.5000-103.5000	A	1.686	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	5.621	0.12
L15	103.5000-95.1700	A	1.675	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	9.324	0.21
L16	95.1700-94.1700	A	1.667	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	1.119	0.02
L17	94.1700-93.7500	A	1.665	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	0.468	0.01
L18	93.7500-93.5000	A	1.665	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	0.279	0.01
L19	93.5000-92.7500	A	1.664	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	0.836	0.02
L20	92.7500-92.5000	A	1.663	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	0.279	0.01
L21	92.5000-92.0000	A	1.662	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	0.557	0.01
L22	92.0000-91.7500	A	1.662	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	0.278	0.01
L23	91.7500-86.7500	A	1.657	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	5.557	0.12
L24	86.7500-86.5000	A	1.652	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	0.000	0.000	0.00

Tower Section	Tower Elevation ft	Face or Leg	Ice Thickness in	A_R ft²	A_F ft²	C_AA_A In Face ft²	C_AA_A Out Face ft²	Weight K
		C		0.000	0.000	0.000	0.277	0.01
L25	86.5000-86.2500	A	1.652	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	0.277	0.01
L26	86.2500-85.7500	A	1.651	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	0.554	0.01
L27	85.7500-85.5000	A	1.650	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	0.277	0.01
L28	85.5000-80.5000	A	1.645	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	5.530	0.12
L29	80.5000-75.5000	A	1.635	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	5.508	0.12
L30	75.5000-70.5000	A	1.624	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	5.484	0.12
L31	70.5000-68.0800	A	1.615	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	2.645	0.06
L32	68.0800-67.8300	A	1.612	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	0.273	0.01
L33	67.8300-66.7500	A	1.611	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	1.178	0.03
L34	66.7500-66.5000	A	1.609	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	0.273	0.01
L35	66.5000-63.2500	A	1.605	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	3.537	0.08
L36	63.2500-63.0000	A	1.601	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	0.272	0.01
L37	63.0000-62.7500	A	1.600	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	0.272	0.01
L38	62.7500-62.5000	A	1.599	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	0.271	0.01
L39	62.5000-57.5000	A	1.592	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	5.414	0.12
L40	57.5000-56.2500	A	1.584	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	1.349	0.03
L41	56.2500-56.0000	A	1.582	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	0.270	0.01
L42	56.0000-51.0000	A	1.574	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	5.373	0.12
L43	51.0000-44.6700	A	1.557	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	6.753	0.16
L44	44.6700-43.6700	A	1.544	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	1.067	0.02
L45	43.6700-38.6700	A	1.534	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	5.283	0.12
L46	38.6700-35.5000	A	1.518	0.000	0.000	0.000	0.000	0.00

Tower Section	Tower Elevation ft	Face or Leg	Ice Thickness in	A_R ft²	A_F ft²	C_AA_A In Face ft²	C_AA_A Out Face ft²	Weight K
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	3.400	0.08
L47	35.5000-35.2500	A	1.510	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	0.272	0.01
L48	35.2500-34.2500	A	1.508	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	1.087	0.02
L49	34.2500-34.0000	A	1.505	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	0.271	0.01
L50	34.0000-33.2500	A	1.503	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	0.813	0.02
L51	33.2500-33.0000	A	1.501	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	0.271	0.01
L52	33.0000-28.0000	A	1.488	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	5.390	0.12
L53	28.0000-26.2500	A	1.471	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	1.873	0.04
L54	26.2500-26.0000	A	1.465	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	0.267	0.01
L55	26.0000-25.2500	A	1.463	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	0.800	0.02
L56	25.2500-25.0000	A	1.460	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	0.266	0.01
L57	25.0000-20.0000	A	1.444	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	5.198	0.12
L58	20.0000-15.0000	A	1.408	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	5.003	0.12
L59	15.0000-12.2500	A	1.373	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	2.709	0.07
L60	12.2500-12.0000	A	1.357	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	0.245	0.01
L61	12.0000-9.2500	A	1.339	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	2.668	0.07
L62	9.2500-9.0000	A	1.319	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	0.240	0.01
L63	9.0000-4.0000	A	1.275	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	4.708	0.12
L64	4.0000-3.0000	A	1.199	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	0.908	0.02
L65	3.0000-2.7500	A	1.175	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	0.224	0.01
L66	2.7500-0.0000	A	1.091	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	2.365	0.07

Feed Line Center of Pressure

Section	Elevation	CP_X	CP_Z	CP_X Ice	CP_Z Ice
	ft	in	in	in	in
L1	150.0000-145.0000	0.0000	0.0000	0.0000	0.0000
L2	145.0000-140.0000	0.0000	0.0000	0.0000	0.0000
L3	140.0000-135.0000	0.0000	0.0000	0.0000	0.0000
L4	135.0000-133.8300	-0.1898	0.1096	-0.4563	0.2634
L5	133.8300-133.5800	-0.1899	0.1096	-0.4572	0.2640
L6	133.5800-128.5800	-0.1903	0.1099	-0.4608	0.2660
L7	128.5800-123.5800	-0.2523	0.1457	-0.5751	0.3320
L8	123.5800-119.5000	-0.3909	0.2257	-0.8038	0.4641
L9	119.5000-119.2500	-0.3921	0.2264	-0.8099	0.4676
L10	119.2500-118.7500	-0.3924	0.2265	-0.8109	0.4682
L11	118.7500-118.5000	-0.3926	0.2266	-0.8119	0.4688
L12	118.5000-113.5000	-0.3940	0.2275	-0.8190	0.4728
L13	113.5000-108.5000	-0.3966	0.2290	-0.8318	0.4802
L14	108.5000-103.5000	-0.3990	0.2304	-0.8438	0.4872
L15	103.5000-95.1700	-0.4020	0.2321	-0.8586	0.4957
L16	95.1700-94.1700	-0.4031	0.2328	-0.8651	0.4995
L17	94.1700-93.7500	-0.4034	0.2329	-0.8650	0.4994
L18	93.7500-93.5000	-0.4036	0.2330	-0.8656	0.4998
L19	93.5000-92.7500	-0.4038	0.2331	-0.8666	0.5004
L20	92.7500-92.5000	-0.4040	0.2332	-0.8676	0.5009
L21	92.5000-92.0000	-0.4041	0.2333	-0.8684	0.5014
L22	92.0000-91.7500	-0.4043	0.2334	-0.8691	0.5018
L23	91.7500-86.7500	-0.4053	0.2340	-0.8742	0.5047
L24	86.7500-86.5000	-0.4063	0.2346	-0.8790	0.5075
L25	86.5000-86.2500	-0.4064	0.2347	-0.8795	0.5078
L26	86.2500-85.7500	-0.4066	0.2347	-0.8801	0.5081
L27	85.7500-85.5000	-0.4067	0.2348	-0.8808	0.5085
L28	85.5000-80.5000	-0.4077	0.2354	-0.8854	0.5112
L29	80.5000-75.5000	-0.4094	0.2364	-0.8936	0.5159
L30	75.5000-70.5000	-0.4111	0.2374	-0.9011	0.5203
L31	70.5000-68.0800	-0.4123	0.2380	-0.9063	0.5232
L32	68.0800-67.8300	-0.4127	0.2383	-0.9080	0.5243
L33	67.8300-66.7500	-0.4129	0.2384	-0.9089	0.5247
L34	66.7500-66.5000	-0.4131	0.2385	-0.9097	0.5252
L35	66.5000-63.2500	-0.4136	0.2388	-0.9119	0.5265
L36	63.2500-63.0000	-0.4141	0.2391	-0.9140	0.5277
L37	63.0000-62.7500	-0.4142	0.2391	-0.9143	0.5279
L38	62.7500-62.5000	-0.4143	0.2392	-0.9146	0.5280
L39	62.5000-57.5000	-0.4150	0.2396	-0.9175	0.5297
L40	57.5000-56.2500	-0.4159	0.2401	-0.9207	0.5316
L41	56.2500-56.0000	-0.4161	0.2402	-0.9215	0.5320
L42	56.0000-51.0000	-0.4168	0.2406	-0.9239	0.5334
L43	51.0000-44.6700	-0.4183	0.2415	-0.9284	0.5360
L44	44.6700-43.6700	-0.4184	0.2415	-0.9289	0.5363
L45	43.6700-38.6700	-0.4191	0.2420	-0.9274	0.5354
L46	38.6700-35.5000	-0.4430	0.2558	-0.9447	0.5454
L47	35.5000-35.2500	-0.4617	0.2666	-0.9577	0.5529
L48	35.2500-34.2500	-0.4619	0.2667	-0.9579	0.5530

Section	Elevation	CP_X	CP_Z	CP_X Ice	CP_Z Ice
	ft	in	in	in	in
L49	34.2500-34.0000	-0.4621	0.2668	-0.9581	0.5532
L50	34.0000-33.2500	-0.4622	0.2669	-0.9582	0.5532
L51	33.2500-33.0000	-0.4623	0.2669	-0.9584	0.5533
L52	33.0000-28.0000	-0.4630	0.2673	-0.9588	0.5536
L53	28.0000-26.2500	-0.4639	0.2678	-0.9588	0.5536
L54	26.2500-26.0000	-0.4642	0.2680	-0.9587	0.5535
L55	26.0000-25.2500	-0.4643	0.2681	-0.9585	0.5534
L56	25.2500-25.0000	-0.4644	0.2681	-0.9584	0.5533
L57	25.0000-20.0000	-0.4462	0.2576	-0.9442	0.5451
L58	20.0000-15.0000	-0.4243	0.2449	-0.9237	0.5333
L59	15.0000-12.2500	-0.4250	0.2454	-0.9179	0.5299
L60	12.2500-12.0000	-0.4253	0.2455	-0.9148	0.5282
L61	12.0000-9.2500	-0.4256	0.2457	-0.9111	0.5260
L62	9.2500-9.0000	-0.4259	0.2459	-0.9065	0.5234
L63	9.0000-4.0000	-0.4263	0.2461	-0.8956	0.5171
L64	4.0000-3.0000	-0.4269	0.2464	-0.8746	0.5050
L65	3.0000-2.7500	-0.4270	0.2465	-0.8678	0.5010
L66	2.7500-0.0000	-0.4272	0.2467	-0.8420	0.4861

Shielding Factor Ka

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice

Discrete Tower Loads

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert	Azimuth Adjustment	Placement		C_AA_A Front	C_AA_A Side	Weight
			ft ft ft	°	ft		ft^2	ft^2	K
BXA-70063-6CF-2 w/ Mount Pipe	A	From Leg	4.0000 0.00 3.00	0.0000	147.0000	No Ice	7.8065	5.8008	0.04
						1/2" Ice	8.3569	6.9529	0.10
						1" Ice	8.8720	7.8191	0.17
BXA-70063-6CF-2 w/ Mount Pipe	B	From Leg	4.0000 0.00 3.00	0.0000	147.0000	No Ice	7.8065	5.8008	0.04
						1/2" Ice	8.3569	6.9529	0.10
						1" Ice	8.8720	7.8191	0.17
BXA-70063-6CF-2 w/ Mount Pipe	C	From Leg	4.0000 0.00 3.00	0.0000	147.0000	No Ice	7.8065	5.8008	0.04
						1/2" Ice	8.3569	6.9529	0.10
						1" Ice	8.8720	7.8191	0.17
(2) LPA-80063/6CFX5 w/ Mount Pipe	A	From Leg	4.0000 0.00 3.00	0.0000	147.0000	No Ice	9.8047	10.1945	0.05
						1/2" Ice	10.3732	11.3625	0.14
						1" Ice	10.9065	12.2463	0.25
(2) LPA-80063/6CFX5 w/ Mount Pipe	B	From Leg	4.0000 0.00 3.00	0.0000	147.0000	No Ice	9.8047	10.1945	0.05
						1/2" Ice	10.3732	11.3625	0.14
						1" Ice	10.9065	12.2463	0.25
(2) LPA-80063/6CFX5 w/ Mount Pipe	C	From Leg	4.0000 0.00 3.00	0.0000	147.0000	No Ice	9.8047	10.1945	0.05
						1/2" Ice	10.3732	11.3625	0.14
						1" Ice	10.9065	12.2463	0.25
(2) HBXX-6517DS-A2M w/ Mount Pipe	A	From Leg	4.0000 0.00 3.00	0.0000	147.0000	No Ice	8.7655	6.9629	0.07
						1/2" Ice	9.3417	8.1817	0.14
						1" Ice	9.8885	9.1436	0.21

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
(2) HBXX-6517DS-A2M w/ Mount Pipe	B	From Leg	4.0000 0.00 3.00	0.0000	147.0000	No Ice 1/2" Ice 1" Ice	8.7655 9.3417 9.8885	6.9629 8.1817 9.1436	0.07 0.14 0.21
(2) HBXX-6517DS-A2M w/ Mount Pipe	C	From Leg	4.0000 0.00 3.00	0.0000	147.0000	No Ice 1/2" Ice 1" Ice	8.7655 9.3417 9.8885	6.9629 8.1817 9.1436	0.07 0.14 0.21
KS24019-L112A	A	From Leg	4.0000 0.00 0.00	0.0000	147.0000	No Ice 1/2" Ice 1" Ice	0.1407 0.1979 0.2621	0.1407 0.1979 0.2621	0.01 0.01 0.01
(3) RRH2X60-AWS	A	From Leg	4.0000 0.00 3.00	0.0000	147.0000	No Ice 1/2" Ice 1" Ice	1.8775 2.0551 2.2401	1.2359 1.3858 1.5441	0.04 0.06 0.08
(2) RRH2X60-AWS	B	From Leg	4.0000 0.00 3.00	0.0000	147.0000	No Ice 1/2" Ice 1" Ice	1.8775 2.0551 2.2401	1.2359 1.3858 1.5441	0.04 0.06 0.08
RRH2X60-AWS	C	From Leg	4.0000 0.00 3.00	0.0000	147.0000	No Ice 1/2" Ice 1" Ice	1.8775 2.0551 2.2401	1.2359 1.3858 1.5441	0.04 0.06 0.08
(3) FD9R6004/2C-3L	A	From Leg	4.0000 0.00 3.00	0.0000	147.0000	No Ice 1/2" Ice 1" Ice	0.3142 0.3862 0.4656	0.0762 0.1189 0.1685	0.00 0.01 0.01
(2) FD9R6004/2C-3L	B	From Leg	4.0000 0.00 3.00	0.0000	147.0000	No Ice 1/2" Ice 1" Ice	0.3142 0.3862 0.4656	0.0762 0.1189 0.1685	0.00 0.01 0.01
FD9R6004/2C-3L	C	From Leg	4.0000 0.00 3.00	0.0000	147.0000	No Ice 1/2" Ice 1" Ice	0.3142 0.3862 0.4656	0.0762 0.1189 0.1685	0.00 0.01 0.01
DB-T1-6Z-8AB-0Z	A	From Leg	4.0000 0.00 3.00	0.0000	147.0000	No Ice 1/2" Ice 1" Ice	4.8000 5.0704 5.3481	2.0000 2.1926 2.3926	0.04 0.08 0.12
Platform Mount [LP 713-1]	C	None		0.0000	147.0000	No Ice 1/2" Ice 1" Ice	31.2700 39.6800 48.0900	31.2700 39.6800 48.0900	1.51 1.93 2.35
Miscellaneous [NA 509-3]	C	None		0.0000	147.0000	No Ice 1/2" Ice 1" Ice	11.8400 16.9600 22.0800	11.8400 16.9600 22.0800	0.28 0.30 0.32
(2) 2.375" OD x 4' Mount Pipe	A	From Leg	4.0000 0.00 0.00	0.0000	147.0000	No Ice 1/2" Ice 1" Ice	0.8657 1.1106 1.3648	0.8657 1.1106 1.3648	0.02 0.03 0.04
(2) 2.375" OD x 4' Mount Pipe	B	From Leg	4.0000 0.00 0.00	0.0000	147.0000	No Ice 1/2" Ice 1" Ice	0.8657 1.1106 1.3648	0.8657 1.1106 1.3648	0.02 0.03 0.04
(2) 2.375" OD x 4' Mount Pipe	C	From Leg	4.0000 0.00 0.00	0.0000	147.0000	No Ice 1/2" Ice 1" Ice	0.8657 1.1106 1.3648	0.8657 1.1106 1.3648	0.02 0.03 0.04
L 3 x 3 x 1/4 x 6' mount	A	None		0.0000	147.0000	No Ice	2.9500	0.0625	0.03

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
angle						1/2" Ice	3.3810	0.7359	0.04
						1" Ice	3.8194	1.4217	0.05
L 3 x 3 x 1/4 x 6' mount angle	B	None		0.0000	147.0000	No Ice	2.9500	0.0625	0.03
						1/2" Ice	3.3810	0.7359	0.04
						1" Ice	3.8194	1.4217	0.05
L 3 x 3 x 1/4 x 6' mount angle	C	None		0.0000	147.0000	No Ice	2.9500	0.0625	0.03
						1/2" Ice	3.3810	0.7359	0.04
						1" Ice	3.8194	1.4217	0.05
***									
(2) 7770.00 w/ Mount Pipe	A	From Leg	4.0000	0.0000	132.0000	No Ice	5.7460	4.2543	0.06
			0.00			1/2" Ice	6.1791	5.0137	0.10
			5.00			1" Ice	6.6067	5.7109	0.16
(2) 7770.00 w/ Mount Pipe	B	From Leg	4.0000	0.0000	132.0000	No Ice	5.7460	4.2543	0.06
			0.00			1/2" Ice	6.1791	5.0137	0.10
			5.00			1" Ice	6.6067	5.7109	0.16
(2) 7770.00 w/ Mount Pipe	C	From Leg	4.0000	0.0000	132.0000	No Ice	5.7460	4.2543	0.06
			0.00			1/2" Ice	6.1791	5.0137	0.10
			5.00			1" Ice	6.6067	5.7109	0.16
(2) LGP21401	A	From Leg	4.0000	0.0000	132.0000	No Ice	1.1040	0.3471	0.01
			0.00			1/2" Ice	1.2388	0.4422	0.02
			0.00			1" Ice	1.3810	0.5444	0.03
(2) LGP21401	B	From Leg	4.0000	0.0000	132.0000	No Ice	1.1040	0.3471	0.01
			0.00			1/2" Ice	1.2388	0.4422	0.02
			0.00			1" Ice	1.3810	0.5444	0.03
(2) LGP21401	C	From Leg	4.0000	0.0000	132.0000	No Ice	1.1040	0.3471	0.01
			0.00			1/2" Ice	1.2388	0.4422	0.02
			0.00			1" Ice	1.3810	0.5444	0.03
(2) LGP21903	A	From Leg	4.0000	0.0000	132.0000	No Ice	0.2310	0.1575	0.01
			0.00			1/2" Ice	0.2941	0.2129	0.01
			0.00			1" Ice	0.3647	0.2756	0.02
(2) LGP21903	B	From Leg	4.0000	0.0000	132.0000	No Ice	0.2310	0.1575	0.01
			0.00			1/2" Ice	0.2941	0.2129	0.01
			0.00			1" Ice	0.3647	0.2756	0.02
(2) LGP21903	C	From Leg	4.0000	0.0000	132.0000	No Ice	0.2310	0.1575	0.01
			0.00			1/2" Ice	0.2941	0.2129	0.01
			0.00			1" Ice	0.3647	0.2756	0.02
RRUS-11	A	From Leg	4.0000	0.0000	132.0000	No Ice	2.7908	1.1923	0.05
			0.00			1/2" Ice	2.9984	1.3395	0.07
			0.00			1" Ice	3.2134	1.4957	0.09
RRUS-11	B	From Leg	4.0000	0.0000	132.0000	No Ice	2.7908	1.1923	0.05
			0.00			1/2" Ice	2.9984	1.3395	0.07
			0.00			1" Ice	3.2134	1.4957	0.09
RRUS-11	C	From Leg	4.0000	0.0000	132.0000	No Ice	2.7908	1.1923	0.05
			0.00			1/2" Ice	2.9984	1.3395	0.07
			0.00			1" Ice	3.2134	1.4957	0.09
DC6-48-60-18-8F	A	From Leg	4.0000	0.0000	132.0000	No Ice	0.9167	0.9167	0.02

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
			0.00			1/2"	1.4583	1.4583	0.04
			0.00			Ice	1.6431	1.6431	0.06
						1" Ice			
HPA-65R-BUU-H6 w/ Mount Pipe	A	From Leg	4.0000	0.0000	132.0000	No Ice	9.8953	8.1125	0.08
			0.00			1/2"	10.4700	9.3041	0.16
			5.00			Ice	11.0098	10.2095	0.25
						1" Ice			
HPA-65R-BUU-H6 w/ Mount Pipe	B	From Leg	4.0000	0.0000	132.0000	No Ice	9.8953	8.1125	0.08
			0.00			1/2"	10.4700	9.3041	0.16
			5.00			Ice	11.0098	10.2095	0.25
						1" Ice			
HPA-65R-BUU-H6 w/ Mount Pipe	C	From Leg	4.0000	0.0000	132.0000	No Ice	9.8953	8.1125	0.08
			0.00			1/2"	10.4700	9.3041	0.16
			5.00			Ice	11.0098	10.2095	0.25
						1" Ice			
RRUS12/RRUS A2	A	From Leg	4.0000	0.0000	132.0000	No Ice	3.1435	1.8351	0.07
			0.00			1/2"	3.3632	2.0121	0.10
			5.00			Ice	3.5904	2.1965	0.13
						1" Ice			
RRUS12/RRUS A2	B	From Leg	4.0000	0.0000	132.0000	No Ice	3.1435	1.8351	0.07
			0.00			1/2"	3.3632	2.0121	0.10
			5.00			Ice	3.5904	2.1965	0.13
						1" Ice			
RRUS12/RRUS A2	C	From Leg	4.0000	0.0000	132.0000	No Ice	3.1435	1.8351	0.07
			0.00			1/2"	3.3632	2.0121	0.10
			5.00			Ice	3.5904	2.1965	0.13
						1" Ice			
Platform Mount [LP 713-1]	C	None		0.0000	132.0000	No Ice	31.2700	31.2700	1.51
						1/2"	39.6800	39.6800	1.93
						Ice	48.0900	48.0900	2.35
						1" Ice			
***									
APX16DWV-16DWV-S-E-ACU w/ Mount Pipe	A	From Leg	4.0000	0.0000	126.0000	No Ice	6.3145	3.2893	0.06
			0.00			1/2"	6.7432	3.9953	0.11
			2.00			Ice	7.1701	4.6615	0.16
						1" Ice			
APX16DWV-16DWV-S-E-ACU w/ Mount Pipe	B	From Leg	4.0000	0.0000	126.0000	No Ice	6.3145	3.2893	0.06
			0.00			1/2"	6.7432	3.9953	0.11
			2.00			Ice	7.1701	4.6615	0.16
						1" Ice			
APX16DWV-16DWV-S-E-ACU w/ Mount Pipe	C	From Leg	4.0000	0.0000	126.0000	No Ice	6.3145	3.2893	0.06
			0.00			1/2"	6.7432	3.9953	0.11
			2.00			Ice	7.1701	4.6615	0.16
						1" Ice			
(2) KRY 112 71	A	From Leg	4.0000	0.0000	126.0000	No Ice	0.5833	0.3980	0.01
			0.00			1/2"	0.6876	0.4883	0.02
			2.00			Ice	0.7993	0.5856	0.03
						1" Ice			
(2) KRY 112 71	B	From Leg	4.0000	0.0000	126.0000	No Ice	0.5833	0.3980	0.01
			0.00			1/2"	0.6876	0.4883	0.02
			2.00			Ice	0.7993	0.5856	0.03
						1" Ice			
(2) KRY 112 71	C	From Leg	4.0000	0.0000	126.0000	No Ice	0.5833	0.3980	0.01
			0.00			1/2"	0.6876	0.4883	0.02
			2.00			Ice	0.7993	0.5856	0.03
						1" Ice			
Side Arm Mount [SO 101-3]	C	None		0.0000	126.0000	No Ice	7.5000	7.5000	0.25
						1/2"	8.9000	8.9000	0.33
						Ice	10.3000	10.3000	0.41
						1" Ice			

Tower Pressures - No Ice

$G_H = 1.100$

Section Elevation ft	z ft	K_Z	q_z psf	A_G ft²	Face	A_F ft²	A_R ft²	A_{leg} ft²	Leg %	C_AA_A In Face ft²	C_AA_A Out Face ft²
L1 150.0000-145.0000	147.4763	1.373	33	7.104	A	0.000	7.104	7.104	100.00	0.000	0.000
					B	0.000	7.104		100.00	0.000	0.000
					C	0.000	7.104		100.00	0.000	0.000
L2 145.0000-140.0000	142.4776	1.364	33	7.508	A	0.000	7.508	7.508	100.00	0.000	0.000
					B	0.000	7.508		100.00	0.000	0.000
					C	0.000	7.508		100.00	0.000	0.000
L3 140.0000-135.0000	137.4787	1.353	32	7.913	A	0.000	7.913	7.913	100.00	0.000	0.000
					B	0.000	7.913		100.00	0.000	0.000
					C	0.000	7.913		100.00	0.000	0.000
L4 135.0000-133.8300	134.4139	1.347	32	1.910	A	0.000	1.910	1.910	100.00	0.000	0.000
					B	0.000	1.910		100.00	0.000	0.000
					C	0.000	1.910		100.00	0.000	0.195
L5 133.8300-133.5800	133.7049	1.345	32	0.411	A	0.000	0.411	0.411	100.00	0.000	0.000
					B	0.000	0.411		100.00	0.000	0.000
					C	0.000	0.411		100.00	0.000	0.042
L6 133.5800-128.5800	131.0600	1.34	32	8.432	A	0.000	8.432	8.432	100.00	0.000	0.000
					B	0.000	8.432		100.00	0.000	0.000
					C	0.000	8.432		100.00	0.000	0.833
L7 128.5800-123.5800	126.0609	1.329	32	8.836	A	0.000	8.836	8.836	100.00	0.000	0.000
					B	0.000	8.836		100.00	0.000	0.000
					C	0.000	8.836		100.00	0.000	1.129
L8 123.5800-119.5000	121.5278	1.319	31	7.510	A	0.000	7.510	7.510	100.00	0.000	0.000
					B	0.000	7.510		100.00	0.000	0.000
					C	0.000	7.510		100.00	0.000	1.530
L9 119.5000-119.2500	119.3750	1.314	31	0.469	A	0.000	0.469	0.469	100.00	0.000	0.000
					B	0.000	0.469		100.00	0.000	0.000
					C	0.000	0.469		100.00	0.000	0.094
L10 119.2500-118.7500	118.9998	1.313	31	0.941	A	0.000	0.941	0.941	100.00	0.000	0.000
					B	0.000	0.941		100.00	0.000	0.000
					C	0.000	0.941		100.00	0.000	0.188
L11 118.7500-118.5000	118.6250	1.312	31	0.472	A	0.000	0.472	0.472	100.00	0.000	0.000
					B	0.000	0.472		100.00	0.000	0.000
					C	0.000	0.472		100.00	0.000	0.094
L12 118.5000-113.5000	115.9825	1.306	31	9.652	A	0.000	9.652	9.652	100.00	0.000	0.000
					B	0.000	9.652		100.00	0.000	0.000
					C	0.000	9.652		100.00	0.000	1.875
L13 113.5000-108.5000	110.9832	1.294	31	10.056	A	0.000	10.056	10.056	100.00	0.000	0.000
					B	0.000	10.056		100.00	0.000	0.000
					C	0.000	10.056		100.00	0.000	1.875
L14 108.5000-103.5000	105.9839	1.281	31	10.460	A	0.000	10.460	10.460	100.00	0.000	0.000
					B	0.000	10.460		100.00	0.000	0.000
					C	0.000	10.460		100.00	0.000	1.875
L15 103.5000-95.1700	99.2925	1.264	30	18.325	A	0.000	18.325	18.325	100.00	0.000	0.000
					B	0.000	18.325		100.00	0.000	0.000
					C	0.000	18.325		100.00	0.000	3.124
L16 95.1700-94.1700	94.6694	1.251	30	2.243	A	0.000	2.243	2.243	100.00	0.000	0.000
					B	0.000	2.243		100.00	0.000	0.000
					C	0.000	2.243		100.00	0.000	0.375
L17 94.1700-93.7500	93.9599	1.249	30	0.947	A	0.000	0.947	0.947	100.00	0.000	0.000
					B	0.000	0.947		100.00	0.000	0.000
					C	0.000	0.947		100.00	0.000	0.158
L18 93.7500-93.5000	93.6250	1.248	30	0.565	A	0.000	0.565	0.565	100.00	0.000	0.000
					B	0.000	0.565		100.00	0.000	0.000
					C	0.000	0.565		100.00	0.000	0.094
L19 93.5000-92.7500	93.1247	1.247	30	1.701	A	0.000	1.701	1.701	100.00	0.000	0.000
					B	0.000	1.701		100.00	0.000	0.000
					C	0.000	1.701		100.00	0.000	0.281

Section Elevation ft	z ft	K_Z	q_z psf	A_G ft²	Face	A_F ft²	A_R ft²	A_{leg} ft²	Leg %	C_AA_A In Face ft²	C_AA_A Out Face ft²
L20 92.7500-92.5000	92.6250	1.245	30	0.569	A	0.000	0.569	0.569	100.00	0.000	0.000
					B	0.000	0.569		100.00	0.000	0.000
					C	0.000	0.569		100.00	0.000	0.094
L21 92.5000-92.0000	92.2499	1.244	30	1.141	A	0.000	1.141	1.141	100.00	0.000	0.000
					B	0.000	1.141		100.00	0.000	0.000
					C	0.000	1.141		100.00	0.000	0.188
L22 92.0000-91.7500	91.8750	1.243	30	0.572	A	0.000	0.572	0.572	100.00	0.000	0.000
					B	0.000	0.572		100.00	0.000	0.000
					C	0.000	0.572		100.00	0.000	0.094
L23 91.7500-86.7500	89.2355	1.236	29	11.654	A	0.000	11.654	11.654	100.00	0.000	0.000
					B	0.000	11.654		100.00	0.000	0.000
					C	0.000	11.654		100.00	0.000	1.875
L24 86.7500-86.5000	86.6250	1.228	29	0.593	A	0.000	0.593	0.593	100.00	0.000	0.000
					B	0.000	0.593		100.00	0.000	0.000
					C	0.000	0.593		100.00	0.000	0.094
L25 86.5000-86.2500	86.3750	1.227	29	0.594	A	0.000	0.594	0.594	100.00	0.000	0.000
					B	0.000	0.594		100.00	0.000	0.000
					C	0.000	0.594		100.00	0.000	0.094
L26 86.2500-85.7500	85.9999	1.226	29	1.192	A	0.000	1.192	1.192	100.00	0.000	0.000
					B	0.000	1.192		100.00	0.000	0.000
					C	0.000	1.192		100.00	0.000	0.188
L27 85.7500-85.5000	85.6250	1.225	29	0.597	A	0.000	0.597	0.597	100.00	0.000	0.000
					B	0.000	0.597		100.00	0.000	0.000
					C	0.000	0.597		100.00	0.000	0.094
L28 85.5000-80.5000	82.9861	1.217	29	12.160	A	0.000	12.160	12.160	100.00	0.000	0.000
					B	0.000	12.160		100.00	0.000	0.000
					C	0.000	12.160		100.00	0.000	1.875
L29 80.5000-75.5000	77.9866	1.201	29	12.564	A	0.000	12.564	12.564	100.00	0.000	0.000
					B	0.000	12.564		100.00	0.000	0.000
					C	0.000	12.564		100.00	0.000	1.875
L30 75.5000-70.5000	72.9870	1.184	28	12.969	A	0.000	12.969	12.969	100.00	0.000	0.000
					B	0.000	12.969		100.00	0.000	0.000
					C	0.000	12.969		100.00	0.000	1.875
L31 70.5000-68.0800	69.2870	1.172	28	6.422	A	0.000	6.422	6.422	100.00	0.000	0.000
					B	0.000	6.422		100.00	0.000	0.000
					C	0.000	6.422		100.00	0.000	0.907
L32 68.0800-67.8300	67.9550	1.167	28	0.669	A	0.000	0.669	0.669	100.00	0.000	0.000
					B	0.000	0.669		100.00	0.000	0.000
					C	0.000	0.669		100.00	0.000	0.094
L33 67.8300-66.7500	67.2894	1.164	28	2.901	A	0.000	2.901	2.901	100.00	0.000	0.000
					B	0.000	2.901		100.00	0.000	0.000
					C	0.000	2.901		100.00	0.000	0.405
L34 66.7500-66.5000	66.6250	1.162	28	0.674	A	0.000	0.674	0.674	100.00	0.000	0.000
					B	0.000	0.674		100.00	0.000	0.000
					C	0.000	0.674		100.00	0.000	0.094
L35 66.5000-63.2500	64.8698	1.155	28	8.857	A	0.000	8.857	8.857	100.00	0.000	0.000
					B	0.000	8.857		100.00	0.000	0.000
					C	0.000	8.857		100.00	0.000	1.219
L36 63.2500-63.0000	63.1250	1.149	27	0.688	A	0.000	0.688	0.688	100.00	0.000	0.000
					B	0.000	0.688		100.00	0.000	0.000
					C	0.000	0.688		100.00	0.000	0.094
L37 63.0000-62.7500	62.8750	1.148	27	0.689	A	0.000	0.689	0.689	100.00	0.000	0.000
					B	0.000	0.689		100.00	0.000	0.000
					C	0.000	0.689		100.00	0.000	0.094
L38 62.7500-62.5000	62.6250	1.147	27	0.690	A	0.000	0.690	0.690	100.00	0.000	0.000
					B	0.000	0.690		100.00	0.000	0.000
					C	0.000	0.690		100.00	0.000	0.094
L39 62.5000-57.5000	59.9880	1.137	27	14.021	A	0.000	14.021	14.021	100.00	0.000	0.000
					B	0.000	14.021		100.00	0.000	0.000
					C	0.000	14.021		100.00	0.000	1.875
L40 57.5000-56.2500	56.8743	1.124	27	3.568	A	0.000	3.568	3.568	100.00	0.000	0.000
					B	0.000	3.568		100.00	0.000	0.000
					C	0.000	3.568		100.00	0.000	0.469
L41 56.2500-	56.1250	1.121	27	0.717	A	0.000	0.717	0.717	100.00	0.000	0.000

Section Elevation ft	z ft	K_Z	q_z psf	A_G ft²	Face	A_F ft²	A_R ft²	A_{leg} ft²	Leg %	C_AA_A In Face ft²	C_AA_A Out Face ft²
56.0000					B	0.000	0.717		100.00	0.000	0.000
					C	0.000	0.717		100.00	0.000	0.094
L42 56.0000-51.0000	53.4884	1.109	26	14.547	A	0.000	14.547	14.547	100.00	0.000	0.000
					B	0.000	14.547		100.00	0.000	0.000
					C	0.000	14.547		100.00	0.000	1.875
L43 51.0000-44.6700	47.8170	1.084	26	18.997	A	0.000	18.997	18.997	100.00	0.000	0.000
					B	0.000	18.997		100.00	0.000	0.000
					C	0.000	18.997		100.00	0.000	2.374
L44 44.6700-43.6700	44.1696	1.066	25	3.006	A	0.000	3.006	3.006	100.00	0.000	0.000
					B	0.000	3.006		100.00	0.000	0.000
					C	0.000	3.006		100.00	0.000	0.375
L45 43.6700-38.6700	41.1590	1.05	25	15.275	A	0.000	15.275	15.275	100.00	0.000	0.000
					B	0.000	15.275		100.00	0.000	0.000
					C	0.000	15.275		100.00	0.000	1.875
L46 38.6700-35.5000	37.0807	1.027	24	9.894	A	0.000	9.894	9.894	100.00	0.000	0.000
					B	0.000	9.894		100.00	0.000	0.000
					C	0.000	9.894		100.00	0.000	1.262
L47 35.5000-35.2500	35.3750	1.017	24	0.787	A	0.000	0.787	0.787	100.00	0.000	0.000
					B	0.000	0.787		100.00	0.000	0.000
					C	0.000	0.787		100.00	0.000	0.104
L48 35.2500-34.2500	34.7496	1.013	24	3.159	A	0.000	3.159	3.159	100.00	0.000	0.000
					B	0.000	3.159		100.00	0.000	0.000
					C	0.000	3.159		100.00	0.000	0.417
L49 34.2500-34.0000	34.1250	1.009	24	0.792	A	0.000	0.792	0.792	100.00	0.000	0.000
					B	0.000	0.792		100.00	0.000	0.000
					C	0.000	0.792		100.00	0.000	0.104
L50 34.0000-33.2500	33.6248	1.006	24	2.383	A	0.000	2.383	2.383	100.00	0.000	0.000
					B	0.000	2.383		100.00	0.000	0.000
					C	0.000	2.383		100.00	0.000	0.312
L51 33.2500-33.0000	33.1250	1.003	24	0.796	A	0.000	0.796	0.796	100.00	0.000	0.000
					B	0.000	0.796		100.00	0.000	0.000
					C	0.000	0.796		100.00	0.000	0.104
L52 33.0000-28.0000	30.4896	0.986	23	16.138	A	0.000	16.138	16.138	100.00	0.000	0.000
					B	0.000	16.138		100.00	0.000	0.000
					C	0.000	16.138		100.00	0.000	2.083
L53 28.0000-26.2500	27.1237	0.962	23	5.744	A	0.000	5.744	5.744	100.00	0.000	0.000
					B	0.000	5.744		100.00	0.000	0.000
					C	0.000	5.744		100.00	0.000	0.729
L54 26.2500-26.0000	26.1250	0.954	23	0.825	A	0.000	0.825	0.825	100.00	0.000	0.000
					B	0.000	0.825		100.00	0.000	0.000
					C	0.000	0.825		100.00	0.000	0.104
L55 26.0000-25.2500	25.6248	0.95	23	2.480	A	0.000	2.480	2.480	100.00	0.000	0.000
					B	0.000	2.480		100.00	0.000	0.000
					C	0.000	2.480		100.00	0.000	0.312
L56 25.2500-25.0000	25.1250	0.946	23	0.829	A	0.000	0.829	0.829	100.00	0.000	0.000
					B	0.000	0.829		100.00	0.000	0.000
					C	0.000	0.829		100.00	0.000	0.104
L57 25.0000-20.0000	22.4900	0.924	22	16.785	A	0.000	16.785	16.785	100.00	0.000	0.000
					B	0.000	16.785		100.00	0.000	0.000
					C	0.000	16.785		100.00	0.000	1.990
L58 20.0000-15.0000	17.4902	0.877	21	17.189	A	0.000	17.189	17.189	100.00	0.000	0.000
					B	0.000	17.189		100.00	0.000	0.000
					C	0.000	17.189		100.00	0.000	1.875
L59 15.0000-12.2500	13.6221	0.85	20	9.627	A	0.000	9.627	9.627	100.00	0.000	0.000
					B	0.000	9.627		100.00	0.000	0.000
					C	0.000	9.627		100.00	0.000	1.031
L60 12.2500-12.0000	12.1250	0.85	20	0.881	A	0.000	0.881	0.881	100.00	0.000	0.000
					B	0.000	0.881		100.00	0.000	0.000
					C	0.000	0.881		100.00	0.000	0.094
L61 12.0000-9.2500	10.6221	0.85	20	9.760	A	0.000	9.760	9.760	100.00	0.000	0.000
					B	0.000	9.760		100.00	0.000	0.000
					C	0.000	9.760		100.00	0.000	1.031
L62 9.2500-9.0000	9.1250	0.85	20	0.893	A	0.000	0.893	0.893	100.00	0.000	0.000
					B	0.000	0.893		100.00	0.000	0.000

Section Elevation ft	z ft	K_z	q_z psf	A_G ft²	Face	A_F ft²	A_R ft²	A_{leg} ft²	Leg %	C_AA_A In Face ft²	C_AA_A Out Face ft²
					C	0.000	0.893		100.00	0.000	0.094
L63 9.0000-4.0000	6.4907	0.85	20	18.079	A	0.000	18.079	18.079	100.00	0.000	0.000
					B	0.000	18.079		100.00	0.000	0.000
					C	0.000	18.079		100.00	0.000	1.875
L64 4.0000-3.0000	3.4996	0.85	20	3.664	A	0.000	3.664	3.664	100.00	0.000	0.000
					B	0.000	3.664		100.00	0.000	0.000
					C	0.000	3.664		100.00	0.000	0.375
L65 3.0000-2.7500	2.8750	0.85	20	0.919	A	0.000	0.919	0.919	100.00	0.000	0.000
					B	0.000	0.919		100.00	0.000	0.000
					C	0.000	0.919		100.00	0.000	0.094
L66 2.7500-0.0000	1.3722	0.85	20	10.171	A	0.000	10.171	10.171	100.00	0.000	0.000
					B	0.000	10.171		100.00	0.000	0.000
					C	0.000	10.171		100.00	0.000	1.031

Tower Pressure - With Ice

$G_H = 1.100$

Section Elevation ft	z ft	K_z	q_z psf	t_z in	A_G ft²	Face	A_F ft²	A_R ft²	A_{leg} ft²	Leg %	C_AA_A In Face ft²	C_AA_A Out Face ft²
L1 150.0000-145.0000	147.4763	1.373	8	1.7423	8.556	A	0.000	8.556	8.556	100.00	0.000	0.000
						B	0.000	8.556		100.00	0.000	0.000
						C	0.000	8.556		100.00	0.000	0.000
L2 145.0000-140.0000	142.4776	1.364	8	1.7363	8.955	A	0.000	8.955	8.955	100.00	0.000	0.000
						B	0.000	8.955		100.00	0.000	0.000
						C	0.000	8.955		100.00	0.000	0.000
L3 140.0000-135.0000	137.4787	1.353	8	1.7301	9.355	A	0.000	9.355	9.355	100.00	0.000	0.000
						B	0.000	9.355		100.00	0.000	0.000
						C	0.000	9.355		100.00	0.000	0.000
L4 135.0000-133.8300	134.4139	1.347	8	1.7262	2.247	A	0.000	2.247	2.247	100.00	0.000	0.000
						B	0.000	2.247		100.00	0.000	0.000
						C	0.000	2.247		100.00	0.000	0.644
L5 133.8300-133.5800	133.7049	1.345	8	1.7253	0.483	A	0.000	0.483	0.483	100.00	0.000	0.000
						B	0.000	0.483		100.00	0.000	0.000
						C	0.000	0.483		100.00	0.000	0.138
L6 133.5800-128.5800	131.0600	1.34	8	1.7218	9.867	A	0.000	9.867	9.867	100.00	0.000	0.000
						B	0.000	9.867		100.00	0.000	0.000
						C	0.000	9.867		100.00	0.000	2.746
L7 128.5800-123.5800	126.0609	1.329	8	1.7151	10.266	A	0.000	10.266	10.266	100.00	0.000	0.000
						B	0.000	10.266		100.00	0.000	0.000
						C	0.000	10.266		100.00	0.000	3.576
L8 123.5800-119.5000	121.5278	1.319	8	1.7089	8.672	A	0.000	8.672	8.672	100.00	0.000	0.000
						B	0.000	8.672		100.00	0.000	0.000
						C	0.000	8.672		100.00	0.000	4.629
L9 119.5000-119.2500	119.3750	1.314	8	1.7058	0.540	A	0.000	0.540	0.540	100.00	0.000	0.000
						B	0.000	0.540		100.00	0.000	0.000
						C	0.000	0.540		100.00	0.000	0.283
L10 119.2500-118.7500	118.9998	1.313	8	1.7053	1.083	A	0.000	1.083	1.083	100.00	0.000	0.000
						B	0.000	1.083		100.00	0.000	0.000
						C	0.000	1.083		100.00	0.000	0.566
L11 118.7500-118.5000	118.6250	1.312	8	1.7047	0.543	A	0.000	0.543	0.543	100.00	0.000	0.000
						B	0.000	0.543		100.00	0.000	0.000
						C	0.000	0.543		100.00	0.000	0.283
L12 118.5000-113.5000	115.9825	1.306	8	1.7009	11.069	A	0.000	11.069	11.069	100.00	0.000	0.000
						B	0.000	11.069		100.00	0.000	0.000
						C	0.000	11.069		100.00	0.000	5.655
L13 113.5000-108.5000	110.9832	1.294	8	1.6934	11.467	A	0.000	11.467	11.467	100.00	0.000	0.000
						B	0.000	11.467		100.00	0.000	0.000
						C	0.000	11.467		100.00	0.000	5.638
L14 108.5000-	105.9839	1.281	8	1.6856	11.865	A	0.000	11.865	11.865	100.00	0.000	0.000

Section Elevation ft	z ft	K_Z	q_z psf	t_Z in	A_G ft²	Face	A_F ft²	A_R ft²	A_{leg} ft²	Leg %	C_AA_A In Face ft²	C_AA_A Out Face ft²
103.5000						B	0.000	11.865		100.00	0.000	0.000
						C	0.000	11.865		100.00	0.000	5.621
L15 103.5000-95.1700	99.2925	1.264	8	1.6747	20.650	A	0.000	20.650	20.650	100.00	0.000	0.000
						B	0.000	20.650		100.00	0.000	0.000
						C	0.000	20.650		100.00	0.000	9.324
L16 95.1700-94.1700	94.6694	1.251	8	1.6667	2.522	A	0.000	2.522	2.522	100.00	0.000	0.000
						B	0.000	2.522		100.00	0.000	0.000
						C	0.000	2.522		100.00	0.000	1.119
L17 94.1700-93.7500	93.9599	1.249	8	1.6655	1.063	A	0.000	1.063	1.063	100.00	0.000	0.000
						B	0.000	1.063		100.00	0.000	0.000
						C	0.000	1.063		100.00	0.000	0.468
L18 93.7500-93.5000	93.6250	1.248	8	1.6649	0.634	A	0.000	0.634	0.634	100.00	0.000	0.000
						B	0.000	0.634		100.00	0.000	0.000
						C	0.000	0.634		100.00	0.000	0.279
L19 93.5000-92.7500	93.1247	1.247	8	1.6640	1.909	A	0.000	1.909	1.909	100.00	0.000	0.000
						B	0.000	1.909		100.00	0.000	0.000
						C	0.000	1.909		100.00	0.000	0.836
L20 92.7500-92.5000	92.6250	1.245	8	1.6631	0.638	A	0.000	0.638	0.638	100.00	0.000	0.000
						B	0.000	0.638		100.00	0.000	0.000
						C	0.000	0.638		100.00	0.000	0.279
L21 92.5000-92.0000	92.2499	1.244	8	1.6624	1.280	A	0.000	1.280	1.280	100.00	0.000	0.000
						B	0.000	1.280		100.00	0.000	0.000
						C	0.000	1.280		100.00	0.000	0.557
L22 92.0000-91.7500	91.8750	1.243	8	1.6617	0.641	A	0.000	0.641	0.641	100.00	0.000	0.000
						B	0.000	0.641		100.00	0.000	0.000
						C	0.000	0.641		100.00	0.000	0.278
L23 91.7500-86.7500	89.2355	1.236	8	1.6569	13.035	A	0.000	13.035	13.035	100.00	0.000	0.000
						B	0.000	13.035		100.00	0.000	0.000
						C	0.000	13.035		100.00	0.000	5.557
L24 86.7500-86.5000	86.6250	1.228	7	1.6520	0.662	A	0.000	0.662	0.662	100.00	0.000	0.000
						B	0.000	0.662		100.00	0.000	0.000
						C	0.000	0.662		100.00	0.000	0.277
L25 86.5000-86.2500	86.3750	1.227	7	1.6515	0.663	A	0.000	0.663	0.663	100.00	0.000	0.000
						B	0.000	0.663		100.00	0.000	0.000
						C	0.000	0.663		100.00	0.000	0.277
L26 86.2500-85.7500	85.9999	1.226	7	1.6508	1.329	A	0.000	1.329	1.329	100.00	0.000	0.000
						B	0.000	1.329		100.00	0.000	0.000
						C	0.000	1.329		100.00	0.000	0.554
L27 85.7500-85.5000	85.6250	1.225	7	1.6501	0.666	A	0.000	0.666	0.666	100.00	0.000	0.000
						B	0.000	0.666		100.00	0.000	0.000
						C	0.000	0.666		100.00	0.000	0.277
L28 85.5000-80.5000	82.9861	1.217	7	1.6449	13.530	A	0.000	13.530	13.530	100.00	0.000	0.000
						B	0.000	13.530		100.00	0.000	0.000
						C	0.000	13.530		100.00	0.000	5.530
L29 80.5000-75.5000	77.9866	1.201	7	1.6347	13.927	A	0.000	13.927	13.927	100.00	0.000	0.000
						B	0.000	13.927		100.00	0.000	0.000
						C	0.000	13.927		100.00	0.000	5.508
L30 75.5000-70.5000	72.9870	1.184	7	1.6239	14.322	A	0.000	14.322	14.322	100.00	0.000	0.000
						B	0.000	14.322		100.00	0.000	0.000
						C	0.000	14.322		100.00	0.000	5.484
L31 70.5000-68.0800	69.2870	1.172	7	1.6155	7.074	A	0.000	7.074	7.074	100.00	0.000	0.000
						B	0.000	7.074		100.00	0.000	0.000
						C	0.000	7.074		100.00	0.000	2.645
L32 68.0800-67.8300	67.9550	1.167	7	1.6124	0.736	A	0.000	0.736	0.736	100.00	0.000	0.000
						B	0.000	0.736		100.00	0.000	0.000
						C	0.000	0.736		100.00	0.000	0.273
L33 67.8300-66.7500	67.2894	1.164	7	1.6108	3.191	A	0.000	3.191	3.191	100.00	0.000	0.000
						B	0.000	3.191		100.00	0.000	0.000
						C	0.000	3.191		100.00	0.000	1.178
L34 66.7500-66.5000	66.6250	1.162	7	1.6092	0.741	A	0.000	0.741	0.741	100.00	0.000	0.000
						B	0.000	0.741		100.00	0.000	0.000
						C	0.000	0.741		100.00	0.000	0.273
L35 66.5000-63.2500	64.8698	1.155	7	1.6049	9.727	A	0.000	9.727	9.727	100.00	0.000	0.000
						B	0.000	9.727		100.00	0.000	0.000

Section Elevation ft	z ft	K_z	q_z psf	t_z in	A_G ft²	Face	A_F ft²	A_R ft²	A_{leg} ft²	Leg %	C_AA_A In Face ft²	C_AA_A Out Face ft²
						C	0.000	9.727		100.00	0.000	3.537
L36 63.2500-63.0000	63.1250	1.149	7	1.6005	0.755	A	0.000	0.755	0.755	100.00	0.000	0.000
						B	0.000	0.755		100.00	0.000	0.000
						C	0.000	0.755		100.00	0.000	0.272
L37 63.0000-62.7500	62.8750	1.148	7	1.5999	0.756	A	0.000	0.756	0.756	100.00	0.000	0.000
						B	0.000	0.756		100.00	0.000	0.000
						C	0.000	0.756		100.00	0.000	0.272
L38 62.7500-62.5000	62.6250	1.147	7	1.5992	0.757	A	0.000	0.757	0.757	100.00	0.000	0.000
						B	0.000	0.757		100.00	0.000	0.000
						C	0.000	0.757		100.00	0.000	0.271
L39 62.5000-57.5000	59.9880	1.137	7	1.5924	15.348	A	0.000	15.348	15.348	100.00	0.000	0.000
						B	0.000	15.348		100.00	0.000	0.000
						C	0.000	15.348		100.00	0.000	5.414
L40 57.5000-56.2500	56.8743	1.124	7	1.5839	3.898	A	0.000	3.898	3.898	100.00	0.000	0.000
						B	0.000	3.898		100.00	0.000	0.000
						C	0.000	3.898		100.00	0.000	1.349
L41 56.2500-56.0000	56.1250	1.121	7	1.5818	0.783	A	0.000	0.783	0.783	100.00	0.000	0.000
						B	0.000	0.783		100.00	0.000	0.000
						C	0.000	0.783		100.00	0.000	0.270
L42 56.0000-51.0000	53.4884	1.109	7	1.5742	15.859	A	0.000	15.859	15.859	100.00	0.000	0.000
						B	0.000	15.859		100.00	0.000	0.000
						C	0.000	15.859		100.00	0.000	5.373
L43 51.0000-44.6700	47.8170	1.084	7	1.5567	20.639	A	0.000	20.639	20.639	100.00	0.000	0.000
						B	0.000	20.639		100.00	0.000	0.000
						C	0.000	20.639		100.00	0.000	6.753
L44 44.6700-43.6700	44.1696	1.066	6	1.5444	3.266	A	0.000	3.266	3.266	100.00	0.000	0.000
						B	0.000	3.266		100.00	0.000	0.000
						C	0.000	3.266		100.00	0.000	1.067
L45 43.6700-38.6700	41.1590	1.05	6	1.5335	16.553	A	0.000	16.553	16.553	100.00	0.000	0.000
						B	0.000	16.553		100.00	0.000	0.000
						C	0.000	16.553		100.00	0.000	5.283
L46 38.6700-35.5000	37.0807	1.027	6	1.5176	10.696	A	0.000	10.696	10.696	100.00	0.000	0.000
						B	0.000	10.696		100.00	0.000	0.000
						C	0.000	10.696		100.00	0.000	3.400
L47 35.5000-35.2500	35.3750	1.017	6	1.5105	0.850	A	0.000	0.850	0.850	100.00	0.000	0.000
						B	0.000	0.850		100.00	0.000	0.000
						C	0.000	0.850		100.00	0.000	0.272
L48 35.2500-34.2500	34.7496	1.013	6	1.5078	3.410	A	0.000	3.410	3.410	100.00	0.000	0.000
						B	0.000	3.410		100.00	0.000	0.000
						C	0.000	3.410		100.00	0.000	1.087
L49 34.2500-34.0000	34.1250	1.009	6	1.5050	0.855	A	0.000	0.855	0.855	100.00	0.000	0.000
						B	0.000	0.855		100.00	0.000	0.000
						C	0.000	0.855		100.00	0.000	0.271
L50 34.0000-33.2500	33.6248	1.006	6	1.5028	2.571	A	0.000	2.571	2.571	100.00	0.000	0.000
						B	0.000	2.571		100.00	0.000	0.000
						C	0.000	2.571		100.00	0.000	0.813
L51 33.2500-33.0000	33.1250	1.003	6	1.5006	0.859	A	0.000	0.859	0.859	100.00	0.000	0.000
						B	0.000	0.859		100.00	0.000	0.000
						C	0.000	0.859		100.00	0.000	0.271
L52 33.0000-28.0000	30.4896	0.986	6	1.4882	17.378	A	0.000	17.378	17.378	100.00	0.000	0.000
						B	0.000	17.378		100.00	0.000	0.000
						C	0.000	17.378		100.00	0.000	5.390
L53 28.0000-26.2500	27.1237	0.962	6	1.4709	6.173	A	0.000	6.173	6.173	100.00	0.000	0.000
						B	0.000	6.173		100.00	0.000	0.000
						C	0.000	6.173		100.00	0.000	1.873
L54 26.2500-26.0000	26.1250	0.954	6	1.4654	0.886	A	0.000	0.886	0.886	100.00	0.000	0.000
						B	0.000	0.886		100.00	0.000	0.000
						C	0.000	0.886		100.00	0.000	0.267
L55 26.0000-25.2500	25.6248	0.95	6	1.4625	2.663	A	0.000	2.663	2.663	100.00	0.000	0.000
						B	0.000	2.663		100.00	0.000	0.000
						C	0.000	2.663		100.00	0.000	0.800
L56 25.2500-25.0000	25.1250	0.946	6	1.4597	0.889	A	0.000	0.889	0.889	100.00	0.000	0.000
						B	0.000	0.889		100.00	0.000	0.000
						C	0.000	0.889		100.00	0.000	0.266

Section Elevation ft	z ft	K_Z	q_z psf	t_Z in	A_G ft²	Face	A_F ft²	A_R ft²	A_{leg} ft²	Leg %	C_AA_A In Face ft²	C_AA_A Out Face ft²
L57 25.0000-20.0000	22.4900	0.924	6	1.4436	17.988	A	0.000	17.988	17.988	100.00	0.000	0.000
						B	0.000	17.988		100.00	0.000	0.000
						C	0.000	17.988		100.00	0.000	5.198
L58 20.0000-15.0000	17.4902	0.877	5	1.4077	18.362	A	0.000	18.362	18.362	100.00	0.000	0.000
						B	0.000	18.362		100.00	0.000	0.000
						C	0.000	18.362		100.00	0.000	5.003
L59 15.0000-12.2500	13.6221	0.85	5	1.3730	10.256	A	0.000	10.256	10.256	100.00	0.000	0.000
						B	0.000	10.256		100.00	0.000	0.000
						C	0.000	10.256		100.00	0.000	2.709
L60 12.2500-12.0000	12.1250	0.85	5	1.3571	0.938	A	0.000	0.938	0.938	100.00	0.000	0.000
						B	0.000	0.938		100.00	0.000	0.000
						C	0.000	0.938		100.00	0.000	0.245
L61 12.0000-9.2500	10.6221	0.85	5	1.3392	10.374	A	0.000	10.374	10.374	100.00	0.000	0.000
						B	0.000	10.374		100.00	0.000	0.000
						C	0.000	10.374		100.00	0.000	2.668
L62 9.2500-9.0000	9.1250	0.85	5	1.3191	0.948	A	0.000	0.948	0.948	100.00	0.000	0.000
						B	0.000	0.948		100.00	0.000	0.000
						C	0.000	0.948		100.00	0.000	0.240
L63 9.0000-4.0000	6.4907	0.85	5	1.2749	19.141	A	0.000	19.141	19.141	100.00	0.000	0.000
						B	0.000	19.141		100.00	0.000	0.000
						C	0.000	19.141		100.00	0.000	4.708
L64 4.0000-3.0000	3.4996	0.85	5	1.1985	3.864	A	0.000	3.864	3.864	100.00	0.000	0.000
						B	0.000	3.864		100.00	0.000	0.000
						C	0.000	3.864		100.00	0.000	0.908
L65 3.0000-2.7500	2.8750	0.85	5	1.1752	0.968	A	0.000	0.968	0.968	100.00	0.000	0.000
						B	0.000	0.968		100.00	0.000	0.000
						C	0.000	0.968		100.00	0.000	0.224
L66 2.7500-0.0000	1.3722	0.85	5	1.0914	10.672	A	0.000	10.672	10.672	100.00	0.000	0.000
						B	0.000	10.672		100.00	0.000	0.000
						C	0.000	10.672		100.00	0.000	2.365

Tower Pressure - Service

$G_H = 1.100$

Section Elevation ft	z ft	K_Z	q_z psf	A_G ft²	Face	A_F ft²	A_R ft²	A_{leg} ft²	Leg %	C_AA_A In Face ft²	C_AA_A Out Face ft²
L1 150.0000-145.0000	147.4763	1.373	11	7.104	A	0.000	7.104	7.104	100.00	0.000	0.000
					B	0.000	7.104		100.00	0.000	0.000
					C	0.000	7.104		100.00	0.000	0.000
L2 145.0000-140.0000	142.4776	1.364	11	7.508	A	0.000	7.508	7.508	100.00	0.000	0.000
					B	0.000	7.508		100.00	0.000	0.000
					C	0.000	7.508		100.00	0.000	0.000
L3 140.0000-135.0000	137.4787	1.353	11	7.913	A	0.000	7.913	7.913	100.00	0.000	0.000
					B	0.000	7.913		100.00	0.000	0.000
					C	0.000	7.913		100.00	0.000	0.000
L4 135.0000-133.8300	134.4139	1.347	11	1.910	A	0.000	1.910	1.910	100.00	0.000	0.000
					B	0.000	1.910		100.00	0.000	0.000
					C	0.000	1.910		100.00	0.000	0.195
L5 133.8300-133.5800	133.7049	1.345	11	0.411	A	0.000	0.411	0.411	100.00	0.000	0.000
					B	0.000	0.411		100.00	0.000	0.000
					C	0.000	0.411		100.00	0.000	0.042
L6 133.5800-128.5800	131.0600	1.34	10	8.432	A	0.000	8.432	8.432	100.00	0.000	0.000
					B	0.000	8.432		100.00	0.000	0.000
					C	0.000	8.432		100.00	0.000	0.833
L7 128.5800-123.5800	126.0609	1.329	10	8.836	A	0.000	8.836	8.836	100.00	0.000	0.000
					B	0.000	8.836		100.00	0.000	0.000
					C	0.000	8.836		100.00	0.000	1.129
L8 123.5800-119.5000	121.5278	1.319	10	7.510	A	0.000	7.510	7.510	100.00	0.000	0.000
					B	0.000	7.510		100.00	0.000	0.000

Section Elevation ft	z ft	K_Z	q_z psf	A_G ft²	Face	A_F ft²	A_R ft²	A_{leg} ft²	Leg %	C_AA_A In Face ft²	C_AA_A Out Face ft²
					C	0.000	7.510		100.00	0.000	1.530
L9 119.5000-119.2500	119.3750	1.314	10	0.469	A	0.000	0.469	0.469	100.00	0.000	0.000
					B	0.000	0.469		100.00	0.000	0.000
					C	0.000	0.469		100.00	0.000	0.094
L10 119.2500-118.7500	118.9998	1.313	10	0.941	A	0.000	0.941	0.941	100.00	0.000	0.000
					B	0.000	0.941		100.00	0.000	0.000
					C	0.000	0.941		100.00	0.000	0.188
L11 118.7500-118.5000	118.6250	1.312	10	0.472	A	0.000	0.472	0.472	100.00	0.000	0.000
					B	0.000	0.472		100.00	0.000	0.000
					C	0.000	0.472		100.00	0.000	0.094
L12 118.5000-113.5000	115.9825	1.306	10	9.652	A	0.000	9.652	9.652	100.00	0.000	0.000
					B	0.000	9.652		100.00	0.000	0.000
					C	0.000	9.652		100.00	0.000	1.875
L13 113.5000-108.5000	110.9832	1.294	10	10.056	A	0.000	10.056	10.056	100.00	0.000	0.000
					B	0.000	10.056		100.00	0.000	0.000
					C	0.000	10.056		100.00	0.000	1.875
L14 108.5000-103.5000	105.9839	1.281	10	10.460	A	0.000	10.460	10.460	100.00	0.000	0.000
					B	0.000	10.460		100.00	0.000	0.000
					C	0.000	10.460		100.00	0.000	1.875
L15 103.5000-95.1700	99.2925	1.264	10	18.325	A	0.000	18.325	18.325	100.00	0.000	0.000
					B	0.000	18.325		100.00	0.000	0.000
					C	0.000	18.325		100.00	0.000	3.124
L16 95.1700-94.1700	94.6694	1.251	10	2.243	A	0.000	2.243	2.243	100.00	0.000	0.000
					B	0.000	2.243		100.00	0.000	0.000
					C	0.000	2.243		100.00	0.000	0.375
L17 94.1700-93.7500	93.9599	1.249	10	0.947	A	0.000	0.947	0.947	100.00	0.000	0.000
					B	0.000	0.947		100.00	0.000	0.000
					C	0.000	0.947		100.00	0.000	0.158
L18 93.7500-93.5000	93.6250	1.248	10	0.565	A	0.000	0.565	0.565	100.00	0.000	0.000
					B	0.000	0.565		100.00	0.000	0.000
					C	0.000	0.565		100.00	0.000	0.094
L19 93.5000-92.7500	93.1247	1.247	10	1.701	A	0.000	1.701	1.701	100.00	0.000	0.000
					B	0.000	1.701		100.00	0.000	0.000
					C	0.000	1.701		100.00	0.000	0.281
L20 92.7500-92.5000	92.6250	1.245	10	0.569	A	0.000	0.569	0.569	100.00	0.000	0.000
					B	0.000	0.569		100.00	0.000	0.000
					C	0.000	0.569		100.00	0.000	0.094
L21 92.5000-92.0000	92.2499	1.244	10	1.141	A	0.000	1.141	1.141	100.00	0.000	0.000
					B	0.000	1.141		100.00	0.000	0.000
					C	0.000	1.141		100.00	0.000	0.188
L22 92.0000-91.7500	91.8750	1.243	10	0.572	A	0.000	0.572	0.572	100.00	0.000	0.000
					B	0.000	0.572		100.00	0.000	0.000
					C	0.000	0.572		100.00	0.000	0.094
L23 91.7500-86.7500	89.2355	1.236	10	11.654	A	0.000	11.654	11.654	100.00	0.000	0.000
					B	0.000	11.654		100.00	0.000	0.000
					C	0.000	11.654		100.00	0.000	1.875
L24 86.7500-86.5000	86.6250	1.228	10	0.593	A	0.000	0.593	0.593	100.00	0.000	0.000
					B	0.000	0.593		100.00	0.000	0.000
					C	0.000	0.593		100.00	0.000	0.094
L25 86.5000-86.2500	86.3750	1.227	10	0.594	A	0.000	0.594	0.594	100.00	0.000	0.000
					B	0.000	0.594		100.00	0.000	0.000
					C	0.000	0.594		100.00	0.000	0.094
L26 86.2500-85.7500	85.9999	1.226	10	1.192	A	0.000	1.192	1.192	100.00	0.000	0.000
					B	0.000	1.192		100.00	0.000	0.000
					C	0.000	1.192		100.00	0.000	0.188
L27 85.7500-85.5000	85.6250	1.225	10	0.597	A	0.000	0.597	0.597	100.00	0.000	0.000
					B	0.000	0.597		100.00	0.000	0.000
					C	0.000	0.597		100.00	0.000	0.094
L28 85.5000-80.5000	82.9861	1.217	10	12.160	A	0.000	12.160	12.160	100.00	0.000	0.000
					B	0.000	12.160		100.00	0.000	0.000
					C	0.000	12.160		100.00	0.000	1.875
L29 80.5000-75.5000	77.9866	1.201	9	12.564	A	0.000	12.564	12.564	100.00	0.000	0.000
					B	0.000	12.564		100.00	0.000	0.000
					C	0.000	12.564		100.00	0.000	1.875

Section Elevation ft	z ft	K_z	q_z psf	A_G ft²	Face	A_F ft²	A_R ft²	A_{leg} ft²	Leg %	C_AA_A In Face ft²	C_AA_A Out Face ft²
L30 75.5000-70.5000	72.9870	1.184	9	12.969	A	0.000	12.969	12.969	100.00	0.000	0.000
					B	0.000	12.969		100.00	0.000	0.000
					C	0.000	12.969		100.00	0.000	1.875
L31 70.5000-68.0800	69.2870	1.172	9	6.422	A	0.000	6.422	6.422	100.00	0.000	0.000
					B	0.000	6.422		100.00	0.000	0.000
					C	0.000	6.422		100.00	0.000	0.907
L32 68.0800-67.8300	67.9550	1.167	9	0.669	A	0.000	0.669	0.669	100.00	0.000	0.000
					B	0.000	0.669		100.00	0.000	0.000
					C	0.000	0.669		100.00	0.000	0.094
L33 67.8300-66.7500	67.2894	1.164	9	2.901	A	0.000	2.901	2.901	100.00	0.000	0.000
					B	0.000	2.901		100.00	0.000	0.000
					C	0.000	2.901		100.00	0.000	0.405
L34 66.7500-66.5000	66.6250	1.162	9	0.674	A	0.000	0.674	0.674	100.00	0.000	0.000
					B	0.000	0.674		100.00	0.000	0.000
					C	0.000	0.674		100.00	0.000	0.094
L35 66.5000-63.2500	64.8698	1.155	9	8.857	A	0.000	8.857	8.857	100.00	0.000	0.000
					B	0.000	8.857		100.00	0.000	0.000
					C	0.000	8.857		100.00	0.000	1.219
L36 63.2500-63.0000	63.1250	1.149	9	0.688	A	0.000	0.688	0.688	100.00	0.000	0.000
					B	0.000	0.688		100.00	0.000	0.000
					C	0.000	0.688		100.00	0.000	0.094
L37 63.0000-62.7500	62.8750	1.148	9	0.689	A	0.000	0.689	0.689	100.00	0.000	0.000
					B	0.000	0.689		100.00	0.000	0.000
					C	0.000	0.689		100.00	0.000	0.094
L38 62.7500-62.5000	62.6250	1.147	9	0.690	A	0.000	0.690	0.690	100.00	0.000	0.000
					B	0.000	0.690		100.00	0.000	0.000
					C	0.000	0.690		100.00	0.000	0.094
L39 62.5000-57.5000	59.9880	1.137	9	14.021	A	0.000	14.021	14.021	100.00	0.000	0.000
					B	0.000	14.021		100.00	0.000	0.000
					C	0.000	14.021		100.00	0.000	1.875
L40 57.5000-56.2500	56.8743	1.124	9	3.568	A	0.000	3.568	3.568	100.00	0.000	0.000
					B	0.000	3.568		100.00	0.000	0.000
					C	0.000	3.568		100.00	0.000	0.469
L41 56.2500-56.0000	56.1250	1.121	9	0.717	A	0.000	0.717	0.717	100.00	0.000	0.000
					B	0.000	0.717		100.00	0.000	0.000
					C	0.000	0.717		100.00	0.000	0.094
L42 56.0000-51.0000	53.4884	1.109	9	14.547	A	0.000	14.547	14.547	100.00	0.000	0.000
					B	0.000	14.547		100.00	0.000	0.000
					C	0.000	14.547		100.00	0.000	1.875
L43 51.0000-44.6700	47.8170	1.084	8	18.997	A	0.000	18.997	18.997	100.00	0.000	0.000
					B	0.000	18.997		100.00	0.000	0.000
					C	0.000	18.997		100.00	0.000	2.374
L44 44.6700-43.6700	44.1696	1.066	8	3.006	A	0.000	3.006	3.006	100.00	0.000	0.000
					B	0.000	3.006		100.00	0.000	0.000
					C	0.000	3.006		100.00	0.000	0.375
L45 43.6700-38.6700	41.1590	1.05	8	15.275	A	0.000	15.275	15.275	100.00	0.000	0.000
					B	0.000	15.275		100.00	0.000	0.000
					C	0.000	15.275		100.00	0.000	1.875
L46 38.6700-35.5000	37.0807	1.027	8	9.894	A	0.000	9.894	9.894	100.00	0.000	0.000
					B	0.000	9.894		100.00	0.000	0.000
					C	0.000	9.894		100.00	0.000	1.262
L47 35.5000-35.2500	35.3750	1.017	8	0.787	A	0.000	0.787	0.787	100.00	0.000	0.000
					B	0.000	0.787		100.00	0.000	0.000
					C	0.000	0.787		100.00	0.000	0.104
L48 35.2500-34.2500	34.7496	1.013	8	3.159	A	0.000	3.159	3.159	100.00	0.000	0.000
					B	0.000	3.159		100.00	0.000	0.000
					C	0.000	3.159		100.00	0.000	0.417
L49 34.2500-34.0000	34.1250	1.009	8	0.792	A	0.000	0.792	0.792	100.00	0.000	0.000
					B	0.000	0.792		100.00	0.000	0.000
					C	0.000	0.792		100.00	0.000	0.104
L50 34.0000-33.2500	33.6248	1.006	8	2.383	A	0.000	2.383	2.383	100.00	0.000	0.000
					B	0.000	2.383		100.00	0.000	0.000
					C	0.000	2.383		100.00	0.000	0.312
L51 33.2500-	33.1250	1.003	8	0.796	A	0.000	0.796	0.796	100.00	0.000	0.000

Section Elevation ft	z ft	K_z	q_z psf	A_G ft²	Face	A_F ft²	A_R ft²	A_{leg} ft²	Leg %	C_AA_A In Face ft²	C_AA_A Out Face ft²
33.0000					B	0.000	0.796		100.00	0.000	0.000
					C	0.000	0.796		100.00	0.000	0.104
L52 33.0000-28.0000	30.4896	0.986	8	16.138	A	0.000	16.138	16.138	100.00	0.000	0.000
					B	0.000	16.138		100.00	0.000	0.000
					C	0.000	16.138		100.00	0.000	2.083
L53 28.0000-26.2500	27.1237	0.962	8	5.744	A	0.000	5.744	5.744	100.00	0.000	0.000
					B	0.000	5.744		100.00	0.000	0.000
					C	0.000	5.744		100.00	0.000	0.729
L54 26.2500-26.0000	26.1250	0.954	7	0.825	A	0.000	0.825	0.825	100.00	0.000	0.000
					B	0.000	0.825		100.00	0.000	0.000
					C	0.000	0.825		100.00	0.000	0.104
L55 26.0000-25.2500	25.6248	0.95	7	2.480	A	0.000	2.480	2.480	100.00	0.000	0.000
					B	0.000	2.480		100.00	0.000	0.000
					C	0.000	2.480		100.00	0.000	0.312
L56 25.2500-25.0000	25.1250	0.946	7	0.829	A	0.000	0.829	0.829	100.00	0.000	0.000
					B	0.000	0.829		100.00	0.000	0.000
					C	0.000	0.829		100.00	0.000	0.104
L57 25.0000-20.0000	22.4900	0.924	7	16.785	A	0.000	16.785	16.785	100.00	0.000	0.000
					B	0.000	16.785		100.00	0.000	0.000
					C	0.000	16.785		100.00	0.000	1.990
L58 20.0000-15.0000	17.4902	0.877	7	17.189	A	0.000	17.189	17.189	100.00	0.000	0.000
					B	0.000	17.189		100.00	0.000	0.000
					C	0.000	17.189		100.00	0.000	1.875
L59 15.0000-12.2500	13.6221	0.85	7	9.627	A	0.000	9.627	9.627	100.00	0.000	0.000
					B	0.000	9.627		100.00	0.000	0.000
					C	0.000	9.627		100.00	0.000	1.031
L60 12.2500-12.0000	12.1250	0.85	7	0.881	A	0.000	0.881	0.881	100.00	0.000	0.000
					B	0.000	0.881		100.00	0.000	0.000
					C	0.000	0.881		100.00	0.000	0.094
L61 12.0000-9.2500	10.6221	0.85	7	9.760	A	0.000	9.760	9.760	100.00	0.000	0.000
					B	0.000	9.760		100.00	0.000	0.000
					C	0.000	9.760		100.00	0.000	1.031
L62 9.2500-9.0000	9.1250	0.85	7	0.893	A	0.000	0.893	0.893	100.00	0.000	0.000
					B	0.000	0.893		100.00	0.000	0.000
					C	0.000	0.893		100.00	0.000	0.094
L63 9.0000-4.0000	6.4907	0.85	7	18.079	A	0.000	18.079	18.079	100.00	0.000	0.000
					B	0.000	18.079		100.00	0.000	0.000
					C	0.000	18.079		100.00	0.000	1.875
L64 4.0000-3.0000	3.4996	0.85	7	3.664	A	0.000	3.664	3.664	100.00	0.000	0.000
					B	0.000	3.664		100.00	0.000	0.000
					C	0.000	3.664		100.00	0.000	0.375
L65 3.0000-2.7500	2.8750	0.85	7	0.919	A	0.000	0.919	0.919	100.00	0.000	0.000
					B	0.000	0.919		100.00	0.000	0.000
					C	0.000	0.919		100.00	0.000	0.094
L66 2.7500-0.0000	1.3722	0.85	7	10.171	A	0.000	10.171	10.171	100.00	0.000	0.000
					B	0.000	10.171		100.00	0.000	0.000
					C	0.000	10.171		100.00	0.000	1.031

Load Combinations

Comb. No.	Description
1	Dead Only
2	1.2 Dead+1.6 Wind 0 deg - No Ice
3	0.9 Dead+1.6 Wind 0 deg - No Ice
4	1.2 Dead+1.6 Wind 30 deg - No Ice
5	0.9 Dead+1.6 Wind 30 deg - No Ice
6	1.2 Dead+1.6 Wind 60 deg - No Ice
7	0.9 Dead+1.6 Wind 60 deg - No Ice
8	1.2 Dead+1.6 Wind 90 deg - No Ice
9	0.9 Dead+1.6 Wind 90 deg - No Ice
10	1.2 Dead+1.6 Wind 120 deg - No Ice

Comb. No.	Description
11	0.9 Dead+1.6 Wind 120 deg - No Ice
12	1.2 Dead+1.6 Wind 150 deg - No Ice
13	0.9 Dead+1.6 Wind 150 deg - No Ice
14	1.2 Dead+1.6 Wind 180 deg - No Ice
15	0.9 Dead+1.6 Wind 180 deg - No Ice
16	1.2 Dead+1.6 Wind 210 deg - No Ice
17	0.9 Dead+1.6 Wind 210 deg - No Ice
18	1.2 Dead+1.6 Wind 240 deg - No Ice
19	0.9 Dead+1.6 Wind 240 deg - No Ice
20	1.2 Dead+1.6 Wind 270 deg - No Ice
21	0.9 Dead+1.6 Wind 270 deg - No Ice
22	1.2 Dead+1.6 Wind 300 deg - No Ice
23	0.9 Dead+1.6 Wind 300 deg - No Ice
24	1.2 Dead+1.6 Wind 330 deg - No Ice
25	0.9 Dead+1.6 Wind 330 deg - No Ice
26	1.2 Dead+1.0 Ice+1.0 Temp
27	1.2 Dead+1.0 Wind 0 deg+1.0 Ice+1.0 Temp
28	1.2 Dead+1.0 Wind 30 deg+1.0 Ice+1.0 Temp
29	1.2 Dead+1.0 Wind 60 deg+1.0 Ice+1.0 Temp
30	1.2 Dead+1.0 Wind 90 deg+1.0 Ice+1.0 Temp
31	1.2 Dead+1.0 Wind 120 deg+1.0 Ice+1.0 Temp
32	1.2 Dead+1.0 Wind 150 deg+1.0 Ice+1.0 Temp
33	1.2 Dead+1.0 Wind 180 deg+1.0 Ice+1.0 Temp
34	1.2 Dead+1.0 Wind 210 deg+1.0 Ice+1.0 Temp
35	1.2 Dead+1.0 Wind 240 deg+1.0 Ice+1.0 Temp
36	1.2 Dead+1.0 Wind 270 deg+1.0 Ice+1.0 Temp
37	1.2 Dead+1.0 Wind 300 deg+1.0 Ice+1.0 Temp
38	1.2 Dead+1.0 Wind 330 deg+1.0 Ice+1.0 Temp
39	Dead+Wind 0 deg - Service
40	Dead+Wind 30 deg - Service
41	Dead+Wind 60 deg - Service
42	Dead+Wind 90 deg - Service
43	Dead+Wind 120 deg - Service
44	Dead+Wind 150 deg - Service
45	Dead+Wind 180 deg - Service
46	Dead+Wind 210 deg - Service
47	Dead+Wind 240 deg - Service
48	Dead+Wind 270 deg - Service
49	Dead+Wind 300 deg - Service
50	Dead+Wind 330 deg - Service

Maximum Member Forces

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
L1	150 - 145	Pole	Max Tension	39	0.00	0.00	-0.00
			Max. Compression	26	-11.43	-0.57	1.99
			Max. Mx	8	-2.49	-44.98	0.39
			Max. My	2	-2.44	-0.07	46.47
			Max. Vy	8	11.40	-44.98	0.39
			Max. Vx	2	-11.61	-0.07	46.47
			Max. Torque	22			-1.10
L2	145 - 140	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-11.88	-0.57	2.02
			Max. Mx	8	-2.73	-103.07	0.31
			Max. My	2	-2.68	0.03	105.63
			Max. Vy	8	11.84	-103.07	0.31
			Max. Vx	2	-12.06	0.03	105.63
			Max. Torque	22			-1.10
L3	140 - 135	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-12.36	-0.58	2.04
			Max. Mx	8	-3.01	-163.41	0.22
			Max. My	2	-2.96	0.13	167.06

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Max. Vy	8	12.30	-163.41	0.22
			Max. Vx	2	-12.52	0.13	167.06
			Max. Torque	22			-1.10
L4	135 - 133.83	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-12.47	-0.58	2.05
			Max. Mx	8	-3.08	-177.86	0.20
			Max. My	2	-3.03	0.15	181.77
			Max. Vy	20	-12.42	177.44	0.85
			Max. Vx	2	-12.64	0.15	181.77
			Max. Torque	22			-1.10
L5	133.83 - 133.58	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-12.51	-0.58	2.05
			Max. Mx	8	-3.11	-180.97	0.20
			Max. My	2	-3.07	0.16	184.94
			Max. Vy	8	12.45	-180.97	0.20
			Max. Vx	2	-12.66	0.16	184.94
			Max. Torque	22			-1.10
L6	133.58 - 128.58	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-20.98	-0.59	2.54
			Max. Mx	8	-6.19	-278.16	0.20
			Max. My	2	-6.14	0.26	283.34
			Max. Vy	8	18.59	-278.16	0.20
			Max. Vx	2	-18.81	0.26	283.34
			Max. Torque	20			-1.26
L7	128.58 - 123.58	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-23.46	-0.59	2.56
			Max. Mx	8	-7.32	-377.13	0.11
			Max. My	2	-7.28	0.36	383.41
			Max. Vy	8	20.43	-377.13	0.11
			Max. Vx	2	-20.66	0.36	383.41
			Max. Torque	20			-1.24
L8	123.58 - 119.5	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-24.21	-0.60	2.58
			Max. Mx	8	-7.93	-461.70	0.03
			Max. My	2	-7.88	0.45	468.89
			Max. Vy	20	-21.03	461.28	1.28
			Max. Vx	2	-21.26	0.45	468.89
			Max. Torque	20			-1.22
L9	119.5 - 119.25	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-24.28	-0.60	2.59
			Max. Mx	8	-7.99	-466.96	0.03
			Max. My	2	-7.95	0.45	474.21
			Max. Vy	8	21.07	-466.96	0.03
			Max. Vx	2	-21.29	0.45	474.21
			Max. Torque	20			-1.18
L10	119.25 - 118.75	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-24.41	-0.60	2.59
			Max. Mx	8	-8.10	-477.51	0.02
			Max. My	2	-8.05	0.46	484.87
			Max. Vy	8	21.15	-477.51	0.02
			Max. Vx	2	-21.37	0.46	484.87
			Max. Torque	20			-1.18
L11	118.75 - 118.5	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-24.48	-0.60	2.59
			Max. Mx	8	-8.15	-482.81	0.02
			Max. My	2	-8.11	0.47	490.22
			Max. Vy	8	21.19	-482.81	0.02
			Max. Vx	2	-21.41	0.47	490.22

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Max. Torque	20			-1.17
L12	118.5 - 113.5	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-25.80	-0.60	2.61
			Max. Mx	8	-9.23	-590.72	-0.08
			Max. My	2	-9.18	0.57	599.25
			Max. Vy	20	-21.99	590.30	1.42
			Max. Vx	2	-22.21	0.57	599.25
			Max. Torque	20			-1.17
L13	113.5 - 108.5	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-27.15	-0.61	2.63
			Max. Mx	8	-10.34	-702.60	-0.17
			Max. My	2	-10.30	0.67	712.25
			Max. Vy	20	-22.78	702.18	1.53
			Max. Vx	2	-23.00	0.67	712.25
			Max. Torque	20			-1.12
L14	108.5 - 103.5	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-28.52	-0.61	2.65
			Max. Mx	8	-11.48	-818.42	-0.26
			Max. My	2	-11.44	0.77	829.19
			Max. Vy	20	-23.56	818.00	1.65
			Max. Vx	2	-23.79	0.77	829.19
			Max. Torque	20			-1.07
L15	103.5 - 95.17	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-29.63	-0.62	2.66
			Max. Mx	8	-12.41	-913.88	-0.34
			Max. My	2	-12.37	0.85	925.55
			Max. Vy	20	-24.18	913.46	1.74
			Max. Vx	2	-24.41	0.85	925.55
			Max. Torque	20			-1.02
L16	95.17 - 94.17	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-32.44	-0.62	2.68
			Max. Mx	8	-14.67	-1045.33	-0.44
			Max. My	2	-14.64	0.96	1058.21
			Max. Vy	20	-25.14	1044.92	1.86
			Max. Vx	2	-25.36	0.96	1058.21
			Max. Torque	6			0.96
L17	94.17 - 93.75	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-32.58	-0.62	2.68
			Max. Mx	8	-14.80	-1055.90	-0.45
			Max. My	2	-14.76	0.97	1068.87
			Max. Vy	8	25.20	-1055.90	-0.45
			Max. Vx	2	-25.43	0.97	1068.87
			Max. Torque	6			0.96
L18	93.75 - 93.5	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-32.67	-0.62	2.68
			Max. Mx	8	-14.88	-1062.21	-0.45
			Max. My	2	-14.84	0.97	1075.23
			Max. Vy	8	25.24	-1062.21	-0.45
			Max. Vx	14	25.47	-1.36	-1073.72
			Max. Torque	6			0.96
L19	93.5 - 92.75	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-32.94	-0.62	2.68
			Max. Mx	8	-15.11	-1081.18	-0.47
			Max. My	2	-15.07	0.99	1094.37
			Max. Vy	20	-25.36	1080.76	1.89
			Max. Vx	2	-25.59	0.99	1094.37
			Max. Torque	6			0.96
L20	92.75 - 92.5	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-33.04	-0.62	2.69

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Max. Mx	8	-15.21	-1087.52	-0.47
			Max. My	2	-15.17	0.99	1100.78
			Max. Vy	8	25.41	-1087.52	-0.47
			Max. Vx	14	25.63	-1.38	-1099.26
			Max. Torque	6			0.96
L21	92.5 - 92	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-33.25	-0.62	2.69
			Max. Mx	8	-15.39	-1100.24	-0.48
			Max. My	2	-15.35	1.00	1113.61
			Max. Vy	8	25.49	-1100.24	-0.48
			Max. Vx	2	-25.72	1.00	1113.61
			Max. Torque	6			0.96
L22	92 - 91.75	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-33.34	-0.62	2.69
			Max. Mx	8	-15.46	-1106.62	-0.49
			Max. My	2	-15.43	1.01	1120.04
			Max. Vy	8	25.53	-1106.62	-0.49
			Max. Vx	14	25.76	-1.39	-1118.53
			Max. Torque	6			0.96
L23	91.75 - 86.75	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-35.06	-0.62	2.69
			Max. Mx	8	-16.94	-1236.21	-0.59
			Max. My	2	-16.90	1.11	1250.77
			Max. Vy	20	-26.32	1235.80	2.02
			Max. Vx	2	-26.55	1.11	1250.77
			Max. Torque	6			0.96
L24	86.75 - 86.5	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-35.14	-0.62	2.69
			Max. Mx	8	-17.02	-1242.80	-0.59
			Max. My	2	-16.99	1.11	1257.41
			Max. Vy	8	26.36	-1242.80	-0.59
			Max. Vx	14	26.58	-1.51	-1255.89
			Max. Torque	6			0.96
L25	86.5 - 86.25	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-35.26	-0.62	2.69
			Max. Mx	8	-17.13	-1249.39	-0.59
			Max. My	2	-17.09	1.12	1264.06
			Max. Vy	8	26.40	-1249.39	-0.59
			Max. Vx	14	26.63	-1.51	-1262.54
			Max. Torque	6			0.96
L26	86.25 - 85.75	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-35.49	-0.62	2.69
			Max. Mx	8	-17.32	-1262.61	-0.61
			Max. My	2	-17.29	1.13	1277.39
			Max. Vy	8	26.49	-1262.61	-0.61
			Max. Vx	2	-26.71	1.13	1277.39
			Max. Torque	6			0.96
L27	85.75 - 85.5	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-35.58	-0.62	2.69
			Max. Mx	8	-17.41	-1269.24	-0.61
			Max. My	2	-17.37	1.14	1284.08
			Max. Vy	8	26.53	-1269.24	-0.61
			Max. Vx	14	26.75	-1.53	-1282.55
			Max. Torque	6			0.96
L28	85.5 - 80.5	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-37.41	-0.62	2.69
			Max. Mx	8	-18.99	-1403.81	-0.71
			Max. My	2	-18.95	1.24	1419.78
			Max. Vy	20	-27.32	1403.40	2.17
			Max. Vx	2	-27.55	1.24	1419.78
			Max. Torque	6			0.96
L29	80.5 - 75.5	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-39.26	-0.62	2.69

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Max. Mx	8	-20.60	-1542.29	-0.81
			Max. My	2	-20.57	1.34	1559.41
			Max. Vy	20	-28.10	1541.88	2.28
			Max. Vx	2	-28.32	1.34	1559.41
			Max. Torque	6			0.96
L30	75.5 - 70.5	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-41.14	-0.62	2.68
			Max. Mx	8	-22.25	-1684.64	-0.91
			Max. My	2	-22.23	1.44	1702.88
			Max. Vy	20	-28.86	1684.23	2.39
			Max. Vx	2	-29.09	1.44	1702.88
			Max. Torque	4			1.00
L31	70.5 - 68.08	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-42.07	-0.62	2.68
			Max. Mx	8	-23.06	-1754.90	-0.95
			Max. My	2	-23.04	1.49	1773.70
			Max. Vy	20	-29.23	1754.49	2.44
			Max. Vx	2	-29.46	1.49	1773.70
			Max. Torque	4			1.03
L32	68.08 - 67.83	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-42.17	-0.62	2.69
			Max. Mx	8	-23.17	-1762.21	-0.96
			Max. My	2	-23.14	1.50	1781.06
			Max. Vy	8	29.27	-1762.21	-0.96
			Max. Vx	14	29.49	-1.91	-1779.52
			Max. Torque	4			1.03
L33	67.83 - 66.75	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-42.60	-0.62	2.68
			Max. Mx	8	-23.54	-1793.89	-0.98
			Max. My	2	-23.51	1.52	1813.00
			Max. Vy	20	-29.43	1793.49	2.47
			Max. Vx	2	-29.66	1.52	1813.00
			Max. Torque	4			1.05
L34	66.75 - 66.5	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-42.72	-0.62	2.69
			Max. Mx	8	-23.66	-1801.26	-0.99
			Max. My	2	-23.63	1.53	1820.41
			Max. Vy	8	29.47	-1801.26	-0.99
			Max. Vx	14	29.69	-1.94	-1818.87
			Max. Torque	4			1.05
L35	66.5 - 63.25	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-44.27	-0.62	2.68
			Max. Mx	8	-25.02	-1897.85	-1.05
			Max. My	2	-25.00	1.59	1917.74
			Max. Vy	20	-29.99	1897.44	2.55
			Max. Vx	2	-30.22	1.59	1917.74
			Max. Torque	4			1.09
L36	63.25 - 63	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-44.41	-0.62	2.69
			Max. Mx	8	-25.16	-1905.35	-1.06
			Max. My	2	-25.13	1.60	1925.30
			Max. Vy	8	30.03	-1905.35	-1.06
			Max. Vx	14	30.25	-2.01	-1923.75
			Max. Torque	4			1.09
L37	63 - 62.75	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-44.55	-0.62	2.69
			Max. Mx	8	-25.28	-1912.86	-1.06
			Max. My	2	-25.25	1.60	1932.87
			Max. Vy	8	30.07	-1912.86	-1.06
			Max. Vx	14	30.29	-2.01	-1931.32
			Max. Torque	4			1.09
L38	62.75 - 62.5	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-44.66	-0.62	2.69

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Max. Mx	8	-25.38	-1920.38	-1.07
			Max. My	2	-25.35	1.61	1940.44
			Max. Vy	8	30.11	-1920.38	-1.07
			Max. Vx	14	30.33	-2.02	-1938.89
			Max. Torque	4			1.10
L39	62.5 - 57.5	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-46.88	-0.62	2.68
			Max. Mx	8	-27.33	-2072.77	-1.17
			Max. My	2	-27.31	1.71	2093.98
			Max. Vy	20	-30.87	2072.38	2.67
			Max. Vx	2	-31.10	1.71	2093.98
			Max. Torque	4			1.16
L40	57.5 - 56.25	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-47.44	-0.62	2.68
			Max. Mx	8	-27.83	-2111.47	-1.19
			Max. My	2	-27.80	1.73	2132.95
			Max. Vy	20	-31.06	2111.07	2.70
			Max. Vx	2	-31.29	1.73	2132.95
			Max. Torque	4			1.17
L41	56.25 - 56	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-47.54	-0.62	2.69
			Max. Mx	8	-27.93	-2119.24	-1.20
			Max. My	2	-27.91	1.74	2140.78
			Max. Vy	8	31.10	-2119.24	-1.20
			Max. Vx	14	31.32	-2.16	-2139.22
			Max. Torque	4			1.17
L42	56 - 51	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-49.69	-0.62	2.68
			Max. Mx	8	-29.83	-2276.48	-1.30
			Max. My	2	-29.81	1.84	2299.15
			Max. Vy	20	-31.83	2276.08	2.81
			Max. Vx	2	-32.05	1.84	2299.15
			Max. Torque	4			1.23
L43	51 - 44.67	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-50.13	-0.62	2.68
			Max. Mx	8	-30.22	-2308.36	-1.32
			Max. My	2	-30.20	1.86	2331.26
			Max. Vy	20	-31.97	2307.96	2.84
			Max. Vx	2	-32.19	1.86	2331.26
			Max. Torque	4			1.25
L44	44.67 - 43.67	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-55.24	-0.62	2.68
			Max. Mx	8	-34.57	-2514.01	-1.44
			Max. My	2	-34.55	1.99	2538.35
			Max. Vy	20	-33.01	2513.62	2.97
			Max. Vx	2	-33.24	1.99	2538.35
			Max. Torque	4			1.32
L45	43.67 - 38.67	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-57.58	-0.62	2.68
			Max. Mx	8	-36.67	-2680.66	-1.54
			Max. My	2	-36.66	2.10	2706.13
			Max. Vy	20	-33.68	2680.27	3.08
			Max. Vx	2	-33.91	2.10	2706.13
			Max. Torque	3			1.43
L46	38.67 - 35.5	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-59.08	-0.62	2.68
			Max. Mx	8	-38.02	-2788.05	-1.61
			Max. My	2	-38.01	2.16	2814.24
			Max. Vy	20	-34.11	2787.67	3.15
			Max. Vx	2	-34.33	2.16	2814.24
			Max. Torque	3			1.50
L47	35.5 - 35.25	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-59.20	-0.62	2.68

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Max. Mx	8	-38.14	-2796.58	-1.61
			Max. My	2	-38.13	2.17	2822.82
			Max. Vy	8	34.14	-2796.58	-1.61
			Max. Vx	14	34.36	-2.60	-2821.25
			Max. Torque	3			1.50
L48	35.25 - 34.25	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-59.67	-0.62	2.68
			Max. Mx	8	-38.56	-2830.77	-1.63
			Max. My	2	-38.55	2.19	2857.24
			Max. Vy	20	-34.28	2830.39	3.18
			Max. Vx	2	-34.50	2.19	2857.24
			Max. Torque	3			1.53
L49	34.25 - 34	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-59.82	-0.62	2.68
			Max. Mx	8	-38.70	-2839.34	-1.64
			Max. My	2	-38.69	2.19	2865.86
			Max. Vy	8	34.31	-2839.34	-1.64
			Max. Vx	14	34.53	-2.63	-2864.29
			Max. Torque	3			1.53
L50	34 - 33.25	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-60.25	-0.62	2.68
			Max. Mx	8	-39.09	-2865.10	-1.65
			Max. My	2	-39.08	2.21	2891.79
			Max. Vy	20	-34.41	2864.72	3.20
			Max. Vx	2	-34.64	2.21	2891.79
			Max. Torque	3			1.55
L51	33.25 - 33	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-60.36	-0.62	2.68
			Max. Mx	8	-39.20	-2873.71	-1.66
			Max. My	2	-39.18	2.21	2900.46
			Max. Vy	8	34.45	-2873.71	-1.66
			Max. Vx	14	34.67	-2.65	-2898.88
			Max. Torque	3			1.56
L52	33 - 28	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-62.64	-0.62	2.68
			Max. Mx	8	-41.25	-3047.45	-1.76
			Max. My	2	-41.23	2.31	3075.32
			Max. Vy	20	-35.08	3047.07	3.31
			Max. Vx	2	-35.31	2.31	3075.32
			Max. Torque	3			1.67
L53	28 - 26.25	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-63.45	-0.62	2.68
			Max. Mx	8	-41.96	-3109.00	-1.79
			Max. My	2	-41.95	2.35	3137.26
			Max. Vy	20	-35.31	3108.62	3.34
			Max. Vx	2	-35.53	2.35	3137.26
			Max. Torque	3			1.71
L54	26.25 - 26	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-63.60	-0.62	2.68
			Max. Mx	8	-42.13	-3117.82	-1.80
			Max. My	2	-42.11	2.35	3146.14
			Max. Vy	8	35.32	-3117.82	-1.80
			Max. Vx	14	35.54	-2.80	-3144.55
			Max. Torque	3			1.72
L55	26 - 25.25	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-64.05	-0.62	2.68
			Max. Mx	8	-42.53	-3144.34	-1.81
			Max. My	2	-42.52	2.37	3172.83
			Max. Vy	20	-35.42	3143.96	3.37
			Max. Vx	2	-35.64	2.37	3172.83
			Max. Torque	3			1.74
L56	25.25 - 25	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-64.18	-0.62	2.68
			Max. Mx	8	-42.65	-3153.20	-1.82

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Max. My	2	-42.64	2.37	3181.74
			Max. Vy	8	35.45	-3153.20	-1.82
			Max. Vx	14	35.67	-2.82	-3180.15
			Max. Torque	3			1.74
L57	25 - 20	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-66.68	-0.62	2.68
			Max. Mx	8	-44.92	-3331.87	-1.92
			Max. My	2	-44.91	2.47	3361.52
			Max. Vy	20	-36.05	3331.49	3.48
			Max. Vx	2	-36.27	2.47	3361.52
			Max. Torque	3			1.85
L58	20 - 15	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-69.22	-0.62	2.68
			Max. Mx	8	-47.23	-3513.35	-2.02
			Max. My	2	-47.22	2.57	3544.10
			Max. Vy	20	-36.59	3512.97	3.58
			Max. Vx	2	-36.81	2.57	3544.10
			Max. Torque	3			1.95
L59	15 - 12.25	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-70.62	-0.62	2.68
			Max. Mx	8	-48.51	-3614.29	-2.07
			Max. My	2	-48.50	2.63	3645.65
			Max. Vy	20	-36.88	3613.92	3.63
			Max. Vx	2	-37.10	2.63	3645.65
			Max. Torque	3			2.00
L60	12.25 - 12	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-70.75	-0.62	2.68
			Max. Mx	8	-48.64	-3623.51	-2.08
			Max. My	2	-48.64	2.63	3654.93
			Max. Vy	8	36.89	-3623.51	-2.08
			Max. Vx	14	37.10	-3.09	-3653.33
			Max. Torque	3			2.01
L61	12 - 9.25	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-72.16	-0.62	2.68
			Max. Mx	8	-49.92	-3725.29	-2.13
			Max. My	2	-49.92	2.69	3757.31
			Max. Vy	20	-37.18	3724.92	3.70
			Max. Vx	2	-37.40	2.69	3757.31
			Max. Torque	3			2.06
L62	9.25 - 9	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-72.29	-0.62	2.68
			Max. Mx	8	-50.06	-3734.58	-2.14
			Max. My	2	-50.05	2.69	3766.66
			Max. Vy	8	37.19	-3734.58	-2.14
			Max. Vx	14	37.40	-3.15	-3765.07
			Max. Torque	3			2.07
L63	9 - 4	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-74.85	-0.62	2.68
			Max. Mx	8	-52.42	-3921.75	-2.24
			Max. My	2	-52.42	2.79	3954.91
			Max. Vy	20	-37.71	3921.38	3.80
			Max. Vx	2	-37.93	2.79	3954.91
			Max. Torque	3			2.17
L64	4 - 3	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-75.36	-0.62	2.68
			Max. Mx	8	-52.90	-3959.49	-2.26
			Max. My	2	-52.90	2.81	3992.87
			Max. Vy	20	-37.81	3959.12	3.82
			Max. Vx	2	-38.03	2.81	3992.87
			Max. Torque	3			2.19
L65	3 - 2.75	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-75.49	-0.62	2.68
			Max. Mx	8	-53.03	-3968.94	-2.26
			Max. My	2	-53.03	2.81	4002.37
			Max. Vy	8	37.82	-3968.94	-2.26

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Max. Vx	2	-38.04	2.81	4002.37
			Max. Torque	3			2.19
L66	2.75 - 0	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-76.89	-0.62	2.68
			Max. Mx	8	-54.33	-4073.32	-2.32
			Max. My	2	-54.33	2.87	4107.35
			Max. Vy	20	-38.13	4072.96	3.88
			Max. Vx	2	-38.35	2.87	4107.35
			Max. Torque	3			2.25

Maximum Reactions

Location	Condition	Gov. Load Comb.	Vertical K	Horizontal, X K	Horizontal, Z K
Pole	Max. Vert	26	76.89	0.00	-0.00
	Max. H_x	20	54.35	38.10	0.02
	Max. H_z	2	54.35	0.02	38.32
	Max. M_x	2	4107.35	0.02	38.32
	Max. M_z	8	4073.32	-38.10	-0.02
	Max. Torsion	3	2.25	0.02	38.32
	Min. Vert	9	40.76	-38.10	-0.02
	Min. H_x	9	40.76	-38.10	-0.02
	Min. H_z	15	40.76	-0.02	-38.32
	Min. M_x	14	-4105.75	-0.02	-38.31
	Min. M_z	20	-4072.96	38.10	0.02
	Min. Torsion	15	-2.24	-0.02	-38.32

Tower Mast Reaction Summary

Load Combination	Vertical K	$Shear_x$ K	$Shear_z$ K	Overturning Moment, M_x kip-ft	Overturning Moment, M_z kip-ft	Torque kip-ft
Dead Only	45.29	-0.00	0.00	-0.61	-0.17	0.00
1.2 Dead+1.6 Wind 0 deg - No Ice	54.35	-0.02	-38.32	-4107.35	2.87	-2.24
0.9 Dead+1.6 Wind 0 deg - No Ice	40.76	-0.02	-38.32	-4067.48	2.89	-2.25
1.2 Dead+1.6 Wind 30 deg - No Ice	54.35	19.03	-33.17	-3555.71	-2034.12	-1.86
0.9 Dead+1.6 Wind 30 deg - No Ice	40.76	19.03	-33.17	-3521.18	-2014.45	-1.86
1.2 Dead+1.6 Wind 60 deg - No Ice	54.35	32.99	-19.14	-2051.47	-3526.20	-0.96
0.9 Dead+1.6 Wind 60 deg - No Ice	40.76	32.99	-19.14	-2031.47	-3492.13	-0.94
1.2 Dead+1.6 Wind 90 deg - No Ice	54.35	38.10	0.02	2.32	-4073.32	0.22
0.9 Dead+1.6 Wind 90 deg - No Ice	40.76	38.10	0.02	2.49	-4034.04	0.24
1.2 Dead+1.6 Wind 120 deg - No Ice	54.35	33.01	19.17	2055.27	-3529.27	1.33
0.9 Dead+1.6 Wind 120 deg - No Ice	40.76	33.01	19.17	2035.61	-3495.18	1.35
1.2 Dead+1.6 Wind 150 deg - No Ice	54.35	19.07	33.19	3557.22	-2039.47	2.07
0.9 Dead+1.6 Wind 150 deg - No Ice	40.76	19.07	33.19	3523.07	-2019.74	2.08
1.2 Dead+1.6 Wind 180 deg - No Ice	54.35	0.02	38.31	4105.75	-3.33	2.23

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
0.9 Dead+1.6 Wind 180 deg - No Ice	40.76	0.02	38.32	4066.34	-3.24	2.24
1.2 Dead+1.6 Wind 210 deg - No Ice	54.35	-19.03	33.17	3554.16	2033.65	1.80
0.9 Dead+1.6 Wind 210 deg - No Ice	40.76	-19.03	33.17	3520.04	2014.11	1.80
1.2 Dead+1.6 Wind 240 deg - No Ice	54.35	-32.99	19.14	2049.92	3525.75	0.91
0.9 Dead+1.6 Wind 240 deg - No Ice	40.76	-32.99	19.14	2030.33	3491.80	0.90
1.2 Dead+1.6 Wind 270 deg - No Ice	54.35	-38.10	-0.02	-3.88	4072.96	-0.21
0.9 Dead+1.6 Wind 270 deg - No Ice	40.76	-38.10	-0.02	-3.64	4033.71	-0.23
1.2 Dead+1.6 Wind 300 deg - No Ice	54.35	-33.01	-19.17	-2056.84	3528.82	-1.28
0.9 Dead+1.6 Wind 300 deg - No Ice	40.76	-33.01	-19.17	-2036.77	3494.84	-1.30
1.2 Dead+1.6 Wind 330 deg - No Ice	54.35	-19.07	-33.19	-3558.79	2039.01	-2.02
0.9 Dead+1.6 Wind 330 deg - No Ice	40.76	-19.07	-33.19	-3524.23	2019.40	-2.04
1.2 Dead+1.0 Ice+1.0 Temp	76.89	-0.00	0.00	-2.68	-0.62	0.00
1.2 Dead+1.0 Wind 0 deg+1.0 Ice+1.0 Temp	76.89	-0.00	-9.07	-1025.99	-0.04	-1.06
1.2 Dead+1.0 Wind 30 deg+1.0 Ice+1.0 Temp	76.89	4.51	-7.85	-888.61	-508.52	-0.77
1.2 Dead+1.0 Wind 60 deg+1.0 Ice+1.0 Temp	76.89	7.82	-4.53	-513.88	-880.92	-0.27
1.2 Dead+1.0 Wind 90 deg+1.0 Ice+1.0 Temp	76.89	9.03	0.00	-2.23	-1017.45	0.30
1.2 Dead+1.0 Wind 120 deg+1.0 Ice+1.0 Temp	76.89	7.82	4.54	509.26	-881.55	0.79
1.2 Dead+1.0 Wind 150 deg+1.0 Ice+1.0 Temp	76.89	4.52	7.86	883.53	-509.60	1.07
1.2 Dead+1.0 Wind 180 deg+1.0 Ice+1.0 Temp	76.89	0.00	9.07	1020.29	-1.29	1.06
1.2 Dead+1.0 Wind 210 deg+1.0 Ice+1.0 Temp	76.89	-4.51	7.85	882.90	507.19	0.77
1.2 Dead+1.0 Wind 240 deg+1.0 Ice+1.0 Temp	76.89	-7.82	4.53	508.18	879.60	0.27
1.2 Dead+1.0 Wind 270 deg+1.0 Ice+1.0 Temp	76.89	-9.03	-0.00	-3.48	1016.14	-0.30
1.2 Dead+1.0 Wind 300 deg+1.0 Ice+1.0 Temp	76.89	-7.82	-4.54	-514.97	880.23	-0.79
1.2 Dead+1.0 Wind 330 deg+1.0 Ice+1.0 Temp	76.89	-4.52	-7.86	-889.23	508.28	-1.07
Dead+Wind 0 deg - Service	45.29	-0.00	-7.87	-840.18	0.45	0.06
Dead+Wind 30 deg - Service	45.29	3.91	-6.81	-727.57	-416.08	-0.08
Dead+Wind 60 deg - Service	45.29	6.78	-3.93	-419.97	-721.18	-0.19
Dead+Wind 90 deg - Service	45.29	7.83	0.00	-0.02	-832.98	-0.26
Dead+Wind 120 deg - Service	45.29	6.78	3.94	419.77	-721.81	-0.25
Dead+Wind 150 deg - Service	45.29	3.92	6.82	726.91	-417.18	-0.18
Dead+Wind 180 deg - Service	45.29	0.00	7.87	838.88	-0.82	-0.06
Dead+Wind 210 deg - Service	45.29	-3.91	6.81	726.28	415.71	0.07
Dead+Wind 240 deg - Service	45.29	-6.78	3.93	418.68	720.80	0.19
Dead+Wind 270 deg - Service	45.29	-7.83	-0.00	-1.28	832.61	0.26
Dead+Wind 300 deg - Service	45.29	-6.78	-3.94	-421.07	721.44	0.26

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 330 deg - Service	45.29	-3.92	-6.82	-728.21	416.81	0.18

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	0.00	-45.29	0.00	0.00	45.29	-0.00	0.000%
2	-0.02	-54.35	-38.32	0.02	54.35	38.32	0.000%
3	-0.02	-40.76	-38.32	0.02	40.76	38.32	0.001%
4	19.03	-54.35	-33.17	-19.03	54.35	33.17	0.000%
5	19.03	-40.76	-33.17	-19.03	40.76	33.17	0.000%
6	32.99	-54.35	-19.14	-32.99	54.35	19.14	0.000%
7	32.99	-40.76	-19.14	-32.99	40.76	19.14	0.000%
8	38.10	-54.35	0.02	-38.10	54.35	-0.02	0.002%
9	38.10	-40.76	0.02	-38.10	40.76	-0.02	0.002%
10	33.01	-54.35	19.17	-33.01	54.35	-19.17	0.000%
11	33.01	-40.76	19.17	-33.01	40.76	-19.17	0.000%
12	19.07	-54.35	33.19	-19.07	54.35	-33.19	0.000%
13	19.07	-40.76	33.19	-19.07	40.76	-33.19	0.000%
14	0.02	-54.35	38.32	-0.02	54.35	-38.31	0.001%
15	0.02	-40.76	38.32	-0.02	40.76	-38.32	0.001%
16	-19.03	-54.35	33.17	19.03	54.35	-33.17	0.000%
17	-19.03	-40.76	33.17	19.03	40.76	-33.17	0.000%
18	-32.99	-54.35	19.14	32.99	54.35	-19.14	0.000%
19	-32.99	-40.76	19.14	32.99	40.76	-19.14	0.000%
20	-38.10	-54.35	-0.02	38.10	54.35	0.02	0.001%
21	-38.10	-40.76	-0.02	38.10	40.76	0.02	0.002%
22	-33.01	-54.35	-19.17	33.01	54.35	19.17	0.000%
23	-33.01	-40.76	-19.17	33.01	40.76	19.17	0.000%
24	-19.07	-54.35	-33.19	19.07	54.35	33.19	0.000%
25	-19.07	-40.76	-33.19	19.07	40.76	33.19	0.000%
26	0.00	-76.89	0.00	0.00	76.89	-0.00	0.000%
27	-0.00	-76.89	-9.07	0.00	76.89	9.07	0.000%
28	4.51	-76.89	-7.85	-4.51	76.89	7.85	0.000%
29	7.82	-76.89	-4.53	-7.82	76.89	4.53	0.000%
30	9.03	-76.89	0.00	-9.03	76.89	-0.00	0.000%
31	7.82	-76.89	4.54	-7.82	76.89	-4.54	0.000%
32	4.52	-76.89	7.86	-4.52	76.89	-7.86	0.000%
33	0.00	-76.89	9.07	-0.00	76.89	-9.07	0.000%
34	-4.51	-76.89	7.85	4.51	76.89	-7.85	0.000%
35	-7.82	-76.89	4.53	7.82	76.89	-4.53	0.000%
36	-9.03	-76.89	-0.00	9.03	76.89	0.00	0.000%
37	-7.82	-76.89	-4.54	7.82	76.89	4.54	0.000%
38	-4.52	-76.89	-7.86	4.52	76.89	7.86	0.000%
39	-0.00	-45.29	-7.87	0.00	45.29	7.87	0.004%
40	3.91	-45.29	-6.81	-3.91	45.29	6.81	0.000%
41	6.78	-45.29	-3.93	-6.78	45.29	3.93	0.000%
42	7.83	-45.29	0.00	-7.83	45.29	-0.00	0.002%
43	6.78	-45.29	3.94	-6.78	45.29	-3.94	0.000%
44	3.92	-45.29	6.82	-3.92	45.29	-6.82	0.000%
45	0.00	-45.29	7.87	-0.00	45.29	-7.87	0.004%
46	-3.91	-45.29	6.81	3.91	45.29	-6.81	0.000%
47	-6.78	-45.29	3.93	6.78	45.29	-3.93	0.000%
48	-7.83	-45.29	-0.00	7.83	45.29	0.00	0.002%
49	-6.78	-45.29	-3.94	6.78	45.29	3.94	0.000%
50	-3.92	-45.29	-6.82	3.92	45.29	6.82	0.000%

Non-Linear Convergence Results

Load Combination	Converged?	Number of Cycles	Displacement Tolerance	Force Tolerance
1	Yes	6	0.00000001	0.00000001
2	Yes	20	0.00000001	0.00007912
3	Yes	19	0.00000001	0.00012107
4	Yes	25	0.00000001	0.00000000
5	Yes	24	0.00000001	0.00013788
6	Yes	25	0.00000001	0.00000000
7	Yes	24	0.00000001	0.00014068
8	Yes	18	0.00001966	0.00013114
9	Yes	18	0.00000001	0.00009395
10	Yes	25	0.00000001	0.00000000
11	Yes	24	0.00000001	0.00013992
12	Yes	25	0.00000001	0.00000000
13	Yes	24	0.00000001	0.00013899
14	Yes	19	0.00000001	0.00013070
15	Yes	19	0.00000001	0.00010122
16	Yes	25	0.00000001	0.00000000
17	Yes	24	0.00000001	0.00014107
18	Yes	25	0.00000001	0.00000000
19	Yes	24	0.00000001	0.00013779
20	Yes	19	0.00000001	0.00009121
21	Yes	18	0.00000001	0.00013052
22	Yes	25	0.00000001	0.00000000
23	Yes	24	0.00000001	0.00013969
24	Yes	25	0.00000001	0.00000000
25	Yes	24	0.00000001	0.00014109
26	Yes	13	0.00000001	0.00011678
27	Yes	22	0.00000001	0.00012381
28	Yes	23	0.00000001	0.00008105
29	Yes	23	0.00000001	0.00008147
30	Yes	22	0.00000001	0.00012211
31	Yes	23	0.00000001	0.00008060
32	Yes	23	0.00000001	0.00008021
33	Yes	22	0.00000001	0.00012219
34	Yes	23	0.00000001	0.00008059
35	Yes	23	0.00000001	0.00007970
36	Yes	22	0.00000001	0.00012173
37	Yes	23	0.00000001	0.00008094
38	Yes	23	0.00000001	0.00008183
39	Yes	15	0.00013000	0.00009739
40	Yes	19	0.00000001	0.00008454
41	Yes	19	0.00000001	0.00008901
42	Yes	16	0.00000001	0.00008370
43	Yes	19	0.00000001	0.00008140
44	Yes	19	0.00000001	0.00008916
45	Yes	15	0.00012996	0.00009832
46	Yes	19	0.00000001	0.00008648
47	Yes	19	0.00000001	0.00008164
48	Yes	16	0.00000001	0.00008546
49	Yes	19	0.00000001	0.00009050
50	Yes	19	0.00000001	0.00008311

Maximum Tower Deflections - Service Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L1	150 - 145	24.147	39	1.5974	0.0047
L2	145 - 140	22.477	39	1.5851	0.0042
L3	140 - 135	20.844	39	1.5278	0.0033
L4	135 - 133.83	19.288	39	1.4407	0.0024

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L5	133.83 - 133.58	18.938	39	1.4174	0.0023
L6	133.58 - 128.58	18.864	39	1.4151	0.0022
L7	128.58 - 123.58	17.409	39	1.3605	0.0019
L8	123.58 - 119.5	16.020	39	1.2913	0.0016
L9	119.5 - 119.25	14.944	39	1.2257	0.0013
L10	119.25 - 118.75	14.880	39	1.2233	0.0013
L11	118.75 - 118.5	14.752	39	1.2185	0.0013
L12	118.5 - 113.5	14.688	39	1.2161	0.0013
L13	113.5 - 108.5	13.442	39	1.1642	0.0011
L14	108.5 - 103.5	12.253	39	1.1066	0.0010
L15	103.5 - 95.17	11.126	39	1.0447	0.0009
L16	99.5 - 94.17	10.272	39	0.9931	0.0008
L17	94.17 - 93.75	9.183	39	0.9546	0.0007
L18	93.75 - 93.5	9.099	39	0.9497	0.0007
L19	93.5 - 92.75	9.049	39	0.9471	0.0007
L20	92.75 - 92.5	8.901	39	0.9394	0.0007
L21	92.5 - 92	8.852	39	0.9373	0.0007
L22	92 - 91.75	8.754	39	0.9330	0.0007
L23	91.75 - 86.75	8.705	39	0.9301	0.0007
L24	86.75 - 86.5	7.762	39	0.8718	0.0006
L25	86.5 - 86.25	7.716	39	0.8688	0.0006
L26	86.25 - 85.75	7.671	39	0.8668	0.0006
L27	85.75 - 85.5	7.580	39	0.8627	0.0006
L28	85.5 - 80.5	7.535	39	0.8600	0.0006
L29	80.5 - 75.5	6.664	39	0.8041	0.0005
L30	75.5 - 70.5	5.852	39	0.7469	0.0005
L31	70.5 - 68.08	5.100	39	0.6884	0.0004
L32	68.08 - 67.83	4.759	39	0.6603	0.0004
L33	67.83 - 66.75	4.724	39	0.6575	0.0004
L34	66.75 - 66.5	4.577	39	0.6458	0.0004
L35	66.5 - 63.25	4.543	39	0.6436	0.0004
L36	63.25 - 63	4.115	39	0.6146	0.0003
L37	63 - 62.75	4.083	39	0.6127	0.0003
L38	62.75 - 62.5	4.051	39	0.6108	0.0003
L39	62.5 - 57.5	4.019	39	0.6083	0.0003
L40	57.5 - 56.25	3.408	39	0.5581	0.0003
L41	56.25 - 56	3.263	39	0.5456	0.0003
L42	56 - 51	3.235	39	0.5429	0.0003
L43	51 - 44.67	2.694	39	0.4894	0.0003
L44	50 - 43.67	2.593	39	0.4787	0.0002
L45	43.67 - 38.67	1.981	39	0.4401	0.0002
L46	38.67 - 35.5	1.548	39	0.3879	0.0002
L47	35.5 - 35.25	1.301	39	0.3548	0.0002
L48	35.25 - 34.25	1.283	39	0.3522	0.0002
L49	34.25 - 34	1.210	39	0.3420	0.0002
L50	34 - 33.25	1.192	39	0.3400	0.0002
L51	33.25 - 33	1.139	39	0.3339	0.0002
L52	33 - 28	1.122	39	0.3311	0.0002
L53	28 - 26.25	0.804	39	0.2757	0.0001
L54	26.25 - 26	0.707	39	0.2567	0.0001
L55	26 - 25.25	0.693	39	0.2548	0.0001
L56	25.25 - 25	0.654	39	0.2489	0.0001
L57	25 - 20	0.641	39	0.2464	0.0001
L58	20 - 15	0.408	39	0.1970	0.0001
L59	15 - 12.25	0.228	39	0.1472	0.0001
L60	12.25 - 12	0.151	39	0.1202	0.0001
L61	12 - 9.25	0.145	39	0.1176	0.0000
L62	9.25 - 9	0.085	39	0.0893	0.0000
L63	9 - 4	0.081	39	0.0869	0.0000
L64	4 - 3	0.016	39	0.0377	0.0000
L65	3 - 2.75	0.009	39	0.0281	0.0000
L66	2.75 - 0	0.007	39	0.0257	0.0000

Critical Deflections and Radius of Curvature - Service Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
147.0000	BXA-70063-6CF-2 w/ Mount Pipe	39	23.143	1.5943	0.0045	8014
132.0000	(2) 7770.00 w/ Mount Pipe	39	18.398	1.4004	0.0021	4574
126.0000	APX16DWV-16DWV-S-E-ACU w/ Mount Pipe	39	16.683	1.3278	0.0017	4117

Maximum Tower Deflections - Design Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L1	150 - 145	117.699	2	7.7692	0.0198
L2	145 - 140	109.599	2	7.7123	0.0177
L3	140 - 135	101.674	2	7.4404	0.0130
L4	135 - 133.83	94.110	2	7.0223	0.0090
L5	133.83 - 133.58	92.407	2	6.9097	0.0084
L6	133.58 - 128.58	92.047	2	6.8990	0.0083
L7	128.58 - 123.58	84.969	2	6.6353	0.0070
L8	123.58 - 119.5	78.206	2	6.3008	0.0058
L9	119.5 - 119.25	72.965	2	5.9828	0.0049
L10	119.25 - 118.75	72.653	2	5.9713	0.0049
L11	118.75 - 118.5	72.030	2	5.9481	0.0048
L12	118.5 - 113.5	71.719	2	5.9364	0.0048
L13	113.5 - 108.5	65.644	2	5.6845	0.0042
L14	108.5 - 103.5	59.845	2	5.4044	0.0039
L15	103.5 - 95.17	54.350	2	5.1031	0.0036
L16	99.5 - 94.17	50.185	2	4.8518	0.0034
L17	94.17 - 93.75	44.866	2	4.6642	0.0032
L18	93.75 - 93.5	44.458	2	4.6402	0.0032
L19	93.5 - 92.75	44.215	2	4.6276	0.0032
L20	92.75 - 92.5	43.492	2	4.5902	0.0031
L21	92.5 - 92	43.252	2	4.5798	0.0031
L22	92 - 91.75	42.774	2	4.5588	0.0031
L23	91.75 - 86.75	42.536	2	4.5448	0.0031
L24	86.75 - 86.5	37.930	2	4.2604	0.0028
L25	86.5 - 86.25	37.708	2	4.2462	0.0028
L26	86.25 - 85.75	37.486	2	4.2363	0.0028
L27	85.75 - 85.5	37.044	2	4.2164	0.0028
L28	85.5 - 80.5	36.824	2	4.2031	0.0028
L29	80.5 - 75.5	32.568	2	3.9302	0.0026
L30	75.5 - 70.5	28.602	2	3.6508	0.0024
L31	70.5 - 68.08	24.931	2	3.3653	0.0022
L32	68.08 - 67.83	23.261	2	3.2280	0.0022
L33	67.83 - 66.75	23.092	2	3.2146	0.0021
L34	66.75 - 66.5	22.372	2	3.1575	0.0021
L35	66.5 - 63.25	22.207	2	3.1468	0.0021
L36	63.25 - 63	20.114	2	3.0047	0.0020
L37	63 - 62.75	19.957	2	2.9956	0.0020
L38	62.75 - 62.5	19.801	2	2.9865	0.0020
L39	62.5 - 57.5	19.645	2	2.9743	0.0020
L40	57.5 - 56.25	16.660	2	2.7286	0.0019
L41	56.25 - 56	15.954	2	2.6676	0.0018
L42	56 - 51	15.815	2	2.6546	0.0018
L43	51 - 44.67	13.173	2	2.3931	0.0016
L44	50 - 43.67	12.678	2	2.3405	0.0016
L45	43.67 - 38.67	9.686	2	2.1518	0.0015
L46	38.67 - 35.5	7.567	2	1.8967	0.0013
L47	35.5 - 35.25	6.361	2	1.7350	0.0012
L48	35.25 - 34.25	6.271	2	1.7224	0.0012
L49	34.25 - 34	5.915	2	1.6722	0.0012
L50	34 - 33.25	5.828	2	1.6623	0.0012

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L51	33.25 - 33	5.569	2	1.6327	0.0011
L52	33 - 28	5.484	2	1.6192	0.0011
L53	28 - 26.25	3.931	2	1.3479	0.0009
L54	26.25 - 26	3.454	2	1.2553	0.0009
L55	26 - 25.25	3.389	2	1.2457	0.0009
L56	25.25 - 25	3.195	2	1.2169	0.0008
L57	25 - 20	3.132	2	1.2049	0.0008
L58	20 - 15	1.997	2	0.9634	0.0007
L59	15 - 12.25	1.116	2	0.7196	0.0005
L60	12.25 - 12	0.740	2	0.5876	0.0004
L61	12 - 9.25	0.709	2	0.5751	0.0004
L62	9.25 - 9	0.418	2	0.4367	0.0003
L63	9 - 4	0.395	2	0.4247	0.0003
L64	4 - 3	0.077	2	0.1844	0.0001
L65	3 - 2.75	0.043	2	0.1372	0.0001
L66	2.75 - 0	0.036	2	0.1259	0.0001

Critical Deflections and Radius of Curvature - Design Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
147.0000	BXA-70063-6CF-2 w/ Mount Pipe	2	112.829	7.7551	0.0190	1764
132.0000	(2) 7770.00 w/ Mount Pipe	2	89.781	6.8282	0.0079	975
126.0000	APX16DWV-16DWV-S-E-ACU w/ Mount Pipe	2	81.436	6.4776	0.0064	872

Compression Checks

Pole Design Data

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K
L1	150 - 145 (1)	TP16.9374x16x0.1875	5.0000	0.0000	0.0	10.1128	-2.44
L2	145 - 140 (2)	TP17.8749x16.9374x0.1875	5.0000	0.0000	0.0	10.6788	-2.68
L3	140 - 135 (3)	TP18.8123x17.8749x0.1875	5.0000	0.0000	0.0	11.2447	-2.96
L4	135 - 133.83 (4)	TP19.0317x18.8123x0.1875	1.1700	0.0000	0.0	11.3772	-3.03
L5	133.83 - 133.58 (5)	TP19.0786x19.0317x0.4563	0.2500	0.0000	0.0	27.3585	-3.07
L6	133.58 - 128.58 (6)	TP20.016x19.0786x0.4375	5.0000	0.0000	0.0	27.5812	-6.14
L7	128.58 - 123.58 (7)	TP20.9534x20.016x0.425	5.0000	0.0000	0.0	28.0932	-7.28
L8	123.58 - 119.5 (8)	TP21.7184x20.9534x0.4125	4.0800	0.0000	0.0	28.2996	-7.88
L9	119.5 - 119.25 (9)	TP21.7653x21.7184x0.7625	0.2500	0.0000	0.0	51.5671	-7.95
L10	119.25 - 118.75 (10)	TP21.859x21.7653x0.7625	0.5000	0.0000	0.0	51.7972	-8.05
L11	118.75 - 118.5 (11)	TP21.9059x21.859x0.7625	0.2500	0.0000	0.0	51.9123	-8.11
L12	118.5 - 113.5 (12)	TP22.8433x21.9059x0.7375	5.0000	0.0000	0.0	52.4958	-9.18
L13	113.5 - 108.5 (13)	TP23.7808x22.8433x0.7	5.0000	0.0000	0.0	52.0241	-10.30

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K
L14	108.5 - 103.5 (14)	TP24.7182x23.7808x0.675	5.0000	0.0000	0.0	52.2579	-11.44
L15	103.5 - 95.17 (15)	TP26.28x24.7182x0.6625	8.3300	0.0000	0.0	52.9167	-12.37
L16	95.17 - 94.17 (16)	TP26.0932x25.0932x0.7875	5.3300	0.0000	0.0	64.1688	-14.64
L17	94.17 - 93.75 (17)	TP26.1719x26.0932x0.7875	0.4200	0.0000	0.0	64.3686	-14.76
L18	93.75 - 93.5 (18)	TP26.2189x26.1719x0.9125	0.2500	0.0000	0.0	74.3564	-14.84
L19	93.5 - 92.75 (19)	TP26.3596x26.2189x0.9125	0.7500	0.0000	0.0	74.7698	-15.07
L20	92.75 - 92.5 (20)	TP26.4065x26.3596x1.1375	0.2500	0.0000	0.0	92.5539	-15.17
L21	92.5 - 92 (21)	TP26.5003x26.4065x1.1125	0.5000	0.0000	0.0	90.9454	-15.35
L22	92 - 91.75 (22)	TP26.5472x26.5003x0.8125	0.2500	0.0000	0.0	67.3283	-15.43
L23	91.75 - 86.75 (23)	TP27.4852x26.5472x0.8	5.0000	0.0000	0.0	68.7412	-16.90
L24	86.75 - 86.5 (24)	TP27.5321x27.4852x0.8	0.2500	0.0000	0.0	68.8620	-16.99
L25	86.5 - 86.25 (25)	TP27.579x27.5321x1.2125	0.2500	0.0000	0.0	102.9420	-17.09
L26	86.25 - 85.75 (26)	TP27.6729x27.579x1.1875	0.5000	0.0000	0.0	101.2730	-17.29
L27	85.75 - 85.5 (27)	TP27.7198x27.6729x0.8625	0.2500	0.0000	0.0	74.5893	-17.37
L28	85.5 - 80.5 (28)	TP28.6578x27.7198x0.8375	5.0000	0.0000	0.0	75.0245	-18.95
L29	80.5 - 75.5 (29)	TP29.5959x28.6578x0.8125	5.0000	0.0000	0.0	75.3045	-20.57
L30	75.5 - 70.5 (30)	TP30.534x29.5959x0.7875	5.0000	0.0000	0.0	75.4296	-22.23
L31	70.5 - 68.08 (31)	TP30.988x30.534x0.7875	2.4200	0.0000	0.0	76.5809	-23.04
L32	68.08 - 67.83 (32)	TP31.0349x30.988x0.8375	0.2500	0.0000	0.0	81.4348	-23.14
L33	67.83 - 66.75 (33)	TP31.2375x31.0349x0.8375	1.0800	0.0000	0.0	81.9812	-23.51
L34	66.75 - 66.5 (34)	TP31.2844x31.2375x1.0625	0.2500	0.0000	0.0	103.3970	-23.63
L35	66.5 - 63.25 (35)	TP31.8941x31.2844x1.0375	3.2500	0.0000	0.0	103.0840	-25.00
L36	63.25 - 63 (36)	TP31.9411x31.8941x1.2625	0.2500	0.0000	0.0	124.7160	-25.13
L37	63 - 62.75 (37)	TP31.988x31.9411x1.2625	0.2500	0.0000	0.0	124.9070	-25.25
L38	62.75 - 62.5 (38)	TP32.0349x31.988x0.9125	0.2500	0.0000	0.0	91.4453	-25.35
L39	62.5 - 57.5 (39)	TP32.9729x32.0349x0.9	5.0000	0.0000	0.0	92.9473	-27.31
L40	57.5 - 56.25 (40)	TP33.2074x32.9729x0.8875	1.2500	0.0000	0.0	92.3623	-27.80
L41	56.25 - 56 (41)	TP33.2543x33.2074x0.8375	0.2500	0.0000	0.0	87.4201	-27.91
L42	56 - 51 (42)	TP34.1924x33.2543x0.825	5.0000	0.0000	0.0	88.6405	-29.81
L43	51 - 44.67 (43)	TP35.38x34.1924x0.8125	6.3300	0.0000	0.0	87.8210	-30.20
L44	44.67 - 43.67 (44)	TP34.9419x33.755x0.875	6.3300	0.0000	0.0	95.9835	-34.55
L45	43.67 - 38.67 (45)	TP35.8794x34.9419x0.8625	5.0000	0.0000	0.0	97.2507	-36.66
L46	38.67 - 35.5	TP36.4738x35.8794x0.85	3.1700	0.0000	0.0	97.502	-38.01

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K
	(46)					3	
L47	35.5 - 35.25 (47)	TP36.5206x36.4738x0.85	0.2500	0.0000	0.0	97.6305	-38.13
L48	35.25 - 34.25 (48)	TP36.7081x36.5206x0.85	1.0000	0.0000	0.0	98.1437	-38.55
L49	34.25 - 34 (49)	TP36.755x36.7081x1.1	0.2500	0.0000	0.0	126.2900	-38.69
L50	34 - 33.25 (50)	TP36.8956x36.755x1.1	0.7500	0.0000	0.0	126.7880	-39.08
L51	33.25 - 33 (51)	TP36.9425x36.8956x0.7875	0.2500	0.0000	0.0	91.6801	-39.18
L52	33 - 28 (52)	TP37.88x36.9425x0.775	5.0000	0.0000	0.0	92.5956	-41.23
L53	28 - 26.25 (53)	TP38.2081x37.88x0.775	1.7500	0.0000	0.0	93.4144	-41.95
L54	26.25 - 26 (54)	TP38.255x38.2081x1.1	0.2500	0.0000	0.0	131.6030	-42.11
L55	26 - 25.25 (55)	TP38.3956x38.255x1.1	0.7500	0.0000	0.0	132.1010	-42.52
L56	25.25 - 25 (56)	TP38.4425x38.3956x0.8625	0.2500	0.0000	0.0	104.3690	-42.64
L57	25 - 20 (57)	TP39.38x38.4425x0.85	5.0000	0.0000	0.0	105.4570	-44.91
L58	20 - 15 (58)	TP40.3175x39.38x0.825	5.0000	0.0000	0.0	104.9120	-47.22
L59	15 - 12.25 (59)	TP40.8331x40.3175x0.825	2.7500	0.0000	0.0	106.2820	-48.50
L60	12.25 - 12 (60)	TP40.88x40.8331x0.7875	0.2500	0.0000	0.0	101.6650	-48.64
L61	12 - 9.25 (61)	TP41.3956x40.88x0.775	2.7500	0.0000	0.0	101.3690	-49.92
L62	9.25 - 9 (62)	TP41.4425x41.3956x0.8125	0.2500	0.0000	0.0	106.2980	-50.05
L63	9 - 4 (63)	TP42.38x41.4425x0.8	5.0000	0.0000	0.0	107.1100	-52.42
L64	4 - 3 (64)	TP42.5675x42.38x0.8	1.0000	0.0000	0.0	107.5930	-52.90
L65	3 - 2.75 (65)	TP42.6144x42.5675x0.8375	0.2500	0.0000	0.0	112.6620	-53.03
L66	2.75 - 0 (66)	TP43.13x42.6144x0.825	2.7500	0.0000	0.0	112.3830	-54.33

Pole Bending Design Data

Section No.	Elevation ft	Size	M_{ux} kip-ft	M_{uy} kip-ft
L1	150 - 145 (1)	TP16.9374x16x0.1875	46.47	0.00
L2	145 - 140 (2)	TP17.8749x16.9374x0.1875	105.63	0.00
L3	140 - 135 (3)	TP18.8123x17.8749x0.1875	167.06	0.00
L4	135 - 133.83 (4)	TP19.0317x18.8123x0.1875	181.77	0.00
L5	133.83 - 133.58 (5)	TP19.0786x19.0317x0.4563	184.94	0.00
L6	133.58 - 128.58 (6)	TP20.016x19.0786x0.4375	283.34	0.00
L7	128.58 - 123.58 (7)	TP20.9534x20.016x0.425	383.42	0.00
L8	123.58 - 119.5 (8)	TP21.7184x20.9534x0.4125	468.89	0.00

Section No.	Elevation ft	Size	M_{ux} kip-ft	M_{uy} kip-ft
L9	119.5 - 119.25 (9)	TP21.7653x21.7184x0.7625	474.21	0.00
L10	119.25 - 118.75 (10)	TP21.859x21.7653x0.7625	484.87	0.00
L11	118.75 - 118.5 (11)	TP21.9059x21.859x0.7625	490.22	0.00
L12	118.5 - 113.5 (12)	TP22.8433x21.9059x0.7375	599.25	0.00
L13	113.5 - 108.5 (13)	TP23.7808x22.8433x0.7	712.25	0.00
L14	108.5 - 103.5 (14)	TP24.7182x23.7808x0.675	829.19	0.00
L15	103.5 - 95.17 (15)	TP26.28x24.7182x0.6625	925.55	0.00
L16	95.17 - 94.17 (16)	TP26.0932x25.0932x0.7875	1058.21	0.00
L17	94.17 - 93.75 (17)	TP26.1719x26.0932x0.7875	1068.87	0.00
L18	93.75 - 93.5 (18)	TP26.2189x26.1719x0.9125	1075.23	0.00
L19	93.5 - 92.75 (19)	TP26.3596x26.2189x0.9125	1094.38	0.00
L20	92.75 - 92.5 (20)	TP26.4065x26.3596x1.1375	1100.78	0.00
L21	92.5 - 92 (21)	TP26.5003x26.4065x1.1125	1113.61	0.00
L22	92 - 91.75 (22)	TP26.5472x26.5003x0.8125	1120.04	0.00
L23	91.75 - 86.75 (23)	TP27.4852x26.5472x0.8	1250.77	0.00
L24	86.75 - 86.5 (24)	TP27.5321x27.4852x0.8	1257.41	0.00
L25	86.5 - 86.25 (25)	TP27.579x27.5321x1.2125	1264.06	0.00
L26	86.25 - 85.75 (26)	TP27.6729x27.579x1.1875	1277.39	0.00
L27	85.75 - 85.5 (27)	TP27.7198x27.6729x0.8625	1284.08	0.00
L28	85.5 - 80.5 (28)	TP28.6578x27.7198x0.8375	1419.78	0.00
L29	80.5 - 75.5 (29)	TP29.5959x28.6578x0.8125	1559.41	0.00
L30	75.5 - 70.5 (30)	TP30.534x29.5959x0.7875	1702.88	0.00
L31	70.5 - 68.08 (31)	TP30.988x30.534x0.7875	1773.70	0.00
L32	68.08 - 67.83 (32)	TP31.0349x30.988x0.8375	1781.07	0.00
L33	67.83 - 66.75 (33)	TP31.2375x31.0349x0.8375	1813.00	0.00
L34	66.75 - 66.5 (34)	TP31.2844x31.2375x1.0625	1820.42	0.00
L35	66.5 - 63.25 (35)	TP31.8941x31.2844x1.0375	1917.74	0.00
L36	63.25 - 63 (36)	TP31.9411x31.8941x1.2625	1925.30	0.00
L37	63 - 62.75 (37)	TP31.988x31.9411x1.2625	1932.87	0.00
L38	62.75 - 62.5 (38)	TP32.0349x31.988x0.9125	1940.44	0.00
L39	62.5 - 57.5 (39)	TP32.9729x32.0349x0.9	2093.97	0.00
L40	57.5 - 56.25 (40)	TP33.2074x32.9729x0.8875	2132.96	0.00
L41	56.25 - 56	TP33.2543x33.2074x0.83	2140.78	0.00

Section No.	Elevation ft	Size	M_{ux} kip-ft	M_{uy} kip-ft
	(41)	75		
L42	56 - 51 (42)	TP34.1924x33.2543x0.825	2299.15	0.00
L43	51 - 44.67 (43)	TP35.38x34.1924x0.8125	2331.27	0.00
L44	44.67 - 43.67 (44)	TP34.9419x33.755x0.875	2538.35	0.00
L45	43.67 - 38.67 (45)	TP35.8794x34.9419x0.8625	2706.13	0.00
L46	38.67 - 35.5 (46)	TP36.4738x35.8794x0.85	2814.24	0.00
L47	35.5 - 35.25 (47)	TP36.5206x36.4738x0.85	2822.82	0.00
L48	35.25 - 34.25 (48)	TP36.7081x36.5206x0.85	2857.24	0.00
L49	34.25 - 34 (49)	TP36.755x36.7081x1.1	2865.87	0.00
L50	34 - 33.25 (50)	TP36.8956x36.755x1.1	2891.79	0.00
L51	33.25 - 33 (51)	TP36.9425x36.8956x0.7875	2900.46	0.00
L52	33 - 28 (52)	TP37.88x36.9425x0.775	3075.32	0.00
L53	28 - 26.25 (53)	TP38.2081x37.88x0.775	3137.26	0.00
L54	26.25 - 26 (54)	TP38.255x38.2081x1.1	3146.14	0.00
L55	26 - 25.25 (55)	TP38.3956x38.255x1.1	3172.82	0.00
L56	25.25 - 25 (56)	TP38.4425x38.3956x0.8625	3181.74	0.00
L57	25 - 20 (57)	TP39.38x38.4425x0.85	3361.53	0.00
L58	20 - 15 (58)	TP40.3175x39.38x0.825	3544.11	0.00
L59	15 - 12.25 (59)	TP40.8331x40.3175x0.825	3645.66	0.00
L60	12.25 - 12 (60)	TP40.88x40.8331x0.7875	3654.93	0.00
L61	12 - 9.25 (61)	TP41.3956x40.88x0.775	3757.32	0.00
L62	9.25 - 9 (62)	TP41.4425x41.3956x0.8125	3766.66	0.00
L63	9 - 4 (63)	TP42.38x41.4425x0.8	3954.92	0.00
L64	4 - 3 (64)	TP42.5675x42.38x0.8	3992.87	0.00
L65	3 - 2.75 (65)	TP42.6144x42.5675x0.8375	4002.38	0.00
L66	2.75 - 0 (66)	TP43.13x42.6144x0.825	4107.35	0.00

Pole Shear Design Data

Section No.	Elevation ft	Size	Actual V_u K	Actual T_u kip-ft
L1	150 - 145 (1)	TP16.9374x16x0.1875	11.61	0.30
L2	145 - 140 (2)	TP17.8749x16.9374x0.1875	12.06	0.30
L3	140 - 135 (3)	TP18.8123x17.8749x0.1875	12.52	0.30
L4	135 - 133.83 (4)	TP19.0317x18.8123x0.1875	12.64	0.30
L5	133.83 - 133.58 (5)	TP19.0786x19.0317x0.4563	12.66	0.29
L6	133.58 - 128.58 (6)	TP20.016x19.0786x0.4375	18.81	0.26
L7	128.58 -	TP20.9534x20.016x0.425	20.66	0.22

Section No.	Elevation ft	Size	Actual V_u K	Actual T_u kip-ft
	123.58 (7)			
L8	123.58 - 119.5 (8)	TP21.7184x20.9534x0.4125	21.26	0.16
L9	119.5 - 119.25 (9)	TP21.7653x21.7184x0.7625	21.29	0.14
L10	119.25 - 118.75 (10)	TP21.859x21.7653x0.7625	21.37	0.14
L11	118.75 - 118.5 (11)	TP21.9059x21.859x0.7625	21.41	0.13
L12	118.5 - 113.5 (12)	TP22.8433x21.9059x0.7375	22.21	0.06
L13	113.5 - 108.5 (13)	TP23.7808x22.8433x0.7	23.00	0.04
L14	108.5 - 103.5 (14)	TP24.7182x23.7808x0.675	23.79	0.13
L15	103.5 - 95.17 (15)	TP26.28x24.7182x0.6625	24.41	0.20
L16	95.17 - 94.17 (16)	TP26.0932x25.0932x0.7875	25.36	0.30
L17	94.17 - 93.75 (17)	TP26.1719x26.0932x0.7875	25.43	0.30
L18	93.75 - 93.5 (18)	TP26.2189x26.1719x0.9125	25.47	0.31
L19	93.5 - 92.75 (19)	TP26.3596x26.2189x0.9125	25.59	0.32
L20	92.75 - 92.5 (20)	TP26.4065x26.3596x1.1375	25.63	0.33
L21	92.5 - 92 (21)	TP26.5003x26.4065x1.1125	25.72	0.34
L22	92 - 91.75 (22)	TP26.5472x26.5003x0.8125	25.75	0.34
L23	91.75 - 86.75 (23)	TP27.4852x26.5472x0.8	26.55	0.44
L24	86.75 - 86.5 (24)	TP27.5321x27.4852x0.8	26.58	0.44
L25	86.5 - 86.25 (25)	TP27.579x27.5321x1.2125	26.63	0.45
L26	86.25 - 85.75 (26)	TP27.6729x27.579x1.1875	26.71	0.45
L27	85.75 - 85.5 (27)	TP27.7198x27.6729x0.8625	26.75	0.46
L28	85.5 - 80.5 (28)	TP28.6578x27.7198x0.8375	27.55	0.56
L29	80.5 - 75.5 (29)	TP29.5959x28.6578x0.8125	28.32	0.65
L30	75.5 - 70.5 (30)	TP30.534x29.5959x0.7875	29.09	0.75
L31	70.5 - 68.08 (31)	TP30.988x30.534x0.7875	29.46	0.80
L32	68.08 - 67.83 (32)	TP31.0349x30.988x0.8375	29.49	0.81
L33	67.83 - 66.75 (33)	TP31.2375x31.0349x0.8375	29.66	0.83
L34	66.75 - 66.5 (34)	TP31.2844x31.2375x1.0625	29.69	0.84
L35	66.5 - 63.25 (35)	TP31.8941x31.2844x1.0375	30.22	0.90
L36	63.25 - 63 (36)	TP31.9411x31.8941x1.2625	30.25	0.91
L37	63 - 62.75 (37)	TP31.988x31.9411x1.2625	30.29	0.91
L38	62.75 - 62.5 (38)	TP32.0349x31.988x0.9125	30.33	0.92
L39	62.5 - 57.5 (39)	TP32.9729x32.0349x0.9	31.10	1.02

Section No.	Elevation ft	Size	Actual V_u K	Actual T_u kip-ft
L40	57.5 - 56.25 (40)	TP33.2074x32.9729x0.8875	31.29	1.05
L41	56.25 - 56 (41)	TP33.2543x33.2074x0.8375	31.32	1.05
L42	56 - 51 (42)	TP34.1924x33.2543x0.825	32.05	1.16
L43	51 - 44.67 (43)	TP35.38x34.1924x0.8125	32.19	1.18
L44	44.67 - 43.67 (44)	TP34.9419x33.755x0.875	33.24	1.32
L45	43.67 - 38.67 (45)	TP35.8794x34.9419x0.8625	33.91	1.42
L46	38.67 - 35.5 (46)	TP36.4738x35.8794x0.85	34.33	1.49
L47	35.5 - 35.25 (47)	TP36.5206x36.4738x0.85	34.36	1.50
L48	35.25 - 34.25 (48)	TP36.7081x36.5206x0.85	34.50	1.52
L49	34.25 - 34 (49)	TP36.755x36.7081x1.1	34.53	1.53
L50	34 - 33.25 (50)	TP36.8956x36.755x1.1	34.64	1.54
L51	33.25 - 33 (51)	TP36.9425x36.8956x0.7875	34.67	1.55
L52	33 - 28 (52)	TP37.88x36.9425x0.775	35.31	1.67
L53	28 - 26.25 (53)	TP38.2081x37.88x0.775	35.53	1.71
L54	26.25 - 26 (54)	TP38.255x38.2081x1.1	35.54	1.71
L55	26 - 25.25 (55)	TP38.3956x38.255x1.1	35.64	1.73
L56	25.25 - 25 (56)	TP38.4425x38.3956x0.8625	35.67	1.73
L57	25 - 20 (57)	TP39.38x38.4425x0.85	36.27	1.84
L58	20 - 15 (58)	TP40.3175x39.38x0.825	36.81	1.94
L59	15 - 12.25 (59)	TP40.8331x40.3175x0.825	37.10	1.99
L60	12.25 - 12 (60)	TP40.88x40.8331x0.7875	37.10	2.00
L61	12 - 9.25 (61)	TP41.3956x40.88x0.775	37.40	2.05
L62	9.25 - 9 (62)	TP41.4425x41.3956x0.8125	37.40	2.06
L63	9 - 4 (63)	TP42.38x41.4425x0.8	37.93	2.16
L64	4 - 3 (64)	TP42.5675x42.38x0.8	38.03	2.18
L65	3 - 2.75 (65)	TP42.6144x42.5675x0.8375	38.04	2.19
L66	2.75 - 0 (66)	TP43.13x42.6144x0.825	38.35	2.24

CCIpole

per TIA-222- G

Site BU: 806361

Work Order:

CROWN CASTLE

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Pole Geometry

	Pole Height Above Base (ft)	Section Length (ft)	Lap Splice Length (ft)	Number of Sides	Top Diameter (in)	Bottom Diameter (in)	Wall Thickness (in)	Bend Radius (in)	Pole Material
1	150	54.83	4.33	12	16	26.28	0.1875	0.75	A572-65
2	99.5	54.83	5.33	12	25.09	35.38	0.3125	1.25	A572-65
3	50	50	0	12	33.76	43.13	0.375	1.5	A572-65

Reinforcement Configuration

	Bottom Effective Elevation (ft)	Top Effective Elevation (ft)	Type	Model	Number	1	2	3	4	5	6	7	8	9	10	11	12
1	0	26.25	plate	P 9 x 1.25; (1) (1.1875)	3				o				o				o
2	33.25	56.25	plate	P 8 x 1.25; (1) (1.1875)	3				o				o				o
3	62.75	86.5	plate	P 7 x 1.25; (1) (1.1875)	3				o				o				o
4	92	119.5	plate	P 5 x 1.25; (1) (1.1875)	3				o				o				o
5	25.25	34.25	plate	6.5 x 1.25; (1) (1.1875	3			o				o				o	
6	56.25	66.75	plate	FP 6 x 1; (1) (1.1875)_1	3			o				o				o	
7	85.75	92.75	plate	P 4.5 x 1; (1) (1.1875)	3			o				o				o	
8	56.25	63.25	plate	4.5 x 1.25; (1) (1.1875	3		o				o				o		
9	85.75	93.75	plate	P 4 x 0.75; (1) (1.1875)	3		o				o				o		
10	0	12.25	plate	FP 1 x 6_1	1		o										
11	0	9.25	plate	FP 1 x 6_1	1						o						
12	0	3	plate	FP 1 x 6_1	1										o		
13	12.25	35.5	plate	CCI-AFP-060100	1	o											
14	9.25	35.5	plate	CCI-AFP-060100	1					o							
15	3	35.5	plate	CCI-AFP-060100	1									o			
16	35.5	68.08	plate	CCI-AFP-060100	3	o				o				o			
17	68.08	95.67	plate	CCI-AFP-045100	3	o				o				o			
18	95.67	118.75	plate	CCI-AFP-045100	3	o				o				o			
19	118.75	133.83	plate	CCI-AFP-045100	3		o				o				o		
20																	

Reinforcement Details

	B (in)	H (in)	Gross Area (in^2)	Pole Face to Centroid (in)	Bottom Termination Length (in)	Top Termination Length (in)	L_u (in)	Net Area (in^2)	Bolt Hole Size (in)	Reinforcement Material
1	9	1.25	11.25	0.625	n/a	n/a	15.000	9.688	1.1875	A572-65
2	8	1.25	10	0.625	n/a	n/a	18.000	8.438	1.1875	A572-65
3	7	1.25	8.75	0.625	n/a	n/a	18.000	7.188	1.1875	A572-65
4	5	1.25	6.25	0.625	n/a	n/a	18.000	4.688	1.1875	A572-65
5	6.5	1.25	8.125	0.625	33.000	33.000	19.250	6.563	1.1875	A572-65
6	6	1	6	0.5	24.000	24.000	16.375	4.750	1.1875	A572-65
7	4.5	1	4.5	0.5	18.000	18.000	20.625	3.250	1.1875	A572-65
8	4.5	1.25	5.625	0.625	n/a	n/a	20.625	4.063	1.1875	A572-65
9	4	0.75	3	0.375	12.000	12.000	16.375	2.063	1.1875	A572-65
10	1	6	6	3	n/a	n/a	0.000	6.000	0.0000	A572-65
11	1	6	6	3	n/a	n/a	0.000	6.000	0.0000	A572-65
12	1	6	6	3	n/a	n/a	0.000	6.000	0.0000	A572-65
13	6	1	6	0.5	30.000	30.000	16.000	4.750	1.1875	A572-65
14	6	1	6	0.5	30.000	30.000	16.000	4.750	1.1875	A572-65
15	6	1	6	0.5	30.000	30.000	16.000	4.750	1.1875	A572-65
16	6	1	6	0.5	30.000	30.000	16.000	4.750	1.1875	A572-65
17	4.5	1	4.5	0.5	24.000	24.000	20.000	3.250	1.1875	A572-65
18	4.5	1	4.5	0.5	24.000	24.000	20.000	3.250	1.1875	A572-65
19	4.5	1	4.5	0.5	24.000	24.000	20.000	3.250	1.1875	A572-65

TNX Geometry Input

Increment (ft): 5

	Section Height (ft)	Section Length (ft)	Lap Splice Length (ft)	Number of Sides	Top Diameter (in)	Bottom Diameter (in)	Wall Thickness (in)	Tapered Pole Grade	Weight Multiplier
1	150 - 145	5		12	16.000	16.937	0.1875	A572-65	1.000
2	145 - 140	5		12	16.937	17.875	0.1875	A572-65	1.000
3	140 - 135	5		12	17.875	18.812	0.1875	A572-65	1.000
4	135 - 133.83	1.17		12	18.812	19.032	0.1875	A572-65	1.000
5	133.83 - 133.58	0.25		12	19.032	19.079	0.45625	A572-65	0.911
6	133.58 - 128.58	5		12	19.079	20.016	0.4375	A572-65	0.924
7	128.58 - 123.58	5		12	20.016	20.953	0.425	A572-65	0.928
8	123.58 - 119.5	4.08		12	20.953	21.718	0.4125	A572-65	0.937
9	119.5 - 119.25	0.25		12	21.718	21.765	0.7625	A572-65	0.879
10	119.25 - 118.75	0.5		12	21.765	21.859	0.7625	A572-65	0.876
11	118.75 - 118.5	0.25		12	21.859	21.906	0.7625	A572-65	0.875
12	118.5 - 113.5	5		12	21.906	22.843	0.7375	A572-65	0.876
13	113.5 - 108.5	5		12	22.843	23.781	0.7	A572-65	0.895
14	108.5 - 103.5	5		12	23.781	24.718	0.675	A572-65	0.901
15	103.5 - 99.5	8.33	4.33	12	24.718	26.280	0.6625	A572-65	0.899
16	99.5 - 94.17	5.33		12	25.093	26.093	0.7875	A572-65	0.908
17	94.17 - 93.75	0.42		12	26.093	26.172	0.7875	A572-65	0.906
18	93.75 - 93.5	0.25		12	26.172	26.219	0.9125	A572-65	0.906
19	93.5 - 92.75	0.75		12	26.219	26.360	0.9125	A572-65	0.903
20	92.75 - 92.5	0.25		12	26.360	26.406	1.1375	A572-65	0.876
21	92.5 - 92	0.5		12	26.406	26.500	1.1125	A572-65	0.893
22	92 - 91.75	0.25		12	26.500	26.547	0.8125	A572-65	0.928
23	91.75 - 86.75	5		12	26.547	27.485	0.8	A572-65	0.922
24	86.75 - 86.5	0.25		12	27.485	27.532	0.8	A572-65	0.921
25	86.5 - 86.25	0.25		12	27.532	27.579	1.2125	A572-65	0.872
26	86.25 - 85.75	0.5		12	27.579	27.673	1.1875	A572-65	0.887
27	85.75 - 85.5	0.25		12	27.673	27.720	0.8625	A572-65	0.903
28	85.5 - 80.5	5		12	27.720	28.658	0.8375	A572-65	0.911
29	80.5 - 75.5	5		12	28.658	29.596	0.8125	A572-65	0.920
30	75.5 - 70.5	5		12	29.596	30.534	0.7875	A572-65	0.931
31	70.5 - 68.08	2.42		12	30.534	30.988	0.7875	A572-65	0.923
32	68.08 - 67.83	0.25		12	30.988	31.035	0.8375	A572-65	0.924
33	67.83 - 66.75	1.08		12	31.035	31.238	0.8375	A572-65	0.920
34	66.75 - 66.5	0.25		12	31.238	31.284	1.0625	A572-65	0.904
35	66.5 - 63.25	3.25		12	31.284	31.894	1.0375	A572-65	0.913
36	63.25 - 63	0.25		12	31.894	31.941	1.2625	A572-65	0.891
37	63 - 62.75	0.25		12	31.941	31.988	1.2625	A572-65	0.890
38	62.75 - 62.5	0.25		12	31.988	32.035	0.9125	A572-65	0.928
39	62.5 - 57.5	5		12	32.035	32.973	0.9	A572-65	0.923
40	57.5 - 56.25	1.25		12	32.973	33.207	0.8875	A572-65	0.932
41	56.25 - 56	0.25		12	33.207	33.254	0.8375	A572-65	0.929
42	56 - 51	5		12	33.254	34.192	0.825	A572-65	0.927
43	51 - 50	6.33	5.33	12	34.192	35.380	0.8125	A572-65	0.938
44	50 - 43.67	6.33		12	33.755	34.942	0.875	A572-65	0.936
45	43.67 - 38.67	5		12	34.942	35.879	0.8625	A572-65	0.935
46	38.67 - 35.5	3.17		12	35.879	36.474	0.85	A572-65	0.940
47	35.5 - 35.25	0.25		12	36.474	36.521	0.85	A572-65	0.939
48	35.25 - 34.25	1		12	36.521	36.708	0.85	A572-65	0.937
49	34.25 - 34	0.25		12	36.708	36.755	1.1	A572-65	0.922
50	34 - 33.25	0.75		12	36.755	36.896	1.1	A572-65	0.919
51	33.25 - 33	0.25		12	36.896	36.943	0.7875	A572-65	0.944
52	33 - 28	5		12	36.943	37.880	0.775	A572-65	0.947
53	28 - 26.25	1.75		12	37.880	38.208	0.775	A572-65	0.943
54	26.25 - 26	0.25		12	38.208	38.255	1.1	A572-65	0.927
55	26 - 25.25	0.75		12	38.255	38.396	1.1	A572-65	0.925
56	25.25 - 25	0.25		12	38.396	38.443	0.8625	A572-65	0.937
57	25 - 20	5		12	38.443	39.380	0.85	A572-65	0.938
58	20 - 15	5		12	39.380	40.318	0.825	A572-65	0.954
59	15 - 12.25	2.75		12	40.318	40.833	0.825	A572-65	0.947
60	12.25 - 12	0.25		12	40.833	40.880	0.7875	A572-65	0.991
61	12 - 9.25	2.75		12	40.880	41.396	0.775	A572-65	1.000
62	9.25 - 9	0.25		12	41.396	41.443	0.8125	A572-65	0.954
63	9 - 4	5		12	41.443	42.380	0.8	A572-65	0.957
64	4 - 3	1		12	42.380	42.568	0.8	A572-65	0.955
65	3 - 2.75	0.25		12	42.568	42.614	0.8375	A572-65	0.913
66	2.75 - 0	2.75		12	42.614	43.130	0.825	A572-65	0.921

TNX Section Forces

Increment (ft): 5		TNX Output		
	Section Height (ft)	P_u (K)	M_{ux} (kip-ft)	V_u (K)
1	150 - 145	2.44	46.47	11.61
2	145 - 140	2.68	105.63	12.06
3	140 - 135	2.96	167.06	12.52
4	135 - 133.83	3.03	181.77	12.64
5	133.83 - 133.58	3.07	184.94	12.66
6	133.58 - 128.58	6.14	283.34	18.81
7	128.58 - 123.58	7.28	383.42	20.66
8	123.58 - 119.5	7.88	468.89	21.26
9	119.5 - 119.25	7.95	474.21	21.29
10	119.25 - 118.75	8.05	484.87	21.37
11	118.75 - 118.5	8.11	490.22	21.41
12	118.5 - 113.5	9.18	599.25	22.21
13	113.5 - 108.5	10.30	712.25	23.00
14	108.5 - 103.5	11.44	829.19	23.79
15	103.5 - 99.5	12.37	925.55	24.41
16	99.5 - 94.17	14.64	######	25.36
17	94.17 - 93.75	14.76	######	25.43
18	93.75 - 93.5	14.84	######	25.47
19	93.5 - 92.75	15.07	######	25.59
20	92.75 - 92.5	15.17	######	25.63
21	92.5 - 92	15.35	######	25.72
22	92 - 91.75	15.43	######	25.75
23	91.75 - 86.75	16.90	######	26.55
24	86.75 - 86.5	16.99	######	26.58
25	86.5 - 86.25	17.09	######	26.63
26	86.25 - 85.75	17.29	######	26.71
27	85.75 - 85.5	17.37	######	26.75
28	85.5 - 80.5	18.95	######	27.55
29	80.5 - 75.5	20.57	######	28.32
30	75.5 - 70.5	22.23	######	29.09
31	70.5 - 68.08	23.04	######	29.46
32	68.08 - 67.83	23.14	######	29.49
33	67.83 - 66.75	23.51	######	29.66
34	66.75 - 66.5	23.63	######	29.69
35	66.5 - 63.25	25.00	######	30.22
36	63.25 - 63	25.13	######	30.25
37	63 - 62.75	25.25	######	30.29
38	62.75 - 62.5	25.35	######	30.33
39	62.5 - 57.5	27.31	######	31.10
40	57.5 - 56.25	27.80	######	31.29
41	56.25 - 56	27.91	######	31.32
42	56 - 51	29.81	######	32.05
43	51 - 50	30.20	######	32.19
44	50 - 43.67	34.55	######	33.24
45	43.67 - 38.67	36.66	######	33.91
46	38.67 - 35.5	38.01	######	34.33
47	35.5 - 35.25	38.13	######	34.36
48	35.25 - 34.25	38.55	######	34.50
49	34.25 - 34	38.69	######	34.53
50	34 - 33.25	39.08	######	34.64
51	33.25 - 33	39.18	######	34.67
52	33 - 28	41.23	######	35.31
53	28 - 26.25	41.95	######	35.53
54	26.25 - 26	42.11	######	35.54
55	26 - 25.25	42.52	######	35.64
56	25.25 - 25	42.64	######	35.67
57	25 - 20	44.91	######	36.27
58	20 - 15	47.22	######	36.81
59	15 - 12.25	48.50	######	37.10
60	12.25 - 12	48.64	######	37.10
61	12 - 9.25	49.92	######	37.40
62	9.25 - 9	50.05	######	37.40
63	9 - 4	52.42	######	37.93
64	4 - 3	52.90	######	38.03
65	3 - 2.75	53.03	######	38.04
66	2.75 - 0	54.33	######	38.35

Analysis Results

Elevation (ft)	Component Type	Size	Critical Element	% Capacity	Pass / Fail
150 - 145	Pole	TP16.937x16x0.1875	Pole	18.9%	Pass
145 - 140	Pole	TP17.875x16.937x0.1875	Pole	38.7%	Pass
140 - 135	Pole	TP18.812x17.875x0.1875	Pole	56.0%	Pass
135 - 133.83	Pole	TP19.032x18.812x0.1875	Pole	59.7%	Pass
133.83 - 133.58	Pole + Reinf.	TP19.079x19.032x0.4563	Reinf. 19 Tension Rupture	42.7%	Pass
133.58 - 128.58	Pole + Reinf.	TP20.016x19.079x0.4375	Reinf. 19 Tension Rupture	61.2%	Pass
128.58 - 123.58	Pole + Reinf.	TP20.953x20.016x0.425	Reinf. 19 Tension Rupture	77.4%	Pass
123.58 - 119.5	Pole + Reinf.	TP21.718x20.953x0.4125	Reinf. 19 Tension Rupture	89.8%	Pass
119.5 - 119.25	Pole + Reinf.	TP21.765x21.718x0.7625	Reinf. 4 Connection	59.2%	Pass
119.25 - 118.75	Pole + Reinf.	TP21.859x21.765x0.7625	Reinf. 4 Compression	60.2%	Pass
118.75 - 118.5	Pole + Reinf.	TP21.906x21.859x0.7625	Reinf. 4 Compression	60.7%	Pass
118.5 - 113.5	Pole + Reinf.	TP22.843x21.906x0.7375	Reinf. 4 Compression	70.4%	Pass
113.5 - 108.5	Pole + Reinf.	TP23.781x22.843x0.7	Reinf. 4 Compression	79.6%	Pass
108.5 - 103.5	Pole + Reinf.	TP24.718x23.781x0.675	Reinf. 4 Compression	88.2%	Pass
103.5 - 99.5	Pole + Reinf.	TP26.28x24.718x0.6625	Reinf. 4 Compression	94.8%	Pass
99.5 - 94.17	Pole + Reinf.	TP26.093x25.093x0.7875	Reinf. 4 Compression	87.7%	Pass
94.17 - 93.75	Pole + Reinf.	TP26.172x26.093x0.7875	Reinf. 4 Compression	88.2%	Pass
93.75 - 93.5	Pole + Reinf.	TP26.219x26.172x0.9125	Reinf. 4 Compression	76.6%	Pass
93.5 - 92.75	Pole + Reinf.	TP26.36x26.219x0.9125	Reinf. 4 Compression	77.3%	Pass
92.75 - 92.5	Pole + Reinf.	TP26.406x26.36x1.1375	Reinf. 4 Compression	64.4%	Pass
92.5 - 92	Pole + Reinf.	TP26.5x26.406x1.1125	Reinf. 4 Connection	64.8%	Pass
92 - 91.75	Pole + Reinf.	TP26.547x26.5x0.8125	Reinf. 9 Tension Rupture	77.8%	Pass
91.75 - 86.75	Pole + Reinf.	TP27.485x26.547x0.8	Reinf. 9 Tension Rupture	82.7%	Pass
86.75 - 86.5	Pole + Reinf.	TP27.532x27.485x0.8	Reinf. 9 Tension Rupture	83.0%	Pass
86.5 - 86.25	Pole + Reinf.	TP27.579x27.532x1.2125	Reinf. 9 Tension Rupture	57.7%	Pass
86.25 - 85.75	Pole + Reinf.	TP27.673x27.579x1.1875	Reinf. 9 Tension Rupture	58.1%	Pass
85.75 - 85.5	Pole + Reinf.	TP27.72x27.673x0.8625	Reinf. 17 Tension Rupture	74.9%	Pass
85.5 - 80.5	Pole + Reinf.	TP28.658x27.72x0.8375	Reinf. 17 Tension Rupture	79.1%	Pass
80.5 - 75.5	Pole + Reinf.	TP29.596x28.658x0.8125	Reinf. 17 Tension Rupture	83.1%	Pass
75.5 - 70.5	Pole + Reinf.	TP30.534x29.596x0.7875	Reinf. 17 Tension Rupture	86.9%	Pass
70.5 - 68.08	Pole + Reinf.	TP30.988x30.534x0.7875	Reinf. 17 Tension Rupture	88.7%	Pass
68.08 - 67.83	Pole + Reinf.	TP31.035x30.988x0.8375	Reinf. 16 Tension Rupture	76.1%	Pass
67.83 - 66.75	Pole + Reinf.	TP31.238x31.035x0.8375	Reinf. 16 Tension Rupture	76.8%	Pass
66.75 - 66.5	Pole + Reinf.	TP31.284x31.238x1.0625	Reinf. 6 Tension Rupture	61.8%	Pass
66.5 - 63.25	Pole + Reinf.	TP31.894x31.284x1.0375	Reinf. 6 Tension Rupture	63.5%	Pass
63.25 - 63	Pole + Reinf.	TP31.941x31.894x1.2625	Reinf. 8 Connection	64.9%	Pass
63 - 62.75	Pole + Reinf.	TP31.988x31.941x1.2625	Reinf. 8 Compression	65.1%	Pass
62.75 - 62.5	Pole + Reinf.	TP32.035x31.988x0.9125	Reinf. 8 Compression	86.2%	Pass
62.5 - 57.5	Pole + Reinf.	TP32.973x32.035x0.9	Reinf. 8 Compression	89.5%	Pass
57.5 - 56.25	Pole + Reinf.	TP33.207x32.973x0.8875	Reinf. 8 Connection	90.3%	Pass
56.25 - 56	Pole + Reinf.	TP33.254x33.207x0.8375	Reinf. 16 Tension Rupture	79.0%	Pass
56 - 51	Pole + Reinf.	TP34.192x33.254x0.825	Reinf. 16 Tension Rupture	81.7%	Pass
51 - 50	Pole + Reinf.	TP35.38x34.192x0.8125	Reinf. 16 Tension Rupture	82.2%	Pass
50 - 43.67	Pole + Reinf.	TP34.942x33.755x0.875	Reinf. 16 Tension Rupture	81.2%	Pass
43.67 - 38.67	Pole + Reinf.	TP35.879x34.942x0.8625	Reinf. 16 Tension Rupture	83.4%	Pass
38.67 - 35.5	Pole + Reinf.	TP36.474x35.879x0.85	Reinf. 16 Tension Rupture	84.7%	Pass
35.5 - 35.25	Pole + Reinf.	TP36.521x36.474x0.85	Reinf. 15 Tension Rupture	84.8%	Pass
35.25 - 34.25	Pole + Reinf.	TP36.708x36.521x0.85	Reinf. 15 Tension Rupture	85.2%	Pass
34.25 - 34	Pole + Reinf.	TP36.755x36.708x1.1	Reinf. 15 Tension Rupture	66.9%	Pass
34 - 33.25	Pole + Reinf.	TP36.896x36.755x1.1	Reinf. 15 Tension Rupture	67.2%	Pass
33.25 - 33	Pole + Reinf.	TP36.943x36.896x0.7875	Reinf. 15 Tension Rupture	91.6%	Pass
33 - 28	Pole + Reinf.	TP37.88x36.943x0.775	Reinf. 15 Tension Rupture	93.6%	Pass
28 - 26.25	Pole + Reinf.	TP38.208x37.88x0.775	Reinf. 15 Tension Rupture	94.2%	Pass
26.25 - 26	Pole + Reinf.	TP38.255x38.208x1.1	Reinf. 15 Tension Rupture	67.3%	Pass
26 - 25.25	Pole + Reinf.	TP38.396x38.255x1.1	Reinf. 15 Tension Rupture	67.6%	Pass
25.25 - 25	Pole + Reinf.	TP38.443x38.396x0.8625	Reinf. 15 Tension Rupture	85.0%	Pass
25 - 20	Pole + Reinf.	TP39.38x38.443x0.85	Reinf. 15 Tension Rupture	86.8%	Pass
20 - 15	Pole + Reinf.	TP40.318x39.38x0.825	Reinf. 15 Tension Rupture	88.4%	Pass
15 - 12.25	Pole + Reinf.	TP40.833x40.318x0.825	Reinf. 15 Tension Rupture	89.3%	Pass
12.25 - 12	Pole + Reinf.	TP40.88x40.833x0.7875	Reinf. 14 Tension Rupture	90.2%	Pass
12 - 9.25	Pole + Reinf.	TP41.396x40.88x0.775	Reinf. 14 Tension Rupture	91.0%	Pass
9.25 - 9	Pole + Reinf.	TP41.443x41.396x0.8125	Reinf. 11 Connection	91.0%	Pass
9 - 4	Pole + Reinf.	TP42.38x41.443x0.8	Reinf. 11 Compression	92.4%	Pass
4 - 3	Pole + Reinf.	TP42.568x42.38x0.8	Reinf. 11 Compression	92.6%	Pass
3 - 2.75	Pole + Reinf.	TP42.614x42.568x0.8375	Reinf. 12 Connection	91.4%	Pass
2.75 - 0	Pole + Reinf.	TP43.13x42.614x0.825	Reinf. 12 Connection	92.1%	Pass
				Summary	
			Pole	67.7%	Pass
			Reinforcement	94.8%	Pass
			Overall	94.8%	Pass

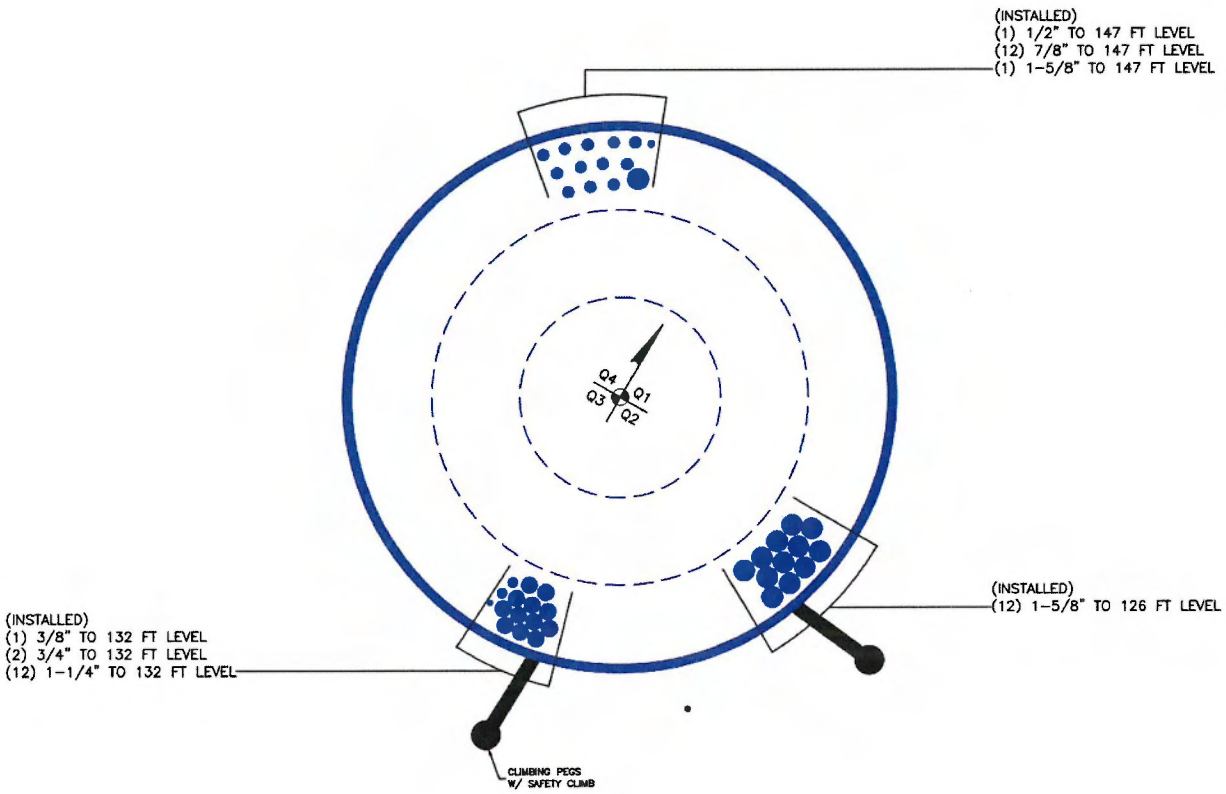
Additional Calculations

Section Elevation (ft)	Moment of Inertia (in^4)			Area (in^2)			% Capacity																			
	Pole	Reinf.	Total	Pole	Reinf.	Total	Pole	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15	R16	R17	R18	R19
150 - 145	363	n/a	363	10.10	n/a	10.10	18.9%																			
145 - 140	427	n/a	427	10.66	n/a	10.66	36.7%																			
140 - 135	499	n/a	499	11.23	n/a	11.23	56.0%																			
135 - 133.83	516	n/a	516	11.36	n/a	11.36	59.7%																			
133.83 - 133.58	520	692	1213	11.39	13.50	24.89	25.1%																			42.7%
133.58 - 128.58	602	757	1359	11.95	13.50	25.45	36.9%																			61.2%
128.58 - 123.58	691	825	1516	12.52	13.50	26.02	47.7%																			77.4%
123.58 - 119.5	770	883	1653	12.98	13.50	26.48	56.3%																			89.8%
119.5 - 119.25	775	2149	2924	13.01	32.25	45.26	32.3%				59.2%															51.5%
119.25 - 118.75	785	2166	2952	13.07	32.25	45.32	32.9%				60.2%															52.4%
118.75 - 118.5	791	2175	2965	13.09	32.25	45.34	33.2%				60.7%														52.8%	
118.5 - 113.5	897	2353	3250	13.66	32.25	45.91	39.4%				70.4%														61.3%	
113.5 - 108.5	1013	2537	3551	14.22	32.25	46.47	45.6%				79.6%														69.3%	
108.5 - 103.5	1139	2729	3868	14.79	32.25	47.04	51.7%				88.2%														76.9%	
103.5 - 99.5	1247	2888	4135	15.24	32.25	47.49	56.5%				94.8%														82.6%	
99.5 - 94.17	2204	3024	5227	25.90	32.25	58.15	43.5%				87.7%													76.4%		
94.17 - 93.75	2224	3041	5265	25.98	32.25	58.23	43.7%				88.2%													76.9%		
93.75 - 93.5	2236	3876	6112	26.03	41.25	67.28	38.0%				76.6%					69.4%								66.7%		
93.5 - 92.75	2273	3915	6188	26.17	41.25	67.42	38.4%				77.3%					70.2%								67.4%		
92.75 - 92.5	2285	5208	7493	26.22	54.75	80.97	31.9%				64.4%			56.7%		58.4%								56.1%		
92.5 - 92	2310	5244	7553	26.31	54.75	81.06	32.2%				64.8%			57.1%		58.8%								56.5%		
92 - 91.75	2322	3430	5752	26.36	36.00	62.36	42.5%							75.5%		77.8%								74.7%		
91.75 - 86.75	2580	3666	6246	27.30	36.00	63.30	45.3%							80.3%		82.7%								79.5%		
86.75 - 86.5	2594	3678	6271	27.35	36.00	63.35	45.4%							80.5%		83.0%								79.7%		
86.5 - 86.25	2607	6472	9079	27.40	62.25	89.65	31.6%			49.2%				56.0%		57.7%								55.5%		
86.25 - 85.75	2634	6514	9148	27.49	62.25	89.74	31.9%			49.5%				56.4%		58.1%								55.8%		
85.75 - 85.5	2648	4213	6861	27.54	39.75	67.29	42.8%			66.5%														74.9%		
85.5 - 80.5	2929	4487	7416	28.48	39.75	68.23	45.7%			70.2%														79.1%		
80.5 - 75.5	3230	4769	7999	29.42	39.75	69.17	48.6%			73.7%														83.1%		
75.5 - 70.5	3550	5060	8610	30.37	39.75	70.12	51.5%			77.1%														86.9%		
70.5 - 68.08	3712	5204	8917	30.82	39.75	70.57	52.8%			78.6%														88.7%		
68.08 - 67.83	3729	5812	9542	30.87	44.25	75.12	49.7%			73.9%													76.1%			
67.83 - 66.75	3804	5885	9688	31.07	44.25	75.32	50.2%			74.6%													76.8%			
66.75 - 66.5	3821	8274	12095	31.12	62.25	93.37	40.5%			60.1%			61.8%										61.8%			
66.5 - 63.25	4051	8584	12636	31.73	62.25	93.98	42.0%			61.7%			63.5%										63.5%			
63.25 - 63	4069	10948	15017	31.78	79.13	110.91	35.5%			52.2%			53.8%		64.9%								53.8%			
63 - 62.75	4087	10978	15066	31.83	79.13	110.95	35.6%			52.3%			53.9%		65.1%								53.9%			
62.75 - 62.5	4106	7319	11424	31.87	52.88	84.75	47.3%						71.4%		86.2%								71.4%			
62.5 - 57.5	4481	7735	12216	32.82	52.88	85.69	49.7%						74.2%		89.5%								74.2%			
57.5 - 56.25	4578	7841	12419	33.05	52.88	85.93	50.3%						74.8%		90.3%								74.8%			
56.25 - 56	4597	7214	11812	33.10	48.00	81.10	53.1%		75.2%														79.0%			
56 - 51	5002	7607	12608	34.04	48.00	82.04	55.6%		77.8%														81.7%			
51 - 50	5085	7687	12772	34.23	48.00	82.23	56.1%		78.3%														82.2%			
50 - 43.67	6374	7928	14303	41.68	48.00	89.68	52.1%		77.3%														81.2%			
43.67 - 38.67	6907	8340	15247	42.81	48.00	90.81	54.0%		79.3%														83.4%			
38.67 - 35.5	7260	8606	15866	43.53	48.00	91.53	55.2%		80.6%														84.7%			
35.5 - 35.25	7288	8627	15915	43.58	48.00	91.58	55.2%		80.6%											84.8%	84.8%	84.8%				
35.25 - 34.25	7402	8712	16114	43.81	48.00	91.81	55.6%		81.0%											85.2%	85.2%	85.2%				
34.25 - 34	7431	13179	20610	43.87	72.38	116.24	43.7%		63.6%			66.0%								66.9%	66.9%	66.9%				
34 - 33.25	7518	13275	20793	44.04	72.38	116.41	44.0%		63.9%			66.3%								67.2%	67.2%	67.2%				
33.25 - 33	7547	7756	15302	44.09	42.38	86.47	60.0%					90.4%								91.6%	91.6%	91.6%				
33 - 28	8142	8139	16281	45.22	42.38	87.60	61.9%					92.3%								93.6%	93.6%	93.6%				
28 - 26.25	8358	8275	16632	45.62	42.38	87.99	62.5%					93.0%								94.2%	94.2%	94.2%				
26.25 - 26	8389	14995	23383	45.67	76.13	121.80	44.7%	62.3%				66.4%								67.3%	67.3%	67.3%				
26 - 25.25	8482	15100	23583	45.84	76.13	121.97	44.9%	62.6%				66.7%								67.6%	67.6%	67.6%				
25.25 - 25	8514	10291	18805	45.90	51.75	97.65	56.6%	78.7%												85.0%	85.0%	85.0%				
25 - 20	9158	10777	19935	47.03	51.75	98.78	58.3%	80.3%												86.8%	86.8%	86.8%				
20 - 15	9835	11274	21109	48.16	51.75	99.91	60.0%	81.9%												88.4%	88.4%	88.4%				
15 - 12.25	10221	11553	21773	48.78	51.75	100.53	60.9%	82.7%												89.3%	89.3%	89.3%				
12.25 - 12	10273	10673	20947	48.84	51.75	100.59	66.6%	88.9%									87.1%				90.2%	85.1%				
12 - 9.25	10671	10933	21604	49.46	51.75	101.21	67.6%	89.7%									87.9%				91.0%	85.9%				
9.25 - 9	10713	11746	22459	49.52	51.75	101.27	65.6%	86.4%									86.8%	91.0%				86.9%				
9 - 4	11463	12243	23707	50.65	51.75	102.40	67.4%	87.8%									88.2%	92.4%				88.3%				
4 - 3	11617	12344	23962	50.87	51.75	102.62	67.7%	88.1%									88.4%	92.6%				88.6%				
3 - 2.75	11631	13579	25209	50.93	51.75	102.68	61.5%	81.8%									91.4%	91.4%	91.4%							
2.75 - 0	12062	13884	25946	51.55	51.75	103.30	62.4%	82.5%									92.1%	92.1%	92.1%							

Note: Section capacity checked in 5 degree increments.

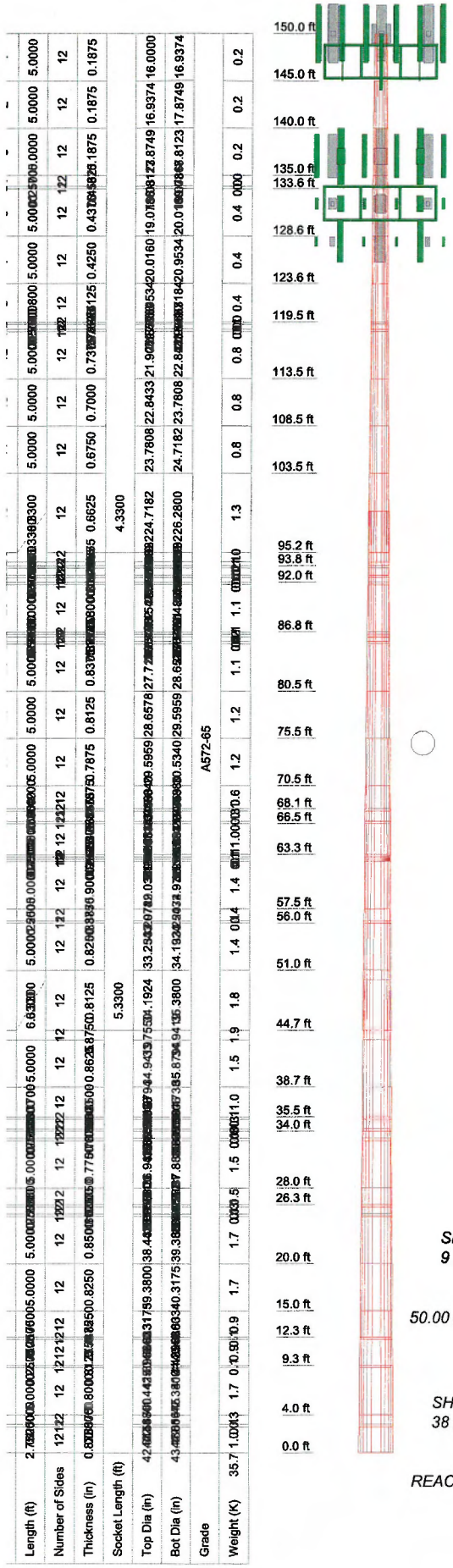
APPENDIX B

BASE LEVEL DRAWING


(INSTALLED)
(1) 1/2" TO 147 FT LEVEL
(12) 7/8" TO 147 FT LEVEL
(1) 1-5/8" TO 147 FT LEVEL
Q4
Q1
Q3
Q2
(INSTALLED)
(12) 1-5/8" TO 126 FT LEVEL
(INSTALLED)
(1) 3/8" TO 132 FT LEVEL
(2) 3/4" TO 132 FT LEVEL
(12) 1-1/4" TO 132 FT LEVEL
CLIMBING PEGS
W/ SAFETY CLIMB

APPENDIX C

ADDITIONAL CALCULATIONS



ALL REACTIONS ARE FACTORED

AXIAL 77 K

SHEAR 9 K

MOMENT 1026 kip-ft

TORQUE 1 kip-ft

50.00 mph WIND - 0.7500 in ICE

AXIAL 54 K

SHEAR 38 K

MOMENT 4107 kip-ft

TORQUE 2 kip-ft

REACTIONS - 99.00 mph WIND

DESIGNED APPURTENANCE LOADING

TYPE	ELEVATION	TYPE	ELEVATION
BXA-70063-6CF-2 w/ Mount Pipe	147	(2) LGP21401	132
BXA-70063-6CF-2 w/ Mount Pipe	147	(2) LGP21401	132
BXA-70063-6CF-2 w/ Mount Pipe	147	(2) LGP21401	132
(2) LPA-80063/6CFX5 w/ Mount Pipe	147	(2) LGP21903	132
(2) LPA-80063/6CFX5 w/ Mount Pipe	147	(2) LGP21903	132
(2) LPA-80063/6CFX5 w/ Mount Pipe	147	(2) LGP21903	132
(2) HBXX-6517DS-A2M w/ Mount Pipe	147	RRUS-11	132
(2) HBXX-6517DS-A2M w/ Mount Pipe	147	RRUS-11	132
(2) HBXX-6517DS-A2M w/ Mount Pipe	147	RRUS-11	132
KS24019-L112A	147	DC6-48-60-18-8F	132
(3) RRH2X60-AWS	147	HPA-65R-BUU-H6 w/ Mount Pipe	132
(2) RRH2X60-AWS	147	HPA-65R-BUU-H6 w/ Mount Pipe	132
RRH2X60-AWS	147	HPA-65R-BUU-H6 w/ Mount Pipe	132
(3) FD9R6004/2C-3L	147	RRUS12/RRUS A2	132
(2) FD9R6004/2C-3L	147	RRUS12/RRUS A2	132
FD9R6004/2C-3L	147	RRUS12/RRUS A2	132
DB-T1-6Z-8AB-0Z	147	Platform Mount [LP 713-1]	132
Platform Mount [LP 713-1]	147	APX16DWV-16DWV-S-E-ACU w/ Mount Pipe	126
Miscellaneous [NA 509-3]	147		
(2) 2.375" OD x 4' Mount Pipe	147	APX16DWV-16DWV-S-E-ACU w/ Mount Pipe	126
(2) 2.375" OD x 4' Mount Pipe	147		
(2) 2.375" OD x 4' Mount Pipe	147	APX16DWV-16DWV-S-E-ACU w/ Mount Pipe	126
L 3 x 3 x 1/4 x 6' mount angle	147		
L 3 x 3 x 1/4 x 6' mount angle	147	(2) KRY 112 71	126
L 3 x 3 x 1/4 x 6' mount angle	147	(2) KRY 112 71	126
(2) 7770.00 w/ Mount Pipe	132	(2) KRY 112 71	126
(2) 7770.00 w/ Mount Pipe	132	Side Arm Mount [SO 101-3]	126
(2) 7770.00 w/ Mount Pipe	132		

MATERIAL STRENGTH

GRADE	Fy	Fu	GRADE	Fy	Fu
A572-65	65 ksi	80 ksi			

TOWER DESIGN NOTES

1. Tower is located in New Haven County, Connecticut.
2. Tower designed for Exposure C to the TIA-222-G Standard.
3. Tower designed for a 99.00 mph basic wind in accordance with the TIA-222-G Standard.
4. Tower is also designed for a 50.00 mph basic wind with 0.75 in ice. Ice is considered to increase in thickness with height.
5. Deflections are based upon a 60.00 mph wind.
6. Tower Structure Class II.
7. Topographic Category 1 with Crest Height of 0.0000 ft

Paul J. Ford and Company
250 East Broad st., Suite 600
Columbus, OH 43215
Phone: (614) 221-6679
FAX:

Job: 150-Ft Monopole / NHV 102 943127			
Project: 37517-4041.001.7805 / BU# 806361			
Client: Crown Castle	Drawn by: gaustin		App'd:
Code: TIA-222-G	Date: 03/23/18		Scale: N
Path: G:\TOWER\375_Crown_Castle\2017\37517-4041_806361_NHV 102 943127\37517-4041.001.7805_SA_150465\37517-4041.001.7805_CC.tnx.wt			Dwg No.

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Phone 614.221.6679 www.pauljford.com

v4.0 - Effective 1-12-12

Date: 12/28/2017
PJF Project: 37517-4041.001.7805
Client Ref. # 806361
Site Name: NHV 102
Description: 150' Pole
Owner: CCI
Engineer: GJA

Asymmetric Anchor Rod Analysis

Moment =	4107	k-ft	TIA Ref.	G	Location =	Base Plate	
Axial =	54.0	kips	ASIF =	N/A	η =	0.50	for BP, Rev. G Sect. 4.9.9
Shear =	38.0	kips	Max Ratio =	105.0%	Threads =	N/A	for FP, Rev. G
Anchor Qty =	18						

**** For Post Installed Anchors: Check anchors for embedment, epoxy/grout bond, and capacity based on proof load. ****

Item	Nominal Anchor Dia, in	Anchor Spec	Fy, ksi	Fu, ksi	Location, degrees	Anchor Circle, in	Area Override, in^2	Area, in^2	Max Net Compression, kips	Max Net Tension, kips	Load for Capacity Calc, kips	Capacity Override, kips	Capacity, kips	Capacity Ratio
1	2.250	#18J A615 Gr 75	75	100	0.0	50.62	0.00	3.98	219.36	213.36	223.58	0.00	260.00	86.0%
2	2.250	#18J A615 Gr 75	75	100	30.0	50.62	0.00	3.98	219.36	213.36	223.58	0.00	260.00	86.0%
3	2.250	#18J A615 Gr 75	75	100	60.0	50.62	0.00	3.98	219.36	213.36	223.58	0.00	260.00	86.0%
4	2.250	#18J A615 Gr 75	75	100	90.0	50.62	0.00	3.98	219.36	213.36	223.58	0.00	260.00	86.0%
5	2.250	#18J A615 Gr 75	75	100	120.0	50.62	0.00	3.98	219.36	213.36	223.58	0.00	260.00	86.0%
6	2.250	#18J A615 Gr 75	75	100	150.0	50.62	0.00	3.98	219.36	213.36	223.58	0.00	260.00	86.0%
7	2.250	#18J A615 Gr 75	75	100	180.0	50.62	0.00	3.98	219.36	213.36	223.58	0.00	260.00	86.0%
8	2.250	#18J A615 Gr 75	75	100	210.0	50.62	0.00	3.98	219.36	213.36	223.58	0.00	260.00	86.0%
9	2.250	#18J A615 Gr 75	75	100	240.0	50.62	0.00	3.98	219.36	213.36	223.58	0.00	260.00	86.0%
10	2.250	#18J A615 Gr 75	75	100	270.0	50.62	0.00	3.98	219.36	213.36	223.58	0.00	260.00	86.0%
11	2.250	#18J A615 Gr 75	75	100	300.0	50.62	0.00	3.98	219.36	213.36	223.58	0.00	260.00	86.0%
12	2.250	#18J A615 Gr 75	75	100	330.0	50.62	0.00	3.98	219.36	213.36	223.58	0.00	260.00	86.0%
13	2.250	#18J A615 Gr 75	75	100	15.0	50.62	0.00	3.98	219.36	213.36	223.58	0.00	260.00	86.0%
14	2.250	#18J A615 Gr 75	75	100	75.0	50.62	0.00	3.98	219.36	213.36	223.58	0.00	260.00	86.0%
15	2.250	#18J A615 Gr 75	75	100	135.0	50.62	0.00	3.98	219.36	213.36	223.58	0.00	260.00	86.0%
16	2.250	#18J A615 Gr 75	75	100	195.0	50.62	0.00	3.98	219.36	213.36	223.58	0.00	260.00	86.0%
17	2.250	#18J A615 Gr 75	75	100	255.0	50.62	0.00	3.98	219.36	213.36	223.58	0.00	260.00	86.0%
18	2.250	#18J A615 Gr 75	75	100	315.0	50.62	0.00	3.98	219.36	213.36	223.58	0.00	260.00	86.0%
								71.64						

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PAUL J. FORD & COMPANY
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Phone 614.221.6679 www.pauljford.com

v1.0 - Effective 4-26-11

Date: 12/28/2017
PJF Project: 37517-4041.001.7805
Client Ref. # 9/27/4107
Site Name: NHV 102
Description: s
Owner: CCI
Engineer: GJA

Unstiffened Circular Base Plate Analysis and Anchor Load Calculation

Pole Dia =	43.130	in	Moment =	4107	k-ft	Yield Line =	26.499	in
BP Dia =	55.100	in	Axial =	54.0	kips	Above YL =	3	
BP Thk =	2.750	in	TIA Ref.	G		fb =	40.79	ksi
BP Fy =	60	ksi	ASIF =	N/A		Fb =	54.00	ksi
Max Ratio =	105.0%		Yield Line 1 =	40.601	in	BP Ratio =	75.54%	<= 105.0%, OK
Anchor Qty =	18		Yield Line 2 =	26.499	in			

Item	Nominal Dia, in	Location, degrees	Bolt Circle, in	Area, in^2	Moment, ft-kips	Axial, kips	Net Comp, kips	Moment Arm, in	Plate Bending, k-in
1	2.250	0.0	50.62	3.98	4107	3.00	-149.99	0.00	0.00
2	2.250	30.0	50.62	3.98	4107	3.00	-53.00	0.00	0.00
3	2.250	60.0	50.62	3.98	4107	3.00	59.00	0.00	0.00
4	2.250	90.0	50.62	3.98	4107	3.00	155.99	0.00	0.00
5	2.250	120.0	50.62	3.98	4107	3.00	211.98	2.88	611.06
6	2.250	150.0	50.62	3.98	4107	3.00	211.98	2.88	611.06
7	2.250	180.0	50.62	3.98	4107	3.00	155.99	0.00	0.00
8	2.250	210.0	50.62	3.98	4107	3.00	59.00	0.00	0.00
9	2.250	240.0	50.62	3.98	4107	3.00	-53.00	0.00	0.00
10	2.250	270.0	50.62	3.98	4107	3.00	-149.99	0.00	0.00
11	2.250	300.0	50.62	3.98	4107	3.00	-205.98	0.00	0.00
12	2.250	330.0	50.62	3.98	4107	3.00	-205.98	0.00	0.00
13	2.250	15.0	50.62	3.98	4107	3.00	-105.18	0.00	0.00
14	2.250	75.0	50.62	3.98	4107	3.00	111.18	0.00	0.00
15	2.250	135.0	50.62	3.98	4107	3.00	219.36	3.75	821.49
16	2.250	195.0	50.62	3.98	4107	3.00	111.18	0.00	0.00
17	2.250	255.0	50.62	3.98	4107	3.00	-105.18	0.00	0.00
18	2.250	315.0	50.62	3.98	4107	3.00	-213.36	0.00	0.00
				71.64		54.00			2043.62

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Drilled Pier Foundation

BU # :	806361
Site Name:	NHV 102 943127
App. Number:	

TIA-222 Revison:	G
Tower Type:	Monopole

Applied Loads	Comp.	Uplift
Moment (kip-ft)	4107	
Axial Force (kips)	54	
Shear Force (kips)	38	

Material Properties		
Concrete Strength, f'c:	3	ksi
Rebar Strength, Fy:	60	ksi

Pier Design Data		
Depth	33	ft
Ext. Above Grade	0.5	ft
Pier Section 1		
From 0.5' above grade to 33' below grade		
Pier Diameter	6	ft
Rebar Quantity	32	
Rebar Size	11	
Clear Cover to Ties	4	in
Tie Size	4	

Analysis Results		
Soil Lateral Capacity	*Compression*	*Uplift*
$D_{v=0}$ (ft from TOC)	7.69	-
Soil Safety Factor	5.70	-
Max Moment (kip-ft)	4332.38	-
Rating	*23.3%*	-
Soil Vertical Capacity	*Compression*	*Uplift*
Skin Friction (kips)	339.29	-
End Bearing (kips)	848.23	-
Weight of Concrete (kips)	121.80	-
Total Capacity (kips)	1187.52	-
Axial (kips)	175.80	-
Rating	*14.8%*	-
Reinforced Concrete Capacity	*Compression*	*Uplift*
Critical Depth (ft from TOC)	7.50	-
Critical Moment (kip-ft)	4332.16	-
Critical Moment Capacity	6138.49	-
Rating	*70.6%*	-

Soil Interaction Rating	**23.3%**
Structural Foundation Rating	**70.6%**

Soil Profile

Groundwater Depth	10	ft	# of Layers	3

Layer	Top (ft)	Bottom (ft)	Thickness (ft)	γ_{soil} (pcf)	$\gamma_{concrete}$ (pcf)	Cohesion (ksf)	Angle of Friction (degrees)	Calculated Ultimate Skin Friction Comp (ksf)	Calculated Ultimate Skin Friction Uplift (ksf)	Ultimate Skin Friction Comp Override (ksf)	Ultimate Skin Friction Uplift Override (ksf)	Ult. Gross Bearing Capacity (ksf)	SPT Blow Count	Soil Type
1	0	3	3	135	150	0	0	0.000	0.000					Cohesionless
2	3	10	7	135	150	0	38	0.000	0.000	0.80	0.80			Cohesionless
3	10	33	23	72.6	87.6	0	38	0.000	0.000	0.80	0.80	40		Cohesionless

October 10, 2017

verizon

99 East River Road, 9th Floor
East Hartford, CT 06108

RE: Site Name: Guilford CT
Site Address: 131 Manor Road
Guilford, CT 06437

To Whom It May Concern:

Hudson Design Group LLC (HDG) has been authorized by VERIZON to perform a mount analysis on the existing VERIZON antenna mount to determine its capability of supporting the following equipment loading:

- (6) LPA-80063/6CF antennas (70.9"x15.0"x13.1" – Wt. = 27 lbs/each)
- (3) BXA-70063-6CF antennas (71.0"x11.2"x5.2" – Wt. = 17 lbs/each)
- **(6) HBX-6517DS-VTM antennas (74.9"x6.5"x3.3" – Wt. = 14 lbs/each)**
- **(3) ALU RH_2X60-AWS RRH's (36.6"x10.6"x5.8" – Wt. = 55 lbs/each)**
- **(3) ALU RH_2X60-PCS RRH's (21.5"x12.0"x7.4" – Wt. = 55 lbs/each)**
- **(1) DB-T1-6Z-8AB-0Z (23.0"x15.7"x10.3" – Wt. = 27 lbs/each)**

**Proposed loading shown in bold*

No original structural design documents or fabrication drawings were available for the existing mounts. HDG's subconsultant, ProVertic LLC, conducted a survey climb and mapping of the existing Verizon antenna mounts on October 2, 2017.

Based on our analysis, we have determined that the existing antenna platform mount **IS CAPABLE** of supporting the above listed appurtenance loading with the following modifications:

- **Reinforce the top and bottom steel angles with new 3"x3"x1/4" steel angles (typ. of 2 per sector, total of 6).**
- **Brace the existing face of the platform with new 2" std (2.38" O.D.) pipe braces at the corners (typ. of 2 per sector, total of 6).**
- **Brace the existing pipe corners with new 3"x3"x1/4" steel angles (typ. of 1 per sector, total of 3).**
- **Install new platform reinforcement kit, SitePro1 P/N PRK-1245L (or approved equal).**

This analysis was conducted in accordance with EIA/TIA-222-G, Structural Standards for Steel Antenna Towers and Antenna Supporting Structures and the International Building Code 2012 with 2016 CTSBC Amendments.

Reference Documents:

- Mount mapping data prepared by ProVertic LLC.

This determination was based on the following limitations and assumptions:

1. HDG is not responsible for any modifications completed prior to and hereafter which HDG was not directly involved.

2. All structural members and their connections are assumed to be in good condition and are free from defects with no deterioration to its member capacities.

3. All antennas, coax cables and waveguide cables are assumed to be properly installed and supported as per the manufacturer's requirements.

4. The existing mounts have been adequately secured to the tower structure per the mount manufacturer's specifications.

5. All components pertaining to VERIZON's mounts must be tightened and re-plumbed prior to the installation of new appurtenances.

6. HDG performed a localized analysis on the mount itself and not on the supporting structure.

Please feel free to contact our office should you have any questions.

Respectfully Submitted,
Hudson Design Group LLC

STATE OF CONNECTICUT
DANIEL HAMM
24178
LICENSED
PROFESSIONAL ENGINEER

Michael Cabral
Structural Dept. Head

Daniel P. Hamm, PE
Principal

FIELD PHOTOS:

HUDSON
Design Group LLC

Wind & Ice
Calculations

Date: 10/06/2017
Project Name: Guilford CT
Project Number:
Designed By: SO **Checked By:** MSC

HUDSON Design Group LLC

2.6.5.2 Velocity Pressure Coeff:

$K_z = 2.01\,(z/z_g)^{2/\alpha}$

$z=$	152	(ft)
$z_g=$	900	(ft)
$\alpha=$	9.5	

$K_z=$ 1.382

$K_{zmin} \le K_z \le 2.01$

Table 2-4

Exposure	Z_g	α	K_{zmin}	K_e
B	1200 ft	7.0	0.70	0.9
C	900 ft	9.5	0.85	1.0
D	700 ft	11.5	1.03	1.1

2.6.6.4 Topographic Factor:

Table 2-5

Topo. Category	K_t	f
2	0.43	1.25
3	0.53	2.0
4	0.72	1.5

$K_{zt} = [1+(K_e\,K_t/K_h)]^2$

$K_h = e^{(f*z/H)}$

$K_{zt}=$ #DIV/0!

(If Category 1 then K_{zt} =1.0)

Category=	1

$K_h=$	#DIV/0!	
$K_e=$	0	(from Table 2-4)
$K_t=$	0	(from Table 2-5)
f=	0	(from Table 2-5)
z=	152	
H=	0	(Ht. of the crest above surrounding terrain)
$K_{zt}=$	1.00	

Date: 10/06/2017
Project Name: Guilford CT
Project Number:
Designed By: SO Checked By: MSC

HUDSON Design Group LLC

2.6.7 Gust Effect Factor

2.6.7.1 Self Supporting Lattice Structures

Gh = 1.0 Latticed Structures > 600 ft

Gh = 0.85 Latticed Structures 450 ft or less

Gh = 0.85 + 0.15 [h/150 - 3.0] h= ht. of structure

h= 150 Gh= 0.85

2.6.7.2 Guyed Masts Gh= 0.85

2.6.7.3 Pole Structures Gh= 1.1

2.6.9 Appurtenances Gh= 1.0

2.6.7.4 Structures Supported on Other Structures
(Cantilivered tubular or latticed spines, pole, structures on buildings (ht. : width ratio > 5)

Gh= 1.35 Gh= 1.10

2.6.9.2 Design Wind Force on Appurtenances

$F = q_z * Gh * (EPA)_A$

$q_z = 0.00256 * K_z * K_{zt} * K_d * V_{max}^2 * I$

K_z= 1.382
K_{zt}= 1.0
K_d= 0.95
V_{max}= 115
$V_{max\ (ice)}$= 50
I= 1.0

q_z= 44.46
$q_{z\ (ice)}$= 8.40

Table 2-2

Structure Type	Wind Direction Probability Factor, Kd
Latticed structures with triangular, square or rectangular cross sections	0.85
Tubular pole structures, latticed structures with other cross sections, appurtenances	0.95

Date: 10/06/2017
Project Name: Guilford CT
Project Number:
Designed By: SO Checked By: MSC

HUDSON Design Group LLC

Determine Ca:

Table 2-8

Force Coefficients (Ca) for Appurtenances				
Member Type		Aspect Ratio ≤ 2.5	Aspect Ratio = 7	Aspect Ratio ≥ 25
		Ca	Ca	Ca
Flat		1.2	1.4	2.0
Round	C < 32 (Subcritical)	0.7	0.8	1.2
	32 ≤ C ≤ 64 (Transitional)	$3.76/(C^{0.485})$	$3.37/(C^{0.415})$	$38.4/(C^{-1.0})$
	C > 64 (Supercritical	0.5	0.6	0.6

Aspect Ratio is the overall length/width ratio in the plane normal to the wind direction.
(Aspect ratio is independent of the spacing between support points of a linear appurtenance, and the section length considered to have uniform wind load).

Note: Linear interpolation may be used for aspect ratios other than those shown.

Ice Thickness = **0.75 in**

Appurtenances	Height	Width	Depth	Flat Area	Aspect Ratio	Ca	Force (lbs)	Force (lbs) (1" Ice)
LPA-80063/6CF	70.9	15.0	13.1	7.39	4.73	1.30	469	100
BXA-70063-6CF	71.0	11.2	5.2	5.52	6.34	1.37	370	81
HBX-6517DS-VTM	74.9	6.5	3.3	3.38	11.52	1.55	256	61
RH-2x60-AWS	36.6	10.6	5.8	2.69	3.45	1.24	164	37
RH-2x60-AWS(Shielded)	36.6	4.1	5.8	1.04	8.93	1.46	75	17
RH-2x60-PCS	21.5	12.0	7.4	1.79	1.79	1.20	105	24
RH-2x60-PCS (Shielded)	21.5	5.5	7.4	0.82	3.91	1.26	51	12
DB-T1-6Z-8AB-0Z	23.0	15.7	10.3	2.51	1.46	1.20	147	32
DB-T1-6Z-8AB (Shielded)	23.0	0.7	10.3	0.11	32.86	2.26	12	8

Date: 10/6/2017
Site Name: Guilford CT
Done by: SO Checked by: MSC

HUDSON Design Group LLC

ICE WEIGHT CALCULATIONS

Thickness of ice: 0.75 in.
Density of ice: 56 pcf

LPA-80063/6CF Antennas

Weight of ice based on total radial SF area:

Depth (in):	13.1	
Height (in):	70.9	
Width (in):	15	
Total weight of ice on object:		114 lbs
Weight of object:	27 lbs	
Combined weight of ice and object:		141 lbs

Commscope HBX-6517DS-VTM Antennas

Weight of ice based on total radial SF area:

Depth (in):	3.3	
Height (in):	74.9	
Width (in):	6.5	
Total weight of ice on object:		43 lbs
Weight of object:	27 lbs	
Combined weight of ice and object:		70 lbs

BXA-70063-6CF Antennas

Weight of ice based on total radial SF area:

Depth (in):	5.2	
Height (in):	71.0	
Width (in):	11.2	
Total weight of ice on object:		66 lbs
Weight of object:	17 lbs	
Combined weight of ice and object:		83 lbs

ALU RH_2x60-AWS RRH

Weight of ice based on total radial SF area:

Depth (in):	5.8	
Height (in):	36.6	
Width (in):	10.6	
Total weight of ice on object:		36 lbs
Weight of object:	55 lbs	
Combined weight of ice and object:		91 lbs

ALU RH_2x60-PCS RRH

Weight of ice based on total radial SF area:

Depth (in):	7.4	
Height (in):	21.5	
Width (in):	12.0	
Total weight of ice on object:		28 lbs
Weight of object:	55 lbs	
Combined weight of ice and object:		83 lbs

DB-T1-6Z-8AB-0Z

Weight of ice based on total radial SF area:

Depth (in):	10.3	
Height (in):	23.0	
Width (in):	15.7	
Total weight of ice on object:		41 lbs
Weight of object:	27 lbs	
Combined weight of ice and object:		68 lbs

Channel 5 x 2

Weight of ice based on total radial SF area:

Height (in):	5	
Width (in):	2	
Per foot weight of ice on object:		5 plf

HSS 4x4

Weight of ice based on total radial SF area:

Height (in):	4	
Width (in):	4	
Per foot weight of ice on object:		6 plf

2" pipe

Per foot weight of ice:

diameter (in):	2.38	
Per foot weight of ice on object:		3 lbs/ft

3" pipe

Per foot weight of ice:

diameter (in):	3.5	
Per foot weight of ice on object:		4 lbs/ft

L3x3x1/4 Angles

Weight of ice based on total radial SF area:

Thickness (in):	0.25	
Height (in):	3	
Width (in):	3	
Per foot weight of ice on object:		4 plf

L4x3x1/4 Angles

Weight of ice based on total radial SF area:

Thickness (in):	0.25	
Height (in):	4	
Width (in):	3	
Per foot weight of ice on object:		5 plf

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Mount Calculations
(Existing Conditions)

Bentley

Current Date: 10/11/2017 11:49 AM
Units system: English
File name: W:\STRUCTURAL DEPARTMENT\ANALYSIS SOFTWARE\RAM Elements\RAM Projects\VERIZON\CT\Guilford CT\Guilford CT.etz\

Bentley

Current Date: 10/10/2017 1:25 PM
Units system: English
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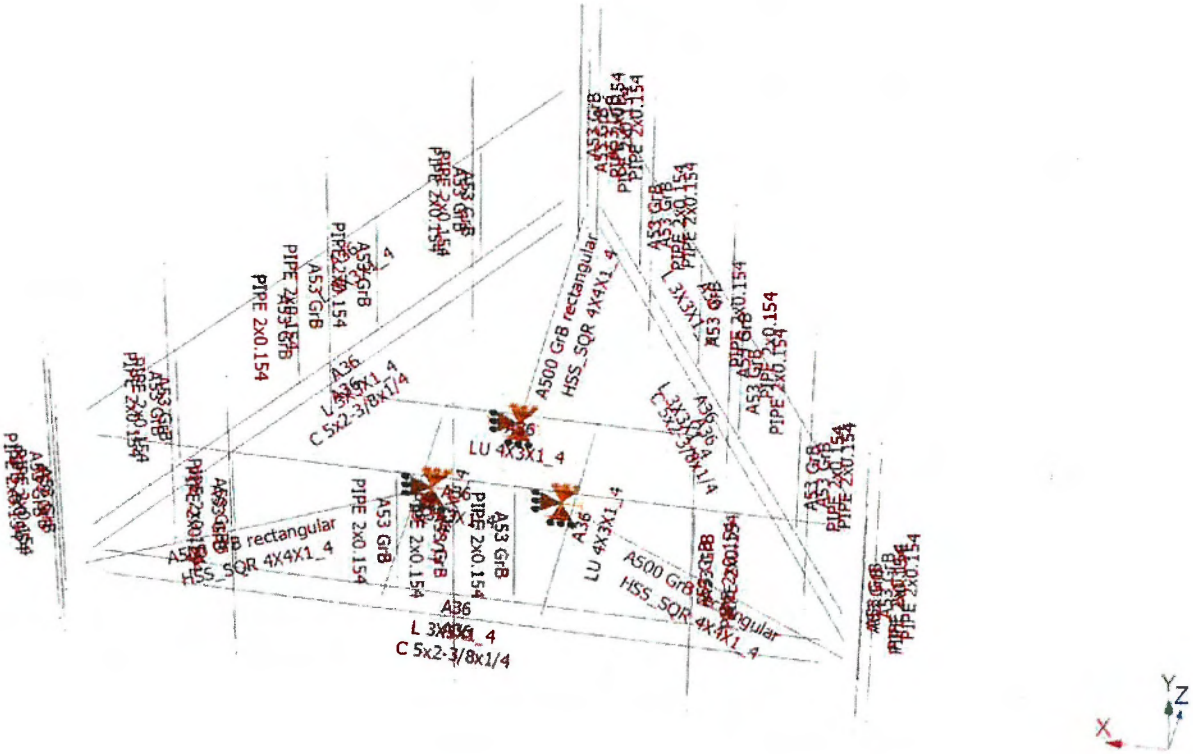
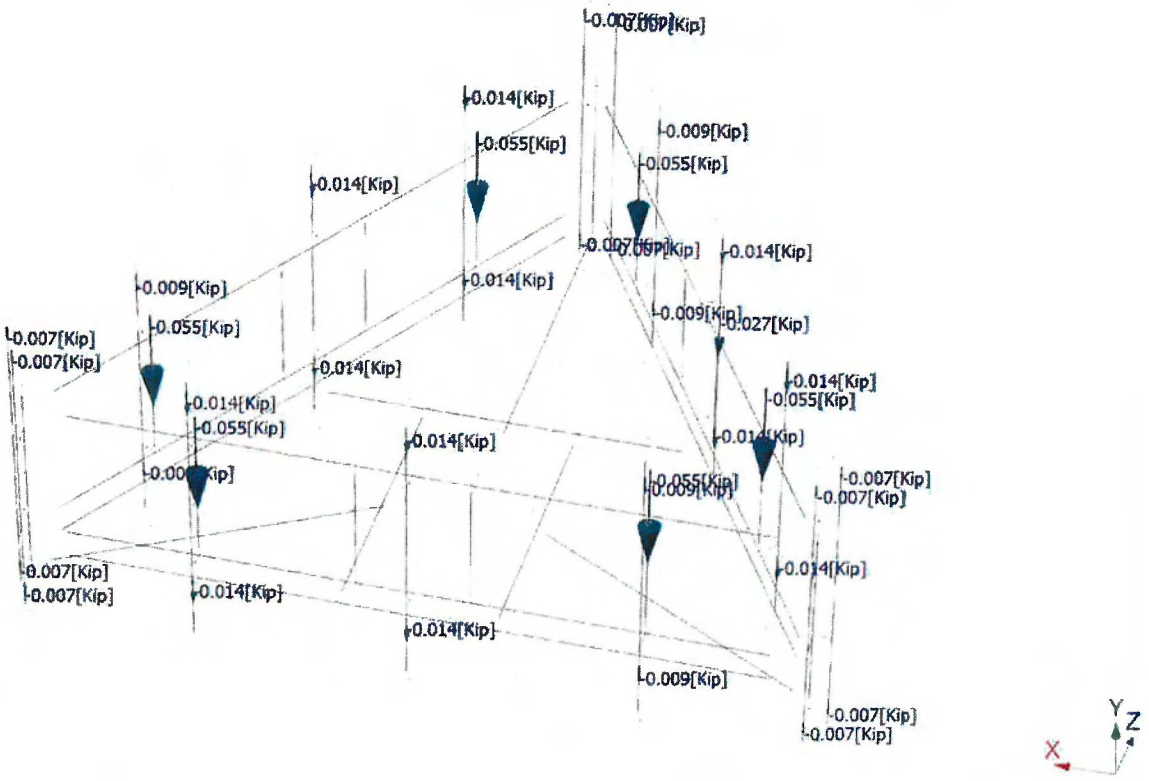


Bentley

Current Date: 10/10/2017 1:17 PM
Units system: English
File name: W:\STRUCTURAL DEPARTMENT\ANALYSIS SOFTWARE\RAM Elements\RAM Projects\VERIZON\CT\Guilford CT\Guilford CT.etz\
Load condition: DL=Dead Load

Loads

Concentrated - Members

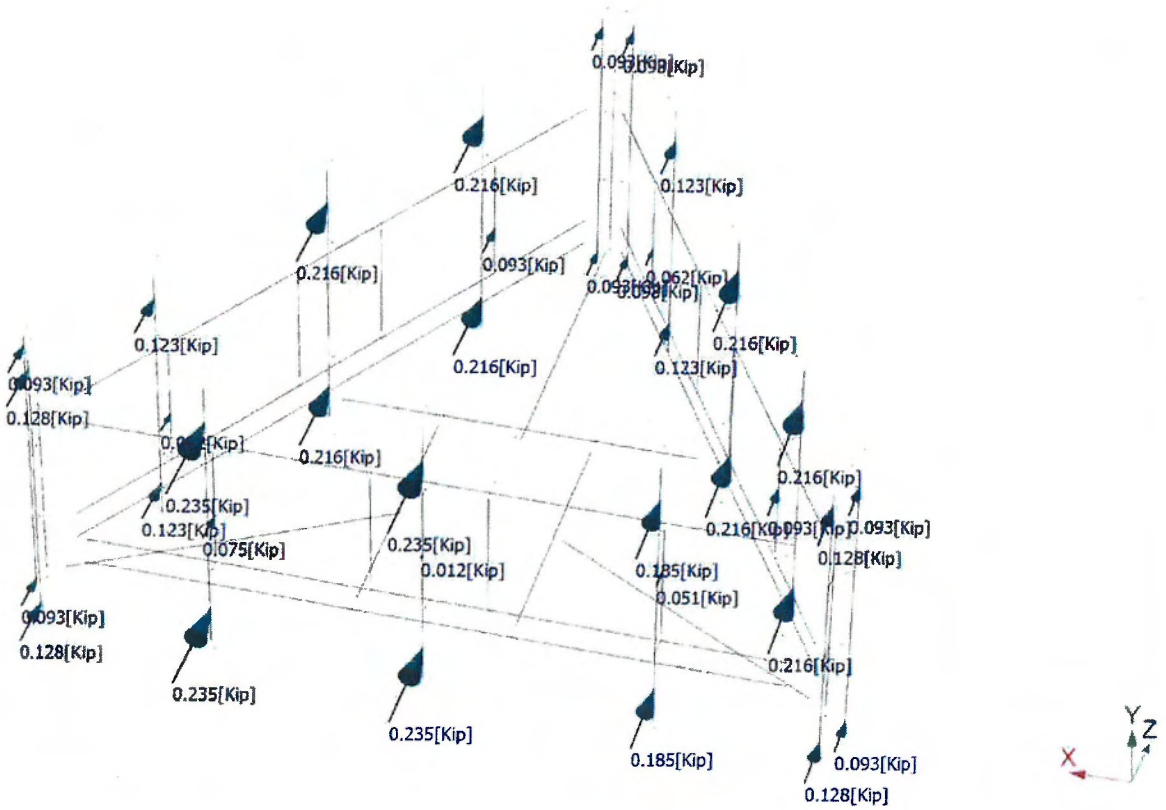


Bentley

Current Date: 10/10/2017 1:17 PM
Units system: English
File name: W:\STRUCTURAL DEPARTMENT\ANALYSIS SOFTWARE\RAM Elements\RAM Projects\VERIZON\CT\Guilford CT\Guilford CT.etz\
Load condition: Wo=Wind Load (No Ice)

Loads

Concentrated - Members



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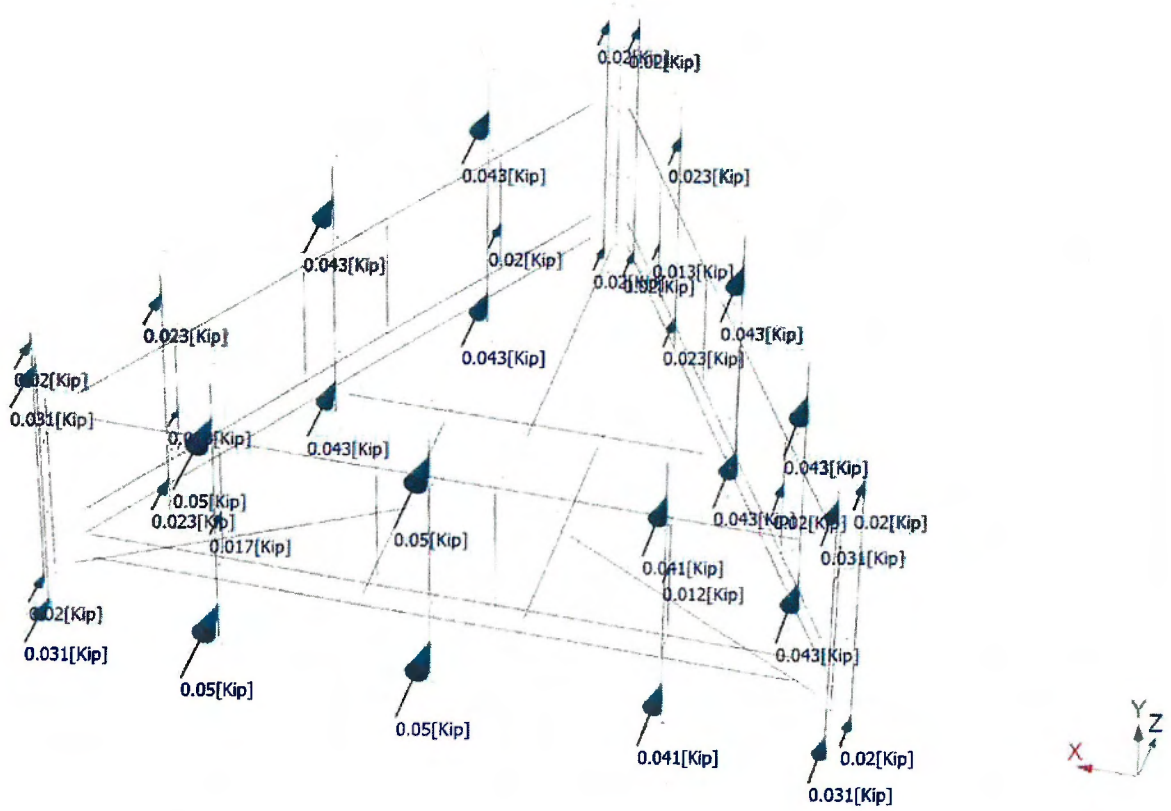
Current Date: 10/10/2017 1:17 PM
Units system: English
File name: W:\STRUCTURAL DEPARTMENT\ANALYSIS SOFTWARE\RAM Elements\RAM Projects\VERIZON\CT\Guilford CT\Guilford CT.etz\
Load condition: Wi=Wind Load (With Ice)

Loads

Concentrated - Members

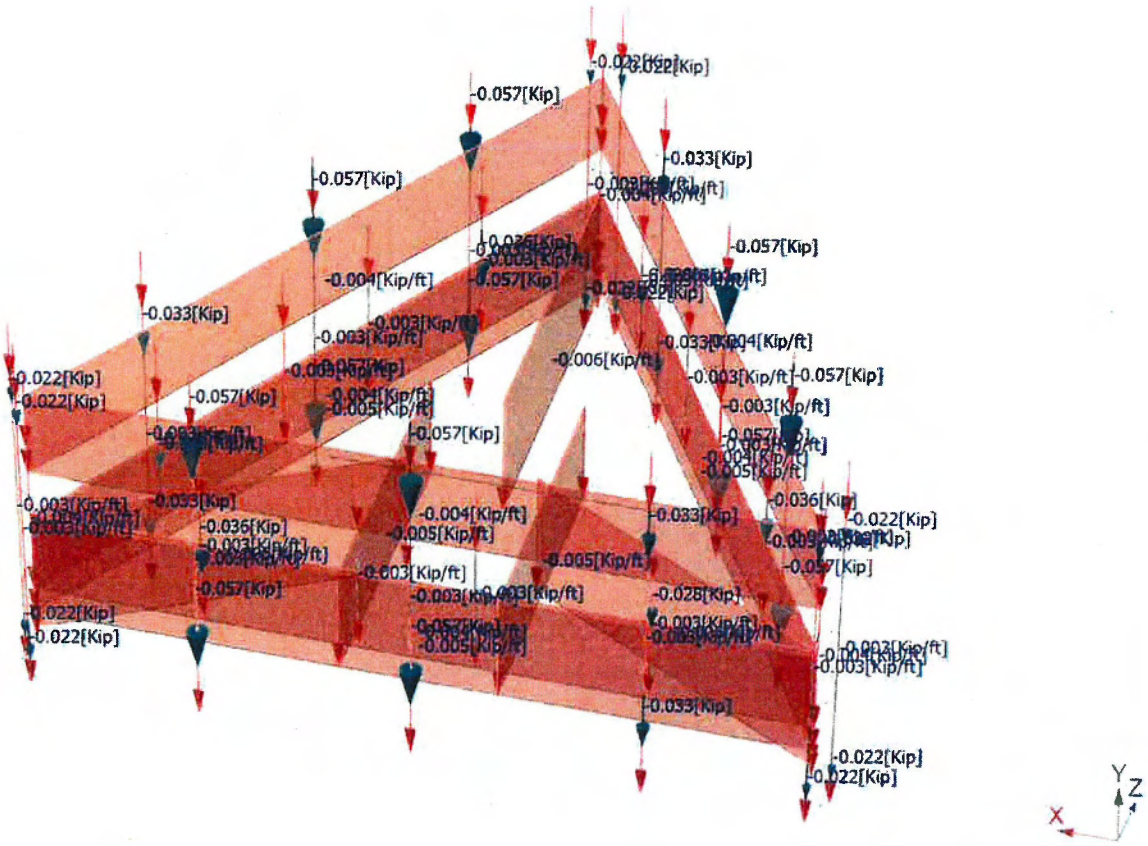


Bentley

Current Date: 10/10/2017 1:17 PM
Units system: English
File name: W:\STRUCTURAL DEPARTMENT\ANALYSIS SOFTWARE\RAM Elements\RAM Projects\VERIZON\CT\Guilford CT\Guilford CT.etz\
Load condition: Di=Ice Load

Loads

- Global distributed - Members
- Local distributed - Members
- Concentrated - Members

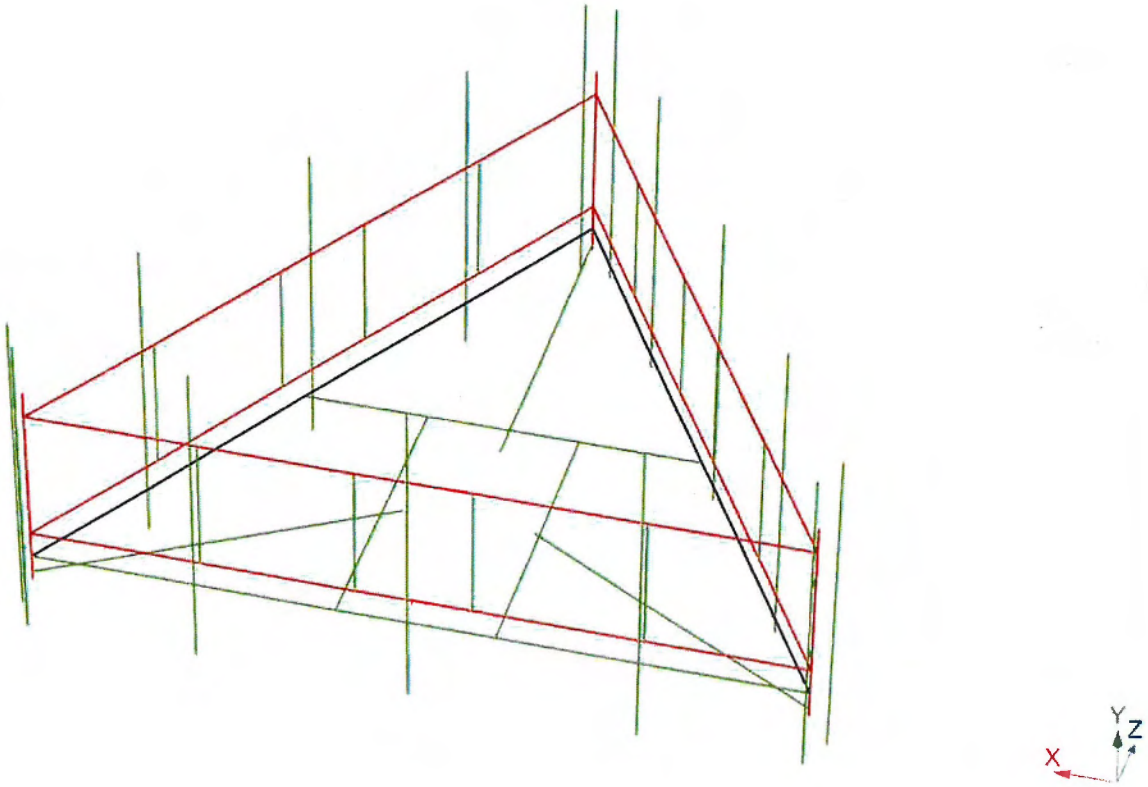


Bentley

Current Date: 10/10/2017 1:17 PM
Units system: English
File name: W:\STRUCTURAL DEPARTMENT\ANALYSIS SOFTWARE\RAM Elements\RAM Projects\VERIZON\CT\Guilford CT\Guilford CT.etz\

Design status

- Not designed
- Error on design
- Design O.K.
- With warnings



Bentley

Current Date: 10/10/2017 1:25 PM
Units system: English
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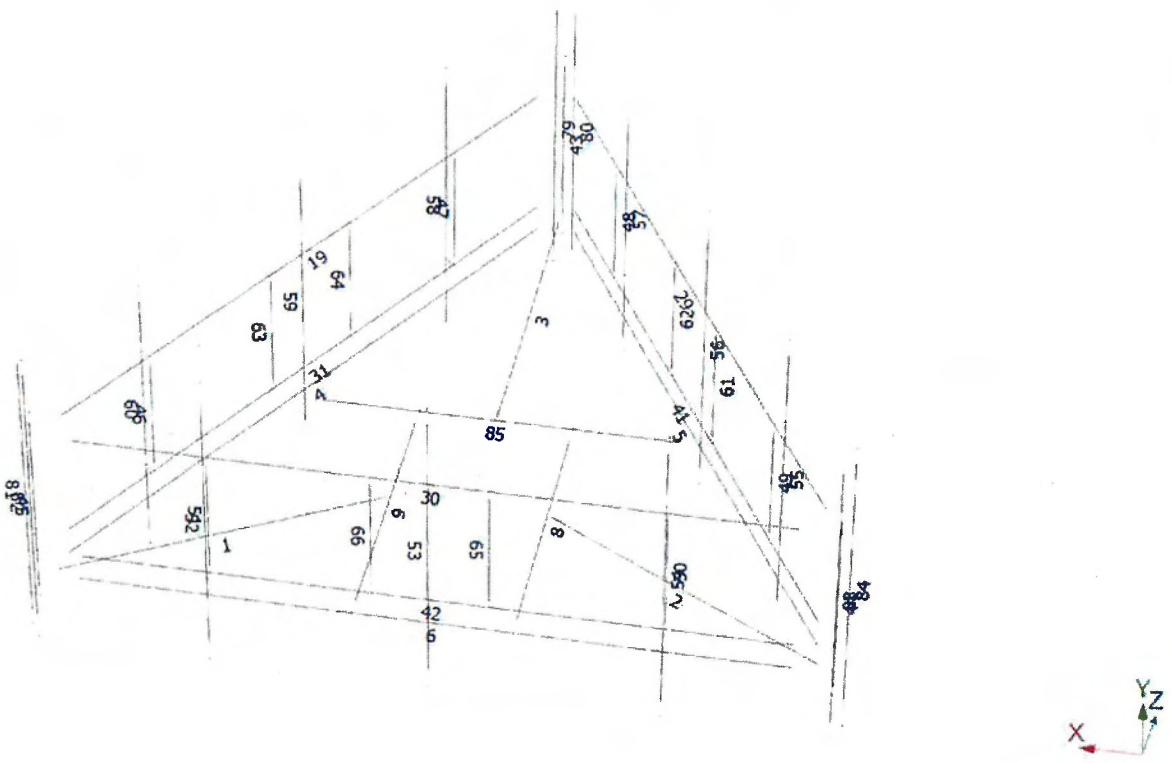


Bentley

Current Date: 10/10/2017 1:25 PM
Units system: English
File name: W:\STRUCTURAL DEPARTMENT\ANALYSIS SOFTWARE\RAM Elements\RAM Projects\VERIZON\CT\Guilford CT\Guilford CT.etz\

Steel Code Check

Report: Summary - For all selected load conditions

Load conditions to be included in design :

LC1=1.2DL+1.6Wo
LC2=0.9DL+1.6Wo
LC3=1.2DL+Wi+Di
LC4=1.2DL
LC5=0.9DL

Description	Section	Member	Ctrl Eq.	Ratio	Status	Reference
	C 5x2-3/8x1/4	4	LC1 at 100.00%	0.34	With warnings	Eq. H1-1b
			LC2 at 100.00%	**0.35**	**With warnings**	Eq. H1-1b
			LC3 at 53.13%	0.22	With warnings	Eq. H1-1b
			LC4 at 53.13%	0.09	With warnings	Eq. H1-1b
			LC5 at 53.13%	0.07	With warnings	Eq. H1-1b
		5	LC1 at 0.00%	0.33	With warnings	Eq. H1-1b
			LC2 at 0.00%	**0.35**	**With warnings**	Eq. H1-1b
			LC3 at 46.88%	0.22	With warnings	Eq. H1-1b
			LC4 at 46.88%	0.10	With warnings	Eq. H1-1b
			LC5 at 46.88%	0.07	With warnings	Eq. H1-1b
		6	LC1 at 39.58%	0.29	OK	Eq. H1-1b
			LC2 at 39.58%	**0.31**	**OK**	Eq. H1-1b
			LC3 at 39.58%	0.18	OK	Eq. H1-1b
			LC4 at 58.33%	0.10	OK	Eq. H1-1b
			LC5 at 58.33%	0.07	OK	Eq. H1-1b
	HSS_SQR 4X4X1_4	1	LC1 at 0.00%	0.32	OK	Eq. H1-1b
			LC2 at 0.00%	**0.36**	**OK**	Eq. H1-1b
			LC3 at 0.00%	0.33	OK	Eq. H1-1b
			LC4 at 0.00%	0.19	OK	Eq. H1-1b
			LC5 at 0.00%	0.14	OK	Eq. H1-1b
		2	LC1 at 0.00%	0.43	OK	Eq. H3-6
			LC2 at 0.00%	**0.47**	**OK**	Eq. H3-6
			LC3 at 0.00%	0.34	OK	Eq. H1-1b
			LC4 at 0.00%	0.19	OK	Eq. H1-1b
			LC5 at 0.00%	0.14	OK	Eq. H1-1b
		3	LC1 at 0.00%	**0.86**	**OK**	Eq. H1-1b
			LC2 at 0.00%	0.81	OK	Eq. H1-1b
			LC3 at 0.00%	0.52	OK	Eq. H1-1b
			LC4 at 0.00%	0.23	OK	Eq. H1-1b
			LC5 at 0.00%	0.17	OK	Eq. H1-1b
	L 3X3X1_4	19	LC1 at 0.00%	**1.56**	**N.G.**	Eq. H1-1b
			LC2 at 0.00%	1.53	N.G.	Eq. H1-1b
			LC3 at 79.17%	0.49	With warnings	Eq. H1-1b
			LC4 at 21.88%	0.20	With warnings	Eq. H1-1b
			LC5 at 21.88%	0.15	With warnings	Eq. H1-1b
		29	LC1 at 100.00%	**1.54**	**N.G.**	Eq. H1-1b
			LC2 at 100.00%	1.51	N.G.	Eq. H1-1b

		LC3 at 21.88%	0.58	With warnings	Eq. H1-1b
		LC4 at 21.88%	0.21	With warnings	Eq. H1-1b
		LC5 at 21.88%	0.16	With warnings	Eq. H1-1b
	30	LC1 at 57.29%	1.84	N.G.	Eq. H1-1b
		LC2 at 57.29%	**1.87**	**N.G.**	Eq. H1-1b
		LC3 at 78.13%	0.33	With warnings	Eq. H1-1b
		LC4 at 78.13%	0.19	With warnings	Eq. H1-1b
		LC5 at 78.13%	0.14	With warnings	Eq. H1-1b
	31	LC1 at 0.00%	**1.96**	**N.G.**	Eq. H1-1b
		LC2 at 0.00%	1.95	N.G.	Eq. H1-1b
		LC3 at 0.00%	0.54	With warnings	Eq. H1-1b
		LC4 at 0.00%	0.21	With warnings	Eq. H1-1b
		LC5 at 0.00%	0.16	With warnings	Eq. H1-1b
	41	LC1 at 100.00%	**1.90**	**N.G.**	Eq. H1-1b
		LC2 at 100.00%	1.88	N.G.	Eq. H1-1b
		LC3 at 100.00%	0.52	With warnings	Eq. H1-1b
		LC4 at 0.00%	0.22	OK	Eq. H1-1b
		LC5 at 0.00%	0.17	OK	Eq. H1-1b
	42	LC1 at 100.00%	2.17	N.G.	Eq. H1-1a
		LC2 at 100.00%	**2.17**	**N.G.**	Eq. H1-1a
		LC3 at 100.00%	0.69	With warnings	Eq. H1-1b
		LC4 at 100.00%	0.22	With warnings	Eq. H1-1b
		LC5 at 100.00%	0.16	With warnings	Eq. H1-1b
LU 4X3X1_4	8	LC1 at 43.75%	0.29	OK	Eq. H2-1
		LC2 at 43.75%	0.35	OK	Eq. H2-1
		LC3 at 43.75%	**0.51**	**OK**	Eq. H2-1
		LC4 at 43.75%	0.31	OK	Eq. H2-1
		LC5 at 43.75%	0.23	OK	Eq. H2-1
	9	LC1 at 56.25%	0.31	OK	Eq. H2-1
		LC2 at 56.25%	0.36	OK	Eq. H2-1
		LC3 at 56.25%	**0.51**	**OK**	Eq. H2-1
		LC4 at 56.25%	0.30	OK	Eq. H2-1
		LC5 at 56.25%	0.22	OK	Eq. H2-1
	85	LC1 at 50.00%	**0.82**	**OK**	Eq. H2-1
		LC2 at 50.00%	0.74	OK	Eq. H2-1
		LC3 at 50.00%	0.68	OK	Eq. H2-1
		LC4 at 50.00%	0.32	OK	Eq. H2-1
		LC5 at 50.00%	0.24	OK	Eq. H2-1
PIPE 2x0.154	43	LC1 at 75.00%	**1.06**	**N.G.**	Eq. H1-1b
		LC2 at 75.00%	1.02	N.G.	Eq. H1-1b
		LC3 at 86.46%	0.94	OK	Eq. H1-1b
		LC4 at 86.46%	0.45	OK	Eq. H1-1b
		LC5 at 86.46%	0.34	OK	Eq. H1-1b
	44	LC1 at 86.46%	**4.92**	**N.G.**	Eq. H3-6
		LC2 at 86.46%	4.85	N.G.	Eq. H3-6
		LC3 at 86.46%	1.35	N.G.	Eq. H1-1b
		LC4 at 86.46%	0.63	OK	Eq. H1-1b
		LC5 at 86.46%	0.47	OK	Eq. H1-1b
	45	LC1 at 86.46%	**5.01**	**N.G.**	Eq. H3-6
		LC2 at 86.46%	4.94	N.G.	Eq. H3-6
		LC3 at 86.46%	1.34	N.G.	Eq. H1-1b
		LC4 at 86.46%	0.62	OK	Eq. H1-1b
		LC5 at 86.46%	0.46	OK	Eq. H1-1b

46	LC1 at 100.00%	0.61	OK	Eq. H1-1b
	LC2 at 100.00%	**0.66**	**OK**	Eq. H1-1b
	LC3 at 0.00%	0.31	OK	Eq. H1-1b
	LC4 at 100.00%	0.19	OK	Eq. H1-1b
	LC5 at 100.00%	0.14	OK	Eq. H1-1b
47	LC1 at 100.00%	**0.52**	**OK**	Eq. H1-1b
	LC2 at 100.00%	0.47	OK	Eq. H1-1b
	LC3 at 100.00%	0.46	OK	Eq. H1-1b
	LC4 at 100.00%	0.19	OK	Eq. H1-1b
	LC5 at 100.00%	0.15	OK	Eq. H1-1b
48	LC1 at 100.00%	**0.58**	**OK**	Eq. H1-1b
	LC2 at 100.00%	0.53	OK	Eq. H1-1b
	LC3 at 100.00%	0.49	OK	Eq. H1-1b
	LC4 at 100.00%	0.21	OK	Eq. H1-1b
	LC5 at 100.00%	0.16	OK	Eq. H1-1b
49	LC1 at 0.00%	0.62	OK	Eq. H1-1b
	LC2 at 0.00%	**0.67**	**OK**	Eq. H1-1b
	LC3 at 100.00%	0.33	OK	Eq. H1-1b
	LC4 at 0.00%	0.21	OK	Eq. H1-1b
	LC5 at 0.00%	0.15	OK	Eq. H1-1b
50	LC1 at 100.00%	0.12	OK	Eq. H1-1b
	LC2 at 100.00%	0.08	OK	Eq. H1-1b
	LC3 at 0.00%	**0.29**	**OK**	Eq. H1-1b
	LC4 at 0.00%	0.14	OK	Eq. H1-1b
	LC5 at 0.00%	0.10	OK	Eq. H1-1b
51	LC1 at 0.00%	0.11	OK	Eq. H1-1b
	LC2 at 0.00%	0.08	OK	Eq. H1-1b
	LC3 at 100.00%	**0.29**	**OK**	Eq. H1-1b
	LC4 at 100.00%	0.14	OK	Eq. H1-1b
	LC5 at 100.00%	0.10	OK	Eq. H1-1b
52	LC1 at 71.88%	**0.21**	**OK**	Eq. H1-1b
	LC2 at 71.88%	0.21	OK	Eq. H1-1b
	LC3 at 29.69%	0.07	OK	Eq. H1-1b
	LC4 at 29.69%	0.03	OK	Eq. H1-1b
	LC5 at 29.69%	0.02	OK	Eq. H1-1b
53	LC1 at 70.83%	**0.23**	**OK**	Eq. H1-1b
	LC2 at 70.83%	0.23	OK	Eq. H1-1b
	LC3 at 29.17%	0.05	OK	Eq. H1-1b
	LC4 at 29.17%	0.01	OK	Eq. H1-1b
	LC5 at 29.17%	0.01	OK	Eq. H1-1b
54	LC1 at 70.83%	**0.18**	**OK**	Eq. H1-1b
	LC2 at 70.83%	0.18	OK	Eq. H1-1b
	LC3 at 29.17%	0.06	OK	Eq. H1-1b
	LC4 at 29.17%	0.03	OK	Eq. H1-1b
	LC5 at 29.17%	0.02	OK	Eq. H1-1b
55	LC1 at 29.17%	0.25	OK	Eq. H1-1b
	LC2 at 29.17%	**0.25**	**OK**	Eq. H1-1b
	LC3 at 68.75%	0.07	OK	Eq. H1-1b
	LC4 at 29.17%	0.03	OK	Eq. H1-1b
	LC5 at 29.17%	0.02	OK	Eq. H1-1b
56	LC1 at 68.75%	**0.23**	**OK**	Eq. H1-1b
	LC2 at 68.75%	0.23	OK	Eq. H1-1b

	LC3 at 29.17%	0.05	OK	Eq. H1-1b
	LC4 at 29.17%	0.02	OK	Eq. H1-1b
	LC5 at 29.17%	0.01	OK	Eq. H1-1b
57	LC1 at 68.75%	**0.18**	**OK**	Eq. H1-1b
	LC2 at 68.75%	0.17	OK	Eq. H1-1b
	LC3 at 68.75%	0.09	OK	Eq. H1-1b
	LC4 at 29.17%	0.03	OK	Eq. H1-1b
	LC5 at 29.17%	0.03	OK	Eq. H1-1b
58	LC1 at 68.75%	**0.23**	**OK**	Eq. H1-1b
	LC2 at 68.75%	0.22	OK	Eq. H1-1b
	LC3 at 68.75%	0.09	OK	Eq. H1-1b
	LC4 at 29.17%	0.03	OK	Eq. H1-1b
	LC5 at 29.17%	0.02	OK	Eq. H1-1b
59	LC1 at 68.75%	**0.23**	**OK**	Eq. H1-1b
	LC2 at 68.75%	0.23	OK	Eq. H1-1b
	LC3 at 29.17%	0.05	OK	Eq. H1-1b
	LC4 at 29.17%	0.01	OK	Eq. H1-1b
	LC5 at 29.17%	0.01	OK	Eq. H1-1b
60	LC1 at 29.17%	0.18	OK	Eq. H1-1b
	LC2 at 29.17%	**0.19**	**OK**	Eq. H1-1b
	LC3 at 68.75%	0.06	OK	Eq. H1-1b
	LC4 at 29.17%	0.03	OK	Eq. H1-1b
	LC5 at 29.17%	0.02	OK	Eq. H1-1b
61	LC1 at 100.00%	0.36	OK	Eq. H1-1b
	LC2 at 100.00%	**0.38**	**OK**	Eq. H1-1b
	LC3 at 0.00%	0.04	OK	Eq. H1-1b
	LC4 at 100.00%	0.04	OK	Eq. H1-1b
	LC5 at 100.00%	0.03	OK	Eq. H1-1b
62	LC1 at 0.00%	**0.34**	**OK**	Eq. H1-1b
	LC2 at 0.00%	0.32	OK	Eq. H1-1b
	LC3 at 100.00%	0.16	OK	Eq. H1-1b
	LC4 at 100.00%	0.06	OK	Eq. H1-1b
	LC5 at 100.00%	0.04	OK	Eq. H1-1b
63	LC1 at 0.00%	0.39	OK	Eq. H1-1b
	LC2 at 0.00%	**0.40**	**OK**	Eq. H1-1b
	LC3 at 100.00%	0.05	OK	Eq. H1-1b
	LC4 at 0.00%	0.04	OK	Eq. H1-1b
	LC5 at 0.00%	0.03	OK	Eq. H1-1b
64	LC1 at 100.00%	**0.32**	**OK**	Eq. H1-1b
	LC2 at 100.00%	0.31	OK	Eq. H1-1b
	LC3 at 0.00%	0.12	OK	Eq. H1-1b
	LC4 at 0.00%	0.04	OK	Eq. H1-1b
	LC5 at 0.00%	0.03	OK	Eq. H1-1b
65	LC1 at 0.00%	0.06	OK	Eq. H1-1b
	LC2 at 0.00%	0.05	OK	Eq. H1-1b
	LC3 at 0.00%	**0.11**	**OK**	Eq. H1-1b
	LC4 at 0.00%	0.04	OK	Eq. H1-1b
	LC5 at 0.00%	0.03	OK	Eq. H1-1b
66	LC1 at 0.00%	0.05	OK	Eq. H1-1b
	LC2 at 0.00%	0.04	OK	Eq. H1-1b
	LC3 at 0.00%	**0.08**	**OK**	Eq. H1-1b
	LC4 at 0.00%	0.04	OK	Eq. H1-1b
	LC5 at 0.00%	0.03	OK	Eq. H1-1b

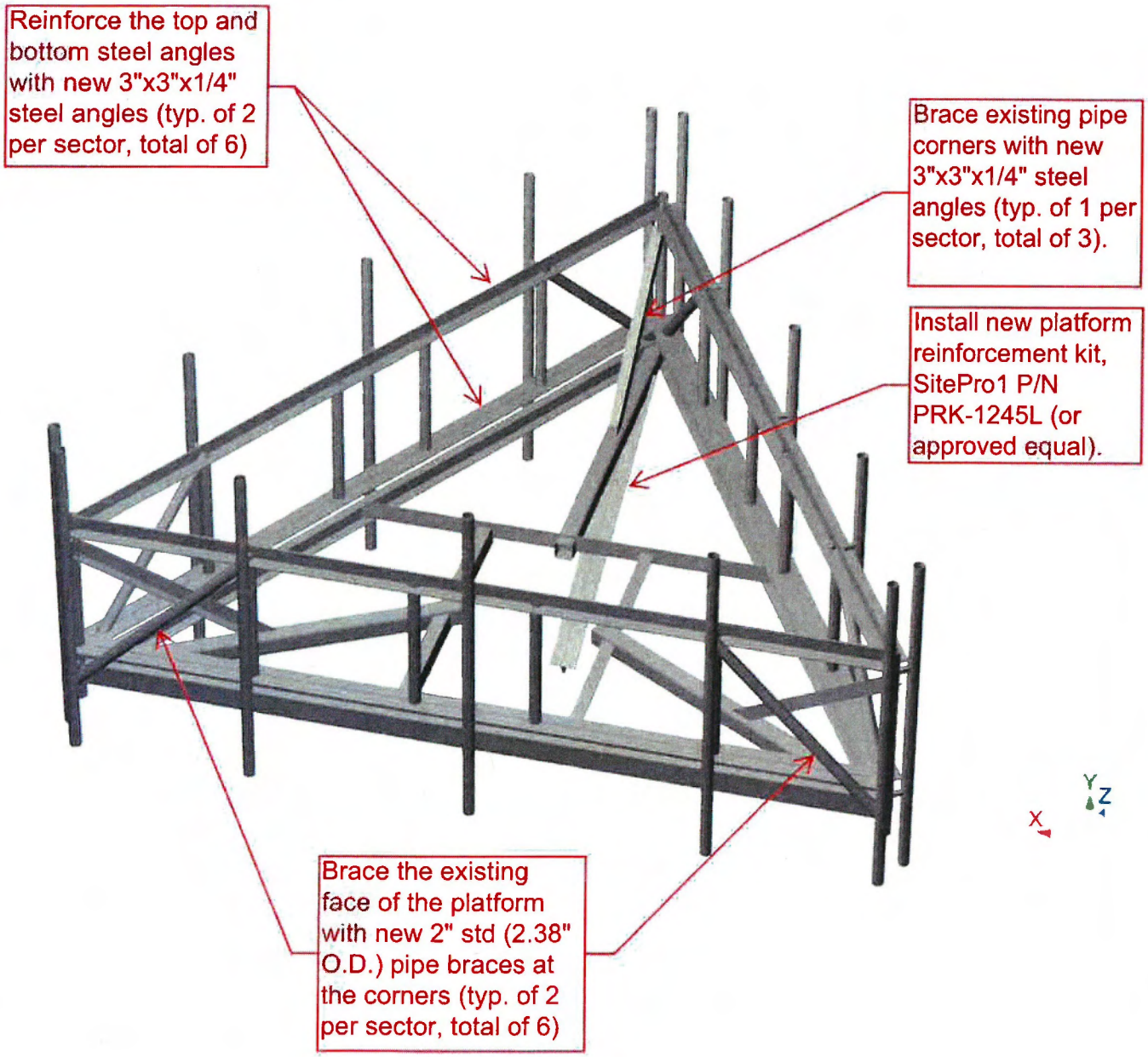
79	LC1 at 62.50%	**0.21**	**OK**	Eq. H1-1b
	LC2 at 62.50%	0.21	OK	Eq. H1-1b
	LC3 at 60.42%	0.03	OK	Eq. H1-1b
	LC4 at 37.50%	0.01	OK	Eq. H1-1b
	LC5 at 37.50%	0.01	OK	Eq. H1-1b
80	LC1 at 62.50%	**0.21**	**OK**	Eq. H1-1b
	LC2 at 62.50%	0.21	OK	Eq. H1-1b
	LC3 at 62.50%	0.03	OK	Eq. H1-1b
	LC4 at 37.50%	0.01	OK	Eq. H1-1b
	LC5 at 37.50%	0.01	OK	Eq. H1-1b
81	LC1 at 62.50%	**0.21**	**OK**	Eq. H1-1b
	LC2 at 62.50%	0.21	OK	Eq. H1-1b
	LC3 at 60.42%	0.05	OK	Eq. H1-1b
	LC4 at 60.42%	0.01	OK	Eq. H1-1b
	LC5 at 60.42%	0.01	OK	Eq. H1-1b
82	LC1 at 62.50%	**0.29**	**OK**	Eq. H1-1b
	LC2 at 62.50%	0.29	OK	Eq. H1-1b
	LC3 at 62.50%	0.05	OK	Eq. H1-1b
	LC4 at 60.42%	0.01	OK	Eq. H1-1b
	LC5 at 60.42%	0.01	OK	Eq. H1-1b
83	LC1 at 62.50%	**0.29**	**OK**	Eq. H1-1b
	LC2 at 62.50%	0.29	OK	Eq. H1-1b
	LC3 at 62.50%	0.05	OK	Eq. H1-1b
	LC4 at 60.42%	0.01	OK	Eq. H1-1b
	LC5 at 60.42%	0.01	OK	Eq. H1-1b
84	LC1 at 62.50%	**0.21**	**OK**	Eq. H1-1b
	LC2 at 62.50%	0.21	OK	Eq. H1-1b
	LC3 at 37.50%	0.05	OK	Eq. H1-1b
	LC4 at 37.50%	0.02	OK	Eq. H1-1b
	LC5 at 37.50%	0.01	OK	Eq. H1-1b

HUDSON
Design Group LLC

Mount Calculations
(Proposed Conditions)

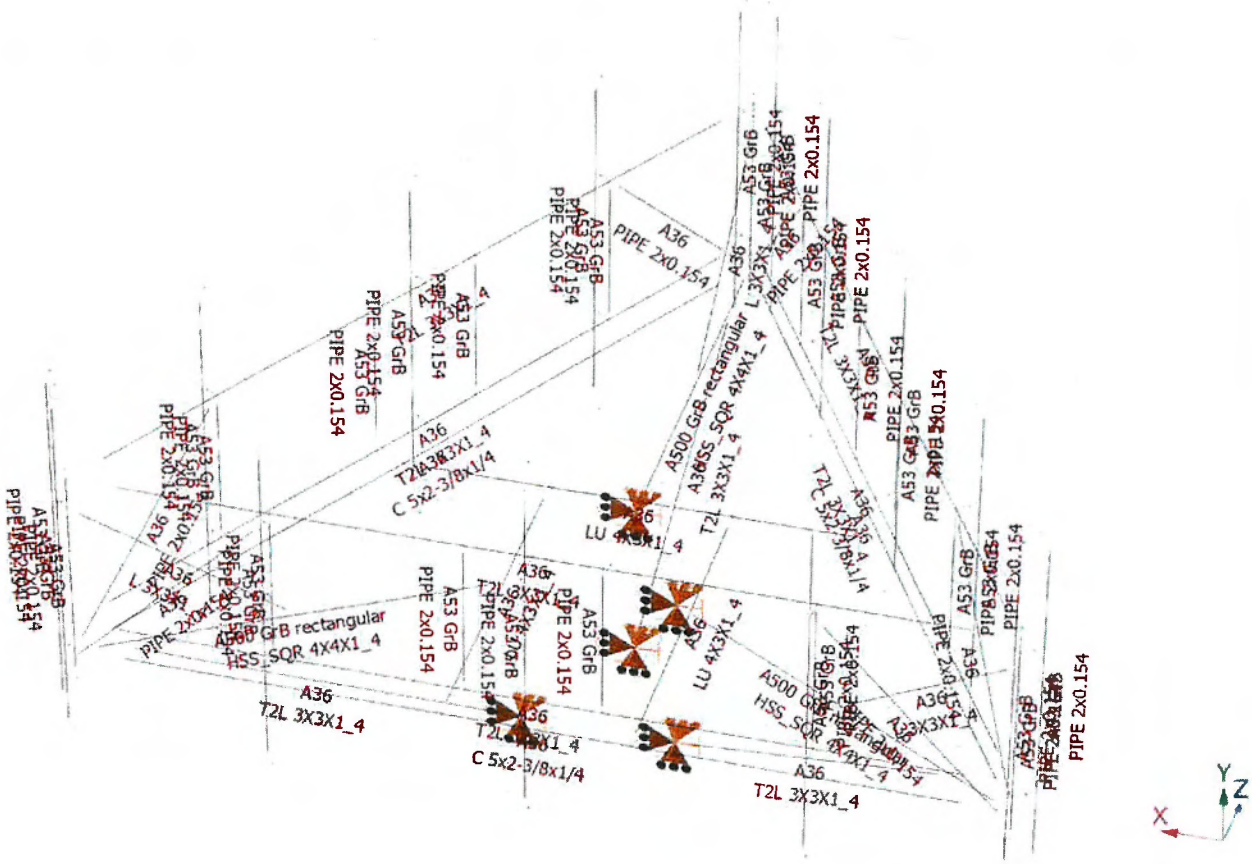
Bentley

Current Date: 10/11/2017 11:33 AM
Units system: English
File name: W:\STRUCTURAL DEPARTMENT\ANALYSIS SOFTWARE\RAM Elements\RAM Projects\VERIZON\CT\Guilford CT\Guilford CT (Mod).etz\



Bentley

Current Date: 10/11/2017 11:41 AM
Units system: English
File name: W:\STRUCTURAL DEPARTMENT\ANALYSIS SOFTWARE\RAM Elements\RAM Projects\VERIZON\CT\Guilford CT\Guilford CT (Mod).etz\



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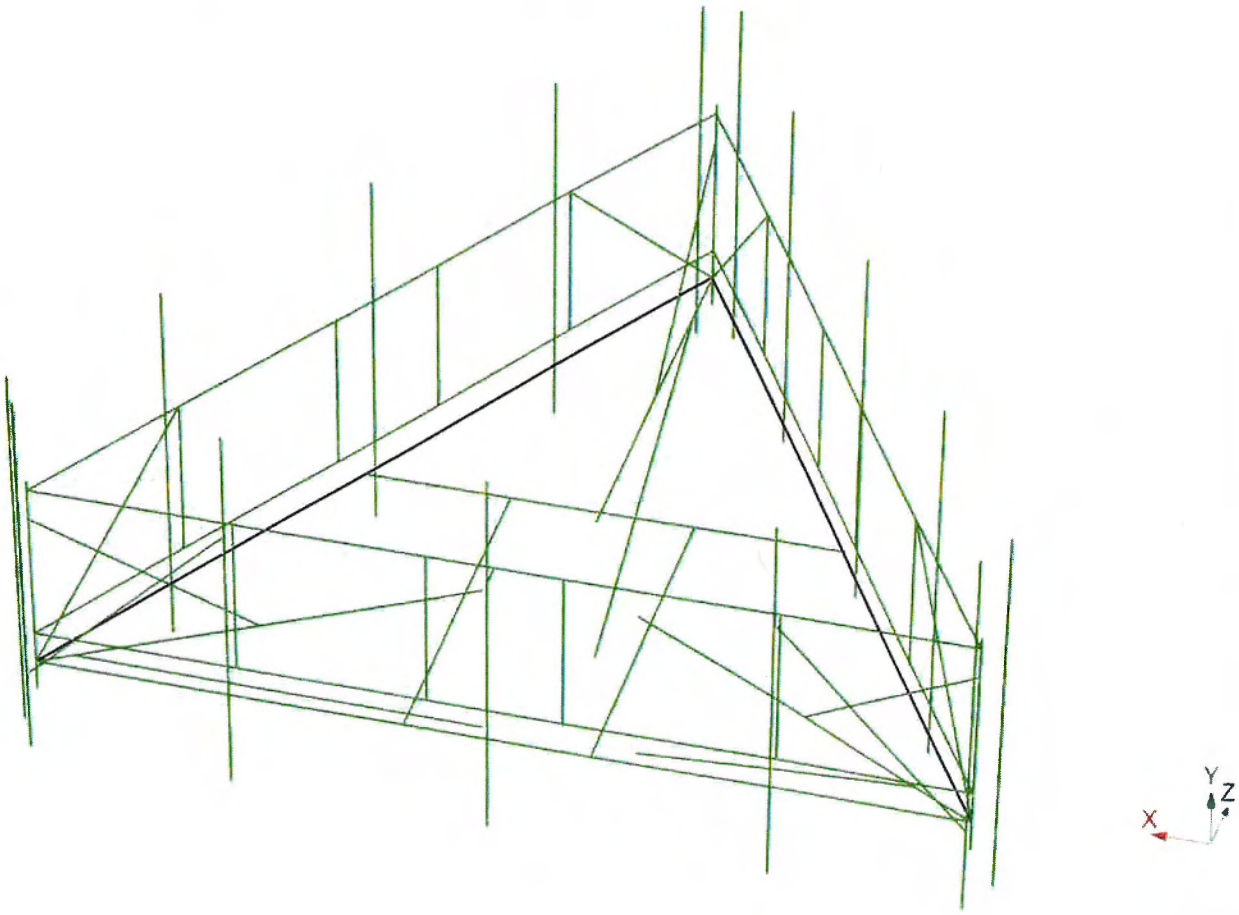
Current Date: 10/11/2017 11:40 AM
Units system: English
File name: W:\STRUCTURAL DEPARTMENT\ANALYSIS SOFTWARE\RAM Elements\RAM Projects\VERIZON\CT\Guilford CT\Guilford CT (Mod).etz\

Design status

- Not designed
- Error on design
- Design O.K.
- With warnings



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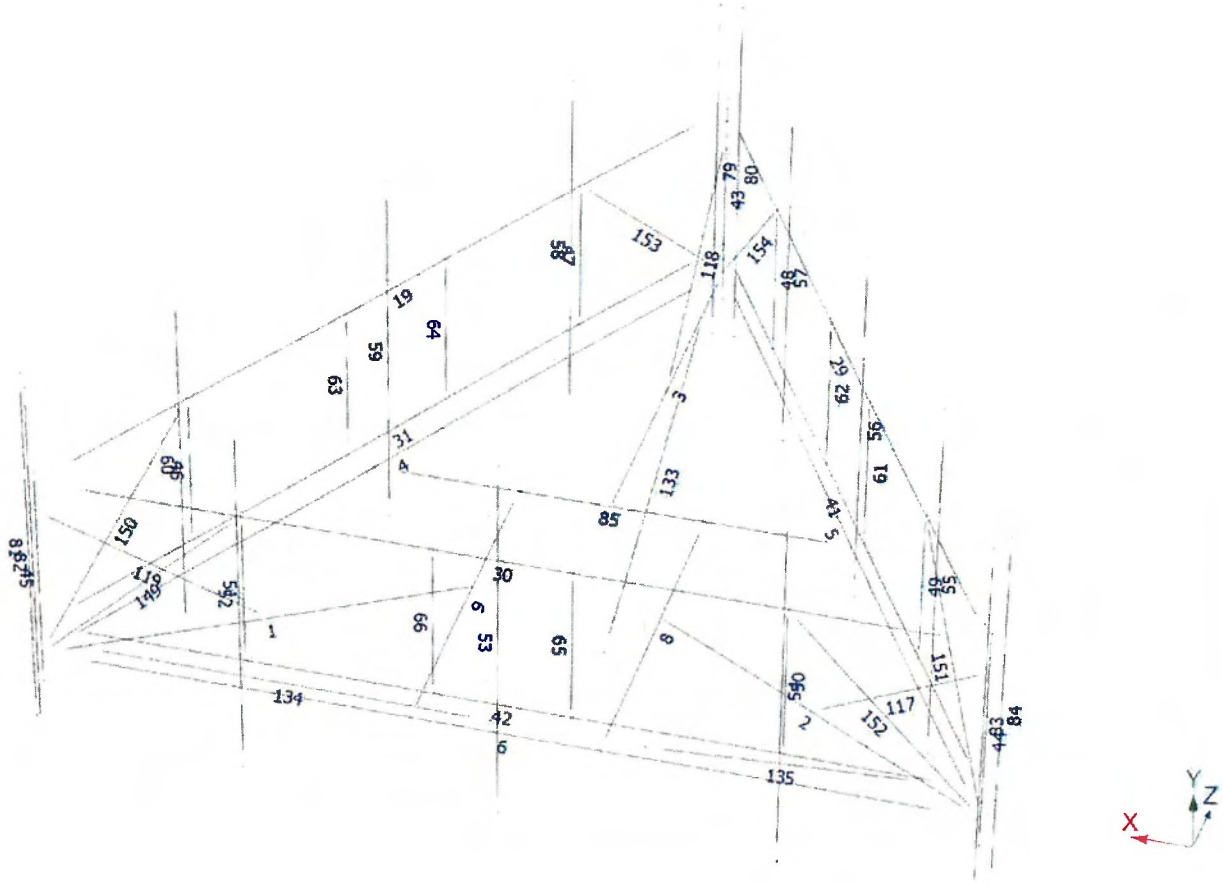
Current Date: 10/11/2017 11:41 AM
Units system: English
File name: W:\STRUCTURAL DEPARTMENT\ANALYSIS SOFTWARE\RAM Elements\RAM Projects\VERIZON\CT\Guilford CT\Guilford CT (Mod).etz\



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Current Date: 10/11/2017 11:41 AM
Units system: English
File name: W:\STRUCTURAL DEPARTMENT\ANALYSIS SOFTWARE\RAM Elements\RAM Projects\VERIZON\CT\Guilford CT\Guilford CT (Mod).etz\

Steel Code Check

Report: Summary - For all selected load conditions

Load conditions to be included in design :

LC1=1.2DL+1.6Wo
LC2=0.9DL+1.6Wo
LC3=1.2DL+Wi+Di
LC4=1.2DL
LC5=0.9DL

Description	Section	Member	Ctrl Eq.	Ratio	Status	Reference
	C 5x2-3/8x1/4	4	LC1 at 100.00%	0.18	With warnings	Eq. H1-1b
			LC2 at 100.00%	**0.20**	**With warnings**	Eq. H1-1b
			LC3 at 0.00%	0.05	With warnings	Eq. H1-1b
			LC4 at 0.00%	0.02	With warnings	Eq. H1-1b
			LC5 at 0.00%	0.02	With warnings	Eq. H1-1b
		5	LC1 at 0.00%	0.17	With warnings	Eq. H1-1b
			LC2 at 0.00%	**0.19**	**With warnings**	Eq. H1-1b
			LC3 at 100.00%	0.05	With warnings	Eq. H1-1b
			LC4 at 0.00%	0.03	With warnings	Eq. H1-1b
			LC5 at 0.00%	0.02	With warnings	Eq. H1-1b
		6	LC1 at 100.00%	**0.14**	**OK**	Eq. H1-1b
			LC2 at 100.00%	0.14	OK	Eq. H1-1b
			LC3 at 0.00%	0.04	OK	Eq. H1-1b
			LC4 at 0.00%	0.02	OK	Eq. H1-1b
			LC5 at 0.00%	0.02	OK	Eq. H1-1b
	HSS_SQR 4X4X1_4	1	LC1 at 0.00%	**0.14**	**OK**	Eq. H1-1b
			LC2 at 91.67%	0.14	OK	Eq. H1-1b
			LC3 at 0.00%	0.07	OK	Eq. H1-1b
			LC4 at 0.00%	0.04	OK	Eq. H1-1b
			LC5 at 0.00%	0.03	OK	Eq. H1-1b
		2	LC1 at 0.00%	**0.15**	**OK**	Eq. H1-1b
			LC2 at 0.00%	0.15	OK	Eq. H1-1b
			LC3 at 0.00%	0.07	OK	Eq. H1-1b
			LC4 at 100.00%	0.04	OK	Eq. H1-1b
			LC5 at 100.00%	0.03	OK	Eq. H1-1b
		3	LC1 at 83.75%	**0.14**	**OK**	Eq. H1-1b
			LC2 at 48.75%	0.13	OK	Eq. H1-1b
			LC3 at 100.00%	0.08	OK	Eq. H1-1b
			LC4 at 100.00%	0.04	OK	Eq. H1-1b
			LC5 at 100.00%	0.03	OK	Eq. H1-1b
	L 3X3X1_4	117	LC1 at 0.00%	**0.46**	**OK**	Eq. H1-1b
			LC2 at 0.00%	0.44	OK	Eq. H1-1b
			LC3 at 0.00%	0.17	OK	Eq. H1-1b
			LC4 at 0.00%	0.06	OK	Eq. H1-1b
			LC5 at 0.00%	0.04	OK	Eq. H1-1b
		118	LC1 at 100.00%	**0.22**	**OK**	Eq. H1-1b
			LC2 at 100.00%	0.22	OK	Eq. H1-1b

		LC3 at 100.00%	0.08	OK	Eq. H1-1b
		LC4 at 0.00%	0.04	OK	Eq. H1-1b
		LC5 at 0.00%	0.03	OK	Eq. H1-1b
	119	LC1 at 0.00%	**0.41**	**OK**	Eq. H1-1b
		LC2 at 0.00%	0.41	OK	Eq. H1-1b
		LC3 at 100.00%	0.08	OK	Eq. H1-1b
		LC4 at 75.00%	0.03	OK	Eq. H1-1b
		LC5 at 75.00%	0.02	OK	Eq. H1-1b
LU 4X3X1_4	**8**	LC1 at 40.63%	0.04	OK	Eq. H2-1
		LC2 at 43.75%	0.04	OK	Eq. H2-1
		LC3 at 43.75%	**0.07**	**OK**	Eq. H2-1
		LC4 at 43.75%	0.05	OK	Eq. H2-1
		LC5 at 43.75%	0.04	OK	Eq. H2-1
	9	LC1 at 0.00%	0.05	OK	Eq. H2-1
		LC2 at 0.00%	0.05	OK	Eq. H2-1
		LC3 at 56.25%	**0.07**	**OK**	Eq. H2-1
		LC4 at 56.25%	0.05	OK	Eq. H2-1
		LC5 at 56.25%	0.04	OK	Eq. H2-1
	85	LC1 at 50.00%	**0.10**	**OK**	Eq. H2-1
		LC2 at 50.00%	0.09	OK	Eq. H2-1
		LC3 at 50.00%	0.06	OK	Eq. H2-1
		LC4 at 51.56%	0.04	OK	Eq. H2-1
		LC5 at 51.56%	0.03	OK	Eq. H2-1
PIPE 2x0.154	**43**	LC1 at 72.22%	0.14	OK	Eq. H1-1b
		LC2 at 72.22%	**0.15**	**OK**	Eq. H1-1b
		LC3 at 18.06%	0.12	OK	Eq. H1-1b
		LC4 at 18.06%	0.07	OK	Eq. H1-1b
		LC5 at 18.06%	0.05	OK	Eq. H1-1b
	44	LC1 at 18.06%	**0.37**	**OK**	Eq. H3-6
		LC2 at 72.92%	0.35	OK	Eq. H3-6
		LC3 at 18.06%	0.21	OK	Eq. H1-1b
		LC4 at 18.06%	0.10	OK	Eq. H1-1b
		LC5 at 18.06%	0.08	OK	Eq. H1-1b
	45	LC1 at 72.92%	0.40	OK	Eq. H3-6
		LC2 at 72.92%	**0.41**	**OK**	Eq. H3-6
		LC3 at 18.06%	0.13	OK	Eq. H1-1b
		LC4 at 18.06%	0.07	OK	Eq. H1-1b
		LC5 at 18.06%	0.05	OK	Eq. H1-1b
	46	LC1 at 100.00%	0.16	OK	Eq. H1-1b
		LC2 at 100.00%	**0.16**	**OK**	Eq. H1-1b
		LC3 at 0.00%	0.04	OK	Eq. H1-1b
		LC4 at 100.00%	0.03	OK	Eq. H1-1b
		LC5 at 100.00%	0.02	OK	Eq. H1-1b
	47	LC1 at 100.00%	**0.24**	**OK**	Eq. H1-1b
		LC2 at 100.00%	0.24	OK	Eq. H1-1b
		LC3 at 100.00%	0.09	OK	Eq. H1-1b
		LC4 at 0.00%	0.03	OK	Eq. H1-1b
		LC5 at 0.00%	0.02	OK	Eq. H1-1b
	48	LC1 at 100.00%	**0.24**	**OK**	Eq. H1-1b
		LC2 at 100.00%	0.23	OK	Eq. H1-1b
		LC3 at 100.00%	0.10	OK	Eq. H1-1b
		LC4 at 0.00%	0.04	OK	Eq. H1-1b
		LC5 at 0.00%	0.03	OK	Eq. H1-1b

49	LC1 at 0.00%	0.17	OK	Eq. H1-1b
	LC2 at 0.00%	**0.18**	**OK**	Eq. H1-1b
	LC3 at 100.00%	0.04	OK	Eq. H1-1b
	LC4 at 0.00%	0.03	OK	Eq. H1-1b
	LC5 at 0.00%	0.02	OK	Eq. H1-1b
50	LC1 at 100.00%	0.11	OK	Eq. H1-1b
	LC2 at 100.00%	0.09	OK	Eq. H1-1b
	LC3 at 100.00%	**0.12**	**OK**	Eq. H1-1b
	LC4 at 100.00%	0.06	OK	Eq. H1-1b
	LC5 at 100.00%	0.05	OK	Eq. H1-1b
51	LC1 at 0.00%	0.09	OK	Eq. H1-1b
	LC2 at 0.00%	0.08	OK	Eq. H1-1b
	LC3 at 0.00%	**0.09**	**OK**	Eq. H1-1b
	LC4 at 0.00%	0.05	OK	Eq. H1-1b
	LC5 at 0.00%	0.04	OK	Eq. H1-1b
52	LC1 at 71.88%	**0.21**	**OK**	Eq. H1-1b
	LC2 at 71.88%	0.21	OK	Eq. H1-1b
	LC3 at 71.88%	0.03	OK	Eq. H1-1b
	LC4 at 70.31%	0.01	OK	Eq. H1-1b
	LC5 at 70.31%	0.01	OK	Eq. H1-1b
53	LC1 at 70.83%	**0.23**	**OK**	Eq. H1-1b
	LC2 at 70.83%	0.23	OK	Eq. H1-1b
	LC3 at 29.17%	0.04	OK	Eq. H1-1b
	LC4 at 29.17%	0.01	OK	Eq. H1-1b
	LC5 at 29.17%	0.01	OK	Eq. H1-1b
54	LC1 at 70.83%	**0.18**	**OK**	Eq. H1-1b
	LC2 at 70.83%	0.18	OK	Eq. H1-1b
	LC3 at 70.83%	0.03	OK	Eq. H1-1b
	LC4 at 29.17%	0.01	OK	Eq. H1-1b
	LC5 at 29.17%	0.01	OK	Eq. H1-1b
55	LC1 at 70.83%	**0.21**	**OK**	Eq. H1-1b
	LC2 at 70.83%	0.21	OK	Eq. H1-1b
	LC3 at 68.75%	0.03	OK	Eq. H1-1b
	LC4 at 68.75%	0.01	OK	Eq. H1-1b
	LC5 at 68.75%	0.01	OK	Eq. H1-1b
56	LC1 at 68.75%	**0.22**	**OK**	Eq. H1-1b
	LC2 at 68.75%	0.21	OK	Eq. H1-1b
	LC3 at 29.17%	0.05	OK	Eq. H1-1b
	LC4 at 29.17%	0.02	OK	Eq. H1-1b
	LC5 at 29.17%	0.01	OK	Eq. H1-1b
57	LC1 at 70.83%	**0.12**	**OK**	Eq. H1-1b
	LC2 at 70.83%	0.12	OK	Eq. H1-1b
	LC3 at 68.75%	0.03	OK	Eq. H1-1b
	LC4 at 29.17%	0.01	OK	Eq. H1-1b
	LC5 at 29.17%	0.01	OK	Eq. H1-1b
58	LC1 at 70.83%	**0.21**	**OK**	Eq. H1-1b
	LC2 at 70.83%	0.21	OK	Eq. H1-1b
	LC3 at 68.75%	0.03	OK	Eq. H1-1b
	LC4 at 29.17%	0.01	OK	Eq. H1-1b
	LC5 at 29.17%	0.00	OK	Eq. H1-1b
59	LC1 at 68.75%	**0.21**	**OK**	Eq. H1-1b
	LC2 at 68.75%	0.21	OK	Eq. H1-1b

	LC3 at 29.17%	0.04	OK	Eq. H1-1b
	LC4 at 29.17%	0.01	OK	Eq. H1-1b
	LC5 at 29.17%	0.01	OK	Eq. H1-1b
60	LC1 at 70.83%	**0.12**	**OK**	Eq. H1-1b
	LC2 at 70.83%	0.12	OK	Eq. H1-1b
	LC3 at 68.75%	0.02	OK	Eq. H1-1b
	LC4 at 68.75%	0.01	OK	Eq. H1-1b
	LC5 at 68.75%	0.01	OK	Eq. H1-1b
61	LC1 at 100.00%	0.25	OK	Eq. H1-1b
	LC2 at 100.00%	**0.26**	**OK**	Eq. H1-1b
	LC3 at 100.00%	0.00	OK	Eq. H1-1b
	LC4 at 100.00%	0.02	OK	Eq. H1-1b
	LC5 at 100.00%	0.02	OK	Eq. H1-1b
62	LC1 at 0.00%	**0.31**	**OK**	Eq. H1-1b
	LC2 at 0.00%	0.30	OK	Eq. H1-1b
	LC3 at 100.00%	0.10	OK	Eq. H1-1b
	LC4 at 100.00%	0.03	OK	Eq. H1-1b
	LC5 at 100.00%	0.02	OK	Eq. H1-1b
63	LC1 at 0.00%	0.25	OK	Eq. H1-1b
	LC2 at 0.00%	**0.26**	**OK**	Eq. H1-1b
	LC3 at 0.00%	0.01	OK	Eq. H1-1b
	LC4 at 0.00%	0.02	OK	Eq. H1-1b
	LC5 at 0.00%	0.01	OK	Eq. H1-1b
64	LC1 at 100.00%	**0.28**	**OK**	Eq. H1-1b
	LC2 at 100.00%	0.28	OK	Eq. H1-1b
	LC3 at 0.00%	0.08	OK	Eq. H1-1b
	LC4 at 0.00%	0.03	OK	Eq. H1-1b
	LC5 at 0.00%	0.02	OK	Eq. H1-1b
65	LC1 at 0.00%	0.06	OK	Eq. H1-1b
	LC2 at 0.00%	0.05	OK	Eq. H1-1b
	LC3 at 0.00%	**0.08**	**OK**	Eq. H1-1b
	LC4 at 0.00%	0.04	OK	Eq. H1-1b
	LC5 at 0.00%	0.03	OK	Eq. H1-1b
66	LC1 at 0.00%	**0.03**	**OK**	Eq. H1-1b
	LC2 at 0.00%	0.02	OK	Eq. H1-1b
	LC3 at 0.00%	0.02	OK	Eq. H1-1b
	LC4 at 0.00%	0.01	OK	Eq. H1-1b
	LC5 at 0.00%	0.01	OK	Eq. H1-1b
79	LC1 at 32.81%	**0.18**	**OK**	Eq. H1-1b
	LC2 at 32.81%	0.18	OK	Eq. H1-1b
	LC3 at 32.81%	0.03	OK	Eq. H1-1b
	LC4 at 34.38%	0.01	OK	Eq. H1-1b
	LC5 at 34.38%	0.01	OK	Eq. H1-1b
80	LC1 at 35.42%	**0.19**	**OK**	Eq. H1-1b
	LC2 at 35.42%	0.19	OK	Eq. H1-1b
	LC3 at 35.42%	0.03	OK	Eq. H1-1b
	LC4 at 37.50%	0.01	OK	Eq. H1-1b
	LC5 at 37.50%	0.00	OK	Eq. H1-1b
81	LC1 at 62.50%	**0.21**	**OK**	Eq. H1-1b
	LC2 at 62.50%	0.21	OK	Eq. H1-1b
	LC3 at 60.42%	0.04	OK	Eq. H1-1b
	LC4 at 60.42%	0.01	OK	Eq. H1-1b
	LC5 at 60.42%	0.01	OK	Eq. H1-1b

	82	LC1 at 66.67%	**0.25**	**OK**	Eq. H1-1b
		LC2 at 66.67%	0.25	OK	Eq. H1-1b
		LC3 at 66.67%	0.04	OK	Eq. H1-1b
		LC4 at 64.58%	0.01	OK	Eq. H1-1b
		LC5 at 64.58%	0.01	OK	Eq. H1-1b
	83	LC1 at 62.50%	**0.29**	**OK**	Eq. H1-1b
		LC2 at 62.50%	0.29	OK	Eq. H1-1b
		LC3 at 62.50%	0.05	OK	Eq. H1-1b
		LC4 at 60.42%	0.01	OK	Eq. H1-1b
		LC5 at 60.42%	0.01	OK	Eq. H1-1b
	84	LC1 at 31.25%	**0.16**	**OK**	Eq. H1-1b
		LC2 at 31.25%	0.16	OK	Eq. H1-1b
		LC3 at 33.33%	0.04	OK	Eq. H1-1b
		LC4 at 33.33%	0.01	OK	Eq. H1-1b
		LC5 at 33.33%	0.01	OK	Eq. H1-1b
	149	LC1 at 0.00%	**0.77**	**OK**	Eq. H1-1b
		LC2 at 0.00%	0.76	OK	Eq. H1-1b
		LC3 at 0.00%	0.17	OK	Eq. H1-1b
		LC4 at 0.00%	0.04	OK	Eq. H1-1b
		LC5 at 0.00%	0.03	OK	Eq. H1-1b
	150	LC1 at 0.00%	**0.34**	**OK**	Eq. H1-1b
		LC2 at 0.00%	0.33	OK	Eq. H1-1b
		LC3 at 0.00%	0.09	OK	Eq. H1-1b
		LC4 at 0.00%	0.06	OK	Eq. H1-1b
		LC5 at 0.00%	0.04	OK	Eq. H1-1b
	151	LC1 at 0.00%	**0.35**	**OK**	Eq. H1-1b
		LC2 at 0.00%	0.34	OK	Eq. H1-1b
		LC3 at 0.00%	0.12	OK	Eq. H1-1b
		LC4 at 0.00%	0.07	OK	Eq. H1-1b
		LC5 at 0.00%	0.06	OK	Eq. H1-1b
	152	LC1 at 0.00%	**0.74**	**OK**	Eq. H1-1b
		LC2 at 0.00%	0.73	OK	Eq. H1-1b
		LC3 at 0.00%	0.18	OK	Eq. H1-1b
		LC4 at 0.00%	0.04	OK	Eq. H1-1b
		LC5 at 0.00%	0.03	OK	Eq. H1-1b
	153	LC1 at 100.00%	0.20	OK	Eq. H1-1b
		LC2 at 100.00%	**0.21**	**OK**	Eq. H1-1b
		LC3 at 100.00%	0.09	OK	Eq. H1-1b
		LC4 at 100.00%	0.06	OK	Eq. H1-1b
		LC5 at 100.00%	0.04	OK	Eq. H1-1b
	154	LC1 at 15.63%	**0.10**	**OK**	Eq. H1-2
		LC2 at 15.63%	0.10	OK	Eq. H1-1b
		LC3 at 0.00%	0.10	OK	Eq. H1-1b
		LC4 at 0.00%	0.06	OK	Eq. H1-1b
		LC5 at 0.00%	0.05	OK	Eq. H1-1b
T2L 3X3X1_4	19	LC1 at 78.13%	0.35	OK	Eq. H1-1b
		LC2 at 78.13%	**0.36**	**OK**	Eq. H1-1b
		LC3 at 41.67%	0.11	OK	Eq. H1-1b
		LC4 at 57.29%	0.04	OK	Eq. H1-1b
		LC5 at 57.29%	0.03	OK	Eq. H1-1b
	29	LC1 at 22.92%	0.38	OK	Eq. H1-1b
		LC2 at 22.92%	**0.39**	**OK**	Eq. H1-1b

	LC3 at 57.29%	0.12	OK	Eq. H1-1b
	LC4 at 57.29%	0.05	OK	Eq. H1-1b
	LC5 at 57.29%	0.04	OK	Eq. H1-1b
30	LC1 at 50.00%	**0.44**	**OK**	Eq. H1-1b
	LC2 at 50.00%	0.43	OK	Eq. H1-1b
	LC3 at 50.00%	0.14	OK	Eq. H1-1b
	LC4 at 42.71%	0.05	OK	Eq. H1-1b
	LC5 at 42.71%	0.04	OK	Eq. H1-1b
31	LC1 at 3.91%	0.29	OK	Eq. H1-1b
	LC2 at 3.91%	**0.29**	**OK**	Eq. H1-1b
	LC3 at 22.66%	0.09	OK	Eq. H1-1b
	LC4 at 22.66%	0.04	OK	Eq. H1-1b
	LC5 at 22.66%	0.03	OK	Eq. H1-1b
41	LC1 at 96.09%	0.28	OK	Eq. H1-1b
	LC2 at 96.09%	**0.29**	**OK**	Eq. H1-1b
	LC3 at 78.91%	0.12	OK	Eq. H1-1b
	LC4 at 78.91%	0.05	OK	Eq. H1-1b
	LC5 at 78.91%	0.04	OK	Eq. H1-1b
42	LC1 at 100.00%	**0.41**	**OK**	Eq. H1-1b
	LC2 at 100.00%	0.41	OK	Eq. H1-1b
	LC3 at 21.09%	0.09	OK	Eq. H1-1b
	LC4 at 21.09%	0.05	OK	Eq. H1-1b
	LC5 at 21.09%	0.03	OK	Eq. H1-1b
133	LC1 at 0.00%	**0.25**	**OK**	Eq. H1-1b
	LC2 at 0.00%	0.24	OK	Eq. H1-1b
	LC3 at 100.00%	0.10	OK	Sec. E1
	LC4 at 100.00%	0.05	OK	Eq. H1-1b
	LC5 at 100.00%	0.04	OK	Eq. H1-1b
134	LC1 at 100.00%	0.09	OK	Eq. H1-1b
	LC2 at 0.00%	0.09	OK	Eq. H1-1b
	LC3 at 100.00%	**0.09**	**OK**	Eq. H1-1b
	LC4 at 100.00%	0.06	OK	Eq. H1-1b
	LC5 at 100.00%	0.05	OK	Eq. H1-1b
135	LC1 at 100.00%	**0.10**	**OK**	Eq. H1-1b
	LC2 at 100.00%	0.10	OK	Eq. H1-1b
	LC3 at 100.00%	0.08	OK	Sec. E1
	LC4 at 100.00%	0.05	OK	Eq. H1-1b
	LC5 at 100.00%	0.04	OK	Eq. H1-1b

Bentley

Current Date: 10/11/2017 11:49 AM
Units system: English
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Geometry data

GLOSSARY

Cb22, Cb33	: Moment gradient coefficients
Cm22, Cm33	: Coefficients applied to bending term in interaction formula
d0	: Tapered member section depth at J end of member
DJX	: Rigid end offset distance measured from J node in axis X
DJY	: Rigid end offset distance measured from J node in axis Y
DJZ	: Rigid end offset distance measured from J node in axis Z
DKX	: Rigid end offset distance measured from K node in axis X
DKY	: Rigid end offset distance measured from K node in axis Y
DKZ	: Rigid end offset distance measured from K node in axis Z
dL	: Tapered member section depth at K end of member
Ig factor	: Inertia reduction factor (Effective Inertia/Gross Inertia) for reinforced concrete members
K22	: Effective length factor about axis 2
K33	: Effective length factor about axis 3
L22	: Member length for calculation of axial capacity
L33	: Member length for calculation of axial capacity
LB pos	: Lateral unbraced length of the compression flange in the positive side of local axis 2
LB neg	: Lateral unbraced length of the compression flange in the negative side of local axis 2
RX	: Rotation about X
RY	: Rotation about Y
RZ	: Rotation about Z
TO	: 1 = Tension only member 0 = Normal member
TX	: Translation in X
TY	: Translation in Y
TZ	: Translation in Z

Nodes

Node	X [ft]	Y [ft]	Z [ft]	Rigid Floor
1	0.00	0.00	0.00	0
4	-1.1518	0.00	-0.665	0
5	-6.781	0.00	-3.915	0
6	0.00	0.00	1.33	0
7	0.00	0.00	7.83	0
9	1.375	0.00	-3.915	0
10	-1.375	0.00	-3.915	0
11	1.375	0.00	1.585	0
12	-1.375	0.00	1.585	0
46	-1.415	3.00	5.3791	0
47	-1.5882	3.00	5.4791	0
49	0.00	3.00	7.83	0
50	6.781	3.00	-3.915	0
52	-6.781	3.00	-3.915	0
67	-1.415	0.50	5.3791	0
68	-1.5882	0.50	5.4791	0
70	0.00	0.50	7.83	0
74	-6.781	-0.50	-3.915	0
75	0.00	-0.50	7.83	0
76	6.781	-0.50	-3.915	0
77	6.781	3.17	-3.915	0
78	0.00	3.17	7.83	0

79	-6.781	3.17	-3.915	0
80	3.781	1.75	-4.115	0
81	3.781	-1.25	-4.115	0
82	0.031	-1.25	-4.115	0
83	-3.951	-1.25	-4.115	0
84	-5.4542	-1.25	-1.2169	0
85	-3.5792	-1.25	2.0307	0
86	-1.5882	-1.25	5.4791	0
87	1.6732	-1.25	5.3319	0
88	3.5482	-1.25	2.0843	0
89	5.5392	-1.25	-1.3641	0
90	3.781	4.75	-4.115	0
91	0.031	4.75	-4.115	0
92	-3.951	4.75	-4.115	0
93	-5.4542	4.75	-1.2169	0
94	-3.5792	4.75	2.0307	0
95	-1.5882	4.75	5.4791	0
96	1.6732	4.75	5.3319	0
97	3.5482	4.75	2.0843	0
98	5.5392	4.75	-1.3641	0
99	-2.906	0.50	2.7967	0
100	-2.906	3.00	2.7967	0
101	-3.906	0.50	1.0646	0
102	-3.906	3.00	1.0646	0
103	3.875	3.00	1.1183	0
104	3.875	0.50	1.1183	0
105	2.875	3.00	2.8504	0
106	2.875	0.50	2.8504	0
107	1.031	3.00	-3.915	0
108	1.031	0.50	-3.915	0
109	-0.969	3.00	-3.915	0
110	-0.969	0.50	-3.915	0
111	0.00	2.75	7.83	0
113	0.00	0.25	7.83	0
117	0.1732	0.25	7.93	0
124	-0.1732	0.25	7.93	0
129	0.1732	-1.25	7.93	0
130	6.9542	-1.25	-3.815	0
131	-0.1732	-1.25	7.93	0
132	-6.9542	-1.25	-3.815	0
133	-6.781	-1.25	-4.115	0
134	6.781	-1.25	-4.115	0
135	6.9542	4.75	-3.815	0
136	6.781	4.75	-4.115	0
137	-6.9542	4.75	-3.815	0
138	-6.781	4.75	-4.115	0
139	0.1732	4.75	7.93	0
140	-0.1732	4.75	7.93	0
141	3.6081	0.00	1.5805	0
142	-3.6081	0.00	1.5805	0
143	-3.9664	0.00	-2.29	0
144	0.00	0.00	4.58	0
145	3.9664	0.00	-2.29	0
146	6.781	1.75	-3.915	0
147	5.366	1.75	-1.4641	0
148	3.781	1.75	-3.915	0
149	-6.781	1.75	-3.915	0
150	-3.951	1.75	-3.915	0
151	-5.281	1.75	-1.3169	0
152	-1.415	1.75	5.3791	0

153	0.00	1.75	7.83	0
154	1.50	1.75	5.2319	0
155	6.781	2.25	-3.915	0
156	0.00	2.25	7.83	0
166	0.1732	0.50	7.93	0
167	-5.3737	0.00	-3.1025	0
168	5.3737	0.00	-3.1025	0
170	1.1518	-2.50	-0.665	0
171	0.00	-2.50	1.33	0
172	-1.1518	-2.50	-0.665	0
173	5.8428	0.00	-3.3733	0
174	6.3119	0.00	-3.6442	0
175	0.00	0.00	5.6633	0
176	0.00	0.00	6.7467	0
177	-4.9046	0.00	-2.8317	0
178	-5.8428	0.00	-3.3733	0
40	0.031	3.00	-3.915	0
41	0.031	3.00	-4.115	0

Restraints

Node	TX	TY	TZ	RX	RY	RZ
4	1	1	1	1	1	1
6	1	1	1	1	1	1
170	1	1	1	1	1	1
171	1	1	1	1	1	1
172	1	1	1	1	1	1

Members

Member	NJ	NK	Description	Section	Material	d0 [in]	dL [in]	Ig factor
1	2	3		HSS_SQR 4X4X1_4	A500 GrB rectangular	0.00	0.00	0.00
2	4	5		HSS_SQR 4X4X1_4	A500 GrB rectangular	0.00	0.00	0.00
3	6	7		HSS_SQR 4X4X1_4	A500 GrB rectangular	0.00	0.00	0.00
4	7	3		C 5x2-3/8x1/4	A36	0.00	0.00	0.00
5	5	7		C 5x2-3/8x1/4	A36	0.00	0.00	0.00
6	5	3		C 5x2-3/8x1/4	A36	0.00	0.00	0.00
8	12	10		LU 4X3X1_4	A36	0.00	0.00	0.00
9	9	11		LU 4X3X1_4	A36	0.00	0.00	0.00
19	49	50		T2L 3X3X1_4	A36	0.00	0.00	0.00
29	52	49		T2L 3X3X1_4	A36	0.00	0.00	0.00
30	52	50		T2L 3X3X1_4	A36	0.00	0.00	0.00
31	70	71		T2L 3X3X1_4	A36	0.00	0.00	0.00
41	73	70		T2L 3X3X1_4	A36	0.00	0.00	0.00
42	73	71		T2L 3X3X1_4	A36	0.00	0.00	0.00
43	78	75		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
44	79	74		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
45	77	76		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
46	32	53		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
47	34	55		PIPE 2x0.154	A53 GrB	0.00	0.00	0.00

48	46	67	PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
49	65	44	PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
50	63	42	PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
51	38	59	PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
52	81	90	PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
53	82	91	PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
54	83	92	PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
55	84	93	PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
56	94	85	PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
57	95	86	PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
58	96	87	PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
59	97	88	PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
60	89	98	PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
61	101	102	PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
62	99	100	PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
63	103	104	PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
64	105	106	PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
65	109	110	PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
66	107	108	PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
79	139	129	PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
80	140	131	PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
81	130	135	PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
82	134	136	PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
83	133	138	PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
84	137	132	PIPE 2x0.154	A53 GrB	0.00	0.00	0.00
85	142	141	LU 4X3X1_4	A36	0.00	0.00	0.00
117	159	143	L 3X3X1_4	A36	0.00	0.00	0.00
118	164	144	L 3X3X1_4	A36	0.00	0.00	0.00
119	162	145	L 3X3X1_4	A36	0.00	0.00	0.00
133	176	171	T2L 3X3X1_4	A36	0.00	0.00	0.00
134	174	170	T2L 3X3X1_4	A36	0.00	0.00	0.00
135	178	172	T2L 3X3X1_4	A36	0.00	0.00	0.00
149	3	38	PIPE 2x0.154	A36	0.00	0.00	0.00
150	3	32	PIPE 2x0.154	A36	0.00	0.00	0.00
151	5	44	PIPE 2x0.154	A36	0.00	0.00	0.00
152	5	42	PIPE 2x0.154	A36	0.00	0.00	0.00
153	34	7	PIPE 2x0.154	A36	0.00	0.00	0.00
154	7	46	PIPE 2x0.154	A36	0.00	0.00	0.00

Orientation of local axes

Member	Rotation [Deg]	Axes23	NX	NY	NZ
4	180.00	0	0.00	0.00	0.00
5	180.00	0	0.00	0.00	0.00
8	180.00	0	0.00	0.00	0.00
9	180.00	0	0.00	0.00	0.00
19	180.00	0	0.00	0.00	0.00
29	180.00	0	0.00	0.00	0.00
30	180.00	0	0.00	0.00	0.00
61	0.00	2	0.50	0.00	0.866
62	0.00	2	0.50	0.00	0.866
63	0.00	2	-0.50	0.00	0.866
64	0.00	2	-0.50	0.00	0.866

Rigid end offsets

Member	DJX [in]	DJY [in]	DJZ [in]	DKX [in]	DKY [in]	DKZ [in]
52	0.00	0.00	-2.00	0.00	0.00	-2.00
53	0.00	0.00	-2.00	0.00	0.00	-2.00
54	0.00	0.00	-2.00	0.00	0.00	-2.00
55	-1.40	0.00	1.40	-1.40	0.00	1.40
56	-1.40	0.00	1.40	-1.40	0.00	1.40
57	-1.40	0.00	1.40	-1.40	0.00	1.40
58	1.40	0.00	1.40	1.40	0.00	1.40
59	1.40	0.00	1.40	1.40	0.00	1.40
60	1.40	0.00	1.40	1.40	0.00	1.40
79	1.40	0.00	1.40	1.40	0.00	1.40
80	-1.40	0.00	1.40	-1.40	0.00	1.40
81	1.40	0.00	1.40	1.40	0.00	1.40
82	0.00	0.00	-2.00	0.00	0.00	-2.00
83	0.00	0.00	-2.00	0.00	0.00	-2.00
84	-1.40	0.00	1.40	-1.40	0.00	1.40
149	0.00	0.00	-3.00	0.00	0.00	-3.00
152	0.00	0.00	-3.00	0.00	0.00	-3.00