

Date: January 13, 2025



Crown Castle
2000 Corporate Drive
Canonsburg, PA 15317
(724) 416-2000

Subject: Structural Analysis Report

Carrier Designation: Verizon Wireless Co-Locate
Site Number: 5000063674
Site Name: ASHLAND_MA

Crown Castle Designation: BU Number: 806042
Site Name: BOS ASHLAND 959026
JDE Job Number: 2128807
Work Order Number: 2356431
Order Number: 683828 Rev. 0

Engineering Firm Designation: Crown Castle Project Number: 2356431

Site Data: Albert Ray Drive, Ashland, Middlesex County, MA
Latitude: 42° 16' 25.3" Longitude: -71° 27' 5.6"
100.0 ft - Monopole Tower

Crown Castle is pleased to submit this “**Structural Analysis Report**” to determine the structural integrity of the above-mentioned tower.

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: Proposed Equipment Configuration

Sufficient Capacity

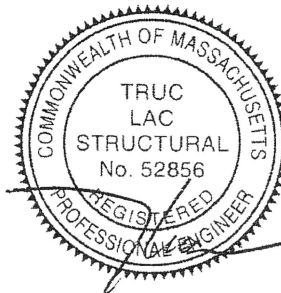
This analysis has been performed in accordance with the 2021 International Building Code as amended by the Massachusetts State Building Code, Tenth Edition based upon an ultimate 3-second gust wind speed of 119 mph. Applicable Standard references and design criteria are listed in Section 2 – Analysis Criteria.

Structural analysis prepared by: Tyler Ho

01/13/25

Respectfully submitted by:

Truc Lac, P.E., S.E.
Senior Project Engineer



Truc
Lac

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by Truc Lac
Date:
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1) INTRODUCTION

This tower is a 100.0 ft Monopole Tower designed by Itt Meyer Inc.. The tower has been modified in the past to accommodate additional loading.

2) ANALYSIS CRITERIA

TIA-222 Revision: TIA-222-H
 Risk Category: II
 Wind Speed: 119 mph
 Exposure Category: C
 Topographic Factor: 1
 Ice Thickness: 1.00 in
 Wind Speed with Ice: 50 mph
 Service Wind Speed: 60 mph

Table 1 - Proposed Equipment Configuration

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)
102	102	6	commscope	NHH-65B-R2B w/ Mount Pipe	2 6	1-5/8 7/8
		3	css	X7C-680 w/ Mount Pipe		
		1	raycap	RVZDC-6627-PF-48		
		3	samsung telecommunications	MT6407-77A w/ Mount Pipe		
		3	samsung telecommunications	RFV01U-D1A		
		3	samsung telecommunications	RFV01U-D2A		
		1	tower mounts	Platform Mount (LP 101-1)		
		1	tower mounts	Side Arm Mount [SO 203-3]		

Table 2 - Other Considered Equipment

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)
94	95	3	ericsson	RADIO 4480_TMOV2	3	1-5/8
	94	1	ericsson	4003_840590966_TMO w/ Mount Pipe		
		2	ericsson	AIR21 B4A B2P_T-MOBILE w/ Mount Pipe		
		1	tower mounts	Platform Mount [LP 303-1_HR-3]		
	93	2	ericsson	4003_840590966_TMO w/ Mount Pipe		
		4	ericsson	AIR21 B4A B2P_T-MOBILE w/ Mount Pipe		
84	87	3	cci antennas	DMP65R-BU6e w/ Mount Pipe	7	7/8
		3	ericsson	RRUS 32 B2	3	3/8
		3	ericsson	RRUS 32 B30	6	13/16
		3	ericsson	RRUS 32 B66		

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)
		3	ericsson	RRUS 4449 B5/B12	1	1-3/8
		3	ericsson	RRUS 4478 B14		
		3	kathrein	80010965 w/ Mount Pipe		
		2	raycap	DC6-48-60-18-8F		
		1	raycap	DC9-48-60-24-8C-EV		
	86	3	ericsson	AIR 6419 B77G w/ Mount Pipe		
		3	ericsson	AIR 6449 N77 w/ Mount Pipe		
	84	2	tower mounts	T-Arm Mount [TA 602-3]		
73	74	3	fujitsu	TA08025-B604	1	1-3/8
		3	fujitsu	TA08025-B605		
		3	jma wireless	MX08FRO665-21 w/ Mount Pipe		
		1	raycap	RDIDC-9181-PF-48		
	73	1	mounts	Commscope_MC-Pk8-DSH_Platform		

3) ANALYSIS PROCEDURE

Table 3 - Documents Provided

Document	Reference	Source
4-GEOTECHNICAL REPORTS	1094280	CCISITES
4-TOWER FOUNDATION DRAWINGS/DESIGN/SPECS	1094282	CCISITES
4-TOWER MANUFACTURER DRAWINGS	5781749	CCISITES
4-TOWER REINFORCEMENT DESIGN/DRAWINGS/DATA	10670451	CCISITES
4-TOWER REINFORCEMENT DESIGN/DRAWINGS/DATA	3794055	CCISITES
4-TOWER REINFORCEMENT DESIGN/DRAWINGS/DATA	2217666	CCISITES
4-TOWER REINFORCEMENT DESIGN/DRAWINGS/DATA	1287595	CCISITES
4-POST-MODIFICATION INSPECTION	11060060	CCISITES
4-POST-MODIFICATION INSPECTION	3817361	CCISITES
4-POST-MODIFICATION INSPECTION	3672212	CCISITES
4-POST-MODIFICATION INSPECTION	2033623	CCISITES

3.1) Analysis Method

tnxTower (version 8.2.4.3), 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. When applicable, Crown Castle has calculated and provided the effective area for panel antennas using approved methods following the intent of the TIA-222 standard.

tnxTower was used to determine the loads on the modified structure. Additional calculations were performed to determine the stresses in the reinforcing elements. These calculations are included in Appendix C.

3.2) Assumptions

- 1) Tower and structures were maintained in accordance with the TIA-222 Standard.

- 2) The configuration of antennas, transmission cables, mounts and other appurtenances are as specified in Tables 1 and 2 and the referenced drawings.

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

4) ANALYSIS RESULTS

Table 4 - Section Capacity (Summary)

Elevation (ft)	Component Type	Size	Critical Element	% Capacity	Pass / Fail
100 - 95	Pole	TP15.319x14.5x0.19	Pole	25.9	Pass
95 - 90	Pole	TP16.138x15.319x0.19	Pole	48.0	Pass
90 - 85.5	Pole	TP16.875x16.138x0.19	Pole	65.4	Pass
85.5 - 85.25	Pole + Reinf.	TP16.916x16.875x0.615	Reinf. 7 Bolt-Shaft Bearing	30.1	Pass
85.25 - 80.25	Pole + Reinf.	TP17.736x16.916x0.59	Reinf. 7 Tension Rupture	38.4	Pass
80.25 - 75.25	Pole + Reinf.	TP18.555x17.736x0.565	Reinf. 7 Tension Rupture	49.4	Pass
75.25 - 70.25	Pole + Reinf.	TP19.374x18.555x0.54	Reinf. 7 Tension Rupture	61.2	Pass
70.25 - 68.5	Pole + Reinf.	TP20.07x19.374x0.54	Reinf. 7 Tension Rupture	65.3	Pass
68.5 - 65	Pole + Reinf.	TP19.863x19.29x0.825	Reinf. 7 Tension Rupture	55.4	Pass
65 - 60	Pole + Reinf.	TP20.681x19.863x0.7875	Reinf. 7 Tension Rupture	63.6	Pass
60 - 55	Pole + Reinf.	TP21.499x20.681x0.75	Reinf. 7 Tension Rupture	71.1	Pass
55 - 54.75	Pole + Reinf.	TP21.54x21.499x0.75	Reinf. 7 Tension Rupture	71.4	Pass
54.75 - 54.5	Pole + Reinf.	TP21.581x21.54x0.95	Reinf. 3 Bolt-Shaft Bearing	57.3	Pass
54.5 - 54.25	Pole + Reinf.	TP21.622x21.581x0.95	Reinf. 3 Tension Rupture	57.5	Pass
54.25 - 54	Pole + Reinf.	TP21.663x21.622x1.8	Reinf. 17 Tension Rupture	35.2	Pass
54 - 49	Pole + Reinf.	TP22.481x21.663x1.7	Reinf. 17 Tension Rupture	38.9	Pass
49 - 44	Pole + Reinf.	TP23.3x22.481x1.6	Reinf. 17 Tension Rupture	42.4	Pass
44 - 39	Pole + Reinf.	TP24.118x23.3x1.525	Reinf. 17 Tension Rupture	45.8	Pass
39 - 38.75	Pole + Reinf.	TP24.159x24.118x0.825	Reinf. 1 Tension Rupture	74.9	Pass
38.75 - 36.25	Pole + Reinf.	TP25.1x24.159x0.825	Reinf. 1 Tension Rupture	77.4	Pass
36.25 - 32.75	Pole + Reinf.	TP24.643x24.07x0.825	Reinf. 1 Tension Rupture	82.8	Pass
32.75 - 32.5	Pole + Reinf.	TP24.683x24.643x0.85	Reinf. 1 Tension Rupture	77.1	Pass
32.5 - 29.75	Pole + Reinf.	TP25.133x24.683x0.825	Reinf. 1 Tension Rupture	79.5	Pass
29.75 - 29.5	Pole + Reinf.	TP25.174x25.133x1.1	Reinf. 1 Tension Rupture	63.9	Pass
29.5 - 26.75	Pole + Reinf.	TP25.624x25.174x1.075	Reinf. 1 Tension Rupture	65.9	Pass
26.75 - 26.5	Pole + Reinf.	TP25.665x25.624x0.9125	Reinf. 5 Tension Rupture	73.1	Pass
26.5 - 23.5	Pole + Reinf.	TP26.156x25.665x0.9	Reinf. 5 Tension Rupture	75.3	Pass
23.5 - 23.25	Pole + Reinf.	TP26.197x26.156x0.9	Reinf. 5 Tension Rupture	74.9	Pass
23.25 - 22.75	Pole + Reinf.	TP26.278x26.197x0.9	Reinf. 5 Tension Rupture	75.3	Pass
22.75 - 22.5	Pole + Reinf.	TP26.319x26.278x1.05	Reinf. 3 Tension Rupture	69.0	Pass
22.5 - 17.5	Pole + Reinf.	TP27.137x26.319x1.025	Reinf. 3 Tension Rupture	72.2	Pass
17.5 - 15.75	Pole + Reinf.	TP27.424x27.137x1	Reinf. 3 Tension Rupture	73.3	Pass

Elevation (ft)	Component Type	Size	Critical Element	% Capacity	Pass / Fail
15.75 - 15.5	Pole + Reinf.	TP27.464x27.424x1.0875	Reinf. 6 Tension Rupture	64.1	Pass
15.5 - 12.25	Pole + Reinf.	TP27.996x27.464x1.075	Reinf. 6 Tension Rupture	65.9	Pass
12.25 - 12	Pole + Reinf.	TP28.037x27.996x0.95	Reinf. 1 Tension Rupture	73.4	Pass
12 - 11.75	Pole + Reinf.	TP28.078x28.037x1.075	Reinf. 3 Tension Rupture	62.1	Pass
11.75 - 11.5	Pole + Reinf.	TP28.119x28.078x0.875	Reinf. 6 Tension Rupture	73.1	Pass
11.5 - 6.5	Pole + Reinf.	TP28.937x28.119x0.85	Reinf. 6 Tension Rupture	76.0	Pass
6.5 - 6	Pole + Reinf.	TP29.018x28.937x0.85	Reinf. 6 Tension Rupture	76.3	Pass
6 - 5.75	Pole + Reinf.	TP29.059x29.018x0.85	Reinf. 6 Tension Rupture	76.4	Pass
5.75 - 4.5	Pole + Reinf.	TP29.264x29.059x0.8375	Reinf. 6 Tension Rupture	77.1	Pass
4.5 - 4.25	Pole + Reinf.	TP29.305x29.264x0.9	Reinf. 8 Tension Yield	78.2	Pass
4.25 - 3	Pole + Reinf.	TP29.509x29.305x0.9	Reinf. 8 Tension Yield	78.9	Pass
3 - 2.75	Pole + Reinf.	TP29.55x29.509x1	Reinf. 8 Tension Yield	74.6	Pass
2.75 - 1.75	Pole + Reinf.	TP29.714x29.55x1	Reinf. 8 Tension Yield	75.1	Pass
1.75 - 1.5	Pole + Reinf.	TP29.755x29.714x0.975	Reinf. 8 Tension Yield	78.3	Pass
1.5 - 1.25	Pole + Reinf.	TP29.796x29.755x0.975	Reinf. 8 Tension Yield	78.4	Pass
1.25 - 1	Pole + Reinf.	TP29.836x29.796x1.0375	Reinf. 14 Connection	72.5	Pass
1 - 0	Pole + Reinf.	TP30x29.836x1.025	Reinf. 14 Connection	73.0	Pass
				Summary	
			Pole	70.2	Pass
			Reinforcement	82.8	Pass
			Overall	82.8	Pass

Table 5 - Tower Component Stresses vs. Capacity - LC7

Notes	Component	Elevation (ft)	% Capacity	Pass / Fail
1	Anchor Rods	0	76.6	Pass
1	Base Plate	0	60.0	Pass
1	Base Foundation (Structural)	0	68.1	Pass
1	Base Foundation (Soil)	0	71.7	Pass

Structure Rating (max from all components) =	82.8%
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Notes:

- 1) See additional documentation in "Appendix C – Additional Calculations" for calculations supporting the % capacity consumed

4.1) Recommendations

The tower and its foundation have sufficient capacity to carry the considered equipment configuration. No modifications are required at this time.

APPENDIX A
TNXTOWER OUTPUT

Tower Input Data

The tower is a monopole.

This tower is designed using the TIA-222-H standard.

The following design criteria apply:

- Tower base elevation above sea level: 325.00 ft.
- Basic wind speed of 119 mph.
- Risk Category II.
- Exposure Category C.
- Simplified Topographic Factor Procedure for wind speed-up calculations is used.
- Topographic Category: 1.
- Crest Height: 0.00 ft.
- Nominal ice thickness of 1.00 in.
- Ice thickness is considered to increase with height.
- Ice density of 56.00 pcf.
- A wind speed of 50 mph is used in combination with ice.
- Temperature drop of 50 °F.
- Deflections calculated using a wind speed of 60 mph.
- A non-linear (P-delta) analysis was used.
- Pressures are calculated at each section.
- Stress ratio used in pole design is 1.
- Tower analysis based on target reliabilities in accordance with Annex S.
- Load Modification Factors used: $K_{es}(F_w) = 0.95$, $K_{es}(t_i) = 0.85$.
- Maximum demand-capacity ratio is: 1.05.
- Local bending stresses due to climbing loads, feed line supports, and appurtenance mounts are not considered.

Options

- | | | |
|---|---|---|
| <ul style="list-style-type: none"> Consider Moments - Legs Consider Moments - Horizontals Consider Moments - Diagonals Use Moment Magnification √ Use Code Stress Ratios √ Use Code Safety Factors - Guys Escalate Ice Always Use Max Kz Use Special Wind Profile Include Bolts In Member Capacity Leg Bolts Are At Top Of Section Secondary Horizontal Braces Leg Use Diamond Inner Bracing (4 Sided) SR Members Have Cut Ends SR Members Are Concentric Distribute Leg Loads As Uniform | <ul style="list-style-type: none"> Assume Legs Pinned √ Assume Rigid Index Plate √ Use Clear Spans For Wind Area Use Clear Spans For KL/r Retension Guys To Initial Tension √ Bypass Mast Stability Checks √ Use Azimuth Dish Coefficients √ Project Wind Area of Appurtenances √ Alternative Appurt. EPA Calculation Autocalc Torque Arm Areas Add IBC .6D+W Combination √ Sort Capacity Reports By Component Triangulate Diamond Inner Bracing Treat Feed Line Bundles As Cylinder Ignore KL/ry For 60 Deg. Angle Legs Use ASCE 10 X-Brace Ly Rules | <ul style="list-style-type: none"> Calculate Redundant Bracing Forces Ignore Redundant Members in FEA SR Leg Bolts Resist Compression All Leg Panels Have Same Allowable Offset Girt At Foundation √ Consider Feed Line Torque Include Angle Block Shear Check Use TIA-222-H Bracing Resist. Exemption Use TIA-222-H Tension Splice Exemption <li style="padding-left: 40px;">Poles √ Include Shear-Torsion Interaction Always Use Sub-Critical Flow Use Top Mounted Sockets Pole Without Linear Attachments Pole With Shroud Or No Appurtenances Outside and Inside Corner Radii Are Known |
|---|---|---|

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	100.0000- 95.0000	5.0000	0.00	12	14.50	15.32	0.19	0.76	A572-50 (50 ksi)
L2	95.0000- 90.0000	5.0000	0.00	12	15.32	16.14	0.19	0.76	A572-50 (50 ksi)
L3	90.0000- 85.5000	4.5000	0.00	12	16.14	16.88	0.19	0.76	A572-50 (50 ksi)
L4	85.5000- 85.2500	0.2500	0.00	12	16.88	16.92	0.61	2.46	A572-50 (50 ksi)
L5	85.2500- 80.2500	5.0000	0.00	12	16.92	17.74	0.59	2.36	A572-50 (50 ksi)
L6	80.2500- 75.2500	5.0000	0.00	12	17.74	18.55	0.56	2.26	A572-50 (50 ksi)
L7	75.2500- 70.2500	5.0000	0.00	12	18.55	19.37	0.54	2.16	A572-50 (50 ksi)
L8	70.2500- 66.0000	4.2500	2.50	12	19.37	20.07	0.54	2.16	A572-50 (50 ksi)
L9	66.0000- 65.0000	3.5000	0.00	12	19.29	19.86	0.82	3.30	A572-50 (50 ksi)
L10	65.0000- 60.0000	5.0000	0.00	12	19.86	20.68	0.79	3.15	A572-50 (50 ksi)
L11	60.0000- 55.0000	5.0000	0.00	12	20.68	21.50	0.75	3.00	A572-50 (50 ksi)
L12	55.0000- 54.7500	0.2500	0.00	12	21.50	21.54	0.75	3.00	A572-50 (50 ksi)
L13	54.7500- 54.5000	0.2500	0.00	12	21.54	21.58	0.95	3.80	A572-50 (50 ksi)
L14	54.5000- 54.2500	0.2500	0.00	12	21.58	21.62	0.95	3.80	A572-50 (50 ksi)
L15	54.2500- 54.0000	0.2500	0.00	12	21.62	21.66	1.80	7.20	A572-50 (50 ksi)
L16	54.0000- 49.0000	5.0000	0.00	12	21.66	22.48	1.70	6.80	A572-50 (50 ksi)
L17	49.0000- 44.0000	5.0000	0.00	12	22.48	23.30	1.60	6.40	A572-50 (50 ksi)
L18	44.0000- 39.0000	5.0000	0.00	12	23.30	24.12	1.52	6.10	A572-50 (50 ksi)
L19	39.0000- 38.7500	0.2500	0.00	12	24.12	24.16	0.82	3.30	A572-50 (50 ksi)
L20	38.7500- 33.0000	5.7500	3.25	12	24.16	25.10	0.82	3.30	A572-50 (50 ksi)
L21	33.0000- 32.7500	3.5000	0.00	12	24.07	24.64	0.82	3.30	A572-65 (65 ksi)
L22	32.7500- 32.5000	0.2500	0.00	12	24.64	24.68	0.85	3.40	A572-65 (65 ksi)
L23	32.5000- 29.7500	2.7500	0.00	12	24.68	25.13	0.82	3.30	A572-65 (65 ksi)
L24	29.7500- 29.5000	0.2500	0.00	12	25.13	25.17	1.10	4.40	A572-65 (65 ksi)
L25	29.5000- 26.7500	2.7500	0.00	12	25.17	25.62	1.07	4.30	A572-65 (65 ksi)
L26	26.7500- 26.5000	0.2500	0.00	12	25.62	25.66	0.91	3.65	A572-65 (65 ksi)
L27	26.5000- 23.5000	3.0000	0.00	12	25.66	26.16	0.90	3.60	A572-65 (65 ksi)
L28	23.5000- 23.2500	0.2500	0.00	12	26.16	26.20	0.90	3.60	A572-65 (65 ksi)
L29	23.2500- 22.7500	0.5000	0.00	12	26.20	26.28	0.90	3.60	A572-65 (65 ksi)
L30	22.7500- 22.5000	0.2500	0.00	12	26.28	26.32	1.05	4.20	A572-65 (65 ksi)
L31	22.5000- 17.5000	5.0000	0.00	12	26.32	27.14	1.02	4.10	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
L32	17.5000-15.7500	1.7500	0.00	12	27.14	27.42	1.00	4.00	A572-65 (65 ksi)
L33	15.7500-15.5000	0.2500	0.00	12	27.42	27.46	1.09	4.35	A572-65 (65 ksi)
L34	15.5000-12.2500	3.2500	0.00	12	27.46	28.00	1.07	4.30	A572-65 (65 ksi)
L35	12.2500-12.0000	0.2500	0.00	12	28.00	28.04	0.95	3.80	A572-65 (65 ksi)
L36	12.0000-11.7500	0.2500	0.00	12	28.04	28.08	1.07	4.30	A572-65 (65 ksi)
L37	11.7500-11.5000	0.2500	0.00	12	28.08	28.12	0.88	3.50	A572-65 (65 ksi)
L38	11.5000-6.5000	5.0000	0.00	12	28.12	28.94	0.85	3.40	A572-65 (65 ksi)
L39	6.5000-6.0000	0.5000	0.00	12	28.94	29.02	0.85	3.40	A572-65 (65 ksi)
L40	6.0000-5.7500	0.2500	0.00	12	29.02	29.06	0.85	3.40	A572-65 (65 ksi)
L41	5.7500-4.5000	1.2500	0.00	12	29.06	29.26	0.84	3.35	A572-65 (65 ksi)
L42	4.5000-4.2500	0.2500	0.00	12	29.26	29.30	0.90	3.60	A572-65 (65 ksi)
L43	4.2500-3.0000	1.2500	0.00	12	29.30	29.51	0.90	3.60	A572-65 (65 ksi)
L44	3.0000-2.7500	0.2500	0.00	12	29.51	29.55	1.00	4.00	A572-65 (65 ksi)
L45	2.7500-1.7500	1.0000	0.00	12	29.55	29.71	1.00	4.00	A572-65 (65 ksi)
L46	1.7500-1.5000	0.2500	0.00	12	29.71	29.75	0.97	3.90	A572-65 (65 ksi)
L47	1.5000-1.2500	0.2500	0.00	12	29.75	29.80	0.97	3.90	A572-65 (65 ksi)
L48	1.2500-1.0000	0.2500	0.00	12	29.80	29.84	1.04	4.15	A572-65 (65 ksi)
L49	1.0000-0.0000	1.0000		12	29.84	30.00	1.02	4.10	A572-65 (65 ksi)

Tapered Pole Properties

Section	Tip Dia. in	Area in ²	I in ⁴	r in	C in	I/C in ³	J in ⁴	I _t /Q in ²	w in	w/t
L1	14.94	8.75	228.83	5.12	7.51	30.47	463.67	4.31	3.38	17.773
	15.79	9.26	270.42	5.42	7.94	34.08	547.94	4.56	3.60	18.928
L2	15.79	9.26	270.42	5.42	7.94	34.08	547.94	4.56	3.60	18.928
	16.64	9.76	316.76	5.71	8.36	37.89	641.85	4.80	3.82	20.083
L3	16.64	9.76	316.76	5.71	8.36	37.89	641.85	4.80	3.82	20.083
	17.40	10.21	362.75	5.97	8.74	41.50	735.03	5.02	4.01	21.123
L4	17.25	32.20	1086.71	5.82	8.74	124.32	2201.97	15.85	2.87	4.674
	17.30	32.28	1094.94	5.84	8.76	124.96	2218.65	15.89	2.89	4.692
L5	17.31	31.02	1055.27	5.84	8.76	120.43	2138.27	15.27	2.95	5.004
	18.15	32.57	1222.21	6.14	9.19	133.04	2476.53	16.03	3.17	5.376
L6	18.16	31.24	1175.55	6.15	9.19	127.96	2381.98	15.37	3.24	5.733
	19.01	32.73	1351.94	6.44	9.61	140.66	2739.40	16.11	3.46	6.121
L7	19.02	31.32	1297.51	6.45	9.61	135.00	2629.11	15.42	3.53	6.529
	19.87	32.75	1482.68	6.74	10.04	147.74	3004.30	16.12	3.74	6.935
L8	19.87	32.75	1482.68	6.74	10.04	147.74	3004.30	16.12	3.74	6.935
	20.59	33.96	1653.26	6.99	10.40	159.02	3349.96	16.71	3.93	7.281
L9	20.10	49.05	2134.73	6.61	9.99	213.64	4325.55	24.14	2.96	3.586

Section	Tip Dia. in	Area in ²	I in ⁴	r in	C in	I/C in ³	J in ⁴	It/Q in ²	w in	w/t
	20.27	50.57	2339.63	6.82	10.29	227.39	4740.72	24.89	3.11	3.772
L10	20.29	48.37	2246.51	6.83	10.29	218.34	4552.03	23.81	3.21	4.08
	21.13	50.45	2548.20	7.12	10.71	237.86	5163.35	24.83	3.43	4.358
L11	21.15	48.13	2440.61	7.14	10.71	227.82	4945.34	23.69	3.53	4.71
	21.99	50.11	2753.73	7.43	11.14	247.27	5579.81	24.66	3.75	5.002
L12	21.99	50.11	2753.73	7.43	11.14	247.27	5579.81	24.66	3.75	5.002
	22.04	50.21	2770.06	7.44	11.16	248.26	5612.89	24.71	3.76	5.017
L13	21.97	62.99	3408.45	7.37	11.16	305.47	6906.44	31.00	3.23	3.397
	22.01	63.11	3428.81	7.39	11.18	306.72	6947.69	31.06	3.24	3.408
L14	22.01	63.11	3428.81	7.39	11.18	306.72	6947.69	31.06	3.24	3.408
	22.05	63.24	3449.25	7.40	11.20	307.96	6989.11	31.12	3.25	3.42
L15	21.75	114.89	5761.94	7.10	11.20	514.45	11675.25	56.55	0.97	0.539
	21.79	115.13	5797.69	7.11	11.22	516.66	11747.70	56.66	0.98	0.545
L16	21.83	109.28	5558.72	7.15	11.22	495.36	11263.47	53.78	1.25	0.735
	22.67	113.76	6270.70	7.44	11.65	538.47	12706.13	55.99	1.47	0.864
L17	22.71	107.58	5987.44	7.48	11.65	514.15	12132.18	52.95	1.74	1.086
	23.56	111.80	6719.30	7.77	12.07	556.73	13615.13	55.02	1.96	1.223
L18	23.58	106.92	6470.97	7.80	12.07	536.15	13111.94	52.63	2.16	1.415
	24.43	110.94	7228.28	8.09	12.49	578.58	14646.46	54.60	2.38	1.558
L19	24.68	61.88	4285.22	8.34	12.49	343.01	8683.03	30.45	4.25	5.155
	24.72	61.99	4307.85	8.35	12.51	344.23	8728.86	30.51	4.26	5.168
L20	24.72	61.99	4307.85	8.35	12.51	344.23	8728.86	30.51	4.26	5.168
	25.69	64.49	4850.35	8.69	13.00	373.05	9828.13	31.74	4.52	5.474
L21	25.18	61.75	4258.77	8.32	12.47	341.57	8629.43	30.39	4.24	5.139
	25.22	63.27	4581.28	8.53	12.76	358.90	9282.92	31.14	4.39	5.325
L22	25.21	65.12	4705.26	8.52	12.76	368.61	9534.14	32.05	4.33	5.09
	25.25	65.23	4729.57	8.53	12.79	369.90	9583.39	32.11	4.34	5.103
L23	25.26	63.38	4604.92	8.54	12.79	360.15	9330.82	31.19	4.40	5.338
	25.73	64.58	4870.35	8.70	13.02	374.09	9868.65	31.78	4.52	5.485
L24	25.63	85.13	6275.89	8.60	13.02	482.05	12716.65	41.90	3.79	3.443
	25.67	85.27	6307.98	8.62	13.04	483.73	12781.68	41.97	3.80	3.453
L25	25.68	83.42	6183.84	8.63	13.04	474.21	12530.14	41.06	3.87	3.596
	26.15	84.98	6536.65	8.79	13.27	492.47	13245.03	41.82	3.99	3.708
L26	26.21	72.61	5659.47	8.85	13.27	426.38	11467.62	35.74	4.42	4.846
	26.25	72.73	5687.61	8.86	13.29	427.82	11524.65	35.79	4.43	4.858
L27	26.25	71.77	5618.20	8.87	13.29	422.60	11384.00	35.32	4.47	4.962
	26.76	73.19	5958.87	9.04	13.55	439.81	12074.28	36.02	4.60	5.109
L28	26.76	73.19	5958.87	9.04	13.55	439.81	12074.28	36.02	4.60	5.109
	26.80	73.31	5987.86	9.06	13.57	441.26	12133.03	36.08	4.61	5.121
L29	26.80	73.31	5987.86	9.06	13.57	441.26	12133.03	36.08	4.61	5.121
	26.89	73.55	6046.13	9.09	13.61	444.17	12251.11	36.20	4.63	5.145
L30	26.84	85.30	6929.48	9.03	13.61	509.06	14041.02	41.98	4.23	4.027
	26.88	85.44	6963.24	9.05	13.63	510.75	14109.41	42.05	4.24	4.038
L31	26.89	83.48	6817.64	9.06	13.63	500.07	13814.39	41.09	4.31	4.202
	27.73	86.18	7500.64	9.35	14.06	533.58	15198.32	42.42	4.53	4.415
L32	27.74	84.16	7338.73	9.36	14.06	522.07	14870.26	41.42	4.59	4.593
	28.04	85.08	7582.52	9.46	14.21	533.78	15364.25	41.88	4.67	4.67
L33	28.01	92.22	8164.35	9.43	14.21	574.74	16543.18	45.39	4.44	4.078
	28.05	92.37	8202.44	9.44	14.23	576.56	16620.37	45.46	4.45	4.088
L34	28.05	91.35	8119.69	9.45	14.23	570.74	16452.70	44.96	4.48	4.167
	28.60	93.19	8620.40	9.64	14.50	594.43	17467.26	45.86	4.62	4.299
L35	28.65	82.73	7724.63	9.68	14.50	532.66	15652.20	40.72	4.96	5.218
	28.69	82.86	7759.73	9.70	14.52	534.30	15723.31	40.78	4.97	5.229
L36	28.65	93.33	8659.74	9.65	14.52	596.27	17546.98	45.93	4.63	4.31
	28.69	93.47	8699.21	9.67	14.54	598.12	17626.95	46.00	4.64	4.32
L37	28.76	76.64	7239.25	9.74	14.54	497.74	14668.69	37.72	5.18	5.92
	28.80	76.76	7271.95	9.75	14.57	499.26	14734.94	37.78	5.19	5.932
L38	28.81	74.63	7083.65	9.76	14.57	486.33	14353.39	36.73	5.26	6.186
	29.66	76.87	7740.38	10.06	14.99	516.40	15684.11	37.83	5.48	6.444
L39	29.66	76.87	7740.38	10.06	14.99	516.40	15684.11	37.83	5.48	6.444
	29.74	77.10	7808.20	10.08	15.03	519.45	15821.54	37.94	5.50	6.469
L40	29.74	77.10	7808.20	10.08	15.03	519.45	15821.54	37.94	5.50	6.469
	29.78	77.21	7842.26	10.10	15.05	520.99	15890.55	38.00	5.51	6.482

Section	Tip Dia. in	Area in ²	I in ⁴	r in	C in	I/C in ³	J in ⁴	It/Q in ²	w in	w/t
L41	29.79	76.11	7737.21	10.10	15.05	514.01	15677.69	37.46	5.54	6.619
	30.00	76.66	7906.61	10.18	15.16	521.59	16020.94	37.73	5.60	6.684
L42	29.98	82.20	8440.74	10.15	15.16	556.83	17103.22	40.46	5.43	6.034
	30.02	82.32	8477.30	10.17	15.18	558.46	17177.31	40.51	5.44	6.046
L43	30.02	82.32	8477.30	10.17	15.18	558.46	17177.31	40.51	5.44	6.046
	30.23	82.91	8661.70	10.24	15.29	566.65	17550.96	40.81	5.50	6.107
L44	30.20	91.80	9523.55	10.21	15.29	623.03	19297.29	45.18	5.23	5.228
	30.24	91.93	9564.59	10.22	15.31	624.85	19380.46	45.25	5.24	5.239
L45	30.24	91.93	9564.59	10.22	15.31	624.85	19380.46	45.25	5.24	5.239
	30.41	92.46	9729.95	10.28	15.39	632.15	19715.51	45.51	5.28	5.283
L46	30.42	90.23	9511.50	10.29	15.39	617.96	19272.87	44.41	5.35	5.487
	30.46	90.35	9552.16	10.30	15.41	619.75	19355.27	44.47	5.36	5.499
L47	30.46	90.35	9552.16	10.30	15.41	619.75	19355.27	44.47	5.36	5.499
	30.50	90.48	9592.94	10.32	15.43	621.54	19437.90	44.53	5.37	5.51
L48	30.48	96.07	10141.61	10.30	15.43	657.09	20549.64	47.28	5.20	5.017
	30.52	96.21	10184.93	10.31	15.46	658.99	20637.44	47.35	5.22	5.027
L49	30.53	95.09	10075.33	10.31	15.46	651.90	20415.36	46.80	5.25	5.121
	30.70	95.63	10247.93	10.37	15.54	659.45	20765.08	47.07	5.29	5.164

Tower Elevation	Gusset Area (per face)	Gusset Thickness	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
ft	ft ²	in							
L1 100.0000- 95.0000				1	1	1			
L2 95.0000- 90.0000				1	1	1			
L3 90.0000- 85.5000				1	1	1			
L4 85.5000- 85.2500				1	1	0.842816			
L5 85.2500- 80.2500				1	1	0.850662			
L6 80.2500- 75.2500				1	1	0.861932			
L7 75.2500- 70.2500				1	1	0.876719			
L8 70.2500- 66.0000				1	1	0.86885			
L9 66.0000- 65.0000				1	1	1.13047			
L10 65.0000- 60.0000				1	1	1.14642			
L11 60.0000- 55.0000				1	1	1.16724			
L12 55.0000- 54.7500				1	1	1.16559			
L13 54.7500- 54.5000				1	1	1.06207			
L14 54.5000- 54.2500				1	1	1.06048			
L15 54.2500- 54.0000				1	1	0.774424			
L16 54.0000- 49.0000				1	1	0.789535			
L17 49.0000- 44.0000				1	1	0.809273			
L18 44.0000- 39.0000				1	1	0.821439			
L19 39.0000- 38.7500				1	1	1.07694			
L20 38.7500-				1	1	1.0636			

Tower Elevation	Gusset Area (per face)	Gusset Thickness	Gusset Grade	Adjust. Factor A_f	Adjust. Factor A_r	Weight Mult.	Double Angle Stitch Bolt Spacing Diagonals	Double Angle Stitch Bolt Spacing Horizontals	Double Angle Stitch Bolt Spacing Redundants
ft	ft ²	in					in	in	in
33.0000									
L21 33.0000-32.7500				1	1	1.06123			
L22 32.7500-32.5000				1	1	1.11657			
L23 32.5000-29.7500				1	1	1.13354			
L24 29.7500-29.5000				1	1	0.991518			
L25 29.5000-26.7500				1	1	0.999213			
L26 26.7500-26.5000				1	1	0.864577			
L27 26.5000-23.5000				1	1	0.864516			
L28 23.5000-23.2500				1	1	1.02749			
L29 23.2500-22.7500				1	1	1.02507			
L30 22.7500-22.5000				1	1	0.978052			
L31 22.5000-17.5000				1	1	0.977204			
L32 17.5000-15.7500				1	1	0.992543			
L33 15.7500-15.5000				1	1	1.00648			
L34 15.5000-12.2500				1	1	1.0022			
L35 12.2500-12.0000				1	1	1.05923			
L36 12.0000-11.7500				1	1	1.02002			
L37 11.7500-11.5000				1	1	1.13202			
L38 11.5000-6.5000				1	1	1.1389			
L39 6.5000-6.0000				1	1	1.13645			
L40 6.0000-5.7500				1	1	1.13523			
L41 5.7500-4.5000				1	1	1.14553			
L42 4.5000-4.2500				1	1	1.04187			
L43 4.2500-3.0000				1	1	1.03641			
L44 3.0000-2.7500				1	1	1.00314			
L45 2.7500-1.7500				1	1	0.998847			
L46 1.7500-1.5000				1	1	0.931343			
L47 1.5000-1.2500				1	1	0.930385			
L48 1.2500-1.0000				1	1	0.838483			
L49 1.0000-0.0000				1	1	0.844928			

Feed Line/Linear Appurtenances - Entered As Round Or Flat

Description	Sector	Exclude From Torque Calculation	Component Type	Placement ft	Total Number	Number Per Row	Start/End Position	Width or Diameter in	Perimeter in	Weight plf

MLE HYBRID 9POWER/18FIBER RL 2(1-5/8)	C	No	Surface Ar (CaAa)	94.0000 - 0.0000	3	3	-0.459 -0.315	1.62		1.07

CR 50 1070(7/8)	C	No	Surface Ar (CaAa)	84.0000 - 0.0000	6	6	-0.235 0.500	1.17		0.28
FB-L98B-034-XXX(3/8)	C	No	Surface Ar (CaAa)	84.0000 - 0.0000	2	1	0.246 0.246	0.00		0.06

CU12PSM9P8XXX(1-3/8)	A	No	Surface Ar (CaAa)	73.0000 - 0.0000	1	1	-0.009 0.009	1.41		1.66

MP3-06 Reinforcement	B	No	Surface Af (CaAa)	58.0000 - 0.0000	1	1	-0.176 -0.176	6.89	19.00	0.00
MP3-06 Reinforcement	A	No	Surface Af (CaAa)	59.0000 - 0.0000	1	1	-0.176 -0.176	6.89	19.00	0.00
MP3-06 Reinforcement	C	No	Surface Af (CaAa)	19.0000 - 0.0000	1	1	0.074 0.074	6.89	19.00	0.00
MP3-06 Reinforcement	C	No	Surface Af (CaAa)	58.5000 - 8.5000	1	1	-0.176 -0.176	6.89	19.00	0.00

MP3-05 Reinforcement	A	No	Surface Af (CaAa)	35.0000 - 10.0000	1	1	0.324 0.324	5.33	14.84	0.00
MP3-05 Reinforcement	C	No	Surface Af (CaAa)	32.0000 - 0.0000	1	1	0.324 0.324	5.33	14.84	0.00
MP3-05 Reinforcement	B	No	Surface Af (CaAa)	32.0000 - 0.0000	1	1	0.324 0.324	5.33	14.84	0.00
MP3-05 Reinforcement	B	No	Surface Af (CaAa)	88.0000 - 58.0000	1	1	-0.176 -0.176	5.33	14.84	0.00
MP3-05 Reinforcement	A	No	Surface Af (CaAa)	89.0000 - 59.0000	1	1	-0.176 -0.176	5.33	14.84	0.00
MP3-05 Reinforcement	C	No	Surface Af (CaAa)	88.5000 - 58.5000	1	1	-0.176 -0.176	5.33	14.84	0.00

CCI-065125 Reinforcement	B	No	Surface Af (CaAa)	20.4320 - 0.0000	1	1	-0.426 -0.426	6.50	15.50	0.00
CCI-065125 Reinforcement	B	No	Surface Af (CaAa)	25.5000 - 20.4320	1	1	-0.426 -0.426	6.50	15.50	0.00
CCI-060100 Reinforcement	A	No	Surface Af (CaAa)	25.7500 - 5.7500	1	1	-0.426 -0.426	6.00	14.00	0.00
CCI-060100 Reinforcement	B	No	Surface Af (CaAa)	25.7500 - 5.7500	1	1	0.074 0.074	6.00	14.00	0.00
FP 1.25 x 8.5 Reinforcement	A	No	Surface Af (CaAa)	7.2500 - 0.0000	1	1	-0.401 -0.401	1.25	19.50	0.00
FP 1.25 x 8.5 Reinforcement	B	No	Surface Af (CaAa)	7.2500 - 0.0000	1	1	0.124 0.124	1.25	19.50	0.00

FP 1.25 x 8.5	B	No	Surface Af	15.0000 -	1	1	-0.426	1.25	19.50	0.00

Description	Sector	Exclude From Torque Calculation	Component Type	Placement ft	Total Number	Number Per Row	Start/End Position	Width or Diameter in	Perimeter in	Weight plf
Reinforcement			(CaAa)	0.0000			-0.426			
FP 1.25 x 8.5	A	No	Surface Af	15.0000 -	1	1	-0.401	1.25	19.50	0.00
Reinforcement			(CaAa)	7.2500			-0.401			
FP 1.25 x 8.5	B	No	Surface Af	15.0000 -	1	1	0.124	1.25	19.50	0.00
Reinforcement			(CaAa)	7.2500			0.124			
CCI-065125	A	No	Surface Af	58.0000 -	1	1	0.074	6.50	15.50	0.00
Reinforcement			(CaAa)	23.0000			0.074			
CCI-065125	C	No	Surface Af	58.0000 -	1	1	0.074	6.50	15.50	0.00
Reinforcement			(CaAa)	23.0000			0.074			
CCI-065125	C	No	Surface Af	58.0000 -	1	1	-0.426	6.50	15.50	0.00
Reinforcement			(CaAa)	23.0000			-0.426			
CCI-065125	B	No	Surface Af	70.0000 -	1	1	-0.426	6.50	15.50	0.00
Reinforcement			(CaAa)	35.0000			-0.426			
CCI-065125	A	No	Surface Af	70.0000 -	1	1	-0.426	6.50	15.50	0.00
Reinforcement			(CaAa)	35.0000			-0.426			
CCI-065125	B	No	Surface Af	70.0000 -	1	1	0.074	6.50	15.50	0.00
Reinforcement			(CaAa)	35.0000			0.074			
*										
*										
*										

Feed Line/Linear Appurtenances - Entered As Area

Description	Face or Leg	Allow Shield	Exclude From Torque Calculation	Component Type	Placement ft	Total Number		C _A A _A ft ² /ft	Weight plf
LDF5-50A(7/8)	C	No	No	Inside Pole	100.0000 -	6	No Ice	0.0000	0.33
					0.0000		1/2" Ice	0.0000	0.33
							1" Ice	0.0000	0.33
HB158-1-08U8-S8J18(1-5/8)	C	No	No	Inside Pole	100.0000 -	1	No Ice	0.0000	1.30
					0.0000		1/2" Ice	0.0000	1.30
							1" Ice	0.0000	1.30
HB158-1-08U8-S8J18(1-5/8)	C	No	No	Inside Pole	100.0000 -	1	No Ice	0.0000	1.30
					0.0000		1/2" Ice	0.0000	1.30
							1" Ice	0.0000	1.30
FB-L98B-235-XXX(3/8)	C	No	No	Inside Pole	84.0000 -	1	No Ice	0.0000	0.06
					0.0000		1/2" Ice	0.0000	0.06
							1" Ice	0.0000	0.06
PWRT-606-S(7/8)	C	No	No	Inside Pole	84.0000 -	1	No Ice	0.0000	0.89
					0.0000		1/2" Ice	0.0000	0.89
							1" Ice	0.0000	0.89
PWRT-608-S(13/16)	C	No	No	Inside Pole	84.0000 -	6	No Ice	0.0000	0.62
					0.0000		1/2" Ice	0.0000	0.62
							1" Ice	0.0000	0.62
*									
*									
*									

Feed Line/Linear Appurtenances Section Areas

Tower Section	Tower Elevation ft	Face	A _R ft ²	A _F ft ²	C _A A _A In Face ft ²	C _A A _A Out Face ft ²	Weight K
L1	100.0000-95.0000	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	0.02
L2	95.0000-90.0000	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	1.950	0.000	0.04
L3	90.0000-85.5000	A	0.000	0.000	3.109	0.000	0.00
		B	0.000	0.000	2.221	0.000	0.00
		C	0.000	0.000	4.859	0.000	0.04
L4	85.5000-85.2500	A	0.000	0.000	0.222	0.000	0.00
		B	0.000	0.000	0.222	0.000	0.00
		C	0.000	0.000	0.344	0.000	0.00
L5	85.2500-80.2500	A	0.000	0.000	4.442	0.000	0.00
		B	0.000	0.000	4.442	0.000	0.00
		C	0.000	0.000	9.512	0.000	0.06
L6	80.2500-75.2500	A	0.000	0.000	4.442	0.000	0.00
		B	0.000	0.000	4.442	0.000	0.00
		C	0.000	0.000	10.389	0.000	0.07
L7	75.2500-70.2500	A	0.000	0.000	4.830	0.000	0.00
		B	0.000	0.000	4.442	0.000	0.00
		C	0.000	0.000	10.389	0.000	0.07
L8	70.2500-66.0000	A	0.000	0.000	8.708	0.000	0.01
		B	0.000	0.000	12.442	0.000	0.00
		C	0.000	0.000	8.831	0.000	0.06
L9	66.0000-65.0000	A	0.000	0.000	2.113	0.000	0.00
		B	0.000	0.000	3.055	0.000	0.00
		C	0.000	0.000	2.078	0.000	0.01
L10	65.0000-60.0000	A	0.000	0.000	10.564	0.000	0.01
		B	0.000	0.000	15.275	0.000	0.00
		C	0.000	0.000	10.389	0.000	0.07
L11	60.0000-55.0000	A	0.000	0.000	14.854	0.000	0.01
		B	0.000	0.000	16.055	0.000	0.00
		C	0.000	0.000	17.799	0.000	0.07
L12	55.0000-54.7500	A	0.000	0.000	0.864	0.000	0.00
		B	0.000	0.000	0.829	0.000	0.00
		C	0.000	0.000	1.126	0.000	0.00
L13	54.7500-54.5000	A	0.000	0.000	0.864	0.000	0.00
		B	0.000	0.000	0.829	0.000	0.00
		C	0.000	0.000	1.126	0.000	0.00
L14	54.5000-54.2500	A	0.000	0.000	0.864	0.000	0.00
		B	0.000	0.000	0.829	0.000	0.00
		C	0.000	0.000	1.126	0.000	0.00
L15	54.2500-54.0000	A	0.000	0.000	0.864	0.000	0.00
		B	0.000	0.000	0.829	0.000	0.00
		C	0.000	0.000	1.126	0.000	0.00
L16	54.0000-49.0000	A	0.000	0.000	17.280	0.000	0.01
		B	0.000	0.000	16.575	0.000	0.00
		C	0.000	0.000	22.523	0.000	0.07
L17	49.0000-44.0000	A	0.000	0.000	17.280	0.000	0.01
		B	0.000	0.000	16.575	0.000	0.00
		C	0.000	0.000	22.523	0.000	0.07
L18	44.0000-39.0000	A	0.000	0.000	17.280	0.000	0.01
		B	0.000	0.000	16.575	0.000	0.00
		C	0.000	0.000	22.523	0.000	0.07
L19	39.0000-38.7500	A	0.000	0.000	0.864	0.000	0.00
		B	0.000	0.000	0.829	0.000	0.00
		C	0.000	0.000	1.126	0.000	0.00
L20	38.7500-33.0000	A	0.000	0.000	19.483	0.000	0.01
		B	0.000	0.000	14.728	0.000	0.00
		C	0.000	0.000	25.901	0.000	0.08
L21	33.0000-32.7500	A	0.000	0.000	0.815	0.000	0.00
		B	0.000	0.000	0.287	0.000	0.00

Tower Section	Tower Elevation ft	Face	A _R ft ²	A _F ft ²	C _A A _A In Face ft ²	C _A A _A Out Face ft ²	Weight K
L22	32.7500-32.5000	C	0.000	0.000	1.126	0.000	0.00
		A	0.000	0.000	0.815	0.000	0.00
		B	0.000	0.000	0.287	0.000	0.00
		C	0.000	0.000	1.126	0.000	0.00
L23	32.5000-29.7500	A	0.000	0.000	8.968	0.000	0.00
		B	0.000	0.000	5.157	0.000	0.00
		C	0.000	0.000	14.386	0.000	0.04
L24	29.7500-29.5000	A	0.000	0.000	0.815	0.000	0.00
		B	0.000	0.000	0.509	0.000	0.00
		C	0.000	0.000	1.348	0.000	0.00
L25	29.5000-26.7500	A	0.000	0.000	8.968	0.000	0.00
		B	0.000	0.000	5.601	0.000	0.00
		C	0.000	0.000	14.830	0.000	0.04
L26	26.7500-26.5000	A	0.000	0.000	0.815	0.000	0.00
		B	0.000	0.000	0.509	0.000	0.00
		C	0.000	0.000	1.348	0.000	0.00
L27	26.5000-23.5000	A	0.000	0.000	12.033	0.000	0.00
		B	0.000	0.000	9.956	0.000	0.00
		C	0.000	0.000	16.178	0.000	0.04
L28	23.5000-23.2500	A	0.000	0.000	1.065	0.000	0.00
		B	0.000	0.000	0.959	0.000	0.00
		C	0.000	0.000	1.348	0.000	0.00
L29	23.2500-22.7500	A	0.000	0.000	1.860	0.000	0.00
		B	0.000	0.000	1.917	0.000	0.00
		C	0.000	0.000	2.155	0.000	0.01
L30	22.7500-22.5000	A	0.000	0.000	0.794	0.000	0.00
		B	0.000	0.000	0.959	0.000	0.00
		C	0.000	0.000	0.807	0.000	0.00
L31	22.5000-17.5000	A	0.000	0.000	15.889	0.000	0.01
		B	0.000	0.000	20.010	0.000	0.00
		C	0.000	0.000	17.853	0.000	0.07
L32	17.5000-15.7500	A	0.000	0.000	5.561	0.000	0.00
		B	0.000	0.000	7.210	0.000	0.00
		C	0.000	0.000	7.655	0.000	0.02
L33	15.7500-15.5000	A	0.000	0.000	0.794	0.000	0.00
		B	0.000	0.000	1.030	0.000	0.00
		C	0.000	0.000	1.094	0.000	0.00
L34	15.5000-12.2500	A	0.000	0.000	10.765	0.000	0.01
		B	0.000	0.000	14.362	0.000	0.00
		C	0.000	0.000	14.217	0.000	0.05
L35	12.2500-12.0000	A	0.000	0.000	0.834	0.000	0.00
		B	0.000	0.000	1.118	0.000	0.00
		C	0.000	0.000	1.094	0.000	0.00
L36	12.0000-11.7500	A	0.000	0.000	0.834	0.000	0.00
		B	0.000	0.000	1.118	0.000	0.00
		C	0.000	0.000	1.094	0.000	0.00
L37	11.7500-11.5000	A	0.000	0.000	0.834	0.000	0.00
		B	0.000	0.000	1.118	0.000	0.00
		C	0.000	0.000	1.094	0.000	0.00
L38	11.5000-6.5000	A	0.000	0.000	13.573	0.000	0.01
		B	0.000	0.000	22.365	0.000	0.00
		C	0.000	0.000	19.576	0.000	0.07
L39	6.5000-6.0000	A	0.000	0.000	1.223	0.000	0.00
		B	0.000	0.000	2.235	0.000	0.00
		C	0.000	0.000	1.613	0.000	0.01
L40	6.0000-5.7500	A	0.000	0.000	0.612	0.000	0.00
		B	0.000	0.000	1.118	0.000	0.00
		C	0.000	0.000	0.807	0.000	0.00
L41	5.7500-4.5000	A	0.000	0.000	1.808	0.000	0.00
		B	0.000	0.000	4.339	0.000	0.00
		C	0.000	0.000	4.033	0.000	0.02
L42	4.5000-4.2500	A	0.000	0.000	0.362	0.000	0.00

Tower Section	Tower Elevation ft	Face	A_R	A_F	$C_A A_A$	$C_A A_A$	Weight K
			ft ²	ft ²	In Face ft ²	Out Face ft ²	
		B	0.000	0.000	0.868	0.000	0.00
		C	0.000	0.000	0.807	0.000	0.00
L43	4.2500-3.0000	A	0.000	0.000	1.808	0.000	0.00
		B	0.000	0.000	4.339	0.000	0.00
		C	0.000	0.000	4.033	0.000	0.02
L44	3.0000-2.7500	A	0.000	0.000	0.362	0.000	0.00
		B	0.000	0.000	0.868	0.000	0.00
		C	0.000	0.000	0.807	0.000	0.00
L45	2.7500-1.7500	A	0.000	0.000	1.446	0.000	0.00
		B	0.000	0.000	3.471	0.000	0.00
		C	0.000	0.000	3.226	0.000	0.01
L46	1.7500-1.5000	A	0.000	0.000	0.362	0.000	0.00
		B	0.000	0.000	0.868	0.000	0.00
		C	0.000	0.000	0.807	0.000	0.00
L47	1.5000-1.2500	A	0.000	0.000	0.362	0.000	0.00
		B	0.000	0.000	0.868	0.000	0.00
		C	0.000	0.000	0.807	0.000	0.00
L48	1.2500-1.0000	A	0.000	0.000	0.362	0.000	0.00
		B	0.000	0.000	0.868	0.000	0.00
		C	0.000	0.000	0.807	0.000	0.00
L49	1.0000-0.0000	A	0.000	0.000	1.446	0.000	0.00
		B	0.000	0.000	3.471	0.000	0.00
		C	0.000	0.000	3.226	0.000	0.01

Feed Line/Linear Appurtenances Section Areas - With Ice

Tower Section	Tower Elevation ft	Face or Leg	Ice Thickness in	A_R	A_F	$C_A A_A$	$C_A A_A$	Weight K
				ft ²	ft ²	In Face ft ²	Out Face ft ²	
L1	100.0000-95.0000	A	0.947	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	0.02
L2	95.0000-90.0000	A	0.942	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	3.380	0.000	0.06
L3	90.0000-85.5000	A	0.937	0.000	0.000	3.765	0.000	0.02
		B		0.000	0.000	2.689	0.000	0.02
		C		0.000	0.000	7.024	0.000	0.08
L4	85.5000-85.2500	A	0.935	0.000	0.000	0.269	0.000	0.00
		B		0.000	0.000	0.269	0.000	0.00
		C		0.000	0.000	0.480	0.000	0.01
L5	85.2500-80.2500	A	0.932	0.000	0.000	5.373	0.000	0.03
		B		0.000	0.000	5.373	0.000	0.03
		C		0.000	0.000	14.448	0.000	0.16
L6	80.2500-75.2500	A	0.926	0.000	0.000	5.368	0.000	0.03
		B		0.000	0.000	5.368	0.000	0.03
		C		0.000	0.000	16.043	0.000	0.18
L7	75.2500-70.2500	A	0.920	0.000	0.000	6.256	0.000	0.04
		B		0.000	0.000	5.362	0.000	0.03
		C		0.000	0.000	16.016	0.000	0.18
L8	70.2500-66.0000	A	0.914	0.000	0.000	10.993	0.000	0.07
		B		0.000	0.000	14.681	0.000	0.08
		C		0.000	0.000	13.590	0.000	0.15
L9	66.0000-65.0000	A	0.910	0.000	0.000	2.661	0.000	0.02
		B		0.000	0.000	3.603	0.000	0.02
		C		0.000	0.000	3.198	0.000	0.04
L10	65.0000-60.0000	A	0.906	0.000	0.000	13.282	0.000	0.09
		B		0.000	0.000	17.993	0.000	0.10
		C		0.000	0.000	15.953	0.000	0.18
L11	60.0000-55.0000	A	0.899	0.000	0.000	18.088	0.000	0.11

Tower Section	Tower Elevation ft	Face or Leg	Ice Thickness in	A _R ft ²	A _F ft ²	C _A A _A In Face ft ²	C _A A _A Out Face ft ²	Weight K
		B		0.000	0.000	18.751	0.000	0.10
		C		0.000	0.000	24.408	0.000	0.22
L12	55.0000-54.7500	A	0.894	0.000	0.000	1.043	0.000	0.01
		B		0.000	0.000	0.963	0.000	0.01
		C		0.000	0.000	1.491	0.000	0.01
L13	54.7500-54.5000	A	0.894	0.000	0.000	1.043	0.000	0.01
		B		0.000	0.000	0.963	0.000	0.01
		C		0.000	0.000	1.491	0.000	0.01
L14	54.5000-54.2500	A	0.894	0.000	0.000	1.043	0.000	0.01
		B		0.000	0.000	0.963	0.000	0.01
		C		0.000	0.000	1.491	0.000	0.01
L15	54.2500-54.0000	A	0.893	0.000	0.000	1.043	0.000	0.01
		B		0.000	0.000	0.963	0.000	0.01
		C		0.000	0.000	1.491	0.000	0.01
L16	54.0000-49.0000	A	0.889	0.000	0.000	20.835	0.000	0.12
		B		0.000	0.000	19.241	0.000	0.10
		C		0.000	0.000	29.786	0.000	0.25
L17	49.0000-44.0000	A	0.880	0.000	0.000	20.799	0.000	0.12
		B		0.000	0.000	19.214	0.000	0.10
		C		0.000	0.000	29.727	0.000	0.24
L18	44.0000-39.0000	A	0.870	0.000	0.000	20.759	0.000	0.12
		B		0.000	0.000	19.184	0.000	0.10
		C		0.000	0.000	29.662	0.000	0.24
L19	39.0000-38.7500	A	0.864	0.000	0.000	1.037	0.000	0.01
		B		0.000	0.000	0.958	0.000	0.01
		C		0.000	0.000	1.481	0.000	0.01
L20	38.7500-33.0000	A	0.857	0.000	0.000	23.425	0.000	0.14
		B		0.000	0.000	16.999	0.000	0.09
		C		0.000	0.000	34.018	0.000	0.27
L21	33.0000-32.7500	A	0.850	0.000	0.000	0.987	0.000	0.01
		B		0.000	0.000	0.330	0.000	0.00
		C		0.000	0.000	1.479	0.000	0.01
L22	32.7500-32.5000	A	0.849	0.000	0.000	0.985	0.000	0.01
		B		0.000	0.000	0.330	0.000	0.00
		C		0.000	0.000	1.476	0.000	0.01
L23	32.5000-29.7500	A	0.845	0.000	0.000	10.827	0.000	0.06
		B		0.000	0.000	6.002	0.000	0.03
		C		0.000	0.000	18.605	0.000	0.14
L24	29.7500-29.5000	A	0.841	0.000	0.000	0.983	0.000	0.01
		B		0.000	0.000	0.593	0.000	0.00
		C		0.000	0.000	1.738	0.000	0.01
L25	29.5000-26.7500	A	0.837	0.000	0.000	10.808	0.000	0.06
		B		0.000	0.000	6.521	0.000	0.04
		C		0.000	0.000	19.099	0.000	0.14
L26	26.7500-26.5000	A	0.832	0.000	0.000	0.982	0.000	0.01
		B		0.000	0.000	0.592	0.000	0.00
		C		0.000	0.000	1.735	0.000	0.01
L27	26.5000-23.5000	A	0.827	0.000	0.000	14.389	0.000	0.08
		B		0.000	0.000	11.501	0.000	0.06
		C		0.000	0.000	20.791	0.000	0.16
L28	23.5000-23.2500	A	0.821	0.000	0.000	1.271	0.000	0.01
		B		0.000	0.000	1.104	0.000	0.01
		C		0.000	0.000	1.730	0.000	0.01
L29	23.2500-22.7500	A	0.820	0.000	0.000	2.229	0.000	0.01
		B		0.000	0.000	2.208	0.000	0.01
		C		0.000	0.000	2.836	0.000	0.02
L30	22.7500-22.5000	A	0.819	0.000	0.000	0.958	0.000	0.01
		B		0.000	0.000	1.104	0.000	0.01
		C		0.000	0.000	1.106	0.000	0.01
L31	22.5000-17.5000	A	0.808	0.000	0.000	19.123	0.000	0.11
		B		0.000	0.000	23.093	0.000	0.12
		C		0.000	0.000	24.029	0.000	0.21

Tower Section	Tower Elevation ft	Face or Leg	Ice Thickness in	A _R ft ²	A _F ft ²	C _A A _A In Face ft ²	C _A A _A Out Face ft ²	Weight K
L32	17.5000-15.7500	A	0.794	0.000	0.000	6.672	0.000	0.04
		B		0.000	0.000	8.321	0.000	0.04
		C		0.000	0.000	9.981	0.000	0.08
L33	15.7500-15.5000	A	0.789	0.000	0.000	0.952	0.000	0.01
		B		0.000	0.000	1.188	0.000	0.01
		C		0.000	0.000	1.424	0.000	0.01
L34	15.5000-12.2500	A	0.779	0.000	0.000	13.086	0.000	0.09
		B		0.000	0.000	17.034	0.000	0.11
		C		0.000	0.000	18.477	0.000	0.15
L35	12.2500-12.0000	A	0.769	0.000	0.000	1.014	0.000	0.01
		B		0.000	0.000	1.330	0.000	0.01
		C		0.000	0.000	1.418	0.000	0.01
L36	12.0000-11.7500	A	0.767	0.000	0.000	1.014	0.000	0.01
		B		0.000	0.000	1.330	0.000	0.01
		C		0.000	0.000	1.417	0.000	0.01
L37	11.7500-11.5000	A	0.766	0.000	0.000	1.014	0.000	0.01
		B		0.000	0.000	1.329	0.000	0.01
		C		0.000	0.000	1.417	0.000	0.01
L38	11.5000-6.5000	A	0.746	0.000	0.000	16.548	0.000	0.11
		B		0.000	0.000	26.476	0.000	0.17
		C		0.000	0.000	25.615	0.000	0.21
L39	6.5000-6.0000	A	0.720	0.000	0.000	1.488	0.000	0.01
		B		0.000	0.000	2.631	0.000	0.02
		C		0.000	0.000	2.158	0.000	0.02
L40	6.0000-5.7500	A	0.715	0.000	0.000	0.743	0.000	0.01
		B		0.000	0.000	1.315	0.000	0.01
		C		0.000	0.000	1.078	0.000	0.01
L41	5.7500-4.5000	A	0.706	0.000	0.000	2.280	0.000	0.02
		B		0.000	0.000	5.133	0.000	0.03
		C		0.000	0.000	5.375	0.000	0.04
L42	4.5000-4.2500	A	0.694	0.000	0.000	0.455	0.000	0.00
		B		0.000	0.000	1.024	0.000	0.01
		C		0.000	0.000	1.072	0.000	0.01
L43	4.2500-3.0000	A	0.682	0.000	0.000	2.264	0.000	0.02
		B		0.000	0.000	5.106	0.000	0.03
		C		0.000	0.000	5.342	0.000	0.04
L44	3.0000-2.7500	A	0.666	0.000	0.000	0.451	0.000	0.00
		B		0.000	0.000	1.018	0.000	0.01
		C		0.000	0.000	1.064	0.000	0.01
L45	2.7500-1.7500	A	0.650	0.000	0.000	1.794	0.000	0.01
		B		0.000	0.000	4.057	0.000	0.03
		C		0.000	0.000	4.238	0.000	0.03
L46	1.7500-1.5000	A	0.629	0.000	0.000	0.446	0.000	0.00
		B		0.000	0.000	1.010	0.000	0.01
		C		0.000	0.000	1.054	0.000	0.01
L47	1.5000-1.2500	A	0.619	0.000	0.000	0.444	0.000	0.00
		B		0.000	0.000	1.007	0.000	0.01
		C		0.000	0.000	1.051	0.000	0.01
L48	1.2500-1.0000	A	0.606	0.000	0.000	0.443	0.000	0.00
		B		0.000	0.000	1.005	0.000	0.01
		C		0.000	0.000	1.048	0.000	0.01
L49	1.0000-0.0000	A	0.559	0.000	0.000	1.746	0.000	0.01
		B		0.000	0.000	3.976	0.000	0.02
		C		0.000	0.000	4.138	0.000	0.03

Feed Line Center of Pressure

Section	Elevation	CP _x	CP _z	CP _x	CP _z
	ft	in	in	Ice in	Ice in
L1	100.0000-95.0000	0.00	0.00	0.00	0.00
L2	95.0000-90.0000	1.47	1.40	1.50	1.43
L3	90.0000-85.5000	0.48	1.02	0.74	1.22
L4	85.5000-85.2500	0.66	0.63	0.87	0.83
L5	85.2500-80.2500	0.36	1.43	0.39	1.80
L6	80.2500-75.2500	0.28	1.70	0.27	2.11
L7	75.2500-70.2500	0.17	1.66	0.09	2.03
L8	70.2500-66.0000	-0.30	0.81	-0.35	1.15
L9	66.0000-65.0000	-0.31	0.77	-0.36	1.12
L10	65.0000-60.0000	-0.32	0.79	-0.37	1.14
L11	60.0000-55.0000	-0.12	0.81	-0.17	1.10
L12	55.0000-54.7500	0.04	0.78	-0.03	1.06
L13	54.7500-54.5000	0.04	0.78	-0.03	1.06
L14	54.5000-54.2500	0.04	0.78	-0.03	1.06
L15	54.2500-54.0000	0.04	0.77	-0.03	1.05
L16	54.0000-49.0000	0.04	0.79	-0.03	1.07
L17	49.0000-44.0000	0.04	0.81	-0.03	1.10
L18	44.0000-39.0000	0.04	0.84	-0.03	1.14
L19	39.0000-38.7500	0.04	0.86	-0.03	1.16
L20	38.7500-33.0000	0.22	0.65	0.13	0.98
L21	33.0000-32.7500	0.62	0.15	0.48	0.55
L22	32.7500-32.5000	0.62	0.15	0.48	0.55
L23	32.5000-29.7500	0.40	0.98	0.29	1.29
L24	29.7500-29.5000	0.36	1.14	0.26	1.44
L25	29.5000-26.7500	0.36	1.15	0.26	1.45
L26	26.7500-26.5000	0.37	1.16	0.26	1.46
L27	26.5000-23.5000	0.25	1.08	0.18	1.38
L28	23.5000-23.2500	0.17	0.98	0.11	1.28
L29	23.2500-22.7500	0.03	0.98	-0.02	1.31
L30	22.7500-22.5000	-0.14	0.98	-0.18	1.35
L31	22.5000-17.5000	-0.35	1.12	-0.38	1.45
L32	17.5000-15.7500	-0.63	1.70	-0.64	1.96
L33	15.7500-15.5000	-0.63	1.71	-0.65	1.97
L34	15.5000-12.2500	-0.67	1.59	-0.70	1.81
L35	12.2500-12.0000	-0.69	1.58	-0.71	1.79
L36	12.0000-11.7500	-0.69	1.59	-0.71	1.79
L37	11.7500-11.5000	-0.69	1.59	-0.72	1.79
L38	11.5000-6.5000	-1.22	2.09	-1.20	2.30
L39	6.5000-6.0000	-1.93	1.98	-1.85	2.23
L40	6.0000-5.7500	-1.93	1.98	-1.85	2.23
L41	5.7500-4.5000	-2.74	1.15	-2.57	1.51
L42	4.5000-4.2500	-2.75	1.15	-2.58	1.52
L43	4.2500-3.0000	-2.76	1.16	-2.59	1.52
L44	3.0000-2.7500	-2.77	1.16	-2.60	1.52
L45	2.7500-1.7500	-2.77	1.17	-2.60	1.53
L46	1.7500-1.5000	-2.78	1.17	-2.61	1.53
L47	1.5000-1.2500	-2.78	1.17	-2.61	1.53
L48	1.2500-1.0000	-2.79	1.17	-2.61	1.53
L49	1.0000-0.0000	-2.79	1.17	-2.62	1.52

Note: For pole sections, center of pressure calculations do not consider feed line shielding.

Shielding Factor Ka

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L2	5	MLE HYBRID 9POWER/18FIBER RL 2(1-5/8)	90.00 - 94.00	1.0000	1.0000
L3	5	MLE HYBRID 9POWER/18FIBER RL 2(1-5/8)	85.50 - 90.00	1.0000	1.0000
L3	26	MP3-05 Reinforcement	85.50 - 88.00	1.0000	1.0000
L3	27	MP3-05 Reinforcement	85.50 - 89.00	1.0000	1.0000
L3	28	MP3-05 Reinforcement	85.50 - 88.50	1.0000	1.0000
L4	5	MLE HYBRID 9POWER/18FIBER RL 2(1-5/8)	85.25 - 85.50	1.0000	1.0000
L4	26	MP3-05 Reinforcement	85.25 - 85.50	1.0000	1.0000
L4	27	MP3-05 Reinforcement	85.25 - 85.50	1.0000	1.0000
L4	28	MP3-05 Reinforcement	85.25 - 85.50	1.0000	1.0000
L5	5	MLE HYBRID 9POWER/18FIBER RL 2(1-5/8)	80.25 - 85.25	1.0000	1.0000
L5	10	CR 50 1070(7/8)	80.25 - 84.00	1.0000	1.0000
L5	11	FB-L98B-034-XXX(3/8)	80.25 - 84.00	1.0000	1.0000
L5	26	MP3-05 Reinforcement	80.25 - 85.25	1.0000	1.0000
L5	27	MP3-05 Reinforcement	80.25 - 85.25	1.0000	1.0000
L5	28	MP3-05 Reinforcement	80.25 - 85.25	1.0000	1.0000
L6	5	MLE HYBRID 9POWER/18FIBER RL 2(1-5/8)	75.25 - 80.25	1.0000	1.0000
L6	10	CR 50 1070(7/8)	75.25 - 80.25	1.0000	1.0000
L6	11	FB-L98B-034-XXX(3/8)	75.25 - 80.25	1.0000	1.0000
L6	26	MP3-05 Reinforcement	75.25 - 80.25	1.0000	1.0000
L6	27	MP3-05 Reinforcement	75.25 - 80.25	1.0000	1.0000
L6	28	MP3-05 Reinforcement	75.25 - 80.25	1.0000	1.0000
L7	5	MLE HYBRID 9POWER/18FIBER RL 2(1-5/8)	70.25 - 75.25	1.0000	1.0000
L7	10	CR 50 1070(7/8)	70.25 - 75.25	1.0000	1.0000
L7	11	FB-L98B-034-XXX(3/8)	70.25 - 75.25	1.0000	1.0000
L7	16	CU12PSM9P8XXX(1-3/8)	70.25 - 73.00	1.0000	1.0000
L7	26	MP3-05 Reinforcement	70.25 - 75.25	1.0000	1.0000
L7	27	MP3-05 Reinforcement	70.25 - 75.25	1.0000	1.0000
L7	28	MP3-05 Reinforcement	70.25 - 75.25	1.0000	1.0000
L8	5	MLE HYBRID 9POWER/18FIBER RL 2(1-5/8)	66.00 - 70.25	1.0000	1.0000
L8	10	CR 50 1070(7/8)	66.00 - 70.25	1.0000	1.0000
L8	11	FB-L98B-034-XXX(3/8)	66.00 - 70.25	1.0000	1.0000
L8	16	CU12PSM9P8XXX(1-3/8)	66.00 - 70.25	1.0000	1.0000
L8	26	MP3-05 Reinforcement	66.00 - 70.25	1.0000	1.0000
L8	27	MP3-05 Reinforcement	66.00 - 70.25	1.0000	1.0000
L8	28	MP3-05 Reinforcement	66.00 - 70.25	1.0000	1.0000
L8	43	CCI-065125 Reinforcement	66.00 - 70.00	1.0000	1.0000
L8	44	CCI-065125 Reinforcement	66.00 - 70.00	1.0000	1.0000
L8	45	CCI-065125 Reinforcement	66.00 - 70.00	1.0000	1.0000
L9	5	MLE HYBRID 9POWER/18FIBER RL 2(1-5/8)	65.00 - 66.00	1.0000	1.0000
L9	10	CR 50 1070(7/8)	65.00 - 66.00	1.0000	1.0000
L9	11	FB-L98B-034-XXX(3/8)	65.00 - 66.00	1.0000	1.0000
L9	16	CU12PSM9P8XXX(1-3/8)	65.00 - 66.00	1.0000	1.0000
L9	26	MP3-05 Reinforcement	65.00 - 66.00	1.0000	1.0000
L9	27	MP3-05 Reinforcement	65.00 - 66.00	1.0000	1.0000
L9	28	MP3-05 Reinforcement	65.00 - 66.00	1.0000	1.0000
L9	43	CCI-065125 Reinforcement	65.00 - 66.00	1.0000	1.0000
L9	44	CCI-065125 Reinforcement	65.00 - 66.00	1.0000	1.0000
L9	45	CCI-065125 Reinforcement	65.00 - 66.00	1.0000	1.0000
L10	5	MLE HYBRID 9POWER/18FIBER RL 2(1-5/8)	60.00 - 65.00	1.0000	1.0000
L10	10	CR 50 1070(7/8)	60.00 - 65.00	1.0000	1.0000
L10	11	FB-L98B-034-XXX(3/8)	60.00 - 65.00	1.0000	1.0000
L10	16	CU12PSM9P8XXX(1-3/8)	60.00 - 65.00	1.0000	1.0000
L10	26	MP3-05 Reinforcement	60.00 - 65.00	1.0000	1.0000
L10	27	MP3-05 Reinforcement	60.00 - 65.00	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L10	28	MP3-05 Reinforcement	60.00 - 65.00	1.0000	1.0000
L10	43	CCI-065125 Reinforcement	60.00 - 65.00	1.0000	1.0000
L10	44	CCI-065125 Reinforcement	60.00 - 65.00	1.0000	1.0000
L10	45	CCI-065125 Reinforcement	60.00 - 65.00	1.0000	1.0000
L11	5	MLE HYBRID	55.00 - 60.00	1.0000	1.0000
		9POWER/18FIBER RL 2(1-5/8)			
L11	10	CR 50 1070(7/8)	55.00 - 60.00	1.0000	1.0000
L11	11	FB-L98B-034-XXX(3/8)	55.00 - 60.00	1.0000	1.0000
L11	16	CU12PSM9P8XXX(1-3/8)	55.00 - 60.00	1.0000	1.0000
L11	18	MP3-06 Reinforcement	55.00 - 58.00	1.0000	1.0000
L11	19	MP3-06 Reinforcement	55.00 - 59.00	1.0000	1.0000
L11	21	MP3-06 Reinforcement	55.00 - 58.50	1.0000	1.0000
L11	26	MP3-05 Reinforcement	58.00 - 60.00	1.0000	1.0000
L11	27	MP3-05 Reinforcement	59.00 - 60.00	1.0000	1.0000
L11	28	MP3-05 Reinforcement	58.50 - 60.00	1.0000	1.0000
L11	40	CCI-065125 Reinforcement	55.00 - 58.00	1.0000	1.0000
L11	41	CCI-065125 Reinforcement	55.00 - 58.00	1.0000	1.0000
L11	42	CCI-065125 Reinforcement	55.00 - 58.00	1.0000	1.0000
L11	43	CCI-065125 Reinforcement	55.00 - 60.00	1.0000	1.0000
L11	44	CCI-065125 Reinforcement	55.00 - 60.00	1.0000	1.0000
L11	45	CCI-065125 Reinforcement	55.00 - 60.00	1.0000	1.0000
L12	5	MLE HYBRID	54.75 - 55.00	1.0000	1.0000
		9POWER/18FIBER RL 2(1-5/8)			
L12	10	CR 50 1070(7/8)	54.75 - 55.00	1.0000	1.0000
L12	11	FB-L98B-034-XXX(3/8)	54.75 - 55.00	1.0000	1.0000
L12	16	CU12PSM9P8XXX(1-3/8)	54.75 - 55.00	1.0000	1.0000
L12	18	MP3-06 Reinforcement	54.75 - 55.00	1.0000	1.0000
L12	19	MP3-06 Reinforcement	54.75 - 55.00	1.0000	1.0000
L12	21	MP3-06 Reinforcement	54.75 - 55.00	1.0000	1.0000
L12	40	CCI-065125 Reinforcement	54.75 - 55.00	1.0000	1.0000
L12	41	CCI-065125 Reinforcement	54.75 - 55.00	1.0000	1.0000
L12	42	CCI-065125 Reinforcement	54.75 - 55.00	1.0000	1.0000
L12	43	CCI-065125 Reinforcement	54.75 - 55.00	1.0000	1.0000
L12	44	CCI-065125 Reinforcement	54.75 - 55.00	1.0000	1.0000
L12	45	CCI-065125 Reinforcement	54.75 - 55.00	1.0000	1.0000
L13	5	MLE HYBRID	54.50 - 54.75	1.0000	1.0000
		9POWER/18FIBER RL 2(1-5/8)			
L13	10	CR 50 1070(7/8)	54.50 - 54.75	1.0000	1.0000
L13	11	FB-L98B-034-XXX(3/8)	54.50 - 54.75	1.0000	1.0000
L13	16	CU12PSM9P8XXX(1-3/8)	54.50 - 54.75	1.0000	1.0000
L13	18	MP3-06 Reinforcement	54.50 - 54.75	1.0000	1.0000
L13	19	MP3-06 Reinforcement	54.50 - 54.75	1.0000	1.0000
L13	21	MP3-06 Reinforcement	54.50 - 54.75	1.0000	1.0000
L13	40	CCI-065125 Reinforcement	54.50 - 54.75	1.0000	1.0000
L13	41	CCI-065125 Reinforcement	54.50 - 54.75	1.0000	1.0000
L13	42	CCI-065125 Reinforcement	54.50 - 54.75	1.0000	1.0000
L13	43	CCI-065125 Reinforcement	54.50 - 54.75	1.0000	1.0000
L13	44	CCI-065125 Reinforcement	54.50 - 54.75	1.0000	1.0000
L13	45	CCI-065125 Reinforcement	54.50 - 54.75	1.0000	1.0000
L14	5	MLE HYBRID	54.25 - 54.50	1.0000	1.0000
		9POWER/18FIBER RL 2(1-5/8)			
L14	10	CR 50 1070(7/8)	54.25 - 54.50	1.0000	1.0000
L14	11	FB-L98B-034-XXX(3/8)	54.25 - 54.50	1.0000	1.0000
L14	16	CU12PSM9P8XXX(1-3/8)	54.25 - 54.50	1.0000	1.0000
L14	18	MP3-06 Reinforcement	54.25 - 54.50	1.0000	1.0000
L14	19	MP3-06 Reinforcement	54.25 - 54.50	1.0000	1.0000
L14	21	MP3-06 Reinforcement	54.25 - 54.50	1.0000	1.0000
L14	40	CCI-065125 Reinforcement	54.25 - 54.50	1.0000	1.0000
L14	41	CCI-065125 Reinforcement	54.25 - 54.50	1.0000	1.0000
L14	42	CCI-065125 Reinforcement	54.25 - 54.50	1.0000	1.0000
L14	43	CCI-065125 Reinforcement	54.25 - 54.50	1.0000	1.0000
L14	44	CCI-065125 Reinforcement	54.25 - 54.50	1.0000	1.0000
L14	45	CCI-065125 Reinforcement	54.25 - 54.50	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _g No Ice	K _g Ice
L15	5	MLE HYBRID	54.00 - 54.25	1.0000	1.0000
		9POWER/18FIBER RL 2(1-5/8)			
L15	10	CR 50 1070(7/8)	54.00 - 54.25	1.0000	1.0000
L15	11	FB-L98B-034-XXX(3/8)	54.00 - 54.25	1.0000	1.0000
L15	16	CU12PSM9P8XXX(1-3/8)	54.00 - 54.25	1.0000	1.0000
L15	18	MP3-06 Reinforcement	54.00 - 54.25	1.0000	1.0000
L15	19	MP3-06 Reinforcement	54.00 - 54.25	1.0000	1.0000
L15	21	MP3-06 Reinforcement	54.00 - 54.25	1.0000	1.0000
L15	40	CCI-065125 Reinforcement	54.00 - 54.25	1.0000	1.0000
L15	41	CCI-065125 Reinforcement	54.00 - 54.25	1.0000	1.0000
L15	42	CCI-065125 Reinforcement	54.00 - 54.25	1.0000	1.0000
L15	43	CCI-065125 Reinforcement	54.00 - 54.25	1.0000	1.0000
L15	44	CCI-065125 Reinforcement	54.00 - 54.25	1.0000	1.0000
L15	45	CCI-065125 Reinforcement	54.00 - 54.25	1.0000	1.0000
L16	5	MLE HYBRID	49.00 - 54.00	1.0000	1.0000
		9POWER/18FIBER RL 2(1-5/8)			
L16	10	CR 50 1070(7/8)	49.00 - 54.00	1.0000	1.0000
L16	11	FB-L98B-034-XXX(3/8)	49.00 - 54.00	1.0000	1.0000
L16	16	CU12PSM9P8XXX(1-3/8)	49.00 - 54.00	1.0000	1.0000
L16	18	MP3-06 Reinforcement	49.00 - 54.00	1.0000	1.0000
L16	19	MP3-06 Reinforcement	49.00 - 54.00	1.0000	1.0000
L16	21	MP3-06 Reinforcement	49.00 - 54.00	1.0000	1.0000
L16	40	CCI-065125 Reinforcement	49.00 - 54.00	1.0000	1.0000
L16	41	CCI-065125 Reinforcement	49.00 - 54.00	1.0000	1.0000
L16	42	CCI-065125 Reinforcement	49.00 - 54.00	1.0000	1.0000
L16	43	CCI-065125 Reinforcement	49.00 - 54.00	1.0000	1.0000
L16	44	CCI-065125 Reinforcement	49.00 - 54.00	1.0000	1.0000
L16	45	CCI-065125 Reinforcement	49.00 - 54.00	1.0000	1.0000
L17	5	MLE HYBRID	44.00 - 49.00	1.0000	1.0000
		9POWER/18FIBER RL 2(1-5/8)			
L17	10	CR 50 1070(7/8)	44.00 - 49.00	1.0000	1.0000
L17	11	FB-L98B-034-XXX(3/8)	44.00 - 49.00	1.0000	1.0000
L17	16	CU12PSM9P8XXX(1-3/8)	44.00 - 49.00	1.0000	1.0000
L17	18	MP3-06 Reinforcement	44.00 - 49.00	1.0000	1.0000
L17	19	MP3-06 Reinforcement	44.00 - 49.00	1.0000	1.0000
L17	21	MP3-06 Reinforcement	44.00 - 49.00	1.0000	1.0000
L17	40	CCI-065125 Reinforcement	44.00 - 49.00	1.0000	1.0000
L17	41	CCI-065125 Reinforcement	44.00 - 49.00	1.0000	1.0000
L17	42	CCI-065125 Reinforcement	44.00 - 49.00	1.0000	1.0000
L17	43	CCI-065125 Reinforcement	44.00 - 49.00	1.0000	1.0000
L17	44	CCI-065125 Reinforcement	44.00 - 49.00	1.0000	1.0000
L17	45	CCI-065125 Reinforcement	44.00 - 49.00	1.0000	1.0000
L18	5	MLE HYBRID	39.00 - 44.00	1.0000	1.0000
		9POWER/18FIBER RL 2(1-5/8)			
L18	10	CR 50 1070(7/8)	39.00 - 44.00	1.0000	1.0000
L18	11	FB-L98B-034-XXX(3/8)	39.00 - 44.00	1.0000	1.0000
L18	16	CU12PSM9P8XXX(1-3/8)	39.00 - 44.00	1.0000	1.0000
L18	18	MP3-06 Reinforcement	39.00 - 44.00	1.0000	1.0000
L18	19	MP3-06 Reinforcement	39.00 - 44.00	1.0000	1.0000
L18	21	MP3-06 Reinforcement	39.00 - 44.00	1.0000	1.0000
L18	40	CCI-065125 Reinforcement	39.00 - 44.00	1.0000	1.0000
L18	41	CCI-065125 Reinforcement	39.00 - 44.00	1.0000	1.0000
L18	42	CCI-065125 Reinforcement	39.00 - 44.00	1.0000	1.0000
L18	43	CCI-065125 Reinforcement	39.00 - 44.00	1.0000	1.0000
L18	44	CCI-065125 Reinforcement	39.00 - 44.00	1.0000	1.0000
L18	45	CCI-065125 Reinforcement	39.00 - 44.00	1.0000	1.0000
L19	5	MLE HYBRID	38.75 - 39.00	1.0000	1.0000
		9POWER/18FIBER RL 2(1-5/8)			
L19	10	CR 50 1070(7/8)	38.75 - 39.00	1.0000	1.0000
L19	11	FB-L98B-034-XXX(3/8)	38.75 - 39.00	1.0000	1.0000
L19	16	CU12PSM9P8XXX(1-3/8)	38.75 - 39.00	1.0000	1.0000
L19	18	MP3-06 Reinforcement	38.75 - 39.00	1.0000	1.0000
L19	19	MP3-06 Reinforcement	38.75 - 39.00	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L19	21	MP3-06 Reinforcement	38.75 - 39.00	1.0000	1.0000
L19	40	CCI-065125 Reinforcement	38.75 - 39.00	1.0000	1.0000
L19	41	CCI-065125 Reinforcement	38.75 - 39.00	1.0000	1.0000
L19	42	CCI-065125 Reinforcement	38.75 - 39.00	1.0000	1.0000
L19	43	CCI-065125 Reinforcement	38.75 - 39.00	1.0000	1.0000
L19	44	CCI-065125 Reinforcement	38.75 - 39.00	1.0000	1.0000
L19	45	CCI-065125 Reinforcement	38.75 - 39.00	1.0000	1.0000
L20	5	MLE HYBRID	33.00 - 38.75	1.0000	1.0000
		9POWER/18FIBER RL 2(1-5/8)			
L20	10	CR 50 1070(7/8)	33.00 - 38.75	1.0000	1.0000
L20	11	FB-L98B-034-XXX(3/8)	33.00 - 38.75	1.0000	1.0000
L20	16	CU12PSM9P8XXX(1-3/8)	33.00 - 38.75	1.0000	1.0000
L20	18	MP3-06 Reinforcement	33.00 - 38.75	1.0000	1.0000
L20	19	MP3-06 Reinforcement	33.00 - 38.75	1.0000	1.0000
L20	21	MP3-06 Reinforcement	33.00 - 38.75	1.0000	1.0000
L20	23	MP3-05 Reinforcement	33.00 - 35.00	1.0000	1.0000
L20	40	CCI-065125 Reinforcement	33.00 - 38.75	1.0000	1.0000
L20	41	CCI-065125 Reinforcement	33.00 - 38.75	1.0000	1.0000
L20	42	CCI-065125 Reinforcement	33.00 - 38.75	1.0000	1.0000
L20	43	CCI-065125 Reinforcement	35.00 - 38.75	1.0000	1.0000
L20	44	CCI-065125 Reinforcement	35.00 - 38.75	1.0000	1.0000
L20	45	CCI-065125 Reinforcement	35.00 - 38.75	1.0000	1.0000
L21	5	MLE HYBRID	32.75 - 33.00	1.0000	1.0000
		9POWER/18FIBER RL 2(1-5/8)			
L21	10	CR 50 1070(7/8)	32.75 - 33.00	1.0000	1.0000
L21	11	FB-L98B-034-XXX(3/8)	32.75 - 33.00	1.0000	1.0000
L21	16	CU12PSM9P8XXX(1-3/8)	32.75 - 33.00	1.0000	1.0000
L21	18	MP3-06 Reinforcement	32.75 - 33.00	1.0000	1.0000
L21	19	MP3-06 Reinforcement	32.75 - 33.00	1.0000	1.0000
L21	21	MP3-06 Reinforcement	32.75 - 33.00	1.0000	1.0000
L21	23	MP3-05 Reinforcement	32.75 - 33.00	1.0000	1.0000
L21	40	CCI-065125 Reinforcement	32.75 - 33.00	1.0000	1.0000
L21	41	CCI-065125 Reinforcement	32.75 - 33.00	1.0000	1.0000
L21	42	CCI-065125 Reinforcement	32.75 - 33.00	1.0000	1.0000
L22	5	MLE HYBRID	32.50 - 32.75	1.0000	1.0000
		9POWER/18FIBER RL 2(1-5/8)			
L22	10	CR 50 1070(7/8)	32.50 - 32.75	1.0000	1.0000
L22	11	FB-L98B-034-XXX(3/8)	32.50 - 32.75	1.0000	1.0000
L22	16	CU12PSM9P8XXX(1-3/8)	32.50 - 32.75	1.0000	1.0000
L22	18	MP3-06 Reinforcement	32.50 - 32.75	1.0000	1.0000
L22	19	MP3-06 Reinforcement	32.50 - 32.75	1.0000	1.0000
L22	21	MP3-06 Reinforcement	32.50 - 32.75	1.0000	1.0000
L22	23	MP3-05 Reinforcement	32.50 - 32.75	1.0000	1.0000
L22	40	CCI-065125 Reinforcement	32.50 - 32.75	1.0000	1.0000
L22	41	CCI-065125 Reinforcement	32.50 - 32.75	1.0000	1.0000
L22	42	CCI-065125 Reinforcement	32.50 - 32.75	1.0000	1.0000
L23	5	MLE HYBRID	29.75 - 32.50	1.0000	1.0000
		9POWER/18FIBER RL 2(1-5/8)			
L23	10	CR 50 1070(7/8)	29.75 - 32.50	1.0000	1.0000
L23	11	FB-L98B-034-XXX(3/8)	29.75 - 32.50	1.0000	1.0000
L23	16	CU12PSM9P8XXX(1-3/8)	29.75 - 32.50	1.0000	1.0000
L23	18	MP3-06 Reinforcement	29.75 - 32.50	1.0000	1.0000
L23	19	MP3-06 Reinforcement	29.75 - 32.50	1.0000	1.0000
L23	21	MP3-06 Reinforcement	29.75 - 32.50	1.0000	1.0000
L23	23	MP3-05 Reinforcement	29.75 - 32.50	1.0000	1.0000
L23	24	MP3-05 Reinforcement	29.75 - 32.00	1.0000	1.0000
L23	25	MP3-05 Reinforcement	29.75 - 32.00	1.0000	1.0000
L23	40	CCI-065125 Reinforcement	29.75 - 32.50	1.0000	1.0000
L23	41	CCI-065125 Reinforcement	29.75 - 32.50	1.0000	1.0000
L23	42	CCI-065125 Reinforcement	29.75 - 32.50	1.0000	1.0000
L24	5	MLE HYBRID	29.50 - 29.75	1.0000	1.0000
		9POWER/18FIBER RL 2(1-5/8)			
L24	10	CR 50 1070(7/8)	29.50 - 29.75	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
L24	11	FB-L98B-034-XXX(3/8)	29.50 - 29.75	1.0000	1.0000
L24	16	CU12PSM9P8XXX(1-3/8)	29.50 - 29.75	1.0000	1.0000
L24	18	MP3-06 Reinforcement	29.50 - 29.75	1.0000	1.0000
L24	19	MP3-06 Reinforcement	29.50 - 29.75	1.0000	1.0000
L24	21	MP3-06 Reinforcement	29.50 - 29.75	1.0000	1.0000
L24	23	MP3-05 Reinforcement	29.50 - 29.75	1.0000	1.0000
L24	24	MP3-05 Reinforcement	29.50 - 29.75	1.0000	1.0000
L24	25	MP3-05 Reinforcement	29.50 - 29.75	1.0000	1.0000
L24	40	CCI-065125 Reinforcement	29.50 - 29.75	1.0000	1.0000
L24	41	CCI-065125 Reinforcement	29.50 - 29.75	1.0000	1.0000
L24	42	CCI-065125 Reinforcement	29.50 - 29.75	1.0000	1.0000
L25	5	MLE HYBRID	26.75 - 29.50	1.0000	1.0000
		9POWER/18FIBER RL 2(1-5/8)			
L25	10	CR 50 1070(7/8)	26.75 - 29.50	1.0000	1.0000
L25	11	FB-L98B-034-XXX(3/8)	26.75 - 29.50	1.0000	1.0000
L25	16	CU12PSM9P8XXX(1-3/8)	26.75 - 29.50	1.0000	1.0000
L25	18	MP3-06 Reinforcement	26.75 - 29.50	1.0000	1.0000
L25	19	MP3-06 Reinforcement	26.75 - 29.50	1.0000	1.0000
L25	21	MP3-06 Reinforcement	26.75 - 29.50	1.0000	1.0000
L25	23	MP3-05 Reinforcement	26.75 - 29.50	1.0000	1.0000
L25	24	MP3-05 Reinforcement	26.75 - 29.50	1.0000	1.0000
L25	25	MP3-05 Reinforcement	26.75 - 29.50	1.0000	1.0000
L25	40	CCI-065125 Reinforcement	26.75 - 29.50	1.0000	1.0000
L25	41	CCI-065125 Reinforcement	26.75 - 29.50	1.0000	1.0000
L25	42	CCI-065125 Reinforcement	26.75 - 29.50	1.0000	1.0000
L26	5	MLE HYBRID	26.50 - 26.75	1.0000	1.0000
		9POWER/18FIBER RL 2(1-5/8)			
L26	10	CR 50 1070(7/8)	26.50 - 26.75	1.0000	1.0000
L26	11	FB-L98B-034-XXX(3/8)	26.50 - 26.75	1.0000	1.0000
L26	16	CU12PSM9P8XXX(1-3/8)	26.50 - 26.75	1.0000	1.0000
L26	18	MP3-06 Reinforcement	26.50 - 26.75	1.0000	1.0000
L26	19	MP3-06 Reinforcement	26.50 - 26.75	1.0000	1.0000
L26	21	MP3-06 Reinforcement	26.50 - 26.75	1.0000	1.0000
L26	23	MP3-05 Reinforcement	26.50 - 26.75	1.0000	1.0000
L26	24	MP3-05 Reinforcement	26.50 - 26.75	1.0000	1.0000
L26	25	MP3-05 Reinforcement	26.50 - 26.75	1.0000	1.0000
L26	40	CCI-065125 Reinforcement	26.50 - 26.75	1.0000	1.0000
L26	41	CCI-065125 Reinforcement	26.50 - 26.75	1.0000	1.0000
L26	42	CCI-065125 Reinforcement	26.50 - 26.75	1.0000	1.0000
L27	5	MLE HYBRID	23.50 - 26.50	1.0000	1.0000
		9POWER/18FIBER RL 2(1-5/8)			
L27	10	CR 50 1070(7/8)	23.50 - 26.50	1.0000	1.0000
L27	11	FB-L98B-034-XXX(3/8)	23.50 - 26.50	1.0000	1.0000
L27	16	CU12PSM9P8XXX(1-3/8)	23.50 - 26.50	1.0000	1.0000
L27	18	MP3-06 Reinforcement	23.50 - 26.50	1.0000	1.0000
L27	19	MP3-06 Reinforcement	23.50 - 26.50	1.0000	1.0000
L27	21	MP3-06 Reinforcement	23.50 - 26.50	1.0000	1.0000
L27	23	MP3-05 Reinforcement	23.50 - 26.50	1.0000	1.0000
L27	24	MP3-05 Reinforcement	23.50 - 26.50	1.0000	1.0000
L27	25	MP3-05 Reinforcement	23.50 - 26.50	1.0000	1.0000
L27	31	CCI-065125 Reinforcement	23.50 - 25.50	1.0000	1.0000
L27	32	CCI-060100 Reinforcement	23.50 - 25.75	1.0000	1.0000
L27	33	CCI-060100 Reinforcement	23.50 - 25.75	1.0000	1.0000
L27	40	CCI-065125 Reinforcement	23.50 - 26.50	1.0000	1.0000
L27	41	CCI-065125 Reinforcement	23.50 - 26.50	1.0000	1.0000
L27	42	CCI-065125 Reinforcement	23.50 - 26.50	1.0000	1.0000
L28	5	MLE HYBRID	23.25 - 23.50	1.0000	1.0000
		9POWER/18FIBER RL 2(1-5/8)			
L28	10	CR 50 1070(7/8)	23.25 - 23.50	1.0000	1.0000
L28	11	FB-L98B-034-XXX(3/8)	23.25 - 23.50	1.0000	1.0000
L28	16	CU12PSM9P8XXX(1-3/8)	23.25 - 23.50	1.0000	1.0000
L28	18	MP3-06 Reinforcement	23.25 - 23.50	1.0000	1.0000
L28	19	MP3-06 Reinforcement	23.25 - 23.50	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L28	21	MP3-06 Reinforcement	23.25 - 23.50	1.0000	1.0000
L28	23	MP3-05 Reinforcement	23.25 - 23.50	1.0000	1.0000
L28	24	MP3-05 Reinforcement	23.25 - 23.50	1.0000	1.0000
L28	25	MP3-05 Reinforcement	23.25 - 23.50	1.0000	1.0000
L28	31	CCI-065125 Reinforcement	23.25 - 23.50	1.0000	1.0000
L28	32	CCI-060100 Reinforcement	23.25 - 23.50	1.0000	1.0000
L28	33	CCI-060100 Reinforcement	23.25 - 23.50	1.0000	1.0000
L28	40	CCI-065125 Reinforcement	23.25 - 23.50	1.0000	1.0000
L28	41	CCI-065125 Reinforcement	23.25 - 23.50	1.0000	1.0000
L28	42	CCI-065125 Reinforcement	23.25 - 23.50	1.0000	1.0000
L29	5	MLE HYBRID	22.75 - 23.25	1.0000	1.0000
		9POWER/18FIBER RL 2(1-5/8)			
L29	10	CR 50 1070(7/8)	22.75 - 23.25	1.0000	1.0000
L29	11	FB-L98B-034-XXX(3/8)	22.75 - 23.25	1.0000	1.0000
L29	16	CU12PSM9P8XXX(1-3/8)	22.75 - 23.25	1.0000	1.0000
L29	18	MP3-06 Reinforcement	22.75 - 23.25	1.0000	1.0000
L29	19	MP3-06 Reinforcement	22.75 - 23.25	1.0000	1.0000
L29	21	MP3-06 Reinforcement	22.75 - 23.25	1.0000	1.0000
L29	23	MP3-05 Reinforcement	22.75 - 23.25	1.0000	1.0000
L29	24	MP3-05 Reinforcement	22.75 - 23.25	1.0000	1.0000
L29	25	MP3-05 Reinforcement	22.75 - 23.25	1.0000	1.0000
L29	31	CCI-065125 Reinforcement	22.75 - 23.25	1.0000	1.0000
L29	32	CCI-060100 Reinforcement	22.75 - 23.25	1.0000	1.0000
L29	33	CCI-060100 Reinforcement	22.75 - 23.25	1.0000	1.0000
L29	40	CCI-065125 Reinforcement	23.00 - 23.25	1.0000	1.0000
L29	41	CCI-065125 Reinforcement	23.00 - 23.25	1.0000	1.0000
L29	42	CCI-065125 Reinforcement	23.00 - 23.25	1.0000	1.0000
L30	5	MLE HYBRID	22.50 - 22.75	1.0000	1.0000
		9POWER/18FIBER RL 2(1-5/8)			
L30	10	CR 50 1070(7/8)	22.50 - 22.75	1.0000	1.0000
L30	11	FB-L98B-034-XXX(3/8)	22.50 - 22.75	1.0000	1.0000
L30	16	CU12PSM9P8XXX(1-3/8)	22.50 - 22.75	1.0000	1.0000
L30	18	MP3-06 Reinforcement	22.50 - 22.75	1.0000	1.0000
L30	19	MP3-06 Reinforcement	22.50 - 22.75	1.0000	1.0000
L30	21	MP3-06 Reinforcement	22.50 - 22.75	1.0000	1.0000
L30	23	MP3-05 Reinforcement	22.50 - 22.75	1.0000	1.0000
L30	24	MP3-05 Reinforcement	22.50 - 22.75	1.0000	1.0000
L30	25	MP3-05 Reinforcement	22.50 - 22.75	1.0000	1.0000
L30	31	CCI-065125 Reinforcement	22.50 - 22.75	1.0000	1.0000
L30	32	CCI-060100 Reinforcement	22.50 - 22.75	1.0000	1.0000
L30	33	CCI-060100 Reinforcement	22.50 - 22.75	1.0000	1.0000
L31	5	MLE HYBRID	17.50 - 22.50	1.0000	1.0000
		9POWER/18FIBER RL 2(1-5/8)			
L31	10	CR 50 1070(7/8)	17.50 - 22.50	1.0000	1.0000
L31	11	FB-L98B-034-XXX(3/8)	17.50 - 22.50	1.0000	1.0000
L31	16	CU12PSM9P8XXX(1-3/8)	17.50 - 22.50	1.0000	1.0000
L31	18	MP3-06 Reinforcement	17.50 - 22.50	1.0000	1.0000
L31	19	MP3-06 Reinforcement	17.50 - 22.50	1.0000	1.0000
L31	20	MP3-06 Reinforcement	17.50 - 19.00	1.0000	1.0000
L31	21	MP3-06 Reinforcement	17.50 - 22.50	1.0000	1.0000
L31	23	MP3-05 Reinforcement	17.50 - 22.50	1.0000	1.0000
L31	24	MP3-05 Reinforcement	17.50 - 22.50	1.0000	1.0000
L31	25	MP3-05 Reinforcement	17.50 - 22.50	1.0000	1.0000
L31	30	CCI-065125 Reinforcement	17.50 - 20.43	1.0000	1.0000
L31	31	CCI-065125 Reinforcement	20.43 - 22.50	1.0000	1.0000
L31	32	CCI-060100 Reinforcement	17.50 - 22.50	1.0000	1.0000
L31	33	CCI-060100 Reinforcement	17.50 - 22.50	1.0000	1.0000
L32	5	MLE HYBRID	15.75 - 17.50	1.0000	1.0000
		9POWER/18FIBER RL 2(1-5/8)			
L32	10	CR 50 1070(7/8)	15.75 - 17.50	1.0000	1.0000
L32	11	FB-L98B-034-XXX(3/8)	15.75 - 17.50	1.0000	1.0000
L32	16	CU12PSM9P8XXX(1-3/8)	15.75 - 17.50	1.0000	1.0000
L32	18	MP3-06 Reinforcement	15.75 - 17.50	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K_a No Ice	K_a Ice
L32	19	MP3-06 Reinforcement	15.75 - 17.50	1.0000	1.0000
L32	20	MP3-06 Reinforcement	15.75 - 17.50	1.0000	1.0000
L32	21	MP3-06 Reinforcement	15.75 - 17.50	1.0000	1.0000
L32	23	MP3-05 Reinforcement	15.75 - 17.50	1.0000	1.0000
L32	24	MP3-05 Reinforcement	15.75 - 17.50	1.0000	1.0000
L32	25	MP3-05 Reinforcement	15.75 - 17.50	1.0000	1.0000
L32	30	CCI-065125 Reinforcement	15.75 - 17.50	1.0000	1.0000
L32	32	CCI-060100 Reinforcement	15.75 - 17.50	1.0000	1.0000
L32	33	CCI-060100 Reinforcement	15.75 - 17.50	1.0000	1.0000
L33	5	MLE HYBRID	15.50 - 15.75	1.0000	1.0000
		9POWER/18FIBER RL 2(1-5/8)			
L33	10	CR 50 1070(7/8)	15.50 - 15.75	1.0000	1.0000
L33	11	FB-L98B-034-XXX(3/8)	15.50 - 15.75	1.0000	1.0000
L33	16	CU12PSM9P8XXX(1-3/8)	15.50 - 15.75	1.0000	1.0000
L33	18	MP3-06 Reinforcement	15.50 - 15.75	1.0000	1.0000
L33	19	MP3-06 Reinforcement	15.50 - 15.75	1.0000	1.0000
L33	20	MP3-06 Reinforcement	15.50 - 15.75	1.0000	1.0000
L33	21	MP3-06 Reinforcement	15.50 - 15.75	1.0000	1.0000
L33	23	MP3-05 Reinforcement	15.50 - 15.75	1.0000	1.0000
L33	24	MP3-05 Reinforcement	15.50 - 15.75	1.0000	1.0000
L33	25	MP3-05 Reinforcement	15.50 - 15.75	1.0000	1.0000
L33	30	CCI-065125 Reinforcement	15.50 - 15.75	1.0000	1.0000
L33	32	CCI-060100 Reinforcement	15.50 - 15.75	1.0000	1.0000
L33	33	CCI-060100 Reinforcement	15.50 - 15.75	1.0000	1.0000
L34	5	MLE HYBRID	12.25 - 15.50	1.0000	1.0000
		9POWER/18FIBER RL 2(1-5/8)			
L34	10	CR 50 1070(7/8)	12.25 - 15.50	1.0000	1.0000
L34	11	FB-L98B-034-XXX(3/8)	12.25 - 15.50	1.0000	1.0000
L34	16	CU12PSM9P8XXX(1-3/8)	12.25 - 15.50	1.0000	1.0000
L34	18	MP3-06 Reinforcement	12.25 - 15.50	1.0000	1.0000
L34	19	MP3-06 Reinforcement	12.25 - 15.50	1.0000	1.0000
L34	20	MP3-06 Reinforcement	12.25 - 15.50	1.0000	1.0000
L34	21	MP3-06 Reinforcement	12.25 - 15.50	1.0000	1.0000
L34	23	MP3-05 Reinforcement	12.25 - 15.50	1.0000	1.0000
L34	24	MP3-05 Reinforcement	12.25 - 15.50	1.0000	1.0000
L34	25	MP3-05 Reinforcement	12.25 - 15.50	1.0000	1.0000
L34	30	CCI-065125 Reinforcement	12.25 - 15.50	1.0000	1.0000
L34	32	CCI-060100 Reinforcement	12.25 - 15.50	1.0000	1.0000
L34	33	CCI-060100 Reinforcement	12.25 - 15.50	1.0000	1.0000
L34	37	FP 1.25 x 8.5 Reinforcement	12.25 - 15.00	1.0000	1.0000
L34	38	FP 1.25 x 8.5 Reinforcement	12.25 - 15.00	1.0000	1.0000
L34	39	FP 1.25 x 8.5 Reinforcement	12.25 - 15.00	1.0000	1.0000
L35	5	MLE HYBRID	12.00 - 12.25	1.0000	1.0000
		9POWER/18FIBER RL 2(1-5/8)			
L35	10	CR 50 1070(7/8)	12.00 - 12.25	1.0000	1.0000
L35	11	FB-L98B-034-XXX(3/8)	12.00 - 12.25	1.0000	1.0000
L35	16	CU12PSM9P8XXX(1-3/8)	12.00 - 12.25	1.0000	1.0000
L35	18	MP3-06 Reinforcement	12.00 - 12.25	1.0000	1.0000
L35	19	MP3-06 Reinforcement	12.00 - 12.25	1.0000	1.0000
L35	20	MP3-06 Reinforcement	12.00 - 12.25	1.0000	1.0000
L35	21	MP3-06 Reinforcement	12.00 - 12.25	1.0000	1.0000
L35	23	MP3-05 Reinforcement	12.00 - 12.25	1.0000	1.0000
L35	24	MP3-05 Reinforcement	12.00 - 12.25	1.0000	1.0000
L35	25	MP3-05 Reinforcement	12.00 - 12.25	1.0000	1.0000
L35	30	CCI-065125 Reinforcement	12.00 - 12.25	1.0000	1.0000
L35	32	CCI-060100 Reinforcement	12.00 - 12.25	1.0000	1.0000
L35	33	CCI-060100 Reinforcement	12.00 - 12.25	1.0000	1.0000
L35	37	FP 1.25 x 8.5 Reinforcement	12.00 - 12.25	1.0000	1.0000
L35	38	FP 1.25 x 8.5 Reinforcement	12.00 - 12.25	1.0000	1.0000
L35	39	FP 1.25 x 8.5 Reinforcement	12.00 - 12.25	1.0000	1.0000
L36	5	MLE HYBRID	11.75 - 12.00	1.0000	1.0000
		9POWER/18FIBER RL 2(1-5/8)			
L36	10	CR 50 1070(7/8)	11.75 - 12.00	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L36	11	FB-L98B-034-XXX(3/8)	11.75 - 12.00	1.0000	1.0000
L36	16	CU12PSM9P8XXX(1-3/8)	11.75 - 12.00	1.0000	1.0000
L36	18	MP3-06 Reinforcement	11.75 - 12.00	1.0000	1.0000
L36	19	MP3-06 Reinforcement	11.75 - 12.00	1.0000	1.0000
L36	20	MP3-06 Reinforcement	11.75 - 12.00	1.0000	1.0000
L36	21	MP3-06 Reinforcement	11.75 - 12.00	1.0000	1.0000
L36	23	MP3-05 Reinforcement	11.75 - 12.00	1.0000	1.0000
L36	24	MP3-05 Reinforcement	11.75 - 12.00	1.0000	1.0000
L36	25	MP3-05 Reinforcement	11.75 - 12.00	1.0000	1.0000
L36	30	CCI-065125 Reinforcement	11.75 - 12.00	1.0000	1.0000
L36	32	CCI-060100 Reinforcement	11.75 - 12.00	1.0000	1.0000
L36	33	CCI-060100 Reinforcement	11.75 - 12.00	1.0000	1.0000
L36	37	FP 1.25 x 8.5 Reinforcement	11.75 - 12.00	1.0000	1.0000
L36	38	FP 1.25 x 8.5 Reinforcement	11.75 - 12.00	1.0000	1.0000
L36	39	FP 1.25 x 8.5 Reinforcement	11.75 - 12.00	1.0000	1.0000
L37	5	MLE HYBRID	11.50 - 11.75	1.0000	1.0000
		9POWER/18FIBER RL 2(1-5/8)			
L37	10	CR 50 1070(7/8)	11.50 - 11.75	1.0000	1.0000
L37	11	FB-L98B-034-XXX(3/8)	11.50 - 11.75	1.0000	1.0000
L37	16	CU12PSM9P8XXX(1-3/8)	11.50 - 11.75	1.0000	1.0000
L37	18	MP3-06 Reinforcement	11.50 - 11.75	1.0000	1.0000
L37	19	MP3-06 Reinforcement	11.50 - 11.75	1.0000	1.0000
L37	20	MP3-06 Reinforcement	11.50 - 11.75	1.0000	1.0000
L37	21	MP3-06 Reinforcement	11.50 - 11.75	1.0000	1.0000
L37	23	MP3-05 Reinforcement	11.50 - 11.75	1.0000	1.0000
L37	24	MP3-05 Reinforcement	11.50 - 11.75	1.0000	1.0000
L37	25	MP3-05 Reinforcement	11.50 - 11.75	1.0000	1.0000
L37	30	CCI-065125 Reinforcement	11.50 - 11.75	1.0000	1.0000
L37	32	CCI-060100 Reinforcement	11.50 - 11.75	1.0000	1.0000
L37	33	CCI-060100 Reinforcement	11.50 - 11.75	1.0000	1.0000
L37	37	FP 1.25 x 8.5 Reinforcement	11.50 - 11.75	1.0000	1.0000
L37	38	FP 1.25 x 8.5 Reinforcement	11.50 - 11.75	1.0000	1.0000
L37	39	FP 1.25 x 8.5 Reinforcement	11.50 - 11.75	1.0000	1.0000
L38	5	MLE HYBRID	6.50 - 11.50	1.0000	1.0000
		9POWER/18FIBER RL 2(1-5/8)			
L38	10	CR 50 1070(7/8)	6.50 - 11.50	1.0000	1.0000
L38	11	FB-L98B-034-XXX(3/8)	6.50 - 11.50	1.0000	1.0000
L38	16	CU12PSM9P8XXX(1-3/8)	6.50 - 11.50	1.0000	1.0000
L38	18	MP3-06 Reinforcement	6.50 - 11.50	1.0000	1.0000
L38	19	MP3-06 Reinforcement	6.50 - 11.50	1.0000	1.0000
L38	20	MP3-06 Reinforcement	6.50 - 11.50	1.0000	1.0000
L38	21	MP3-06 Reinforcement	8.50 - 11.50	1.0000	1.0000
L38	23	MP3-05 Reinforcement	10.00 - 11.50	1.0000	1.0000
L38	24	MP3-05 Reinforcement	6.50 - 11.50	1.0000	1.0000
L38	25	MP3-05 Reinforcement	6.50 - 11.50	1.0000	1.0000
L38	30	CCI-065125 Reinforcement	6.50 - 11.50	1.0000	1.0000
L38	32	CCI-060100 Reinforcement	6.50 - 11.50	1.0000	1.0000
L38	33	CCI-060100 Reinforcement	6.50 - 11.50	1.0000	1.0000
L38	34	FP 1.25 x 8.5 Reinforcement	6.50 - 7.25	1.0000	1.0000
L38	35	FP 1.25 x 8.5 Reinforcement	6.50 - 7.25	1.0000	1.0000
L38	37	FP 1.25 x 8.5 Reinforcement	6.50 - 11.50	1.0000	1.0000
L38	38	FP 1.25 x 8.5 Reinforcement	7.25 - 11.50	1.0000	1.0000
L38	39	FP 1.25 x 8.5 Reinforcement	7.25 - 11.50	1.0000	1.0000
L39	5	MLE HYBRID	6.00 - 6.50	1.0000	1.0000
		9POWER/18FIBER RL 2(1-5/8)			
L39	10	CR 50 1070(7/8)	6.00 - 6.50	1.0000	1.0000
L39	11	FB-L98B-034-XXX(3/8)	6.00 - 6.50	1.0000	1.0000
L39	16	CU12PSM9P8XXX(1-3/8)	6.00 - 6.50	1.0000	1.0000
L39	18	MP3-06 Reinforcement	6.00 - 6.50	1.0000	1.0000
L39	19	MP3-06 Reinforcement	6.00 - 6.50	1.0000	1.0000
L39	20	MP3-06 Reinforcement	6.00 - 6.50	1.0000	1.0000
L39	24	MP3-05 Reinforcement	6.00 - 6.50	1.0000	1.0000
L39	25	MP3-05 Reinforcement	6.00 - 6.50	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L39	30	CCI-065125 Reinforcement	6.00 - 6.50	1.0000	1.0000
L39	32	CCI-060100 Reinforcement	6.00 - 6.50	1.0000	1.0000
L39	33	CCI-060100 Reinforcement	6.00 - 6.50	1.0000	1.0000
L39	34	FP 1.25 x 8.5 Reinforcement	6.00 - 6.50	1.0000	1.0000
L39	35	FP 1.25 x 8.5 Reinforcement	6.00 - 6.50	1.0000	1.0000
L39	37	FP 1.25 x 8.5 Reinforcement	6.00 - 6.50	1.0000	1.0000
L40	5	MLE HYBRID	5.75 - 6.00	1.0000	1.0000
		9POWER/18FIBER RL 2(1-5/8)			
L40	10	CR 50 1070(7/8)	5.75 - 6.00	1.0000	1.0000
L40	11	FB-L98B-034-XXX(3/8)	5.75 - 6.00	1.0000	1.0000
L40	16	CU12PSM9P8XXX(1-3/8)	5.75 - 6.00	1.0000	1.0000
L40	18	MP3-06 Reinforcement	5.75 - 6.00	1.0000	1.0000
L40	19	MP3-06 Reinforcement	5.75 - 6.00	1.0000	1.0000
L40	20	MP3-06 Reinforcement	5.75 - 6.00	1.0000	1.0000
L40	24	MP3-05 Reinforcement	5.75 - 6.00	1.0000	1.0000
L40	25	MP3-05 Reinforcement	5.75 - 6.00	1.0000	1.0000
L40	30	CCI-065125 Reinforcement	5.75 - 6.00	1.0000	1.0000
L40	32	CCI-060100 Reinforcement	5.75 - 6.00	1.0000	1.0000
L40	33	CCI-060100 Reinforcement	5.75 - 6.00	1.0000	1.0000
L40	34	FP 1.25 x 8.5 Reinforcement	5.75 - 6.00	1.0000	1.0000
L40	35	FP 1.25 x 8.5 Reinforcement	5.75 - 6.00	1.0000	1.0000
L40	37	FP 1.25 x 8.5 Reinforcement	5.75 - 6.00	1.0000	1.0000
L41	5	MLE HYBRID	4.50 - 5.75	1.0000	1.0000
		9POWER/18FIBER RL 2(1-5/8)			
L41	10	CR 50 1070(7/8)	4.50 - 5.75	1.0000	1.0000
L41	11	FB-L98B-034-XXX(3/8)	4.50 - 5.75	1.0000	1.0000
L41	16	CU12PSM9P8XXX(1-3/8)	4.50 - 5.75	1.0000	1.0000
L41	18	MP3-06 Reinforcement	4.50 - 5.75	1.0000	1.0000
L41	19	MP3-06 Reinforcement	4.50 - 5.75	1.0000	1.0000
L41	20	MP3-06 Reinforcement	4.50 - 5.75	1.0000	1.0000
L41	24	MP3-05 Reinforcement	4.50 - 5.75	1.0000	1.0000
L41	25	MP3-05 Reinforcement	4.50 - 5.75	1.0000	1.0000
L41	30	CCI-065125 Reinforcement	4.50 - 5.75	1.0000	1.0000
L41	34	FP 1.25 x 8.5 Reinforcement	4.50 - 5.75	1.0000	1.0000
L41	35	FP 1.25 x 8.5 Reinforcement	4.50 - 5.75	1.0000	1.0000
L41	37	FP 1.25 x 8.5 Reinforcement	4.50 - 5.75	1.0000	1.0000
L42	5	MLE HYBRID	4.25 - 4.50	1.0000	1.0000
		9POWER/18FIBER RL 2(1-5/8)			
L42	10	CR 50 1070(7/8)	4.25 - 4.50	1.0000	1.0000
L42	11	FB-L98B-034-XXX(3/8)	4.25 - 4.50	1.0000	1.0000
L42	16	CU12PSM9P8XXX(1-3/8)	4.25 - 4.50	1.0000	1.0000
L42	18	MP3-06 Reinforcement	4.25 - 4.50	1.0000	1.0000
L42	19	MP3-06 Reinforcement	4.25 - 4.50	1.0000	1.0000
L42	20	MP3-06 Reinforcement	4.25 - 4.50	1.0000	1.0000
L42	24	MP3-05 Reinforcement	4.25 - 4.50	1.0000	1.0000
L42	25	MP3-05 Reinforcement	4.25 - 4.50	1.0000	1.0000
L42	30	CCI-065125 Reinforcement	4.25 - 4.50	1.0000	1.0000
L42	34	FP 1.25 x 8.5 Reinforcement	4.25 - 4.50	1.0000	1.0000
L42	35	FP 1.25 x 8.5 Reinforcement	4.25 - 4.50	1.0000	1.0000
L42	37	FP 1.25 x 8.5 Reinforcement	4.25 - 4.50	1.0000	1.0000
L43	5	MLE HYBRID	3.00 - 4.25	1.0000	1.0000
		9POWER/18FIBER RL 2(1-5/8)			
L43	10	CR 50 1070(7/8)	3.00 - 4.25	1.0000	1.0000
L43	11	FB-L98B-034-XXX(3/8)	3.00 - 4.25	1.0000	1.0000
L43	16	CU12PSM9P8XXX(1-3/8)	3.00 - 4.25	1.0000	1.0000
L43	18	MP3-06 Reinforcement	3.00 - 4.25	1.0000	1.0000
L43	19	MP3-06 Reinforcement	3.00 - 4.25	1.0000	1.0000
L43	20	MP3-06 Reinforcement	3.00 - 4.25	1.0000	1.0000
L43	24	MP3-05 Reinforcement	3.00 - 4.25	1.0000	1.0000
L43	25	MP3-05 Reinforcement	3.00 - 4.25	1.0000	1.0000
L43	30	CCI-065125 Reinforcement	3.00 - 4.25	1.0000	1.0000
L43	34	FP 1.25 x 8.5 Reinforcement	3.00 - 4.25	1.0000	1.0000
L43	35	FP 1.25 x 8.5 Reinforcement	3.00 - 4.25	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L43	37	FP 1.25 x 8.5 Reinforcement	3.00 - 4.25	1.0000	1.0000
L44	5	MLE HYBRID	2.75 - 3.00	1.0000	1.0000
		9POWER/18FIBER RL 2(1-5/8)			
L44	10	CR 50 1070(7/8)	2.75 - 3.00	1.0000	1.0000
L44	11	FB-L98B-034-XXX(3/8)	2.75 - 3.00	1.0000	1.0000
L44	16	CU12PSM9P8XXX(1-3/8)	2.75 - 3.00	1.0000	1.0000
L44	18	MP3-06 Reinforcement	2.75 - 3.00	1.0000	1.0000
L44	19	MP3-06 Reinforcement	2.75 - 3.00	1.0000	1.0000
L44	20	MP3-06 Reinforcement	2.75 - 3.00	1.0000	1.0000
L44	24	MP3-05 Reinforcement	2.75 - 3.00	1.0000	1.0000
L44	25	MP3-05 Reinforcement	2.75 - 3.00	1.0000	1.0000
L44	30	CCI-065125 Reinforcement	2.75 - 3.00	1.0000	1.0000
L44	34	FP 1.25 x 8.5 Reinforcement	2.75 - 3.00	1.0000	1.0000
L44	35	FP 1.25 x 8.5 Reinforcement	2.75 - 3.00	1.0000	1.0000
L44	37	FP 1.25 x 8.5 Reinforcement	2.75 - 3.00	1.0000	1.0000
L45	5	MLE HYBRID	1.75 - 2.75	1.0000	1.0000
		9POWER/18FIBER RL 2(1-5/8)			
L45	10	CR 50 1070(7/8)	1.75 - 2.75	1.0000	1.0000
L45	11	FB-L98B-034-XXX(3/8)	1.75 - 2.75	1.0000	1.0000
L45	16	CU12PSM9P8XXX(1-3/8)	1.75 - 2.75	1.0000	1.0000
L45	18	MP3-06 Reinforcement	1.75 - 2.75	1.0000	1.0000
L45	19	MP3-06 Reinforcement	1.75 - 2.75	1.0000	1.0000
L45	20	MP3-06 Reinforcement	1.75 - 2.75	1.0000	1.0000
L45	24	MP3-05 Reinforcement	1.75 - 2.75	1.0000	1.0000
L45	25	MP3-05 Reinforcement	1.75 - 2.75	1.0000	1.0000
L45	30	CCI-065125 Reinforcement	1.75 - 2.75	1.0000	1.0000
L45	34	FP 1.25 x 8.5 Reinforcement	1.75 - 2.75	1.0000	1.0000
L45	35	FP 1.25 x 8.5 Reinforcement	1.75 - 2.75	1.0000	1.0000
L45	37	FP 1.25 x 8.5 Reinforcement	1.75 - 2.75	1.0000	1.0000
L46	5	MLE HYBRID	1.50 - 1.75	1.0000	1.0000
		9POWER/18FIBER RL 2(1-5/8)			
L46	10	CR 50 1070(7/8)	1.50 - 1.75	1.0000	1.0000
L46	11	FB-L98B-034-XXX(3/8)	1.50 - 1.75	1.0000	1.0000
L46	16	CU12PSM9P8XXX(1-3/8)	1.50 - 1.75	1.0000	1.0000
L46	18	MP3-06 Reinforcement	1.50 - 1.75	1.0000	1.0000
L46	19	MP3-06 Reinforcement	1.50 - 1.75	1.0000	1.0000
L46	20	MP3-06 Reinforcement	1.50 - 1.75	1.0000	1.0000
L46	24	MP3-05 Reinforcement	1.50 - 1.75	1.0000	1.0000
L46	25	MP3-05 Reinforcement	1.50 - 1.75	1.0000	1.0000
L46	30	CCI-065125 Reinforcement	1.50 - 1.75	1.0000	1.0000
L46	34	FP 1.25 x 8.5 Reinforcement	1.50 - 1.75	1.0000	1.0000
L46	35	FP 1.25 x 8.5 Reinforcement	1.50 - 1.75	1.0000	1.0000
L46	37	FP 1.25 x 8.5 Reinforcement	1.50 - 1.75	1.0000	1.0000
L47	5	MLE HYBRID	1.25 - 1.50	1.0000	1.0000
		9POWER/18FIBER RL 2(1-5/8)			
L47	10	CR 50 1070(7/8)	1.25 - 1.50	1.0000	1.0000
L47	11	FB-L98B-034-XXX(3/8)	1.25 - 1.50	1.0000	1.0000
L47	16	CU12PSM9P8XXX(1-3/8)	1.25 - 1.50	1.0000	1.0000
L47	18	MP3-06 Reinforcement	1.25 - 1.50	1.0000	1.0000
L47	19	MP3-06 Reinforcement	1.25 - 1.50	1.0000	1.0000
L47	20	MP3-06 Reinforcement	1.25 - 1.50	1.0000	1.0000
L47	24	MP3-05 Reinforcement	1.25 - 1.50	1.0000	1.0000
L47	25	MP3-05 Reinforcement	1.25 - 1.50	1.0000	1.0000
L47	30	CCI-065125 Reinforcement	1.25 - 1.50	1.0000	1.0000
L47	34	FP 1.25 x 8.5 Reinforcement	1.25 - 1.50	1.0000	1.0000
L47	35	FP 1.25 x 8.5 Reinforcement	1.25 - 1.50	1.0000	1.0000
L47	37	FP 1.25 x 8.5 Reinforcement	1.25 - 1.50	1.0000	1.0000
L48	5	MLE HYBRID	1.00 - 1.25	1.0000	1.0000
		9POWER/18FIBER RL 2(1-5/8)			
L48	10	CR 50 1070(7/8)	1.00 - 1.25	1.0000	1.0000
L48	11	FB-L98B-034-XXX(3/8)	1.00 - 1.25	1.0000	1.0000
L48	16	CU12PSM9P8XXX(1-3/8)	1.00 - 1.25	1.0000	1.0000
L48	18	MP3-06 Reinforcement	1.00 - 1.25	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L48	19	MP3-06 Reinforcement	1.00 - 1.25	1.0000	1.0000
L48	20	MP3-06 Reinforcement	1.00 - 1.25	1.0000	1.0000
L48	24	MP3-05 Reinforcement	1.00 - 1.25	1.0000	1.0000
L48	25	MP3-05 Reinforcement	1.00 - 1.25	1.0000	1.0000
L48	30	CCI-065125 Reinforcement	1.00 - 1.25	1.0000	1.0000
L48	34	FP 1.25 x 8.5 Reinforcement	1.00 - 1.25	1.0000	1.0000
L48	35	FP 1.25 x 8.5 Reinforcement	1.00 - 1.25	1.0000	1.0000
L48	37	FP 1.25 x 8.5 Reinforcement	1.00 - 1.25	1.0000	1.0000
L49	5	MLE HYBRID	0.00 - 1.00	1.0000	1.0000
		9POWER/18FIBER RL 2(1-5/8)			
L49	10	CR 50 1070(7/8)	0.00 - 1.00	1.0000	1.0000
L49	11	FB-L98B-034-XXX(3/8)	0.00 - 1.00	1.0000	1.0000
L49	16	CU12PSM9P8XXX(1-3/8)	0.00 - 1.00	1.0000	1.0000
L49	18	MP3-06 Reinforcement	0.00 - 1.00	1.0000	1.0000
L49	19	MP3-06 Reinforcement	0.00 - 1.00	1.0000	1.0000
L49	20	MP3-06 Reinforcement	0.00 - 1.00	1.0000	1.0000
L49	24	MP3-05 Reinforcement	0.00 - 1.00	1.0000	1.0000
L49	25	MP3-05 Reinforcement	0.00 - 1.00	1.0000	1.0000
L49	30	CCI-065125 Reinforcement	0.00 - 1.00	1.0000	1.0000
L49	34	FP 1.25 x 8.5 Reinforcement	0.00 - 1.00	1.0000	1.0000
L49	35	FP 1.25 x 8.5 Reinforcement	0.00 - 1.00	1.0000	1.0000
L49	37	FP 1.25 x 8.5 Reinforcement	0.00 - 1.00	1.0000	1.0000

Effective Width of Flat Linear Attachments / Feed Lines

Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L3	26	MP3-05 Reinforcement	85.50 - 88.00	Manual	1.0000
L3	27	MP3-05 Reinforcement	85.50 - 89.00	Manual	1.0000
L3	28	MP3-05 Reinforcement	85.50 - 88.50	Manual	1.0000
L4	26	MP3-05 Reinforcement	85.25 - 85.50	Manual	1.0000
L4	27	MP3-05 Reinforcement	85.25 - 85.50	Manual	1.0000
L4	28	MP3-05 Reinforcement	85.25 - 85.50	Manual	1.0000
L5	26	MP3-05 Reinforcement	80.25 - 85.25	Manual	1.0000
L5	27	MP3-05 Reinforcement	80.25 - 85.25	Manual	1.0000
L5	28	MP3-05 Reinforcement	80.25 - 85.25	Manual	1.0000
L6	26	MP3-05 Reinforcement	75.25 - 80.25	Manual	1.0000
L6	27	MP3-05 Reinforcement	75.25 - 80.25	Manual	1.0000
L6	28	MP3-05 Reinforcement	75.25 - 80.25	Manual	1.0000
L7	26	MP3-05 Reinforcement	70.25 - 75.25	Manual	1.0000
L7	27	MP3-05 Reinforcement	70.25 - 75.25	Manual	1.0000
L7	28	MP3-05 Reinforcement	70.25 - 75.25	Manual	1.0000
L8	26	MP3-05 Reinforcement	66.00 - 70.25	Manual	1.0000
L8	27	MP3-05 Reinforcement	66.00 - 70.25	Manual	1.0000
L8	28	MP3-05 Reinforcement	66.00 - 70.25	Manual	1.0000
L8	43	CCI-065125 Reinforcement	66.00 - 70.00	Auto	0.4087
L8	44	CCI-065125 Reinforcement	66.00 - 70.00	Auto	0.4087
L8	45	CCI-065125 Reinforcement	66.00 - 70.00	Auto	0.4087
L9	26	MP3-05 Reinforcement	65.00 - 66.00	Manual	1.0000
L9	27	MP3-05 Reinforcement	65.00 - 66.00	Manual	1.0000
L9	28	MP3-05 Reinforcement	65.00 - 66.00	Manual	1.0000
L9	43	CCI-065125 Reinforcement	65.00 - 66.00	Auto	0.5246
L9	44	CCI-065125 Reinforcement	65.00 - 66.00	Auto	0.5246
L9	45	CCI-065125 Reinforcement	65.00 - 66.00	Auto	0.5246

Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L10	26	MP3-05 Reinforcement	60.00 - 65.00	Manual	1.0000
L10	27	MP3-05 Reinforcement	60.00 - 65.00	Manual	1.0000
L10	28	MP3-05 Reinforcement	60.00 - 65.00	Manual	1.0000
L10	43	CCI-065125 Reinforcement	60.00 - 65.00	Auto	0.4889
L10	44	CCI-065125 Reinforcement	60.00 - 65.00	Auto	0.4889
L10	45	CCI-065125 Reinforcement	60.00 - 65.00	Auto	0.4889
L11	18	MP3-06 Reinforcement	55.00 - 58.00	Manual	1.0000
L11	19	MP3-06 Reinforcement	55.00 - 59.00	Manual	1.0000
L11	21	MP3-06 Reinforcement	55.00 - 58.50	Manual	1.0000
L11	26	MP3-05 Reinforcement	58.00 - 60.00	Manual	1.0000
L11	27	MP3-05 Reinforcement	59.00 - 60.00	Manual	1.0000
L11	28	MP3-05 Reinforcement	58.50 - 60.00	Manual	1.0000
L11	40	CCI-065125 Reinforcement	55.00 - 58.00	Auto	0.4329
L11	41	CCI-065125 Reinforcement	55.00 - 58.00	Auto	0.4329
L11	42	CCI-065125 Reinforcement	55.00 - 58.00	Auto	0.4329
L11	43	CCI-065125 Reinforcement	55.00 - 60.00	Auto	0.4397
L11	44	CCI-065125 Reinforcement	55.00 - 60.00	Auto	0.4397
L11	45	CCI-065125 Reinforcement	55.00 - 60.00	Auto	0.4397
L12	18	MP3-06 Reinforcement	54.75 - 55.00	Manual	1.0000
L12	19	MP3-06 Reinforcement	54.75 - 55.00	Manual	1.0000
L12	21	MP3-06 Reinforcement	54.75 - 55.00	Manual	1.0000
L12	40	CCI-065125 Reinforcement	54.75 - 55.00	Auto	0.4219
L12	41	CCI-065125 Reinforcement	54.75 - 55.00	Auto	0.4219
L12	42	CCI-065125 Reinforcement	54.75 - 55.00	Auto	0.4219
L12	43	CCI-065125 Reinforcement	54.75 - 55.00	Auto	0.4219
L12	44	CCI-065125 Reinforcement	54.75 - 55.00	Auto	0.4219
L12	45	CCI-065125 Reinforcement	54.75 - 55.00	Auto	0.4219
L13	18	MP3-06 Reinforcement	54.50 - 54.75	Manual	1.0000
L13	19	MP3-06 Reinforcement	54.50 - 54.75	Manual	1.0000
L13	21	MP3-06 Reinforcement	54.50 - 54.75	Manual	1.0000
L13	40	CCI-065125 Reinforcement	54.50 - 54.75	Auto	0.5027
L13	41	CCI-065125 Reinforcement	54.50 - 54.75	Auto	0.5027
L13	42	CCI-065125 Reinforcement	54.50 - 54.75	Auto	0.5027
L13	43	CCI-065125 Reinforcement	54.50 - 54.75	Auto	0.5027
L13	44	CCI-065125 Reinforcement	54.50 - 54.75	Auto	0.5027
L13	45	CCI-065125 Reinforcement	54.50 - 54.75	Auto	0.5027
L14	18	MP3-06 Reinforcement	54.25 - 54.50	Manual	1.0000
L14	19	MP3-06 Reinforcement	54.25 - 54.50	Manual	1.0000
L14	21	MP3-06 Reinforcement	54.25 - 54.50	Manual	1.0000
L14	40	CCI-065125 Reinforcement	54.25 - 54.50	Auto	0.5010
L14	41	CCI-065125 Reinforcement	54.25 - 54.50	Auto	0.5010
L14	42	CCI-065125 Reinforcement	54.25 - 54.50	Auto	0.5010
L14	43	CCI-065125 Reinforcement	54.25 - 54.50	Auto	0.5010
L14	44	CCI-065125 Reinforcement	54.25 - 54.50	Auto	0.5010
L14	45	CCI-065125 Reinforcement	54.25 - 54.50	Auto	0.5010
L15	18	MP3-06 Reinforcement	54.00 - 54.25	Manual	1.0000
L15	19	MP3-06 Reinforcement	54.00 - 54.25	Manual	1.0000
L15	21	MP3-06 Reinforcement	54.00 - 54.25	Manual	1.0000
L15	40	CCI-065125 Reinforcement	54.00 - 54.25	Auto	0.8498
L15	41	CCI-065125 Reinforcement	54.00 - 54.25	Auto	0.8498
L15	42	CCI-065125 Reinforcement	54.00 - 54.25	Auto	0.8498
L15	43	CCI-065125 Reinforcement	54.00 - 54.25	Auto	0.8498
L15	44	CCI-065125 Reinforcement	54.00 - 54.25	Auto	0.8498
L15	45	CCI-065125 Reinforcement	54.00 - 54.25	Auto	0.8498
L16	18	MP3-06 Reinforcement	49.00 - 54.00	Manual	1.0000
L16	19	MP3-06 Reinforcement	49.00 - 54.00	Manual	1.0000
L16	21	MP3-06 Reinforcement	49.00 - 54.00	Manual	1.0000
L16	40	CCI-065125 Reinforcement	49.00 - 54.00	Auto	0.7909
L16	41	CCI-065125 Reinforcement	49.00 - 54.00	Auto	0.7909
L16	42	CCI-065125 Reinforcement	49.00 - 54.00	Auto	0.7909
L16	43	CCI-065125 Reinforcement	49.00 - 54.00	Auto	0.7909
L16	44	CCI-065125 Reinforcement	49.00 - 54.00	Auto	0.7909

Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L16	45	CCI-065125 Reinforcement	49.00 - 54.00	Auto	0.7909
L17	18	MP3-06 Reinforcement	44.00 - 49.00	Manual	1.0000
L17	19	MP3-06 Reinforcement	44.00 - 49.00	Manual	1.0000
L17	21	MP3-06 Reinforcement	44.00 - 49.00	Manual	1.0000
L17	40	CCI-065125 Reinforcement	44.00 - 49.00	Auto	0.7159
L17	41	CCI-065125 Reinforcement	44.00 - 49.00	Auto	0.7159
L17	42	CCI-065125 Reinforcement	44.00 - 49.00	Auto	0.7159
L17	43	CCI-065125 Reinforcement	44.00 - 49.00	Auto	0.7159
L17	44	CCI-065125 Reinforcement	44.00 - 49.00	Auto	0.7159
L17	45	CCI-065125 Reinforcement	44.00 - 49.00	Auto	0.7159
L18	18	MP3-06 Reinforcement	39.00 - 44.00	Manual	1.0000
L18	19	MP3-06 Reinforcement	39.00 - 44.00	Manual	1.0000
L18	21	MP3-06 Reinforcement	39.00 - 44.00	Manual	1.0000
L18	40	CCI-065125 Reinforcement	39.00 - 44.00	Auto	0.6512
L18	41	CCI-065125 Reinforcement	39.00 - 44.00	Auto	0.6512
L18	42	CCI-065125 Reinforcement	39.00 - 44.00	Auto	0.6512
L18	43	CCI-065125 Reinforcement	39.00 - 44.00	Auto	0.6512
L18	44	CCI-065125 Reinforcement	39.00 - 44.00	Auto	0.6512
L18	45	CCI-065125 Reinforcement	39.00 - 44.00	Auto	0.6512
L19	18	MP3-06 Reinforcement	38.75 - 39.00	Manual	1.0000
L19	19	MP3-06 Reinforcement	38.75 - 39.00	Manual	1.0000
L19	21	MP3-06 Reinforcement	38.75 - 39.00	Manual	1.0000
L19	40	CCI-065125 Reinforcement	38.75 - 39.00	Auto	0.3449
L19	41	CCI-065125 Reinforcement	38.75 - 39.00	Auto	0.3449
L19	42	CCI-065125 Reinforcement	38.75 - 39.00	Auto	0.3449
L19	43	CCI-065125 Reinforcement	38.75 - 39.00	Auto	0.3449
L19	44	CCI-065125 Reinforcement	38.75 - 39.00	Auto	0.3449
L19	45	CCI-065125 Reinforcement	38.75 - 39.00	Auto	0.3449
L20	18	MP3-06 Reinforcement	33.00 - 38.75	Manual	1.0000
L20	19	MP3-06 Reinforcement	33.00 - 38.75	Manual	1.0000
L20	21	MP3-06 Reinforcement	33.00 - 38.75	Manual	1.0000
L20	23	MP3-05 Reinforcement	33.00 - 35.00	Manual	1.0000
L20	40	CCI-065125 Reinforcement	33.00 - 38.75	Auto	0.3247
L20	41	CCI-065125 Reinforcement	33.00 - 38.75	Auto	0.3247
L20	42	CCI-065125 Reinforcement	33.00 - 38.75	Auto	0.3247
L20	43	CCI-065125 Reinforcement	35.00 - 38.75	Auto	0.3314
L20	44	CCI-065125 Reinforcement	35.00 - 38.75	Auto	0.3314
L20	45	CCI-065125 Reinforcement	35.00 - 38.75	Auto	0.3314
L21	18	MP3-06 Reinforcement	32.75 - 33.00	Manual	1.0000
L21	19	MP3-06 Reinforcement	32.75 - 33.00	Manual	1.0000
L21	21	MP3-06 Reinforcement	32.75 - 33.00	Manual	1.0000
L21	23	MP3-05 Reinforcement	32.75 - 33.00	Manual	1.0000
L21	40	CCI-065125 Reinforcement	32.75 - 33.00	Auto	0.3250
L21	41	CCI-065125 Reinforcement	32.75 - 33.00	Auto	0.3250
L21	42	CCI-065125 Reinforcement	32.75 - 33.00	Auto	0.3250
L22	18	MP3-06 Reinforcement	32.50 - 32.75	Manual	1.0000
L22	19	MP3-06 Reinforcement	32.50 - 32.75	Manual	1.0000
L22	21	MP3-06 Reinforcement	32.50 - 32.75	Manual	1.0000
L22	23	MP3-05 Reinforcement	32.50 - 32.75	Manual	1.0000
L22	40	CCI-065125 Reinforcement	32.50 - 32.75	Auto	0.3336
L22	41	CCI-065125 Reinforcement	32.50 - 32.75	Auto	0.3336
L22	42	CCI-065125 Reinforcement	32.50 - 32.75	Auto	0.3336
L23	18	MP3-06 Reinforcement	29.75 - 32.50	Manual	1.0000
L23	19	MP3-06 Reinforcement	29.75 - 32.50	Manual	1.0000
L23	21	MP3-06 Reinforcement	29.75 - 32.50	Manual	1.0000
L23	23	MP3-05 Reinforcement	29.75 - 32.50	Manual	1.0000
L23	24	MP3-05 Reinforcement	29.75 - 32.00	Manual	1.0000
L23	25	MP3-05 Reinforcement	29.75 - 32.00	Manual	1.0000
L23	40	CCI-065125 Reinforcement	29.75 - 32.50	Auto	0.3132
L23	41	CCI-065125 Reinforcement	29.75 - 32.50	Auto	0.3132
L23	42	CCI-065125 Reinforcement	29.75 - 32.50	Auto	0.3132
L24	18	MP3-06 Reinforcement	29.50 - 29.75	Manual	1.0000

Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L24	19	MP3-06 Reinforcement	29.50 - 29.75	Manual	1.0000
L24	21	MP3-06 Reinforcement	29.50 - 29.75	Manual	1.0000
L24	23	MP3-05 Reinforcement	29.50 - 29.75	Manual	1.0000
L24	24	MP3-05 Reinforcement	29.50 - 29.75	Manual	1.0000
L24	25	MP3-05 Reinforcement	29.50 - 29.75	Manual	1.0000
L24	40	CCI-065125 Reinforcement	29.50 - 29.75	Auto	0.4164
L24	41	CCI-065125 Reinforcement	29.50 - 29.75	Auto	0.4164
L24	42	CCI-065125 Reinforcement	29.50 - 29.75	Auto	0.4164
L25	18	MP3-06 Reinforcement	26.75 - 29.50	Manual	1.0000
L25	19	MP3-06 Reinforcement	26.75 - 29.50	Manual	1.0000
L25	21	MP3-06 Reinforcement	26.75 - 29.50	Manual	1.0000
L25	23	MP3-05 Reinforcement	26.75 - 29.50	Manual	1.0000
L25	24	MP3-05 Reinforcement	26.75 - 29.50	Manual	1.0000
L25	25	MP3-05 Reinforcement	26.75 - 29.50	Manual	1.0000
L25	40	CCI-065125 Reinforcement	26.75 - 29.50	Auto	0.3960
L25	41	CCI-065125 Reinforcement	26.75 - 29.50	Auto	0.3960
L25	42	CCI-065125 Reinforcement	26.75 - 29.50	Auto	0.3960
L26	18	MP3-06 Reinforcement	26.50 - 26.75	Manual	1.0000
L26	19	MP3-06 Reinforcement	26.50 - 26.75	Manual	1.0000
L26	21	MP3-06 Reinforcement	26.50 - 26.75	Manual	1.0000
L26	23	MP3-05 Reinforcement	26.50 - 26.75	Manual	1.0000
L26	24	MP3-05 Reinforcement	26.50 - 26.75	Manual	1.0000
L26	25	MP3-05 Reinforcement	26.50 - 26.75	Manual	1.0000
L26	40	CCI-065125 Reinforcement	26.50 - 26.75	Auto	0.3189
L26	41	CCI-065125 Reinforcement	26.50 - 26.75	Auto	0.3189
L26	42	CCI-065125 Reinforcement	26.50 - 26.75	Auto	0.3189
L27	18	MP3-06 Reinforcement	23.50 - 26.50	Manual	1.0000
L27	19	MP3-06 Reinforcement	23.50 - 26.50	Manual	1.0000
L27	21	MP3-06 Reinforcement	23.50 - 26.50	Manual	1.0000
L27	23	MP3-05 Reinforcement	23.50 - 26.50	Manual	1.0000
L27	24	MP3-05 Reinforcement	23.50 - 26.50	Manual	1.0000
L27	25	MP3-05 Reinforcement	23.50 - 26.50	Manual	1.0000
L27	31	CCI-065125 Reinforcement	23.50 - 25.50	Auto	0.2994
L27	32	CCI-060100 Reinforcement	23.50 - 25.75	Auto	0.2419
L27	33	CCI-060100 Reinforcement	23.50 - 25.75	Auto	0.2419
L27	40	CCI-065125 Reinforcement	23.50 - 26.50	Auto	0.3028
L27	41	CCI-065125 Reinforcement	23.50 - 26.50	Auto	0.3028
L27	42	CCI-065125 Reinforcement	23.50 - 26.50	Auto	0.3028
L28	18	MP3-06 Reinforcement	23.25 - 23.50	Manual	1.0000
L28	19	MP3-06 Reinforcement	23.25 - 23.50	Manual	1.0000
L28	21	MP3-06 Reinforcement	23.25 - 23.50	Manual	1.0000
L28	23	MP3-05 Reinforcement	23.25 - 23.50	Manual	1.0000
L28	24	MP3-05 Reinforcement	23.25 - 23.50	Manual	1.0000
L28	25	MP3-05 Reinforcement	23.25 - 23.50	Manual	1.0000
L28	31	CCI-065125 Reinforcement	23.25 - 23.50	Auto	0.2918
L28	32	CCI-060100 Reinforcement	23.25 - 23.50	Auto	0.2328
L28	33	CCI-060100 Reinforcement	23.25 - 23.50	Auto	0.2328
L28	40	CCI-065125 Reinforcement	23.25 - 23.50	Auto	0.2918
L28	41	CCI-065125 Reinforcement	23.25 - 23.50	Auto	0.2918
L28	42	CCI-065125 Reinforcement	23.25 - 23.50	Auto	0.2918
L29	18	MP3-06 Reinforcement	22.75 - 23.25	Manual	1.0000
L29	19	MP3-06 Reinforcement	22.75 - 23.25	Manual	1.0000
L29	21	MP3-06 Reinforcement	22.75 - 23.25	Manual	1.0000
L29	23	MP3-05 Reinforcement	22.75 - 23.25	Manual	1.0000
L29	24	MP3-05 Reinforcement	22.75 - 23.25	Manual	1.0000
L29	25	MP3-05 Reinforcement	22.75 - 23.25	Manual	1.0000
L29	31	CCI-065125 Reinforcement	22.75 - 23.25	Auto	0.2893
L29	32	CCI-060100 Reinforcement	22.75 - 23.25	Auto	0.2301
L29	33	CCI-060100 Reinforcement	22.75 - 23.25	Auto	0.2301
L29	40	CCI-065125 Reinforcement	23.00 - 23.25	Auto	0.2901
L29	41	CCI-065125 Reinforcement	23.00 - 23.25	Auto	0.2901
L29	42	CCI-065125 Reinforcement	23.00 - 23.25	Auto	0.2901

Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L30	18	MP3-06 Reinforcement	22.50 - 22.75	Manual	1.0000
L30	19	MP3-06 Reinforcement	22.50 - 22.75	Manual	1.0000
L30	21	MP3-06 Reinforcement	22.50 - 22.75	Manual	1.0000
L30	23	MP3-05 Reinforcement	22.50 - 22.75	Manual	1.0000
L30	24	MP3-05 Reinforcement	22.50 - 22.75	Manual	1.0000
L30	25	MP3-05 Reinforcement	22.50 - 22.75	Manual	1.0000
L30	31	CCI-065125 Reinforcement	22.50 - 22.75	Auto	0.3486
L30	32	CCI-060100 Reinforcement	22.50 - 22.75	Auto	0.2943
L30	33	CCI-060100 Reinforcement	22.50 - 22.75	Auto	0.2943
L31	18	MP3-06 Reinforcement	17.50 - 22.50	Manual	1.0000
L31	19	MP3-06 Reinforcement	17.50 - 22.50	Manual	1.0000
L31	20	MP3-06 Reinforcement	17.50 - 19.00	Manual	1.0000
L31	21	MP3-06 Reinforcement	17.50 - 22.50	Manual	1.0000
L31	23	MP3-05 Reinforcement	17.50 - 22.50	Manual	1.0000
L31	24	MP3-05 Reinforcement	17.50 - 22.50	Manual	1.0000
L31	25	MP3-05 Reinforcement	17.50 - 22.50	Manual	1.0000
L31	30	CCI-065125 Reinforcement	17.50 - 20.43	Auto	0.3136
L31	31	CCI-065125 Reinforcement	20.43 - 22.50	Auto	0.3305
L31	32	CCI-060100 Reinforcement	17.50 - 22.50	Auto	0.2640
L31	33	CCI-060100 Reinforcement	17.50 - 22.50	Auto	0.2640
L32	18	MP3-06 Reinforcement	15.75 - 17.50	Manual	1.0000
L32	19	MP3-06 Reinforcement	15.75 - 17.50	Manual	1.0000
L32	20	MP3-06 Reinforcement	15.75 - 17.50	Manual	1.0000
L32	21	MP3-06 Reinforcement	15.75 - 17.50	Manual	1.0000
L32	23	MP3-05 Reinforcement	15.75 - 17.50	Manual	1.0000
L32	24	MP3-05 Reinforcement	15.75 - 17.50	Manual	1.0000
L32	25	MP3-05 Reinforcement	15.75 - 17.50	Manual	1.0000
L32	30	CCI-065125 Reinforcement	15.75 - 17.50	Auto	0.2875
L32	32	CCI-060100 Reinforcement	15.75 - 17.50	Auto	0.2281
L32	33	CCI-060100 Reinforcement	15.75 - 17.50	Auto	0.2281
L33	18	MP3-06 Reinforcement	15.50 - 15.75	Manual	1.0000
L33	19	MP3-06 Reinforcement	15.50 - 15.75	Manual	1.0000
L33	20	MP3-06 Reinforcement	15.50 - 15.75	Manual	1.0000
L33	21	MP3-06 Reinforcement	15.50 - 15.75	Manual	1.0000
L33	23	MP3-05 Reinforcement	15.50 - 15.75	Manual	1.0000
L33	24	MP3-05 Reinforcement	15.50 - 15.75	Manual	1.0000
L33	25	MP3-05 Reinforcement	15.50 - 15.75	Manual	1.0000
L33	30	CCI-065125 Reinforcement	15.50 - 15.75	Auto	0.3168
L33	32	CCI-060100 Reinforcement	15.50 - 15.75	Auto	0.2599
L33	33	CCI-060100 Reinforcement	15.50 - 15.75	Auto	0.2599
L34	18	MP3-06 Reinforcement	12.25 - 15.50	Manual	1.0000
L34	19	MP3-06 Reinforcement	12.25 - 15.50	Manual	1.0000
L34	20	MP3-06 Reinforcement	12.25 - 15.50	Manual	1.0000
L34	21	MP3-06 Reinforcement	12.25 - 15.50	Manual	1.0000
L34	23	MP3-05 Reinforcement	12.25 - 15.50	Manual	1.0000
L34	24	MP3-05 Reinforcement	12.25 - 15.50	Manual	1.0000
L34	25	MP3-05 Reinforcement	12.25 - 15.50	Manual	1.0000
L34	30	CCI-065125 Reinforcement	12.25 - 15.50	Auto	0.2999
L34	32	CCI-060100 Reinforcement	12.25 - 15.50	Auto	0.2415
L34	33	CCI-060100 Reinforcement	12.25 - 15.50	Auto	0.2415
L34	37	FP 1.25 x 8.5 Reinforcement	12.25 - 15.00	Auto	0.0000
L34	38	FP 1.25 x 8.5 Reinforcement	12.25 - 15.00	Auto	0.0000
L34	39	FP 1.25 x 8.5 Reinforcement	12.25 - 15.00	Auto	0.0000
L35	18	MP3-06 Reinforcement	12.00 - 12.25	Manual	1.0000
L35	19	MP3-06 Reinforcement	12.00 - 12.25	Manual	1.0000
L35	20	MP3-06 Reinforcement	12.00 - 12.25	Manual	1.0000
L35	21	MP3-06 Reinforcement	12.00 - 12.25	Manual	1.0000
L35	23	MP3-05 Reinforcement	12.00 - 12.25	Manual	1.0000
L35	24	MP3-05 Reinforcement	12.00 - 12.25	Manual	1.0000
L35	25	MP3-05 Reinforcement	12.00 - 12.25	Manual	1.0000
L35	30	CCI-065125 Reinforcement	12.00 - 12.25	Auto	0.2365
L35	32	CCI-060100 Reinforcement	12.00 - 12.25	Auto	0.1729

Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L35	33	CCI-060100 Reinforcement	12.00 - 12.25	Auto	0.1729
L35	37	FP 1.25 x 8.5 Reinforcement	12.00 - 12.25	Auto	0.0000
L35	38	FP 1.25 x 8.5 Reinforcement	12.00 - 12.25	Auto	0.0000
L35	39	FP 1.25 x 8.5 Reinforcement	12.00 - 12.25	Auto	0.0000
L36	18	MP3-06 Reinforcement	11.75 - 12.00	Manual	1.0000
L36	19	MP3-06 Reinforcement	11.75 - 12.00	Manual	1.0000
L36	20	MP3-06 Reinforcement	11.75 - 12.00	Manual	1.0000
L36	21	MP3-06 Reinforcement	11.75 - 12.00	Manual	1.0000
L36	23	MP3-05 Reinforcement	11.75 - 12.00	Manual	1.0000
L36	24	MP3-05 Reinforcement	11.75 - 12.00	Manual	1.0000
L36	25	MP3-05 Reinforcement	11.75 - 12.00	Manual	1.0000
L36	30	CCI-065125 Reinforcement	11.75 - 12.00	Auto	0.2864
L36	32	CCI-060100 Reinforcement	11.75 - 12.00	Auto	0.2269
L36	33	CCI-060100 Reinforcement	11.75 - 12.00	Auto	0.2269
L36	37	FP 1.25 x 8.5 Reinforcement	11.75 - 12.00	Auto	0.0000
L36	38	FP 1.25 x 8.5 Reinforcement	11.75 - 12.00	Auto	0.0000
L36	39	FP 1.25 x 8.5 Reinforcement	11.75 - 12.00	Auto	0.0000
L37	18	MP3-06 Reinforcement	11.50 - 11.75	Manual	1.0000
L37	19	MP3-06 Reinforcement	11.50 - 11.75	Manual	1.0000
L37	20	MP3-06 Reinforcement	11.50 - 11.75	Manual	1.0000
L37	21	MP3-06 Reinforcement	11.50 - 11.75	Manual	1.0000
L37	23	MP3-05 Reinforcement	11.50 - 11.75	Manual	1.0000
L37	24	MP3-05 Reinforcement	11.50 - 11.75	Manual	1.0000
L37	25	MP3-05 Reinforcement	11.50 - 11.75	Manual	1.0000
L37	30	CCI-065125 Reinforcement	11.50 - 11.75	Auto	0.2023
L37	32	CCI-060100 Reinforcement	11.50 - 11.75	Auto	0.1358
L37	33	CCI-060100 Reinforcement	11.50 - 11.75	Auto	0.1358
L37	37	FP 1.25 x 8.5 Reinforcement	11.50 - 11.75	Auto	0.0000
L37	38	FP 1.25 x 8.5 Reinforcement	11.50 - 11.75	Auto	0.0000
L37	39	FP 1.25 x 8.5 Reinforcement	11.50 - 11.75	Auto	0.0000
L38	18	MP3-06 Reinforcement	6.50 - 11.50	Manual	1.0000
L38	19	MP3-06 Reinforcement	6.50 - 11.50	Manual	1.0000
L38	20	MP3-06 Reinforcement	6.50 - 11.50	Manual	1.0000
L38	21	MP3-06 Reinforcement	8.50 - 11.50	Manual	1.0000
L38	23	MP3-05 Reinforcement	10.00 - 11.50	Manual	1.0000
L38	24	MP3-05 Reinforcement	6.50 - 11.50	Manual	1.0000
L38	25	MP3-05 Reinforcement	6.50 - 11.50	Manual	1.0000
L38	30	CCI-065125 Reinforcement	6.50 - 11.50	Auto	0.1742
L38	32	CCI-060100 Reinforcement	6.50 - 11.50	Auto	0.1054
L38	33	CCI-060100 Reinforcement	6.50 - 11.50	Auto	0.1054
L38	34	FP 1.25 x 8.5 Reinforcement	6.50 - 7.25	Auto	0.0000
L38	35	FP 1.25 x 8.5 Reinforcement	6.50 - 7.25	Auto	0.0000
L38	37	FP 1.25 x 8.5 Reinforcement	6.50 - 11.50	Auto	0.0000
L38	38	FP 1.25 x 8.5 Reinforcement	7.25 - 11.50	Auto	0.0000
L38	39	FP 1.25 x 8.5 Reinforcement	7.25 - 11.50	Auto	0.0000
L39	18	MP3-06 Reinforcement	6.00 - 6.50	Manual	1.0000
L39	19	MP3-06 Reinforcement	6.00 - 6.50	Manual	1.0000
L39	20	MP3-06 Reinforcement	6.00 - 6.50	Manual	1.0000
L39	24	MP3-05 Reinforcement	6.00 - 6.50	Manual	1.0000
L39	25	MP3-05 Reinforcement	6.00 - 6.50	Manual	1.0000
L39	30	CCI-065125 Reinforcement	6.00 - 6.50	Auto	0.1557
L39	32	CCI-060100 Reinforcement	6.00 - 6.50	Auto	0.0853
L39	33	CCI-060100 Reinforcement	6.00 - 6.50	Auto	0.0853
L39	34	FP 1.25 x 8.5 Reinforcement	6.00 - 6.50	Auto	0.0000
L39	35	FP 1.25 x 8.5 Reinforcement	6.00 - 6.50	Auto	0.0000
L39	37	FP 1.25 x 8.5 Reinforcement	6.00 - 6.50	Auto	0.0000
L40	18	MP3-06 Reinforcement	5.75 - 6.00	Manual	1.0000
L40	19	MP3-06 Reinforcement	5.75 - 6.00	Manual	1.0000
L40	20	MP3-06 Reinforcement	5.75 - 6.00	Manual	1.0000
L40	24	MP3-05 Reinforcement	5.75 - 6.00	Manual	1.0000
L40	25	MP3-05 Reinforcement	5.75 - 6.00	Manual	1.0000
L40	30	CCI-065125 Reinforcement	5.75 - 6.00	Auto	0.1532

Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L40	32	CCI-060100 Reinforcement	5.75 - 6.00	Auto	0.0826
L40	33	CCI-060100 Reinforcement	5.75 - 6.00	Auto	0.0826
L40	34	FP 1.25 x 8.5 Reinforcement	5.75 - 6.00	Auto	0.0000
L40	35	FP 1.25 x 8.5 Reinforcement	5.75 - 6.00	Auto	0.0000
L40	37	FP 1.25 x 8.5 Reinforcement	5.75 - 6.00	Auto	0.0000
L41	18	MP3-06 Reinforcement	4.50 - 5.75	Manual	1.0000
L41	19	MP3-06 Reinforcement	4.50 - 5.75	Manual	1.0000
L41	20	MP3-06 Reinforcement	4.50 - 5.75	Manual	1.0000
L41	24	MP3-05 Reinforcement	4.50 - 5.75	Manual	1.0000
L41	25	MP3-05 Reinforcement	4.50 - 5.75	Manual	1.0000
L41	30	CCI-065125 Reinforcement	4.50 - 5.75	Auto	0.1430
L41	34	FP 1.25 x 8.5 Reinforcement	4.50 - 5.75	Auto	0.0000
L41	35	FP 1.25 x 8.5 Reinforcement	4.50 - 5.75	Auto	0.0000
L41	37	FP 1.25 x 8.5 Reinforcement	4.50 - 5.75	Auto	0.0000
L42	18	MP3-06 Reinforcement	4.25 - 4.50	Manual	1.0000
L42	19	MP3-06 Reinforcement	4.25 - 4.50	Manual	1.0000
L42	20	MP3-06 Reinforcement	4.25 - 4.50	Manual	1.0000
L42	24	MP3-05 Reinforcement	4.25 - 4.50	Manual	1.0000
L42	25	MP3-05 Reinforcement	4.25 - 4.50	Manual	1.0000
L42	30	CCI-065125 Reinforcement	4.25 - 4.50	Auto	0.1637
L42	34	FP 1.25 x 8.5 Reinforcement	4.25 - 4.50	Auto	0.0000
L42	35	FP 1.25 x 8.5 Reinforcement	4.25 - 4.50	Auto	0.0000
L42	37	FP 1.25 x 8.5 Reinforcement	4.25 - 4.50	Auto	0.0000
L43	18	MP3-06 Reinforcement	3.00 - 4.25	Manual	1.0000
L43	19	MP3-06 Reinforcement	3.00 - 4.25	Manual	1.0000
L43	20	MP3-06 Reinforcement	3.00 - 4.25	Manual	1.0000
L43	24	MP3-05 Reinforcement	3.00 - 4.25	Manual	1.0000
L43	25	MP3-05 Reinforcement	3.00 - 4.25	Manual	1.0000
L43	30	CCI-065125 Reinforcement	3.00 - 4.25	Auto	0.1586
L43	34	FP 1.25 x 8.5 Reinforcement	3.00 - 4.25	Auto	0.0000
L43	35	FP 1.25 x 8.5 Reinforcement	3.00 - 4.25	Auto	0.0000
L43	37	FP 1.25 x 8.5 Reinforcement	3.00 - 4.25	Auto	0.0000
L44	18	MP3-06 Reinforcement	2.75 - 3.00	Manual	1.0000
L44	19	MP3-06 Reinforcement	2.75 - 3.00	Manual	1.0000
L44	20	MP3-06 Reinforcement	2.75 - 3.00	Manual	1.0000
L44	24	MP3-05 Reinforcement	2.75 - 3.00	Manual	1.0000
L44	25	MP3-05 Reinforcement	2.75 - 3.00	Manual	1.0000
L44	30	CCI-065125 Reinforcement	2.75 - 3.00	Auto	0.1948
L44	34	FP 1.25 x 8.5 Reinforcement	2.75 - 3.00	Auto	0.0000
L44	35	FP 1.25 x 8.5 Reinforcement	2.75 - 3.00	Auto	0.0000
L44	37	FP 1.25 x 8.5 Reinforcement	2.75 - 3.00	Auto	0.0000
L45	18	MP3-06 Reinforcement	1.75 - 2.75	Manual	1.0000
L45	19	MP3-06 Reinforcement	1.75 - 2.75	Manual	1.0000
L45	20	MP3-06 Reinforcement	1.75 - 2.75	Manual	1.0000
L45	24	MP3-05 Reinforcement	1.75 - 2.75	Manual	1.0000
L45	25	MP3-05 Reinforcement	1.75 - 2.75	Manual	1.0000
L45	30	CCI-065125 Reinforcement	1.75 - 2.75	Auto	0.1906
L45	34	FP 1.25 x 8.5 Reinforcement	1.75 - 2.75	Auto	0.0000
L45	35	FP 1.25 x 8.5 Reinforcement	1.75 - 2.75	Auto	0.0000
L45	37	FP 1.25 x 8.5 Reinforcement	1.75 - 2.75	Auto	0.0000
L46	18	MP3-06 Reinforcement	1.50 - 1.75	Manual	1.0000
L46	19	MP3-06 Reinforcement	1.50 - 1.75	Manual	1.0000
L46	20	MP3-06 Reinforcement	1.50 - 1.75	Manual	1.0000
L46	24	MP3-05 Reinforcement	1.50 - 1.75	Manual	1.0000
L46	25	MP3-05 Reinforcement	1.50 - 1.75	Manual	1.0000
L46	30	CCI-065125 Reinforcement	1.50 - 1.75	Auto	0.1760
L46	34	FP 1.25 x 8.5 Reinforcement	1.50 - 1.75	Auto	0.0000
L46	35	FP 1.25 x 8.5 Reinforcement	1.50 - 1.75	Auto	0.0000
L46	37	FP 1.25 x 8.5 Reinforcement	1.50 - 1.75	Auto	0.0000
L47	18	MP3-06 Reinforcement	1.25 - 1.50	Manual	1.0000
L47	19	MP3-06 Reinforcement	1.25 - 1.50	Manual	1.0000
L47	20	MP3-06 Reinforcement	1.25 - 1.50	Manual	1.0000

Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L47	24	MP3-05 Reinforcement	1.25 - 1.50	Manual	1.0000
L47	25	MP3-05 Reinforcement	1.25 - 1.50	Manual	1.0000
L47	30	CCI-065125 Reinforcement	1.25 - 1.50	Auto	0.1744
L47	34	FP 1.25 x 8.5 Reinforcement	1.25 - 1.50	Auto	0.0000
L47	35	FP 1.25 x 8.5 Reinforcement	1.25 - 1.50	Auto	0.0000
L47	37	FP 1.25 x 8.5 Reinforcement	1.25 - 1.50	Auto	0.0000
L48	18	MP3-06 Reinforcement	1.00 - 1.25	Manual	1.0000
L48	19	MP3-06 Reinforcement	1.00 - 1.25	Manual	1.0000
L48	20	MP3-06 Reinforcement	1.00 - 1.25	Manual	1.0000
L48	24	MP3-05 Reinforcement	1.00 - 1.25	Manual	1.0000
L48	25	MP3-05 Reinforcement	1.00 - 1.25	Manual	1.0000
L48	30	CCI-065125 Reinforcement	1.00 - 1.25	Auto	0.1984
L48	34	FP 1.25 x 8.5 Reinforcement	1.00 - 1.25	Auto	0.0000
L48	35	FP 1.25 x 8.5 Reinforcement	1.00 - 1.25	Auto	0.0000
L48	37	FP 1.25 x 8.5 Reinforcement	1.00 - 1.25	Auto	0.0000
L49	18	MP3-06 Reinforcement	0.00 - 1.00	Manual	1.0000
L49	19	MP3-06 Reinforcement	0.00 - 1.00	Manual	1.0000
L49	20	MP3-06 Reinforcement	0.00 - 1.00	Manual	1.0000
L49	24	MP3-05 Reinforcement	0.00 - 1.00	Manual	1.0000
L49	25	MP3-05 Reinforcement	0.00 - 1.00	Manual	1.0000
L49	30	CCI-065125 Reinforcement	0.00 - 1.00	Auto	0.1891
L49	34	FP 1.25 x 8.5 Reinforcement	0.00 - 1.00	Auto	0.0000
L49	35	FP 1.25 x 8.5 Reinforcement	0.00 - 1.00	Auto	0.0000
L49	37	FP 1.25 x 8.5 Reinforcement	0.00 - 1.00	Auto	0.0000

Discrete Tower Loads

Description	Face or Leg	Offset Type	Offsets:		Azimuth Adjustment	Placement
			Horz	Lateral		
			ft	ft	°	ft
8-ft Ladder	C	From Leg	2.0000	0.0000	0.0000	99.0000
			0.00			
			1.00			
Top Hat 15" Diameter x 4' Tall	C	None			0.0000	100.0000

(2) NHH-65B-R2B w/ Mount Pipe	A	From Leg	4.0000	0.0000	0.0000	102.0000
			0.00			
			0.00			
(2) NHH-65B-R2B w/ Mount Pipe	B	From Leg	4.0000	0.0000	0.0000	102.0000
			0.00			
			0.00			
(2) NHH-65B-R2B w/ Mount Pipe	C	From Leg	4.0000	0.0000	0.0000	102.0000
			0.00			
			0.00			
MT6407-77A w/ Mount Pipe	A	From Leg	4.0000	0.0000	0.0000	102.0000
			0.00			
			0.00			
MT6407-77A w/ Mount Pipe	B	From Leg	4.0000	0.0000	0.0000	102.0000
			0.00			
			0.00			

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment	Placement ft
MT6407-77A w/ Mount Pipe	C	From Leg	4.0000 0.00 0.00	0.0000	102.0000
X7C-680 w/ Mount Pipe	A	From Leg	4.0000 0.00 0.00	0.0000	102.0000
X7C-680 w/ Mount Pipe	B	From Leg	4.0000 0.00 0.00	0.0000	102.0000
X7C-680 w/ Mount Pipe	C	From Leg	4.0000 0.00 0.00	0.0000	102.0000
RVZDC-6627-PF-48	A	From Leg	4.0000 0.00 0.00	0.0000	102.0000
RFV01U-D1A	A	From Leg	4.0000 0.00 0.00	0.0000	102.0000
RFV01U-D1A	B	From Leg	4.0000 0.00 0.00	0.0000	102.0000
RFV01U-D1A	C	From Leg	4.0000 0.00 0.00	0.0000	102.0000
RFV01U-D2A	A	From Leg	4.0000 0.00 0.00	0.0000	102.0000
RFV01U-D2A	B	From Leg	4.0000 0.00 0.00	0.0000	102.0000
RFV01U-D2A	C	From Leg	4.0000 0.00 0.00	0.0000	102.0000
12' Horizontal HSS 2" x 2" Tube	A	From Leg	4.0000 0.00 0.00	0.0000	102.0000
12' Horizontal HSS 2" x 2" Tube	B	From Leg	4.0000 0.00 0.00	0.0000	102.0000
12' Horizontal HSS 2" x 2" Tube	C	From Leg	4.0000 0.00 0.00	0.0000	102.0000
Side Arm Mount [SO 203-3]	C	None		0.0000	102.0000
Platform Mount (LP 101-1)	C	None		0.0000	102.0000
***** ****					
(2) AIR21 B4A B2P_T-MOBILE w/ Mount Pipe	A	From Leg	4.0000 0.00 -1.00	0.0000	94.0000
(2) AIR21 B4A B2P_T-MOBILE w/ Mount Pipe	B	From Leg	4.0000 0.00 0.00	0.0000	94.0000
(2) AIR21 B4A B2P_T-MOBILE w/ Mount Pipe	C	From Leg	4.0000 0.00 -1.00	0.0000	94.0000
4003_840590966_TMO w/ Mount Pipe	A	From Face	4.0000 0.00 -1.00	0.0000	94.0000

Description	Face or Leg	Offset Type	Offsets:		Azimuth Adjustment	Placement
			Horz Lateral	Vert		
			ft	ft	°	ft
4003_840590966_TMO w/ Mount Pipe	B	From Face	4.0000 0.00	-1.00	0.0000	94.0000
4003_840590966_TMO w/ Mount Pipe	C	From Face	4.0000 0.00	0.00	0.0000	94.0000
RADIO 4480_TMOV2	A	From Face	4.0000 0.00	1.00	0.0000	94.0000
RADIO 4480_TMOV2	B	From Face	4.0000 0.00	1.00	0.0000	94.0000
RADIO 4480_TMOV2	C	From Face	4.0000 0.00	1.00	0.0000	94.0000
Platform Mount [LP 303- 1_HR-3]	C	None			0.0000	94.0000
***** ****						
80010965 w/ Mount Pipe	A	From Face	4.0000 -3.00	3.00	0.0000	84.0000
80010965 w/ Mount Pipe	B	From Face	4.0000 -3.00	3.00	0.0000	84.0000
80010965 w/ Mount Pipe	C	From Face	4.0000 -3.00	3.00	0.0000	84.0000
DMP65R-BU6e w/ Mount Pipe	A	From Face	4.0000 -6.00	3.00	0.0000	84.0000
DMP65R-BU6e w/ Mount Pipe	B	From Face	4.0000 -6.00	3.00	0.0000	84.0000
DMP65R-BU6e w/ Mount Pipe	C	From Face	4.0000 -6.00	3.00	0.0000	84.0000
AIR 6419 B77G w/ Mount Pipe	A	From Face	4.0000 7.00	2.00	0.0000	84.0000
AIR 6419 B77G w/ Mount Pipe	B	From Face	4.0000 7.00	2.00	0.0000	84.0000
AIR 6419 B77G w/ Mount Pipe	C	From Face	4.0000 7.00	2.00	0.0000	84.0000
AIR 6449 N77 w/ Mount Pipe	A	From Face	4.0000 5.00	2.00	0.0000	84.0000
AIR 6449 N77 w/ Mount Pipe	B	From Face	4.0000 5.00	2.00	0.0000	84.0000
AIR 6449 N77 w/ Mount Pipe	C	From Face	4.0000 5.00	2.00	0.0000	84.0000
RRUS 32 B66	A	From Face	4.0000 0.00	3.00	0.0000	84.0000

Description	Face or Leg	Offset Type	Offsets:		Azimuth Adjustment	Placement ft
			Horz Lateral ft	Vert ft		
RRUS 32 B66	B	From Face	4.0000 0.00 3.00		0.0000	84.0000
RRUS 32 B66	C	From Face	4.0000 0.00 3.00		0.0000	84.0000
DC6-48-60-18-8F	A	From Face	4.0000 0.00 3.00		0.0000	84.0000
DC6-48-60-18-8F	C	From Face	4.0000 0.00 3.00		0.0000	84.0000
RRUS 32 B30	A	From Face	4.0000 0.00 3.00		0.0000	84.0000
RRUS 32 B30	B	From Face	4.0000 0.00 3.00		0.0000	84.0000
RRUS 32 B30	C	From Face	4.0000 0.00 3.00		0.0000	84.0000
RRUS 4478 B14	A	From Face	4.0000 0.00 3.00		0.0000	84.0000
RRUS 4478 B14	B	From Face	4.0000 0.00 3.00		0.0000	84.0000
RRUS 4478 B14	C	From Face	4.0000 0.00 3.00		0.0000	84.0000
RRUS 32 B2	A	From Face	4.0000 0.00 3.00		0.0000	84.0000
RRUS 32 B2	B	From Face	4.0000 0.00 3.00		0.0000	84.0000
RRUS 32 B2	C	From Face	4.0000 0.00 3.00		0.0000	84.0000
RRUS 4449 B5/B12	A	From Face	4.0000 0.00 3.00		0.0000	84.0000
RRUS 4449 B5/B12	B	From Face	4.0000 0.00 3.00		0.0000	84.0000
RRUS 4449 B5/B12	C	From Face	4.0000 0.00 3.00		0.0000	84.0000
DC9-48-60-24-8C-EV	B	From Face	4.0000 0.00 3.00		0.0000	84.0000
{2} T-Arm Mount [TA 602-3] ***** *****	C	None			0.0000	84.0000
MX08FRO665-21 w/ Mount Pipe	A	From Face	4.0000 0.00 1.00		0.0000	73.0000
MX08FRO665-21 w/ Mount	B	From	4.0000		0.0000	73.0000

Description	Face or Leg	Offset Type	Offsets:		Azimuth Adjustment	Placement ft
			Horz Lateral ft	Vert ft		
Pipe		Face	0.00	1.00		
MX08FRO665-21 w/ Mount Pipe	C	From Face	4.0000	0.00	0.0000	73.0000
TA08025-B604	A	From Face	4.0000	0.00	0.0000	73.0000
TA08025-B605	A	From Face	4.0000	0.00	0.0000	73.0000
TA08025-B604	B	From Face	4.0000	0.00	0.0000	73.0000
TA08025-B605	B	From Face	4.0000	0.00	0.0000	73.0000
TA08025-B604	C	From Face	4.0000	0.00	0.0000	73.0000
TA08025-B605	C	From Face	4.0000	0.00	0.0000	73.0000
RDIDC-9181-PF-48	A	From Face	4.0000	0.00	0.0000	73.0000
8' x 2" Mount Pipe	A	From Leg	4.0000	0.00	0.0000	73.0000
8' x 2" Mount Pipe	B	From Leg	4.0000	0.00	0.0000	73.0000
8' x 2" Mount Pipe	C	From Leg	4.0000	0.00	0.0000	73.0000
Commscope_MC-Pk8- DSH_Platform ***	C	None			0.0000	73.0000

Tower Pressures - No Ice

$G_H = 1.100$

Section Elevation ft	z ft	K_z	q_z psf	A_G ft ²	F a C e	A_F ft ²	A_R ft ²	A_{leg} ft ²	Leg %	$C_A A_A$ In Face ft ²	$C_A A_A$ Out Face ft ²
L1 100.0000- 95.0000	97.4771	1.259	40.70	6.404	A B C	0.000 0.000 0.000	6.404 6.404 6.404	6.404	100.00 100.00 100.00	0.000 0.000 0.000	0.000 0.000 0.000
L2 95.0000- 90.0000	92.4783	1.245	40.26	6.757	A B	0.000 0.000	6.757 6.757	6.757	100.00 100.00	0.000 0.000	0.000 0.000

Section Elevation	z	K _z	q _z	A _G	F a c e	A _F	A _R	A _{leg}	Leg %	C _A A _A In Face	C _A A _A Out Face
ft	ft		psf	ft ²		ft ²	ft ²	ft ²		ft ²	ft ²
L3 90.0000-85.5000	87.7333	1.231	39.81	6.383	C	0.000	6.757	6.383	100.00	1.950	0.000
					A	0.000	6.383		100.00	3.109	0.000
					B	0.000	6.383		100.00	2.221	0.000
L4 85.5000-85.2500	85.3749	1.224	39.58	0.360	C	0.000	6.383	0.360	100.00	4.859	0.000
					A	0.000	0.360		100.00	0.222	0.000
					B	0.000	0.360		100.00	0.222	0.000
L5 85.2500-80.2500	82.7303	1.216	39.32	7.387	C	0.000	0.360	7.387	100.00	0.344	0.000
					A	0.000	7.387		100.00	4.442	0.000
					B	0.000	7.387		100.00	4.442	0.000
L6 80.2500-75.2500	77.7312	1.2	38.81	7.744	C	0.000	7.387	7.744	100.00	9.512	0.000
					A	0.000	7.744		100.00	4.442	0.000
					B	0.000	7.744		100.00	4.442	0.000
L7 75.2500-70.2500	72.7320	1.184	38.27	8.101	C	0.000	7.744	8.101	100.00	10.389	0.000
					A	0.000	8.101		100.00	4.830	0.000
					B	0.000	8.101		100.00	4.442	0.000
L8 70.2500-66.0000	68.1125	1.167	37.75	7.164	C	0.000	8.101	7.164	100.00	10.389	0.000
					A	0.000	7.164		100.00	8.708	0.000
					B	0.000	7.164		100.00	12.442	0.000
L9 66.0000-65.0000	65.4993	1.158	37.44	1.682	C	0.000	7.164	1.682	100.00	8.831	0.000
					A	0.000	1.682		100.00	2.113	0.000
					B	0.000	1.682		100.00	3.055	0.000
L10 65.0000-60.0000	62.4832	1.146	37.07	8.629	C	0.000	1.682	8.629	100.00	2.078	0.000
					A	0.000	8.629		100.00	10.564	0.000
					B	0.000	8.629		100.00	15.275	0.000
L11 60.0000-55.0000	57.4838	1.126	36.42	8.987	C	0.000	8.629	8.987	100.00	10.389	0.000
					A	0.000	8.987		100.00	14.854	0.000
					B	0.000	8.987		100.00	16.055	0.000
L12 55.0000-54.7500	54.8750	1.115	36.07	0.459	C	0.000	8.987	0.459	100.00	17.799	0.000
					A	0.000	0.459		100.00	0.864	0.000
					B	0.000	0.459		100.00	0.829	0.000
L13 54.7500-54.5000	54.6250	1.114	36.03	0.458	C	0.000	0.459	0.458	100.00	1.126	0.000
					A	0.000	0.458		100.00	0.864	0.000
					B	0.000	0.458		100.00	0.829	0.000
L14 54.5000-54.2500	54.3750	1.113	36.00	0.459	C	0.000	0.458	0.459	100.00	1.126	0.000
					A	0.000	0.459		100.00	0.864	0.000
					B	0.000	0.459		100.00	0.829	0.000
L15 54.2500-54.0000	54.1250	1.112	35.96	0.454	C	0.000	0.459	0.454	100.00	1.126	0.000
					A	0.000	0.454		100.00	0.864	0.000
					B	0.000	0.454		100.00	0.829	0.000
L16 54.0000-49.0000	51.4846	1.101	35.59	9.271	C	0.000	0.454	9.271	100.00	1.126	0.000
					A	0.000	9.271		100.00	17.280	0.000
					B	0.000	9.271		100.00	16.575	0.000
L17 49.0000-44.0000	46.4851	1.077	34.83	9.639	C	0.000	9.271	9.639	100.00	22.523	0.000
					A	0.000	9.639		100.00	17.280	0.000
					B	0.000	9.639		100.00	16.575	0.000
L18 44.0000-39.0000	41.4856	1.052	34.00	10.003	C	0.000	9.639	10.003	100.00	22.523	0.000
					A	0.000	10.003		100.00	17.280	0.000
					B	0.000	10.003		100.00	16.575	0.000
L19 39.0000-38.7500	38.8750	1.037	33.54	0.515	C	0.000	10.003	0.515	100.00	22.523	0.000
					A	0.000	0.515		100.00	0.864	0.000
					B	0.000	0.515		100.00	0.829	0.000
L20 38.7500-33.0000	35.8567	1.02	32.98	12.078	C	0.000	0.515	12.078	100.00	1.126	0.000
					A	0.000	12.078		100.00	19.483	0.000
					B	0.000	12.078		100.00	14.728	0.000
L21 33.0000-32.7500	32.8750	1.001	32.38	0.525	C	0.000	12.078	0.525	100.00	25.901	0.000
					A	0.000	0.525		100.00	0.815	0.000
					B	0.000	0.525		100.00	0.287	0.000
L22 32.7500-32.5000	32.6250	1	32.33	0.526	C	0.000	0.525	0.526	100.00	1.126	0.000
					A	0.000	0.526		100.00	0.815	0.000
					B	0.000	0.526		100.00	0.287	0.000
					C	0.000	0.526		100.00	1.126	0.000

Section Elevation	z	K _z	q _z	A _G	F a c e	A _F	A _R	A _{leg}	Leg %	C _A A _A In Face ft ²	C _A A _A Out Face ft ²
ft	ft		psf	ft ²		ft ²	ft ²	ft ²			
L23 32.5000- 29.7500	31.1209	0.99	32.01	5.843	A	0.000	5.843	5.843	100.00	8.968	0.000
					B	0.000	5.843		100.00	5.157	0.000
					C	0.000	5.843		100.00	14.386	0.000
L24 29.7500- 29.5000	29.6250	0.98	31.68	0.534	A	0.000	0.534	0.534	100.00	0.815	0.000
					B	0.000	0.534		100.00	0.509	0.000
					C	0.000	0.534		100.00	1.348	0.000
L25 29.5000- 26.7500	28.1209	0.969	31.33	5.939	A	0.000	5.939	5.939	100.00	8.968	0.000
					B	0.000	5.939		100.00	5.601	0.000
					C	0.000	5.939		100.00	14.830	0.000
L26 26.7500- 26.5000	26.6250	0.958	30.97	0.546	A	0.000	0.546	0.546	100.00	0.815	0.000
					B	0.000	0.546		100.00	0.509	0.000
					C	0.000	0.546		100.00	1.348	0.000
L27 26.5000- 23.5000	24.9953	0.945	30.56	6.627	A	0.000	6.627	6.627	100.00	12.033	0.000
					B	0.000	6.627		100.00	9.956	0.000
					C	0.000	6.627		100.00	16.178	0.000
L28 23.5000- 23.2500	23.3750	0.932	30.14	0.558	A	0.000	0.558	0.558	100.00	1.065	0.000
					B	0.000	0.558		100.00	0.959	0.000
					C	0.000	0.558		100.00	1.348	0.000
L29 23.2500- 22.7500	22.9999	0.929	30.03	1.119	A	0.000	1.119	1.119	100.00	1.860	0.000
					B	0.000	1.119		100.00	1.917	0.000
					C	0.000	1.119		100.00	2.155	0.000
L30 22.7500- 22.5000	22.6250	0.926	29.93	0.560	A	0.000	0.560	0.560	100.00	0.794	0.000
					B	0.000	0.560		100.00	0.959	0.000
					C	0.000	0.560		100.00	0.807	0.000
L31 22.5000- 17.5000	19.9872	0.902	29.16	11.379	A	0.000	11.379	11.379	100.00	15.889	0.000
					B	0.000	11.379		100.00	20.010	0.000
					C	0.000	11.379		100.00	17.853	0.000
L32 17.5000- 15.7500	16.6235	0.867	28.05	4.067	A	0.000	4.067	4.067	100.00	5.561	0.000
					B	0.000	4.067		100.00	7.210	0.000
					C	0.000	4.067		100.00	7.655	0.000
L33 15.7500- 15.5000	15.6250	0.856	27.69	0.584	A	0.000	0.584	0.584	100.00	0.794	0.000
					B	0.000	0.584		100.00	1.030	0.000
					C	0.000	0.584		100.00	1.094	0.000
L34 15.5000- 12.2500	13.8698	0.85	27.48	7.673	A	0.000	7.673	7.673	100.00	10.765	0.000
					B	0.000	7.673		100.00	14.362	0.000
					C	0.000	7.673		100.00	14.217	0.000
L35 12.2500- 12.0000	12.1250	0.85	27.48	0.597	A	0.000	0.597	0.597	100.00	0.834	0.000
					B	0.000	0.597		100.00	1.118	0.000
					C	0.000	0.597		100.00	1.094	0.000
L36 12.0000- 11.7500	11.8750	0.85	27.48	0.597	A	0.000	0.597	0.597	100.00	0.834	0.000
					B	0.000	0.597		100.00	1.118	0.000
					C	0.000	0.597		100.00	1.094	0.000
L37 11.7500- 11.5000	11.6250	0.85	27.48	0.600	A	0.000	0.600	0.600	100.00	0.834	0.000
					B	0.000	0.600		100.00	1.118	0.000
					C	0.000	0.600		100.00	1.094	0.000
L38 11.5000- 6.5000	8.9881	0.85	27.48	12.181	A	0.000	12.181	12.181	100.00	13.573	0.000
					B	0.000	12.181		100.00	22.365	0.000
					C	0.000	12.181		100.00	19.576	0.000
L39 6.5000- 6.0000	6.2499	0.85	27.48	1.237	A	0.000	1.237	1.237	100.00	1.223	0.000
					B	0.000	1.237		100.00	2.235	0.000
					C	0.000	1.237		100.00	1.613	0.000
L40 6.0000- 5.7500	5.8750	0.85	27.48	0.620	A	0.000	0.620	0.620	100.00	0.612	0.000
					B	0.000	0.620		100.00	1.118	0.000
					C	0.000	0.620		100.00	0.807	0.000
L41 5.7500- 4.5000	5.1243	0.85	27.48	3.114	A	0.000	3.114	3.114	100.00	1.808	0.000
					B	0.000	3.114		100.00	4.339	0.000
					C	0.000	3.114		100.00	4.033	0.000
L42 4.5000- 4.2500	4.3750	0.85	27.48	0.625	A	0.000	0.625	0.625	100.00	0.362	0.000
					B	0.000	0.625		100.00	0.868	0.000
					C	0.000	0.625		100.00	0.807	0.000
L43 4.2500-	3.6243	0.85	27.48	3.138	A	0.000	3.138	3.138	100.00	1.808	0.000

Section Elevation	z	K _z	q _z	A _G	F a c e	A _F	A _R	A _{leg}	Leg %	C _A A _A In Face	C _A A _A Out Face
ft	ft		psf	ft ²		ft ²	ft ²	ft ²		ft ²	ft ²
3.0000					B	0.000	3.138		100.00	4.339	0.000
					C	0.000	3.138		100.00	4.033	0.000
L44 3.0000-2.7500	2.8750	0.85	27.48	0.630	A	0.000	0.630	0.630	100.00	0.362	0.000
					B	0.000	0.630		100.00	0.868	0.000
					C	0.000	0.630		100.00	0.807	0.000
L45 2.7500-1.7500	2.2495	0.85	27.48	2.527	A	0.000	2.527	2.527	100.00	1.446	0.000
					B	0.000	2.527		100.00	3.471	0.000
					C	0.000	2.527		100.00	3.226	0.000
L46 1.7500-1.5000	1.6250	0.85	27.48	0.634	A	0.000	0.634	0.634	100.00	0.362	0.000
					B	0.000	0.634		100.00	0.868	0.000
					C	0.000	0.634		100.00	0.807	0.000
L47 1.5000-1.2500	1.3750	0.85	27.48	0.635	A	0.000	0.635	0.635	100.00	0.362	0.000
					B	0.000	0.635		100.00	0.868	0.000
					C	0.000	0.635		100.00	0.807	0.000
L48 1.2500-1.0000	1.1250	0.85	27.48	0.635	A	0.000	0.635	0.635	100.00	0.362	0.000
					B	0.000	0.635		100.00	0.868	0.000
					C	0.000	0.635		100.00	0.807	0.000
L49 1.0000-0.0000	0.4995	0.85	27.48	2.551	A	0.000	2.551	2.551	100.00	1.446	0.000
					B	0.000	2.551		100.00	3.471	0.000
					C	0.000	2.551		100.00	3.226	0.000

Tower Pressure - With Ice

$G_H = 1.100$

Section Elevation	z	K _z	q _z	t _z	A _G	F a c e	A _F	A _R	A _{leg}	Leg %	C _A A _A In Face	C _A A _A Out Face
ft	ft		psf	in	ft ²		ft ²	ft ²	ft ²		ft ²	ft ²
L1 100.0000-95.0000	97.4771	1.259	7.19	0.95	7.193	A	0.000	7.193	7.193	100.00	0.000	0.000
						B	0.000	7.193		100.00	0.000	0.000
						C	0.000	7.193		100.00	0.000	0.000
L2 95.0000-90.0000	92.4783	1.245	7.11	0.94	7.542	A	0.000	7.542	7.542	100.00	0.000	0.000
						B	0.000	7.542		100.00	0.000	0.000
						C	0.000	7.542		100.00	3.380	0.000
L3 90.0000-85.5000	87.7333	1.231	7.03	0.94	7.086	A	0.000	7.086	7.086	100.00	3.765	0.000
						B	0.000	7.086		100.00	2.689	0.000
						C	0.000	7.086		100.00	7.024	0.000
L4 85.5000-85.2500	85.3749	1.224	6.99	0.93	0.399	A	0.000	0.399	0.399	100.00	0.269	0.000
						B	0.000	0.399		100.00	0.269	0.000
						C	0.000	0.399		100.00	0.480	0.000
L5 85.2500-80.2500	82.7303	1.216	6.94	0.93	8.164	A	0.000	8.164	8.164	100.00	5.373	0.000
						B	0.000	8.164		100.00	5.373	0.000
						C	0.000	8.164		100.00	14.448	0.000
L6 80.2500-75.2500	77.7312	1.2	6.85	0.93	8.516	A	0.000	8.516	8.516	100.00	5.368	0.000
						B	0.000	8.516		100.00	5.368	0.000
						C	0.000	8.516		100.00	16.043	0.000
L7 75.2500-70.2500	72.7320	1.184	6.76	0.92	8.868	A	0.000	8.868	8.868	100.00	6.256	0.000
						B	0.000	8.868		100.00	5.362	0.000
						C	0.000	8.868		100.00	16.016	0.000
L8 70.2500-66.0000	68.1125	1.167	6.66	0.91	7.811	A	0.000	7.811	7.811	100.00	10.993	0.000
						B	0.000	7.811		100.00	14.681	0.000
						C	0.000	7.811		100.00	13.590	0.000
L9 66.0000-65.0000	65.4993	1.158	6.61	0.91	1.835	A	0.000	1.835	1.835	100.00	2.661	0.000
						B	0.000	1.835		100.00	3.603	0.000
						C	0.000	1.835		100.00	3.198	0.000
L10 65.0000-60.0000	62.4832	1.146	6.54	0.91	9.384	A	0.000	9.384	9.384	100.00	13.282	0.000
						B	0.000	9.384		100.00	17.993	0.000

Section Elevation	z	K _z	q _z	t _z	A _G	F a c e	A _F	A _R	A _{leg}	Leg %	C _A A _A In Face ft ²	C _A A _A Out Face ft ²
ft	ft		psf	in	ft ²		ft ²	ft ²	ft ²			
L11 60.0000- 55.0000	57.4838	1.126	6.43	0.90	9.736	C	0.000	9.384	9.736	100.00	15.953	0.000
						A	0.000	9.736		100.00	18.088	0.000
						B	0.000	9.736		100.00	18.751	0.000
L12 55.0000- 54.7500	54.8750	1.115	6.37	0.89	0.496	C	0.000	9.736	0.496	100.00	24.408	0.000
						A	0.000	0.496		100.00	1.043	0.000
						B	0.000	0.496		100.00	0.963	0.000
L13 54.7500- 54.5000	54.6250	1.114	6.36	0.89	0.495	C	0.000	0.496	0.495	100.00	1.491	0.000
						A	0.000	0.495		100.00	1.043	0.000
						B	0.000	0.495		100.00	0.963	0.000
L14 54.5000- 54.2500	54.3750	1.113	6.35	0.89	0.496	C	0.000	0.495	0.496	100.00	1.491	0.000
						A	0.000	0.496		100.00	1.043	0.000
						B	0.000	0.496		100.00	0.963	0.000
L15 54.2500- 54.0000	54.1250	1.112	6.35	0.89	0.491	C	0.000	0.496	0.491	100.00	1.491	0.000
						A	0.000	0.491		100.00	1.043	0.000
						B	0.000	0.491		100.00	0.963	0.000
L16 54.0000- 49.0000	51.4846	1.101	6.28	0.89	10.012	C	0.000	0.491	10.012	100.00	1.491	0.000
						A	0.000	10.012		100.00	20.835	0.000
						B	0.000	10.012		100.00	19.241	0.000
L17 49.0000- 44.0000	46.4851	1.077	6.15	0.88	10.372	C	0.000	10.012	10.372	100.00	29.786	0.000
						A	0.000	10.372		100.00	20.799	0.000
						B	0.000	10.372		100.00	19.214	0.000
L18 44.0000- 39.0000	41.4856	1.052	6.00	0.87	10.728	C	0.000	10.372	10.728	100.00	29.727	0.000
						A	0.000	10.728		100.00	20.759	0.000
						B	0.000	10.728		100.00	19.184	0.000
L19 39.0000- 38.7500	38.8750	1.037	5.92	0.86	0.551	C	0.000	10.728	0.551	100.00	29.662	0.000
						A	0.000	0.551		100.00	1.037	0.000
						B	0.000	0.551		100.00	0.958	0.000
L20 38.7500- 33.0000	35.8567	1.02	5.82	0.86	12.900	C	0.000	0.551	12.900	100.00	1.481	0.000
						A	0.000	12.900		100.00	23.425	0.000
						B	0.000	12.900		100.00	16.999	0.000
L21 33.0000- 32.7500	32.8750	1.001	5.72	0.85	0.561	C	0.000	12.900	0.561	100.00	34.018	0.000
						A	0.000	0.561		100.00	0.987	0.000
						B	0.000	0.561		100.00	0.330	0.000
L22 32.7500- 32.5000	32.6250	1	5.71	0.85	0.561	C	0.000	0.561	0.561	100.00	1.479	0.000
						A	0.000	0.561		100.00	0.985	0.000
						B	0.000	0.561		100.00	0.330	0.000
L23 32.5000- 29.7500	31.1209	0.99	5.65	0.85	6.230	C	0.000	0.561	6.230	100.00	1.476	0.000
						A	0.000	6.230		100.00	10.827	0.000
						B	0.000	6.230		100.00	6.002	0.000
L24 29.7500- 29.5000	29.6250	0.98	5.59	0.84	0.569	C	0.000	6.230	0.569	100.00	18.605	0.000
						A	0.000	0.569		100.00	0.983	0.000
						B	0.000	0.569		100.00	0.593	0.000
L25 29.5000- 26.7500	28.1209	0.969	5.53	0.84	6.322	C	0.000	0.569	6.322	100.00	1.738	0.000
						A	0.000	6.322		100.00	10.808	0.000
						B	0.000	6.322		100.00	6.521	0.000
L26 26.7500- 26.5000	26.6250	0.958	5.47	0.83	0.581	C	0.000	6.322	0.581	100.00	19.099	0.000
						A	0.000	0.581		100.00	0.982	0.000
						B	0.000	0.581		100.00	0.592	0.000
L27 26.5000- 23.5000	24.9953	0.945	5.40	0.83	7.040	C	0.000	0.581	7.040	100.00	1.735	0.000
						A	0.000	7.040		100.00	14.389	0.000
						B	0.000	7.040		100.00	11.501	0.000
L28 23.5000- 23.2500	23.3750	0.932	5.32	0.82	0.592	C	0.000	7.040	0.592	100.00	20.791	0.000
						A	0.000	0.592		100.00	1.271	0.000
						B	0.000	0.592		100.00	1.104	0.000
L29 23.2500- 22.7500	22.9999	0.929	5.30	0.82	1.187	C	0.000	0.592	1.187	100.00	1.730	0.000
						A	0.000	1.187		100.00	2.229	0.000
						B	0.000	1.187		100.00	2.208	0.000
L30 22.7500- 22.5000	22.6250	0.926	5.28	0.82	0.594	C	0.000	1.187	0.594	100.00	2.836	0.000
						A	0.000	0.594		100.00	0.958	0.000
						B	0.000	0.594		100.00	1.104	0.000
						C	0.000	0.594		100.00	1.106	0.000

Section Elevation	z	K _z	q _z	t _z	A _G	F a c e	A _F	A _R	A _{leg}	Leg %	C _A A _A In Face ft ²	C _A A _A Out Face ft ²
ft	ft		psf	in	ft ²		ft ²	ft ²	ft ²		ft ²	ft ²
L31 22.5000- 17.5000	19.9872	0.902	5.15	0.81	12.053	A	0.000	12.053	12.053	100.00	19.123	0.000
						B	0.000	12.053		100.00	23.093	0.000
						C	0.000	12.053		100.00	24.029	0.000
L32 17.5000- 15.7500	16.6235	0.867	4.95	0.79	4.299	A	0.000	4.299	4.299	100.00	6.672	0.000
						B	0.000	4.299		100.00	8.321	0.000
						C	0.000	4.299		100.00	9.981	0.000
L33 15.7500- 15.5000	15.6250	0.856	4.89	0.79	0.617	A	0.000	0.617	0.617	100.00	0.952	0.000
						B	0.000	0.617		100.00	1.188	0.000
						C	0.000	0.617		100.00	1.424	0.000
L34 15.5000- 12.2500	13.8698	0.85	4.85	0.78	8.095	A	0.000	8.095	8.095	100.00	13.086	0.000
						B	0.000	8.095		100.00	17.034	0.000
						C	0.000	8.095		100.00	18.477	0.000
L35 12.2500- 12.0000	12.1250	0.85	4.85	0.77	0.629	A	0.000	0.629	0.629	100.00	1.014	0.000
						B	0.000	0.629		100.00	1.330	0.000
						C	0.000	0.629		100.00	1.418	0.000
L36 12.0000- 11.7500	11.8750	0.85	4.85	0.77	0.629	A	0.000	0.629	0.629	100.00	1.014	0.000
						B	0.000	0.629		100.00	1.330	0.000
						C	0.000	0.629		100.00	1.417	0.000
L37 11.7500- 11.5000	11.6250	0.85	4.85	0.77	0.632	A	0.000	0.632	0.632	100.00	1.014	0.000
						B	0.000	0.632		100.00	1.329	0.000
						C	0.000	0.632		100.00	1.417	0.000
L38 11.5000- 6.5000	8.9881	0.85	4.85	0.75	12.803	A	0.000	12.803	12.803	100.00	16.548	0.000
						B	0.000	12.803		100.00	26.476	0.000
						C	0.000	12.803		100.00	25.615	0.000
L39 6.5000- 6.0000	6.2499	0.85	4.85	0.72	1.297	A	0.000	1.297	1.297	100.00	1.488	0.000
						B	0.000	1.297		100.00	2.631	0.000
						C	0.000	1.297		100.00	2.158	0.000
L40 6.0000- 5.7500	5.8750	0.85	4.85	0.72	0.650	A	0.000	0.650	0.650	100.00	0.743	0.000
						B	0.000	0.650		100.00	1.315	0.000
						C	0.000	0.650		100.00	1.078	0.000
L41 5.7500- 4.5000	5.1243	0.85	4.85	0.71	3.261	A	0.000	3.261	3.261	100.00	2.280	0.000
						B	0.000	3.261		100.00	5.133	0.000
						C	0.000	3.261		100.00	5.375	0.000
L42 4.5000- 4.2500	4.3750	0.85	4.85	0.69	0.654	A	0.000	0.654	0.654	100.00	0.455	0.000
						B	0.000	0.654		100.00	1.024	0.000
						C	0.000	0.654		100.00	1.072	0.000
L43 4.2500- 3.0000	3.6243	0.85	4.85	0.68	3.280	A	0.000	3.280	3.280	100.00	2.264	0.000
						B	0.000	3.280		100.00	5.106	0.000
						C	0.000	3.280		100.00	5.342	0.000
L44 3.0000- 2.7500	2.8750	0.85	4.85	0.67	0.657	A	0.000	0.657	0.657	100.00	0.451	0.000
						B	0.000	0.657		100.00	1.018	0.000
						C	0.000	0.657		100.00	1.064	0.000
L45 2.7500- 1.7500	2.2495	0.85	4.85	0.65	2.635	A	0.000	2.635	2.635	100.00	1.794	0.000
						B	0.000	2.635		100.00	4.057	0.000
						C	0.000	2.635		100.00	4.238	0.000
L46 1.7500- 1.5000	1.6250	0.85	4.85	0.63	0.660	A	0.000	0.660	0.660	100.00	0.446	0.000
						B	0.000	0.660		100.00	1.010	0.000
						C	0.000	0.660		100.00	1.054	0.000
L47 1.5000- 1.2500	1.3750	0.85	4.85	0.62	0.661	A	0.000	0.661	0.661	100.00	0.444	0.000
						B	0.000	0.661		100.00	1.007	0.000
						C	0.000	0.661		100.00	1.051	0.000
L48 1.2500- 1.0000	1.1250	0.85	4.85	0.61	0.661	A	0.000	0.661	0.661	100.00	0.443	0.000
						B	0.000	0.661		100.00	1.005	0.000
						C	0.000	0.661		100.00	1.048	0.000
L49 1.0000- 0.0000	0.4995	0.85	4.85	0.56	2.644	A	0.000	2.644	2.644	100.00	1.746	0.000
						B	0.000	2.644		100.00	3.976	0.000
						C	0.000	2.644		100.00	4.138	0.000

Tower Pressure - Service

$G_H = 1.100$

Section Elevation ft	z ft	K_z	q_z psf	A_G ft ²	F a c e	A_F ft ²	A_R ft ²	A_{leg} ft ²	Leg %	$C_A A_A$ In Face ft ²	$C_A A_A$ Out Face ft ²
L1 100.0000- 95.0000	97.4771	1.259	9.75	6.404	A	0.000	6.404	6.404	100.00	0.000	0.000
					B	0.000	6.404		100.00	0.000	0.000
					C	0.000	6.404		100.00	0.000	0.000
L2 95.0000- 90.0000	92.4783	1.245	9.64	6.757	A	0.000	6.757	6.757	100.00	0.000	0.000
					B	0.000	6.757		100.00	0.000	0.000
					C	0.000	6.757		100.00	1.950	0.000
L3 90.0000- 85.5000	87.7333	1.231	9.53	6.383	A	0.000	6.383	6.383	100.00	3.109	0.000
					B	0.000	6.383		100.00	2.221	0.000
					C	0.000	6.383		100.00	4.859	0.000
L4 85.5000- 85.2500	85.3749	1.224	9.48	0.360	A	0.000	0.360	0.360	100.00	0.222	0.000
					B	0.000	0.360		100.00	0.222	0.000
					C	0.000	0.360		100.00	0.344	0.000
L5 85.2500- 80.2500	82.7303	1.216	9.42	7.387	A	0.000	7.387	7.387	100.00	4.442	0.000
					B	0.000	7.387		100.00	4.442	0.000
					C	0.000	7.387		100.00	9.512	0.000
L6 80.2500- 75.2500	77.7312	1.2	9.29	7.744	A	0.000	7.744	7.744	100.00	4.442	0.000
					B	0.000	7.744		100.00	4.442	0.000
					C	0.000	7.744		100.00	10.389	0.000
L7 75.2500- 70.2500	72.7320	1.184	9.16	8.101	A	0.000	8.101	8.101	100.00	4.830	0.000
					B	0.000	8.101		100.00	4.442	0.000
					C	0.000	8.101		100.00	10.389	0.000
L8 70.2500- 66.0000	68.1125	1.167	9.04	7.164	A	0.000	7.164	7.164	100.00	8.708	0.000
					B	0.000	7.164		100.00	12.442	0.000
					C	0.000	7.164		100.00	8.831	0.000
L9 66.0000- 65.0000	65.4993	1.158	8.96	1.682	A	0.000	1.682	1.682	100.00	2.113	0.000
					B	0.000	1.682		100.00	3.055	0.000
					C	0.000	1.682		100.00	2.078	0.000
L10 65.0000- 60.0000	62.4832	1.146	8.87	8.629	A	0.000	8.629	8.629	100.00	10.564	0.000
					B	0.000	8.629		100.00	15.275	0.000
					C	0.000	8.629		100.00	10.389	0.000
L11 60.0000- 55.0000	57.4838	1.126	8.72	8.987	A	0.000	8.987	8.987	100.00	14.854	0.000
					B	0.000	8.987		100.00	16.055	0.000
					C	0.000	8.987		100.00	17.799	0.000
L12 55.0000- 54.7500	54.8750	1.115	8.64	0.459	A	0.000	0.459	0.459	100.00	0.864	0.000
					B	0.000	0.459		100.00	0.829	0.000
					C	0.000	0.459		100.00	1.126	0.000
L13 54.7500- 54.5000	54.6250	1.114	8.63	0.458	A	0.000	0.458	0.458	100.00	0.864	0.000
					B	0.000	0.458		100.00	0.829	0.000
					C	0.000	0.458		100.00	1.126	0.000
L14 54.5000- 54.2500	54.3750	1.113	8.62	0.459	A	0.000	0.459	0.459	100.00	0.864	0.000
					B	0.000	0.459		100.00	0.829	0.000
					C	0.000	0.459		100.00	1.126	0.000
L15 54.2500- 54.0000	54.1250	1.112	8.61	0.454	A	0.000	0.454	0.454	100.00	0.864	0.000
					B	0.000	0.454		100.00	0.829	0.000
					C	0.000	0.454		100.00	1.126	0.000
L16 54.0000- 49.0000	51.4846	1.101	8.52	9.271	A	0.000	9.271	9.271	100.00	17.280	0.000
					B	0.000	9.271		100.00	16.575	0.000
					C	0.000	9.271		100.00	22.523	0.000
L17 49.0000- 44.0000	46.4851	1.077	8.34	9.639	A	0.000	9.639	9.639	100.00	17.280	0.000
					B	0.000	9.639		100.00	16.575	0.000
					C	0.000	9.639		100.00	22.523	0.000
L18 44.0000- 39.0000	41.4856	1.052	8.14	10.003	A	0.000	10.003	10.003	100.00	17.280	0.000
					B	0.000	10.003		100.00	16.575	0.000
					C	0.000	10.003		100.00	22.523	0.000
L19 39.0000- 38.7500	38.8750	1.037	8.03	0.515	A	0.000	0.515	0.515	100.00	0.864	0.000
					B	0.000	0.515		100.00	0.829	0.000

Section Elevation	z	K _z	q _z	A _G	F a c e	A _F	A _R	A _{leg}	Leg %	C _A A _A In Face ft ²	C _A A _A Out Face ft ²
ft	ft		psf	ft ²		ft ²	ft ²	ft ²		ft ²	ft ²
L20 38.7500- 33.0000	35.8567	1.02	7.90	12.078	C	0.000	0.515	12.078	100.00	1.126	0.000
					A	0.000	12.078		100.00	19.483	0.000
					B	0.000	12.078		100.00	14.728	0.000
L21 33.0000- 32.7500	32.8750	1.001	7.75	0.525	C	0.000	12.078	0.525	100.00	25.901	0.000
					A	0.000	0.525		100.00	0.815	0.000
					B	0.000	0.525		100.00	0.287	0.000
L22 32.7500- 32.5000	32.6250	1	7.74	0.526	C	0.000	0.525	0.526	100.00	1.126	0.000
					A	0.000	0.526		100.00	0.815	0.000
					B	0.000	0.526		100.00	0.287	0.000
L23 32.5000- 29.7500	31.1209	0.99	7.66	5.843	C	0.000	0.526	5.843	100.00	1.126	0.000
					A	0.000	5.843		100.00	8.968	0.000
					B	0.000	5.843		100.00	5.157	0.000
L24 29.7500- 29.5000	29.6250	0.98	7.58	0.534	C	0.000	5.843	0.534	100.00	14.386	0.000
					A	0.000	0.534		100.00	0.815	0.000
					B	0.000	0.534		100.00	0.509	0.000
L25 29.5000- 26.7500	28.1209	0.969	7.50	5.939	C	0.000	0.534	5.939	100.00	1.348	0.000
					A	0.000	5.939		100.00	8.968	0.000
					B	0.000	5.939		100.00	5.601	0.000
L26 26.7500- 26.5000	26.6250	0.958	7.42	0.546	C	0.000	5.939	0.546	100.00	14.830	0.000
					A	0.000	0.546		100.00	0.815	0.000
					B	0.000	0.546		100.00	0.509	0.000
L27 26.5000- 23.5000	24.9953	0.945	7.32	6.627	C	0.000	0.546	6.627	100.00	1.348	0.000
					A	0.000	6.627		100.00	12.033	0.000
					B	0.000	6.627		100.00	9.956	0.000
L28 23.5000- 23.2500	23.3750	0.932	7.22	0.558	C	0.000	6.627	0.558	100.00	16.178	0.000
					A	0.000	0.558		100.00	1.065	0.000
					B	0.000	0.558		100.00	0.959	0.000
L29 23.2500- 22.7500	22.9999	0.929	7.19	1.119	C	0.000	0.558	1.119	100.00	1.348	0.000
					A	0.000	1.119		100.00	1.860	0.000
					B	0.000	1.119		100.00	1.917	0.000
L30 22.7500- 22.5000	22.6250	0.926	7.17	0.560	C	0.000	1.119	0.560	100.00	2.155	0.000
					A	0.000	0.560		100.00	0.794	0.000
					B	0.000	0.560		100.00	0.959	0.000
L31 22.5000- 17.5000	19.9872	0.902	6.98	11.379	C	0.000	0.560	11.379	100.00	0.807	0.000
					A	0.000	11.379		100.00	15.889	0.000
					B	0.000	11.379		100.00	20.010	0.000
L32 17.5000- 15.7500	16.6235	0.867	6.72	4.067	C	0.000	11.379	4.067	100.00	17.853	0.000
					A	0.000	4.067		100.00	5.561	0.000
					B	0.000	4.067		100.00	7.210	0.000
L33 15.7500- 15.5000	15.6250	0.856	6.63	0.584	C	0.000	4.067	0.584	100.00	7.655	0.000
					A	0.000	0.584		100.00	0.794	0.000
					B	0.000	0.584		100.00	1.030	0.000
L34 15.5000- 12.2500	13.8698	0.85	6.58	7.673	C	0.000	0.584	7.673	100.00	1.094	0.000
					A	0.000	7.673		100.00	10.765	0.000
					B	0.000	7.673		100.00	14.362	0.000
L35 12.2500- 12.0000	12.1250	0.85	6.58	0.597	C	0.000	7.673	0.597	100.00	14.217	0.000
					A	0.000	0.597		100.00	0.834	0.000
					B	0.000	0.597		100.00	1.118	0.000
L36 12.0000- 11.7500	11.8750	0.85	6.58	0.597	C	0.000	0.597	0.597	100.00	1.094	0.000
					A	0.000	0.597		100.00	0.834	0.000
					B	0.000	0.597		100.00	1.118	0.000
L37 11.7500- 11.5000	11.6250	0.85	6.58	0.600	C	0.000	0.597	0.600	100.00	1.094	0.000
					A	0.000	0.600		100.00	0.834	0.000
					B	0.000	0.600		100.00	1.118	0.000
L38 11.5000- 6.5000	8.9881	0.85	6.58	12.181	C	0.000	0.600	12.181	100.00	1.094	0.000
					A	0.000	12.181		100.00	13.573	0.000
					B	0.000	12.181		100.00	22.365	0.000
L39 6.5000- 6.0000	6.2499	0.85	6.58	1.237	C	0.000	12.181	1.237	100.00	19.576	0.000
					A	0.000	1.237		100.00	1.223	0.000
					B	0.000	1.237		100.00	2.235	0.000
					C	0.000	1.237		100.00	1.613	0.000

Section Elevation ft	z ft	K _z	q _z psf	A _G ft ²	F a c e	A _F ft ²	A _R ft ²	A _{leg} ft ²	Leg %	C _A A _A In Face ft ²	C _A A _A Out Face ft ²
L40 6.0000-5.7500	5.8750	0.85	6.58	0.620	A	0.000	0.620	0.620	100.00	0.612	0.000
					B	0.000	0.620	100.00	1.118	0.000	
					C	0.000	0.620	100.00	0.807	0.000	
L41 5.7500-4.5000	5.1243	0.85	6.58	3.114	A	0.000	3.114	3.114	100.00	1.808	0.000
					B	0.000	3.114	100.00	4.339	0.000	
					C	0.000	3.114	100.00	4.033	0.000	
L42 4.5000-4.2500	4.3750	0.85	6.58	0.625	A	0.000	0.625	0.625	100.00	0.362	0.000
					B	0.000	0.625	100.00	0.868	0.000	
					C	0.000	0.625	100.00	0.807	0.000	
L43 4.2500-3.0000	3.6243	0.85	6.58	3.138	A	0.000	3.138	3.138	100.00	1.808	0.000
					B	0.000	3.138	100.00	4.339	0.000	
					C	0.000	3.138	100.00	4.033	0.000	
L44 3.0000-2.7500	2.8750	0.85	6.58	0.630	A	0.000	0.630	0.630	100.00	0.362	0.000
					B	0.000	0.630	100.00	0.868	0.000	
					C	0.000	0.630	100.00	0.807	0.000	
L45 2.7500-1.7500	2.2495	0.85	6.58	2.527	A	0.000	2.527	2.527	100.00	1.446	0.000
					B	0.000	2.527	100.00	3.471	0.000	
					C	0.000	2.527	100.00	3.226	0.000	
L46 1.7500-1.5000	1.6250	0.85	6.58	0.634	A	0.000	0.634	0.634	100.00	0.362	0.000
					B	0.000	0.634	100.00	0.868	0.000	
					C	0.000	0.634	100.00	0.807	0.000	
L47 1.5000-1.2500	1.3750	0.85	6.58	0.635	A	0.000	0.635	0.635	100.00	0.362	0.000
					B	0.000	0.635	100.00	0.868	0.000	
					C	0.000	0.635	100.00	0.807	0.000	
L48 1.2500-1.0000	1.1250	0.85	6.58	0.635	A	0.000	0.635	0.635	100.00	0.362	0.000
					B	0.000	0.635	100.00	0.868	0.000	
					C	0.000	0.635	100.00	0.807	0.000	
L49 1.0000-0.0000	0.4995	0.85	6.58	2.551	A	0.000	2.551	2.551	100.00	1.446	0.000
					B	0.000	2.551	100.00	3.471	0.000	
					C	0.000	2.551	100.00	3.226	0.000	

Load Combinations

Comb. No.	Description
1	Dead Only
2	1.2 Dead+1.0 Wind 0 deg - No Ice
3	0.9 Dead+1.0 Wind 0 deg - No Ice
4	1.2 Dead+1.0 Wind 30 deg - No Ice
5	0.9 Dead+1.0 Wind 30 deg - No Ice
6	1.2 Dead+1.0 Wind 60 deg - No Ice
7	0.9 Dead+1.0 Wind 60 deg - No Ice
8	1.2 Dead+1.0 Wind 90 deg - No Ice
9	0.9 Dead+1.0 Wind 90 deg - No Ice
10	1.2 Dead+1.0 Wind 120 deg - No Ice
11	0.9 Dead+1.0 Wind 120 deg - No Ice
12	1.2 Dead+1.0 Wind 150 deg - No Ice
13	0.9 Dead+1.0 Wind 150 deg - No Ice
14	1.2 Dead+1.0 Wind 180 deg - No Ice
15	0.9 Dead+1.0 Wind 180 deg - No Ice
16	1.2 Dead+1.0 Wind 210 deg - No Ice
17	0.9 Dead+1.0 Wind 210 deg - No Ice
18	1.2 Dead+1.0 Wind 240 deg - No Ice
19	0.9 Dead+1.0 Wind 240 deg - No Ice
20	1.2 Dead+1.0 Wind 270 deg - No Ice
21	0.9 Dead+1.0 Wind 270 deg - No Ice
22	1.2 Dead+1.0 Wind 300 deg - No Ice
23	0.9 Dead+1.0 Wind 300 deg - No Ice
24	1.2 Dead+1.0 Wind 330 deg - No Ice

Comb. No.	Description
25	0.9 Dead+1.0 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	100 - 95	Pole	Max Tension	48	0.00	0.00	0.00
			Max. Compression	26	-8.58	0.21	0.35
			Max. Mx	20	-4.05	41.60	0.10
			Max. My	2	-4.05	0.04	42.00
			Max. Vy	20	-6.35	41.60	0.10
			Max. Vx	14	6.41	0.04	-41.79
			Max. Torque	14			-0.73
L2	95 - 90	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-15.47	0.20	0.32
			Max. Mx	20	-8.00	85.37	0.11
			Max. My	2	-8.00	0.07	86.22
			Max. Vy	20	-9.65	85.37	0.11
			Max. Vx	14	9.71	0.03	-86.05
			Max. Torque	14			-0.73
L3	90 - 85.5	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-15.87	0.21	0.29
			Max. Mx	20	-8.26	129.47	0.10
			Max. My	2	-8.27	0.08	130.54
			Max. Vy	20	-9.96	129.47	0.10
			Max. Vx	14	10.02	0.04	-130.42
			Max. Torque	2			0.73
L4	85.5 - 85.25	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-15.91	0.21	0.29
			Max. Mx	20	-8.30	131.97	0.10
			Max. My	2	-8.30	0.08	133.04
			Max. Vy	20	-9.98	131.97	0.10
			Max. Vx	14	10.03	0.04	-132.93
			Max. Torque	2			0.72
L5	85.25 - 80.25	Pole	Max Tension	1	0.00	0.00	0.00

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
L6	80.25 - 75.25	Pole	Max. Compression	26	-24.59	0.15	0.25
			Max. Mx	20	-13.10	213.54	0.11
			Max. My	2	-13.10	0.05	214.82
			Max. Vy	20	-15.74	213.54	0.11
			Max. Vx	14	15.79	-0.00	-214.82
			Max. Torque	2			0.72
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-25.52	0.15	0.17
			Max. Mx	20	-13.79	293.24	0.09
			Max. My	14	-13.79	0.00	-294.78
L7	75.25 - 70.25	Pole	Max. Vy	20	-16.15	293.24	0.09
			Max. Vx	14	16.20	0.00	-294.78
			Max. Torque	2			0.68
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-31.08	0.41	0.23
			Max. Mx	20	-17.45	383.87	0.17
			Max. My	14	-17.45	0.05	-385.45
			Max. Vy	20	-19.39	383.87	0.17
			Max. Vx	14	19.42	0.05	-385.45
			Max. Torque	4			0.86
L8	70.25 - 66	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-31.46	0.41	0.22
			Max. Mx	20	-17.71	417.91	0.18
			Max. My	14	-17.71	0.04	-419.54
			Max. Vy	20	-19.54	417.91	0.18
			Max. Vx	14	19.57	0.04	-419.54
			Max. Torque	4			0.86
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-32.97	0.42	0.19
			Max. Mx	20	-18.92	486.90	0.21
L9	66 - 65	Pole	Max. My	14	-18.92	0.00	-488.64
			Max. Vy	20	-19.90	486.90	0.21
			Max. Vx	14	19.92	0.00	-488.64
			Max. Torque	4			0.86
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-34.62	0.44	0.15
			Max. Mx	20	-20.25	587.45	0.25
			Max. My	14	-20.25	-0.05	-589.35
			Max. Vy	20	-20.34	587.45	0.25
			Max. Vx	14	20.37	-0.05	-589.35
L10	65 - 60	Pole	Max. Torque	4			0.86
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-36.37	0.45	0.08
			Max. Mx	20	-21.60	690.51	0.30
			Max. My	14	-21.61	-0.10	-692.29
			Max. Vy	20	-20.90	690.51	0.30
			Max. Vx	14	20.82	-0.10	-692.29
			Max. Torque	4			0.85
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-36.46	0.45	0.07
L11	60 - 55	Pole	Max. Mx	20	-21.68	695.73	0.30
			Max. My	14	-21.69	-0.10	-697.49
			Max. Vy	20	-20.92	695.73	0.30
			Max. Vx	14	20.83	-0.10	-697.49
			Max. Torque	4			0.85
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-36.56	0.46	0.07
			Max. Mx	20	-21.76	700.97	0.30
			Max. My	14	-21.77	-0.11	-702.70
			Max. Vy	20	-20.95	700.97	0.30
L12	55 - 54.75	Pole	Max. Vx	14	20.85	-0.11	-702.70
			Max. Torque	4			0.85
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-36.56	0.46	0.07
			Max. Mx	20	-21.76	700.97	0.30
			Max. My	14	-21.77	-0.11	-702.70
L13	54.75 - 54.5	Pole	Max. Vy	20	-20.95	700.97	0.30
			Max. Vx	14	20.85	-0.11	-702.70
			Max. Torque	4			0.85
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-36.56	0.46	0.07
			Max. Mx	20	-21.76	700.97	0.30

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
L14	54.5 - 54.25	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-36.66	0.46	0.07
			Max. Mx	20	-21.83	706.21	0.30
			Max. My	14	-21.84	-0.11	-707.92
			Max. Vy	20	-20.98	706.21	0.30
			Max. Vx	14	20.88	-0.11	-707.92
			Max. Torque	4			0.85
L15	54.25 - 54	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-36.78	0.46	0.06
			Max. Mx	20	-21.93	711.46	0.30
			Max. My	14	-21.94	-0.11	-713.14
			Max. Vy	20	-21.02	711.46	0.30
			Max. Vx	14	20.91	-0.11	-713.14
			Max. Torque	4			0.85
L16	54 - 49	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-39.19	0.48	-0.03
			Max. Mx	20	-23.85	818.24	0.34
			Max. My	14	-23.87	-0.16	-819.10
			Max. Vy	20	-21.71	818.24	0.34
			Max. Vx	14	21.48	-0.16	-819.10
			Max. Torque	4			0.85
L17	49 - 44	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-41.62	0.50	-0.12
			Max. Mx	20	-25.80	928.41	0.38
			Max. My	14	-25.82	-0.22	-927.83
			Max. Vy	20	-22.38	928.41	0.38
			Max. Vx	14	22.03	-0.22	-927.83
			Max. Torque	2			0.84
L18	44 - 39	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-44.06	0.52	-0.21
			Max. Mx	20	-27.77	1041.87	0.42
			Max. My	14	-27.80	-0.27	-1039.25
			Max. Vy	20	-23.02	1041.87	0.42
			Max. Vx	14	22.55	-0.27	-1039.25
			Max. Torque	2			0.84
L19	39 - 38.75	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-44.16	0.52	-0.21
			Max. Mx	20	-27.86	1047.63	0.42
			Max. My	14	-27.88	-0.27	-1044.89
			Max. Vy	20	-23.04	1047.63	0.42
			Max. Vx	14	22.57	-0.27	-1044.89
			Max. Torque	2			0.84
L20	38.75 - 33	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-45.14	0.53	-0.26
			Max. Mx	20	-28.63	1105.48	0.44
			Max. My	14	-28.65	-0.30	-1101.57
			Max. Vy	20	-23.26	1105.48	0.44
			Max. Vx	14	22.79	-0.30	-1101.57
			Max. Torque	2			0.84
L21	33 - 32.75	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-47.48	0.55	-0.33
			Max. Mx	20	-30.60	1187.47	0.47
			Max. My	14	-30.62	-0.33	-1181.93
			Max. Vy	20	-23.61	1187.47	0.47
			Max. Vx	14	23.14	-0.33	-1181.93
			Max. Torque	2			0.84
L22	32.75 - 32.5	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-47.58	0.55	-0.33
			Max. Mx	20	-30.68	1193.37	0.47
			Max. My	14	-30.71	-0.34	-1187.72
			Max. Vy	20	-23.62	1193.37	0.47
			Max. Vx	14	23.16	-0.34	-1187.72
			Max. Torque	2			0.84

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
L23	32.5 - 29.75	Pole	Max. Torque	2			0.84
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-48.72	0.57	-0.41
			Max. Mx	20	-31.61	1258.61	0.49
			Max. My	14	-31.63	-0.37	-1251.69
			Max. Vy	20	-23.85	1258.61	0.49
			Max. Vx	14	23.39	-0.37	-1251.69
L24	29.75 - 29.5	Pole	Max. Torque	2			0.84
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-48.84	0.57	-0.42
			Max. Mx	20	-31.72	1264.57	0.49
			Max. My	14	-31.74	-0.37	-1257.53
			Max. Vy	20	-23.85	1264.57	0.49
			Max. Vx	14	23.38	-0.37	-1257.53
L25	29.5 - 26.75	Pole	Max. Torque	2			0.84
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-50.11	0.58	-0.49
			Max. Mx	20	-32.76	1330.45	0.51
			Max. My	14	-32.78	-0.40	-1322.15
			Max. Vy	20	-24.09	1330.45	0.51
			Max. Vx	14	23.63	-0.40	-1322.15
L26	26.75 - 26.5	Pole	Max. Torque	2			0.84
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-50.21	0.59	-0.50
			Max. Mx	20	-32.85	1336.47	0.51
			Max. My	14	-32.87	-0.40	-1328.06
			Max. Vy	20	-24.09	1336.47	0.51
			Max. Vx	14	23.63	-0.40	-1328.06
L27	26.5 - 23.5	Pole	Max. Torque	2			0.84
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-51.37	0.60	-0.57
			Max. Mx	20	-33.74	1409.18	0.54
			Max. My	14	-33.76	-0.43	-1399.27
			Max. Vy	20	-24.40	1409.18	0.54
			Max. Vx	14	23.86	-0.43	-1399.27
L28	23.5 - 23.25	Pole	Max. Torque	2			0.84
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-51.48	0.60	-0.57
			Max. Mx	20	-33.84	1415.28	0.54
			Max. My	14	-33.86	-0.43	-1405.24
			Max. Vy	20	-24.41	1415.28	0.54
			Max. Vx	14	23.87	-0.43	-1405.24
L29	23.25 - 22.75	Pole	Max. Torque	2			0.84
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-51.69	0.60	-0.58
			Max. Mx	20	-34.01	1427.49	0.54
			Max. My	14	-34.03	-0.44	-1417.18
			Max. Vy	20	-24.46	1427.49	0.54
			Max. Vx	14	23.91	-0.44	-1417.18
L30	22.75 - 22.5	Pole	Max. Torque	2			0.84
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-51.81	0.60	-0.58
			Max. Mx	20	-34.11	1433.61	0.54
			Max. My	14	-34.13	-0.44	-1423.16
			Max. Vy	20	-24.47	1433.61	0.54
			Max. Vx	14	23.92	-0.44	-1423.16
L31	22.5 - 17.5	Pole	Max. Torque	2			0.84
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-54.09	0.62	-0.65
			Max. Mx	20	-36.00	1557.16	0.58
			Max. My	14	-36.02	-0.50	-1543.68
			Max. Vy	20	-24.96	1557.16	0.58

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
L32	17.5 - 15.75	Pole	Max. Vx	14	24.30	-0.50	-1543.68
			Max. Torque	2			0.84
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-54.91	0.63	-0.68
			Max. Mx	20	-36.67	1600.96	0.59
			Max. My	14	-36.68	-0.51	-1586.28
			Max. Vy	20	-25.15	1600.96	0.59
			Max. Vx	14	24.43	-0.51	-1586.28
L33	15.75 - 15.5	Pole	Max. Torque	2			0.84
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-55.03	0.63	-0.68
			Max. Mx	20	-36.79	1607.25	0.59
			Max. My	14	-36.81	-0.52	-1592.38
			Max. Vy	20	-25.14	1607.25	0.59
			Max. Vx	14	24.42	-0.52	-1592.38
			Max. Torque	2			0.84
L34	15.5 - 12.25	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-56.70	0.63	-0.70
			Max. Mx	20	-38.14	1689.59	0.61
			Max. My	14	-38.16	-0.55	-1672.46
			Max. Vy	20	-25.55	1689.59	0.61
			Max. Vx	14	24.87	-0.55	-1672.46
			Max. Torque	2			0.86
			Max Tension	1	0.00	0.00	0.00
L35	12.25 - 12	Pole	Max. Compression	26	-56.83	0.63	-0.71
			Max. Mx	20	-38.25	1695.98	0.61
			Max. My	14	-38.27	-0.55	-1678.68
			Max. Vy	20	-25.57	1695.98	0.61
			Max. Vx	14	24.89	-0.55	-1678.68
			Max. Torque	2			0.86
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-56.96	0.64	-0.71
L36	12 - 11.75	Pole	Max. Mx	20	-38.36	1702.37	0.61
			Max. My	14	-38.37	-0.56	-1684.90
			Max. Vy	20	-25.60	1702.37	0.61
			Max. Vx	14	24.92	-0.56	-1684.90
			Max. Torque	2			0.86
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-57.08	0.64	-0.71
			Max. Mx	20	-38.46	1708.78	0.62
L37	11.75 - 11.5	Pole	Max. My	14	-38.47	-0.56	-1691.14
			Max. Vy	20	-25.63	1708.78	0.62
			Max. Vx	14	24.96	-0.56	-1691.14
			Max. Torque	2			0.86
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-59.49	0.63	-0.74
			Max. Mx	20	-40.45	1838.26	0.65
			Max. My	14	-40.46	-0.61	-1817.50
L38	11.5 - 6.5	Pole	Max. Vy	20	-26.19	1838.26	0.65
			Max. Vx	14	25.61	-0.61	-1817.50
			Max. Torque	2			0.91
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-59.73	0.63	-0.74
			Max. Mx	20	-40.66	1851.35	0.65
			Max. My	14	-40.67	-0.62	-1830.32
			Max. Vy	20	-26.23	1851.35	0.65
L39	6.5 - 6	Pole	Max. Vx	14	25.66	-0.62	-1830.32
			Max. Torque	2			0.92
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-59.85	0.63	-0.74
			Max. Mx	20	-40.77	1857.91	0.65
			Max. My	14	-40.77	-0.62	-1836.73

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
L41	5.75 - 4.5	Pole	Max. Vy	20	-26.25	1857.91	0.65
			Max. Vx	14	25.68	-0.62	-1836.73
			Max. Torque	2			0.92
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-60.43	0.63	-0.75
			Max. Mx	20	-41.26	1890.79	0.66
			Max. My	14	-41.27	-0.63	-1868.93
			Max. Vy	20	-26.39	1890.79	0.66
L42	4.5 - 4.25	Pole	Max. Vx	14	25.86	-0.63	-1868.93
			Max. Torque	2			0.95
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-60.54	0.63	-0.75
			Max. Mx	20	-41.38	1897.38	0.66
			Max. My	14	-41.38	-0.64	-1875.40
			Max. Vy	20	-26.39	1897.38	0.66
			Max. Vx	14	25.87	-0.64	-1875.40
L43	4.25 - 3	Pole	Max. Torque	2			0.96
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-61.11	0.63	-0.76
			Max. Mx	20	-41.86	1930.45	0.67
			Max. My	14	-41.86	-0.65	-1907.83
			Max. Vy	20	-26.54	1930.45	0.67
			Max. Vx	14	26.05	-0.65	-1907.83
			Max. Torque	2			0.98
L44	3 - 2.75	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-61.23	0.63	-0.76
			Max. Mx	20	-41.98	1937.08	0.67
			Max. My	14	-41.98	-0.65	-1914.34
			Max. Vy	20	-26.55	1937.08	0.67
			Max. Vx	14	26.06	-0.65	-1914.34
			Max. Torque	2			0.99
			Max Tension	1	0.00	0.00	0.00
L45	2.75 - 1.75	Pole	Max. Compression	26	-61.71	0.63	-0.76
			Max. Mx	20	-42.39	1963.68	0.68
			Max. My	14	-42.39	-0.66	-1940.46
			Max. Vy	20	-26.67	1963.68	0.68
			Max. Vx	14	26.20	-0.66	-1940.46
			Max. Torque	2			1.01
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-61.82	0.63	-0.76
L46	1.75 - 1.5	Pole	Max. Mx	20	-42.50	1970.34	0.68
			Max. My	14	-42.50	-0.66	-1947.01
			Max. Vy	20	-26.68	1970.34	0.68
			Max. Vx	14	26.22	-0.66	-1947.01
			Max. Torque	2			1.02
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-61.93	0.63	-0.76
			Max. Mx	20	-42.60	1977.02	0.68
L47	1.5 - 1.25	Pole	Max. My	14	-42.60	-0.67	-1953.57
			Max. Vy	20	-26.70	1977.02	0.68
			Max. Vx	14	26.25	-0.67	-1953.57
			Max. Torque	2			1.03
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-62.04	0.63	-0.77
			Max. Mx	20	-42.69	1983.69	0.68
			Max. My	14	-42.69	-0.67	-1960.14
L48	1.25 - 1	Pole	Max. Vy	20	-26.73	1983.69	0.68
			Max. Vx	14	26.28	-0.67	-1960.14
			Max. Torque	2			1.03
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-62.46	0.63	-0.77
			Max. Mx	20	-43.05	2010.47	0.69
			Max. My	14	-43.05	-0.67	-1960.14
			Max. Vy	20	-26.73	1983.69	0.68
L49	1 - 0	Pole	Max. Vx	14	26.28	-0.67	-1960.14
			Max. Torque	2			1.03
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-62.46	0.63	-0.77

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Max. My	14	-43.05	-0.68	-1986.49
			Max. Vy	20	-26.85	2010.47	0.69
			Max. Vx	14	26.43	-0.68	-1986.49
			Max. Torque	2			1.06

Maximum Reactions

Location	Condition	Gov. Load Comb.	Vertical K	Horizontal, X K	Horizontal, Z K
Pole	Max. Vert	29	62.46	-5.53	3.20
	Max. H _x	20	43.07	26.83	0.01
	Max. H _z	2	43.07	0.01	26.23
	Max. M _x	2	1970.93	0.01	26.23
	Max. M _z	8	1994.71	-26.62	-0.01
	Max. Torsion	2	1.06	0.01	26.23
	Min. Vert	11	32.30	-22.98	-13.30
	Min. H _x	8	43.07	-26.62	-0.01
	Min. H _z	14	43.07	-0.01	-26.41
	Min. M _x	14	-1986.49	-0.01	-26.41
	Min. M _z	20	-2010.47	26.83	0.01
	Min. Torsion	14	-1.05	-0.01	-26.41

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	35.89	0.00	0.00	0.23	0.24	0.00
1.2 Dead+1.0 Wind 0 deg - No Ice	43.07	-0.01	-26.23	-1970.93	1.27	-1.06
0.9 Dead+1.0 Wind 0 deg - No Ice	32.30	-0.01	-26.23	-1947.09	1.18	-1.05
1.2 Dead+1.0 Wind 30 deg - No Ice	43.07	13.70	-23.78	-1775.70	-1021.82	-0.82
0.9 Dead+1.0 Wind 30 deg - No Ice	32.30	13.70	-23.78	-1754.50	-1009.66	-0.81
1.2 Dead+1.0 Wind 60 deg - No Ice	43.07	23.97	-13.85	-1037.43	-1793.40	-0.40
0.9 Dead+1.0 Wind 60 deg - No Ice	32.30	23.97	-13.85	-1025.08	-1772.02	-0.40
1.2 Dead+1.0 Wind 90 deg - No Ice	43.07	26.62	0.01	1.26	-1994.71	-0.01
0.9 Dead+1.0 Wind 90 deg - No Ice	32.30	26.62	0.01	1.18	-1970.74	-0.01
1.2 Dead+1.0 Wind 120 deg - No Ice	43.07	22.98	13.30	992.94	-1713.40	0.55
0.9 Dead+1.0 Wind 120 deg - No Ice	32.30	22.98	13.30	980.87	-1692.78	0.55
1.2 Dead+1.0 Wind 150 deg - No Ice	43.07	13.63	23.63	1759.92	-1013.51	0.96
0.9 Dead+1.0 Wind 150 deg - No Ice	32.30	13.63	23.63	1738.68	-1001.39	0.96
1.2 Dead+1.0 Wind 180 deg - No Ice	43.07	0.01	26.41	1986.49	-0.68	1.05

Load Combination	Vertical	Shear _x	Shear _z	Overturning Moment, M _x	Overturning Moment, M _z	Torque
	K	K	K	kip-ft	kip-ft	kip-ft
0.9 Dead+1.0 Wind 180 deg - No Ice	32.30	0.01	26.41	1962.36	-0.75	1.05
1.2 Dead+1.0 Wind 210 deg - No Ice	43.07	-13.52	23.46	1761.47	1013.87	0.79
0.9 Dead+1.0 Wind 210 deg - No Ice	32.30	-13.52	23.46	1740.27	1001.63	0.79
1.2 Dead+1.0 Wind 240 deg - No Ice	43.07	-23.70	13.70	1031.03	1781.91	0.38
0.9 Dead+1.0 Wind 240 deg - No Ice	32.30	-23.70	13.70	1018.59	1760.48	0.38
1.2 Dead+1.0 Wind 270 deg - No Ice	43.07	-26.83	-0.01	-0.69	2010.47	0.01
0.9 Dead+1.0 Wind 270 deg - No Ice	32.30	-26.83	-0.01	-0.75	1986.19	0.01
1.2 Dead+1.0 Wind 300 deg - No Ice	43.07	-23.20	-13.42	-997.91	1723.60	-0.52
0.9 Dead+1.0 Wind 300 deg - No Ice	32.30	-23.20	-13.42	-985.93	1702.73	-0.52
1.2 Dead+1.0 Wind 330 deg - No Ice	43.07	-13.52	-23.43	-1743.72	1005.07	-0.94
0.9 Dead+1.0 Wind 330 deg - No Ice	32.30	-13.52	-23.43	-1722.77	992.90	-0.94
1.2 Dead+1.0 Ice+1.0 Temp	62.46	0.00	0.00	0.77	0.63	0.00
1.2 Dead+1.0 Wind 0 deg+1.0 Ice+1.0 Temp	62.46	-0.00	-5.91	-469.48	0.89	-0.27
1.2 Dead+1.0 Wind 30 deg+1.0 Ice+1.0 Temp	62.46	3.14	-5.46	-425.93	-245.04	-0.19
1.2 Dead+1.0 Wind 60 deg+1.0 Ice+1.0 Temp	62.46	5.53	-3.20	-249.88	-432.78	-0.06
1.2 Dead+1.0 Wind 90 deg+1.0 Ice+1.0 Temp	62.46	6.06	0.00	1.00	-477.55	0.04
1.2 Dead+1.0 Wind 120 deg+1.0 Ice+1.0 Temp	62.46	5.23	3.02	237.99	-409.02	0.17
1.2 Dead+1.0 Wind 150 deg+1.0 Ice+1.0 Temp	62.46	3.10	5.37	422.89	-242.58	0.26
1.2 Dead+1.0 Wind 180 deg+1.0 Ice+1.0 Temp	62.46	0.00	5.94	474.05	0.51	0.27
1.2 Dead+1.0 Wind 210 deg+1.0 Ice+1.0 Temp	62.46	-3.11	5.40	425.06	245.02	0.19
1.2 Dead+1.0 Wind 240 deg+1.0 Ice+1.0 Temp	62.46	-5.49	3.17	250.28	432.09	0.06
1.2 Dead+1.0 Wind 270 deg+1.0 Ice+1.0 Temp	62.46	-6.10	-0.00	0.61	481.95	-0.04
1.2 Dead+1.0 Wind 300 deg+1.0 Ice+1.0 Temp	62.46	-5.27	-3.05	-237.47	412.31	-0.17
1.2 Dead+1.0 Wind 330 deg+1.0 Ice+1.0 Temp	62.46	-3.08	-5.34	-418.19	242.20	-0.26
Dead+Wind 0 deg - Service	35.89	-0.00	-6.28	-468.77	0.48	-0.25
Dead+Wind 30 deg - Service	35.89	3.28	-5.70	-422.36	-242.96	-0.19
Dead+Wind 60 deg - Service	35.89	5.74	-3.32	-246.69	-426.57	-0.10
Dead+Wind 90 deg - Service	35.89	6.38	0.00	0.47	-474.43	-0.00
Dead+Wind 120 deg - Service	35.89	5.51	3.19	236.42	-407.49	0.13
Dead+Wind 150 deg - Service	35.89	3.27	5.66	418.93	-240.98	0.23
Dead+Wind 180 deg - Service	35.89	0.00	6.33	472.82	0.02	0.25
Dead+Wind 210 deg - Service	35.89	-3.24	5.62	419.31	241.43	0.19
Dead+Wind 240 deg - Service	35.89	-5.68	3.28	245.50	424.19	0.09
Dead+Wind 270 deg - Service	35.89	-6.43	-0.00	0.01	478.55	0.00
Dead+Wind 300 deg - Service	35.89	-5.56	-3.22	-237.27	410.28	-0.13
Dead+Wind 330 deg - Service	35.89	-3.24	-5.61	-414.73	239.33	-0.23

Solution Summary

Load Comb.	Sum of Applied Forces			Sum of Reactions			% Error
	PX K	PY K	PZ K	PX K	PY K	PZ K	
1	0.00	-35.89	0.00	0.00	35.89	0.00	0.000%
2	-0.01	-43.07	-26.23	0.01	43.07	26.23	0.000%
3	-0.01	-32.30	-26.23	0.01	32.30	26.23	0.000%
4	13.70	-43.07	-23.78	-13.70	43.07	23.78	0.000%
5	13.70	-32.30	-23.78	-13.70	32.30	23.78	0.000%
6	23.97	-43.07	-13.85	-23.97	43.07	13.85	0.000%
7	23.97	-32.30	-13.85	-23.97	32.30	13.85	0.000%
8	26.62	-43.07	0.01	-26.62	43.07	-0.01	0.000%
9	26.62	-32.30	0.01	-26.62	32.30	-0.01	0.000%
10	22.98	-43.07	13.30	-22.98	43.07	-13.30	0.000%
11	22.98	-32.30	13.30	-22.98	32.30	-13.30	0.000%
12	13.63	-43.07	23.63	-13.63	43.07	-23.63	0.000%
13	13.63	-32.30	23.63	-13.63	32.30	-23.63	0.000%
14	0.01	-43.07	26.41	-0.01	43.07	-26.41	0.000%
15	0.01	-32.30	26.41	-0.01	32.30	-26.41	0.000%
16	-13.52	-43.07	23.46	13.52	43.07	-23.46	0.000%
17	-13.52	-32.30	23.46	13.52	32.30	-23.46	0.000%
18	-23.70	-43.07	13.70	23.70	43.07	-13.70	0.000%
19	-23.70	-32.30	13.70	23.70	32.30	-13.70	0.000%
20	-26.83	-43.07	-0.01	26.83	43.07	0.01	0.000%
21	-26.83	-32.30	-0.01	26.83	32.30	0.01	0.000%
22	-23.20	-43.07	-13.42	23.20	43.07	13.42	0.000%
23	-23.20	-32.30	-13.42	23.20	32.30	13.42	0.000%
24	-13.52	-43.07	-23.43	13.52	43.07	23.43	0.000%
25	-13.52	-32.30	-23.43	13.52	32.30	23.43	0.000%
26	0.00	-62.46	0.00	0.00	62.46	0.00	0.000%
27	-0.00	-62.46	-5.91	0.00	62.46	5.91	0.000%
28	3.14	-62.46	-5.46	-3.14	62.46	5.46	0.000%
29	5.53	-62.46	-3.20	-5.53	62.46	3.20	0.000%
30	6.06	-62.46	0.00	-6.06	62.46	-0.00	0.000%
31	5.23	-62.46	3.02	-5.23	62.46	-3.02	0.000%
32	3.10	-62.46	5.37	-3.10	62.46	-5.37	0.000%
33	0.00	-62.46	5.94	-0.00	62.46	-5.94	0.000%
34	-3.11	-62.46	5.40	3.11	62.46	-5.40	0.000%
35	-5.49	-62.46	3.17	5.49	62.46	-3.17	0.000%
36	-6.10	-62.46	-0.00	6.10	62.46	0.00	0.000%
37	-5.27	-62.46	-3.05	5.27	62.46	3.05	0.000%
38	-3.08	-62.46	-5.34	3.08	62.46	5.34	0.000%
39	-0.00	-35.89	-6.28	0.00	35.89	6.28	0.000%
40	3.28	-35.89	-5.70	-3.28	35.89	5.70	0.000%
41	5.74	-35.89	-3.32	-5.74	35.89	3.32	0.000%
42	6.38	-35.89	0.00	-6.38	35.89	-0.00	0.000%
43	5.51	-35.89	3.19	-5.51	35.89	-3.19	0.000%
44	3.27	-35.89	5.66	-3.27	35.89	-5.66	0.000%
45	0.00	-35.89	6.33	-0.00	35.89	-6.33	0.000%
46	-3.24	-35.89	5.62	3.24	35.89	-5.62	0.000%
47	-5.68	-35.89	3.28	5.68	35.89	-3.28	0.000%
48	-6.43	-35.89	-0.00	6.43	35.89	0.00	0.000%
49	-5.56	-35.89	-3.22	5.56	35.89	3.22	0.000%
50	-3.24	-35.89	-5.61	3.24	35.89	5.61	0.000%

Non-Linear Convergence Results

Load Combination	Converged?	Number of Cycles	Displacement Tolerance	Force Tolerance
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1	Yes	4	0.00000001	0.00000001
2	Yes	5	0.00000001	0.00045696
3	Yes	5	0.00000001	0.00021660
4	Yes	6	0.00000001	0.00053175
5	Yes	6	0.00000001	0.00017666
6	Yes	6	0.00000001	0.00056376
7	Yes	6	0.00000001	0.00018722
8	Yes	5	0.00000001	0.00015315
9	Yes	5	0.00000001	0.00005968
10	Yes	6	0.00000001	0.00052367
11	Yes	6	0.00000001	0.00017595
12	Yes	6	0.00000001	0.00053052
13	Yes	6	0.00000001	0.00017663
14	Yes	5	0.00000001	0.00043529
15	Yes	5	0.00000001	0.00020580
16	Yes	6	0.00000001	0.00054894
17	Yes	6	0.00000001	0.00018355
18	Yes	6	0.00000001	0.00054485
19	Yes	6	0.00000001	0.00018080
20	Yes	5	0.00000001	0.00016533
21	Yes	5	0.00000001	0.00006650
22	Yes	6	0.00000001	0.00052026
23	Yes	6	0.00000001	0.00017424
24	Yes	6	0.00000001	0.00054293
25	Yes	6	0.00000001	0.00018186
26	Yes	4	0.00000001	0.00000001
27	Yes	6	0.00000001	0.00032124
28	Yes	6	0.00000001	0.00037025
29	Yes	6	0.00000001	0.00037790
30	Yes	6	0.00000001	0.00032268
31	Yes	6	0.00000001	0.00036004
32	Yes	6	0.00000001	0.00036885
33	Yes	6	0.00000001	0.00032298
34	Yes	6	0.00000001	0.00037141
35	Yes	6	0.00000001	0.00037776
36	Yes	6	0.00000001	0.00032572
37	Yes	6	0.00000001	0.00036203
38	Yes	6	0.00000001	0.00036866
39	Yes	4	0.00000001	0.00072437
40	Yes	5	0.00000001	0.00014965
41	Yes	5	0.00000001	0.00016950
42	Yes	4	0.00000001	0.00055573
43	Yes	5	0.00000001	0.00015219
44	Yes	5	0.00000001	0.00014950
45	Yes	4	0.00000001	0.00072436
46	Yes	5	0.00000001	0.00016684
47	Yes	5	0.00000001	0.00015620
48	Yes	14	0.00000001	0.00000000
49	Yes	5	0.00000001	0.00014796
50	Yes	5	0.00000001	0.00016301

Maximum Tower Deflections - Service Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L1	100 - 95	14.7197	41	1.3681	0.0047
L2	95 - 90	13.3023	41	1.3334	0.0037
L3	90 - 85.5	11.9397	41	1.2625	0.0027
L4	85.5 - 85.25	10.7931	41	1.1666	0.0018
L5	85.25 - 80.25	10.7320	41	1.1646	0.0018

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L6	80.25 - 75.25	9.5378	41	1.1134	0.0015
L7	75.25 - 70.25	8.4065	41	1.0454	0.0013
L8	70.25 - 66	7.3540	41	0.9631	0.0011
L9	68.5 - 65	7.0067	41	0.9315	0.0010
L10	65 - 60	6.3346	41	0.8976	0.0009
L11	60 - 55	5.4343	41	0.8210	0.0008
L12	55 - 54.75	4.6184	41	0.7367	0.0006
L13	54.75 - 54.5	4.5800	41	0.7324	0.0006
L14	54.5 - 54.25	4.5417	41	0.7289	0.0006
L15	54.25 - 54	4.5036	41	0.7254	0.0006
L16	54 - 49	4.4657	41	0.7233	0.0006
L17	49 - 44	3.7315	41	0.6788	0.0005
L18	44 - 39	3.0454	41	0.6315	0.0005
L19	39 - 38.75	2.4101	41	0.5819	0.0004
L20	38.75 - 33	2.3797	41	0.5777	0.0004
L21	36.25 - 32.75	2.0882	41	0.5357	0.0004
L22	32.75 - 32.5	1.7065	41	0.5031	0.0004
L23	32.5 - 29.75	1.6803	41	0.4987	0.0003
L24	29.75 - 29.5	1.4072	41	0.4495	0.0003
L25	29.5 - 26.75	1.3838	41	0.4461	0.0003
L26	26.75 - 26.5	1.1380	41	0.4073	0.0003
L27	26.5 - 23.5	1.1168	41	0.4032	0.0003
L28	23.5 - 23.25	0.8789	41	0.3539	0.0002
L29	23.25 - 22.75	0.8605	41	0.3498	0.0002
L30	22.75 - 22.5	0.8243	41	0.3417	0.0002
L31	22.5 - 17.5	0.8065	41	0.3381	0.0002
L32	17.5 - 15.75	0.4904	41	0.2656	0.0002
L33	15.75 - 15.5	0.3977	41	0.2403	0.0002
L34	15.5 - 12.25	0.3852	41	0.2369	0.0001
L35	12.25 - 12	0.2391	41	0.1924	0.0001
L36	12 - 11.75	0.2291	41	0.1886	0.0001
L37	11.75 - 11.5	0.2193	41	0.1852	0.0001
L38	11.5 - 6.5	0.2097	41	0.1811	0.0001
L39	6.5 - 6	0.0638	41	0.0978	0.0001
L40	6 - 5.75	0.0540	41	0.0896	0.0001
L41	5.75 - 4.5	0.0494	41	0.0854	0.0001
L42	4.5 - 4.25	0.0297	41	0.0648	0.0000
L43	4.25 - 3	0.0264	41	0.0609	0.0000
L44	3 - 2.75	0.0130	41	0.0416	0.0000
L45	2.75 - 1.75	0.0109	41	0.0381	0.0000
L46	1.75 - 1.5	0.0044	41	0.0242	0.0000
L47	1.5 - 1.25	0.0032	41	0.0206	0.0000
L48	1.25 - 1	0.0022	41	0.0170	0.0000
L49	1 - 0	0.0014	41	0.0136	0.0000

Critical Deflections and Radius of Curvature - Service Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
102.0000	(2) NHH-65B-R2B w/ Mount Pipe	41	14.7197	1.3681	0.0047	5371
100.0000	Top Hat 15" Diameter x 4' Tall	41	14.7197	1.3681	0.0047	5371
99.0000	8-ft Ladder	41	14.4343	1.3620	0.0045	5371
94.0000	(2) AIR21 B4A B2P_T-MOBILE w/ Mount Pipe	41	13.0239	1.3240	0.0035	4613
84.0000	80010965 w/ Mount Pipe	41	10.4287	1.1541	0.0017	4349
73.0000	MX08FRO665-21 w/ Mount Pipe	41	7.9220	1.0110	0.0012	3536

Maximum Tower Deflections - Design Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L1	100 - 95	61.8971	6	5.7625	0.0197
L2	95 - 90	55.9427	6	5.6168	0.0155
L3	90 - 85.5	50.2174	6	5.3181	0.0111
L4	85.5 - 85.25	45.3982	6	4.9137	0.0076
L5	85.25 - 80.25	45.1417	6	4.9052	0.0076
L6	80.25 - 75.25	40.1216	6	4.6893	0.0065
L7	75.25 - 70.25	35.3651	6	4.4030	0.0055
L8	70.25 - 66	30.9387	6	4.0560	0.0045
L9	68.5 - 65	29.4782	6	3.9232	0.0041
L10	65 - 60	26.6512	6	3.7802	0.0038
L11	60 - 55	22.8642	6	3.4573	0.0032
L12	55 - 54.75	19.4317	6	3.1018	0.0026
L13	54.75 - 54.5	19.2699	6	3.0837	0.0026
L14	54.5 - 54.25	19.1089	6	3.0690	0.0025
L15	54.25 - 54	18.9488	6	3.0543	0.0025
L16	54 - 49	18.7892	6	3.0454	0.0025
L17	49 - 44	15.7001	6	2.8581	0.0023
L18	44 - 39	12.8133	6	2.6587	0.0020
L19	39 - 38.75	10.1399	6	2.4497	0.0018
L20	38.75 - 33	10.0122	6	2.4321	0.0018
L21	36.25 - 32.75	8.7855	6	2.2552	0.0016
L22	32.75 - 32.5	7.1797	6	2.1176	0.0015
L23	32.5 - 29.75	7.0694	6	2.0993	0.0015
L24	29.75 - 29.5	5.9202	6	1.8921	0.0013
L25	29.5 - 26.75	5.8215	6	1.8776	0.0013
L26	26.75 - 26.5	4.7875	6	1.7141	0.0011
L27	26.5 - 23.5	4.6982	6	1.6970	0.0011
L28	23.5 - 23.25	3.6974	6	1.4894	0.0010
L29	23.25 - 22.75	3.6199	6	1.4722	0.0010
L30	22.75 - 22.5	3.4675	6	1.4379	0.0009
L31	22.5 - 17.5	3.3926	6	1.4229	0.0009
L32	17.5 - 15.75	2.0629	6	1.1176	0.0007
L33	15.75 - 15.5	1.6727	6	1.0110	0.0006
L34	15.5 - 12.25	1.6202	6	0.9967	0.0006
L35	12.25 - 12	1.0056	6	0.8093	0.0005
L36	12 - 11.75	0.9636	6	0.7934	0.0005
L37	11.75 - 11.5	0.9225	6	0.7791	0.0005
L38	11.5 - 6.5	0.8821	6	0.7619	0.0005
L39	6.5 - 6	0.2682	6	0.4113	0.0003
L40	6 - 5.75	0.2270	6	0.3767	0.0002
L41	5.75 - 4.5	0.2077	6	0.3593	0.0002
L42	4.5 - 4.25	0.1250	6	0.2725	0.0002
L43	4.25 - 3	0.1111	6	0.2561	0.0002
L44	3 - 2.75	0.0546	6	0.1751	0.0001
L45	2.75 - 1.75	0.0459	6	0.1603	0.0001
L46	1.75 - 1.5	0.0184	6	0.1016	0.0001
L47	1.5 - 1.25	0.0135	6	0.0865	0.0001
L48	1.25 - 1	0.0094	6	0.0714	0.0000
L49	1 - 0	0.0060	6	0.0571	0.0000

Critical Deflections and Radius of Curvature - Design Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
102.0000	(2) NHH-65B-R2B w/ Mount Pipe	6	61.8971	5.7625	0.0198	1309
100.0000	Top Hat 15" Diameter x 4' Tall	6	61.8971	5.7625	0.0198	1309
99.0000	8-ft Ladder	6	60.6984	5.7369	0.0190	1309
94.0000	(2) AIR21 B4A B2P_T-MOBILE w/ Mount Pipe	6	54.7732	5.5775	0.0148	1122
84.0000	80010965 w/ Mount Pipe	6	43.8666	4.8606	0.0074	1047
73.0000	MX08FRO665-21 w/ Mount Pipe	6	33.3277	4.2578	0.0051	849

Compression Checks

Pole Design Data

Section No.	Elevation ft	Size	L	L _u	Kl/r	A	P _u	φP _n	Ratio P _u / φP _n
	ft		ft	ft		in ²	K	K	
L1	100 - 95 (1)	TP15.32x14.5x0.19	5.0000	0.0000	0.0	9.26	-4.05	416.52	0.010
L2	95 - 90 (2)	TP16.14x15.32x0.19	5.0000	0.0000	0.0	9.76	-8.00	439.07	0.018
L3	90 - 85.5 (3)	TP16.88x16.14x0.19	4.5000	0.0000	0.0	10.21	-8.27	459.37	0.018
L4	85.5 - 85.25 (4)	TP16.92x16.88x0.62	0.2500	0.0000	0.0	32.28	-8.30	1452.67	0.006
L5	85.25 - 80.25 (5)	TP17.74x16.92x0.59	5.0000	0.0000	0.0	32.57	-13.10	1465.79	0.009
L6	80.25 - 75.25 (6)	TP18.55x17.74x0.57	5.0000	0.0000	0.0	32.73	-13.74	1472.78	0.009
L7	75.25 - 70.25 (7)	TP19.37x18.55x0.54	5.0000	0.0000	0.0	32.75	-17.39	1473.67	0.012
L8	70.25 - 66 (8)	TP20.07x19.37x0.54	4.2500	0.0000	0.0	33.25	-17.65	1496.10	0.012
L9	66 - 65 (9)	TP19.86x19.29x0.83	3.5000	0.0000	0.0	50.57	-18.85	2275.83	0.008
L10	65 - 60 (10)	TP20.68x19.86x0.79	5.0000	0.0000	0.0	50.45	-20.18	2270.04	0.009
L11	60 - 55 (11)	TP21.5x20.68x0.75	5.0000	0.0000	0.0	50.11	-21.54	2254.94	0.010
L12	55 - 54.75 (12)	TP21.54x21.5x0.75	0.2500	0.0000	0.0	50.21	-21.62	2259.39	0.010
L13	54.75 - 54.5 (13)	TP21.58x21.54x0.95	0.2500	0.0000	0.0	63.11	-21.70	2840.00	0.008
L14	54.5 - 54.25 (14)	TP21.62x21.58x0.95	0.2500	0.0000	0.0	63.24	-21.77	2845.63	0.008
L15	54.25 - 54 (15)	TP21.66x21.62x1.8	0.2500	0.0000	0.0	115.13	-21.87	5180.69	0.004
L16	54 - 49 (16)	TP22.48x21.66x1.7	5.0000	0.0000	0.0	113.76	-23.79	5119.08	0.005
L17	49 - 44 (17)	TP23.3x22.48x1.6	5.0000	0.0000	0.0	111.80	-25.74	5030.86	0.005
L18	44 - 39 (18)	TP24.12x23.3x1.53	5.0000	0.0000	0.0	110.94	-27.72	4992.44	0.006
L19	39 - 38.75 (19)	TP24.16x24.12x0.83	0.2500	0.0000	0.0	61.99	-27.80	2789.40	0.010
L20	38.75 - 33 (20)	TP25.1x24.16x0.83	5.7500	0.0000	0.0	63.07	-28.57	2838.31	0.010
L21	33 - 32.75 (21)	TP24.64x24.07x0.83	3.5000	0.0000	0.0	63.27	-30.54	3701.37	0.008
L22	32.75 - 32.5 (22)	TP24.68x24.64x0.85	0.2500	0.0000	0.0	65.23	-30.63	3816.08	0.008
L23	32.5 - 29.75 (23)	TP25.13x24.68x0.83	2.7500	0.0000	0.0	64.57	-31.55	3777.64	0.008
L24	29.75 - 29.5 (24)	TP25.17x25.13x1.1	0.2500	0.0000	0.0	85.27	-31.67	4988.34	0.006
L25	29.5 - 26.75 (25)	TP25.62x25.17x1.08	2.7500	0.0000	0.0	84.98	-32.71	4971.13	0.007
L26	26.75 - 26.5 (26)	TP25.66x25.62x0.91	0.2500	0.0000	0.0	72.73	-32.80	4254.64	0.008
L27	26.5 - 23.5 (27)	TP26.16x25.66x0.9	3.0000	0.0000	0.0	73.19	-33.69	4281.68	0.008
L28	23.5 - 23.25 (28)	TP26.2x26.16x0.9	0.2500	0.0000	0.0	73.31	-33.79	4288.61	0.008
L29	23.25 - 22.75 (29)	TP26.28x26.2x0.9	0.5000	0.0000	0.0	73.55	-33.96	4302.48	0.008

Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u K	φP _n K	Ratio P _u / φP _n
L30	22.75 - 22.5 (30)	TP26.32x26.28x1.05	0.2500	0.0000	0.0	85.44	-34.06	4997.98	0.007
L31	22.5 - 17.5 (31)	TP27.14x26.32x1.03	5.0000	0.0000	0.0	86.18	-35.96	5041.73	0.007
L32	17.5 - 15.75 (32)	TP27.42x27.14x1	1.7500	0.0000	0.0	85.08	-36.63	4977.40	0.007
L33	15.75 - 15.5 (33)	TP27.46x27.42x1.09	0.2500	0.0000	0.0	92.37	-36.76	5403.37	0.007
L34	15.5 - 12.25 (34)	TP28x27.46x1.08	3.2500	0.0000	0.0	93.19	-38.12	5451.46	0.007
L35	12.25 - 12 (35)	TP28.04x28x0.95	0.2500	0.0000	0.0	82.86	-38.23	4847.25	0.008
L36	12 - 11.75 (36)	TP28.08x28.04x1.08	0.2500	0.0000	0.0	93.47	-38.34	5468.02	0.007
L37	11.75 - 11.5 (37)	TP28.12x28.08x0.88	0.2500	0.0000	0.0	76.76	-38.44	4490.42	0.009
L38	11.5 - 6.5 (38)	TP28.94x28.12x0.85	5.0000	0.0000	0.0	76.87	-40.44	4497.09	0.009
L39	6.5 - 6 (39)	TP29.02x28.94x0.85	0.5000	0.0000	0.0	77.10	-40.65	4510.18	0.009
L40	6 - 5.75 (40)	TP29.06x29.02x0.85	0.2500	0.0000	0.0	77.21	-40.76	4516.73	0.009
L41	5.75 - 4.5 (41)	TP29.26x29.06x0.84	1.2500	0.0000	0.0	76.66	-41.25	4484.54	0.009
L42	4.5 - 4.25 (42)	TP29.3x29.26x0.9	0.2500	0.0000	0.0	82.32	-41.37	4815.54	0.009
L43	4.25 - 3 (43)	TP29.51x29.3x0.9	1.2500	0.0000	0.0	82.91	-41.85	4850.21	0.009
L44	3 - 2.75 (44)	TP29.55x29.51x1	0.2500	0.0000	0.0	91.93	-41.97	5377.99	0.008
L45	2.75 - 1.75 (45)	TP29.71x29.55x1	1.0000	0.0000	0.0	92.46	-42.39	5408.80	0.008
L46	1.75 - 1.5 (46)	TP29.75x29.71x0.98	0.2500	0.0000	0.0	90.35	-42.50	5285.69	0.008
L47	1.5 - 1.25 (47)	TP29.8x29.75x0.98	0.2500	0.0000	0.0	90.48	-42.59	5293.20	0.008
L48	1.25 - 1 (48)	TP29.84x29.8x1.04	0.2500	0.0000	0.0	96.21	-42.69	5628.28	0.008
L49	1 - 0 (49)	TP30x29.84x1.03	1.0000	0.0000	0.0	95.63	-43.05	5594.47	0.008

Pole Bending Design Data

Section No.	Elevation ft	Size	M _{ux} kip-ft	φM _{nx} kip-ft	Ratio M _{ux} / φM _{nx}	M _{uy} kip-ft	φM _{ny} kip-ft	Ratio M _{uy} / φM _{ny}
L1	100 - 95 (1)	TP15.32x14.5x0.19	42.00	161.02	0.261	0.00	161.02	0.000
L2	95 - 90 (2)	TP16.14x15.32x0.19	86.22	179.04	0.482	0.00	179.04	0.000
L3	90 - 85.5 (3)	TP16.88x16.14x0.19	130.54	196.08	0.666	0.00	196.08	0.000
L4	85.5 - 85.25 (4)	TP16.92x16.88x0.62	133.04	590.41	0.225	0.00	590.41	0.000
L5	85.25 - 80.25 (5)	TP17.74x16.92x0.59	214.82	628.60	0.342	0.00	628.60	0.000
L6	80.25 - 75.25 (6)	TP18.55x17.74x0.57	295.21	664.62	0.444	0.00	664.62	0.000
L7	75.25 - 70.25 (7)	TP19.37x18.55x0.54	387.31	698.08	0.555	0.00	698.08	0.000
L8	70.25 - 66 (8)	TP20.07x19.37x0.54	422.06	719.79	0.586	0.00	719.79	0.000
L9	66 - 65 (9)	TP19.86x19.29x0.83	492.66	1074.43	0.459	0.00	1074.43	0.000
L10	65 - 60 (10)	TP20.68x19.86x0.79	595.98	1123.91	0.530	0.00	1123.91	0.000
L11	60 - 55 (11)	TP21.5x20.68x0.75	702.13	1168.33	0.601	0.00	1168.33	0.000
L12	55 - 54.75 (12)	TP21.54x21.5x0.75	707.52	1173.03	0.603	0.00	1173.03	0.000
L13	54.75 - 54.5 (13)	TP21.58x21.54x0.95	712.91	1449.23	0.492	0.00	1449.23	0.000
L14	54.5 - 54.25 (14)	TP21.62x21.58x0.95	718.31	1455.12	0.494	0.00	1455.12	0.000
L15	54.25 - 54 (15)	TP21.66x21.62x1.8	723.72	2441.22	0.296	0.00	2441.22	0.000
L16	54 - 49 (16)	TP22.48x21.66x1.7	833.72	2544.28	0.328	0.00	2544.28	0.000
L17	49 - 44 (17)	TP23.3x22.48x1.6	947.22	2630.54	0.360	0.00	2630.54	0.000
L18	44 - 39 (18)	TP24.12x23.3x1.53	1064.10	2733.79	0.389	0.00	2733.79	0.000
L19	39 - 38.75 (19)	TP24.16x24.12x0.83	1070.03	1626.50	0.658	0.00	1626.50	0.000
L20	38.75 - 33 (20)	TP25.1x24.16x0.83	1129.71	1685.03	0.670	0.00	1685.03	0.000
L21	33 - 32.75 (21)	TP24.64x24.07x0.83	1214.56	2204.53	0.551	0.00	2204.53	0.000
L22	32.75 - 32.5	TP24.68x24.64x0.85	1220.68	2272.12	0.537	0.00	2272.12	0.000

Section No.	Elevation ft	Size	M_{ux}	ϕM_{nx}	Ratio	M_{uy}	ϕM_{ny}	Ratio
			kip-ft	kip-ft	$\frac{M_{ux}}{\phi M_{nx}}$	kip-ft	kip-ft	$\frac{M_{uy}}{\phi M_{ny}}$
	(22)							
L23	32.5 - 29.75	TP25.13x24.68x0.83	1288.46	2297.88	0.561	0.00	2297.88	0.000
	(23)							
L24	29.75 - 29.5	TP25.17x25.13x1.1	1294.67	2971.32	0.436	0.00	2971.32	0.000
	(24)							
L25	29.5 - 26.75	TP25.62x25.17x1.08	1363.38	3024.98	0.451	0.00	3024.98	0.000
	(25)							
L26	26.75 - 26.5	TP25.66x25.62x0.91	1369.67	2627.88	0.521	0.00	2627.88	0.000
	(26)							
L27	26.5 - 23.5 (27)	TP26.16x25.66x0.9	1445.65	2701.55	0.535	0.00	2701.55	0.000
L28	23.5 - 23.25	TP26.2x26.16x0.9	1452.03	2710.45	0.536	0.00	2710.45	0.000
	(28)							
L29	23.25 - 22.75	TP26.28x26.2x0.9	1464.79	2728.31	0.537	0.00	2728.31	0.000
	(29)							
L30	22.75 - 22.5	TP26.32x26.28x1.05	1471.18	3137.28	0.469	0.00	3137.28	0.000
	(30)							
L31	22.5 - 17.5 (31)	TP27.14x26.32x1.03	1600.38	3277.54	0.488	0.00	3277.54	0.000
L32	17.5 - 15.75	TP27.42x27.14x1	1646.19	3278.73	0.502	0.00	3278.73	0.000
	(32)							
L33	15.75 - 15.5	TP27.46x27.42x1.09	1652.77	3541.51	0.467	0.00	3541.51	0.000
	(33)							
L34	15.5 - 12.25	TP28x27.46x1.08	1738.78	3651.28	0.476	0.00	3651.28	0.000
	(34)							
L35	12.25 - 12 (35)	TP28.04x28x0.95	1745.44	3281.94	0.532	0.00	3281.94	0.000
L36	12 - 11.75 (36)	TP28.08x28.04x1.08	1752.12	3673.93	0.477	0.00	3673.93	0.000
L37	11.75 - 11.5	TP28.12x28.08x0.88	1758.79	3066.69	0.574	0.00	3066.69	0.000
	(37)							
L38	11.5 - 6.5 (38)	TP28.94x28.12x0.85	1893.53	3171.97	0.597	0.00	3171.97	0.000
L39	6.5 - 6 (39)	TP29.02x28.94x0.85	1907.13	3190.74	0.598	0.00	3190.74	0.000
L40	6 - 5.75 (40)	TP29.06x29.02x0.85	1913.94	3200.15	0.598	0.00	3200.15	0.000
L41	5.75 - 4.5 (41)	TP29.26x29.06x0.84	1948.04	3203.87	0.608	0.00	3203.87	0.000
L42	4.5 - 4.25 (42)	TP29.3x29.26x0.9	1954.88	3430.32	0.570	0.00	3430.32	0.000
L43	4.25 - 3 (43)	TP29.51x29.3x0.9	1989.12	3480.65	0.571	0.00	3480.65	0.000
L44	3 - 2.75 (44)	TP29.55x29.51x1	1995.99	3838.15	0.520	0.00	3838.15	0.000
L45	2.75 - 1.75 (45)	TP29.71x29.55x1	2023.51	3883.01	0.521	0.00	3883.01	0.000
L46	1.75 - 1.5 (46)	TP29.75x29.71x0.98	2030.40	3806.82	0.533	0.00	3806.82	0.000
L47	1.5 - 1.25 (47)	TP29.8x29.75x0.98	2037.29	3817.82	0.534	0.00	3817.82	0.000
L48	1.25 - 1 (48)	TP29.84x29.8x1.04	2044.20	4047.88	0.505	0.00	4047.88	0.000
L49	1 - 0 (49)	TP30x29.84x1.03	2071.85	4050.70	0.511	0.00	4050.70	0.000

Pole Shear Design Data

Section No.	Elevation ft	Size	Actual	ϕV_n	Ratio	Actual	ϕT_n	Ratio
			V_u K	K	$\frac{V_u}{\phi V_n}$	T_u kip-ft	kip-ft	$\frac{T_u}{\phi T_n}$
L1	100 - 95 (1)	TP15.32x14.5x0.19	6.41	124.96	0.051	0.73	166.29	0.004
L2	95 - 90 (2)	TP16.14x15.32x0.19	9.71	131.72	0.074	0.73	184.79	0.004
L3	90 - 85.5 (3)	TP16.88x16.14x0.19	10.01	137.81	0.073	0.72	202.26	0.004
L4	85.5 - 85.25 (4)	TP16.92x16.88x0.62	10.02	435.80	0.023	0.72	624.90	0.001
L5	85.25 - 80.25 (5)	TP17.74x16.92x0.59	15.76	439.74	0.036	0.68	663.20	0.001
L6	80.25 - 75.25 (6)	TP18.55x17.74x0.57	16.43	441.83	0.037	0.43	699.17	0.001
L7	75.25 - 70.25 (7)	TP19.37x18.55x0.54	19.78	442.10	0.045	0.57	732.41	0.001
L8	70.25 - 66 (8)	TP20.07x19.37x0.54	19.97	448.83	0.044	0.56	754.88	0.001
L9	66 - 65 (9)	TP19.86x19.29x0.83	20.40	682.75	0.030	0.56	1143.35	0.000
L10	65 - 60 (10)	TP20.68x19.86x0.79	20.96	681.01	0.031	0.55	1191.70	0.000

Section No.	Elevation ft	Size	Actual V_u K	ϕV_n K	Ratio	Actual	ϕT_n	Ratio
					V_u ϕV_n	T_u kip-ft	kip-ft	T_u ϕT_n
L11	60 - 55 (11)	TP21.5x20.68x0.75	21.54	676.48	0.032	0.54	1234.71	0.000
L12	55 - 54.75 (12)	TP21.54x21.5x0.75	21.56	677.82	0.032	0.54	1239.58	0.000
L13	54.75 - 54.5 (13)	TP21.58x21.54x0.95	21.59	852.00	0.025	0.54	1546.20	0.000
L14	54.5 - 54.25 (14)	TP21.62x21.58x0.95	21.62	853.69	0.025	0.54	1552.33	0.000
L15	54.25 - 54 (15)	TP21.66x21.62x1.8	21.66	1554.21	0.014	0.54	2715.54	0.000
L16	54 - 49 (16)	TP22.48x21.66x1.7	22.37	1535.73	0.015	0.53	2807.30	0.000
L17	49 - 44 (17)	TP23.3x22.48x1.6	23.06	1509.26	0.015	0.52	2880.83	0.000
L18	44 - 39 (18)	TP24.12x23.3x1.53	23.72	1497.73	0.016	0.51	2976.52	0.000
L19	39 - 38.75 (19)	TP24.16x24.12x0.83	23.75	836.82	0.028	0.51	1717.59	0.000
L20	38.75 - 33 (20)	TP25.1x24.16x0.83	24.03	851.49	0.028	0.50	1778.35	0.000
L21	33 - 32.75 (21)	TP24.64x24.07x0.83	24.48	1110.41	0.022	0.49	2326.38	0.000
L22	32.75 - 32.5 (22)	TP24.68x24.64x0.85	24.51	1144.82	0.021	0.49	2400.07	0.000
L23	32.5 - 29.75 (23)	TP25.13x24.68x0.83	24.83	1133.29	0.022	0.49	2423.24	0.000
L24	29.75 - 29.5 (24)	TP25.17x25.13x1.1	24.84	1496.50	0.017	0.48	3169.05	0.000
L25	29.5 - 26.75 (25)	TP25.62x25.17x1.08	25.17	1491.34	0.017	0.48	3220.41	0.000
L26	26.75 - 26.5 (26)	TP25.66x25.62x0.91	25.18	1276.39	0.020	0.47	2779.09	0.000
L27	26.5 - 23.5 (27)	TP26.16x25.66x0.9	25.51	1284.50	0.020	0.46	2853.62	0.000
L28	23.5 - 23.25 (28)	TP26.2x26.16x0.9	25.52	1286.58	0.020	0.46	2862.86	0.000
L29	23.25 - 22.75 (29)	TP26.28x26.2x0.9	25.58	1290.74	0.020	0.46	2881.41	0.000
L30	22.75 - 22.5 (30)	TP26.32x26.28x1.05	25.60	1499.39	0.017	0.46	3332.80	0.000
L31	22.5 - 17.5 (31)	TP27.14x26.32x1.03	26.12	1512.52	0.017	0.45	3474.12	0.000
L32	17.5 - 15.75 (32)	TP27.42x27.14x1	26.30	1493.22	0.018	0.44	3470.68	0.000
L33	15.75 - 15.5 (33)	TP27.46x27.42x1.09	26.30	1621.01	0.016	0.44	3761.06	0.000
L34	15.5 - 12.25 (34)	TP28x27.46x1.08	26.67	1635.44	0.016	0.43	3872.81	0.000
L35	12.25 - 12 (35)	TP28.04x28x0.95	26.68	1454.18	0.018	0.42	3464.79	0.000
L36	12 - 11.75 (36)	TP28.08x28.04x1.08	26.71	1640.41	0.016	0.42	3896.38	0.000
L37	11.75 - 11.5 (37)	TP28.12x28.08x0.88	26.73	1347.13	0.020	0.42	3228.31	0.000
L38	11.5 - 6.5 (38)	TP28.94x28.12x0.85	27.20	1349.13	0.020	0.40	3333.13	0.000
L39	6.5 - 6 (39)	TP29.02x28.94x0.85	27.23	1353.05	0.020	0.40	3352.57	0.000
L40	6 - 5.75 (40)	TP29.06x29.02x0.85	27.24	1355.02	0.020	0.40	3362.32	0.000
L41	5.75 - 4.5 (41)	TP29.26x29.06x0.84	27.37	1345.36	0.020	0.40	3364.03	0.000
L42	4.5 - 4.25 (42)	TP29.3x29.26x0.9	27.36	1444.66	0.019	0.40	3609.58	0.000
L43	4.25 - 3 (43)	TP29.51x29.3x0.9	27.49	1455.06	0.019	0.40	3661.74	0.000
L44	3 - 2.75 (44)	TP29.55x29.51x1	27.48	1613.40	0.017	0.40	4051.81	0.000
L45	2.75 - 1.75 (45)	TP29.71x29.55x1	27.58	1622.64	0.017	0.40	4098.38	0.000
L46	1.75 - 1.5 (46)	TP29.75x29.71x0.98	27.59	1585.71	0.017	0.40	4014.28	0.000
L47	1.5 - 1.25 (47)	TP29.8x29.75x0.98	27.61	1587.96	0.017	0.40	4025.70	0.000
L48	1.25 - 1 (48)	TP29.84x29.8x1.04	27.63	1688.48	0.016	0.40	4277.33	0.000
L49	1 - 0 (49)	TP30x29.84x1.03	27.71	1678.34	0.017	0.40	4277.63	0.000

Pole Interaction Design Data

Section No.	Elevation ft	Ratio	Ratio	Ratio	Ratio	Ratio	Comb. Stress Ratio	Allow. Stress Ratio	Criteria
		P_u	M_{ux}	M_{uy}	V_u	T_u			
		ϕP_n	ϕM_{nx}	ϕM_{ny}	ϕV_n	ϕT_n			
L1	100 - 95 (1)	0.010	0.261	0.000	0.051	0.004	0.274	1.050	
L2	95 - 90 (2)	0.018	0.482	0.000	0.074	0.004	0.506	1.050	
L3	90 - 85.5 (3)	0.018	0.666	0.000	0.073	0.004	0.690	1.050	
L4	85.5 - 85.25 (4)	0.006	0.225	0.000	0.023	0.001	0.232	1.050	
L5	85.25 - 80.25 (5)	0.009	0.342	0.000	0.036	0.001	0.352	1.050	
L6	80.25 - 75.25 (6)	0.009	0.444	0.000	0.037	0.001	0.455	1.050	
L7	75.25 - 70.25 (7)	0.012	0.555	0.000	0.045	0.001	0.569	1.050	
L8	70.25 - 66 (8)	0.012	0.586	0.000	0.044	0.001	0.600	1.050	
L9	66 - 65 (9)	0.008	0.459	0.000	0.030	0.000	0.468	1.050	
L10	65 - 60 (10)	0.009	0.530	0.000	0.031	0.000	0.540	1.050	
L11	60 - 55 (11)	0.010	0.601	0.000	0.032	0.000	0.612	1.050	
L12	55 - 54.75 (12)	0.010	0.603	0.000	0.032	0.000	0.614	1.050	
L13	54.75 - 54.5 (13)	0.008	0.492	0.000	0.025	0.000	0.500	1.050	
L14	54.5 - 54.25 (14)	0.008	0.494	0.000	0.025	0.000	0.502	1.050	
L15	54.25 - 54 (15)	0.004	0.296	0.000	0.014	0.000	0.301	1.050	
L16	54 - 49 (16)	0.005	0.328	0.000	0.015	0.000	0.333	1.050	
L17	49 - 44 (17)	0.005	0.360	0.000	0.015	0.000	0.365	1.050	
L18	44 - 39 (18)	0.006	0.389	0.000	0.016	0.000	0.395	1.050	
L19	39 - 38.75 (19)	0.010	0.658	0.000	0.028	0.000	0.669	1.050	
L20	38.75 - 33 (20)	0.010	0.670	0.000	0.028	0.000	0.681	1.050	
L21	33 - 32.75 (21)	0.008	0.551	0.000	0.022	0.000	0.560	1.050	
L22	32.75 - 32.5 (22)	0.008	0.537	0.000	0.021	0.000	0.546	1.050	
L23	32.5 - 29.75 (23)	0.008	0.561	0.000	0.022	0.000	0.570	1.050	
L24	29.75 - 29.5 (24)	0.006	0.436	0.000	0.017	0.000	0.442	1.050	
L25	29.5 - 26.75 (25)	0.007	0.451	0.000	0.017	0.000	0.458	1.050	
L26	26.75 - 26.5 (26)	0.008	0.521	0.000	0.020	0.000	0.529	1.050	
L27	26.5 - 23.5 (27)	0.008	0.535	0.000	0.020	0.000	0.543	1.050	
L28	23.5 - 23.25 (28)	0.008	0.536	0.000	0.020	0.000	0.544	1.050	
L29	23.25 - 22.75 (29)	0.008	0.537	0.000	0.020	0.000	0.545	1.050	
L30	22.75 - 22.5 (30)	0.007	0.469	0.000	0.017	0.000	0.476	1.050	
L31	22.5 - 17.5 (31)	0.007	0.488	0.000	0.017	0.000	0.496	1.050	
L32	17.5 - 15.75 (32)	0.007	0.502	0.000	0.018	0.000	0.510	1.050	
L33	15.75 - 15.5 (33)	0.007	0.467	0.000	0.016	0.000	0.474	1.050	
L34	15.5 - 12.25 (34)	0.007	0.476	0.000	0.016	0.000	0.483	1.050	
L35	12.25 - 12 (35)	0.008	0.532	0.000	0.018	0.000	0.540	1.050	
L36	12 - 11.75 (36)	0.007	0.477	0.000	0.016	0.000	0.484	1.050	
L37	11.75 - 11.5 (37)	0.009	0.574	0.000	0.020	0.000	0.582	1.050	
L38	11.5 - 6.5 (38)	0.009	0.597	0.000	0.020	0.000	0.606	1.050	
L39	6.5 - 6 (39)	0.009	0.598	0.000	0.020	0.000	0.607	1.050	
L40	6 - 5.75 (40)	0.009	0.598	0.000	0.020	0.000	0.608	1.050	
L41	5.75 - 4.5 (41)	0.009	0.608	0.000	0.020	0.000	0.618	1.050	
L42	4.5 - 4.25 (42)	0.009	0.570	0.000	0.019	0.000	0.579	1.050	
L43	4.25 - 3 (43)	0.009	0.571	0.000	0.019	0.000	0.580	1.050	
L44	3 - 2.75 (44)	0.008	0.520	0.000	0.017	0.000	0.528	1.050	
L45	2.75 - 1.75 (45)	0.008	0.521	0.000	0.017	0.000	0.529	1.050	

Section No.	Elevation ft	Ratio	Ratio	Ratio	Ratio	Ratio	Comb. Stress Ratio	Allow. Stress Ratio	Criteria
		P_u	M_{ux}	M_{uy}	V_u	T_u			
L46	1.75 - 1.5 (46)	0.008	0.533	0.000	0.017	0.000	0.542	1.050	
L47	1.5 - 1.25 (47)	0.008	0.534	0.000	0.017	0.000	0.542	1.050	
L48	1.25 - 1 (48)	0.008	0.505	0.000	0.016	0.000	0.513	1.050	
L49	1 - 0 (49)	0.008	0.511	0.000	0.017	0.000	0.519	1.050	

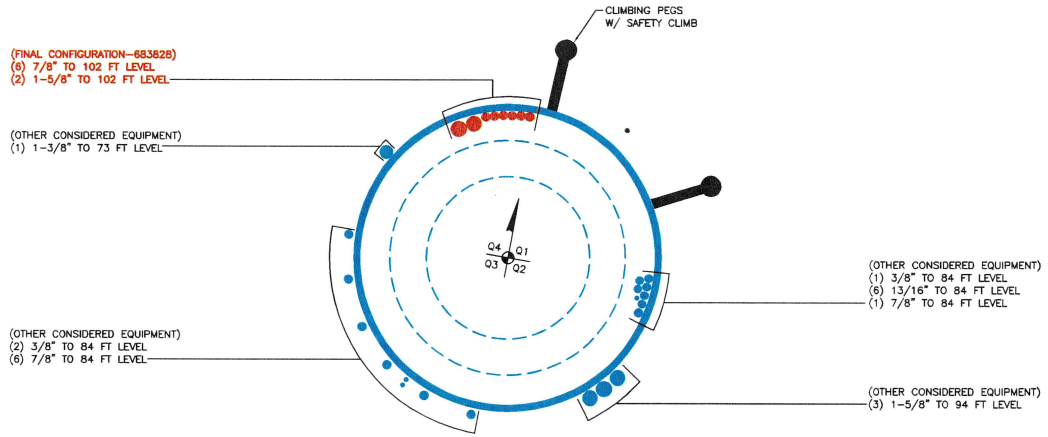
Section Capacity Table

Section No.	Elevation ft	Component Type	Size	Critical Element	P K	ϕP_{allow} K	% Capacity	Pass Fail
L1	100 - 95	Pole	TP15.32x14.5x0.19	1	-4.05	437.35	26.1	Pass
L2	95 - 90	Pole	TP16.14x15.32x0.19	2	-8.00	461.02	48.2	Pass
L3	90 - 85.5	Pole	TP16.88x16.14x0.19	3	-8.27	482.34	65.7	Pass
L4	85.5 - 85.25	Pole	TP16.92x16.88x0.62	4	-8.30	1525.30	22.1	Pass
L5	85.25 - 80.25	Pole	TP17.74x16.92x0.59	5	-13.10	1539.08	33.5	Pass
L6	80.25 - 75.25	Pole	TP18.55x17.74x0.57	6	-13.74	1546.42	43.3	Pass
L7	75.25 - 70.25	Pole	TP19.37x18.55x0.54	7	-17.39	1547.35	54.2	Pass
L8	70.25 - 66	Pole	TP20.07x19.37x0.54	8	-17.65	1570.90	57.2	Pass
L9	66 - 65	Pole	TP19.86x19.29x0.83	9	-18.85	2389.62	44.5	Pass
L10	65 - 60	Pole	TP20.68x19.86x0.79	10	-20.18	2383.54	51.4	Pass
L11	60 - 55	Pole	TP21.5x20.68x0.75	11	-21.54	2367.69	58.2	Pass
L12	55 - 54.75	Pole	TP21.54x21.5x0.75	12	-21.62	2372.36	58.5	Pass
L13	54.75 - 54.5	Pole	TP21.58x21.54x0.95	13	-21.70	2982.00	47.6	Pass
L14	54.5 - 54.25	Pole	TP21.62x21.58x0.95	14	-21.77	2987.91	47.8	Pass
L15	54.25 - 54	Pole	TP21.66x21.62x1.8	15	-21.87	5439.72	28.7	Pass
L16	54 - 49	Pole	TP22.48x21.66x1.7	16	-23.79	5375.03	31.7	Pass
L17	49 - 44	Pole	TP23.3x22.48x1.6	17	-25.74	5282.40	34.8	Pass
L18	44 - 39	Pole	TP24.12x23.3x1.53	18	-27.72	5242.06	37.6	Pass
L19	39 - 38.75	Pole	TP24.16x24.12x0.83	19	-27.80	2928.87	63.7	Pass
L20	38.75 - 33	Pole	TP25.1x24.16x0.83	20	-28.57	2980.23	64.9	Pass
L21	33 - 32.75	Pole	TP24.64x24.07x0.83	21	-30.54	3886.44	53.3	Pass
L22	32.75 - 32.5	Pole	TP24.68x24.64x0.85	22	-30.63	4006.88	52.0	Pass
L23	32.5 - 29.75	Pole	TP25.13x24.68x0.83	23	-31.55	3966.52	54.2	Pass
L24	29.75 - 29.5	Pole	TP25.17x25.13x1.1	24	-31.67	5237.76	42.1	Pass
L25	29.5 - 26.75	Pole	TP25.62x25.17x1.08	25	-32.71	5219.69	43.6	Pass
L26	26.75 - 26.5	Pole	TP25.66x25.62x0.91	26	-32.80	4467.37	50.4	Pass
L27	26.5 - 23.5	Pole	TP26.16x25.66x0.9	27	-33.69	4495.76	51.8	Pass
L28	23.5 - 23.25	Pole	TP26.2x26.16x0.9	28	-33.79	4503.04	51.8	Pass
L29	23.25 - 22.75	Pole	TP26.28x26.2x0.9	29	-33.96	4517.60	51.9	Pass
L30	22.75 - 22.5	Pole	TP26.32x26.28x1.05	30	-34.06	5247.88	45.3	Pass
L31	22.5 - 17.5	Pole	TP27.14x26.32x1.03	31	-35.96	5293.82	47.2	Pass
L32	17.5 - 15.75	Pole	TP27.42x27.14x1	32	-36.63	5226.27	48.5	Pass
L33	15.75 - 15.5	Pole	TP27.46x27.42x1.09	33	-36.76	5673.54	45.1	Pass
L34	15.5 - 12.25	Pole	TP28x27.46x1.08	34	-38.12	5724.03	46.0	Pass
L35	12.25 - 12	Pole	TP28.04x28x0.95	35	-38.23	5089.61	51.4	Pass
L36	12 - 11.75	Pole	TP28.08x28.04x1.08	36	-38.34	5741.42	46.1	Pass
L37	11.75 - 11.5	Pole	TP28.12x28.08x0.88	37	-38.44	4714.94	55.5	Pass
L38	11.5 - 6.5	Pole	TP28.94x28.12x0.85	38	-40.44	4721.94	57.7	Pass
L39	6.5 - 6	Pole	TP29.02x28.94x0.85	39	-40.65	4735.69	57.8	Pass
L40	6 - 5.75	Pole	TP29.06x29.02x0.85	40	-40.76	4742.57	57.9	Pass
L41	5.75 - 4.5	Pole	TP29.26x29.06x0.84	41	-41.25	4708.77	58.8	Pass
L42	4.5 - 4.25	Pole	TP29.3x29.26x0.9	42	-41.37	5056.32	55.1	Pass
L43	4.25 - 3	Pole	TP29.51x29.3x0.9	43	-41.85	5092.72	55.3	Pass
L44	3 - 2.75	Pole	TP29.55x29.51x1	44	-41.97	5646.89	50.3	Pass
L45	2.75 - 1.75	Pole	TP29.71x29.55x1	45	-42.39	5679.24	50.4	Pass
L46	1.75 - 1.5	Pole	TP29.75x29.71x0.98	46	-42.50	5549.97	51.6	Pass

Section No.	Elevation ft	Component Type	Size	Critical Element	P K	ϕP_{allow} K	% Capacity	Pass Fail	
L47	1.5 - 1.25	Pole	TP29.8x29.75x0.98	47	-42.59	5557.86	51.6	Pass	
L48	1.25 - 1	Pole	TP29.84x29.8x1.04	48	-42.69	5909.69	48.8	Pass	
L49	1 - 0	Pole	TP30x29.84x1.03	49	-43.05	5874.19	49.5	Pass	
							Summary		
							Pole (L3)	65.7	Pass
							RATING =	65.7	Pass

***NOTE: Above stress ratios for reinforced sections are approximate. More exact calculations are presented in Appendix C.**

APPENDIX B
BASE LEVEL DRAWING



APPENDIX C
ADDITIONAL CALCULATIONS

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	100	34	2.5	12	14.5	20.07	0.19	Auto	A572-50
2	68.5	35.5	3.25	12	19.29	25.1	0.25	Auto	A572-50
3	36.25	36.25	0	12	24.07	30	0.25	Auto	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	1.75	54.75	channel	MP3-06 (1.1875in)	2	o				o							
2	1.75	15.75	channel	MP3-06 (1.1875in)	1								o				
3	11.75	54.75	channel	MP3-06 (1.1875in)	1									o			
4	0	1.75	plate	FP 1.25 x 2.75_1	5	c			c			c	c				c
5	12.25	32.75	channel	MP3-05 (1.1875in)	1			o									
6	4.5	29.75	channel	MP3-05 (1.1875in)	2							o					o
7	54.75	85.5	channel	MP3-05 (1.1875in)	3	o				o				o			
8	1.25	4.5	plate	FP 1.25 x 5_1	1											c	
9	1.25	4.5	plate	FP 1.25 x 2.375_1	1						c						
10	1.25	3	plate	FP 1.25 x 5_1	1		c										
11	12	22.75	plate	6.5 x 1.25; (1) (1.1875)	1		o										
12	12	23.5	plate	FP 6 x 1; (1) (1.1875)	2						o						o
13	0	6	plate	FP 1.25 x 7.375_1	2												o
14	0	1.25	solid round	Round; (2.25 Max); (2	3		c				c				c		
15	0	12	plate	FP 1.25 x 7.375_1	1		o										
16	6	12	plate	FP 1.25 x 7.375_1	2						o						o
17	26.75	54.25	plate	CCI-065125 (trimmed)	3				0.3				0.3		o		
18	39	66	plate	J-065125; (1) (1.1875)	3		o				o						o
19																	

Reinforcement Details

	B (in)	H (in)	Gross Area (in ²)	Pole Face to Centroid (in)	Bottom Termination Type	Bottom Termination Length (in)	Top Termination Type	Top Termination Length (in)	Lu (in)	Net Area (in ²)	Bolt Hole Size (in)	Reinforcement Material
1	6.89	2.61	8.47	0.93	PC 8.8 - M20 (100)	41	PC 8.8 - M20 (100)	41.000	24.000	7.670	1.1875	A572-65
2	6.89	2.61	8.47	0.93	PC 8.8 - M20 (100)	41	PC 8.8 - M20 (100)	41.000	24.000	7.670	1.1875	A572-65
3	6.89	2.61	8.47	0.93	PC 8.8 - M20 (100)	41	PC 8.8 - M20 (100)	41.000	24.000	7.670	1.1875	A572-65
4	1.25	2.75	3.4375	1.375	None	n/a	None	n/a	0.000	3.438	0.0000	A572-65
5	5.33	2.09	5.65	0.79	PC 8.8 - M20 (100)	29	PC 8.8 - M20 (100)	29.000	18.000	5.025	1.1875	A572-65
6	5.33	2.09	5.65	0.79	PC 8.8 - M20 (100)	29	PC 8.8 - M20 (100)	29.000	18.000	5.025	1.1875	A572-65
7	5.33	2.09	5.65	0.79	PC 8.8 - M20 (100)	29	PC 8.8 - M20 (100)	29.000	18.000	5.025	1.1875	A572-65
8	1.25	5	6.25	2.5	None	n/a	None	n/a	0.000	6.250	0.0000	A572-65
9	1.25	2.375	2.96875	1.1875	None	n/a	None	n/a	0.000	2.969	0.0000	A572-65
10	1.25	5	6.25	2.5	None	n/a	None	n/a	0.000	6.250	0.0000	A572-65
11	6.5	1.25	8.125	0.625	PC 8.8 - M20 (100)	33	PC 8.8 - M20 (100)	33.000	19.250	6.563	1.1875	A572-65
12	6	1	6	0.5	PC 8.8 - M20 (100)	24	PC 8.8 - M20 (100)	24.000	16.375	4.750	1.1875	A572-65
13	1.25	7.375	9.21875	3.6875	None	n/a	None	n/a	0.000	9.219	0.0000	A572-65
14	0	0	3.97608	9.25	Capacity Input	n/a	Capacity Input	n/a	0.000	3.976	0.0000	A193 Gr B7
15	1.25	7.375	9.21875	3.6875	None	n/a	None	n/a	0.000	9.219	0.0000	A572-65
16	1.25	7.375	9.21875	3.6875	None	n/a	None	n/a	0.000	9.219	0.0000	A572-65
17	5.875	1.25	7.34375	0.625	PC 8.8 - M20 (100)	45	PC 8.8 - M20 (100)	45.000	19.000	5.781	1.1875	A572-65
18	6.5	1.25	8.125	0.625	PC 8.8 - M20 (100)	48	PC 8.8 - M20 (100)	48.000	19.000	6.563	1.1875	A572-65

Connection Details for Custom Reinforcements

Reinforcement	End	# Bolts	N or X	Bolt Spacing (in)	Edge Dist (in)	Weld Grade (ksi)	Transverse (Horiz.) Weld Type	Horiz. Weld Length (in)	Horiz. Groove Depth (in)	Horiz. Groove Angle (deg)	Horiz. Fillet Size (in)	Vertical Weld Length (in)	Vertical Fillet Size (in)	Rev H Connection Capacity (kip)
FP 1.25 x 2.75_1	Top	0	0	0	0	-	-	-	-	-	-	-	-	-
FP 1.25 x 2.75_1	Bottom	-	-	-	-	0	0	0	-	-	0	-	-	-
FP 1.25 x 5_1	Top	0	0	0	0	-	-	-	-	-	-	-	-	-
FP 1.25 x 5_1	Bottom	-	-	-	-	0	0	0	-	-	0	-	-	-
FP 1.25 x 2.375_1	Top	0	0	0	0	-	-	-	-	-	-	-	-	-
FP 1.25 x 2.375_1	Bottom	-	-	-	-	0	0	0	-	-	0	-	-	-
FP 6.5 x 1.25; (1) (1.1875)_1	Top	11	N	3	3	-	-	-	-	-	-	-	-	-
FP 6.5 x 1.25; (1) (1.1875)_1	Bottom	11	N	3	3	-	-	-	-	-	-	-	-	-
FP 6 x 1; (1) (1.1875)_1	Top	8	N	3	3	-	-	-	-	-	-	-	-	-
FP 6 x 1; (1) (1.1875)_1	Bottom	8	N	3	3	-	-	-	-	-	-	-	-	-
FP 1.25 x 7.375_1	Top	0	0	0	0	-	-	-	-	-	-	-	-	-
FP 1.25 x 7.375_1	Bottom	-	-	-	-	0	0	0	-	-	0	-	-	-
2.25 Solid Round; (2.25 Max); (2.25	Top	0	0	0	0	-	-	-	-	-	-	-	-	325
2.25 Solid Round; (2.25 Max); (2.25	Bottom	-	-	-	-	0	0	0	-	-	0	-	-	325
CCI-065125; (1) (1.1875)_2	Top	16	N	3	3	-	-	-	-	-	-	-	-	-
CCI-065125; (1) (1.1875)_2	Bottom	16	N	3	3	-	-	-	-	-	-	-	-	-
CCI-065125 (trimmed)	Top	15	N	3	3	-	-	-	-	-	-	-	-	-
CCI-065125 (trimmed)	Bottom	15	N	3	3	-	-	-	-	-	-	-	-	-

TNX Geometry Input

Increment (ft): Export to TNX

	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	100 - 95	5		12	14.500	15.319	0.19	A572-50	1.000
2	95 - 90	5		12	15.319	16.138	0.19	A572-50	1.000
3	90 - 85.5	4.5		12	16.138	16.875	0.19	A572-50	1.000
4	85.5 - 85.25	0.25		12	16.875	16.916	0.615	A572-50	0.843
5	85.25 - 80.25	5		12	16.916	17.736	0.59	A572-50	0.851
6	80.25 - 75.25	5		12	17.736	18.555	0.565	A572-50	0.862
7	75.25 - 70.25	5		12	18.555	19.374	0.54	A572-50	0.877
8	70.25 - 68.5	4.25	2.5	12	19.374	20.070	0.54	A572-50	0.869
9	68.5 - 65	3.5		12	19.290	19.863	0.825	A572-50	1.130
10	65 - 60	5		12	19.863	20.681	0.7875	A572-50	1.146
11	60 - 55	5		12	20.681	21.499	0.75	A572-50	1.167
12	55 - 54.75	0.25		12	21.499	21.540	0.75	A572-50	1.166
13	54.75 - 54.5	0.25		12	21.540	21.581	0.95	A572-50	1.062
14	54.5 - 54.25	0.25		12	21.581	21.622	0.95	A572-50	1.060
15	54.25 - 54	0.25		12	21.622	21.663	1.8	A572-50	0.774
16	54 - 49	5		12	21.663	22.481	1.7	A572-50	0.790
17	49 - 44	5		12	22.481	23.300	1.6	A572-50	0.809
18	44 - 39	5		12	23.300	24.118	1.525	A572-50	0.821
19	39 - 38.75	0.25		12	24.118	24.159	0.825	A572-50	1.077
20	38.75 - 36.25	5.75	3.25	12	24.159	25.100	0.825	A572-50	1.064
21	36.25 - 32.75	3.5		12	24.070	24.643	0.825	A572-65	1.061
22	32.75 - 32.5	0.25		12	24.643	24.683	0.85	A572-65	1.117
23	32.5 - 29.75	2.75		12	24.683	25.133	0.825	A572-65	1.134
24	29.75 - 29.5	0.25		12	25.133	25.174	1.1	A572-65	0.992
25	29.5 - 26.75	2.75		12	25.174	25.624	1.075	A572-65	0.999
26	26.75 - 26.5	0.25		12	25.624	25.665	0.9125	A572-65	0.865
27	26.5 - 23.5	3		12	25.665	26.156	0.9	A572-65	0.865
28	23.5 - 23.25	0.25		12	26.156	26.197	0.9	A572-65	1.027
29	23.25 - 22.75	0.5		12	26.197	26.278	0.9	A572-65	1.025
30	22.75 - 22.5	0.25		12	26.278	26.319	1.05	A572-65	0.978
31	22.5 - 17.5	5		12	26.319	27.137	1.025	A572-65	0.977
32	17.5 - 15.75	1.75		12	27.137	27.424	1	A572-65	0.993
33	15.75 - 15.5	0.25		12	27.424	27.464	1.0875	A572-65	1.006
34	15.5 - 12.25	3.25		12	27.464	27.996	1.075	A572-65	1.002
35	12.25 - 12	0.25		12	27.996	28.037	0.95	A572-65	1.059
36	12 - 11.75	0.25		12	28.037	28.078	1.075	A572-65	1.020
37	11.75 - 11.5	0.25		12	28.078	28.119	0.875	A572-65	1.132
38	11.5 - 6.5	5		12	28.119	28.937	0.85	A572-65	1.139
39	6.5 - 6	0.5		12	28.937	29.018	0.85	A572-65	1.136
40	6 - 5.75	0.25		12	29.018	29.059	0.85	A572-65	1.135
41	5.75 - 4.5	1.25		12	29.059	29.264	0.8375	A572-65	1.146
42	4.5 - 4.25	0.25		12	29.264	29.305	0.9	A572-65	1.042
43	4.25 - 3	1.25		12	29.305	29.509	0.9	A572-65	1.036
44	3 - 2.75	0.25		12	29.509	29.550	1	A572-65	1.003
45	2.75 - 1.75	1		12	29.550	29.714	1	A572-65	0.999
46	1.75 - 1.5	0.25		12	29.714	29.755	0.975	A572-65	0.931
47	1.5 - 1.25	0.25		12	29.755	29.796	0.975	A572-65	0.930
48	1.25 - 1	0.25		12	29.796	29.836	1.0375	A572-65	0.838
49	1 - 0	1		12	29.836	30.000	1.025	A572-65	0.845

TNX Section Forces

Increment (ft):		TNX Output		
	5	P _u	M _{ux} (kip-ft)	V _u (K)
	Section Height (ft)	(K)		
1	100 - 95	4.05	42.00	6.41
2	95 - 90	8.00	86.22	9.71
3	90 - 85.5	8.27	130.54	10.01
4	85.5 - 85.25	8.30	133.04	10.02
5	85.25 - 80.25	13.10	214.82	15.76
6	80.25 - 75.25	13.74	295.21	16.43
7	75.25 - 70.25	17.39	387.31	19.78
8	70.25 - 68.5	17.65	422.06	19.97
9	68.5 - 65	18.85	492.66	20.40
10	65 - 60	20.18	595.98	20.96
11	60 - 55	21.54	702.13	21.54
12	55 - 54.75	21.62	707.52	21.56
13	54.75 - 54.5	21.70	712.91	21.59
14	54.5 - 54.25	21.77	718.31	21.62
15	54.25 - 54	21.87	723.72	21.66
16	54 - 49	23.79	833.72	22.37
17	49 - 44	25.74	947.22	23.06
18	44 - 39	27.72	1064.10	23.72
19	39 - 38.75	27.80	1070.03	23.75
20	38.75 - 36.25	28.57	1129.71	24.03
21	36.25 - 32.75	30.54	1214.56	24.48
22	32.75 - 32.5	30.63	1220.68	24.51
23	32.5 - 29.75	31.55	1288.46	24.83
24	29.75 - 29.5	31.67	1294.66	24.84
25	29.5 - 26.75	32.71	1363.37	25.17
26	26.75 - 26.5	32.80	1369.66	25.18
27	26.5 - 23.5	33.69	1445.65	25.51
28	23.5 - 23.25	33.79	1452.02	25.52
29	23.25 - 22.75	33.96	1464.79	25.58
30	22.75 - 22.5	34.06	1471.19	25.60
31	22.5 - 17.5	35.96	1600.38	26.12
32	17.5 - 15.75	36.63	1646.19	26.30
33	15.75 - 15.5	36.76	1652.76	26.30
34	15.5 - 12.25	38.12	1738.78	26.67
35	12.25 - 12	38.23	1745.45	26.68
36	12 - 11.75	38.34	1752.12	26.71
37	11.75 - 11.5	38.44	1758.79	26.73
38	11.5 - 6.5	40.44	1893.54	27.20
39	6.5 - 6	40.65	1907.13	27.23
40	6 - 5.75	40.76	1913.94	27.24
41	5.75 - 4.5	41.25	1948.04	27.37
42	4.5 - 4.25	41.37	1954.88	27.36
43	4.25 - 3	41.85	1989.13	27.49
44	3 - 2.75	41.97	1995.99	27.48
45	2.75 - 1.75	42.39	2023.51	27.58
46	1.75 - 1.5	42.50	2030.40	27.59
47	1.5 - 1.25	42.59	2037.29	27.61
48	1.25 - 1	42.69	2044.20	27.63
49	1 - 0	43.05	2071.85	27.71

Analysis Results

Elevation (ft)	Component Type	Size	Critical Element	% Capacity	Pass / Fail
100 - 95	Pole	TP15.319x14.5x0.19	Pole	25.9%	Pass
95 - 90	Pole	TP16.138x15.319x0.19	Pole	48.0%	Pass
90 - 85.5	Pole	TP16.875x16.138x0.19	Pole	65.4%	Pass
85.5 - 85.25	Pole + Reinf.	TP16.916x16.875x0.615	Reinf. 7 Bolt-Shaft Bearing	30.1%	Pass
85.25 - 80.25	Pole + Reinf.	TP17.736x16.916x0.59	Reinf. 7 Tension Rupture	38.4%	Pass
80.25 - 75.25	Pole + Reinf.	TP18.555x17.736x0.565	Reinf. 7 Tension Rupture	49.4%	Pass
75.25 - 70.25	Pole + Reinf.	TP19.374x18.555x0.54	Reinf. 7 Tension Rupture	61.2%	Pass
70.25 - 68.5	Pole + Reinf.	TP20.07x19.374x0.54	Reinf. 7 Tension Rupture	65.3%	Pass
68.5 - 65	Pole + Reinf.	TP19.863x19.29x0.825	Reinf. 7 Tension Rupture	55.4%	Pass
65 - 60	Pole + Reinf.	TP20.681x19.863x0.7875	Reinf. 7 Tension Rupture	63.6%	Pass
60 - 55	Pole + Reinf.	TP21.499x20.681x0.75	Reinf. 7 Tension Rupture	71.1%	Pass
55 - 54.75	Pole + Reinf.	TP21.54x21.499x0.75	Reinf. 7 Tension Rupture	71.4%	Pass
54.75 - 54.5	Pole + Reinf.	TP21.581x21.54x0.95	Reinf. 3 Bolt-Shaft Bearing	57.3%	Pass
54.5 - 54.25	Pole + Reinf.	TP21.622x21.581x0.95	Reinf. 3 Tension Rupture	57.5%	Pass
54.25 - 54	Pole + Reinf.	TP21.663x21.622x1.8	Reinf. 17 Tension Rupture	35.2%	Pass
54 - 49	Pole + Reinf.	TP22.481x21.663x1.7	Reinf. 17 Tension Rupture	38.9%	Pass
49 - 44	Pole + Reinf.	TP23.3x22.481x1.6	Reinf. 17 Tension Rupture	42.4%	Pass
44 - 39	Pole + Reinf.	TP24.118x23.3x1.525	Reinf. 17 Tension Rupture	45.8%	Pass
39 - 38.75	Pole + Reinf.	TP24.159x24.118x0.825	Reinf. 1 Tension Rupture	74.9%	Pass
38.75 - 36.25	Pole + Reinf.	TP25.1x24.159x0.825	Reinf. 1 Tension Rupture	77.4%	Pass
36.25 - 32.75	Pole + Reinf.	TP24.643x24.07x0.825	Reinf. 1 Tension Rupture	82.8%	Pass
32.75 - 32.5	Pole + Reinf.	TP24.683x24.643x0.85	Reinf. 1 Tension Rupture	77.1%	Pass
32.5 - 29.75	Pole + Reinf.	TP25.133x24.683x0.825	Reinf. 1 Tension Rupture	79.5%	Pass
29.75 - 29.5	Pole + Reinf.	TP25.174x25.133x1.1	Reinf. 1 Tension Rupture	63.9%	Pass
29.5 - 26.75	Pole + Reinf.	TP25.624x25.174x1.075	Reinf. 1 Tension Rupture	65.9%	Pass
26.75 - 26.5	Pole + Reinf.	TP25.665x25.624x0.9125	Reinf. 5 Tension Rupture	73.1%	Pass
26.5 - 23.5	Pole + Reinf.	TP26.156x25.665x0.9	Reinf. 5 Tension Rupture	75.3%	Pass
23.5 - 23.25	Pole + Reinf.	TP26.197x26.156x0.9	Reinf. 5 Tension Rupture	74.9%	Pass
23.25 - 22.75	Pole + Reinf.	TP26.278x26.197x0.9	Reinf. 5 Tension Rupture	75.3%	Pass
22.75 - 22.5	Pole + Reinf.	TP26.319x26.278x1.05	Reinf. 3 Tension Rupture	69.0%	Pass
22.5 - 17.5	Pole + Reinf.	TP27.137x26.319x1.025	Reinf. 3 Tension Rupture	72.2%	Pass
17.5 - 15.75	Pole + Reinf.	TP27.424x27.137x1	Reinf. 3 Tension Rupture	73.3%	Pass
15.75 - 15.5	Pole + Reinf.	TP27.464x27.424x1.0875	Reinf. 6 Tension Rupture	64.1%	Pass
15.5 - 12.25	Pole + Reinf.	TP27.996x27.464x1.075	Reinf. 6 Tension Rupture	65.9%	Pass
12.25 - 12	Pole + Reinf.	TP28.037x27.996x0.95	Reinf. 1 Tension Rupture	73.4%	Pass
12 - 11.75	Pole + Reinf.	TP28.078x28.037x1.075	Reinf. 3 Tension Rupture	62.1%	Pass
11.75 - 11.5	Pole + Reinf.	TP28.119x28.078x0.875	Reinf. 6 Tension Rupture	73.1%	Pass
11.5 - 6.5	Pole + Reinf.	TP28.937x28.119x0.85	Reinf. 6 Tension Rupture	76.0%	Pass
6.5 - 6	Pole + Reinf.	TP29.018x28.937x0.85	Reinf. 6 Tension Rupture	76.3%	Pass
6 - 5.75	Pole + Reinf.	TP29.059x29.018x0.85	Reinf. 6 Tension Rupture	76.4%	Pass
5.75 - 4.5	Pole + Reinf.	TP29.264x29.059x0.8375	Reinf. 6 Tension Rupture	77.1%	Pass
4.5 - 4.25	Pole + Reinf.	TP29.305x29.264x0.9	Reinf. 8 Tension Yield	78.2%	Pass
4.25 - 3	Pole + Reinf.	TP29.509x29.305x0.9	Reinf. 8 Tension Yield	78.9%	Pass
3 - 2.75	Pole + Reinf.	TP29.55x29.509x1	Reinf. 8 Tension Yield	74.6%	Pass
2.75 - 1.75	Pole + Reinf.	TP29.714x29.55x1	Reinf. 8 Tension Yield	75.1%	Pass
1.75 - 1.5	Pole + Reinf.	TP29.755x29.714x0.975	Reinf. 8 Tension Yield	78.3%	Pass
1.5 - 1.25	Pole + Reinf.	TP29.796x29.755x0.975	Reinf. 8 Tension Yield	78.4%	Pass
1.25 - 1	Pole + Reinf.	TP29.836x29.796x1.0375	Reinf. 14 Connection	72.5%	Pass
1 - 0	Pole + Reinf.	TP30x29.836x1.025	Reinf. 14 Connection	73.0%	Pass
				Summary	
			Pole	70.2%	Pass
			Reinforcement	82.8%	Pass
			Overall	82.8%	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	
100 - 95	271	n/a	271	9.24	n/a	9.24	25.9%																			
95 - 90	317	n/a	317	9.74	n/a	9.74	48.0%																			
90 - 85.5	363	n/a	363	10.19	n/a	10.19	65.4%																			
85.5 - 85.25	366	736	1102	10.22	16.95	27.17	21.2%							30.1%												
85.25 - 80.25	422	801	1224	10.72	16.95	27.67	32.3%							38.4%												
80.25 - 75.25	484	870	1354	11.22	16.95	28.17	42.2%							49.4%												
75.25 - 70.25	552	941	1493	11.72	16.95	28.67	53.2%							61.2%												
70.25 - 68.5	577	967	1544	11.89	16.95	28.84	57.1%							65.3%												
68.5 - 65	800	1563	2363	15.77	41.33	57.09	48.4%							56.4%												39.2%
65 - 60	904	1680	2583	16.42	41.33	57.75	55.6%							63.6%												45.2%
60 - 55	1016	1801	2817	17.08	41.33	58.41	62.3%							71.1%												50.7%
55 - 54.75	1022	1807	2829	17.11	41.33	58.44	62.6%							71.4%												51.0%
54.75 - 54.5	1021	2456	3477	17.15	49.79	66.93	50.8%	43.4%			57.3%															43.3%
54.5 - 54.25	1027	2464	3491	17.18	49.79	66.96	51.0%	43.5%			57.5%															43.5%
54.25 - 54	1010	4812	5822	17.21	71.82	89.03	27.8%	31.6%			32.2%															35.2%
54 - 49	1131	5151	6282	17.87	71.82	89.69	30.8%	34.9%			35.5%															33.3%
49 - 44	1260	5503	6763	18.53	71.82	90.34	33.7%	38.0%			38.7%															38.9%
44 - 39	1399	5866	7265	19.19	71.82	91.00	36.7%	41.0%			41.8%															40.2%
39 - 38.75	1431	2952	4383	19.22	47.44	66.66	67.5%	74.9%			45.8%															45.8%
38.75 - 36.25	1505	3044	4549	19.55	47.44	66.99	70.2%	77.4%			47.1%															46.5%
36.25 - 32.75	1519	3060	4579	19.61	47.44	67.05	60.5%	82.8%			50.4%															47.0%
32.75 - 32.5	1509	3211	4723	19.64	53.09	72.73	57.9%	77.1%			47.4%			50.4%												45.3%
32.5 - 29.75	1594	3222	4815	20.00	53.09	73.09	59.8%	79.5%			48.9%			52.1%												47.4%
29.75 - 29.5	1610	4737	6348	20.04	64.39	84.43	47.1%	63.9%			43.2%			51.4%	56.5%											44.9%
29.5 - 26.75	1699	4894	6593	20.40	64.39	84.79	48.9%	65.9%			44.6%			53.0%	59.2%											45.8%
26.75 - 26.5	1689	4016	5705	20.43	42.36	62.79	52.3%	72.1%			72.1%			73.1%	73.1%											56.5%
26.5 - 23.5	1789	4159	5948	20.82	42.36	63.18	54.3%	74.3%			74.3%			75.3%	75.3%											
23.5 - 23.25	1797	4207	6005	20.86	54.36	75.22	54.0%	60.5%			73.9%			74.9%	61.4%					58.8%						
23.25 - 22.75	1814	4232	6046	20.92	54.36	75.28	54.4%	60.8%			74.3%			75.3%	61.7%					59.1%						
22.75 - 22.5	1848	5180	7029	20.96	62.49	83.44	51.9%	58.9%			69.0%			60.0%	62.3%					56.2%	59.6%					
22.5 - 17.5	2027	5483	7510	21.61	62.49	84.10	55.1%	61.8%			72.2%			62.9%	65.3%					59.0%	62.5%					
17.5 - 15.75	2092	5591	7684	21.84	62.49	84.33	56.2%	62.7%			73.3%			63.9%	66.3%					59.9%	63.5%					
15.75 - 15.5	2074	6144	8218	21.88	70.96	92.83	49.6%	63.3%	50.4%	59.1%	60.5%	64.1%			54.6%	60.4%										
15.5 - 12.25	2198	6368	8566	22.30	70.96	93.26	51.4%	65.1%	51.9%	60.8%	62.2%	65.9%			56.2%	62.1%										
12.25 - 12	2218	5625	7843	22.34	65.31	87.64	59.3%	73.4%	55.4%	66.1%				67.6%						68.7%	65.1%					
12 - 11.75	2225	6528	8752	22.37	72.84	95.21	53.1%	60.8%	51.6%	62.1%				57.2%												
11.75 - 11.5	2236	5044	7281	22.40	64.37	86.77	62.6%	65.5%	71.9%					73.1%												
11.5 - 6.5	2439	5302	7740	23.06	64.37	87.43	66.1%	68.2%	74.7%					76.0%												
6.5 - 6	2459	5328	7787	23.13	64.37	87.49	66.4%	68.5%	75.0%					76.3%												
6 - 5.75	2470	5341	7811	23.16	64.37	87.52	66.6%	68.6%	75.1%					76.4%												
5.75 - 4.5	2523	5406	7929	23.32	64.37	87.69	67.4%	69.3%	75.8%					77.1%												
4.5 - 4.25	2530	5991	8521	23.36	62.29	85.64	64.1%	64.1%	73.8%												55.3%					
4.25 - 3	2584	6063	8647	23.52	62.29	85.80	64.9%	64.7%	74.5%												58.8%	46.2%				
3 - 2.75	2636	7044	9680	23.55	68.54	92.09	61.7%	58.3%	67.9%												78.2%	45.7%				
2.75 - 1.75	2680	7111	9791	23.68	68.54	92.22	62.4%	58.8%	68.4%												78.9%	46.2%				
1.75 - 1.5	2659	8874	9533	23.72	60.31	84.03	62.4%														74.6%	45.7%	59.9%			
1.5 - 1.25	2670	8890	9560	23.75	60.31	84.06	62.6%														75.1%	46.0%	60.4%			
1.25 - 1	2699	7544	10236	23.78	56.77	80.55	59.8%														78.3%	54.0%	63.6%			
1 - 0	2736	7605	10342	23.91	56.77	80.68	60.4%														78.4%	54.1%	63.7%			

Note: Section capacity checked assuming all reinforcements are effective and using 5 degree increments. Rating per TIA-222-H Section 15.5.

Monopole Base Plate Connection

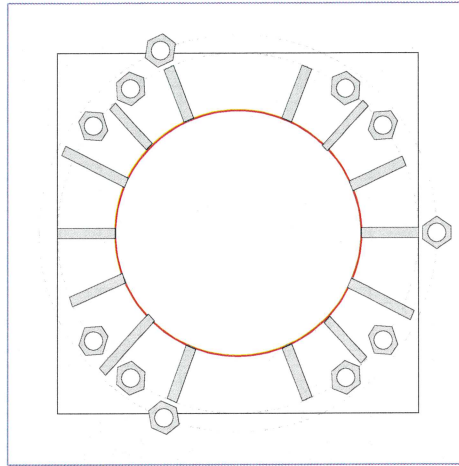


Site Info	
BU #	806042
Site Name	BOS ASHLAND 959026
Order #	683828 REV. 0

Analysis Considerations	
TIA-222 Revision	H
Grout Considered:	See Custom Sheet
I_p (in)	See Custom Sheet

Applied Loads	
Moment (kip-ft)	2071.85
Axial Force (kips)	43.05
Shear Force (kips)	27.71

*TIA-222-H Section 15.5 Applied



Connection Properties	Analysis Results																																													
<p>Anchor Rod Data</p> <p>GROUP 1: (8) 2-1/4" ϕ bolts (A615-75 N; Fy=75 ksi, Fu=100 ksi) on 44" BC Anchor Spacing: 6.428 in</p> <p>GROUP 2: (3) 2-1/4" ϕ bolts (F1554-105 N; Fy=105 ksi, Fu=125 ksi) on 48.5" BC pos. (deg): 0, 113, 248</p> <p>Base Plate Data</p> <p>44" W x 2" Plate (A572-60; Fy=60 ksi, Fu=75 ksi); Clip: 0 in</p> <p>Stiffener Data</p> <p>Group 1: (3) 18"H x 7"W x 1"T, Notch: 0.75" plate: Fy= 50 ksi ; weld: Fy= 70 ksi horiz. weld: 0.5" groove, 45° dbl bevel, 0.5" fillet vert. weld: 0.3125" fillet</p> <p>Group 2: (3) 54"H x 7"W x 1.25"T, Notch: 0.75" plate: Fy= 50 ksi ; weld: Fy= 70 ksi horiz. weld: 0.5" groove, 45° dbl bevel, 0.5" fillet vert. weld: 0.3125" fillet</p> <p>Group 3: (2) 36"H x 7"W x 1.25"T, Notch: 0.75" plate: Fy= 50 ksi ; weld: Fy= 70 ksi horiz. weld: 0.5" groove, 45° dbl bevel, 0.5" fillet vert. weld: 0.3125" fillet</p> <p>Group 4: (3) 48"H x 7"W x 1.25"T, Notch: 0.75" plate: Fy= 65 ksi ; weld: Fy= 80 ksi horiz. weld: 0.625" groove, 45° dbl bevel, 0.625" fillet vert. weld: 0.375" fillet</p> <p>Group 5: (3) 87"H x 8.4375"W x 1.25"T, Notch: 0.75" plate: Fy= 65 ksi ; weld: Fy= 80 ksi horiz. weld: 0.625" groove, 45° dbl bevel, 0.625" fillet vert. weld: 0.375" fillet</p> <p>Pole Data</p> <p>30" x 0.25" 12-sided pole (A572-65; Fy=65 ksi, Fu=80 ksi)</p>	<p>Anchor Rod Summary (units of kips, kip-in)</p> <p>GROUP 1:</p> <table border="1"> <tr> <td>Pu_t = 196.06</td> <td>ϕPn_t = 243.75</td> <td>Stress Rating</td> </tr> <tr> <td>Vu = 3.46</td> <td>ϕVn = 149.1</td> <td>76.6%</td> </tr> <tr> <td>Mu = n/a</td> <td>ϕMn = n/a</td> <td>Pass</td> </tr> </table> <p>GROUP 2:</p> <table border="1"> <tr> <td>Pu_t = 218.84</td> <td>ϕPn_t = 304.69</td> <td>Stress Rating</td> </tr> <tr> <td>Vu = 0</td> <td>ϕVn = 186.38</td> <td>68.4%</td> </tr> <tr> <td>Mu = n/a</td> <td>ϕMn = n/a</td> <td>Pass</td> </tr> </table> <p>Base Plate Summary</p> <table border="1"> <tr> <td>Max Stress (ksi):</td> <td>34.04</td> <td>(Roark's Flexural)</td> </tr> <tr> <td>Allowable Stress (ksi):</td> <td>54</td> <td></td> </tr> <tr> <td>Stress Rating:</td> <td>60.0%</td> <td>Pass</td> </tr> </table> <p>Stiffener Summary</p> <table border="1"> <tr> <td>Horizontal Weld:</td> <td>58.0%</td> <td>Pass</td> </tr> <tr> <td>Vertical Weld:</td> <td>41.5%</td> <td>Pass</td> </tr> <tr> <td>Plate Flexure+Shear:</td> <td>9.6%</td> <td>Pass</td> </tr> <tr> <td>Plate Tension+Shear:</td> <td>34.6%</td> <td>Pass</td> </tr> <tr> <td>Plate Compression:</td> <td>37.8%</td> <td>Pass</td> </tr> </table> <p>Pole Summary</p> <table border="1"> <tr> <td>Punching Shear:</td> <td>15.6%</td> <td>Pass</td> </tr> </table>	Pu_t = 196.06	ϕPn_t = 243.75	Stress Rating	Vu = 3.46	ϕVn = 149.1	76.6%	Mu = n/a	ϕMn = n/a	Pass	Pu_t = 218.84	ϕPn_t = 304.69	Stress Rating	Vu = 0	ϕVn = 186.38	68.4%	Mu = n/a	ϕMn = n/a	Pass	Max Stress (ksi):	34.04	(Roark's Flexural)	Allowable Stress (ksi):	54		Stress Rating:	60.0%	Pass	Horizontal Weld:	58.0%	Pass	Vertical Weld:	41.5%	Pass	Plate Flexure+Shear:	9.6%	Pass	Plate Tension+Shear:	34.6%	Pass	Plate Compression:	37.8%	Pass	Punching Shear:	15.6%	Pass
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Plate Compression:	37.8%	Pass																																												
Punching Shear:	15.6%	Pass																																												

CCiplate

Elevation (ft) | 0 | (Base)

note: Bending interaction not considered when Grout Considered = "Yes"

Bolt Group	Resist Axial	Resist Shear	Induce Plate Bending	Grout Considered	Apply at BARB Elevation	BARB CL Elevation (ft)
1	Yes	Yes	Yes	Yes	No	
2	No	No	No	Yes		

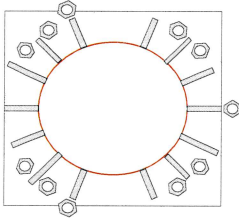
Custom Bolt Connection

Bolt	Bolt Group ID	Location (deg.)	Diameter (in)	Material	Bolt Circle (in)	Eta Factor, η	l _w (in)	Thread Type	Area Override, in ²	Tension Only
1	1	36.6	2.25	A615-75	44	0.5	0	N-Included		No
2	1	53.4	2.25	A615-75	44	0.5	0	N-Included		No
3	1	126.6	2.25	A615-75	44	0.5	0	N-Included		No
4	1	143.4	2.25	A615-75	44	0.5	0	N-Included		No
5	1	216.6	2.25	A615-75	44	0.5	0	N-Included		No
6	1	233.4	2.25	A615-75	44	0.5	0	N-Included		No
7	1	306.6	2.25	A615-75	44	0.5	0	N-Included		No
8	1	323.4	2.25	A615-75	44	0.5	0	N-Included		No
9	2	0	2.25	F1554-105	48.5	0.5	0	N-Included		No
10	2	113	2.25	F1554-105	48.5	0.5	0	N-Included		No
11	2	248	2.25	F1554-105	48.5	0.5	0	N-Included		No

Custom Stiffener Connection

Stiffener	Stiffener Group ID	Location (deg.)	Width (in)	Height (in)	Thickness (in)	H. Notch (in)	V. Notch (in)	Grade (ksi)	Weld Type	Groove Depth (in)	Groove Angle (deg.)	H. Fillet Weld Size (in)	V. Fillet Weld Size (in)	Weld Strength (ksi)
1	1	45	7	18	1	0.75	0.75	50	Both	0.5	45	0.5	0.3125	70
2	1	135	7	18	1	0.75	0.75	50	Both	0.5	45	0.5	0.3125	70
3	1	315	7	18	1	0.75	0.75	50	Both	0.5	45	0.5	0.3125	70
4	2	23	7	54	1.25	0.75	0.75	50	Both	0.5	45	0.5	0.3125	70
5	2	67	7	54	1.25	0.75	0.75	50	Both	0.5	45	0.5	0.3125	70
6	2	233	7	54	1.25	0.75	0.75	50	Both	0.5	45	0.5	0.3125	70
7	3	180	7	36	1.25	0.75	0.75	50	Both	0.5	45	0.5	0.3125	70
8	3	202	7	36	1.25	0.75	0.75	50	Both	0.5	45	0.5	0.3125	70
9	4	0	7	48	1.25	0.75	0.75	65	Both	0.625	45	0.625	0.375	80
10	4	113	7	72	1.25	0.75	0.75	65	Both	0.625	45	0.625	0.375	80
11	4	248	7	66	1.25	0.75	0.75	65	Both	0.625	45	0.625	0.375	80
12	5	155	8.4375	87	1.25	0.75	0.75	65	Both	0.625	45	0.625	0.375	80
13	5	335	8.4375	87	1.25	0.75	0.75	65	Both	0.625	45	0.625	0.375	80
14	5	225	8.4375	87	1.25	0.75	0.75	65	Both	0.625	45	0.625	0.375	80

Plot Graphic



Drilled Pier Foundation

BU # :	806042
Site Name:	BOS ASHLAND 959026
Order Number:	683828 REV. 0
TIA-222 Revision:	H
Tower Type:	Monopole



Applied Loads		
	Comp.	Uplift
Moment (kip-ft)	2071.85	
Axial Force (kips)	43.07	
Shear Force (kips)	27.68	

Material Properties		Rebar Z, Fy Override (ksi)
Concrete Strength, f _c :	3 ksi	
Rebar Strength, F _y :	60 ksi	
Tie Yield Strength, F _y t:	40 ksi	

Pier Design Data	
Depth	21.25 ft
Ext. Above Grade	0.25 ft
Pier Section 1	
<i>From 0.25' above grade to 21.25' below grade</i>	
Pier Diameter	6 ft
Rebar Quantity	46
Rebar Size	8
Clear Cover to Ties	4 in
Tie Size	4
Tie Spacing	in

Rebar & Pier Options
Embedded Pole Inputs
Belled Pier Inputs

Analysis Results

Soil Lateral Check	Compression	Uplift
D _{soil} (ft from TOC)	6.70	-
Soil Safety Factor	1.77	-
Max Moment (kip-ft)	2241.57	-
Rating*	71.7%	-

Soil Vertical Check	Compression	Uplift
Skin Friction (kips)	282.78	-
End Bearing (kips)	424.12	-
Weight of Concrete (kips)	85.59	-
Total Capacity (kips)	706.89	-
Axial (kips)	128.66	-
Rating*	17.3%	-

Reinforced Concrete Flexure	Compression	Uplift
Critical Depth (ft from TOC)	6.64	-
Critical Moment (kip-ft)	2241.54	-
Critical Moment Capacity	4676.95	-
Rating*	45.6%	-

Reinforced Concrete Shear	Compression	Uplift
Critical Depth (ft from TOC)	15.40	-
Critical Shear (kip)	311.41	-
Critical Shear Capacity	435.37	-
Rating*	68.1%	-

Structural Foundation Rating*	68.1%
Soil Interaction Rating*	71.7%

*Rating per TIA-222-H Section 15.5

Check Limitation	
Apply TIA-222-H Section 15.5:	<input checked="" type="checkbox"/>
N/A	<input type="checkbox"/>

Design Options	
Input Effective Depths (else Actual):	<input type="checkbox"/>
Consider non-tapered moment capacity:	<input type="checkbox"/>
Check Shear along Depth of Pier:	<input checked="" type="checkbox"/>
Utilize Shear-Friction Methodology:	<input type="checkbox"/>
Override Critical Depth:	<input type="checkbox"/>

[Go to Soil Calculations](#)

Soil Profile											
Groundwater Depth	10	# of Layers		3							

Layer	Top (ft)	Bottom (ft)	Thickness (ft)	γ _{soil} (pcf)	γ _{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	5	5	100	150	0	0	0.000	0.000	0.00	0.00			Cohesionless
2	5	10	5	120	150		32	0.904	0.904				58	Cohesionless
3	10	21.25	11.25	57.6	87.6		32	1.376	1.376			20	58	Cohesionless

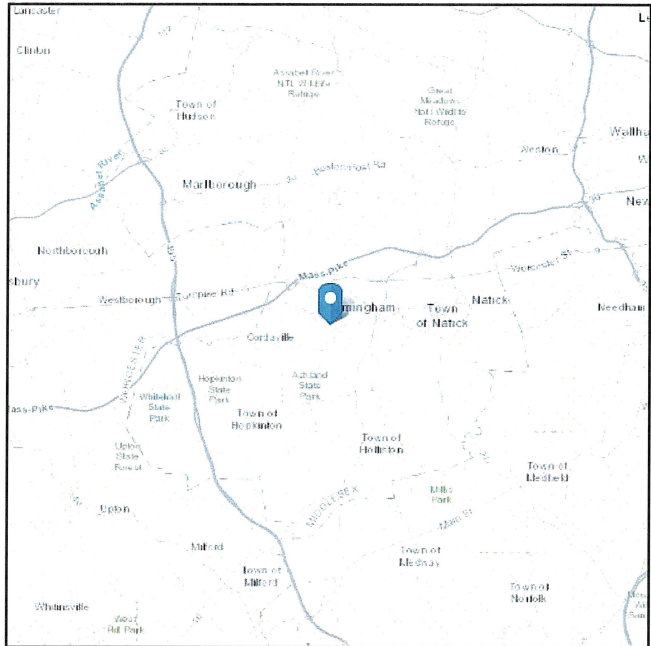
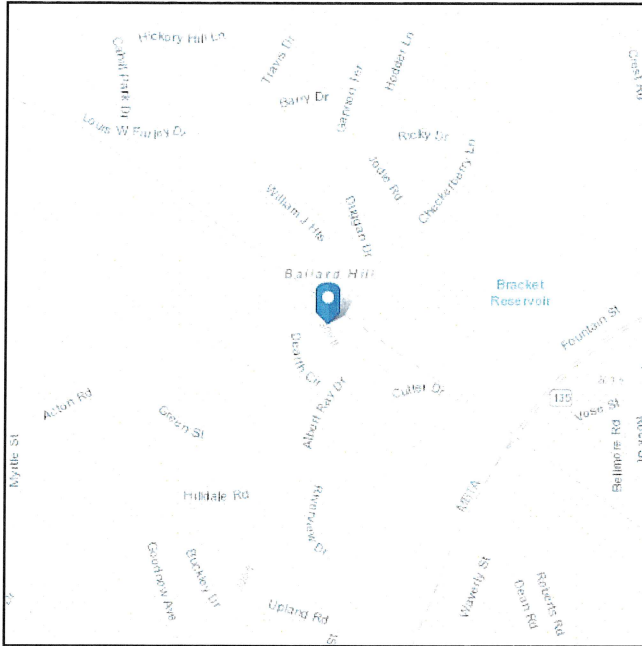


ASCE Hazards Report

Address:
No Address at This Location

Standard: ASCE/SEI 7-16
Risk Category: II
Soil Class: D - Default (see Section 11.4.3)

Latitude: 42.273694
Longitude: -71.451556
Elevation: 319.46536207984667 ft (NAVD 88)



Wind

Results:

Wind Speed	119 Vmph
10-year MRI	75 Vmph
25-year MRI	84 Vmph
50-year MRI	91 Vmph
100-year MRI	98 Vmph

Data Source: ASCE/SEI 7-16, Fig. 26.5-1B and Figs. CC.2-1–CC.2-4, and Section 26.5.2

Date Accessed: Mon Jan 13 2025

Value provided is 3-second gust wind speeds at 33 ft above ground for Exposure C Category, based on linear interpolation between contours. Wind speeds are interpolated in accordance with the 7-16 Standard. Wind speeds correspond to approximately a 7% probability of exceedance in 50 years (annual exceedance probability = 0.00143, MRI = 700 years).

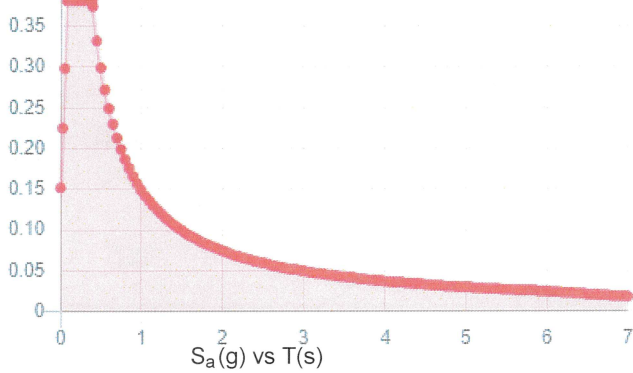
Site is in a hurricane-prone region as defined in ASCE/SEI 7-16 Section 26.2. Glazed openings need not be protected against wind-borne debris.

Site Soil Class: D - Default (see Section 11.4.3)

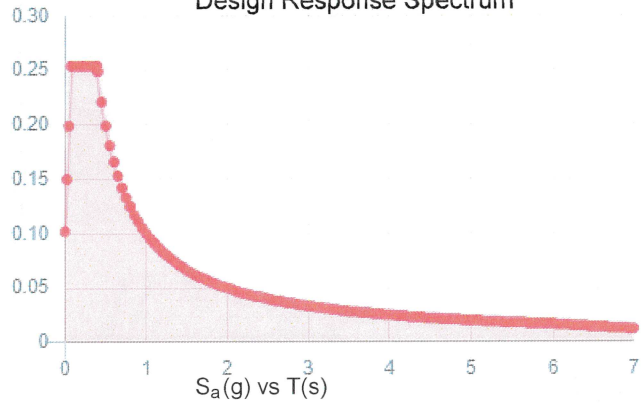
Results:

S_S :	0.238	S_{D1} :	0.1
S_1 :	0.062	T_L :	6
F_a :	1.6	PGA :	0.137
F_v :	2.4	PGA _M :	0.209
S_{MS} :	0.381	F_{PGA} :	1.526
S_{M1} :	0.149	I_e :	1
S_{DS} :	0.254	C_v :	0.776

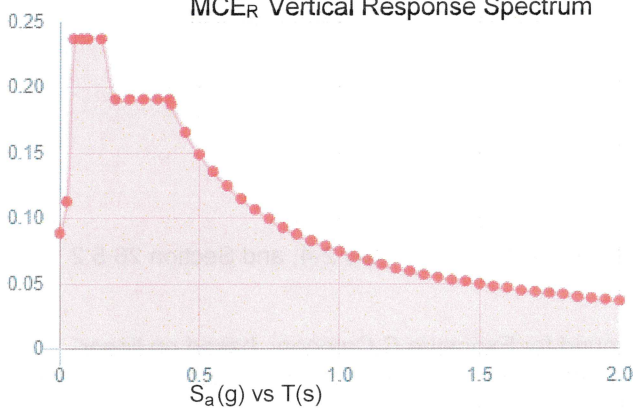
Seismic Design Category: B MCE_R Response Spectrum



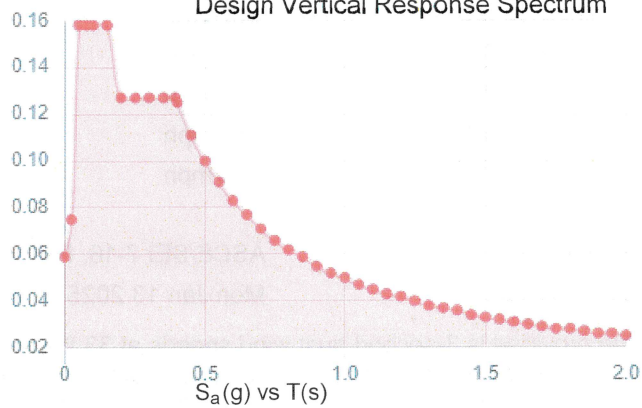
Design Response Spectrum



MCE_R Vertical Response Spectrum



Design Vertical Response Spectrum



Data Accessed: Mon Jan 13 2025

Date Source:

USGS Seismic Design Maps based on ASCE/SEI 7-16 and ASCE/SEI 7-16 Table 1.5-2. Additional data for site-specific ground motion procedures in accordance with ASCE/SEI 7-16 Ch. 21 are available from USGS.



Ice

Results:

Ice Thickness: 1.00 in.

Concurrent Temperature: 15 F

Gust Speed 50 mph

Data Source: Standard ASCE/SEI 7-16, Figs. 10-2 through 10-8

Date Accessed: Mon Jan 13 2025

Ice thicknesses on structures in exposed locations at elevations higher than the surrounding terrain and in valleys and gorges may exceed the mapped values.

Values provided are equivalent radial ice thicknesses due to freezing rain with concurrent 3-second gust speeds, for a 500-year mean recurrence interval, and temperatures concurrent with ice thicknesses due to freezing rain. Thicknesses for ice accretions caused by other sources shall be obtained from local meteorological studies. Ice thicknesses in exposed locations at elevations higher than the surrounding terrain and in valleys and gorges may exceed the mapped values.

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