Date: **February 26, 2025**

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

Subject:	**Structural Analysis Report**	
Carrier Designation:	***Metro PCS* Co-Locate**	
	Site Number:	4BSM233A
	Site Name:	Crown Ashland_MP
Crown Castle Designation:	**BU Number:**	806042
	Site Name:	BOS ASHLAND 959026
	JDE Job Number:	2139449
	Work Order Number:	2361870
	Order Number:	693954 Rev. 1
Engineering Firm Designation:	**Crown Castle Project Number:**	2361870
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 utilizes an ultimate 3-second gust wind speed of 119 mph as required by the 2021 International Building Code as amended by the Massachusetts State Building Code, Tenth Edition. Applicable standard references and design criteria are listed in Section 2 - Analysis Criteria.

Structural analysis prepared by: Tyler Ho

Respectfully submitted by:

Mitchell Prust, P.E.
Senior Project Engineer

COMMONWEALTH OF MASSACHUSETTS
MITCHELL PRUST
CIVIL
No. 57398
REGISTERED PROFESSIONAL ENGINEER

Digitally signed by Mitchell Prust
Date: 2025.02.26 14:44:16 -05'00'

TABLE OF CONTENTS

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)
94	94	3	ericsson	4003_840590966_TMO w/ Mount Pipe	2	1-5/8
		3	ericsson	RADIO 4460 B2/B25 B66_20210820_TMO		
		3	ericsson	Radio 4480_TMOV2		
		3	rfs celwave	APXVLL19P_43-C-A20_TMO w/ Mount Pipe		
		1	tower mounts	Platform Mount [LP 303-1_HR-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)
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]		
84	87	3	cci antennas	DMP65R-BU6e w/ Mount Pipe	7 3 6	7/8 3/8 13/16
		3	ericsson	RRUS 32 B2		
		3	ericsson	RRUS 32 B30		
		3	ericsson	RRUS 32 B66		
		3	ericsson	RRUS 4449 B5/B12		

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 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 8.3.0.5), 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	26.0	Pass
95 - 90	Pole	TP16.138x15.319x0.19	Pole	48.9	Pass
90 - 85.5	Pole	TP16.875x16.138x0.19	Pole	66.9	Pass
85.5 - 85.25	Pole + Reinf.	TP16.916x16.875x0.615	Reinf. 7 Bolt-Shaft Bearing	30.8	Pass
85.25 - 80.25	Pole + Reinf.	TP17.736x16.916x0.59	Reinf. 7 Tension Rupture	39.1	Pass
80.25 - 75.25	Pole + Reinf.	TP18.555x17.736x0.565	Reinf. 7 Tension Rupture	50.4	Pass
75.25 - 70.25	Pole + Reinf.	TP19.374x18.555x0.54	Reinf. 7 Tension Rupture	62.3	Pass
70.25 - 68.5	Pole + Reinf.	TP20.07x19.374x0.54	Reinf. 7 Tension Rupture	66.5	Pass
68.5 - 65	Pole + Reinf.	TP19.863x19.29x0.825	Reinf. 7 Tension Rupture	56.4	Pass
65 - 60	Pole + Reinf.	TP20.681x19.863x0.7875	Reinf. 7 Tension Rupture	64.6	Pass
60 - 55	Pole + Reinf.	TP21.499x20.681x0.75	Reinf. 7 Tension Rupture	72.2	Pass
55 - 54.75	Pole + Reinf.	TP21.54x21.499x0.75	Reinf. 7 Tension Rupture	72.6	Pass
54.75 - 54.5	Pole + Reinf.	TP21.581x21.54x0.95	Reinf. 3 Bolt-Shaft Bearing	58.3	Pass
54.5 - 54.25	Pole + Reinf.	TP21.622x21.581x0.95	Reinf. 3 Tension Rupture	58.5	Pass
54.25 - 54	Pole + Reinf.	TP21.663x21.622x1.8	Reinf. 17 Tension Rupture	35.7	Pass
54 - 49	Pole + Reinf.	TP22.481x21.663x1.7	Reinf. 17 Tension Rupture	39.5	Pass
49 - 44	Pole + Reinf.	TP23.3x22.481x1.6	Reinf. 17 Tension Rupture	43.1	Pass
44 - 39	Pole + Reinf.	TP24.118x23.3x1.525	Reinf. 17 Tension Rupture	46.5	Pass
39 - 38.75	Pole + Reinf.	TP24.159x24.118x0.825	Reinf. 1 Tension Rupture	76.1	Pass
38.75 - 36.25	Pole + Reinf.	TP25.1x24.159x0.825	Reinf. 1 Tension Rupture	78.6	Pass
36.25 - 32.75	Pole + Reinf.	TP24.643x24.07x0.825	Reinf. 1 Tension Rupture	84.0	Pass
32.75 - 32.5	Pole + Reinf.	TP24.683x24.643x0.85	Reinf. 1 Tension Rupture	78.3	Pass
32.5 - 29.75	Pole + Reinf.	TP25.133x24.683x0.825	Reinf. 1 Tension Rupture	80.7	Pass
29.75 - 29.5	Pole + Reinf.	TP25.174x25.133x1.1	Reinf. 1 Tension Rupture	64.9	Pass
29.5 - 26.75	Pole + Reinf.	TP25.624x25.174x1.075	Reinf. 1 Tension Rupture	66.8	Pass
26.75 - 26.5	Pole + Reinf.	TP25.665x25.624x0.9125	Reinf. 5 Tension Rupture	74.1	Pass
26.5 - 23.5	Pole + Reinf.	TP26.156x25.665x0.9	Reinf. 5 Tension Rupture	76.4	Pass
23.5 - 23.25	Pole + Reinf.	TP26.197x26.156x0.9	Reinf. 5 Tension Rupture	76.0	Pass
23.25 - 22.75	Pole + Reinf.	TP26.278x26.197x0.9	Reinf. 5 Tension Rupture	76.3	Pass
22.75 - 22.5	Pole + Reinf.	TP26.319x26.278x1.05	Reinf. 3 Tension Rupture	70.0	Pass
22.5 - 17.5	Pole + Reinf.	TP27.137x26.319x1.025	Reinf. 3 Tension Rupture	73.2	Pass
17.5 - 15.75	Pole + Reinf.	TP27.424x27.137x1	Reinf. 3 Tension Rupture	74.3	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	65.0	Pass
15.5 - 12.25	Pole + Reinf.	TP27.996x27.464x1.075	Reinf. 6 Tension Rupture	66.8	Pass
12.25 - 12	Pole + Reinf.	TP28.037x27.996x0.95	Reinf. 1 Tension Rupture	74.4	Pass
12 - 11.75	Pole + Reinf.	TP28.078x28.037x1.075	Reinf. 3 Tension Rupture	62.9	Pass
11.75 - 11.5	Pole + Reinf.	TP28.119x28.078x0.875	Reinf. 6 Tension Rupture	74.1	Pass
11.5 - 6.5	Pole + Reinf.	TP28.937x28.119x0.85	Reinf. 6 Tension Rupture	77.0	Pass
6.5 - 6	Pole + Reinf.	TP29.018x28.937x0.85	Reinf. 6 Tension Rupture	77.3	Pass
6 - 5.75	Pole + Reinf.	TP29.059x29.018x0.85	Reinf. 6 Tension Rupture	77.4	Pass
5.75 - 4.5	Pole + Reinf.	TP29.264x29.059x0.8375	Reinf. 6 Tension Rupture	78.1	Pass
4.5 - 4.25	Pole + Reinf.	TP29.305x29.264x0.9	Reinf. 8 Tension Yield	79.0	Pass
4.25 - 3	Pole + Reinf.	TP29.509x29.305x0.9	Reinf. 8 Tension Yield	79.7	Pass
3 - 2.75	Pole + Reinf.	TP29.55x29.509x1	Reinf. 8 Tension Yield	75.4	Pass
2.75 - 1.75	Pole + Reinf.	TP29.714x29.55x1	Reinf. 8 Tension Yield	75.9	Pass
1.75 - 1.5	Pole + Reinf.	TP29.755x29.714x0.975	Reinf. 8 Tension Yield	79.1	Pass
1.5 - 1.25	Pole + Reinf.	TP29.796x29.755x0.9625	Reinf. 8 Tension Yield	79.2	Pass
1.25 - 1	Pole + Reinf.	TP29.836x29.796x1.0375	Reinf. 14 Connection	73.4	Pass
1 - 0	Pole + Reinf.	TP30x29.836x1.025	Reinf. 14 Connection	73.9	Pass
				Summary	
			Pole	71.2	Pass
			Reinforcement	84.0	Pass
			Overall	84.0	Pass

Table 5 - Tower Component Stresses vs. Capacity - LC7

Notes	Component	Elevation (ft)	% Capacity	Pass / Fail
1	Anchor Rods	0	77.7	Pass
1	Base Plate	0	60.8	Pass
1	Base Foundation (Structural)	0	71.2	Pass
1	Base Foundation (Soil)	0	73.6	Pass

Structure Rating (max from all components) =	84.0%

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

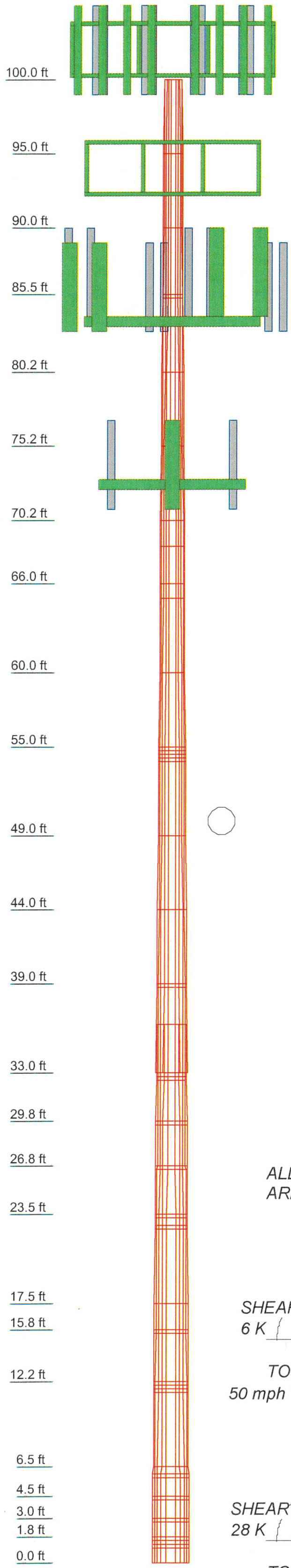
4.1) Recommendations

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

Section	Length (ft)	Number of Sides	Thickness (in)	Socket Length (ft)	Top Dia (in)	Bot Dia (in)	Grade	Weight (K)
1	5.0000	12	0.19		14.50	15.32	A572-50	0.2
2	5.0000	12	0.19		15.32	16.14	A572-50	0.2
3	4.5000	12	0.19		16.14	16.88	A572-50	0.2
4	0.2500	12	0.81		16.88	16.92	A572-50	0.0
5	5.0000	12	0.59		16.92	17.74	A572-50	0.5
6	5.0000	12	0.56		17.74	18.55	A572-50	0.5
7	5.0000	12	0.54		18.55	19.37	A572-50	0.5
8	4.2500	12	0.54	2.5000	19.37	20.07	A572-50	0.4
9	3.5000	12	0.82		19.29	19.86	A572-50	0.7
10	5.0000	12	0.79		19.86	20.68	A572-50	1.0
11	5.0000	12	0.75		20.68	21.50	A572-50	1.0
12–15	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	A572-50	[illegible]
16	5.0000	12	1.70		21.66	22.48	A572-50	1.5
17	5.0000	12	1.60		22.48	23.30	A572-50	1.5
18	5.0000	12	1.52		23.30	24.12	A572-50	1.5
19	0.2500	12	0.82		24.12	24.16	A572-50	0.1
20	[illegible]	12	0.82	3.2500	24.16	25.10	A572-50	1.3
21–22	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]		[illegible]
23	[illegible]	12	[illegible]		[illegible]	[illegible]	A572-65	0.7
24	[illegible]	12	[illegible]		[illegible]	[illegible]	A572-65	[illegible]
25	[illegible]	12	[illegible]		[illegible]	[illegible]	A572-65	0.8
26	[illegible]	12	[illegible]		[illegible]	[illegible]	A572-65	[illegible]
27	[illegible]	12	[illegible]		[illegible]	[illegible]	A572-65	0.6
28–30	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	A572-65	[illegible]
31	5.0000	12	1.02		26.32	27.14	A572-65	1.4
32–33	[illegible]	12	[illegible]		[illegible]	[illegible]	A572-65	[illegible]
34	[illegible]	12	1.07		[illegible]	[illegible]	A572-65	1.0
35–37	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	A572-65	[illegible]
38	5.0000	12	0.85		28.12	28.94	A572-65	1.5
39–49	[illegible]	[illegible]	[illegible]		[illegible]	[illegible]	A572-65	[illegible]
								21.0



MATERIAL STRENGTH

GRADE	Fy	Fu	GRADE	Fy	Fu
A572-50	50 ksi	65 ksi	A572-65	65 ksi	80 ksi

TOWER DESIGN NOTES

1. Tower designed for Exposure C to the TIA-222-H Standard.
2. Tower designed for a 119 mph basic wind in accordance with the TIA-222-H Standard.
3. Tower is also designed for a 50 mph basic wind with 1.00 in ice. Ice is considered to increase in thickness with height.
4. Deflections are based upon a 60 mph wind.
5. Tower Risk Category II.
6. Topographic Category 1 with Crest Height of 0.00 ft
7. TOWER RATING: 84.0%

ALL REACTIONS ARE FACTORED

AXIAL 62 K
SHEAR 6 K
MOMENT 508 kip-ft
TORQUE 0 kip-ft
50 mph WIND - 1.00 in ICE

AXIAL 43 K
SHEAR 28 K
MOMENT 2099 kip-ft
TORQUE 1 kip-ft
REACTIONS - 119 mph WIND

CROWN CASTLE The Pathway to Possible	**Crown Castle** 2000 Corporate Drive Canonsburg, PA 15317 Phone: (724) 416-2000 FAX:	Job: **806042**	
		Project:	
		Client: Crown Castle International	Drawn by: THo · App'd:
		Code: TIA-222-H	Date: 02/26/25 · Scale: NTS
		Path: C:\SAPI Work Area\806042\WO 2361870 - SA\Prod\806042.eri	Dwg No. E-1

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.
TOWER RATING: 90.5%.
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

	Consider Moments - Legs		Assume Legs Pinned		Calculate Redundant Bracing Forces
	Consider Moments - Horizontals	√	Assume Rigid Index Plate		Ignore Redundant Members in FEA
	Consider Moments - Diagonals	√	Use Clear Spans For Wind Area		SR Leg Bolts Resist Compression
	Use Moment Magnification		Use Clear Spans For KL/r		All Leg Panels Have Same Allowable
√	Use Code Stress Ratios		Retension Guys To Initial Tension		Offset Girt At Foundation
√	Use Code Safety Factors - Guys	√	Bypass Mast Stability Checks	√	Consider Feed Line Torque
	Escalate Ice	√	Use Azimuth Dish Coefficients		Include Angle Block Shear Check
	Always Use Max Kz	√	Project Wind Area of Appurtenances		Use TIA-222-H Bracing Resist. Exemption
	Kz In Exposure D Hurricane Region	√	Alternative Appurt. EPA Calculation		Use TIA-222-H Tension Splice Exemption
	Include Bolts In Member Capacity		Autocalc Torque Arm Areas		Poles
	Leg Bolts Are At Top Of Section		Add IBC .6D+W Combination	√	Include Shear-Torsion Interaction
	Secondary Horizontal Braces Leg	√	Sort Capacity Reports By Component		Always Use Sub-Critical Flow
	Use Diamond Inner Bracing (4 Sided)		Triangulate Diamond Inner Bracing		Use Top Mounted Sockets
	SR Members Have Cut Ends		Treat Feed Line Bundles As Cylinder		Pole Without Linear Attachments
	SR Members Are Concentric		Ignore KL/ry For 60 Deg. Angle Legs		Pole With Shroud Or No Appurtenances
	Distribute Leg Loads As Uniform		Use ASCE 10 X-Brace Ly Rules		Outside and Inside Corner Radii Are Known
	Use Special Wind Profile				

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-	5.0000	0.00	12	26.32	27.14	1.02	4.10	A572-65

Section	Elevation ft	Section Length ft	Splice Length ft	Number of Sides	Top Diameter in	Bottom Diameter in	Wall Thickness in	Bend Radius in	Pole Grade
	17.5000								(65 ksi)
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	0.96	3.85	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	It/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

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
L9	20.10	49.05	2134.73	6.61	9.99	213.64	4325.55	24.14	2.96	3.586
	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

Section	Tip Dia. in	Area in²	I in⁴	r in	C in	I/C in³	J in⁴	It/Q in²	w in	w/t
	29.78	77.21	7842.26	10.10	15.05	520.99	15890.55	38.00	5.51	6.482
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	89.23	9441.99	10.31	15.41	612.60	19132.03	43.92	5.39	5.605
	30.51	89.36	9482.28	10.32	15.43	614.37	19213.67	43.98	5.41	5.616
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 ft	Gusset Area (per face) ft²	Gusset Thickness in	Gusset Grade	Adjust. Factor A_f	Adjust. Factor A_r	Weight Mult.	Double Angle Stitch Bolt Spacing Diagonals in	Double Angle Stitch Bolt Spacing Horizontals in	Double Angle Stitch Bolt Spacing Redundants in
L1 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			

Tower Elevation ft	Gusset Area (per face) ft^2	Gusset Thickness in	Gusset Grade	Adjust. Factor A_f	Adjust. Factor A_r	Weight Mult.	Double Angle Stitch Bolt Spacing Diagonals in	Double Angle Stitch Bolt Spacing Horizontals in	Double Angle Stitch Bolt Spacing Redundants in
L20 38.7500-33.0000				1	1	1.0636			
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	1.00575			
L43 4.2500-3.0000				1	1	1.00055			
L44 3.0000-2.7500				1	1	0.970798			
L45 2.7500-1.7500				1	1	0.966691			
L46 1.7500-1.5000				1	1	0.898439			
L47 1.5000-1.2500				1	1	0.90879			
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	2	2	-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
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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
FP 1.25 x 8.5 Reinforcement	B	No	Surface Af (CaAa)	15.0000 - 0.0000	1	1	-0.426 -0.426	1.25	19.50	0.00
FP 1.25 x 8.5 Reinforcement	A	No	Surface Af (CaAa)	15.0000 - 7.2500	1	1	-0.401 -0.401	1.25	19.50	0.00
FP 1.25 x 8.5 Reinforcement	B	No	Surface Af (CaAa)	15.0000 - 7.2500	1	1	0.124 0.124	1.25	19.50	0.00
CCI-065125 Reinforcement	A	No	Surface Af (CaAa)	58.0000 - 23.0000	1	1	0.074 0.074	6.50	15.50	0.00
CCI-065125 Reinforcement	C	No	Surface Af (CaAa)	58.0000 - 23.0000	1	1	0.074 0.074	6.50	15.50	0.00
CCI-065125 Reinforcement	C	No	Surface Af (CaAa)	58.0000 - 23.0000	1	1	-0.426 -0.426	6.50	15.50	0.00
CCI-065125 Reinforcement	B	No	Surface Af (CaAa)	70.0000 - 35.0000	1	1	-0.426 -0.426	6.50	15.50	0.00
CCI-065125 Reinforcement	A	No	Surface Af (CaAa)	70.0000 - 35.0000	1	1	-0.426 -0.426	6.50	15.50	0.00
CCI-065125 Reinforcement	B	No	Surface Af (CaAa)	70.0000 - 35.0000	1	1	0.074 0.074	6.50	15.50	0.00
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Feed Line/Linear Appurtenances - Entered As Area

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

Tower Section	Tower Elevation ft	Face	A_R ft^2	A_F ft^2	C_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight K
L1	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	1.300	0.000	0.03
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	4.128	0.000	0.03
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	0.303	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	8.699	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	9.577	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	9.577	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	8.140	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	1.915	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	9.577	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	16.987	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	1.085	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	1.085	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	1.085	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	1.085	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	21.710	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	21.710	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	21.710	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	1.085	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	24.966	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_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight K
		C	0.000	0.000	1.085	0.000	0.00
L22	32.7500-32.5000	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	1.085	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	13.939	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	1.308	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	14.383	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	1.308	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	15.691	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	1.308	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	2.074	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	0.766	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	17.041	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	7.371	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	1.053	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	13.689	0.000	0.04
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	1.053	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	1.053	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	1.053	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	18.763	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	1.532	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	0.766	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	3.830	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 ft^2	A_F ft^2	C_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight K
		B	0.000	0.000	0.868	0.000	0.00
		C	0.000	0.000	0.766	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	3.830	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	0.766	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	3.064	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	0.766	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	0.766	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	0.766	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	3.064	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 ft^2	A_F ft^2	C_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight K
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	2.567	0.000	0.05
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	6.110	0.000	0.07
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	0.429	0.000	0.00
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	13.433	0.000	0.15
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	15.028	0.000	0.17
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	15.000	0.000	0.17
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	12.727	0.000	0.14
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	2.995	0.000	0.03
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	14.938	0.000	0.16
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 ft²	A_F ft²	C_AA_A In Face ft²	C_AA_A Out Face ft²	Weight K
		B		0.000	0.000	18.751	0.000	0.10
		C		0.000	0.000	23.392	0.000	0.21
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	1.440	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	1.440	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	1.440	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	1.440	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	28.770	0.000	0.23
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	28.711	0.000	0.23
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	28.647	0.000	0.23
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	1.431	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	32.850	0.000	0.26
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	1.428	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	1.426	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	18.047	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	1.687	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	18.540	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	1.684	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	20.181	0.000	0.15
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	1.680	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	2.735	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	1.055	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	23.013	0.000	0.20

Tower Section	Tower Elevation ft	Face or Leg	Ice Thickness in	A_R ft²	A_F ft²	C_AA_A In Face ft²	C_AA_A Out Face ft²	Weight K
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	9.626	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	1.374	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	17.817	0.000	0.14
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	1.367	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	1.367	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	1.366	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	24.600	0.000	0.19
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	2.056	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	1.027	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	5.121	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	1.021	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	5.088	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	1.013	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	4.035	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	1.003	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	1.000	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	0.997	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	3.935	0.000	0.03

Feed Line Center of Pressure

Section	Elevation	CP_X	CP_Z	CP_X Ice	CP_Z Ice
	ft	in	in	in	in
L1	100.0000-95.0000	0.00	0.00	0.00	0.00
L2	95.0000-90.0000	1.06	1.01	1.21	1.15
L3	90.0000-85.5000	0.22	0.80	0.51	1.02
L4	85.5000-85.2500	0.46	0.43	0.68	0.65
L5	85.2500-80.2500	0.17	1.28	0.22	1.67
L6	80.2500-75.2500	0.08	1.56	0.10	1.99
L7	75.2500-70.2500	-0.03	1.51	-0.09	1.90
L8	70.2500-66.0000	-0.44	0.69	-0.48	1.05
L9	66.0000-65.0000	-0.45	0.66	-0.49	1.01
L10	65.0000-60.0000	-0.46	0.67	-0.50	1.03
L11	60.0000-55.0000	-0.23	0.71	-0.28	1.01
L12	55.0000-54.7500	-0.06	0.69	-0.13	0.98
L13	54.7500-54.5000	-0.06	0.69	-0.13	0.98
L14	54.5000-54.2500	-0.06	0.69	-0.13	0.98
L15	54.2500-54.0000	-0.06	0.69	-0.13	0.97
L16	54.0000-49.0000	-0.06	0.70	-0.13	0.99
L17	49.0000-44.0000	-0.07	0.72	-0.14	1.02
L18	44.0000-39.0000	-0.07	0.74	-0.14	1.05
L19	39.0000-38.7500	-0.07	0.76	-0.14	1.07
L20	38.7500-33.0000	0.10	0.54	0.01	0.88
L21	33.0000-32.7500	0.49	0.02	0.35	0.43
L22	32.7500-32.5000	0.49	0.02	0.36	0.43
L23	32.5000-29.7500	0.29	0.88	0.18	1.19
L24	29.7500-29.5000	0.25	1.04	0.15	1.34
L25	29.5000-26.7500	0.25	1.05	0.15	1.36
L26	26.7500-26.5000	0.25	1.06	0.15	1.37
L27	26.5000-23.5000	0.14	0.99	0.07	1.29
L28	23.5000-23.2500	0.07	0.89	0.01	1.20
L29	23.2500-22.7500	-0.08	0.89	-0.13	1.22
L30	22.7500-22.5000	-0.26	0.87	-0.31	1.25
L31	22.5000-17.5000	-0.47	1.02	-0.51	1.35
L32	17.5000-15.7500	-0.75	1.61	-0.77	1.87
L33	15.7500-15.5000	-0.75	1.62	-0.77	1.88
L34	15.5000-12.2500	-0.79	1.50	-0.82	1.72
L35	12.2500-12.0000	-0.81	1.49	-0.83	1.70
L36	12.0000-11.7500	-0.81	1.50	-0.84	1.70
L37	11.7500-11.5000	-0.81	1.50	-0.84	1.70
L38	11.5000-6.5000	-1.35	2.00	-1.34	2.20
L39	6.5000-6.0000	-2.09	1.88	-2.01	2.12
L40	6.0000-5.7500	-2.09	1.88	-2.01	2.13
L41	5.7500-4.5000	-2.94	1.01	-2.77	1.38
L42	4.5000-4.2500	-2.95	1.02	-2.78	1.39
L43	4.2500-3.0000	-2.96	1.02	-2.79	1.39
L44	3.0000-2.7500	-2.97	1.02	-2.80	1.39
L45	2.7500-1.7500	-2.98	1.03	-2.80	1.39
L46	1.7500-1.5000	-2.98	1.03	-2.81	1.39
L47	1.5000-1.2500	-2.99	1.03	-2.81	1.39
L48	1.2500-1.0000	-2.99	1.03	-2.82	1.39
L49	1.0000-0.0000	-3.00	1.03	-2.83	1.39

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 9POWER/18FIBER RL 2(1-5/8)	55.00 - 60.00	1.0000	1.0000
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 9POWER/18FIBER RL 2(1-5/8)	54.75 - 55.00	1.0000	1.0000
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 9POWER/18FIBER RL 2(1-5/8)	54.50 - 54.75	1.0000	1.0000
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 9POWER/18FIBER RL 2(1-5/8)	54.25 - 54.50	1.0000	1.0000
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_a No Ice	K_a Ice
L15	5	MLE HYBRID 9POWER/18FIBER RL 2(1-5/8)	54.00 - 54.25	1.0000	1.0000
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 9POWER/18FIBER RL 2(1-5/8)	49.00 - 54.00	1.0000	1.0000
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 9POWER/18FIBER RL 2(1-5/8)	44.00 - 49.00	1.0000	1.0000
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 9POWER/18FIBER RL 2(1-5/8)	39.00 - 44.00	1.0000	1.0000
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 9POWER/18FIBER RL 2(1-5/8)	38.75 - 39.00	1.0000	1.0000
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 9POWER/18FIBER RL 2(1-5/8)	33.00 - 38.75	1.0000	1.0000
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 9POWER/18FIBER RL 2(1-5/8)	32.75 - 33.00	1.0000	1.0000
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 9POWER/18FIBER RL 2(1-5/8)	32.50 - 32.75	1.0000	1.0000
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 9POWER/18FIBER RL 2(1-5/8)	29.75 - 32.50	1.0000	1.0000
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 9POWER/18FIBER RL 2(1-5/8)	29.50 - 29.75	1.0000	1.0000
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 9POWER/18FIBER RL 2(1-5/8)	26.75 - 29.50	1.0000	1.0000
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 9POWER/18FIBER RL 2(1-5/8)	26.50 - 26.75	1.0000	1.0000
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 9POWER/18FIBER RL 2(1-5/8)	23.50 - 26.50	1.0000	1.0000
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 9POWER/18FIBER RL 2(1-5/8)	23.25 - 23.50	1.0000	1.0000
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 9POWER/18FIBER RL 2(1-5/8)	22.75 - 23.25	1.0000	1.0000
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 9POWER/18FIBER RL 2(1-5/8)	22.50 - 22.75	1.0000	1.0000
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 9POWER/18FIBER RL 2(1-5/8)	17.50 - 22.50	1.0000	1.0000
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 9POWER/18FIBER RL 2(1-5/8)	15.75 - 17.50	1.0000	1.0000
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 9POWER/18FIBER RL 2(1-5/8)	15.50 - 15.75	1.0000	1.0000
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 9POWER/18FIBER RL 2(1-5/8)	12.25 - 15.50	1.0000	1.0000
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 9POWER/18FIBER RL 2(1-5/8)	12.00 - 12.25	1.0000	1.0000
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 9POWER/18FIBER RL 2(1-5/8)	11.75 - 12.00	1.0000	1.0000
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 9POWER/18FIBER RL 2(1-5/8)	11.50 - 11.75	1.0000	1.0000
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 9POWER/18FIBER RL 2(1-5/8)	6.50 - 11.50	1.0000	1.0000
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 9POWER/18FIBER RL 2(1-5/8)	6.00 - 6.50	1.0000	1.0000
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 9POWER/18FIBER RL 2(1-5/8)	5.75 - 6.00	1.0000	1.0000
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 9POWER/18FIBER RL 2(1-5/8)	4.50 - 5.75	1.0000	1.0000
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 9POWER/18FIBER RL 2(1-5/8)	4.25 - 4.50	1.0000	1.0000
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 9POWER/18FIBER RL 2(1-5/8)	3.00 - 4.25	1.0000	1.0000
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 9POWER/18FIBER RL 2(1-5/8)	2.75 - 3.00	1.0000	1.0000
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 9POWER/18FIBER RL 2(1-5/8)	1.75 - 2.75	1.0000	1.0000
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 9POWER/18FIBER RL 2(1-5/8)	1.50 - 1.75	1.0000	1.0000
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 9POWER/18FIBER RL 2(1-5/8)	1.25 - 1.50	1.0000	1.0000
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 9POWER/18FIBER RL 2(1-5/8)	1.00 - 1.25	1.0000	1.0000
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 9POWER/18FIBER RL 2(1-5/8)	0.00 - 1.00	1.0000	1.0000
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	0.1692
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: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft
8-ft Ladder	C	From Leg	2.0000 0.00 1.00	0.0000	99.0000
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 0.00 0.00	0.0000	102.0000
(2) NHH-65B-R2B w/ Mount Pipe	B	From Leg	4.0000 0.00 0.00	0.0000	102.0000
(2) NHH-65B-R2B w/ Mount Pipe	C	From Leg	4.0000 0.00 0.00	0.0000	102.0000
MT6407-77A w/ Mount Pipe	A	From Leg	4.0000 0.00 0.00	0.0000	102.0000
MT6407-77A w/ Mount Pipe	B	From Leg	4.0000 0.00 0.00	0.0000	102.0000

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
**********					
4003_840590966_TMO w/ Mount Pipe	A	From Leg	4.0000 0.00 0.00	0.0000	94.0000
4003_840590966_TMO w/ Mount Pipe	B	From Leg	4.0000 0.00 0.00	0.0000	94.0000
4003_840590966_TMO w/ Mount Pipe	C	From Leg	4.0000 0.00 0.00	0.0000	94.0000
APXVLL19P_43-C-A20_TMO w/ Mount Pipe	A	From Leg	4.0000 0.00 0.00	0.0000	94.0000

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft
APXVLL19P_43-C-A20_TMO w/ Mount Pipe	B	From Leg	4.0000 0.00 0.00	0.0000	94.0000
APXVLL19P_43-C-A20_TMO w/ Mount Pipe	C	From Leg	4.0000 0.00 0.00	0.0000	94.0000
RADIO 4460 B2/B25 B66_20210820_TMO	A	From Leg	4.0000 0.00 0.00	0.0000	94.0000
RADIO 4460 B2/B25 B66_20210820_TMO	B	From Leg	4.0000 0.00 0.00	0.0000	94.0000
RADIO 4460 B2/B25 B66_20210820_TMO	C	From Leg	4.0000 0.00 0.00	0.0000	94.0000
Radio 4480_TMOV2	A	From Leg	4.0000 0.00 0.00	0.0000	94.0000
Radio 4480_TMOV2	B	From Leg	4.0000 0.00 0.00	0.0000	94.0000
Radio 4480_TMOV2	C	From Leg	4.0000 0.00 0.00	0.0000	94.0000
Platform Mount [LP 303-1_HR-3]	C	None		0.0000	94.0000
8' x 2" Mount Pipe	A	From Leg	4.0000 0.00 0.00	0.0000	94.0000
8' x 2" Mount Pipe	B	From Leg	4.0000 0.00 0.00	0.0000	94.0000
8' x 2" Mount Pipe	C	From Leg	4.0000 0.00 0.00	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

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft
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
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	4.0000	0.0000	84.0000

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft
		Face	0.00 3.00		
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 Pipe	B	From Face	4.0000 0.00 1.00	0.0000	73.0000
MX08FRO665-21 w/ Mount Pipe	C	From Face	4.0000 0.00 1.00	0.0000	73.0000
TA08025-B604	A	From Face	4.0000 0.00 1.00	0.0000	73.0000
TA08025-B605	A	From Face	4.0000 0.00 1.00	0.0000	73.0000
TA08025-B604	B	From Face	4.0000 0.00 1.00	0.0000	73.0000
TA08025-B605	B	From Face	4.0000 0.00 1.00	0.0000	73.0000
TA08025-B604	C	From Face	4.0000 0.00 1.00	0.0000	73.0000
TA08025-B605	C	From Face	4.0000 0.00 1.00	0.0000	73.0000
RDIDC-9181-PF-48	A	From Face	4.0000 0.00 1.00	0.0000	73.0000
8' x 2" Mount Pipe	A	From Leg	4.0000 0.00 0.00	0.0000	73.0000
8' x 2" Mount Pipe	B	From Leg	4.0000 0.00 0.00	0.0000	73.0000
8' x 2" Mount Pipe	C	From Leg	4.0000 0.00 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 ft²	Face	A_F ft²	A_R ft²	A_{leg} ft²	Leg %	C_AA_A In Face ft²	C_AA_A Out Face ft²
L1 100.0000-95.0000	97.4771	1.259	40.70	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	40.26	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	1.300	0.000
L3 90.0000-85.5000	87.7333	1.231	39.81	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	4.128	0.000
L4 85.5000-85.2500	85.3749	1.224	39.58	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	0.303	0.000
L5 85.2500-80.2500	82.7303	1.216	39.32	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	8.699	0.000
L6 80.2500-75.2500	77.7312	1.200	38.81	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	9.577	0.000
L7 75.2500-70.2500	72.7320	1.184	38.27	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	9.577	0.000
L8 70.2500-66.0000	68.1125	1.167	37.75	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	8.140	0.000
L9 66.0000-65.0000	65.4993	1.158	37.44	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	1.915	0.000
L10 65.0000-60.0000	62.4832	1.146	37.07	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	9.577	0.000
L11 60.0000-55.0000	57.4838	1.126	36.42	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	16.987	0.000
L12 55.0000-54.7500	54.8750	1.115	36.07	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	1.085	0.000
L13 54.7500-54.5000	54.6250	1.114	36.03	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	1.085	0.000
L14 54.5000-54.2500	54.3750	1.113	36.00	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	1.085	0.000
L15 54.2500-54.0000	54.1250	1.112	35.96	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	1.085	0.000
L16 54.0000-49.0000	51.4846	1.101	35.59	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	21.710	0.000
L17 49.0000-44.0000	46.4851	1.077	34.83	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	21.710	0.000
L18 44.0000-	41.4856	1.052	34.00	10.003	A	0.000	10.003	10.003	100.00	17.280	0.000

Section Elevation ft	z ft	K_Z	q_z psf	A_G ft²	Face	A_F ft²	A_R ft²	A_{leg} ft²	Leg %	C_AA_A In Face ft²	C_AA_A Out Face ft²
39.0000					B	0.000	10.003		100.00	16.575	0.000
					C	0.000	10.003		100.00	21.710	0.000
L19 39.0000-38.7500	38.8750	1.037	33.54	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
					C	0.000	0.515		100.00	1.085	0.000
L20 38.7500-33.0000	35.8567	1.020	32.98	12.078	A	0.000	12.078	12.078	100.00	19.483	0.000
					B	0.000	12.078		100.00	14.728	0.000
					C	0.000	12.078		100.00	24.966	0.000
L21 33.0000-32.7500	32.8750	1.001	32.38	0.525	A	0.000	0.525	0.525	100.00	0.815	0.000
					B	0.000	0.525		100.00	0.287	0.000
					C	0.000	0.525		100.00	1.085	0.000
L22 32.7500-32.5000	32.6250	1.000	32.33	0.526	A	0.000	0.526	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	1.085	0.000
L23 32.5000-29.7500	31.1209	0.990	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	13.939	0.000
L24 29.7500-29.5000	29.6250	0.980	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	1.308	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	14.383	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	1.308	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	15.691	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	1.308	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	2.074	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	0.766	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	17.041	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	7.371	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	1.053	0.000
L34 15.5000-12.2500	13.8698	0.850	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	13.689	0.000
L35 12.2500-12.0000	12.1250	0.850	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	1.053	0.000
L36 12.0000-11.7500	11.8750	0.850	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	1.053	0.000
L37 11.7500-11.5000	11.6250	0.850	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	1.053	0.000
L38 11.5000-6.5000	8.9881	0.850	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

Section Elevation ft	z ft	K_Z	q_z psf	A_G ft²	Face	A_F ft²	A_R ft²	A_{leg} ft²	Leg %	C_AA_A In Face ft²	C_AA_A Out Face ft²
					C	0.000	12.181		100.00	18.763	0.000
L39 6.5000-6.0000	6.2499	0.850	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	1.532	0.000
L40 6.0000-5.7500	5.8750	0.850	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	0.766	0.000
L41 5.7500-4.5000	5.1243	0.850	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	3.830	0.000
L42 4.5000-4.2500	4.3750	0.850	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	0.766	0.000
L43 4.2500-3.0000	3.6243	0.850	27.48	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	3.830	0.000
L44 3.0000-2.7500	2.8750	0.850	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	0.766	0.000
L45 2.7500-1.7500	2.2495	0.850	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	3.064	0.000
L46 1.7500-1.5000	1.6250	0.850	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	0.766	0.000
L47 1.5000-1.2500	1.3750	0.850	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	0.766	0.000
L48 1.2500-1.0000	1.1250	0.850	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	0.766	0.000
L49 1.0000-0.0000	0.4995	0.850	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	3.064	0.000

Tower Pressure - With Ice

$G_H = 1.100$

Section Elevation ft	z ft	K_Z	q_z psf	t_Z in	A_G ft²	Face	A_F ft²	A_R ft²	A_{leg} ft²	Leg %	C_AA_A In Face ft²	C_AA_A Out Face ft²
L1 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	2.567	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	6.110	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	0.429	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	13.433	0.000

Section Elevation ft	z ft	K_z	q_z psf	t_z in	A_G ft²	Face	A_F ft²	A_R ft²	A_{leg} ft²	Leg %	C_AA_A In Face ft²	C_AA_A Out Face ft²
L6 80.2500-75.2500	77.7312	1.200	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	15.028	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	15.000	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	12.727	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	2.995	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
						C	0.000	9.384		100.00	14.938	0.000
L11 60.0000-55.0000	57.4838	1.126	6.43	0.90	9.736	A	0.000	9.736	9.736	100.00	18.088	0.000
						B	0.000	9.736		100.00	18.751	0.000
						C	0.000	9.736		100.00	23.392	0.000
L12 55.0000-54.7500	54.8750	1.115	6.37	0.89	0.496	A	0.000	0.496	0.496	100.00	1.043	0.000
						B	0.000	0.496		100.00	0.963	0.000
						C	0.000	0.496		100.00	1.440	0.000
L13 54.7500-54.5000	54.6250	1.114	6.36	0.89	0.495	A	0.000	0.495	0.495	100.00	1.043	0.000
						B	0.000	0.495		100.00	0.963	0.000
						C	0.000	0.495		100.00	1.440	0.000
L14 54.5000-54.2500	54.3750	1.113	6.35	0.89	0.496	A	0.000	0.496	0.496	100.00	1.043	0.000
						B	0.000	0.496		100.00	0.963	0.000
						C	0.000	0.496		100.00	1.440	0.000
L15 54.2500-54.0000	54.1250	1.112	6.35	0.89	0.491	A	0.000	0.491	0.491	100.00	1.043	0.000
						B	0.000	0.491		100.00	0.963	0.000
						C	0.000	0.491		100.00	1.440	0.000
L16 54.0000-49.0000	51.4846	1.101	6.28	0.89	10.012	A	0.000	10.012	10.012	100.00	20.835	0.000
						B	0.000	10.012		100.00	19.241	0.000
						C	0.000	10.012		100.00	28.770	0.000
L17 49.0000-44.0000	46.4851	1.077	6.15	0.88	10.372	A	0.000	10.372	10.372	100.00	20.799	0.000
						B	0.000	10.372		100.00	19.214	0.000
						C	0.000	10.372		100.00	28.711	0.000
L18 44.0000-39.0000	41.4856	1.052	6.00	0.87	10.728	A	0.000	10.728	10.728	100.00	20.759	0.000
						B	0.000	10.728		100.00	19.184	0.000
						C	0.000	10.728		100.00	28.647	0.000
L19 39.0000-38.7500	38.8750	1.037	5.92	0.86	0.551	A	0.000	0.551	0.551	100.00	1.037	0.000
						B	0.000	0.551		100.00	0.958	0.000
						C	0.000	0.551		100.00	1.431	0.000
L20 38.7500-33.0000	35.8567	1.020	5.82	0.86	12.900	A	0.000	12.900	12.900	100.00	23.425	0.000
						B	0.000	12.900		100.00	16.999	0.000
						C	0.000	12.900		100.00	32.850	0.000
L21 33.0000-32.7500	32.8750	1.001	5.72	0.85	0.561	A	0.000	0.561	0.561	100.00	0.987	0.000
						B	0.000	0.561		100.00	0.330	0.000
						C	0.000	0.561		100.00	1.428	0.000
L22 32.7500-32.5000	32.6250	1.000	5.71	0.85	0.561	A	0.000	0.561	0.561	100.00	0.985	0.000
						B	0.000	0.561		100.00	0.330	0.000
						C	0.000	0.561		100.00	1.426	0.000
L23 32.5000-29.7500	31.1209	0.990	5.65	0.85	6.230	A	0.000	6.230	6.230	100.00	10.827	0.000
						B	0.000	6.230		100.00	6.002	0.000
						C	0.000	6.230		100.00	18.047	0.000
L24 29.7500-29.5000	29.6250	0.980	5.59	0.84	0.569	A	0.000	0.569	0.569	100.00	0.983	0.000
						B	0.000	0.569		100.00	0.593	0.000
						C	0.000	0.569		100.00	1.687	0.000
L25 29.5000-26.7500	28.1209	0.969	5.53	0.84	6.322	A	0.000	6.322	6.322	100.00	10.808	0.000
						B	0.000	6.322		100.00	6.521	0.000
						C	0.000	6.322		100.00	18.540	0.000
L26 26.7500-	26.6250	0.958	5.47	0.83	0.581	A	0.000	0.581	0.581	100.00	0.982	0.000

Section Elevation ft	z ft	K_z	q_z psf	t_z in	A_G ft²	Face	A_F ft²	A_R ft²	A_{leg} ft²	Leg %	C_AA_A In Face ft²	C_AA_A Out Face ft²
26.5000						B	0.000	0.581		100.00	0.592	0.000
						C	0.000	0.581		100.00	1.684	0.000
L27 26.5000-23.5000	24.9953	0.945	5.40	0.83	7.040	A	0.000	7.040	7.040	100.00	14.389	0.000
						B	0.000	7.040		100.00	11.501	0.000
						C	0.000	7.040		100.00	20.181	0.000
L28 23.5000-23.2500	23.3750	0.932	5.32	0.82	0.592	A	0.000	0.592	0.592	100.00	1.271	0.000
						B	0.000	0.592		100.00	1.104	0.000
						C	0.000	0.592		100.00	1.680	0.000
L29 23.2500-22.7500	22.9999	0.929	5.30	0.82	1.187	A	0.000	1.187	1.187	100.00	2.229	0.000
						B	0.000	1.187		100.00	2.208	0.000
						C	0.000	1.187		100.00	2.735	0.000
L30 22.7500-22.5000	22.6250	0.926	5.28	0.82	0.594	A	0.000	0.594	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	1.055	0.000
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	23.013	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	9.626	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	1.374	0.000
L34 15.5000-12.2500	13.8698	0.850	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	17.817	0.000
L35 12.2500-12.0000	12.1250	0.850	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	1.367	0.000
L36 12.0000-11.7500	11.8750	0.850	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	1.367	0.000
L37 11.7500-11.5000	11.6250	0.850	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	1.366	0.000
L38 11.5000-6.5000	8.9881	0.850	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	24.600	0.000
L39 6.5000-6.0000	6.2499	0.850	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	2.056	0.000
L40 6.0000-5.7500	5.8750	0.850	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	1.027	0.000
L41 5.7500-4.5000	5.1243	0.850	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	5.121	0.000
L42 4.5000-4.2500	4.3750	0.850	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	1.021	0.000
L43 4.2500-3.0000	3.6243	0.850	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	5.088	0.000
L44 3.0000-2.7500	2.8750	0.850	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	1.013	0.000
L45 2.7500-1.7500	2.2495	0.850	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	4.035	0.000
L46 1.7500-1.5000	1.6250	0.850	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

Section Elevation ft	z ft	K_z	q_z psf	t_z in	A_G ft²	Face	A_F ft²	A_R ft²	A_{leg} ft²	Leg %	C_AA_A In Face ft²	C_AA_A Out Face ft²
						C	0.000	0.660		100.00	1.003	0.000
L47 1.5000-1.2500	1.3750	0.850	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	1.000	0.000
L48 1.2500-1.0000	1.1250	0.850	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	0.997	0.000
L49 1.0000-0.0000	0.4995	0.850	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	3.935	0.000

Tower Pressure - Service

$G_H = 1.100$

Section Elevation ft	z ft	K_z	q_z psf	A_G ft²	Face	A_F ft²	A_R ft²	A_{leg} ft²	Leg %	C_AA_A In Face ft²	C_AA_A Out Face ft²
L1 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	1.300	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	4.128	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	0.303	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	8.699	0.000
L6 80.2500-75.2500	77.7312	1.200	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	9.577	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	9.577	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	8.140	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	1.915	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	9.577	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	16.987	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	1.085	0.000
L13 54.7500-	54.6250	1.114	8.63	0.458	A	0.000	0.458	0.458	100.00	0.864	0.000

Section Elevation ft	z ft	K_Z	q_z psf	A_G ft²	Face	A_F ft²	A_R ft²	A_{leg} ft²	Leg %	C_AA_A In Face ft²	C_AA_A Out Face ft²
54.5000					B	0.000	0.458		100.00	0.829	0.000
					C	0.000	0.458		100.00	1.085	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	1.085	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	1.085	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	21.710	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	21.710	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	21.710	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
					C	0.000	0.515		100.00	1.085	0.000
L20 38.7500-33.0000	35.8567	1.020	7.90	12.078	A	0.000	12.078	12.078	100.00	19.483	0.000
					B	0.000	12.078		100.00	14.728	0.000
					C	0.000	12.078		100.00	24.966	0.000
L21 33.0000-32.7500	32.8750	1.001	7.75	0.525	A	0.000	0.525	0.525	100.00	0.815	0.000
					B	0.000	0.525		100.00	0.287	0.000
					C	0.000	0.525		100.00	1.085	0.000
L22 32.7500-32.5000	32.6250	1.000	7.74	0.526	A	0.000	0.526	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	1.085	0.000
L23 32.5000-29.7500	31.1209	0.990	7.66	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	13.939	0.000
L24 29.7500-29.5000	29.6250	0.980	7.58	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	1.308	0.000
L25 29.5000-26.7500	28.1209	0.969	7.50	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	14.383	0.000
L26 26.7500-26.5000	26.6250	0.958	7.42	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	1.308	0.000
L27 26.5000-23.5000	24.9953	0.945	7.32	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	15.691	0.000
L28 23.5000-23.2500	23.3750	0.932	7.22	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	1.308	0.000
L29 23.2500-22.7500	22.9999	0.929	7.19	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	2.074	0.000
L30 22.7500-22.5000	22.6250	0.926	7.17	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	0.766	0.000
L31 22.5000-17.5000	19.9872	0.902	6.98	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	17.041	0.000
L32 17.5000-15.7500	16.6235	0.867	6.72	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	7.371	0.000
L33 15.7500-15.5000	15.6250	0.856	6.63	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

Section Elevation ft	z ft	K_z	q_z psf	A_G ft²	Face	A_F ft²	A_R ft²	A_{leg} ft²	Leg %	C_AA_A In Face ft²	C_AA_A Out Face ft²
					C	0.000	0.584		100.00	1.053	0.000
L34 15.5000-12.2500	13.8698	0.850	6.58	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	13.689	0.000
L35 12.2500-12.0000	12.1250	0.850	6.58	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	1.053	0.000
L36 12.0000-11.7500	11.8750	0.850	6.58	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	1.053	0.000
L37 11.7500-11.5000	11.6250	0.850	6.58	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	1.053	0.000
L38 11.5000-6.5000	8.9881	0.850	6.58	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	18.763	0.000
L39 6.5000-6.0000	6.2499	0.850	6.58	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	1.532	0.000
L40 6.0000-5.7500	5.8750	0.850	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	0.766	0.000
L41 5.7500-4.5000	5.1243	0.850	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	3.830	0.000
L42 4.5000-4.2500	4.3750	0.850	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	0.766	0.000
L43 4.2500-3.0000	3.6243	0.850	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	3.830	0.000
L44 3.0000-2.7500	2.8750	0.850	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	0.766	0.000
L45 2.7500-1.7500	2.2495	0.850	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	3.064	0.000
L46 1.7500-1.5000	1.6250	0.850	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	0.766	0.000
L47 1.5000-1.2500	1.3750	0.850	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	0.766	0.000
L48 1.2500-1.0000	1.1250	0.850	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	0.766	0.000
L49 1.0000-0.0000	0.4995	0.850	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	3.064	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

Comb. No.	Description
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
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	26	0.00	-0.00	-0.00
			Max. Compression	26	-8.58	0.21	0.35
			Max. Mx	20	-4.04	41.63	0.10
			Max. My	2	-4.04	0.04	42.03
			Max. Vy	20	-6.36	41.63	0.10
			Max. Vx	14	6.42	0.04	-41.82
			Max. Torque	14			-0.73
L2	95 - 90	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-15.22	0.21	0.33
			Max. Mx	20	-7.77	87.28	0.10

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Max. My	2	-7.77	0.05	87.94
			Max. Vy	20	-9.93	87.28	0.10
			Max. Vx	14	9.98	0.05	-87.76
			Max. Torque	14			-0.73
L3	90 - 85.5	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-15.62	0.21	0.31
			Max. Mx	20	-8.02	132.62	0.09
			Max. My	2	-8.03	0.06	133.49
			Max. Vy	20	-10.24	132.62	0.09
			Max. Vx	14	10.29	0.05	-133.36
			Max. Torque	14			-0.73
L4	85.5 - 85.25	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-15.66	0.21	0.31
			Max. Mx	20	-8.06	135.18	0.09
			Max. My	2	-8.07	0.06	136.06
			Max. Vy	20	-10.25	135.18	0.09
			Max. Vx	14	10.31	0.05	-135.94
			Max. Torque	14			-0.73
L5	85.25 - 80.25	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-24.32	0.15	0.28
			Max. Mx	20	-12.85	218.15	0.10
			Max. My	2	-12.85	0.03	219.24
			Max. Vy	20	-16.02	218.15	0.10
			Max. Vx	14	16.07	0.02	-219.20
			Max. Torque	14			-0.73
L6	80.25 - 75.25	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-25.24	0.15	0.21
			Max. Mx	20	-13.53	299.24	0.09
			Max. My	14	-13.53	0.02	-300.56
			Max. Vy	20	-16.43	299.24	0.09
			Max. Vx	14	16.48	0.02	-300.56
			Max. Torque	14			-0.68
L7	75.25 - 70.25	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-30.79	0.41	0.28
			Max. Mx	20	-17.19	391.28	0.17
			Max. My	14	-17.19	0.07	-392.62
			Max. Vy	20	-19.68	391.28	0.17
			Max. Vx	14	19.70	0.07	-392.62
			Max. Torque	4			0.85
L8	70.25 - 66	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-31.16	0.41	0.27
			Max. Mx	20	-17.45	425.81	0.19
			Max. My	14	-17.45	0.06	-427.21
			Max. Vy	20	-19.82	425.81	0.19
			Max. Vx	14	19.85	0.06	-427.21
			Max. Torque	4			0.85
L9	66 - 65	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-32.66	0.42	0.25
			Max. Mx	20	-18.65	495.79	0.22
			Max. My	14	-18.65	0.02	-497.29
			Max. Vy	20	-20.18	495.79	0.22
			Max. Vx	14	20.21	0.02	-497.29
			Max. Torque	4			0.85
L10	65 - 60	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-34.30	0.44	0.22
			Max. Mx	20	-19.98	597.76	0.27
			Max. My	14	-19.98	-0.03	-599.41
			Max. Vy	20	-20.63	597.76	0.27
			Max. Vx	14	20.66	-0.03	-599.41
			Max. Torque	4			0.85
L11	60 - 55	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-36.03	0.45	0.17

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Max. Mx	20	-21.33	702.24	0.32
			Max. My	14	-21.34	-0.08	-703.75
			Max. Vy	20	-21.19	702.24	0.32
			Max. Vx	14	21.10	-0.08	-703.75
			Max. Torque	4			0.85
L12	55 - 54.75	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-36.12	0.46	0.17
			Max. Mx	20	-21.41	707.53	0.32
			Max. My	14	-21.42	-0.08	-709.03
			Max. Vy	20	-21.21	707.53	0.32
			Max. Vx	14	21.11	-0.08	-709.03
			Max. Torque	4			0.85
L13	54.75 - 54.5	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-36.22	0.46	0.16
			Max. Mx	20	-21.48	712.84	0.32
			Max. My	14	-21.50	-0.09	-714.31
			Max. Vy	20	-21.24	712.84	0.32
			Max. Vx	14	21.14	-0.09	-714.31
			Max. Torque	4			0.85
L14	54.5 - 54.25	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-36.32	0.46	0.16
			Max. Mx	20	-21.56	718.15	0.33
			Max. My	14	-21.57	-0.09	-719.60
			Max. Vy	20	-21.27	718.15	0.33
			Max. Vx	14	21.16	-0.09	-719.60
			Max. Torque	4			0.85
L15	54.25 - 54	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-36.44	0.46	0.15
			Max. Mx	20	-21.66	723.47	0.33
			Max. My	14	-21.67	-0.09	-724.89
			Max. Vy	20	-21.30	723.47	0.33
			Max. Vx	14	21.19	-0.09	-724.89
			Max. Torque	4			0.85
L16	54 - 49	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-38.84	0.48	0.08
			Max. Mx	20	-23.57	831.68	0.38
			Max. My	14	-23.59	-0.14	-832.26
			Max. Vy	20	-21.99	831.68	0.38
			Max. Vx	14	21.76	-0.14	-832.26
			Max. Torque	4			0.85
L17	49 - 44	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-41.26	0.50	0.00
			Max. Mx	20	-25.52	943.28	0.42
			Max. My	14	-25.54	-0.20	-942.41
			Max. Vy	20	-22.66	943.28	0.42
			Max. Vx	14	22.31	-0.20	-942.41
			Max. Torque	14			-0.84
L18	44 - 39	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-43.69	0.52	-0.07
			Max. Mx	20	-27.49	1058.16	0.47
			Max. My	14	-27.51	-0.25	-1055.25
			Max. Vy	20	-23.31	1058.16	0.47
			Max. Vx	14	22.84	-0.25	-1055.25
			Max. Torque	14			-0.84
L19	39 - 38.75	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-43.78	0.52	-0.08
			Max. Mx	20	-27.57	1063.99	0.47
			Max. My	14	-27.60	-0.25	-1060.96
			Max. Vy	20	-23.33	1063.99	0.47
			Max. Vx	14	22.85	-0.25	-1060.96
			Max. Torque	14			-0.84
L20	38.75 - 33	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
			Max. Compression	26	-44.75	0.53	-0.12
			Max. Mx	20	-28.34	1122.55	0.49
			Max. My	14	-28.36	-0.28	-1118.34
			Max. Vy	20	-23.54	1122.55	0.49
			Max. Vx	14	23.07	-0.28	-1118.34
			Max. Torque	14			-0.84
L21	33 - 32.75	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-47.09	0.55	-0.18
			Max. Mx	20	-30.31	1205.54	0.52
			Max. My	14	-30.33	-0.31	-1199.70
			Max. Vy	20	-23.89	1205.54	0.52
			Max. Vx	14	23.43	-0.31	-1199.70
			Max. Torque	14			-0.84
L22	32.75 - 32.5	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-47.19	0.56	-0.18
			Max. Mx	20	-30.39	1211.52	0.53
			Max. My	14	-30.41	-0.32	-1205.56
			Max. Vy	20	-23.91	1211.52	0.53
			Max. Vx	14	23.45	-0.32	-1205.56
			Max. Torque	14			-0.84
L23	32.5 - 29.75	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-48.32	0.57	-0.25
			Max. Mx	20	-31.31	1277.54	0.55
			Max. My	14	-31.33	-0.34	-1270.31
			Max. Vy	20	-24.14	1277.54	0.55
			Max. Vx	14	23.67	-0.34	-1270.31
			Max. Torque	14			-0.84
L24	29.75 - 29.5	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-48.44	0.57	-0.26
			Max. Mx	20	-31.43	1283.57	0.55
			Max. My	14	-31.45	-0.35	-1276.22
			Max. Vy	20	-24.13	1283.57	0.55
			Max. Vx	14	23.67	-0.35	-1276.22
			Max. Torque	14			-0.84
L25	29.5 - 26.75	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-49.70	0.59	-0.33
			Max. Mx	20	-32.47	1350.24	0.58
			Max. My	14	-32.49	-0.38	-1341.62
			Max. Vy	20	-24.38	1350.24	0.58
			Max. Vx	14	23.91	-0.38	-1341.62
			Max. Torque	14			-0.84
L26	26.75 - 26.5	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-49.80	0.59	-0.33
			Max. Mx	20	-32.55	1356.34	0.58
			Max. My	14	-32.57	-0.38	-1347.60
			Max. Vy	20	-24.38	1356.34	0.58
			Max. Vx	14	23.91	-0.38	-1347.60
			Max. Torque	14			-0.84
L27	26.5 - 23.5	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-50.95	0.60	-0.39
			Max. Mx	20	-33.44	1429.90	0.60
			Max. My	14	-33.46	-0.41	-1419.67
			Max. Vy	20	-24.68	1429.90	0.60
			Max. Vx	14	24.15	-0.41	-1419.67
			Max. Torque	14			-0.84
L28	23.5 - 23.25	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-51.06	0.60	-0.39
			Max. Mx	20	-33.54	1436.07	0.61
			Max. My	14	-33.56	-0.41	-1425.70
			Max. Vy	20	-24.69	1436.07	0.61
			Max. Vx	14	24.15	-0.41	-1425.70
			Max. Torque	14			-0.84

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
L29	23.25 - 22.75	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-51.27	0.60	-0.40
			Max. Mx	20	-33.71	1448.43	0.61
			Max. My	14	-33.73	-0.42	-1437.78
			Max. Vy	20	-24.75	1448.43	0.61
			Max. Vx	14	24.19	-0.42	-1437.78
			Max. Torque	14			-0.84
L30	22.75 - 22.5	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-51.39	0.60	-0.40
			Max. Mx	20	-33.81	1454.61	0.61
			Max. My	14	-33.83	-0.42	-1443.83
			Max. Vy	20	-24.76	1454.61	0.61
			Max. Vx	14	24.20	-0.42	-1443.83
			Max. Torque	14			-0.84
L31	22.5 - 17.5	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-53.66	0.62	-0.45
			Max. Mx	20	-35.70	1579.58	0.65
			Max. My	14	-35.72	-0.47	-1565.76
			Max. Vy	20	-25.25	1579.58	0.65
			Max. Vx	14	24.58	-0.47	-1565.76
			Max. Torque	14			-0.84
L32	17.5 - 15.75	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-54.47	0.63	-0.48
			Max. Mx	20	-36.36	1623.89	0.67
			Max. My	14	-36.38	-0.49	-1608.86
			Max. Vy	20	-25.43	1623.89	0.67
			Max. Vx	14	24.72	-0.49	-1608.86
			Max. Torque	14			-0.84
L33	15.75 - 15.5	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-54.59	0.63	-0.48
			Max. Mx	20	-36.49	1630.24	0.67
			Max. My	14	-36.51	-0.49	-1615.04
			Max. Vy	20	-25.43	1630.24	0.67
			Max. Vx	14	24.71	-0.49	-1615.04
			Max. Torque	14			-0.84
L34	15.5 - 12.25	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-56.26	0.64	-0.49
			Max. Mx	20	-37.84	1713.51	0.70
			Max. My	14	-37.85	-0.53	-1696.03
			Max. Vy	20	-25.84	1713.51	0.70
			Max. Vx	14	25.15	-0.53	-1696.03
			Max. Torque	14			-0.86
L35	12.25 - 12	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-56.38	0.64	-0.49
			Max. Mx	20	-37.95	1719.96	0.70
			Max. My	14	-37.96	-0.53	-1702.31
			Max. Vy	20	-25.85	1719.96	0.70
			Max. Vx	14	25.17	-0.53	-1702.31
			Max. Torque	14			-0.86
L36	12 - 11.75	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-56.51	0.64	-0.49
			Max. Mx	20	-38.06	1726.43	0.70
			Max. My	14	-38.07	-0.53	-1708.61
			Max. Vy	20	-25.88	1726.43	0.70
			Max. Vx	14	25.21	-0.53	-1708.61
			Max. Torque	14			-0.86
L37	11.75 - 11.5	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-56.63	0.64	-0.49
			Max. Mx	20	-38.16	1732.90	0.70
			Max. My	14	-38.17	-0.54	-1714.92
			Max. Vy	20	-25.91	1732.90	0.70
			Max. Vx	14	25.24	-0.54	-1714.92

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Max. Torque	14			-0.86
L38	11.5 - 6.5	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-59.03	0.64	-0.51
			Max. Mx	20	-40.14	1863.80	0.74
			Max. My	14	-40.15	-0.59	-1842.69
			Max. Vy	20	-26.47	1863.80	0.74
			Max. Vx	14	25.89	-0.59	-1842.69
			Max. Torque	14			-0.92
L39	6.5 - 6	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-59.27	0.64	-0.51
			Max. Mx	20	-40.36	1877.04	0.75
			Max. My	14	-40.36	-0.59	-1855.64
			Max. Vy	20	-26.51	1877.04	0.75
			Max. Vx	14	25.94	-0.59	-1855.64
			Max. Torque	14			-0.93
L40	6 - 5.75	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-59.38	0.64	-0.51
			Max. Mx	20	-40.46	1883.66	0.75
			Max. My	14	-40.47	-0.60	-1862.12
			Max. Vy	20	-26.53	1883.66	0.75
			Max. Vx	14	25.96	-0.60	-1862.12
			Max. Torque	14			-0.93
L41	5.75 - 4.5	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-59.96	0.63	-0.51
			Max. Mx	20	-40.95	1916.89	0.76
			Max. My	14	-40.96	-0.61	-1894.67
			Max. Vy	20	-26.67	1916.89	0.76
			Max. Vx	14	26.14	-0.61	-1894.67
			Max. Torque	14			-0.96
L42	4.5 - 4.25	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-60.08	0.63	-0.51
			Max. Mx	20	-41.07	1923.56	0.76
			Max. My	14	-41.07	-0.61	-1901.21
			Max. Vy	20	-26.68	1923.56	0.76
			Max. Vx	14	26.15	-0.61	-1901.21
			Max. Torque	14			-0.97
L43	4.25 - 3	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-60.63	0.63	-0.52
			Max. Mx	20	-41.53	1956.98	0.77
			Max. My	14	-41.53	-0.63	-1933.99
			Max. Vy	20	-26.82	1956.98	0.77
			Max. Vx	14	26.33	-0.63	-1933.99
			Max. Torque	14			-1.00
L44	3 - 2.75	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-60.74	0.63	-0.52
			Max. Mx	20	-41.65	1963.68	0.77
			Max. My	14	-41.65	-0.63	-1940.57
			Max. Vy	20	-26.83	1963.68	0.77
			Max. Vx	14	26.34	-0.63	-1940.57
			Max. Torque	14			-1.01
L45	2.75 - 1.75	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-61.21	0.63	-0.52
			Max. Mx	20	-42.05	1990.56	0.78
			Max. My	14	-42.05	-0.64	-1966.97
			Max. Vy	20	-26.95	1990.56	0.78
			Max. Vx	14	26.48	-0.64	-1966.97
			Max. Torque	14			-1.03
L46	1.75 - 1.5	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-61.31	0.63	-0.52
			Max. Mx	20	-42.15	1997.29	0.78
			Max. My	14	-42.15	-0.64	-1973.59
			Max. Vy	20	-26.96	1997.29	0.78

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Max. Vx	14	26.50	-0.64	-1973.59
			Max. Torque	14			-1.04
L47	1.5 - 1.25	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-61.42	0.63	-0.52
			Max. Mx	20	-42.25	2004.03	0.78
			Max. My	14	-42.25	-0.64	-1980.22
			Max. Vy	20	-26.98	2004.03	0.78
			Max. Vx	14	26.53	-0.64	-1980.22
			Max. Torque	14			-1.05
L48	1.25 - 1	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-61.52	0.63	-0.52
			Max. Mx	20	-42.34	2010.78	0.78
			Max. My	14	-42.34	-0.65	-1986.86
			Max. Vy	20	-27.01	2010.78	0.78
			Max. Vx	14	26.56	-0.65	-1986.86
			Max. Torque	14			-1.05
L49	1 - 0	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-61.94	0.63	-0.52
			Max. Mx	20	-42.70	2037.84	0.79
			Max. My	14	-42.70	-0.66	-2013.49
			Max. Vy	20	-27.13	2037.84	0.79
			Max. Vx	14	26.71	-0.66	-2013.49
			Max. Torque	14			-1.08

Maximum Reactions

Location	Condition	Gov. Load Comb.	Vertical K	Horizontal, X K	Horizontal, Z K
Pole	Max. Vert	29	61.94	-5.60	3.24
	Max. H_x	20	42.72	27.11	0.01
	Max. H_z	2	42.72	0.01	26.51
	Max. M_x	2	1998.19	0.01	26.51
	Max. M_z	8	2022.09	-26.90	-0.01
	Max. Torsion	2	1.08	0.01	26.51
	Min. Vert	11	32.04	-23.22	-13.44
	Min. H_x	8	42.72	-26.90	-0.01
	Min. H_z	14	42.72	-0.01	-26.69
	Min. M_x	14	-2013.49	-0.01	-26.69
	Min. M_z	20	-2037.84	27.11	0.01
	Min. Torsion	14	-1.08	-0.01	-26.69

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	35.60	0.00	0.00	0.13	0.24	0.00
1.2 Dead+1.0 Wind 0 deg - No Ice	42.72	-0.01	-26.51	-1998.19	1.25	-1.08
0.9 Dead+1.0 Wind 0 deg - No Ice	32.04	-0.01	-26.51	-1974.24	1.16	-1.08
1.2 Dead+1.0 Wind 30 deg - No Ice	42.72	13.84	-24.02	-1799.30	-1035.52	-0.85
0.9 Dead+1.0 Wind 30 deg - No	32.04	13.84	-24.02	-1778.01	-1023.32	-0.84

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
Ice						
1.2 Dead+1.0 Wind 60 deg - No Ice	42.72	24.21	-13.99	-1051.12	-1817.09	-0.44
0.9 Dead+1.0 Wind 60 deg - No Ice	32.04	24.21	-13.99	-1038.70	-1795.64	-0.44
1.2 Dead+1.0 Wind 90 deg - No Ice	42.72	26.90	0.01	1.11	-2022.09	-0.03
0.9 Dead+1.0 Wind 90 deg - No Ice	32.04	26.90	0.01	1.06	-1998.03	-0.03
1.2 Dead+1.0 Wind 120 deg - No Ice	42.72	23.22	13.44	1006.36	-1737.11	0.54
0.9 Dead+1.0 Wind 120 deg - No Ice	32.04	23.22	13.44	994.28	-1716.41	0.54
1.2 Dead+1.0 Wind 150 deg - No Ice	42.72	13.77	23.87	1783.26	-1027.17	0.97
0.9 Dead+1.0 Wind 150 deg - No Ice	32.04	13.77	23.87	1761.98	-1015.02	0.97
1.2 Dead+1.0 Wind 180 deg - No Ice	42.72	0.01	26.69	2013.49	-0.66	1.08
0.9 Dead+1.0 Wind 180 deg - No Ice	32.04	0.01	26.69	1989.31	-0.72	1.08
1.2 Dead+1.0 Wind 210 deg - No Ice	42.72	-13.66	23.71	1784.83	1027.57	0.84
0.9 Dead+1.0 Wind 210 deg - No Ice	32.04	-13.66	23.71	1763.60	1015.30	0.84
1.2 Dead+1.0 Wind 240 deg - No Ice	42.72	-23.95	13.84	1044.46	1805.60	0.43
0.9 Dead+1.0 Wind 240 deg - No Ice	32.04	-23.95	13.84	1032.03	1784.11	0.43
1.2 Dead+1.0 Wind 270 deg - No Ice	42.72	-27.11	-0.01	-0.79	2037.84	0.03
0.9 Dead+1.0 Wind 270 deg - No Ice	32.04	-27.11	-0.01	-0.82	2013.48	0.03
1.2 Dead+1.0 Wind 300 deg - No Ice	42.72	-23.44	-13.56	-1011.58	1747.30	-0.53
0.9 Dead+1.0 Wind 300 deg - No Ice	32.04	-23.44	-13.56	-999.53	1726.36	-0.53
1.2 Dead+1.0 Wind 330 deg - No Ice	42.72	-13.66	-23.68	-1767.32	1018.74	-0.96
0.9 Dead+1.0 Wind 330 deg - No Ice	32.04	-13.66	-23.68	-1746.27	1006.52	-0.96
1.2 Dead+1.0 Ice+1.0 Temp	61.94	0.00	0.00	0.52	0.63	0.00
1.2 Dead+1.0 Wind 0 deg+1.0 Ice+1.0 Temp	61.94	-0.00	-5.99	-477.60	0.89	-0.27
1.2 Dead+1.0 Wind 30 deg+1.0 Ice+1.0 Temp	61.94	3.18	-5.52	-432.99	-248.99	-0.20
1.2 Dead+1.0 Wind 60 deg+1.0 Ice+1.0 Temp	61.94	5.60	-3.24	-254.06	-439.61	-0.07
1.2 Dead+1.0 Wind 90 deg+1.0 Ice+1.0 Temp	61.94	6.14	0.00	0.72	-485.44	0.03
1.2 Dead+1.0 Wind 120 deg+1.0 Ice+1.0 Temp	61.94	5.29	3.06	241.64	-415.86	0.17
1.2 Dead+1.0 Wind 150 deg+1.0 Ice+1.0 Temp	61.94	3.14	5.44	429.41	-246.52	0.27
1.2 Dead+1.0 Wind 180 deg+1.0 Ice+1.0 Temp	61.94	0.00	6.02	481.63	0.52	0.27
1.2 Dead+1.0 Wind 210 deg+1.0 Ice+1.0 Temp	61.94	-3.15	5.47	431.59	248.97	0.20
1.2 Dead+1.0 Wind 240 deg+1.0 Ice+1.0 Temp	61.94	-5.55	3.21	253.93	438.92	0.07
1.2 Dead+1.0 Wind 270 deg+1.0 Ice+1.0 Temp	61.94	-6.18	-0.00	0.35	489.84	-0.03

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
1.2 Dead+1.0 Wind 300 deg+1.0 Ice+1.0 Temp	61.94	-5.34	-3.09	-241.66	419.15	-0.17
1.2 Dead+1.0 Wind 330 deg+1.0 Ice+1.0 Temp	61.94	-3.12	-5.40	-425.24	246.14	-0.27
Dead+Wind 0 deg - Service	35.60	-0.00	-6.35	-475.38	0.48	-0.26
Dead+Wind 30 deg - Service	35.60	3.32	-5.76	-428.10	-246.25	-0.20
Dead+Wind 60 deg - Service	35.60	5.80	-3.35	-250.05	-432.26	-0.11
Dead+Wind 90 deg - Service	35.60	6.45	0.00	0.36	-481.00	-0.01
Dead+Wind 120 deg - Service	35.60	5.56	3.22	239.57	-413.18	0.13
Dead+Wind 150 deg - Service	35.60	3.30	5.72	424.46	-244.26	0.23
Dead+Wind 180 deg - Service	35.60	0.00	6.39	479.22	0.02	0.26
Dead+Wind 210 deg - Service	35.60	-3.27	5.68	424.84	244.72	0.20
Dead+Wind 240 deg - Service	35.60	-5.74	3.32	248.65	429.88	0.10
Dead+Wind 270 deg - Service	35.60	-6.49	-0.00	-0.09	485.12	0.01
Dead+Wind 300 deg - Service	35.60	-5.62	-3.25	-240.62	415.97	-0.13
Dead+Wind 330 deg - Service	35.60	-3.27	-5.67	-420.47	242.61	-0.23

Solution Summary

	Sum of Applied Forces			Sum of Reactions			
Load Comb.	PX	PY	PZ	PX	PY	PZ	% Error
	K	K	K	K	K	K	
1	0.00	-35.60	0.00	0.00	35.60	0.00	0.000%
2	-0.01	-42.72	-26.51	0.01	42.72	26.51	0.000%
3	-0.01	-32.04	-26.51	0.01	32.04	26.51	0.000%
4	13.84	-42.72	-24.02	-13.84	42.72	24.02	0.000%
5	13.84	-32.04	-24.02	-13.84	32.04	24.02	0.000%
6	24.21	-42.72	-13.99	-24.21	42.72	13.99	0.000%
7	24.21	-32.04	-13.99	-24.21	32.04	13.99	0.000%
8	26.90	-42.72	0.01	-26.90	42.72	-0.01	0.000%
9	26.90	-32.04	0.01	-26.90	32.04	-0.01	0.000%
10	23.22	-42.72	13.44	-23.22	42.72	-13.44	0.000%
11	23.22	-32.04	13.44	-23.22	32.04	-13.44	0.000%
12	13.77	-42.72	23.87	-13.77	42.72	-23.87	0.000%
13	13.77	-32.04	23.87	-13.77	32.04	-23.87	0.000%
14	0.01	-42.72	26.69	-0.01	42.72	-26.69	0.000%
15	0.01	-32.04	26.69	-0.01	32.04	-26.69	0.000%
16	-13.66	-42.72	23.71	13.66	42.72	-23.71	0.000%
17	-13.66	-32.04	23.71	13.66	32.04	-23.71	0.000%
18	-23.95	-42.72	13.84	23.95	42.72	-13.84	0.000%
19	-23.95	-32.04	13.84	23.95	32.04	-13.84	0.000%
20	-27.11	-42.72	-0.01	27.11	42.72	0.01	0.000%
21	-27.11	-32.04	-0.01	27.11	32.04	0.01	0.000%
22	-23.44	-42.72	-13.56	23.44	42.72	13.56	0.000%
23	-23.44	-32.04	-13.56	23.44	32.04	13.56	0.000%
24	-13.66	-42.72	-23.68	13.66	42.72	23.68	0.000%
25	-13.66	-32.04	-23.68	13.66	32.04	23.68	0.000%
26	0.00	-61.94	0.00	0.00	61.94	0.00	0.000%
27	-0.00	-61.94	-5.99	0.00	61.94	5.99	0.000%
28	3.18	-61.94	-5.52	-3.18	61.94	5.52	0.000%
29	5.60	-61.94	-3.24	-5.60	61.94	3.24	0.000%
30	6.14	-61.94	0.00	-6.14	61.94	-0.00	0.000%
31	5.29	-61.94	3.06	-5.29	61.94	-3.06	0.000%
32	3.14	-61.94	5.44	-3.14	61.94	-5.44	0.000%
33	0.00	-61.94	6.02	-0.00	61.94	-6.02	0.000%
34	-3.15	-61.94	5.47	3.15	61.94	-5.47	0.000%
35	-5.55	-61.94	3.21	5.55	61.94	-3.21	0.000%
36	-6.18	-61.94	-0.00	6.18	61.94	0.00	0.000%
37	-5.34	-61.94	-3.09	5.34	61.94	3.09	0.000%
38	-3.12	-61.94	-5.40	3.12	61.94	5.40	0.000%

	Sum of Applied Forces			Sum of Reactions			
Load Comb.	PX K	PY K	PZ K	PX K	PY K	PZ K	% Error
39	-0.00	-35.60	-6.35	0.00	35.60	6.35	0.000%
40	3.32	-35.60	-5.76	-3.32	35.60	5.76	0.000%
41	5.80	-35.60	-3.35	-5.80	35.60	3.35	0.000%
42	6.45	-35.60	0.00	-6.45	35.60	-0.00	0.000%
43	5.56	-35.60	3.22	-5.56	35.60	-3.22	0.000%
44	3.30	-35.60	5.72	-3.30	35.60	-5.72	0.000%
45	0.00	-35.60	6.39	-0.00	35.60	-6.39	0.000%
46	-3.27	-35.60	5.68	3.27	35.60	-5.68	0.000%
47	-5.74	-35.60	3.32	5.74	35.60	-3.32	0.000%
48	-6.49	-35.60	-0.00	6.49	35.60	0.00	0.000%
49	-5.62	-35.60	-3.25	5.62	35.60	3.25	0.000%
50	-3.27	-35.60	-5.67	3.27	35.60	5.67	0.000%

Non-Linear Convergence Results

Load Combination	Converged?	Number of Cycles	Displacement Tolerance	Force Tolerance
1	Yes	4	0.00000001	0.00000001
2	Yes	5	0.00000001	0.00044583
3	Yes	5	0.00000001	0.00021022
4	Yes	6	0.00000001	0.00052320
5	Yes	6	0.00000001	0.00017249
6	Yes	6	0.00000001	0.00055443
7	Yes	6	0.00000001	0.00018273
8	Yes	5	0.00000001	0.00015101
9	Yes	5	0.00000001	0.00005902
10	Yes	6	0.00000001	0.00051564
11	Yes	6	0.00000001	0.00017196
12	Yes	6	0.00000001	0.00052211
13	Yes	6	0.00000001	0.00017253
14	Yes	5	0.00000001	0.00042643
15	Yes	5	0.00000001	0.00020060
16	Yes	6	0.00000001	0.00054030
17	Yes	6	0.00000001	0.00017933
18	Yes	6	0.00000001	0.00053539
19	Yes	6	0.00000001	0.00017630
20	Yes	5	0.00000001	0.00016246
21	Yes	5	0.00000001	0.00006532
22	Yes	6	0.00000001	0.00051247
23	Yes	6	0.00000001	0.00017034
24	Yes	6	0.00000001	0.00053440
25	Yes	6	0.00000001	0.00017766
26	Yes	4	0.00000001	0.00000001
27	Yes	6	0.00000001	0.00031765
28	Yes	6	0.00000001	0.00036743
29	Yes	6	0.00000001	0.00037503
30	Yes	6	0.00000001	0.00031893
31	Yes	6	0.00000001	0.00035716
32	Yes	6	0.00000001	0.00036568
33	Yes	6	0.00000001	0.00031898
34	Yes	6	0.00000001	0.00036828
35	Yes	6	0.00000001	0.00037447
36	Yes	6	0.00000001	0.00032188
37	Yes	6	0.00000001	0.00035941
38	Yes	6	0.00000001	0.00036595
39	Yes	4	0.00000001	0.00072222
40	Yes	5	0.00000001	0.00015151
41	Yes	5	0.00000001	0.00017181

42	Yes	4	0.00000001	0.00055223
43	Yes	5	0.00000001	0.00015398
44	Yes	5	0.00000001	0.00015135
45	Yes	4	0.00000001	0.00072213
46	Yes	5	0.00000001	0.00016888
47	Yes	5	0.00000001	0.00015778
48	Yes	4	0.00000001	0.00055705
49	Yes	5	0.00000001	0.00014999
50	Yes	5	0.00000001	0.00016498

Maximum Tower Deflections - Service Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L1	100 - 95	14.9497	41	1.3909	0.0047
L2	95 - 90	13.5085	41	1.3562	0.0037
L3	90 - 85.5	12.1225	41	1.2841	0.0027
L4	85.5 - 85.25	10.9565	41	1.1860	0.0018
L5	85.25 - 80.25	10.8945	41	1.1839	0.0018
L6	80.25 - 75.25	9.6807	41	1.1315	0.0015
L7	75.25 - 70.25	8.5312	41	1.0621	0.0013
L8	70.25 - 66	7.4620	41	0.9780	0.0011
L9	68.5 - 65	7.1094	41	0.9459	0.0010
L10	65 - 60	6.4269	41	0.9114	0.0009
L11	60 - 55	5.5130	41	0.8334	0.0008
L12	55 - 54.75	4.6849	41	0.7476	0.0006
L13	54.75 - 54.5	4.6458	41	0.7432	0.0006
L14	54.5 - 54.25	4.6070	41	0.7397	0.0006
L15	54.25 - 54	4.5684	41	0.7361	0.0006
L16	54 - 49	4.5299	41	0.7340	0.0006
L17	49 - 44	3.7849	41	0.6888	0.0005
L18	44 - 39	3.0888	41	0.6407	0.0005
L19	39 - 38.75	2.4442	41	0.5903	0.0004
L20	38.75 - 33	2.4134	41	0.5861	0.0004
L21	36.25 - 32.75	2.1177	41	0.5434	0.0004
L22	32.75 - 32.5	1.7306	41	0.5103	0.0004
L23	32.5 - 29.75	1.7040	41	0.5059	0.0003
L24	29.75 - 29.5	1.4270	41	0.4559	0.0003
L25	29.5 - 26.75	1.4032	41	0.4524	0.0003
L26	26.75 - 26.5	1.1539	41	0.4130	0.0003
L27	26.5 - 23.5	1.1324	41	0.4089	0.0003
L28	23.5 - 23.25	0.8912	41	0.3589	0.0002
L29	23.25 - 22.75	0.8725	41	0.3548	0.0002
L30	22.75 - 22.5	0.8358	41	0.3465	0.0002
L31	22.5 - 17.5	0.8178	41	0.3429	0.0002
L32	17.5 - 15.75	0.4973	41	0.2693	0.0002
L33	15.75 - 15.5	0.4032	41	0.2437	0.0002
L34	15.5 - 12.25	0.3906	41	0.2402	0.0002
L35	12.25 - 12	0.2424	41	0.1951	0.0001
L36	12 - 11.75	0.2323	41	0.1912	0.0001
L37	11.75 - 11.5	0.2224	41	0.1878	0.0001
L38	11.5 - 6.5	0.2127	41	0.1836	0.0001
L39	6.5 - 6	0.0647	41	0.0992	0.0001
L40	6 - 5.75	0.0547	41	0.0908	0.0001
L41	5.75 - 4.5	0.0501	41	0.0866	0.0001
L42	4.5 - 4.25	0.0301	41	0.0657	0.0000
L43	4.25 - 3	0.0268	41	0.0618	0.0000
L44	3 - 2.75	0.0132	41	0.0423	0.0000
L45	2.75 - 1.75	0.0111	41	0.0387	0.0000
L46	1.75 - 1.5	0.0044	41	0.0245	0.0000

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L47	1.5 - 1.25	0.0033	41	0.0209	0.0000
L48	1.25 - 1	0.0023	41	0.0172	0.0000
L49	1 - 0	0.0014	41	0.0138	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	14.9497	1.3909	0.0047	5331
100.0000	Top Hat 15" Diameter x 4' Tall	41	14.9497	1.3909	0.0047	5331
99.0000	8-ft Ladder	41	14.6596	1.3848	0.0045	5331
94.0000	4003_840590966_TMO w/ Mount Pipe	41	13.2253	1.3467	0.0035	4565
84.0000	80010965 w/ Mount Pipe	41	10.5861	1.1731	0.0017	4254
73.0000	MX08FRO665-21 w/ Mount Pipe	41	8.0390	1.0269	0.0012	3466

Maximum Tower Deflections - Design Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L1	100 - 95	62.8441	6	5.8569	0.0197
L2	95 - 90	56.7919	6	5.7110	0.0156
L3	90 - 85.5	50.9706	6	5.4073	0.0111
L4	85.5 - 85.25	46.0719	6	4.9935	0.0076
L5	85.25 - 80.25	45.8113	6	4.9848	0.0076
L6	80.25 - 75.25	40.7108	6	4.7641	0.0065
L7	75.25 - 70.25	35.8795	6	4.4718	0.0055
L8	70.25 - 66	31.3849	6	4.1180	0.0045
L9	68.5 - 65	29.9022	6	3.9827	0.0042
L10	65 - 60	27.0327	6	3.8371	0.0038
L11	60 - 55	23.1892	6	3.5085	0.0032
L12	55 - 54.75	19.7063	6	3.1470	0.0026
L13	54.75 - 54.5	19.5422	6	3.1286	0.0026
L14	54.5 - 54.25	19.3789	6	3.1136	0.0026
L15	54.25 - 54	19.2164	6	3.0986	0.0025
L16	54 - 49	19.0545	6	3.0897	0.0025
L17	49 - 44	15.9208	6	2.8993	0.0023
L18	44 - 39	12.9926	6	2.6967	0.0020
L19	39 - 38.75	10.2812	6	2.4845	0.0018
L20	38.75 - 33	10.1516	6	2.4666	0.0018
L21	36.25 - 32.75	8.9076	6	2.2871	0.0016
L22	32.75 - 32.5	7.2792	6	2.1474	0.0015
L23	32.5 - 29.75	7.1673	6	2.1288	0.0015
L24	29.75 - 29.5	6.0020	6	1.9186	0.0013
L25	29.5 - 26.75	5.9020	6	1.9038	0.0013
L26	26.75 - 26.5	4.8535	6	1.7379	0.0011
L27	26.5 - 23.5	4.7630	6	1.7206	0.0011
L28	23.5 - 23.25	3.7483	6	1.5100	0.0010
L29	23.25 - 22.75	3.6697	6	1.4926	0.0010
L30	22.75 - 22.5	3.5152	6	1.4578	0.0009
L31	22.5 - 17.5	3.4393	6	1.4426	0.0009
L32	17.5 - 15.75	2.0912	6	1.1330	0.0007

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L33	15.75 - 15.5	1.6957	6	1.0249	0.0006
L34	15.5 - 12.25	1.6425	6	1.0104	0.0006
L35	12.25 - 12	1.0194	6	0.8204	0.0005
L36	12 - 11.75	0.9769	6	0.8042	0.0005
L37	11.75 - 11.5	0.9352	6	0.7897	0.0005
L38	11.5 - 6.5	0.8943	6	0.7723	0.0005
L39	6.5 - 6	0.2720	6	0.4169	0.0003
L40	6 - 5.75	0.2301	6	0.3819	0.0002
L41	5.75 - 4.5	0.2106	6	0.3643	0.0002
L42	4.5 - 4.25	0.1267	6	0.2763	0.0002
L43	4.25 - 3	0.1127	6	0.2597	0.0002
L44	3 - 2.75	0.0554	6	0.1776	0.0001
L45	2.75 - 1.75	0.0465	6	0.1626	0.0001
L46	1.75 - 1.5	0.0187	6	0.1031	0.0001
L47	1.5 - 1.25	0.0137	6	0.0878	0.0001
L48	1.25 - 1	0.0095	6	0.0723	0.0000
L49	1 - 0	0.0061	6	0.0579	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	62.8441	5.8569	0.0198	1300
100.0000	Top Hat 15'' Diameter x 4' Tall	6	62.8441	5.8569	0.0198	1300
99.0000	8-ft Ladder	6	61.6259	5.8314	0.0190	1300
94.0000	4003_840590966_TMO w/ Mount Pipe	6	55.6028	5.6713	0.0148	1112
84.0000	80010965 w/ Mount Pipe	6	44.5157	4.9392	0.0074	1026
73.0000	MX08FRO665-21 w/ Mount Pipe	6	33.8105	4.3237	0.0051	833

Compression Checks

Pole Design Data

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	A in^2	P_u K	ϕP_n K	Ratio $\frac{P_u}{\phi P_n}$
L1	100 - 95 (1)	TP15.32x14.5x0.19	5.0000	0.0000	0.0	9.26	-4.04	416.52	0.010
L2	95 - 90 (2)	TP16.14x15.32x0.19	5.0000	0.0000	0.0	9.76	-7.77	439.07	0.018
L3	90 - 85.5 (3)	TP16.88x16.14x0.19	4.5000	0.0000	0.0	10.21	-8.03	459.37	0.017
L4	85.5 - 85.25 (4)	TP16.92x16.88x0.62	0.2500	0.0000	0.0	32.28	-8.07	1452.67	0.006
L5	85.25 - 80.25 (5)	TP17.74x16.92x0.59	5.0000	0.0000	0.0	32.57	-12.83	1465.79	0.009
L6	80.25 - 75.25 (6)	TP18.55x17.74x0.57	5.0000	0.0000	0.0	32.73	-13.49	1472.78	0.009
L7	75.25 - 70.25 (7)	TP19.37x18.55x0.54	5.0000	0.0000	0.0	32.75	-17.13	1473.67	0.012
L8	70.25 - 66 (8)	TP20.07x19.37x0.54	4.2500	0.0000	0.0	33.25	-17.39	1496.10	0.012
L9	66 - 65 (9)	TP19.86x19.29x0.83	3.5000	0.0000	0.0	50.57	-18.59	2275.83	0.008
L10	65 - 60 (10)	TP20.68x19.86x0.79	5.0000	0.0000	0.0	50.45	-19.91	2270.04	0.009
L11	60 - 55 (11)	TP21.5x20.68x0.75	5.0000	0.0000	0.0	50.11	-21.27	2254.94	0.009

Section No.	Elevation	Size	L	L_u	Kl/r	A	P_u	ϕP_n	Ratio $\frac{P_u}{\phi P_n}$
	ft		ft	ft		in^2	K	K	
L12	55 - 54.75 (12)	TP21.54x21.5x0.75	0.2500	0.0000	0.0	50.21	-21.34	2259.39	0.009
L13	54.75 - 54.5 (13)	TP21.58x21.54x0.95	0.2500	0.0000	0.0	63.11	-21.42	2840.00	0.008
L14	54.5 - 54.25 (14)	TP21.62x21.58x0.95	0.2500	0.0000	0.0	63.24	-21.50	2845.63	0.008
L15	54.25 - 54 (15)	TP21.66x21.62x1.8	0.2500	0.0000	0.0	115.13	-21.60	5180.69	0.004
L16	54 - 49 (16)	TP22.48x21.66x1.7	5.0000	0.0000	0.0	113.76	-23.51	5119.08	0.005
L17	49 - 44 (17)	TP23.3x22.48x1.6	5.0000	0.0000	0.0	111.80	-25.46	5030.86	0.005
L18	44 - 39 (18)	TP24.12x23.3x1.53	5.0000	0.0000	0.0	110.94	-27.43	4992.44	0.005
L19	39 - 38.75 (19)	TP24.16x24.12x0.83	0.2500	0.0000	0.0	61.99	-27.51	2789.40	0.010
L20	38.75 - 33 (20)	TP25.1x24.16x0.83	5.7500	0.0000	0.0	63.07	-28.28	2838.31	0.010
L21	33 - 32.75 (21)	TP24.64x24.07x0.83	3.5000	0.0000	0.0	63.27	-30.25	3701.37	0.008
L22	32.75 - 32.5 (22)	TP24.68x24.64x0.85	0.2500	0.0000	0.0	65.23	-30.34	3816.08	0.008
L23	32.5 - 29.75 (23)	TP25.13x24.68x0.83	2.7500	0.0000	0.0	64.57	-31.26	3777.64	0.008
L24	29.75 - 29.5 (24)	TP25.17x25.13x1.1	0.2500	0.0000	0.0	85.27	-31.37	4988.34	0.006
L25	29.5 - 26.75 (25)	TP25.62x25.17x1.08	2.7500	0.0000	0.0	84.98	-32.41	4971.13	0.007
L26	26.75 - 26.5 (26)	TP25.66x25.62x0.91	0.2500	0.0000	0.0	72.73	-32.50	4254.64	0.008
L27	26.5 - 23.5 (27)	TP26.16x25.66x0.9	3.0000	0.0000	0.0	73.19	-33.39	4281.68	0.008
L28	23.5 - 23.25 (28)	TP26.2x26.16x0.9	0.2500	0.0000	0.0	73.31	-33.49	4288.61	0.008
L29	23.25 - 22.75 (29)	TP26.28x26.2x0.9	0.5000	0.0000	0.0	73.55	-33.67	4302.48	0.008
L30	22.75 - 22.5 (30)	TP26.32x26.28x1.05	0.2500	0.0000	0.0	85.44	-33.77	4997.98	0.007
L31	22.5 - 17.5 (31)	TP27.14x26.32x1.03	5.0000	0.0000	0.0	86.18	-35.66	5041.73	0.007
L32	17.5 - 15.75 (32)	TP27.42x27.14x1	1.7500	0.0000	0.0	85.08	-36.33	4977.40	0.007
L33	15.75 - 15.5 (33)	TP27.46x27.42x1.09	0.2500	0.0000	0.0	92.37	-36.46	5403.37	0.007
L34	15.5 - 12.25 (34)	TP28x27.46x1.08	3.2500	0.0000	0.0	93.19	-37.81	5451.46	0.007
L35	12.25 - 12 (35)	TP28.04x28x0.95	0.2500	0.0000	0.0	82.86	-37.92	4847.25	0.008
L36	12 - 11.75 (36)	TP28.08x28.04x1.08	0.2500	0.0000	0.0	93.47	-38.03	5468.02	0.007
L37	11.75 - 11.5 (37)	TP28.12x28.08x0.88	0.2500	0.0000	0.0	76.76	-38.13	4490.42	0.008
L38	11.5 - 6.5 (38)	TP28.94x28.12x0.85	5.0000	0.0000	0.0	76.87	-40.13	4497.09	0.009
L39	6.5 - 6 (39)	TP29.02x28.94x0.85	0.5000	0.0000	0.0	77.10	-40.34	4510.18	0.009
L40	6 - 5.75 (40)	TP29.06x29.02x0.85	0.2500	0.0000	0.0	77.21	-40.45	4516.73	0.009
L41	5.75 - 4.5 (41)	TP29.26x29.06x0.84	1.2500	0.0000	0.0	76.66	-40.94	4484.54	0.009
L42	4.5 - 4.25 (42)	TP29.3x29.26x0.9	0.2500	0.0000	0.0	82.32	-41.06	4815.54	0.009
L43	4.25 - 3 (43)	TP29.51x29.3x0.9	1.2500	0.0000	0.0	82.91	-41.52	4850.21	0.009
L44	3 - 2.75 (44)	TP29.55x29.51x1	0.2500	0.0000	0.0	91.93	-41.64	5377.99	0.008
L45	2.75 - 1.75 (45)	TP29.71x29.55x1	1.0000	0.0000	0.0	92.46	-42.04	5408.80	0.008
L46	1.75 - 1.5 (46)	TP29.75x29.71x0.98	0.2500	0.0000	0.0	90.35	-42.15	5285.69	0.008
L47	1.5 - 1.25 (47)	TP29.8x29.75x0.96	0.2500	0.0000	0.0	89.36	-42.24	5227.60	0.008
L48	1.25 - 1 (48)	TP29.84x29.8x1.04	0.2500	0.0000	0.0	96.21	-42.34	5628.28	0.008
L49	1 - 0 (49)	TP30x29.84x1.03	1.0000	0.0000	0.0	95.63	-42.70	5594.47	0.008

Pole Bending Design Data

Section No.	Elevation	Size	M_{ux}	ϕM_{nx}	Ratio $\frac{M_{ux}}{\phi M_{nx}}$	M_{uy}	ϕM_{ny}	Ratio $\frac{M_{uy}}{\phi M_{ny}}$
	ft		kip-ft	kip-ft		kip-ft	kip-ft	

Section No.	Elevation ft	Size	M_{ux} kip-ft	ϕM_{nx} kip-ft	Ratio $\frac{M_{ux}}{\phi M_{nx}}$	M_{uy} kip-ft	ϕM_{ny} kip-ft	Ratio $\frac{M_{uy}}{\phi M_{ny}}$
L1	100 - 95 (1)	TP15.32x14.5x0.19	42.03	161.02	0.261	0.00	161.02	0.000
L2	95 - 90 (2)	TP16.14x15.32x0.19	87.94	179.04	0.491	0.00	179.04	0.000
L3	90 - 85.5 (3)	TP16.88x16.14x0.19	133.49	196.08	0.681	0.00	196.08	0.000
L4	85.5 - 85.25 (4)	TP16.92x16.88x0.62	136.06	590.41	0.230	0.00	590.41	0.000
L5	85.25 - 80.25 (5)	TP17.74x16.92x0.59	219.28	628.60	0.349	0.00	628.60	0.000
L6	80.25 - 75.25 (6)	TP18.55x17.74x0.57	301.17	664.62	0.453	0.00	664.62	0.000
L7	75.25 - 70.25 (7)	TP19.37x18.55x0.54	394.68	698.08	0.565	0.00	698.08	0.000
L8	70.25 - 66 (8)	TP20.07x19.37x0.54	429.93	719.79	0.597	0.00	719.79	0.000
L9	66 - 65 (9)	TP19.86x19.29x0.83	501.52	1074.43	0.467	0.00	1074.43	0.000
L10	65 - 60 (10)	TP20.68x19.86x0.79	606.26	1123.91	0.539	0.00	1123.91	0.000
L11	60 - 55 (11)	TP21.5x20.68x0.75	713.83	1168.33	0.611	0.00	1168.33	0.000
L12	55 - 54.75 (12)	TP21.54x21.5x0.75	719.29	1173.03	0.613	0.00	1173.03	0.000
L13	54.75 - 54.5 (13)	TP21.58x21.54x0.95	724.75	1449.23	0.500	0.00	1449.23	0.000
L14	54.5 - 54.25 (14)	TP21.62x21.58x0.95	730.22	1455.12	0.502	0.00	1455.12	0.000
L15	54.25 - 54 (15)	TP21.66x21.62x1.8	735.70	2441.22	0.301	0.00	2441.22	0.000
L16	54 - 49 (16)	TP22.48x21.66x1.7	847.12	2544.28	0.333	0.00	2544.28	0.000
L17	49 - 44 (17)	TP23.3x22.48x1.6	962.05	2630.54	0.366	0.00	2630.54	0.000
L18	44 - 39 (18)	TP24.12x23.3x1.53	1080.36	2733.79	0.395	0.00	2733.79	0.000
L19	39 - 38.75 (19)	TP24.16x24.12x0.83	1086.36	1626.50	0.668	0.00	1626.50	0.000
L20	38.75 - 33 (20)	TP25.1x24.16x0.83	1146.75	1685.03	0.681	0.00	1685.03	0.000
L21	33 - 32.75 (21)	TP24.64x24.07x0.83	1232.61	2204.53	0.559	0.00	2204.53	0.000
L22	32.75 - 32.5 (22)	TP24.68x24.64x0.85	1238.80	2272.12	0.545	0.00	2272.12	0.000
L23	32.5 - 29.75 (23)	TP25.13x24.68x0.83	1307.37	2297.88	0.569	0.00	2297.88	0.000
L24	29.75 - 29.5 (24)	TP25.17x25.13x1.1	1313.64	2971.32	0.442	0.00	2971.32	0.000
L25	29.5 - 26.75 (25)	TP25.62x25.17x1.08	1383.14	3024.98	0.457	0.00	3024.98	0.000
L26	26.75 - 26.5 (26)	TP25.66x25.62x0.91	1389.50	2627.88	0.529	0.00	2627.88	0.000
L27	26.5 - 23.5 (27)	TP26.16x25.66x0.9	1466.34	2701.55	0.543	0.00	2701.55	0.000
L28	23.5 - 23.25 (28)	TP26.2x26.16x0.9	1472.79	2710.45	0.543	0.00	2710.45	0.000
L29	23.25 - 22.75 (29)	TP26.28x26.2x0.9	1485.70	2728.31	0.545	0.00	2728.31	0.000
L30	22.75 - 22.5 (30)	TP26.32x26.28x1.05	1492.17	3137.28	0.476	0.00	3137.28	0.000
L31	22.5 - 17.5 (31)	TP27.14x26.32x1.03	1622.78	3277.54	0.495	0.00	3277.54	0.000
L32	17.5 - 15.75 (32)	TP27.42x27.14x1	1669.10	3278.73	0.509	0.00	3278.73	0.000
L33	15.75 - 15.5 (33)	TP27.46x27.42x1.09	1675.73	3541.51	0.473	0.00	3541.51	0.000
L34	15.5 - 12.25 (34)	TP28x27.46x1.08	1762.67	3651.28	0.483	0.00	3651.28	0.000
L35	12.25 - 12 (35)	TP28.04x28x0.95	1769.42	3281.94	0.539	0.00	3281.94	0.000
L36	12 - 11.75 (36)	TP28.08x28.04x1.08	1776.16	3673.93	0.483	0.00	3673.93	0.000
L37	11.75 - 11.5 (37)	TP28.12x28.08x0.88	1782.90	3066.69	0.581	0.00	3066.69	0.000
L38	11.5 - 6.5 (38)	TP28.94x28.12x0.85	1919.07	3171.97	0.605	0.00	3171.97	0.000
L39	6.5 - 6 (39)	TP29.02x28.94x0.85	1932.80	3190.74	0.606	0.00	3190.74	0.000
L40	6 - 5.75 (40)	TP29.06x29.02x0.85	1939.67	3200.15	0.606	0.00	3200.15	0.000
L41	5.75 - 4.5 (41)	TP29.26x29.06x0.84	1974.13	3203.87	0.616	0.00	3203.87	0.000
L42	4.5 - 4.25 (42)	TP29.3x29.26x0.9	1981.03	3430.32	0.578	0.00	3430.32	0.000
L43	4.25 - 3 (43)	TP29.51x29.3x0.9	2015.64	3480.65	0.579	0.00	3480.65	0.000
L44	3 - 2.75 (44)	TP29.55x29.51x1	2022.58	3838.15	0.527	0.00	3838.15	0.000
L45	2.75 - 1.75 (45)	TP29.71x29.55x1	2050.38	3883.01	0.528	0.00	3883.01	0.000

Section No.	Elevation ft	Size	M_{ux} kip-ft	ϕM_{nx} kip-ft	Ratio $\frac{M_{ux}}{\phi M_{nx}}$	M_{uy} kip-ft	ϕM_{ny} kip-ft	Ratio $\frac{M_{uy}}{\phi M_{ny}}$
L46	1.75 - 1.5 (46)	TP29.75x29.71x0.98	2057.33	3806.82	0.540	0.00	3806.82	0.000
L47	1.5 - 1.25 (47)	TP29.8x29.75x0.96	2064.30	3773.78	0.547	0.00	3773.78	0.000
L48	1.25 - 1 (48)	TP29.84x29.8x1.04	2071.28	4047.88	0.512	0.00	4047.88	0.000
L49	1 - 0 (49)	TP30x29.84x1.03	2099.21	4050.70	0.518	0.00	4050.70	0.000

Pole Shear Design Data

Section No.	Elevation ft	Size	Actual V_u K	ϕV_n K	Ratio $\frac{V_u}{\phi V_n}$	Actual T_u kip-ft	ϕT_n kip-ft	Ratio $\frac{T_u}{\phi T_n}$
L1	100 - 95 (1)	TP15.32x14.5x0.19	6.42	124.96	0.051	0.73	166.29	0.004
L2	95 - 90 (2)	TP16.14x15.32x0.19	9.98	131.72	0.076	0.73	184.79	0.004
L3	90 - 85.5 (3)	TP16.88x16.14x0.19	10.28	137.81	0.075	0.72	202.26	0.004
L4	85.5 - 85.25 (4)	TP16.92x16.88x0.62	10.29	435.80	0.024	0.72	624.90	0.001
L5	85.25 - 80.25 (5)	TP17.74x16.92x0.59	16.08	439.74	0.037	0.67	663.20	0.001
L6	80.25 - 75.25 (6)	TP18.55x17.74x0.57	16.71	441.83	0.038	0.43	699.17	0.001
L7	75.25 - 70.25 (7)	TP19.37x18.55x0.54	20.06	442.10	0.045	0.57	732.41	0.001
L8	70.25 - 66 (8)	TP20.07x19.37x0.54	20.25	448.83	0.045	0.57	754.88	0.001
L9	66 - 65 (9)	TP19.86x19.29x0.83	20.68	682.75	0.030	0.57	1143.35	0.000
L10	65 - 60 (10)	TP20.68x19.86x0.79	21.24	681.01	0.031	0.56	1191.70	0.000
L11	60 - 55 (11)	TP21.5x20.68x0.75	21.82	676.48	0.032	0.55	1234.71	0.000
L12	55 - 54.75 (12)	TP21.54x21.5x0.75	21.84	677.82	0.032	0.55	1239.58	0.000
L13	54.75 - 54.5 (13)	TP21.58x21.54x0.95	21.87	852.00	0.026	0.55	1546.20	0.000
L14	54.5 - 54.25 (14)	TP21.62x21.58x0.95	21.91	853.69	0.026	0.55	1552.33	0.000
L15	54.25 - 54 (15)	TP21.66x21.62x1.8	21.94	1554.21	0.014	0.55	2715.54	0.000
L16	54 - 49 (16)	TP22.48x21.66x1.7	22.65	1535.73	0.015	0.54	2807.30	0.000
L17	49 - 44 (17)	TP23.3x22.48x1.6	23.34	1509.26	0.015	0.54	2880.83	0.000
L18	44 - 39 (18)	TP24.12x23.3x1.53	24.01	1497.73	0.016	0.53	2976.52	0.000
L19	39 - 38.75 (19)	TP24.16x24.12x0.83	24.03	836.82	0.029	0.53	1717.59	0.000
L20	38.75 - 33 (20)	TP25.1x24.16x0.83	24.32	851.49	0.029	0.52	1778.35	0.000
L21	33 - 32.75 (21)	TP24.64x24.07x0.83	24.77	1110.41	0.022	0.52	2326.38	0.000
L22	32.75 - 32.5 (22)	TP24.68x24.64x0.85	24.80	1144.82	0.022	0.51	2400.07	0.000
L23	32.5 - 29.75 (23)	TP25.13x24.68x0.83	25.11	1133.29	0.022	0.51	2423.24	0.000
L24	29.75 - 29.5 (24)	TP25.17x25.13x1.1	25.12	1496.50	0.017	0.51	3169.05	0.000
L25	29.5 - 26.75 (25)	TP25.62x25.17x1.08	25.46	1491.34	0.017	0.50	3220.41	0.000
L26	26.75 - 26.5 (26)	TP25.66x25.62x0.91	25.47	1276.39	0.020	0.49	2779.09	0.000
L27	26.5 - 23.5 (27)	TP26.16x25.66x0.9	25.80	1284.50	0.020	0.49	2853.62	0.000
L28	23.5 - 23.25 (28)	TP26.2x26.16x0.9	25.81	1286.58	0.020	0.48	2862.86	0.000
L29	23.25 - 22.75 (29)	TP26.28x26.2x0.9	25.86	1290.74	0.020	0.48	2881.41	0.000
L30	22.75 - 22.5 (30)	TP26.32x26.28x1.05	25.88	1499.39	0.017	0.48	3332.80	0.000
L31	22.5 - 17.5 (31)	TP27.14x26.32x1.03	26.40	1512.52	0.017	0.47	3474.12	0.000
L32	17.5 - 15.75 (32)	TP27.42x27.14x1	26.59	1493.22	0.018	0.47	3470.68	0.000
L33	15.75 - 15.5 (33)	TP27.46x27.42x1.09	26.58	1621.01	0.016	0.47	3761.06	0.000

Section No.	Elevation ft	Size	Actual V_u K	ϕV_n K	Ratio $\frac{V_u}{\phi V_n}$	Actual T_u kip-ft	ϕT_n kip-ft	Ratio $\frac{T_u}{\phi T_n}$
L34	15.5 - 12.25 (34)	TP28x27.46x1.08	26.95	1635.44	0.016	0.46	3872.81	0.000
L35	12.25 - 12 (35)	TP28.04x28x0.95	26.96	1454.18	0.019	0.45	3464.79	0.000
L36	12 - 11.75 (36)	TP28.08x28.04x1.08	26.99	1640.41	0.016	0.45	3896.38	0.000
L37	11.75 - 11.5 (37)	TP28.12x28.08x0.88	27.02	1347.13	0.020	0.45	3228.31	0.000
L38	11.5 - 6.5 (38)	TP28.94x28.12x0.85	27.48	1349.13	0.020	0.44	3333.13	0.000
L39	6.5 - 6 (39)	TP29.02x28.94x0.85	27.51	1353.05	0.020	0.43	3352.57	0.000
L40	6 - 5.75 (40)	TP29.06x29.02x0.85	27.53	1355.02	0.020	0.43	3362.32	0.000
L41	5.75 - 4.5 (41)	TP29.26x29.06x0.84	27.65	1345.36	0.021	0.43	3364.03	0.000
L42	4.5 - 4.25 (42)	TP29.3x29.26x0.9	27.64	1444.66	0.019	0.43	3609.58	0.000
L43	4.25 - 3 (43)	TP29.51x29.3x0.9	27.77	1455.06	0.019	0.44	3661.74	0.000
L44	3 - 2.75 (44)	TP29.55x29.51x1	27.76	1613.40	0.017	0.44	4051.81	0.000
L45	2.75 - 1.75 (45)	TP29.71x29.55x1	27.86	1622.64	0.017	0.44	4098.38	0.000
L46	1.75 - 1.5 (46)	TP29.75x29.71x0.98	27.87	1585.71	0.018	0.44	4014.28	0.000
L47	1.5 - 1.25 (47)	TP29.8x29.75x0.96	27.89	1568.28	0.018	0.44	3977.53	0.000
L48	1.25 - 1 (48)	TP29.84x29.8x1.04	27.91	1688.48	0.017	0.44	4277.33	0.000
L49	1 - 0 (49)	TP30x29.84x1.03	27.99	1678.34	0.017	0.44	4277.63	0.000

Pole Interaction Design Data

Section No.	Elevation ft	Ratio $\frac{P_u}{\phi P_n}$	Ratio $\frac{M_{ux}}{\phi M_{nx}}$	Ratio $\frac{M_{uy}}{\phi M_{ny}}$	Ratio $\frac{V_u}{\phi V_n}$	Ratio $\frac{T_u}{\phi T_n}$	Comb. Stress Ratio	Allow. Stress Ratio	Criteria
L1	100 - 95 (1)	0.010	0.261	0.000	0.051	0.004	0.274	1.050	
L2	95 - 90 (2)	0.018	0.491	0.000	0.076	0.004	0.515	1.050	
L3	90 - 85.5 (3)	0.017	0.681	0.000	0.075	0.004	0.704	1.050	
L4	85.5 - 85.25 (4)	0.006	0.230	0.000	0.024	0.001	0.237	1.050	
L5	85.25 - 80.25 (5)	0.009	0.349	0.000	0.037	0.001	0.359	1.050	
L6	80.25 - 75.25 (6)	0.009	0.453	0.000	0.038	0.001	0.464	1.050	
L7	75.25 - 70.25 (7)	0.012	0.565	0.000	0.045	0.001	0.579	1.050	
L8	70.25 - 66 (8)	0.012	0.597	0.000	0.045	0.001	0.611	1.050	
L9	66 - 65 (9)	0.008	0.467	0.000	0.030	0.000	0.476	1.050	
L10	65 - 60 (10)	0.009	0.539	0.000	0.031	0.000	0.549	1.050	
L11	60 - 55 (11)	0.009	0.611	0.000	0.032	0.000	0.621	1.050	
L12	55 - 54.75 (12)	0.009	0.613	0.000	0.032	0.000	0.624	1.050	
L13	54.75 - 54.5 (13)	0.008	0.500	0.000	0.026	0.000	0.508	1.050	
L14	54.5 - 54.25 (14)	0.008	0.502	0.000	0.026	0.000	0.510	1.050	
L15	54.25 - 54 (15)	0.004	0.301	0.000	0.014	0.000	0.306	1.050	
L16	54 - 49 (16)	0.005	0.333	0.000	0.015	0.000	0.338	1.050	
L17	49 - 44 (17)	0.005	0.366	0.000	0.015	0.000	0.371	1.050	
L18	44 - 39 (18)	0.005	0.395	0.000	0.016	0.000	0.401	1.050	
L19	39 - 38.75 (19)	0.010	0.668	0.000	0.029	0.000	0.679	1.050	
L20	38.75 - 33 (20)	0.010	0.681	0.000	0.029	0.000	0.691	1.050	
L21	33 - 32.75 (21)	0.008	0.559	0.000	0.022	0.000	0.568	1.050	
L22	32.75 - 32.5 (22)	0.008	0.545	0.000	0.022	0.000	0.554	1.050	
L23	32.5 - 29.75 (23)	0.008	0.569	0.000	0.022	0.000	0.578	1.050	
L24	29.75 - 29.5 (24)	0.006	0.442	0.000	0.017	0.000	0.449	1.050	
L25	29.5 - 26.75	0.007	0.457	0.000	0.017	0.000	0.464	1.050	

Section No.	Elevation ft	Ratio P_u / ϕP_n	Ratio M_{ux} / ϕM_{nx}	Ratio M_{uy} / ϕM_{ny}	Ratio V_u / ϕV_n	Ratio T_u / ϕT_n	Comb. Stress Ratio	Allow. Stress Ratio	Criteria
	(25)								
L26	26.75 - 26.5	0.008	0.529	0.000	0.020	0.000	0.537	1.050	
	(26)								
L27	26.5 - 23.5 (27)	0.008	0.543	0.000	0.020	0.000	0.551	1.050	
L28	23.5 - 23.25	0.008	0.543	0.000	0.020	0.000	0.552	1.050	
	(28)								
L29	23.25 - 22.75	0.008	0.545	0.000	0.020	0.000	0.553	1.050	
	(29)								
L30	22.75 - 22.5	0.007	0.476	0.000	0.017	0.000	0.483	1.050	
	(30)								
L31	22.5 - 17.5 (31)	0.007	0.495	0.000	0.017	0.000	0.503	1.050	
L32	17.5 - 15.75	0.007	0.509	0.000	0.018	0.000	0.517	1.050	
	(32)								
L33	15.75 - 15.5	0.007	0.473	0.000	0.016	0.000	0.480	1.050	
	(33)								
L34	15.5 - 12.25	0.007	0.483	0.000	0.016	0.000	0.490	1.050	
	(34)								
L35	12.25 - 12 (35)	0.008	0.539	0.000	0.019	0.000	0.547	1.050	
L36	12 - 11.75 (36)	0.007	0.483	0.000	0.016	0.000	0.491	1.050	
L37	11.75 - 11.5	0.008	0.581	0.000	0.020	0.000	0.590	1.050	
	(37)								
L38	11.5 - 6.5 (38)	0.009	0.605	0.000	0.020	0.000	0.614	1.050	
L39	6.5 - 6 (39)	0.009	0.606	0.000	0.020	0.000	0.615	1.050	
L40	6 - 5.75 (40)	0.009	0.606	0.000	0.020	0.000	0.615	1.050	
L41	5.75 - 4.5 (41)	0.009	0.616	0.000	0.021	0.000	0.626	1.050	
L42	4.5 - 4.25 (42)	0.009	0.578	0.000	0.019	0.000	0.586	1.050	
L43	4.25 - 3 (43)	0.009	0.579	0.000	0.019	0.000	0.588	1.050	
L44	3 - 2.75 (44)	0.008	0.527	0.000	0.017	0.000	0.535	1.050	
L45	2.75 - 1.75 (45)	0.008	0.528	0.000	0.017	0.000	0.536	1.050	
L46	1.75 - 1.5 (46)	0.008	0.540	0.000	0.018	0.000	0.549	1.050	
L47	1.5 - 1.25 (47)	0.008	0.547	0.000	0.018	0.000	0.555	1.050	
L48	1.25 - 1 (48)	0.008	0.512	0.000	0.017	0.000	0.519	1.050	
L49	1 - 0 (49)	0.008	0.518	0.000	0.017	0.000	0.526	1.050	

Section Capacity Table

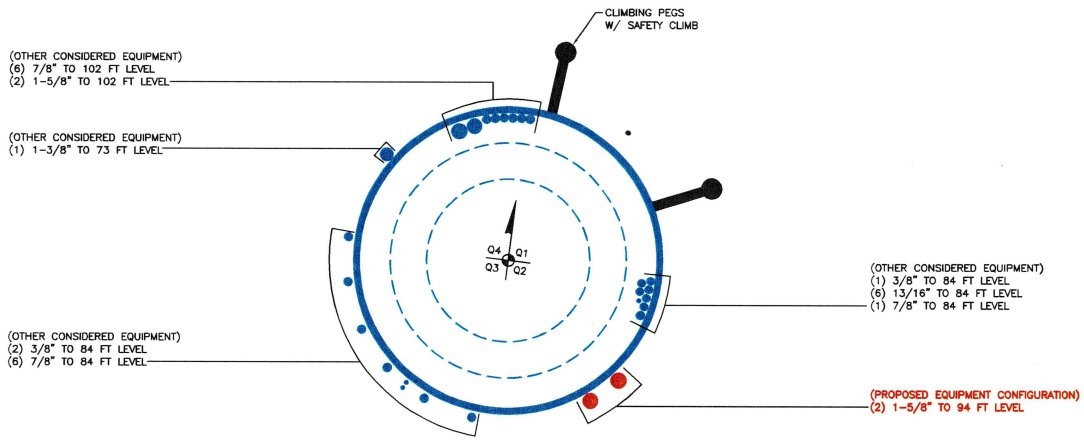
Section No.	Elevation ft	Component Type	Size	Critical Element	P K	ϕP_{allow} K	% Capacity	Pass Fail
L1	100 - 95	Pole	TP15.32x14.5x0.19	1	-4.04	437.35	26.1	Pass
L2	95 - 90	Pole	TP16.14x15.32x0.19	2	-7.77	461.02	49.1	Pass
L3	90 - 85.5	Pole	TP16.88x16.14x0.19	3	-8.03	482.34	67.1	Pass
L4	85.5 - 85.25	Pole	TP16.92x16.88x0.62	4	-8.07	1525.30	22.5	Pass
L5	85.25 - 80.25	Pole	TP17.74x16.92x0.59	5	-12.83	1539.08	34.2	Pass
L6	80.25 - 75.25	Pole	TP18.55x17.74x0.57	6	-13.49	1546.42	44.2	Pass
L7	75.25 - 70.25	Pole	TP19.37x18.55x0.54	7	-17.13	1547.35	55.2	Pass
L8	70.25 - 66	Pole	TP20.07x19.37x0.54	8	-17.39	1570.90	58.2	Pass
L9	66 - 65	Pole	TP19.86x19.29x0.83	9	-18.59	2389.62	45.3	Pass
L10	65 - 60	Pole	TP20.68x19.86x0.79	10	-19.91	2383.54	52.3	Pass
L11	60 - 55	Pole	TP21.5x20.68x0.75	11	-21.27	2367.69	59.2	Pass
L12	55 - 54.75	Pole	TP21.54x21.5x0.75	12	-21.34	2372.36	59.4	Pass
L13	54.75 - 54.5	Pole	TP21.58x21.54x0.95	13	-21.42	2982.00	48.4	Pass
L14	54.5 - 54.25	Pole	TP21.62x21.58x0.95	14	-21.50	2987.91	48.6	Pass
L15	54.25 - 54	Pole	TP21.66x21.62x1.8	15	-21.60	5439.72	29.1	Pass
L16	54 - 49	Pole	TP22.48x21.66x1.7	16	-23.51	5375.03	32.2	Pass
L17	49 - 44	Pole	TP23.3x22.48x1.6	17	-25.46	5282.40	35.3	Pass

Section No.	Elevation ft	Component Type	Size	Critical Element	P K	ϕP_{allow} K	% Capacity	Pass Fail
L18	44 - 39	Pole	TP24.12x23.3x1.53	18	-27.43	5242.06	38.2	Pass
L19	39 - 38.75	Pole	TP24.16x24.12x0.83	19	-27.51	2928.87	64.6	Pass
L20	38.75 - 33	Pole	TP25.1x24.16x0.83	20	-28.28	2980.23	65.8	Pass
L21	33 - 32.75	Pole	TP24.64x24.07x0.83	21	-30.25	3886.44	54.1	Pass
L22	32.75 - 32.5	Pole	TP24.68x24.64x0.85	22	-30.34	4006.88	52.7	Pass
L23	32.5 - 29.75	Pole	TP25.13x24.68x0.83	23	-31.26	3966.52	55.0	Pass
L24	29.75 - 29.5	Pole	TP25.17x25.13x1.1	24	-31.37	5237.76	42.7	Pass
L25	29.5 - 26.75	Pole	TP25.62x25.17x1.08	25	-32.41	5219.69	44.2	Pass
L26	26.75 - 26.5	Pole	TP25.66x25.62x0.91	26	-32.50	4467.37	51.1	Pass
L27	26.5 - 23.5	Pole	TP26.16x25.66x0.9	27	-33.39	4495.76	52.5	Pass
L28	23.5 - 23.25	Pole	TP26.2x26.16x0.9	28	-33.49	4503.04	52.5	Pass
L29	23.25 - 22.75	Pole	TP26.28x26.2x0.9	29	-33.67	4517.60	52.6	Pass
L30	22.75 - 22.5	Pole	TP26.32x26.28x1.05	30	-33.77	5247.88	46.0	Pass
L31	22.5 - 17.5	Pole	TP27.14x26.32x1.03	31	-35.66	5293.82	47.9	Pass
L32	17.5 - 15.75	Pole	TP27.42x27.14x1	32	-36.33	5226.27	49.2	Pass
L33	15.75 - 15.5	Pole	TP27.46x27.42x1.09	33	-36.46	5673.54	45.7	Pass
L34	15.5 - 12.25	Pole	TP28x27.46x1.08	34	-37.81	5724.03	46.7	Pass
L35	12.25 - 12	Pole	TP28.04x28x0.95	35	-37.92	5089.61	52.1	Pass
L36	12 - 11.75	Pole	TP28.08x28.04x1.08	36	-38.03	5741.42	46.7	Pass
L37	11.75 - 11.5	Pole	TP28.12x28.08x0.88	37	-38.13	4714.94	56.2	Pass
L38	11.5 - 6.5	Pole	TP28.94x28.12x0.85	38	-40.13	4721.94	58.5	Pass
L39	6.5 - 6	Pole	TP29.02x28.94x0.85	39	-40.34	4735.69	58.6	Pass
L40	6 - 5.75	Pole	TP29.06x29.02x0.85	40	-40.45	4742.57	58.6	Pass
L41	5.75 - 4.5	Pole	TP29.26x29.06x0.84	41	-40.94	4708.77	59.6	Pass
L42	4.5 - 4.25	Pole	TP29.3x29.26x0.9	42	-41.06	5056.32	55.8	Pass
L43	4.25 - 3	Pole	TP29.51x29.3x0.9	43	-41.52	5092.72	56.0	Pass
L44	3 - 2.75	Pole	TP29.55x29.51x1	44	-41.64	5646.89	51.0	Pass
L45	2.75 - 1.75	Pole	TP29.71x29.55x1	45	-42.04	5679.24	51.1	Pass
L46	1.75 - 1.5	Pole	TP29.75x29.71x0.98	46	-42.15	5549.97	52.3	Pass
L47	1.5 - 1.25	Pole	TP29.8x29.75x0.96	47	-42.24	5488.98	52.9	Pass
L48	1.25 - 1	Pole	TP29.84x29.8x1.04	48	-42.34	5909.69	49.5	Pass
L49	1 - 0	Pole	TP30x29.84x1.03	49	-42.70	5874.19	50.1	Pass
							Summary	
						Pole (L3)	67.1	Pass
						RATING =	**67.1**	**Pass**

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

APPENDIX B

BASE LEVEL DRAWING


CLIMBING PEGS
W/ SAFETY CLIMB
(OTHER CONSIDERED EQUIPMENT)
(6) 7/8" TO 102 FT LEVEL
(2) 1-5/8" TO 102 FT LEVEL
(OTHER CONSIDERED EQUIPMENT)
(1) 1-3/8" TO 73 FT LEVEL
Q4
Q1
Q3
Q2
(OTHER CONSIDERED EQUIPMENT)
(1) 3/8" TO 84 FT LEVEL
(6) 13/16" TO 84 FT LEVEL
(1) 7/8" TO 84 FT LEVEL
(OTHER CONSIDERED EQUIPMENT)
(2) 3/8" TO 84 FT LEVEL
(6) 7/8" TO 84 FT LEVEL
(PROPOSED EQUIPMENT CONFIGURATION)
(2) 1-5/8" TO 94 FT LEVEL

APPENDIX C

ADDITIONAL CALCULATIONS

CCIpole

per TIA-222- H

Site BU: 806042

Work Order:

CROWN CASTLE

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)_1	2						o						o
13	0	6	plate	FP 1.25 x 7.375_1	2						o						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	I-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 (in2)	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	-	-	-	-	-	-	-	-	-
	Bottom	-	-	-	-	0	0	0	-	-	0	-	-	-
FP 1.25 x 5_1	Top	0	0	0	0	-	-	-	-	-	-	-	-	-
	Bottom	-	-	-	-	0	0	0	-	-	0	-	-	-
FP 1.25 x 2.375_1	Top	0	0	0	0	-	-	-	-	-	-	-	-	-
	Bottom	-	-	-	-	0	0	0	-	-	0	-	-	-
FP 6.5 x 1.25; (1) (1.1875)_1	Top	11	N	3	3	-	-	-	-	-	-	-	-	-
	Bottom	11	N	3	3	-	-	-	-	-	-	-	-	-
FP 6 x 1; (1) (1.1875)_1	Top	8	N	3	3	-	-	-	-	-	-	-	-	-
	Bottom	8	N	3	3	-	-	-	-	-	-	-	-	-
FP 1.25 x 7.375_1	Top	0	0	0	0	-	-	-	-	-	-	-	-	-
	Bottom	-	-	-	-	0	0	0	-	-	0	-	-	-
2.25 Solid Round; (2.25 Max); (2.25	Top	0	0	0	0	-	-	-	-	-	-	-	-	325
	Bottom	-	-	-	-	0	0	0	-	-	0	-	-	325
CCI-065125; (1) (1.1875)_2	Top	16	N	3	3	-	-	-	-	-	-	-	-	-
	Bottom	16	N	3	3	-	-	-	-	-	-	-	-	-
CCI-065125 (trimmed)	Top	15	N	3	3	-	-	-	-	-	-	-	-	-
	Bottom	15	N	3	3	-	-	-	-	-	-	-	-	-

TNX Geometry Input

Increment (ft): 5 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	1.006
43	4.25 - 3	1.25		12	29.305	29.509	0.9	A572-65	1.001
44	3 - 2.75	0.25		12	29.509	29.550	1	A572-65	0.971
45	2.75 - 1.75	1		12	29.550	29.714	1	A572-65	0.967
46	1.75 - 1.5	0.25		12	29.714	29.755	0.975	A572-65	0.898
47	1.5 - 1.25	0.25		12	29.755	29.796	0.9625	A572-65	0.909
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):	5	TNX Output		
	Section Height (ft)	P_u (K)	M_{ux} (kip-ft)	V_u (K)
1	100 - 95	4.04	42.03	6.42
2	95 - 90	7.77	87.94	9.98
3	90 - 85.5	8.03	133.49	10.28
4	85.5 - 85.25	8.07	136.06	10.29
5	85.25 - 80.25	12.83	219.28	16.08
6	80.25 - 75.25	13.49	301.17	16.71
7	75.25 - 70.25	17.13	394.68	20.06
8	70.25 - 68.5	17.39	429.92	20.25
9	68.5 - 65	18.59	501.52	20.68
10	65 - 60	19.91	606.26	21.24
11	60 - 55	21.27	713.83	21.82
12	55 - 54.75	21.34	719.29	21.84
13	54.75 - 54.5	21.42	724.75	21.87
14	54.5 - 54.25	21.50	730.22	21.91
15	54.25 - 54	21.60	735.70	21.94
16	54 - 49	23.51	847.12	22.65
17	49 - 44	25.46	962.05	23.34
18	44 - 39	27.43	1080.36	24.01
19	39 - 38.75	27.51	1086.36	24.03
20	38.75 - 36.25	28.28	1146.75	24.32
21	36.25 - 32.75	30.25	1232.61	24.77
22	32.75 - 32.5	30.34	1238.80	24.80
23	32.5 - 29.75	31.26	1307.37	25.11
24	29.75 - 29.5	31.37	1313.64	25.12
25	29.5 - 26.75	32.41	1383.14	25.46
26	26.75 - 26.5	32.50	1389.50	25.47
27	26.5 - 23.5	33.39	1466.34	25.80
28	23.5 - 23.25	33.49	1472.79	25.81
29	23.25 - 22.75	33.67	1485.70	25.86
30	22.75 - 22.5	33.77	1492.16	25.88
31	22.5 - 17.5	35.66	1622.79	26.40
32	17.5 - 15.75	36.33	1669.10	26.59
33	15.75 - 15.5	36.46	1675.74	26.58
34	15.5 - 12.25	37.81	1762.68	26.95
35	12.25 - 12	37.92	1769.41	26.96
36	12 - 11.75	38.03	1776.15	26.99
37	11.75 - 11.5	38.13	1782.90	27.02
38	11.5 - 6.5	40.13	1919.06	27.48
39	6.5 - 6	40.34	1932.80	27.51
40	6 - 5.75	40.45	1939.68	27.53
41	5.75 - 4.5	40.94	1974.13	27.65
42	4.5 - 4.25	41.06	1981.04	27.64
43	4.25 - 3	41.52	2015.64	27.77
44	3 - 2.75	41.64	2022.58	27.76
45	2.75 - 1.75	42.04	2050.37	27.86
46	1.75 - 1.5	42.15	2057.33	27.87
47	1.5 - 1.25	42.24	2064.30	27.89
48	1.25 - 1	42.34	2071.27	27.91
49	1 - 0	42.70	2099.21	27.99

Analysis Results

Elevation (ft)	Component Type	Size	Critical Element	% Capacity	Pass / Fail
100 - 95	Pole	TP15.319x14.5x0.19	Pole	26.0%	Pass
95 - 90	Pole	TP16.138x15.319x0.19	Pole	48.9%	Pass
90 - 85.5	Pole	TP16.875x16.138x0.19	Pole	66.9%	Pass
85.5 - 85.25	Pole + Reinf.	TP16.916x16.875x0.615	Reinf. 7 Bolt-Shaft Bearing	30.8%	Pass
85.25 - 80.25	Pole + Reinf.	TP17.736x16.916x0.59	Reinf. 7 Tension Rupture	39.1%	Pass
80.25 - 75.25	Pole + Reinf.	TP18.555x17.736x0.565	Reinf. 7 Tension Rupture	50.4%	Pass
75.25 - 70.25	Pole + Reinf.	TP19.374x18.555x0.54	Reinf. 7 Tension Rupture	62.3%	Pass
70.25 - 68.5	Pole + Reinf.	TP20.07x19.374x0.54	Reinf. 7 Tension Rupture	66.5%	Pass
68.5 - 65	Pole + Reinf.	TP19.863x19.29x0.825	Reinf. 7 Tension Rupture	56.4%	Pass
65 - 60	Pole + Reinf.	TP20.681x19.863x0.7875	Reinf. 7 Tension Rupture	64.6%	Pass
60 - 55	Pole + Reinf.	TP21.499x20.681x0.75	Reinf. 7 Tension Rupture	72.2%	Pass
55 - 54.75	Pole + Reinf.	TP21.54x21.499x0.75	Reinf. 7 Tension Rupture	72.6%	Pass
54.75 - 54.5	Pole + Reinf.	TP21.581x21.54x0.95	Reinf. 3 Bolt-Shaft Bearing	58.3%	Pass
54.5 - 54.25	Pole + Reinf.	TP21.622x21.581x0.95	Reinf. 3 Tension Rupture	58.5%	Pass
54.25 - 54	Pole + Reinf.	TP21.663x21.622x1.8	Reinf. 17 Tension Rupture	35.7%	Pass
54 - 49	Pole + Reinf.	TP22.481x21.663x1.7	Reinf. 17 Tension Rupture	39.5%	Pass
49 - 44	Pole + Reinf.	TP23.3x22.481x1.6	Reinf. 17 Tension Rupture	43.1%	Pass
44 - 39	Pole + Reinf.	TP24.118x23.3x1.525	Reinf. 17 Tension Rupture	46.5%	Pass
39 - 38.75	Pole + Reinf.	TP24.159x24.118x0.825	Reinf. 1 Tension Rupture	76.1%	Pass
38.75 - 36.25	Pole + Reinf.	TP25.1x24.159x0.825	Reinf. 1 Tension Rupture	78.6%	Pass
36.25 - 32.75	Pole + Reinf.	TP24.643x24.07x0.825	Reinf. 1 Tension Rupture	84.0%	Pass
32.75 - 32.5	Pole + Reinf.	TP24.683x24.643x0.85	Reinf. 1 Tension Rupture	78.3%	Pass
32.5 - 29.75	Pole + Reinf.	TP25.133x24.683x0.825	Reinf. 1 Tension Rupture	80.7%	Pass
29.75 - 29.5	Pole + Reinf.	TP25.174x25.133x1.1	Reinf. 1 Tension Rupture	64.9%	Pass
29.5 - 26.75	Pole + Reinf.	TP25.624x25.174x1.075	Reinf. 1 Tension Rupture	66.8%	Pass
26.75 - 26.5	Pole + Reinf.	TP25.665x25.624x0.9125	Reinf. 5 Tension Rupture	74.1%	Pass
26.5 - 23.5	Pole + Reinf.	TP26.156x25.665x0.9	Reinf. 5 Tension Rupture	76.4%	Pass
23.5 - 23.25	Pole + Reinf.	TP26.197x26.156x0.9	Reinf. 5 Tension Rupture	76.0%	Pass
23.25 - 22.75	Pole + Reinf.	TP26.278x26.197x0.9	Reinf. 5 Tension Rupture	76.3%	Pass
22.75 - 22.5	Pole + Reinf.	TP26.319x26.278x1.05	Reinf. 3 Tension Rupture	70.0%	Pass
22.5 - 17.5	Pole + Reinf.	TP27.137x26.319x1.025	Reinf. 3 Tension Rupture	73.2%	Pass
17.5 - 15.75	Pole + Reinf.	TP27.424x27.137x1	Reinf. 3 Tension Rupture	74.3%	Pass
15.75 - 15.5	Pole + Reinf.	TP27.464x27.424x1.0875	Reinf. 6 Tension Rupture	65.0%	Pass
15.5 - 12.25	Pole + Reinf.	TP27.996x27.464x1.075	Reinf. 6 Tension Rupture	66.8%	Pass
12.25 - 12	Pole + Reinf.	TP28.037x27.996x0.95	Reinf. 1 Tension Rupture	74.4%	Pass
12 - 11.75	Pole + Reinf.	TP28.078x28.037x1.075	Reinf. 3 Tension Rupture	62.9%	Pass
11.75 - 11.5	Pole + Reinf.	TP28.119x28.078x0.875	Reinf. 6 Tension Rupture	74.1%	Pass
11.5 - 6.5	Pole + Reinf.	TP28.937x28.119x0.85	Reinf. 6 Tension Rupture	77.0%	Pass
6.5 - 6	Pole + Reinf.	TP29.018x28.937x0.85	Reinf. 6 Tension Rupture	77.3%	Pass
6 - 5.75	Pole + Reinf.	TP29.059x29.018x0.85	Reinf. 6 Tension Rupture	77.4%	Pass
5.75 - 4.5	Pole + Reinf.	TP29.264x29.059x0.8375	Reinf. 6 Tension Rupture	78.1%	Pass
4.5 - 4.25	Pole + Reinf.	TP29.305x29.264x0.9	Reinf. 8 Tension Yield	79.0%	Pass
4.25 - 3	Pole + Reinf.	TP29.509x29.305x0.9	Reinf. 8 Tension Yield	79.7%	Pass
3 - 2.75	Pole + Reinf.	TP29.55x29.509x1	Reinf. 8 Tension Yield	75.4%	Pass
2.75 - 1.75	Pole + Reinf.	TP29.714x29.55x1	Reinf. 8 Tension Yield	75.9%	Pass
1.75 - 1.5	Pole + Reinf.	TP29.755x29.714x0.975	Reinf. 8 Tension Yield	79.1%	Pass
1.5 - 1.25	Pole + Reinf.	TP29.796x29.755x0.9625	Reinf. 8 Tension Yield	79.2%	Pass
1.25 - 1	Pole + Reinf.	TP29.836x29.796x1.0375	Reinf. 14 Connection	73.4%	Pass
1 - 0	Pole + Reinf.	TP30x29.836x1.025	Reinf. 14 Connection	73.9%	Pass
				Summary	
			Pole	71.2%	Pass
			Reinforcement	84.0%	Pass
			Overall	84.0%	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	**26.0%**																		
95 - 90	317	n/a	317	9.74	n/a	9.74	48.9%																		
90 - 85.5	363	n/a	363	10.19	n/a	10.19	**66.9%**																		
85.5 - 85.25	366	736	1102	10.22	16.95	27.17	21.6%							30.8%											
85.25 - 80.25	422	801	1224	10.72	16.95	27.67	**33.0%**							**39.1%**											
80.25 - 75.25	484	870	1354	11.22	16.95	28.17	43.0%							50.4%											
75.25 - 70.25	552	941	1493	11.72	16.95	28.67	**54.2%**							**62.3%**											
70.25 - 68.5	577	967	1544	11.89	16.95	28.84	58.1%							66.5%											
68.5 - 65	800	1563	2363	15.77	41.33	57.09	**49.2%**							**56.4%**											**39.9%**
65 - 60	904	1680	2583	16.42	41.33	57.75	56.5%							64.6%											45.9%
60 - 55	1016	1801	2817	17.08	41.33	58.41	**63.3%**							**72.2%**											**51.5%**
55 - 54.75	1022	1807	2829	17.11	41.33	58.44	63.6%							72.6%											51.8%
54.75 - 54.5	1021	2456	3477	17.15	49.79	66.93	**51.6%**	**44.1%**		**58.3%**															**44.0%**
54.5 - 54.25	1027	2464	3491	17.18	49.79	66.96	51.9%	44.2%		58.5%															44.2%
54.25 - 54	1010	4812	5822	17.21	71.82	89.03	**28.2%**	**32.1%**		**32.7%**														**35.7%**	**33.8%**
54 - 49	1131	5151	6282	17.87	71.82	89.69	31.3%	35.4%		36.1%														39.5%	37.4%
49 - 44	1260	5503	6763	18.53	71.82	90.34	**34.2%**	**38.6%**		**39.3%**														**43.1%**	**40.8%**
44 - 39	1399	5866	7265	19.19	71.82	91.00	37.2%	41.7%		42.5%														46.5%	44.0%
39 - 38.75	1431	2952	4383	19.22	47.44	66.66	**68.5%**	**76.1%**		**46.2%**														**61.4%**	
38.75 - 36.25	1505	3044	4549	19.55	47.44	66.99	71.2%	78.6%		47.8%														63.5%	
36.25 - 32.75	1519	3060	4579	19.61	47.44	67.05	**61.4%**	**84.0%**		**51.2%**														**67.9%**	
32.75 - 32.5	1509	3214	4723	19.64	53.09	72.73	58.3%	78.3%		48.0%		51.1%												66.2%	
32.5 - 29.75	1594	3322	4915	20.00	53.09	73.09	**60.6%**	**80.7%**		**49.6%**		**52.8%**												**68.4%**	
29.75 - 29.5	1610	4737	6348	20.04	64.39	84.43	47.8%	64.9%		43.8%		52.1%	57.3%											55.5%	
29.5 - 26.75	1699	4894	6593	20.40	64.39	84.79	**49.6%**	**66.8%**		**45.2%**		**53.8%**	**59.0%**											**57.3%**	
26.75 - 26.5	1689	4016	5705	20.43	42.36	62.79	53.0%	73.1%		73.1%		74.1%	74.1%												
26.5 - 23.5	1789	4159	5948	20.82	42.36	63.18	**55.1%**	**75.3%**		**75.3%**		**76.4%**	**76.4%**												
23.5 - 23.25	1797	4207	6005	20.86	54.36	75.22	54.8%	61.4%		74.9%		76.0%	62.2%						59.6%						
23.25 - 22.75	1814	4232	6046	20.92	54.36	75.28	**55.1%**	**61.7%**		**75.3%**		**76.3%**	**62.5%**						**59.9%**						
22.75 - 22.5	1848	5180	7029	20.96	62.49	83.44	52.6%	59.8%		70.0%		60.8%	63.2%					57.0%	60.4%						
22.5 - 17.5	2027	5483	7510	21.61	62.49	84.10	**55.9%**	**62.6%**		**73.2%**		**63.7%**	**66.2%**					**59.8%**	**63.4%**						
17.5 - 15.75	2092	5591	7684	21.84	62.49	84.33	57.0%	63.6%		74.3%		64.7%	67.2%					60.7%	64.4%						
15.75 - 15.5	2074	6144	8218	21.88	70.96	92.83	**50.2%**	**64.2%**	**51.1%**	**60.0%**		**61.3%**	**65.0%**					**55.3%**	**61.2%**						
15.5 - 12.25	2198	6368	8566	22.30	70.96	93.26	52.1%	66.0%	52.6%	61.6%		63.0%	66.8%					56.9%	63.0%						
12.25 - 12	2218	5625	7843	22.34	65.31	87.64	**60.1%**	**74.4%**	**56.1%**	**67.0%**			**68.5%**					**69.6%**	**65.9%**						
12 - 11.75	2225	6528	8752	22.37	72.84	95.21	53.8%	61.7%	52.3%	62.9%			57.9%									60.2%	50.5%		
11.75 - 11.5	2236	5044	7281	22.40	64.37	86.77	**63.5%**	**66.4%**	**72.8%**				**74.1%**									**69.3%**	**53.6%**		
11.5 - 6.5	2439	5302	7740	23.06	64.37	87.43	66.9%	69.1%	75.7%				77.0%									71.8%	55.7%		
6.5 - 6	2459	5328	7787	23.13	64.37	87.49	**67.3%**	**69.4%**	**76.0%**				**77.3%**									**72.0%**	**55.9%**		
6 - 5.75	2470	5341	7811	23.16	64.37	87.52	67.5%	69.5%	76.1%				77.4%							56.0%		72.2%			
5.75 - 4.5	2523	5406	7929	23.32	64.37	87.69	**68.3%**	**70.2%**	**76.8%**				**78.1%**							**56.5%**		**72.8%**			
4.5 - 4.25	2528	5976	8505	23.36	59.32	82.67	64.7%	66.4%	77.2%						79.0%					56.3%		70.9%			
4.25 - 3	2582	6048	8630	23.52	59.32	82.84	**65.5%**	**67.1%**	**77.9%**						**79.7%**					**56.9%**		**71.5%**			
3 - 2.75	2633	7040	9673	23.55	65.57	89.12	62.4%	61.0%	71.3%						75.4%		60.5%			56.7%		56.7%			
2.75 - 1.75	2677	7107	9784	23.68	65.57	89.25	**63.0%**	**61.4%**	**71.8%**						**75.9%**		**60.9%**			**57.1%**		**57.1%**			
1.75 - 1.5	2654	6841	9496	23.72	57.34	81.06	62.9%				77.0%				79.1%		64.1%			68.5%		59.5%			
1.5 - 1.25	2665	6857	9523	23.75	57.34	81.09	**63.1%**				**77.1%**				**79.2%**		**64.2%**			**68.6%**		**59.6%**			
1.25 - 1	2692	7544	10236	23.78	56.77	80.55	60.5%				70.2%									54.8%	73.4%	56.3%			
1 - 0	2736	7605	10342	23.91	56.77	80.69	**61.2%**				**70.8%**									**55.2%**	**73.9%**	**56.7%**			

Note: Section capacity checked using 5 degree increments.
Rating per TIA-222-H Section 15.5.

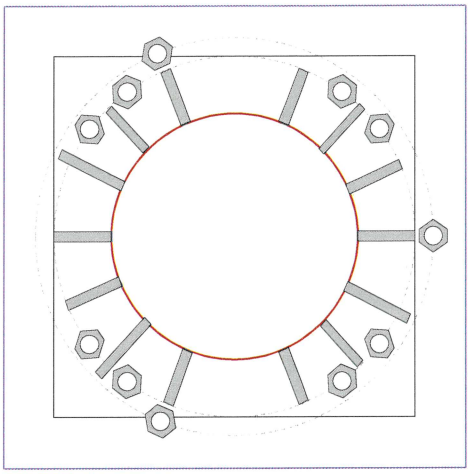
Monopole Base Plate Connection

Site Info	
BU #	806042
Site Name	BOS ASHLAND 959026
Order #	693954 REV. 1

Analysis Considerations	
TIA-222 Revision	H
Grout Considered:	See Custom Sheet
l_{gr} (in)	See Custom Sheet

Applied Loads	
Moment (kip-ft)	2099.21
Axial Force (kips)	42.70
Shear Force (kips)	27.99

**TIA-222-H Section 15.5 Applied*



Connection Properties

Anchor Rod Data

GROUP 1: (8) 2-1/4" ø bolts (A615-75 N; Fy=75 ksi, Fu=100 ksi) on 44" BC
Anchor Spacing: 6.428 in
GROUP 2: (3) 2-1/4" ø bolts (F1554-105 N; Fy=105 ksi, Fu=125 ksi) on 48.5" BC
pos. (deg): 0, 113, 248

Base Plate Data

44" W x 2" Plate (A572-60; Fy=60 ksi, Fu=75 ksi); Clip: 0 in

Stiffener Data

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

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

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

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

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

Pole Data

30" x 0.25" 12-sided pole (A572-65; Fy=65 ksi, Fu=80 ksi)

Analysis Results

Anchor Rod Summary *(units of kips, kip-in)*

GROUP 1:		
Pu_t = 198.76	ϕPn_t = 243.75	**Stress Rating**
Vu = 3.5	ϕVn = 149.1	**77.7%**
Mu = n/a	ϕMn = n/a	Pass
GROUP 2:		
Pu_t = 221.73	ϕPn_t = 304.69	**Stress Rating**
Vu = 0	ϕVn = 186.38	**69.3%**
Mu = n/a	ϕMn = n/a	Pass

Base Plate Summary

Max Stress (ksi):	34.47	(Roark's Flexural)
Allowable Stress (ksi):	54	
Stress Rating:	**60.8%**	Pass

Stiffener Summary

Horizontal Weld:	**58.7%**	Pass
Vertical Weld:	**42.1%**	Pass
Plate Flexure+Shear:	**9.7%**	Pass
Plate Tension+Shear:	**35.0%**	Pass
Plate Compression:	**38.3%**	Pass

Pole Summary

Punching Shear:	**15.8%**	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		

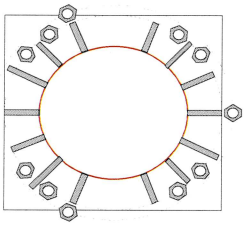
Custom Bolt Connection

Bolt	Bolt Group ID	Location (deg.)	Diameter (in)	Material	Bolt Circle (in)	Eta Factor, η:	l_{ar} (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	293	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:	693954 REV. 1
TIA-222 Revison:	H
Tower Type:	Monopole

Applied Loads	Comp.	Uplift
Moment (kip-ft)	2099.21	
Axial Force (kips)	42.72	
Shear Force (kips)	27.96	

Material Properties		
Concrete Strength, f'c:	3	ksi
Rebar Strength, Fy:	60	ksi
Tie Yield Strength, Fyt:	40	ksi

Pier Design Data		
Depth	21.25	ft
Ext. Above Grade	0.25	ft
Pier Section 1		
From 0.25' above grade to 21' below grade		
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*
$D_{y=0}$ (ft from TOC)	6.65	-
Soil Safety Factor	1.72	-
Max Moment (kip-ft)	2308.69	-
Rating*	*73.6%*	-
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)	128.31	-
Rating*	*17.3%*	-
Reinforced Concrete Flexure	*Compression*	*Uplift*
Critical Depth (ft from TOC)	6.60	-
Critical Moment (kip-ft)	2308.66	-
Critical Moment Capacity	4676.27	-
Rating*	*47.0%*	-
Reinforced Concrete Shear	*Compression*	*Uplift*
Critical Depth (ft from TOC)	15.39	-
Critical Shear (kip)	326.56	-
Critical Shear Capacity	436.89	-
Rating*	*71.2%*	-

Structural Foundation Rating*	**71.2%**
Soil Interaction Rating*	**73.6%**

*Rating per TIA-222-H Section 15.5

Check Limitation	
Apply TIA-222-H Section 15.5:	☑
N/A	☐
Design Options	
Input Effective Depths (else Actual):	☐
Consider non-tapered moment capacity:	☐
Check Shear along Depth of Pier:	☑
Utilize Shear-Friction Methodology:	☐
Override Critical Depth:	☐

Go to Soil Calculations

Soil Profile

Groundwater Depth	10

# of Layers	3

Layer	Top (ft)	Bottom (ft)	Thickness (ft)	γ_{soil} (pcf)	$\gamma_{concrete}$ (pcf)	Cohesion (ksf)	Angle of Friction (degrees)	Calculated Ultimate Skin Friction Comp (ksf)	Calculated Ultimate Skin Friction Uplift (ksf)	Ultimate Skin Friction Comp Override (ksf)	Ultimate Skin Friction Uplift Override (ksf)	Ult. Gross Bearing Capacity (ksf)	SPT Blow Count	Soil Type
1	0	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 Feb 24 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.

ASCE
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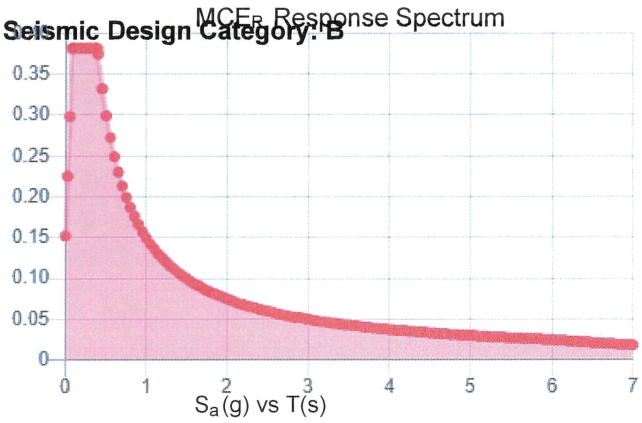
Seismic

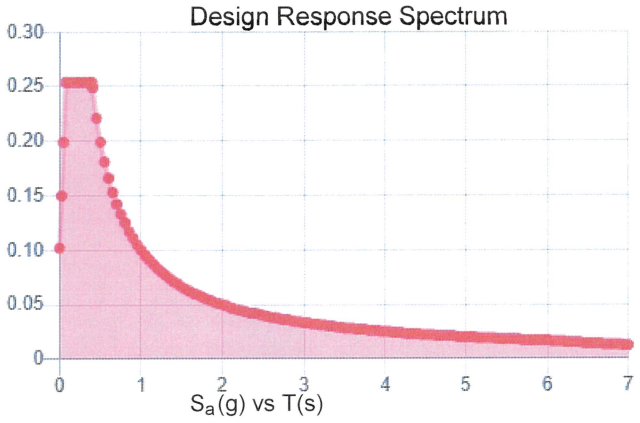
Site Soil Class: D - Default (see Section 11.4.3)

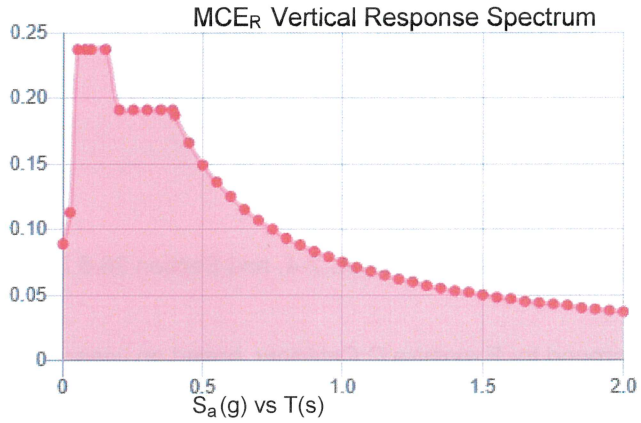
Results:

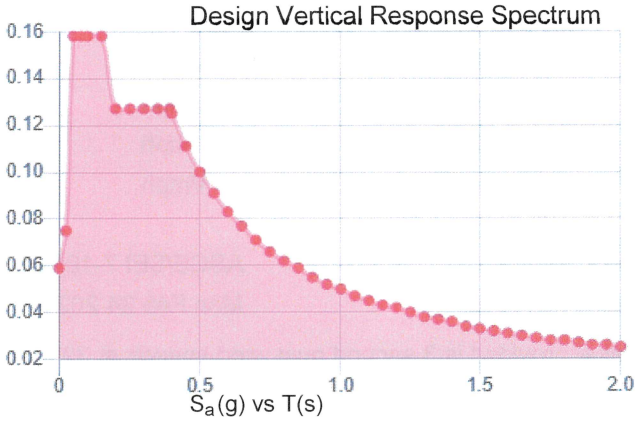
S_S :	0.238	S_{D1} :	0.1
S_1 :	0.062	T_L :	6
F_a :	1.6	PGA :	0.137
F_v :	2.4	PGA_M :	0.209
S_{MS} :	0.381	F_{PGA} :	1.526
S_{M1} :	0.149	I_e :	1
S_{DS} :	0.254	C_v :	0.776

Seismic Design Category: B









Data Accessed: Mon Feb 24 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 Feb 24 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.