

Exhibit D

Structural Analysis Report

Date: **February 15, 2022**



Black & Veatch Corp.
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Subject: **Structural Modification Report**

Carrier Designation: **AT&T Mobility Co-Locate**
Site Number: CTL05833
FA Number: 10070954

Crown Castle Designation: **BU Number:** 842859
Site Name: BRISTOL CENTER
JDE Job Number: 686236
Work Order Number: 2066628
Order Number: 586265 Rev. 0

Engineering Firm Designation: **Black & Veatch Corp. Project Number:** 406642

Site Data: **371 Terryville Avenue, Bristol, Hartford County, CT**
Latitude 41° 40' 47.71", Longitude -72° 57' 45.18"
168.33 Foot - Monopole Tower

Black & Veatch Corp. is pleased to submit this “**Structural Modification 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 including the proposed modifications as outlined in the attached drawings, “Appendix D”. Based on our analysis we have determined the tower stress level for the structure and foundation, under the following load case, to be:

LC4: Modified Structure w/ Proposed Equipment Configuration **Sufficient Capacity - 94.0%**

This analysis utilizes an ultimate 3-second gust wind speed of 116 mph as required by the 2018 Connecticut State Building Code. Applicable Standard references and design criteria are listed in Section 2 - Analysis Criteria.

Structural analysis prepared by: Suttinee Somchana

Respectfully submitted by:

Ping Jiang, P.E.
Professional Engineer

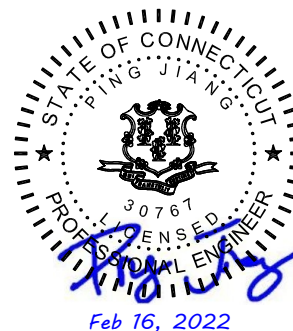


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1) INTRODUCTION

This tower is a 168.33 ft Monopole tower designed by Engineered Endeavors, Inc.

This tower has been modified multiple times in the past to accommodate additional loading.

The tower has been modified per reinforcement drawings prepared by Black & Veatch Corp. in May of 2012. Reinforcement consists of the installation of reinforcement plates from 0' to 120', baseplate stiffeners, and additional anchor rods. Refer to the Legacy Modification Inspection Report by Sinnot Gering and Schmitt Towers, Inc. in August of 2015. All reinforcement plates are considered ineffective in this analysis.

The tower was later modified per reinforcement drawings prepared by GPD Group, Inc. in February of 2013. Reinforcement consists of the removal and replacement of all baseplate stiffeners, installation of reinforcement plates from 0.75' to 130.67' and transition stiffener plates. Refer to Legacy Modification Inspection Report by B+T Group in March of 2015. This modification has been considered effective in this analysis.

The tower was later modified per reinforcement drawings prepared by GPD Group, Inc. in August of 2013. Reinforcement consists of the installation of additional rebar to the existing foundation. Refer to the Post Modification Observation Report by GPD Group, Inc. in December of 2013. This modification has been considered effective in this analysis.

The tower was later modified per reinforcement drawings prepared by Black & Veatch Corp. in September of 2015. The modification consists of the removal of existing reinforcement plates between from 0' and 84.67', the removal and replacement of all baseplate stiffener plates, the installation of reinforcement plates from 1.25' to 84.33' and 87.92' - 127.33', transition stiffener plates and additional rebar to the existing foundation. Refer to Modification Inspection Report by Engineered Tower Solutions, PLLC in February of 2016. This modification has been considered effective in this analysis.

The tower was later modified per reinforcement drawings prepared by Black & Veatch Corp. in September of 2019. The modification consists of installation of reinforcement plates from 25.5' to 35.5', 45.5' to 55.5', 80.5' to 90.5' and 112' to 122'. Refer to Modification Inspection Report by Engineered Tower Solutions, PLLC in September of 2020. This modification has been considered effective in this analysis.

2) ANALYSIS CRITERIA

TIA-222 Revision:	TIA-222-H
Risk Category:	II
Wind Speed:	116 mph
Exposure Category:	C
Topographic Factor:	1
Ice Thickness:	1 in
Wind Speed with Ice:	50 mph
Seismic Ss:	0.186
Seismic S1:	0.054
Service Wind Speed:	60 mph
Seismic Loading:	Does not control per engineering judgment

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)
168.0	172.0	3	ericsson	AIR 6419 B77G w/ Mount Pipe	6 6 5 5 1	1-5/8 13/16 7/8 3/8 conduit
	170.0	2	ericsson	RRUS 4426 B66		
		3	ericsson	RRUS 8843 B2/B66A		
		5	kaelus	DBC0051F3V51-2		
		1	matsing	MS-MBA-3.2-H4-L4 w/ Mount Pipe		
		1	quintel technology	QD6616-7 w/ Mount Pipe		
		2	quintel technology	QD8616-7 w/ Mount Pipe		
		1	raycap	DC9-48-60-24-8C-EV		
	169.0	3	ericsson	RRUS 32 B2		
		3	ericsson	RRUS 32 B30		
		3	ericsson	RRUS 4415 B25		
		3	ericsson	RRUS 4449 B5/B12		
		3	ericsson	RRUS E2 B29		
		4	raycap	DC6-48-60-18-8F		
	168.0	1	cci antennas	DMP65R-BU6D w/ Mount Pipe		
		1	cci antennas	DMP65R-BU8D w/ Mount Pipe		
		3	ericsson	AIR 6449 B77D w/ Mount Pipe		
		1	site pro 1	RMQP-4096 + PRK-1245 + HRK12 12.5' Platform with Handrails and Kickers		

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)
158.0	158.0	3	ericsson	AIR6449 B41_T-MOBILE	3	1-5/8
		3	ericsson	RADIO 4460 B2/B25 B66_TMO		
		3	ericsson	Radio 4480_TMOV2		
		3	rfs celwave	APXVAALL24_43-U-NA20_TMO		
		1	site pro 1	Sector Frame Attachment Assembly [#MSFAA]		
		3	site pro 1	VFA12-HD 12' Heavy Duty V-Frame		
148.0	148.0	3	fujitsu	TA08025-B604	1	1-1/2
		3	fujitsu	TA08025-B605		
		3	jma wireless	MX08FRO665-21 w/ Mount Pipe		
		1	raycap	RDIDC-9181-PF-48		
		1	tower mounts	Commscope MC-PK8-DSH		
138.0	140.0	3	antel	BXA-70063/4CF w/ Mount Pipe	7 1	1-5/8 1-1/4
		3	commscope	NHH-65B-R2B w/ Mount Pipe		
		3	commscope	NHHSS-65B-R2B w/ Mount Pipe		

Mounting Level (ft)	Center Line Elevation (ft)	Number of Antennas	Antenna Manufacturer	Antenna Model	Number of Feed Lines	Feed Line Size (in)
		1	raycap	RVZDC-6627-PF-48		
		3	samsung telecommunications	CBRS RT4401-48A		
		3	samsung telecommunications	MT6407-77A w/ Mount Pipe		
		3	samsung telecommunications	RFV01U-D1A		
		3	samsung telecommunications	RFV01U-D2A		
	138.0	1	cci tower mounts (v2.1)	Platform Mount [LP 303-1]		
128.0	130.0	3	ericsson	AIR 32 B2A/B66AA w/ Mount Pipe	12 3	1-5/8 1-1/4
		3	ericsson	KRY 112 144/1		
		3	ericsson	RADIO 4449 B12/B71		
		3	rfs celwave	APXVAARR24_43-U-NA20 w/ Mount Pipe		
	128.0	1	cci tower mounts (v2.1)	Platform Mount [LP 303-1]		
70.0	70.0	1	cci tower mounts (v2.1)	Side Arm Mount [SO 701-1]	1	1/2
		1	gps	GPS_A		

3) ANALYSIS PROCEDURE

Table 3 - Documents Provided

Document	Reference	Source
4-GEOTECHNICAL REPORTS	5452600	CCISITES
4-TOWER FOUNDATION DRAWINGS/DESIGN/SPECS	4529295	CCISITES
4-TOWER MANUFACTURER DRAWINGS	5135435	CCISITES
4-TOWER REINFORCEMENT DESIGN/DRAWINGS/DATA	5111173	CCISITES
4-POST-MODIFICATION INSPECTION	5839578	CCISITES
4-TOWER REINFORCEMENT DESIGN/DRAWINGS/DATA	4964264	CCISITES
4-POST-MODIFICATION INSPECTION	5595874	CCISITES
4-TOWER REINFORCEMENT DESIGN/DRAWINGS/DATA	5111173	CCISITES
4-POST-MODIFICATION INSPECTION	5114340	CCISITES
4-TOWER REINFORCEMENT DESIGN/DRAWINGS/DATA	5907572	CCISITES
4-POST-MODIFICATION INSPECTION	6121087	CCISITES
4-TOWER REINFORCEMENT DESIGN/DRAWINGS/DATA	8800798	CCISITES
4-POST-MODIFICATION INSPECTION	9239992	CCISITES
4-TOWER STRUCTURAL ANALYSIS REPORTS	10110809	CCISITES

3.1) Analysis Method

tnxTower (version 8.1.1.0), a commercially available analysis software package, was used to create a three-dimensional model of the tower and calculate member stresses for various loading cases. Selected output from the analysis is included in Appendix A. 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 pole and in the reinforcing elements. These calculations are presented 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. Black & Veatch Corp. should be notified to determine the effect on the structural integrity of the tower.

4) ANALYSIS RESULTS

Table 4 - Section Capacity (Summary) (Monopole Tower)

Elevation (ft)	Component Type	Size	Critical Element	% Capacity	Pass / Fail
168.33 - 163.33	Pole	TP19.834x19x0.1875	Pole	15.0%	Pass
163.33 - 158.33	Pole	TP20.669x19.834x0.1875	Pole	25.7%	Pass
158.33 - 153.33	Pole	TP21.503x20.669x0.1875	Pole	42.0%	Pass
153.33 - 148.33	Pole	TP22.337x21.503x0.1875	Pole	56.1%	Pass
148.33 - 143.33	Pole	TP23.172x22.337x0.1875	Pole	72.8%	Pass
143.33 - 138.33	Pole	TP24.006x23.172x0.1875	Pole	87.4%	Pass
138.33 - 138	Pole	TP24.061x24.006x0.1875	Pole	89.8%	Pass
138 - 137.75	Pole + Reinf.	TP24.103x24.061x0.4375	Reinf. 17 Tension Rupture	63.4%	Pass
137.75 - 134.16	Pole + Reinf.	TP25.313x24.103x0.4375	Reinf. 17 Tension Rupture	72.2%	Pass
134.16 - 129.16	Pole + Reinf.	TP25.151x24.327x0.4938	Reinf. 17 Tension Rupture	74.9%	Pass
129.16 - 125.75	Pole + Reinf.	TP25.712x25.151x0.4875	Reinf. 17 Tension Rupture	82.6%	Pass
125.75 - 125.5	Pole + Reinf.	TP25.754x25.712x0.6125	Reinf. 10 Tension Rupture	66.0%	Pass
125.5 - 120.5	Pole + Reinf.	TP26.577x25.754x0.6	Reinf. 10 Tension Rupture	74.5%	Pass
120.5 - 120.25	Pole + Reinf.	TP26.618x26.577x0.8625	Reinf. 15 Tension Rupture	66.9%	Pass
120.25 - 115.25	Pole + Reinf.	TP27.442x26.618x0.8375	Reinf. 15 Tension Rupture	74.4%	Pass
115.25 - 113.83	Pole + Reinf.	TP27.676x27.442x0.825	Reinf. 15 Tension Rupture	76.4%	Pass
113.83 - 113.48	Pole + Reinf.	TP27.733x27.676x0.8625	Reinf. 10 Tension Rupture	60.1%	Pass
113.48 - 113.25	Pole + Reinf.	TP27.772x27.733x0.8625	Reinf. 10 Tension Rupture	60.3%	Pass
113.25 - 112	Pole + Reinf.	TP27.978x27.772x0.85	Reinf. 10 Tension Rupture	61.7%	Pass
112 - 111.75	Pole + Reinf.	TP28.019x27.978x0.65	Reinf. 10 Tension Rupture	77.4%	Pass
111.75 - 106.75	Pole + Reinf.	TP28.843x28.019x0.6375	Reinf. 10 Tension Rupture	84.0%	Pass

106.75 - 101.75	Pole + Reinf.	TP29.666x28.843x0.625	Reinf. 10 Tension Rupture	90.1%	Pass
101.75 - 98.42	Pole + Reinf.	TP30.215x29.666x0.6125	Reinf. 10 Tension Rupture	93.9%	Pass
98.42 - 98.17	Pole + Reinf.	TP30.256x30.215x0.95	Reinf. 10 Tension Rupture	66.9%	Pass
98.17 - 93.17	Pole + Reinf.	TP31.08x30.256x0.9375	Reinf. 10 Tension Rupture	71.1%	Pass
93.17 - 89.11	Pole + Reinf.	TP32.5x31.08x0.925	Reinf. 10 Tension Rupture	74.4%	Pass
89.11 - 83.55	Pole + Reinf.	TP32.159x31.249x0.8625	Reinf. 13 Tension Rupture	78.5%	Pass
83.55 - 82.83	Pole + Reinf.	TP32.276x32.159x0.8625	Reinf. 13 Tension Rupture	79.0%	Pass
82.83 - 82.58	Pole + Reinf.	TP32.317x32.276x0.9625	Reinf. 13 Tension Rupture	70.7%	Pass
82.58 - 77.58	Pole + Reinf.	TP33.135x32.317x0.9375	Reinf. 13 Tension Rupture	73.9%	Pass
77.58 - 73.42	Pole + Reinf.	TP33.817x33.135x0.9375	Reinf. 13 Tension Rupture	76.5%	Pass
73.42 - 73.17	Pole + Reinf.	TP33.858x33.817x1.1875	Reinf. 9 Tension Rupture	63.5%	Pass
73.17 - 72.42	Pole + Reinf.	TP33.98x33.858x1.1875	Reinf. 9 Tension Rupture	63.9%	Pass
72.42 - 72.17	Pole + Reinf.	TP34.021x33.98x0.9875	Reinf. 7 Tension Rupture	82.3%	Pass
72.17 - 68.08	Pole + Reinf.	TP34.691x34.021x0.9625	Reinf. 7 Tension Rupture	85.0%	Pass
68.08 - 67.83	Pole + Reinf.	TP34.732x34.691x0.9125	Reinf. 9 Tension Rupture	81.4%	Pass
67.83 - 65.58	Pole + Reinf.	TP35.1x34.732x0.9125	Reinf. 9 Tension Rupture	82.7%	Pass
65.58 - 65.33	Pole + Reinf.	TP35.141x35.1x1.1625	Reinf. 9 Tension Rupture	67.5%	Pass
65.33 - 64.25	Pole + Reinf.	TP35.318x35.141x1.1375	Reinf. 9 Tension Rupture	68.1%	Pass
64.25 - 64	Pole + Reinf.	TP35.358x35.318x1.0375	Reinf. 7 Tension Rupture	81.9%	Pass
64 - 59	Pole + Reinf.	TP36.177x35.358x1.0125	Reinf. 7 Tension Rupture	84.8%	Pass
59 - 54	Pole + Reinf.	TP36.995x36.177x0.9875	Reinf. 7 Tension Rupture	87.5%	Pass
54 - 49	Pole + Reinf.	TP38.688x36.995x0.9625	Reinf. 7 Tension Rupture	90.1%	Pass
49 - 42.66	Pole + Reinf.	TP38.232x37.189x0.95	Reinf. 12 Tension Rupture	85.0%	Pass
42.66 - 41.75	Pole + Reinf.	TP38.381x38.232x0.95	Reinf. 12 Tension Rupture	85.3%	Pass
41.75 - 41.5	Pole + Reinf.	TP38.422x38.381x1	Reinf. 12 Tension Rupture	81.7%	Pass
41.5 - 36.5	Pole + Reinf.	TP39.245x38.422x0.9875	Reinf. 12 Tension Rupture	83.6%	Pass
36.5 - 32.75	Pole + Reinf.	TP39.862x39.245x0.975	Reinf. 12 Tension Rupture	85.0%	Pass
32.75 - 32.5	Pole + Reinf.	TP39.903x39.862x1.025	Reinf. 4 Tension Rupture	76.2%	Pass
32.5 - 32.25	Pole + Reinf.	TP39.944x39.903x1.025	Reinf. 4 Tension Rupture	76.3%	Pass
32.25 - 32	Pole + Reinf.	TP39.985x39.944x1.05	Reinf. 4 Tension Rupture	75.6%	Pass
32 - 30.33	Pole + Reinf.	TP40.26x39.985x1.025	Reinf. 4 Tension Rupture	76.2%	Pass
30.33 - 30.08	Pole + Reinf.	TP40.301x40.26x0.925	Reinf. 8 Tension Rupture	93.3%	Pass
30.08 - 28.25	Pole + Reinf.	TP40.602x40.301x0.925	Reinf. 8 Tension Rupture	94.0%	Pass
28.25 - 28	Pole + Reinf.	TP40.643x40.602x0.975	Reinf. 8 Tension Rupture	87.1%	Pass
28 - 23	Pole + Reinf.	TP41.466x40.643x0.95	Reinf. 8 Tension Rupture	88.8%	Pass
23 - 19.25	Pole + Reinf.	TP42.083x41.466x0.95	Reinf. 8 Tension Rupture	90.0%	Pass
19.25 - 19	Pole + Reinf.	TP42.124x42.083x0.8375	Reinf. 5 Tension Rupture	90.6%	Pass
19 - 14.5	Pole + Reinf.	TP42.864x42.124x0.825	Reinf. 5 Tension Rupture	91.9%	Pass
14.5 - 14.25	Pole + Reinf.	TP42.906x42.864x1.4	Reinf. 20 Weldment	67.4%	Pass
14.25 - 12.75	Pole + Reinf.	TP43.152x42.906x1.275	Reinf. 6 Tension Rupture	63.9%	Pass

12.75 - 12.5	Pole + Reinf.	TP43.193x43.152x1	Reinf. 6 Tension Rupture	77.5%	Pass
12.5 - 7.5	Pole + Reinf.	TP44.016x43.193x0.975	Reinf. 6 Tension Rupture	78.8%	Pass
7.5 - 3.5	Pole + Reinf.	TP44.674x44.016x0.975	Reinf. 6 Tension Rupture	79.7%	Pass
3.5 - 3.25	Pole + Reinf.	TP44.715x44.674x1.475	Reinf. 16 Weldment	73.4%	Pass
3.25 - 3	Pole + Reinf.	TP44.756x44.715x1.15	Reinf. 16 Tension Yield	65.1%	Pass
3 - 0	Pole + Reinf.	TP45.25x44.756x1.15	Reinf. 16 Tension Yield	65.7%	Pass
				Summary	
			Pole	89.8%	Pass
			Reinforcement	94.0%	Pass
			Overall	94.0%	Pass

Table 5 - Tower Component Stresses vs. Capacity (Monopole Tower) - LC4

Notes	Component	Elevation (ft)	% Capacity	Pass / Fail
1	Anchor Rods (Original)	0	68.0	Pass
	Anchor Rods (Existing Modification)		71.0	Pass
	Base Plate		61.3	Pass
1	Base Foundation (Structure)	0	90.9	Pass
	Base Foundation (Soil Interaction)		63.8	Pass

Structure Rating (max from all components) =	94%
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Notes:

- 1) See additional documentation in "Appendix C - Additional Calculations" for calculations supporting the % capacity. Rating per TIA-222-H Section 15.5.

4.1) Recommendations

The tower and its foundation will have sufficient capacity to carry the proposed load configuration after proper installation of the proposed reinforcements as shown in Appendix D.

APPENDIX A
TNXTOWER OUTPUT

Tower Input Data

The tower is a monopole.
 This tower is designed using the TIA-222-H standard.
 The following design criteria apply:

- Tower is located in Hartford County, Connecticut.
- Tower base elevation above sea level: 565.00 ft.
- Basic wind speed of 116 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 1.0000 in.
- Ice thickness is considered to increase with height.
- Ice density of 56 pcf.
- A wind speed of 50 mph is used in combination with ice.
- Temperature drop of 50 °F.
- Deflections calculated using a wind speed of 60 mph.
- A non-linear (P-delta) analysis was used.
- Pressures are calculated at each section.
- Stress ratio used in pole design is 1.
- Tower analysis based on target reliabilities in accordance with Annex S.
- Load Modification Factors used: $K_{es}(F_w) = 0.95$, $K_{es}(t_i) = 0.85$.
- Maximum demand-capacity ratio is: 1.05.
- Local bending stresses due to climbing loads, feed line supports, and appurtenance mounts are not considered.

Options

Consider Moments - Legs Consider Moments - Horizontals Consider Moments - Diagonals Use Moment Magnification ✓ Use Code Stress Ratios ✓ Use Code Safety Factors - Guys Escalate Ice Always Use Max Kz Use Special Wind Profile Include Bolts In Member Capacity Leg Bolts Are At Top Of Section Secondary Horizontal Braces Leg Use Diamond Inner Bracing (4 Sided) SR Members Have Cut Ends SR Members Are Concentric	Distribute Leg Loads As Uniform Assume Legs Pinned ✓ Assume Rigid Index Plate ✓ Use Clear Spans For Wind Area Use Clear Spans For KL/r Retension Guys To Initial Tension ✓ Bypass Mast Stability Checks ✓ Use Azimuth Dish Coefficients ✓ Project Wind Area of Appurt. Autocalc Torque Arm Areas Add IBC .6D+W Combination Sort Capacity Reports By Component Triangulate Diamond Inner Bracing Treat Feed Line Bundles As Cylinder Ignore KL/ry For 60 Deg. Angle Legs	Use ASCE 10 X-Brace Ly Rules Calculate Redundant Bracing Forces Ignore Redundant Members in FEA SR Leg Bolts Resist Compression All Leg Panels Have Same Allowable Offset Girt At Foundation ✓ Consider Feed Line Torque Include Angle Block Shear Check Use TIA-222-H Bracing Resist. Exemption Use TIA-222-H Tension Splice Exemption <div style="text-align: center; background-color: #e0e0e0; padding: 2px;">Poles</div> ✓ Include Shear-Torsion Interaction Always Use Sub-Critical Flow Use Top Mounted Sockets Pole Without Linear Attachments Pole With Shroud Or No Appurtenances Outside and Inside Corner Radii Are Known
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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	168.33-163.33	5.00	0.00	18	19.0000	19.8343	0.1875	0.7500	A572-65 (65 ksi)
L2	163.33-158.33	5.00	0.00	18	19.8343	20.6686	0.1875	0.7500	A572-65 (65 ksi)
L3	158.33-153.33	5.00	0.00	18	20.6686	21.5030	0.1875	0.7500	A572-65 (65 ksi)
L4	153.33-148.33	5.00	0.00	18	21.5030	22.3373	0.1875	0.7500	A572-65 (65 ksi)
L5	148.33-143.33	5.00	0.00	18	22.3373	23.1716	0.1875	0.7500	A572-65 (65 ksi)
L6	143.33-138.33	5.00	0.00	18	23.1716	24.0059	0.1875	0.7500	A572-65 (65 ksi)
L7	138.33-138.00	0.33	0.00	18	24.0059	24.0610	0.1875	0.7500	A572-65 (65 ksi)
L8	138.00-137.75	0.25	0.00	18	24.0610	24.1027	0.4375	1.7500	A572-65 (65 ksi)
L9	137.75-130.50	7.25	3.66	18	24.1027	25.3125	0.4375	1.7500	A572-65 (65 ksi)
L10	130.50-129.16	5.00	0.00	18	24.3268	25.1505	0.4938	1.9750	A572-65 (65 ksi)
L11	129.16-125.75	3.41	0.00	18	25.1505	25.7123	0.4875	1.9500	A572-65 (65 ksi)
L12	125.75-125.50	0.25	0.00	18	25.7123	25.7535	0.6125	2.4500	A572-65 (65 ksi)
L13	125.50-120.50	5.00	0.00	18	25.7535	26.5773	0.6000	2.4000	A572-65 (65 ksi)
L14	120.50-120.25	0.25	0.00	18	26.5773	26.6184	0.8625	3.4500	A572-65 (65 ksi)
L15	120.25-115.25	5.00	0.00	18	26.6184	27.4422	0.8375	3.3500	A572-65 (65 ksi)
L16	115.25-113.83	1.42	0.00	18	27.4422	27.6756	0.8250	3.3000	A572-65 (65 ksi)
L17	113.83-113.48	0.35	0.00	18	27.6756	27.7333	0.8625	3.4500	A572-65 (65 ksi)
L18	113.48-113.25	0.23	0.00	18	27.7333	27.7717	0.8625	3.4500	A572-65 (65 ksi)
L19	113.25-112.00	1.25	0.00	18	27.7717	27.9776	0.8500	3.4000	A572-65 (65 ksi)
L20	112.00-111.75	0.25	0.00	18	27.9776	28.0188	0.6500	2.6000	A572-65 (65 ksi)
L21	111.75-106.75	5.00	0.00	18	28.0188	28.8426	0.6375	2.5500	A572-65 (65 ksi)
L22	106.75-101.75	5.00	0.00	18	28.8426	29.6663	0.6250	2.5000	A572-65 (65 ksi)
L23	101.75-98.42	3.33	0.00	18	29.6663	30.2149	0.6125	2.4500	A572-65 (65 ksi)
L24	98.42-98.17	0.25	0.00	18	30.2149	30.2561	0.9500	3.8000	A572-65 (65 ksi)
L25	98.17-93.17	5.00	0.00	18	30.2561	31.0799	0.9375	3.7500	A572-65 (65 ksi)
L26	93.17-84.55	8.62	4.56	18	31.0799	32.5000	0.9250	3.7000	A572-65 (65 ksi)
L27	84.55-83.55	5.56	0.00	18	31.2487	32.1587	0.8625	3.4500	A572-65 (65 ksi)
L28	83.55-82.83	0.72	0.00	18	32.1587	32.2761	0.8625	3.4500	A572-65 (65 ksi)
L29	82.83-82.58	0.25	0.00	18	32.2761	32.3170	0.9625	3.8500	A572-65 (65 ksi)
L30	82.58-77.58	5.00	0.00	18	32.3170	33.1354	0.9375	3.7500	A572-65 (65 ksi)
L31	77.58-73.42	4.17	0.00	18	33.1354	33.8172	0.9375	3.7500	A572-65 (65 ksi)
L32	73.42-73.17	0.25	0.00	18	33.8172	33.8581	1.1875	4.7500	A572-65 (65 ksi)
L33	73.17-72.42	0.75	0.00	18	33.8581	33.9804	1.1875	4.7500	A572-65 (65 ksi)

Section	Elevation ft	Section Length ft	Splice Length ft	Number of Sides	Top Diameter in	Bottom Diameter in	Wall Thickness in	Bend Radius in	Pole Grade
L34	72.42-72.17	0.25	0.00	18	33.9804	34.0213	0.9875	3.9500	A572-65 (65 ksi)
L35	72.17-68.08	4.09	0.00	18	34.0213	34.6907	0.9625	3.8500	A572-65 (65 ksi)
L36	68.08-67.83	0.25	0.00	18	34.6907	34.7316	0.9125	3.6500	A572-65 (65 ksi)
L37	67.83-65.58	2.25	0.00	18	34.7316	35.0999	0.9125	3.6500	A572-65 (65 ksi)
L38	65.58-65.33	0.25	0.00	18	35.0999	35.1408	1.1625	4.6500	A572-65 (65 ksi)
L39	65.33-64.25	1.08	0.00	18	35.1408	35.3176	1.1375	4.5500	A572-65 (65 ksi)
L40	64.25-64.00	0.25	0.00	18	35.3176	35.3585	1.0375	4.1500	A572-65 (65 ksi)
L41	64.00-59.00	5.00	0.00	18	35.3585	36.1768	1.0125	4.0500	A572-65 (65 ksi)
L42	59.00-54.00	5.00	0.00	18	36.1768	36.9952	0.9875	3.9500	A572-65 (65 ksi)
L43	54.00-43.66	10.34	5.34	18	36.9952	38.6875	0.9625	3.8500	A572-65 (65 ksi)
L44	43.66-42.66	6.34	0.00	18	37.1885	38.2316	0.9500	3.8000	A572-65 (65 ksi)
L45	42.66-41.75	0.91	0.00	18	38.2316	38.3813	0.9500	3.8000	A572-65 (65 ksi)
L46	41.75-41.50	0.25	0.00	18	38.3813	38.4224	1.0000	4.0000	A572-65 (65 ksi)
L47	41.50-36.50	5.00	0.00	18	38.4224	39.2450	0.9875	3.9500	A572-65 (65 ksi)
L48	36.50-32.75	3.75	0.00	18	39.2450	39.8620	0.9750	3.9000	A572-65 (65 ksi)
L49	32.75-32.50	0.25	0.00	18	39.8620	39.9031	1.0250	4.1000	A572-65 (65 ksi)
L50	32.50-32.25	0.25	0.00	18	39.9031	39.9442	1.0250	4.1000	A572-65 (65 ksi)
L51	32.25-32.00	0.25	0.00	18	39.9442	39.9854	1.0500	4.2000	A572-65 (65 ksi)
L52	32.00-30.33	1.67	0.00	18	39.9854	40.2596	1.0250	4.1000	A572-65 (65 ksi)
L53	30.33-30.08	0.25	0.00	18	40.2596	40.3007	0.9250	3.7000	A572-65 (65 ksi)
L54	30.08-28.25	1.83	0.00	18	40.3007	40.6023	0.9250	3.7000	A572-65 (65 ksi)
L55	28.25-28.00	0.25	0.00	18	40.6023	40.6434	0.9750	3.9000	A572-65 (65 ksi)
L56	28.00-23.00	5.00	0.00	18	40.6434	41.4660	0.9500	3.8000	A572-65 (65 ksi)
L57	23.00-19.25	3.75	0.00	18	41.4660	42.0830	0.9500	3.8000	A572-65 (65 ksi)
L58	19.25-19.00	0.25	0.00	18	42.0830	42.1241	0.8375	3.3500	A572-65 (65 ksi)
L59	19.00-14.50	4.50	0.00	18	42.1241	42.8645	0.8250	3.3000	A572-65 (65 ksi)
L60	14.50-14.25	0.25	0.00	18	42.8645	42.9056	1.4000	5.6000	A572-65 (65 ksi)
L61	14.25-12.75	1.50	0.00	18	42.9056	43.1524	1.2750	5.1000	A572-65 (65 ksi)
L62	12.75-12.50	0.25	0.00	18	43.1524	43.1935	1.0000	4.0000	A572-65 (65 ksi)
L63	12.50-7.50	5.00	0.00	18	43.1935	44.0161	0.9750	3.9000	A572-65 (65 ksi)
L64	7.50-3.50	4.00	0.00	18	44.0161	44.6742	0.9750	3.9000	A572-65 (65 ksi)
L65	3.50-3.25	0.25	0.00	18	44.6742	44.7153	1.4750	5.9000	A572-65 (65 ksi)
L66	3.25-3.00	0.25	0.00	18	44.7153	44.7564	1.1500	4.6000	A572-65 (65 ksi)
L67	3.00-0.00	3.00		18	44.7564	45.2500	1.1500	4.6000	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	19.2642	11.1958	500.5935	6.6784	9.6520	51.8642	1001.8456	5.5990	3.0140	16.075
	20.1114	11.6923	570.1941	6.9746	10.0758	56.5903	1141.1386	5.8473	3.1608	16.858
L2	20.1114	11.6923	570.1941	6.9746	10.0758	56.5903	1141.1386	5.8473	3.1608	16.858
	20.9586	12.1888	645.9644	7.2708	10.4997	61.5223	1292.7789	6.0956	3.3077	17.641
L3	20.9586	12.1888	645.9644	7.2708	10.4997	61.5223	1292.7789	6.0956	3.3077	17.641
	21.8058	12.6854	728.1664	7.5670	10.9235	66.6605	1457.2909	6.3439	3.4545	18.424
L4	21.8058	12.6854	728.1664	7.5670	10.9235	66.6605	1457.2909	6.3439	3.4545	18.424
	22.6530	13.1819	817.0619	7.8632	11.3473	72.0047	1635.1990	6.5922	3.6014	19.207
L5	22.6530	13.1819	817.0619	7.8632	11.3473	72.0047	1635.1990	6.5922	3.6014	19.207
	23.5002	13.6784	912.9131	8.1594	11.7712	77.5549	1827.0275	6.8405	3.7482	19.99
L6	23.5002	13.6784	912.9131	8.1594	11.7712	77.5549	1827.0275	6.8405	3.7482	19.99
	24.3474	14.1750	1015.9820	8.4555	12.1950	83.3112	2033.3008	7.0888	3.8950	20.774
L7	24.3474	14.1750	1015.9820	8.4555	12.1950	83.3112	2033.3008	7.0888	3.8950	20.774
	24.4033	14.2077	1023.0448	8.4751	12.2230	83.6984	2047.4357	7.1052	3.9047	20.825
L8	24.3647	32.8042	2312.8948	8.3863	12.2230	189.2249	4628.8329	16.4052	3.4647	7.919
	24.4071	32.8621	2325.1693	8.4012	12.2442	189.8999	4653.3981	16.4342	3.4721	7.936
L9	24.4071	32.8621	2325.1693	8.4012	12.2442	189.8999	4653.3981	16.4342	3.4721	7.936
	25.6355	34.5420	2700.2980	8.8306	12.8588	209.9969	5404.1492	17.2743	3.6850	8.423
L10	25.2382	37.3502	2680.3342	8.4607	12.3580	216.8906	5364.1953	18.6787	3.4125	6.911
	25.4623	38.6412	2967.9744	8.7532	12.7765	232.3001	5939.8541	19.3243	3.5575	7.205
L11	25.4633	38.1617	2932.6341	8.7554	12.7765	229.5341	5869.1269	19.0845	3.5685	7.32
	26.0338	39.0310	3137.6401	8.9548	13.0619	240.2139	6279.4088	19.5192	3.6674	7.523
L12	26.0145	48.7959	3883.8477	8.9104	13.0619	297.3427	7772.8059	24.4026	3.4474	5.628
	26.0563	48.8760	3902.9986	8.9251	13.0828	298.3310	7811.1329	24.4426	3.4546	5.64
L13	26.0582	47.9023	3829.0513	8.9295	13.0828	292.6787	7663.1409	23.9557	3.4766	5.794
	26.8947	49.4711	4217.6964	9.2219	13.5012	312.3932	8440.9425	24.7402	3.6216	6.036
L14	26.8542	70.3961	5880.9917	9.1287	13.5012	435.5889	11769.721	35.2047	3.1596	3.663
	26.8960	70.5088	5909.2958	9.1434	13.5222	437.0080	11826.367	35.2611	3.1668	3.672
L15	26.8999	68.5315	5754.7369	9.1522	13.5222	425.5780	11517.046	34.2723	3.2108	3.834
	27.7363	70.7212	6324.1728	9.4447	13.9406	453.6504	12656.667	35.3673	3.3558	4.007
L16	27.7383	69.6984	6238.5673	9.4491	13.9406	447.5097	12485.343	34.8558	3.3778	4.094
	27.9753	70.3097	6404.1601	9.5320	14.0592	455.5130	12816.747	35.1616	3.4189	4.144
L17	27.9695	73.4030	6667.2454	9.5187	14.0592	474.2257	13343.263	36.7085	3.3529	3.887
	28.0281	73.5608	6710.3522	9.5391	14.0885	476.2994	13429.534	36.7874	3.3631	3.899
L18	28.0281	73.5608	6710.3522	9.5391	14.0885	476.2994	13429.534	36.7874	3.3631	3.899
	28.0671	73.6659	6739.1518	9.5528	14.1080	477.6824	13487.171	36.8400	3.3698	3.907
L19	28.0690	72.6320	6650.7426	9.5572	14.1080	471.4158	13310.236	36.3229	3.3918	3.99
	28.2781	73.1876	6804.5373	9.6303	14.2126	478.7668	13618.028	36.6008	3.4281	4.033
L20	28.3090	56.3796	5319.4089	9.7013	14.2126	374.2733	10645.817	28.1952	3.7801	5.815
	28.3508	56.4646	5343.4970	9.7159	14.2336	375.4154	10694.025	28.2377	3.7873	5.827
L21	28.3527	55.4040	5247.9214	9.7204	14.2336	368.7006	10502.748	27.7073	3.8093	5.975
	29.1892	57.0708	5735.9537	10.0128	14.6520	391.4787	11479.454	28.5408	3.9543	6.203
L22	29.1911	55.9766	5630.9640	10.0172	14.6520	384.3131	11269.337	27.9936	3.9763	6.362
	30.0275	57.6107	6138.6502	10.3097	15.0705	407.3293	12285.377	28.8108	4.1213	6.594
L23	30.0295	56.4828	6023.6487	10.3141	15.0705	399.6984	12055.223	28.2468	4.1433	6.765
	30.5865	57.5493	6371.3619	10.5089	15.3492	415.0946	12751.107	28.7801	4.2398	6.922
L24	30.5345	88.2425	9547.9506	10.3890	15.3492	622.0495	19108.464	44.1296	3.6458	3.838

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
	30.5763	88.3667	9588.3206	10.4037	15.3701	623.8292	19189.257	44.1918	3.6531	3.845
L25	30.5782	87.2412	9474.2714	10.4081	15.3701	616.4090	18961.009	43.6289	3.6751	3.92
	31.4147	89.6924	10295.497	10.7005	15.7886	652.0856	20604.542	44.8547	3.8201	4.075
L26	31.4166	88.5332	10170.867	10.7050	15.7886	644.1919	20355.118	44.2750	3.8421	4.154
	32.8587	92.7026	11676.594	11.2091	16.5100	707.2437	23368.552	46.3601	4.0920	4.424
L27	32.3556	83.1846	9703.6350	10.7871	15.8744	611.2772	19420.038	41.6002	3.9818	4.617
	32.5218	85.6758	10601.810	11.1102	16.3366	648.9590	21217.571	42.8460	4.1419	4.802
L28	32.5218	85.6758	10601.810	11.1102	16.3366	648.9590	21217.571	42.8460	4.1419	4.802
	32.6409	85.9971	10721.518	11.1518	16.3963	653.9004	21457.144	43.0067	4.1626	4.826
L29	32.6255	95.6622	11850.694	11.1163	16.3963	722.7684	23716.982	47.8402	3.9866	4.142
	32.6671	95.7872	11897.210	11.1309	16.4170	724.6867	23810.076	47.9027	3.9938	4.149
L30	32.6709	93.3737	11615.933	11.1397	16.4170	707.5534	23247.151	46.6957	4.0378	4.307
	33.5019	95.8087	12548.634	11.4302	16.8328	745.4888	25113.781	47.9135	4.1818	4.461
L31	33.5019	95.8087	12548.634	11.4302	16.8328	745.4888	25113.781	47.9135	4.1818	4.461
	34.1943	97.8377	13362.853	11.6723	17.1791	777.8535	26743.289	48.9281	4.3018	4.589
L32	34.1557	122.9854	16543.113	11.5835	17.1791	962.9769	33107.994	61.5044	3.8618	3.252
	34.1972	123.1396	16605.426	11.5981	17.1999	965.4360	33232.701	61.5815	3.8690	3.258
L33	34.1972	123.1396	16605.426	11.5981	17.1999	965.4360	33232.701	61.5815	3.8690	3.258
	34.3214	123.6005	16792.548	11.6415	17.2620	972.8025	33607.192	61.8120	3.8905	3.276
L34	34.3522	103.4104	14221.391	11.7125	17.2620	823.8538	28461.496	51.7150	4.2425	4.296
	34.3938	103.5387	14274.368	11.7270	17.2828	825.9283	28567.519	51.7792	4.2497	4.304
L35	34.3976	100.9938	13944.604	11.7359	17.2828	806.8478	27907.557	50.5065	4.2937	4.461
	35.0774	103.0388	14808.964	11.9735	17.6229	840.3262	29637.414	51.5292	4.4116	4.583
L36	35.0851	97.8310	14102.198	11.9913	17.6229	800.2212	28222.953	48.9248	4.4996	4.931
	35.1266	97.9495	14153.509	12.0058	17.6437	802.1866	28325.641	48.9840	4.5068	4.939
L37	35.1266	97.9495	14153.509	12.0058	17.6437	802.1866	28325.641	48.9840	4.5068	4.939
	35.5006	99.0160	14620.913	12.1365	17.8307	819.9837	29261.064	49.5174	4.5716	5.01
L38	35.4620	125.2213	18220.993	12.0478	17.8307	1021.8868	36465.963	62.6225	4.1316	3.554
	35.5036	125.3723	18286.978	12.0623	17.8515	1024.3932	36598.020	62.6980	4.1388	3.56
L39	35.5074	122.7663	17933.236	12.0712	17.8515	1004.5774	35890.069	61.3948	4.1828	3.677
	35.6869	123.4045	18214.364	12.1339	17.9413	1015.2189	36452.696	61.7140	4.2139	3.705
L40	35.7023	112.8851	16759.342	12.1694	17.9413	934.1200	33540.738	56.4533	4.3899	4.231
	35.7439	113.0198	16819.427	12.1839	17.9621	936.3840	33660.985	56.5206	4.3971	4.238
L41	35.7477	110.3768	16450.035	12.1928	17.9621	915.8190	32921.715	55.1989	4.4411	4.386
	36.5787	113.0067	17654.115	12.4833	18.3778	960.6206	35331.460	56.5141	4.5851	4.529

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
L42	36.5826	110.2948	17254.961 3	12.4922	18.3778	938.9013	34532.626 4	55.1579	4.6291	4.688
	37.4135	112.8597	18486.991 1	12.7827	18.7935	983.6885	36998.309 8	56.4406	4.7731	4.834
L43	37.4174	110.0789	18056.524 9	12.7916	18.7935	960.7834	36136.807 4	55.0499	4.8171	5.005
	39.1358	115.2489	20722.056 4	13.3924	19.6533	1054.3832	41471.379 9	57.6354	5.1150	5.314
L44	38.5077	109.2700	18129.210 6	12.8647	18.8918	959.6358	36282.274 9	54.6454	4.8732	5.13
	38.6748	112.4151	19740.148 2	13.2350	19.4216	1016.3999	39506.271 0	56.2182	5.0568	5.323
L45	38.6748	112.4151	19740.148 2	13.2350	19.4216	1016.3999	39506.271 0	56.2182	5.0568	5.323
	38.8268	112.8665	19978.919 0	13.2881	19.4977	1024.6813	39984.126 7	56.4440	5.0831	5.351
L46	38.8191	118.6482	20946.277 3	13.2704	19.4977	1074.2953	41920.116 3	59.3354	4.9951	4.995
	38.8609	118.7787	21015.494 1	13.2850	19.5186	1076.6915	42058.640 8	59.4006	5.0023	5.002
L47	38.8628	117.3332	20773.603 2	13.2894	19.5186	1064.2987	41574.540 8	58.6777	5.0243	5.088
	39.6981	119.9115	22173.364 5	13.5814	19.9365	1112.2014	44375.905 4	59.9671	5.1691	5.235
L48	39.7000	118.4323	21914.155 3	13.5859	19.9365	1099.1996	43857.145 7	59.2274	5.1911	5.324
	40.3265	120.3415	22991.167 2	13.8049	20.2499	1135.3732	46012.586 7	60.1822	5.2997	5.436
L49	40.3188	126.3502	24077.088 7	13.7871	20.2499	1188.9993	48185.858 6	63.1871	5.2117	5.085
	40.3605	126.4840	24153.665 8	13.8017	20.2708	1191.5514	48339.113 7	63.2540	5.2189	5.092
L50	40.3605	126.4840	24153.665 8	13.8017	20.2708	1191.5514	48339.113 7	63.2540	5.2189	5.092
	40.4023	126.6178	24230.405 2	13.8163	20.2917	1194.1063	48492.693 4	63.3210	5.2262	5.099
L51	40.3984	129.6228	24773.588 9	13.8074	20.2917	1220.8751	49579.775 5	64.8237	5.1822	4.935
	40.4402	129.7598	24852.265 1	13.8220	20.3126	1223.4926	49737.231 5	64.8923	5.1894	4.942
L52	40.4441	126.7517	24307.306 9	13.8309	20.3126	1196.6640	48646.598 0	63.3879	5.2334	5.106
	40.7226	127.6439	24824.251 2	13.9283	20.4519	1213.7882	49681.166 9	63.8341	5.2817	5.153
L53	40.7380	115.4844	22574.105 5	13.9638	20.4519	1103.7668	45177.914 7	57.7532	5.4577	5.9
	40.7797	115.6052	22644.993 2	13.9784	20.4728	1106.1028	45319.783 2	57.8136	5.4649	5.908
L54	40.7797	115.6052	22644.993 2	13.9784	20.4728	1106.1028	45319.783 2	57.8136	5.4649	5.908
	41.0860	116.4906	23169.279 4	14.0854	20.6260	1123.3062	46369.045 6	58.2564	5.5180	5.965
L55	41.0782	122.6326	24329.463 1	14.0677	20.6260	1179.5549	48690.939 5	61.3280	5.4300	5.569
	41.1200	122.7599	24405.298 0	14.0823	20.6469	1182.0341	48842.709 2	61.3916	5.4372	5.577
L56	41.1239	119.6876	23824.508 8	14.0912	20.6469	1153.9045	47680.366 4	59.8552	5.4812	5.77
	41.9592	122.1680	25336.624 8	14.3832	21.0647	1202.7976	50706.588 2	61.0956	5.6260	5.922
L57	41.9592	122.1680	25336.624 8	14.3832	21.0647	1202.7976	50706.588 2	61.0956	5.6260	5.922
	42.5856	124.0283	26511.766 1	14.6022	21.3782	1240.1334	53058.417 1	62.0259	5.7346	6.036
L58	42.6030	109.6398	23564.511 1	14.6421	21.3782	1102.2705	47160.028 9	54.8303	5.9326	7.084
	42.6447	109.7491	23635.077 1	14.6567	21.3991	1104.4919	47301.253 8	54.8850	5.9398	7.092
L59	42.6467	108.1438	23303.468	14.6612	21.3991	1088.9954	46637.599	54.0822	5.9618	7.226

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
	43.3984	110.0824	24579.304 1	14.9240	21.7751	1128.7781	49190.951 6	55.0517	6.0921	7.384
L60	43.3097	184.2515	40022.142 6	14.7199	21.7751	1837.9737	80096.946 3	92.1432	5.0801	3.629
	43.3515	184.4342	40141.358 3	14.7345	21.7960	1841.6815	80335.536 8	92.2346	5.0874	3.634
L61	43.3708	168.4727	36888.597 6	14.7789	21.7960	1692.4451	73825.733 3	84.2524	5.3074	4.163
	43.6214	169.4714	37548.505 1	14.8665	21.9214	1712.8697	75146.417 3	84.7518	5.3508	4.197
L62	43.6638	133.7916	30033.798 2	14.9641	21.9214	1370.0674	60107.116 6	66.9085	5.8348	5.835
	43.7056	133.9222	30121.800 6	14.9787	21.9423	1372.7734	60283.236 4	66.9738	5.8421	5.842
L63	43.7094	130.6515	29420.990 6	14.9876	21.9423	1340.8346	58880.693 2	65.3381	5.8861	6.037
	44.5447	133.1971	31174.465 2	15.2796	22.3602	1394.1958	62389.951 3	66.6112	6.0308	6.185
L64	44.5447	133.1971	31174.465 5	15.2796	22.3602	1394.1958	62389.951 1	66.6112	6.0308	6.185
	45.2129	135.2337	32626.375 5	15.5132	22.6945	1437.6346	65295.680 1	67.6297	6.1467	6.304
L65	45.1358	202.2434	47682.923 1	15.3357	22.6945	2101.0800	95428.589 7	101.1409	5.2667	3.571
	45.1776	202.4360	47819.250 6	15.3503	22.7154	2105.1489	95701.422 5	101.2372	5.2739	3.576
L66	45.2277	159.0177	38129.807 4	15.4657	22.7154	1678.5901	76309.787 6	79.5240	5.8459	5.083
	45.2695	159.1679	38237.904 6	15.4803	22.7363	1681.8019	76526.124 4	79.5991	5.8531	5.09
L67	45.2695	159.1679	38237.904 8	15.4803	22.7363	1681.8019	76526.124 0	79.5991	5.8531	5.09
	45.7706	160.9694	39551.046 8	15.6555	22.9870	1720.5832	79154.135 0	80.5000	5.9400	5.165
			7				7			

Tower Elevation	Gusset Area (per face)	Gusset Thickness	Gusset Grade	Adjust. Factor A _r	Adjust. Factor A _r	Weight Mult.	Double Angle Stitch Bolt Spacing Diagonals	Double Angle Stitch Bolt Spacing Horizontals	Double Angle Stitch Bolt Spacing Redundants
ft	ft ²	in					in	in	in
L1 168.33-163.33				1	1	1			
L2 163.33-158.33				1	1	1			
L3 158.33-153.33				1	1	1			
L4 153.33-148.33				1	1	1			
L5 148.33-143.33				1	1	1			
L6 143.33-138.33				1	1	1			
L7 138.33-138.00				1	1	1			
L8 138.00-137.75				1	1	1.04172			
L9 137.75-130.50				1	1	1.02659			
L10 130.50-129.16				1	1	1.02894			
L11 129.16-125.75				1	1	1.03008			
L12 125.75-125.50				1	1	1.09948			
L13 125.50-120.50				1	1	1.09947			
L14 120.50-120.25				1	1	0.898202			

Tower Elevation	Gusset Area (per face)	Gusset Thickness	Gusset Grade	Adjust. Factor A_r	Adjust. Factor A_r	Weight Mult.	Double Angle Stitch Bolt Spacing Diagonals in	Double Angle Stitch Bolt Spacing Horizontals in	Double Angle Stitch Bolt Spacing Redundants in
ft	ft ²	in							
L15 120.25-115.25				1	1	0.904746			
L16 115.25-113.83				1	1	0.912676			
L17 113.83-113.48				1	1	1.00678			
L18 113.48-113.25				1	1	1.00576			
L19 113.25-112.00				1	1	1.01457			
L20 112.00-111.75				1	1	0.961412			
L21 111.75-106.75				1	1	0.962652			
L22 106.75-101.75				1	1	0.964977			
L23 101.75-98.42				1	1	0.97357			
L24 98.42-98.17				1	1	0.917335			
L25 98.17-93.17				1	1	0.911065			
L26 93.17-84.55				1	1	0.90883			
L27 84.55-83.55				1	1	0.952303			
L28 83.55-82.83				1	1	0.950099			
L29 82.83-82.58				1	1	1.02046			
L30 82.58-77.58				1	1	1.0287			
L31 77.58-73.42				1	1	1.01428			
L32 73.42-73.17				1	1	0.952383			
L33 73.17-72.42				1	1	0.949813			
L34 72.42-72.17				1	1	0.892778			
L35 72.17-68.08				1	1	0.903553			
L36 68.08-67.83				1	1	1.07854			
L37 67.83-65.58				1	1	1.07061			
L38 65.58-65.33				1	1	0.945571			
L39 65.33-64.25				1	1	0.962069			
L40 64.25-64.00				1	1	0.891557			
L41 64.00-59.00				1	1	0.898843			
L42 59.00-54.00				1	1	0.907206			
L43 54.00-43.66				1	1	0.916679			
L44 43.66-42.66				1	1	1.03244			
L45 42.66-41.75				1	1	1.02988			
L46 41.75-41.50				1	1	1.04639			
L47 41.50-36.50				1	1	1.04467			
L48 36.50-				1	1	1.04704			

Tower Elevation	Gusset Area (per face)	Gusset Thickness	Gusset Grade	Adjust. Factor A_r	Adjust. Factor A_r	Weight Mult.	Double Angle Stitch Bolt Spacing Diagonals in	Double Angle Stitch Bolt Spacing Horizontals in	Double Angle Stitch Bolt Spacing Redundants in
ft	ft ²	in							
L49 32.75-32.50				1	1	1.02623			
L50 32.50-32.25				1	1	1.02553			
L51 32.25-32.00				1	1	1.02997			
L52 32.00-30.33				1	1	1.04961			
L53 30.33-30.08				1	1	1.05553			
L54 30.08-28.25				1	1	1.05058			
L55 28.25-28.00				1	1	1.10934			
L56 28.00-23.00				1	1	1.12273			
L57 23.00-19.25				1	1	1.11181			
L58 19.25-19.00				1	1	1.0929			
L59 19.00-14.50				1	1	1.09759			
L60 14.50-14.25				1	1	0.831601			
L61 14.25-12.75				1	1	0.906757			
L62 12.75-12.50				1	1	1.02648			
L63 12.50-7.50				1	1	1.03941			
L64 7.50-3.50				1	1	1.02955			
L65 3.50-3.25				1	1	0.860916			
L66 3.25-3.00				1	1	0.944465			
L67 3.00-0.00				1	1	0.937544			

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
Step Pegs	C	No	Surface Ar (CaAa)	168.33 - 10.00	1	1	0.200 - 0.300	0.3500		0.45

CU12PSM9P6XXX(1-1/2)	B	No	Surface Ar (CaAa)	148.00 - 0.00	1	1	-0.045 - 0.000	1.6000		2.35

HB114-U6S12-XXX-LI(1-1/4)	A	No	Surface Ar (CaAa)	138.00 - 8.00	1	1	0.200 - 0.204	1.5400		1.70
HB158-1-08U8-S8J18(1-5/8)	A	No	Surface Ar (CaAa)	138.00 - 8.00	1	1	0.210 - 0.266	1.9800		1.30
(2) HB114-U6S12-XXX-LI(1-1/4) + (1) MLE Hybrid	B	No	Surface Ar (CaAa)	128.00 - 8.00	3	3	-0.177 - -0.050	1.5400		1.70
3Power/6Fiber RL 2(1-1/4)										

LDF4-50A(1/2)	C	No	Surface Ar (CaAa)	70.00 - 8.00	1	1	0.220 - 0.235	0.6250		0.15

Shaft Reinforcement [#PL0.625x5]	A	No	Surface Af (CaAa)	84.67 - 0.00	1	1	-0.450 - -0.450	5.0000	11.2500	10.63
Shaft Reinforcement	C	No	Surface Af	84.67 -	1	1	0.050	5.0000	11.2500	10.63

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
[#PL0.625x5]			(CaAa)	0.00			0.050			
Shaft Reinforcement	A	No	Surface Af	120.00 -	1	1	0.000	5.0000	11.2500	10.63
[#PL0.625x5]			(CaAa)	84.67			0.000			
Shaft Reinforcement	B	No	Surface Af	120.00 -	1	1	0.050	5.0000	11.2500	10.63
[#PL0.625x5]			(CaAa)	84.67			0.050			
Shaft Reinforcement	C	No	Surface Af	120.00 -	1	1	0.050	5.0000	11.2500	10.63
[#PL0.625x5]			(CaAa)	84.67			0.050			

Shaft Reinforcement	A	No	Surface Af	30.75 -	1	1	-0.150	6.0000	14.5000	0.00
[#PL1.25x6]			(CaAa)	0.00			-0.150			
Shaft Reinforcement	B	No	Surface Af	30.75 -	1	1	-0.300	6.0000	14.5000	0.00
[#PL1.25x6]			(CaAa)	0.00			-0.300			
Shaft Reinforcement	C	No	Surface Af	30.75 -	1	1	-0.300	6.0000	14.5000	0.00
[#PL1.25x6]			(CaAa)	0.00			-0.300			
Shaft Reinforcement	C	No	Surface Af	30.75 -	1	1	0.400	6.0000	14.5000	0.00
[#PL1.25x6]			(CaAa)	0.00			0.400			
Shaft Reinforcement	A	No	Surface Af	47.92 -	1	1	0.200	6.0000	14.5000	0.00
[#PL1.25x6]			(CaAa)	27.83			0.200			
Shaft Reinforcement	A	No	Surface Af	47.92 -	1	1	-0.300	6.0000	14.5000	0.00
[#PL1.25x6]			(CaAa)	27.83			-0.300			
Shaft Reinforcement	B	No	Surface Af	47.92 -	1	1	0.100	6.0000	14.5000	0.00
[#PL1.25x6]			(CaAa)	27.83			0.100			
Shaft Reinforcement	C	No	Surface Af	47.92 -	1	1	-0.150	6.0000	14.5000	0.00
[#PL1.25x6]			(CaAa)	27.83			-0.150			
Shaft Reinforcement	A	No	Surface Af	75.42 -	1	1	-0.150	5.0000	12.5000	0.00
[#PL1.25x5]			(CaAa)	45.38			-0.150			
Shaft Reinforcement	B	No	Surface Af	75.42 -	1	1	0.250	5.0000	12.5000	0.00
[#PL1.25x5]			(CaAa)	45.38			0.250			
Shaft Reinforcement	C	No	Surface Af	75.42 -	1	1	0.400	5.0000	12.5000	0.00
[#PL1.25x5]			(CaAa)	45.38			0.400			
Shaft Reinforcement	C	No	Surface Af	75.42 -	1	1	-0.300	5.0000	12.5000	0.00
[#PL1.25x5]			(CaAa)	45.38			-0.300			
Shaft Reinforcement	A	No	Surface Af	87.92 -	1	1	0.200	5.0000	12.5000	0.00
[#PL1.25x5]			(CaAa)	72.92			0.200			
Shaft Reinforcement	A	No	Surface Af	87.92 -	1	1	-0.300	5.0000	12.5000	0.00
[#PL1.25x5]			(CaAa)	72.92			-0.300			
Shaft Reinforcement	B	No	Surface Af	87.92 -	1	1	-0.150	5.0000	12.5000	0.00
[#PL1.25x5]			(CaAa)	72.92			-0.150			
Shaft Reinforcement	C	No	Surface Af	87.92 -	1	1	-0.150	5.0000	12.5000	0.00
[#PL1.25x5]			(CaAa)	72.92			-0.150			
Shaft Reinforcement	A	No	Surface Af	115.83 -	1	1	-0.450	5.0000	12.5000	0.00
[#PL1.25x5]			(CaAa)	85.83			-0.450			
Shaft Reinforcement	B	No	Surface Af	115.83 -	1	1	-0.450	5.0000	12.5000	0.00
[#PL1.25x5]			(CaAa)	85.83			-0.450			
Shaft Reinforcement	C	No	Surface Af	115.83 -	1	1	-0.450	5.0000	12.5000	0.00
[#PL1.25x5]			(CaAa)	85.83			-0.450			

CCI-SFP-060100	A	No	Surface Af	43.75 -	1	1	0.000	6.0000	14.0000	0.00
			(CaAa)	0.00			0.000			
CCI-SFP-060100	A	No	Surface Af	43.75 -	1	1	0.500	6.0000	14.0000	0.00
			(CaAa)	0.00			0.500			
CCI-SFP-060100	B	No	Surface Af	43.75 -	1	1	0.050	6.0000	14.0000	0.00
			(CaAa)	0.00			0.050			
CCI-SFP-060100	C	No	Surface Af	43.75 -	1	1	-0.500	6.0000	14.0000	0.00
			(CaAa)	0.00			-0.500			
CCI-SFP-045100	A	No	Surface Af	84.33 -	1	1	0.000	4.5000	11.0000	0.00
			(CaAa)	43.75			0.000			
CCI-SFP-045100	A	No	Surface Af	84.33 -	1	1	0.500	4.5000	11.0000	0.00
			(CaAa)	43.75			0.500			
CCI-SFP-045100	B	No	Surface Af	84.33 -	1	1	0.050	4.5000	11.0000	0.00
			(CaAa)	43.75			0.050			
CCI-SFP-045100	C	No	Surface Af	84.33 -	1	1	-0.500	4.5000	11.0000	0.00
			(CaAa)	43.75			-0.500			
CCI-SFP-045100	A	No	Surface Af	27.75 -	1	1	0.200	4.5000	11.0000	0.00
			(CaAa)	17.75			0.200			
CCI-SFP-045100	A	No	Surface Af	27.75 -	1	1	-0.300	4.5000	11.0000	0.00
			(CaAa)	17.75			-0.300			
CCI-SFP-045100	B	No	Surface Af	27.75 -	1	1	-0.150	4.5000	11.0000	0.00

Description	Sector	Exclude From Torque Calculation	Component Type	Placement ft	Total Number	Number Per Row	Start/End Position	Width or Diameter in	Perimeter in	Weight plf
CCI-SFP-045100	C	No	(CaAa) Surface Af	17.75 - 27.75	1	1	-0.150 - 0.150	4.5000	11.0000	0.00
CCI-SFP-045100	A	No	(CaAa) Surface Af	17.75 - 62.75	1	1	-0.150 - 0.200	4.5000	11.0000	0.00
CCI-SFP-045100	A	No	(CaAa) Surface Af	62.75 - 72.75	1	1	0.200 - 0.300	4.5000	11.0000	0.00
CCI-SFP-045100	B	No	(CaAa) Surface Af	72.75 - 62.75	1	1	-0.300 - 0.150	4.5000	11.0000	0.00
CCI-SFP-045100	C	No	(CaAa) Surface Af	62.75 - 72.75	1	1	-0.150 - 0.150	4.5000	11.0000	0.00
CCI-SFP-045100	A	No	(CaAa) Surface Af	72.75 - 127.33	1	1	-0.150 - 0.300	4.5000	11.0000	0.00
CCI-SFP-045100	B	No	(CaAa) Surface Af	87.92 - 127.33	1	1	-0.300 - 0.150	4.5000	11.0000	0.00
CCI-SFP-045100	C	No	(CaAa) Surface Af	127.33 - 87.92	1	1	-0.150 - 0.150	4.5000	11.0000	0.00

CCI-SFP-040125	A	No	(CaAa) Surface Af	122.00 - 112.00	1	1	0.200 - 0.200	4.0000	10.5000	0.00
CCI-SFP-040125	B	No	(CaAa) Surface Af	122.00 - 112.00	1	1	-0.300 - 0.300	4.0000	10.5000	0.00
CCI-SFP-050125	B	No	(CaAa) Surface Af	90.50 - 80.50	1	1	0.400 - 0.400	5.0000	12.5000	0.00
CCI-SFP-050125	C	No	(CaAa) Surface Af	90.50 - 80.50	1	1	-0.200 - 0.200	5.0000	12.5000	0.00
CCI-SFP-065125	B	No	(CaAa) Surface Af	35.50 - 25.50	1	1	0.400 - 0.400	6.5000	15.5000	0.00
CCI-SFP-065125	C	No	(CaAa) Surface Af	35.50 - 25.50	1	1	-0.200 - 0.200	6.5000	15.5000	0.00

CCI-SFP-040125	A	No	(CaAa) Surface Af	140.00 - 110.00	1	1	-0.150 - 0.150	4.0000	10.5000	0.00
CCI-SFP-040125	B	No	(CaAa) Surface Af	140.00 - 110.00	1	1	-0.200 - 0.200	4.0000	10.5000	0.00
CCI-SFP-040125	C	No	(CaAa) Surface Af	140.00 - 110.00	1	1	0.200 - 0.200	4.0000	10.5000	0.00
CCI-SFP-040125	C	No	(CaAa) Surface Af	140.00 - 110.00	1	1	-0.300 - 0.300	4.0000	10.5000	0.00
**										
CCI-SFP-050125	A	No	(CaAa) Surface Af	100.42 - 70.42	1	1	0.400 - 0.400	5.0000	12.5000	0.00
CCI-SFP-050125	B	No	(CaAa) Surface Af	80.50 - 70.42	1	1	0.400 - 0.400	5.0000	12.5000	0.00
CCI-SFP-050125	B	No	(CaAa) Surface Af	100.58 - 90.50	1	1	0.400 - 0.400	5.0000	12.5000	0.00
CCI-SFP-050125	B	No	(CaAa) Surface Af	100.42 - 70.42	1	1	-0.300 - 0.300	5.0000	12.5000	0.00
CCI-SFP-050125	C	No	(CaAa) Surface Af	80.50 - 70.42	1	1	-0.200 - 0.200	5.0000	12.5000	0.00
CCI-SFP-050125	C	No	(CaAa) Surface Af	100.58 - 90.50	1	1	-0.200 - 0.200	5.0000	12.5000	0.00
**										
CCI-SFP-050125	A	No	(CaAa) Surface Af	70.08 - 35.00	1	1	0.400 - 0.400	5.0000	12.5000	0.00
CCI-SFP-050125	B	No	(CaAa) Surface Af	70.08 - 35.00	1	1	-0.300 - 0.300	5.0000	12.5000	0.00
CCI-SFP-050125	B	No	(CaAa) Surface Af	67.58 - 35.50	1	1	0.400 - 0.400	5.0000	12.5000	0.00
CCI-SFP-050125	C	No	(CaAa) Surface Af	67.58 - 35.50	1	1	-0.200 - 0.200	5.0000	12.5000	0.00
**										
CCI-SFP-065125	A	No	(CaAa) Surface Af	35.00 - 10.00	1	1	0.400 - 0.400	6.5000	15.5000	0.00
CCI-SFP-065125	B	No	(CaAa) Surface Af	35.00 - 10.00	1	1	-0.300 - 0.300	6.5000	15.5000	0.00

Feed Line/Linear Appurtenances - Entered As Area

Description	Face or Leg	Allow Shield	Exclude From Torque Calculation	Componen t Type	Placement ft	Total Number		C _A A _A ft ² /ft	Weight plf
Ground Wire(3/8)	A	No	No	Inside Pole	168.33 - 0.00	1	No Ice	0.00	0.08
							1/2" Ice	0.00	0.08
							1" Ice	0.00	0.08
Lighting Cable(3/8)	B	No	No	Inside Pole	168.33 - 0.00	1	No Ice	0.00	0.08
							1/2" Ice	0.00	0.08
							1" Ice	0.00	0.08

2" innerduct conduit	C	No	No	Inside Pole	168.00 - 2.00	1	No Ice	0.00	0.20
							1/2" Ice	0.00	0.20
							1" Ice	0.00	0.20
LDF2-50(3/8)	C	No	No	Inside Pole	168.00 - 2.00	1	No Ice	0.00	0.08
							1/2" Ice	0.00	0.08
							1" Ice	0.00	0.08
LDF7-50A(1-5/8)	C	No	No	Inside Pole	168.00 - 2.00	6	No Ice	0.00	0.82
							1/2" Ice	0.00	0.82
							1" Ice	0.00	0.82
FB-L98B-034- XXXXXX(3/8)	C	No	No	Inside Pole	168.00 - 2.00	2	No Ice	0.00	0.05
							1/2" Ice	0.00	0.05
							1" Ice	0.00	0.05
PWRT-606-S(7/8)	C	No	No	Inside Pole	168.00 - 0.00	5	No Ice	0.00	0.89
							1/2" Ice	0.00	0.89
							1" Ice	0.00	0.89
PWRT-608- S(13/16)	C	No	No	Inside Pole	168.00 - 0.00	6	No Ice	0.00	0.62
							1/2" Ice	0.00	0.62
							1" Ice	0.00	0.62
FB-L98B-034- XXXXXX(3/8)	C	No	No	Inside Pole	168.00 - 0.00	1	No Ice	0.00	0.05
							1/2" Ice	0.00	0.05
							1" Ice	0.00	0.05
FB-L98B-235- XXX(3/8)	C	No	No	Inside Pole	168.00 - 0.00	1	No Ice	0.00	0.06
							1/2" Ice	0.00	0.06
							1" Ice	0.00	0.06

HB158-21U6S24- xxM_TMO(1-5/8)	C	No	No	Inside Pole	158.00 - 0.00	3	No Ice	0.00	2.50
							1/2" Ice	0.00	2.50
							1" Ice	0.00	2.50
LDF7-50A(1-5/8)	A	No	No	Inside Pole	138.00 - 8.00	6	No Ice	0.00	0.82
							1/2" Ice	0.00	0.82
							1" Ice	0.00	0.82

LDF7-50A(1-5/8)	B	No	No	Inside Pole	128.00 - 8.00	12	No Ice	0.00	0.82
							1/2" Ice	0.00	0.82
							1" Ice	0.00	0.82

Feed Line/Linear Appurtenances Section Areas

Tower Sectio n	Tower Elevation ft	Face	A _R ft ²	A _F ft ²	C _A A _A In Face ft ²	C _A A _A Out Face ft ²	Weight K
L1	168.33-163.33	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	0.175	0.000	0.07
L2	163.33-158.33	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	0.175	0.000	0.07
L3	158.33-153.33	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	0.175	0.000	0.11
L4	153.33-148.33	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	0.175	0.000	0.11

Tower Sectio n	Tower Elevation ft	Face	A _R ft ²	A _F ft ²	C _A A _A In Face ft ²	C _A A _A Out Face ft ²	Weight K
L5	148.33-143.33	A	0.000	0.000	0.000	0.000	0.00
		B	0.000	0.000	0.747	0.000	0.01
		C	0.000	0.000	0.175	0.000	0.11
L6	143.33-138.33	A	0.000	0.000	1.113	0.000	0.00
		B	0.000	0.000	1.913	0.000	0.01
		C	0.000	0.000	2.402	0.000	0.11
L7	138.33-138.00	A	0.000	0.000	0.220	0.000	0.00
		B	0.000	0.000	0.273	0.000	0.00
		C	0.000	0.000	0.452	0.000	0.01
L8	138.00-137.75	A	0.000	0.000	0.255	0.000	0.00
		B	0.000	0.000	0.207	0.000	0.00
		C	0.000	0.000	0.342	0.000	0.01
L9	137.75-130.50	A	0.000	0.000	7.385	0.000	0.06
		B	0.000	0.000	5.993	0.000	0.02
		C	0.000	0.000	9.920	0.000	0.16
L10	130.50-129.16	A	0.000	0.000	1.365	0.000	0.01
		B	0.000	0.000	1.108	0.000	0.00
		C	0.000	0.000	1.834	0.000	0.03
L11	129.16-125.75	A	0.000	0.000	4.659	0.000	0.03
		B	0.000	0.000	5.043	0.000	0.04
		C	0.000	0.000	5.851	0.000	0.07
L12	125.75-125.50	A	0.000	0.000	0.442	0.000	0.00
		B	0.000	0.000	0.510	0.000	0.00
		C	0.000	0.000	0.530	0.000	0.01
L13	125.50-120.50	A	0.000	0.000	9.843	0.000	0.04
		B	0.000	0.000	11.193	0.000	0.09
		C	0.000	0.000	10.592	0.000	0.11
L14	120.50-120.25	A	0.000	0.000	0.609	0.000	0.00
		B	0.000	0.000	0.676	0.000	0.00
		C	0.000	0.000	0.530	0.000	0.01
L15	120.25-115.25	A	0.000	0.000	16.618	0.000	0.09
		B	0.000	0.000	17.968	0.000	0.14
		C	0.000	0.000	15.033	0.000	0.16
L16	115.25-113.83	A	0.000	0.000	5.813	0.000	0.03
		B	0.000	0.000	6.195	0.000	0.04
		C	0.000	0.000	5.363	0.000	0.05
L17	113.83-113.48	A	0.000	0.000	1.436	0.000	0.01
		B	0.000	0.000	1.530	0.000	0.01
		C	0.000	0.000	1.325	0.000	0.01
L18	113.48-113.25	A	0.000	0.000	0.956	0.000	0.00
		B	0.000	0.000	1.019	0.000	0.01
		C	0.000	0.000	0.882	0.000	0.01
L19	113.25-112.00	A	0.000	0.000	5.128	0.000	0.02
		B	0.000	0.000	5.465	0.000	0.04
		C	0.000	0.000	4.731	0.000	0.04
L20	112.00-111.75	A	0.000	0.000	0.859	0.000	0.00
		B	0.000	0.000	0.926	0.000	0.01
		C	0.000	0.000	0.946	0.000	0.01
L21	111.75-106.75	A	0.000	0.000	15.010	0.000	0.09
		B	0.000	0.000	16.360	0.000	0.14
		C	0.000	0.000	14.592	0.000	0.16
L22	106.75-101.75	A	0.000	0.000	13.843	0.000	0.09
		B	0.000	0.000	15.193	0.000	0.14
		C	0.000	0.000	12.258	0.000	0.16
L23	101.75-98.42	A	0.000	0.000	10.886	0.000	0.06
		B	0.000	0.000	13.540	0.000	0.09
		C	0.000	0.000	9.918	0.000	0.11
L24	98.42-98.17	A	0.000	0.000	0.900	0.000	0.00
		B	0.000	0.000	1.171	0.000	0.01
		C	0.000	0.000	0.816	0.000	0.01
L25	98.17-93.17	A	0.000	0.000	18.010	0.000	0.09
		B	0.000	0.000	23.420	0.000	0.14
		C	0.000	0.000	16.319	0.000	0.16
L26	93.17-84.55	A	0.000	0.000	33.072	0.000	0.16
		B	0.000	0.000	39.476	0.000	0.24
		C	0.000	0.000	27.332	0.000	0.28
L27	84.55-83.55	A	0.000	0.000	4.855	0.000	0.02
		B	0.000	0.000	3.683	0.000	0.02
		C	0.000	0.000	3.096	0.000	0.03

Tower Sectio n	Tower Elevation ft	Face	A _R ft ²	A _F ft ²	C _A A _A In Face ft ²	C _A A _A Out Face ft ²	Weight K
L28	83.55-82.83	A	0.000	0.000	3.718	0.000	0.01
		B	0.000	0.000	2.759	0.000	0.01
		C	0.000	0.000	2.338	0.000	0.02
L29	82.83-82.58	A	0.000	0.000	1.296	0.000	0.00
		B	0.000	0.000	0.962	0.000	0.00
		C	0.000	0.000	0.815	0.000	0.01
L30	82.58-77.58	A	0.000	0.000	25.927	0.000	0.09
		B	0.000	0.000	19.248	0.000	0.09
		C	0.000	0.000	16.313	0.000	0.16
L31	77.58-73.42	A	0.000	0.000	23.271	0.000	0.08
		B	0.000	0.000	17.711	0.000	0.07
		C	0.000	0.000	16.935	0.000	0.13
L32	73.42-73.17	A	0.000	0.000	1.505	0.000	0.00
		B	0.000	0.000	1.171	0.000	0.00
		C	0.000	0.000	1.233	0.000	0.01
L33	73.17-72.42	A	0.000	0.000	4.158	0.000	0.01
		B	0.000	0.000	3.330	0.000	0.01
		C	0.000	0.000	3.514	0.000	0.02
L34	72.42-72.17	A	0.000	0.000	1.463	0.000	0.00
		B	0.000	0.000	1.150	0.000	0.00
		C	0.000	0.000	1.212	0.000	0.01
L35	72.17-68.08	A	0.000	0.000	23.651	0.000	0.08
		B	0.000	0.000	16.633	0.000	0.07
		C	0.000	0.000	18.044	0.000	0.13
L36	68.08-67.83	A	0.000	0.000	1.463	0.000	0.00
		B	0.000	0.000	0.947	0.000	0.00
		C	0.000	0.000	1.024	0.000	0.01
L37	67.83-65.58	A	0.000	0.000	13.167	0.000	0.04
		B	0.000	0.000	10.191	0.000	0.04
		C	0.000	0.000	10.886	0.000	0.07
L38	65.58-65.33	A	0.000	0.000	1.463	0.000	0.00
		B	0.000	0.000	1.156	0.000	0.00
		C	0.000	0.000	1.233	0.000	0.01
L39	65.33-64.25	A	0.000	0.000	6.320	0.000	0.02
		B	0.000	0.000	4.992	0.000	0.02
		C	0.000	0.000	5.325	0.000	0.03
L40	64.25-64.00	A	0.000	0.000	1.463	0.000	0.00
		B	0.000	0.000	1.156	0.000	0.00
		C	0.000	0.000	1.233	0.000	0.01
L41	64.00-59.00	A	0.000	0.000	23.635	0.000	0.09
		B	0.000	0.000	20.297	0.000	0.09
		C	0.000	0.000	21.842	0.000	0.16
L42	59.00-54.00	A	0.000	0.000	21.760	0.000	0.09
		B	0.000	0.000	19.360	0.000	0.09
		C	0.000	0.000	20.904	0.000	0.16
L43	54.00-43.66	A	0.000	0.000	52.136	0.000	0.19
		B	0.000	0.000	42.890	0.000	0.18
		C	0.000	0.000	44.654	0.000	0.33
L44	43.66-42.66	A	0.000	0.000	6.019	0.000	0.02
		B	0.000	0.000	4.289	0.000	0.02
		C	0.000	0.000	3.764	0.000	0.03
L45	42.66-41.75	A	0.000	0.000	5.477	0.000	0.02
		B	0.000	0.000	3.903	0.000	0.02
		C	0.000	0.000	3.425	0.000	0.03
L46	41.75-41.50	A	0.000	0.000	1.505	0.000	0.00
		B	0.000	0.000	1.072	0.000	0.00
		C	0.000	0.000	0.941	0.000	0.01
L47	41.50-36.50	A	0.000	0.000	30.093	0.000	0.09
		B	0.000	0.000	21.443	0.000	0.09
		C	0.000	0.000	18.821	0.000	0.16
L48	36.50-32.75	A	0.000	0.000	23.133	0.000	0.07
		B	0.000	0.000	16.991	0.000	0.07
		C	0.000	0.000	14.462	0.000	0.12
L49	32.75-32.50	A	0.000	0.000	1.567	0.000	0.00
		B	0.000	0.000	1.166	0.000	0.00
		C	0.000	0.000	0.973	0.000	0.01
L50	32.50-32.25	A	0.000	0.000	1.567	0.000	0.00
		B	0.000	0.000	1.166	0.000	0.00
		C	0.000	0.000	0.973	0.000	0.01

Tower Section	Tower Elevation	Face	A _R	A _F	C _A A _A In Face	C _A A _A Out Face	Weight
n	ft		ft ²	ft ²	ft ²	ft ²	K
L51	32.25-32.00	A	0.000	0.000	1.567	0.000	0.00
		B	0.000	0.000	1.166	0.000	0.00
		C	0.000	0.000	0.973	0.000	0.01
L52	32.00-30.33	A	0.000	0.000	10.867	0.000	0.03
		B	0.000	0.000	8.193	0.000	0.03
		C	0.000	0.000	7.319	0.000	0.05
L53	30.33-30.08	A	0.000	0.000	1.817	0.000	0.00
		B	0.000	0.000	1.416	0.000	0.00
		C	0.000	0.000	1.473	0.000	0.01
L54	30.08-28.25	A	0.000	0.000	13.323	0.000	0.03
		B	0.000	0.000	10.383	0.000	0.03
		C	0.000	0.000	10.797	0.000	0.06
L55	28.25-28.00	A	0.000	0.000	1.817	0.000	0.00
		B	0.000	0.000	1.416	0.000	0.00
		C	0.000	0.000	1.473	0.000	0.01
L56	28.00-23.00	A	0.000	0.000	33.808	0.000	0.09
		B	0.000	0.000	24.657	0.000	0.09
		C	0.000	0.000	25.785	0.000	0.16
L57	23.00-19.25	A	0.000	0.000	25.383	0.000	0.07
		B	0.000	0.000	16.708	0.000	0.07
		C	0.000	0.000	17.553	0.000	0.12
L58	19.25-19.00	A	0.000	0.000	1.692	0.000	0.00
		B	0.000	0.000	1.114	0.000	0.00
		C	0.000	0.000	1.170	0.000	0.01
L59	19.00-14.50	A	0.000	0.000	25.584	0.000	0.08
		B	0.000	0.000	17.611	0.000	0.08
		C	0.000	0.000	18.626	0.000	0.15
L60	14.50-14.25	A	0.000	0.000	1.317	0.000	0.00
		B	0.000	0.000	0.926	0.000	0.00
		C	0.000	0.000	0.983	0.000	0.01
L61	14.25-12.75	A	0.000	0.000	7.903	0.000	0.03
		B	0.000	0.000	5.558	0.000	0.03
		C	0.000	0.000	5.896	0.000	0.05
L62	12.75-12.50	A	0.000	0.000	1.317	0.000	0.00
		B	0.000	0.000	0.926	0.000	0.00
		C	0.000	0.000	0.983	0.000	0.01
L63	12.50-7.50	A	0.000	0.000	23.459	0.000	0.09
		B	0.000	0.000	15.587	0.000	0.08
		C	0.000	0.000	19.535	0.000	0.16
L64	7.50-3.50	A	0.000	0.000	15.333	0.000	0.04
		B	0.000	0.000	8.640	0.000	0.01
		C	0.000	0.000	15.333	0.000	0.13
L65	3.50-3.25	A	0.000	0.000	0.958	0.000	0.00
		B	0.000	0.000	0.540	0.000	0.00
		C	0.000	0.000	0.958	0.000	0.01
L66	3.25-3.00	A	0.000	0.000	0.958	0.000	0.00
		B	0.000	0.000	0.540	0.000	0.00
		C	0.000	0.000	0.958	0.000	0.01
L67	3.00-0.00	A	0.000	0.000	11.500	0.000	0.03
		B	0.000	0.000	6.480	0.000	0.01
		C	0.000	0.000	11.500	0.000	0.08

Feed Line/Linear Appurtenances Section Areas - With Ice

Tower Section	Tower Elevation	Face or Leg	Ice Thickness	A _R	A _F	C _A A _A In Face	C _A A _A Out Face	Weight
n	ft		in	ft ²	ft ²	ft ²	ft ²	K
L1	168.33-163.33	A	0.999	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	1.174	0.000	0.07
L2	163.33-158.33	A	0.996	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	1.171	0.000	0.08
L3	158.33-153.33	A	0.993	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	1.168	0.000	0.11

Tower Section	Tower Elevation	Face or Leg	Ice Thickness	A _R	A _F	C _A A _A In Face	C _A A _A Out Face	Weight
n	ft		in	ft ²	ft ²	ft ²	ft ²	K
L4	153.33-148.33	A	0.989	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	1.164	0.000	0.12
L5	148.33-143.33	A	0.986	0.000	0.000	0.000	0.000	0.00
		B		0.000	0.000	1.668	0.000	0.03
		C		0.000	0.000	1.161	0.000	0.12
L6	143.33-138.33	A	0.983	0.000	0.000	1.442	0.000	0.01
		B		0.000	0.000	3.224	0.000	0.04
		C		0.000	0.000	4.041	0.000	0.13
L7	138.33-138.00	A	0.981	0.000	0.000	0.285	0.000	0.00
		B		0.000	0.000	0.402	0.000	0.00
		C		0.000	0.000	0.646	0.000	0.01
L8	138.00-137.75	A	0.981	0.000	0.000	0.402	0.000	0.00
		B		0.000	0.000	0.305	0.000	0.00
		C		0.000	0.000	0.489	0.000	0.01
L9	137.75-130.50	A	0.978	0.000	0.000	11.639	0.000	0.14
		B		0.000	0.000	8.829	0.000	0.08
		C		0.000	0.000	14.174	0.000	0.25
L10	130.50-129.16	A	0.975	0.000	0.000	2.151	0.000	0.03
		B		0.000	0.000	1.632	0.000	0.01
		C		0.000	0.000	2.620	0.000	0.05
L11	129.16-125.75	A	0.973	0.000	0.000	6.957	0.000	0.08
		B		0.000	0.000	7.485	0.000	0.09
		C		0.000	0.000	8.149	0.000	0.12
L12	125.75-125.50	A	0.972	0.000	0.000	0.636	0.000	0.01
		B		0.000	0.000	0.745	0.000	0.01
		C		0.000	0.000	0.724	0.000	0.01
L13	125.50-120.50	A	0.970	0.000	0.000	13.937	0.000	0.13
		B		0.000	0.000	16.107	0.000	0.19
		C		0.000	0.000	14.470	0.000	0.20
L14	120.50-120.25	A	0.967	0.000	0.000	0.838	0.000	0.01
		B		0.000	0.000	0.947	0.000	0.01
		C		0.000	0.000	0.723	0.000	0.01
L15	120.25-115.25	A	0.965	0.000	0.000	22.224	0.000	0.23
		B		0.000	0.000	24.393	0.000	0.29
		C		0.000	0.000	19.924	0.000	0.28
L16	115.25-113.83	A	0.963	0.000	0.000	7.652	0.000	0.07
		B		0.000	0.000	8.266	0.000	0.09
		C		0.000	0.000	7.000	0.000	0.09
L17	113.83-113.48	A	0.962	0.000	0.000	1.890	0.000	0.02
		B		0.000	0.000	2.041	0.000	0.02
		C		0.000	0.000	1.729	0.000	0.02
L18	113.48-113.25	A	0.962	0.000	0.000	1.258	0.000	0.01
		B		0.000	0.000	1.359	0.000	0.01
		C		0.000	0.000	1.151	0.000	0.01
L19	113.25-112.00	A	0.961	0.000	0.000	6.747	0.000	0.07
		B		0.000	0.000	7.289	0.000	0.08
		C		0.000	0.000	6.173	0.000	0.08
L20	112.00-111.75	A	0.960	0.000	0.000	1.147	0.000	0.01
		B		0.000	0.000	1.255	0.000	0.01
		C		0.000	0.000	1.234	0.000	0.02
L21	111.75-106.75	A	0.958	0.000	0.000	20.136	0.000	0.22
		B		0.000	0.000	22.303	0.000	0.28
		C		0.000	0.000	19.095	0.000	0.27
L22	106.75-101.75	A	0.954	0.000	0.000	18.611	0.000	0.21
		B		0.000	0.000	20.777	0.000	0.27
		C		0.000	0.000	16.073	0.000	0.25
L23	101.75-98.42	A	0.950	0.000	0.000	14.429	0.000	0.15
		B		0.000	0.000	17.844	0.000	0.20
		C		0.000	0.000	12.668	0.000	0.18
L24	98.42-98.17	A	0.948	0.000	0.000	1.185	0.000	0.01
		B		0.000	0.000	1.522	0.000	0.02
		C		0.000	0.000	1.031	0.000	0.01
L25	98.17-93.17	A	0.945	0.000	0.000	23.683	0.000	0.24
		B		0.000	0.000	30.413	0.000	0.33
		C		0.000	0.000	20.607	0.000	0.28
L26	93.17-84.55	A	0.938	0.000	0.000	43.172	0.000	0.42
		B		0.000	0.000	51.187	0.000	0.55
		C		0.000	0.000	34.431	0.000	0.48

Tower Section	Tower Elevation ft	Face or Leg	Ice Thickness in	A _R ft ²	A _F ft ²	C _A A _A In Face ft ²	C _A A _A Out Face ft ²	Weight K
L27	84.55-83.55	A	0.933	0.000	0.000	6.274	0.000	0.06
		B		0.000	0.000	4.844	0.000	0.05
		C		0.000	0.000	3.907	0.000	0.05
L28	83.55-82.83	A	0.932	0.000	0.000	4.787	0.000	0.04
		B		0.000	0.000	3.616	0.000	0.03
		C		0.000	0.000	2.945	0.000	0.04
L29	82.83-82.58	A	0.932	0.000	0.000	1.669	0.000	0.01
		B		0.000	0.000	1.260	0.000	0.01
		C		0.000	0.000	1.027	0.000	0.01
L30	82.58-77.58	A	0.929	0.000	0.000	33.357	0.000	0.29
		B		0.000	0.000	25.200	0.000	0.24
		C		0.000	0.000	20.526	0.000	0.28
L31	77.58-73.42	A	0.923	0.000	0.000	29.796	0.000	0.25
		B		0.000	0.000	23.014	0.000	0.21
		C		0.000	0.000	21.165	0.000	0.25
L32	73.42-73.17	A	0.921	0.000	0.000	1.919	0.000	0.02
		B		0.000	0.000	1.512	0.000	0.01
		C		0.000	0.000	1.533	0.000	0.02
L33	73.17-72.42	A	0.920	0.000	0.000	5.283	0.000	0.04
		B		0.000	0.000	4.293	0.000	0.04
		C		0.000	0.000	4.357	0.000	0.05
L34	72.42-72.17	A	0.919	0.000	0.000	1.840	0.000	0.02
		B		0.000	0.000	1.473	0.000	0.01
		C		0.000	0.000	1.494	0.000	0.02
L35	72.17-68.08	A	0.917	0.000	0.000	29.737	0.000	0.25
		B		0.000	0.000	21.601	0.000	0.20
		C		0.000	0.000	22.767	0.000	0.26
L36	68.08-67.83	A	0.914	0.000	0.000	1.838	0.000	0.02
		B		0.000	0.000	1.243	0.000	0.01
		C		0.000	0.000	1.326	0.000	0.02
L37	67.83-65.58	A	0.912	0.000	0.000	16.532	0.000	0.14
		B		0.000	0.000	13.217	0.000	0.12
		C		0.000	0.000	13.960	0.000	0.15
L38	65.58-65.33	A	0.910	0.000	0.000	1.836	0.000	0.02
		B		0.000	0.000	1.496	0.000	0.01
		C		0.000	0.000	1.579	0.000	0.02
L39	65.33-64.25	A	0.909	0.000	0.000	7.931	0.000	0.07
		B		0.000	0.000	6.462	0.000	0.06
		C		0.000	0.000	6.818	0.000	0.07
L40	64.25-64.00	A	0.908	0.000	0.000	1.836	0.000	0.02
		B		0.000	0.000	1.496	0.000	0.01
		C		0.000	0.000	1.578	0.000	0.02
L41	64.00-59.00	A	0.905	0.000	0.000	30.239	0.000	0.27
		B		0.000	0.000	26.665	0.000	0.24
		C		0.000	0.000	28.310	0.000	0.32
L42	59.00-54.00	A	0.897	0.000	0.000	28.039	0.000	0.25
		B		0.000	0.000	25.543	0.000	0.23
		C		0.000	0.000	27.183	0.000	0.31
L43	54.00-43.66	A	0.884	0.000	0.000	66.134	0.000	0.56
		B		0.000	0.000	55.958	0.000	0.50
		C		0.000	0.000	57.596	0.000	0.64
L44	43.66-42.66	A	0.873	0.000	0.000	7.433	0.000	0.06
		B		0.000	0.000	5.509	0.000	0.05
		C		0.000	0.000	4.825	0.000	0.06
L45	42.66-41.75	A	0.871	0.000	0.000	6.745	0.000	0.05
		B		0.000	0.000	4.999	0.000	0.04
		C		0.000	0.000	4.377	0.000	0.05
L46	41.75-41.50	A	0.870	0.000	0.000	1.853	0.000	0.01
		B		0.000	0.000	1.373	0.000	0.01
		C		0.000	0.000	1.202	0.000	0.01
L47	41.50-36.50	A	0.864	0.000	0.000	37.008	0.000	0.29
		B		0.000	0.000	27.423	0.000	0.24
		C		0.000	0.000	24.007	0.000	0.29
L48	36.50-32.75	A	0.854	0.000	0.000	28.257	0.000	0.22
		B		0.000	0.000	21.213	0.000	0.18
		C		0.000	0.000	18.090	0.000	0.22
L49	32.75-32.50	A	0.849	0.000	0.000	1.907	0.000	0.01
		B		0.000	0.000	1.441	0.000	0.01
		C		0.000	0.000	1.208	0.000	0.01

Tower Section	Tower Elevation ft	Face or Leg	Ice Thickness in	A _R ft ²	A _F ft ²	C _A A _A In Face ft ²	C _A A _A Out Face ft ²	Weight K
L50	32.50-32.25	A	0.848	0.000	0.000	1.907	0.000	0.01
		B		0.000	0.000	1.441	0.000	0.01
		C		0.000	0.000	1.208	0.000	0.01
L51	32.25-32.00	A	0.848	0.000	0.000	1.906	0.000	0.01
		B		0.000	0.000	1.441	0.000	0.01
		C		0.000	0.000	1.207	0.000	0.01
L52	32.00-30.33	A	0.845	0.000	0.000	13.192	0.000	0.10
		B		0.000	0.000	10.088	0.000	0.08
		C		0.000	0.000	9.021	0.000	0.10
L53	30.33-30.08	A	0.843	0.000	0.000	2.196	0.000	0.02
		B		0.000	0.000	1.731	0.000	0.01
		C		0.000	0.000	1.790	0.000	0.02
L54	30.08-28.25	A	0.840	0.000	0.000	16.094	0.000	0.12
		B		0.000	0.000	12.685	0.000	0.10
		C		0.000	0.000	13.118	0.000	0.13
L55	28.25-28.00	A	0.837	0.000	0.000	2.194	0.000	0.02
		B		0.000	0.000	1.729	0.000	0.01
		C		0.000	0.000	1.788	0.000	0.02
L56	28.00-23.00	A	0.828	0.000	0.000	40.622	0.000	0.30
		B		0.000	0.000	30.316	0.000	0.25
		C		0.000	0.000	31.487	0.000	0.32
L57	23.00-19.25	A	0.813	0.000	0.000	30.395	0.000	0.22
		B		0.000	0.000	20.714	0.000	0.17
		C		0.000	0.000	21.584	0.000	0.23
L58	19.25-19.00	A	0.805	0.000	0.000	2.023	0.000	0.01
		B		0.000	0.000	1.379	0.000	0.01
		C		0.000	0.000	1.436	0.000	0.02
L59	19.00-14.50	A	0.794	0.000	0.000	30.831	0.000	0.23
		B		0.000	0.000	22.006	0.000	0.19
		C		0.000	0.000	23.037	0.000	0.25
L60	14.50-14.25	A	0.782	0.000	0.000	1.591	0.000	0.01
		B		0.000	0.000	1.161	0.000	0.01
		C		0.000	0.000	1.217	0.000	0.01
L61	14.25-12.75	A	0.777	0.000	0.000	9.535	0.000	0.07
		B		0.000	0.000	6.956	0.000	0.06
		C		0.000	0.000	7.295	0.000	0.08
L62	12.75-12.50	A	0.772	0.000	0.000	1.587	0.000	0.01
		B		0.000	0.000	1.158	0.000	0.01
		C		0.000	0.000	1.214	0.000	0.01
L63	12.50-7.50	A	0.754	0.000	0.000	28.211	0.000	0.22
		B		0.000	0.000	19.596	0.000	0.17
		C		0.000	0.000	23.609	0.000	0.26
L64	7.50-3.50	A	0.711	0.000	0.000	17.607	0.000	0.11
		B		0.000	0.000	10.345	0.000	0.06
		C		0.000	0.000	17.607	0.000	0.20
L65	3.50-3.25	A	0.677	0.000	0.000	1.094	0.000	0.01
		B		0.000	0.000	0.642	0.000	0.00
		C		0.000	0.000	1.094	0.000	0.01
L66	3.25-3.00	A	0.672	0.000	0.000	1.093	0.000	0.01
		B		0.000	0.000	0.641	0.000	0.00
		C		0.000	0.000	1.093	0.000	0.01
L67	3.00-0.00	A	0.624	0.000	0.000	12.997	0.000	0.08
		B		0.000	0.000	7.603	0.000	0.04
		C		0.000	0.000	12.997	0.000	0.13

Feed Line Center of Pressure

Section	Elevation ft	CP _x in	CP _z in	CP _x Ice in	CP _z Ice in
L1	168.33-163.33	-0.1403	0.2430	-0.4828	0.8362
L2	163.33-158.33	-0.1404	0.2431	-0.4850	0.8400
L3	158.33-153.33	-0.1404	0.2432	-0.4869	0.8434
L4	153.33-148.33	-0.1405	0.2433	-0.4886	0.8463
L5	148.33-143.33	0.8380	-0.3992	0.6778	0.0410
L6	143.33-138.33	0.0764	0.0130	0.1663	0.2209

Section	Elevation	CP _x	CP _z	CP _x Ice	CP _z Ice
	ft	in	in	in	in
L7	138.33-138.00	-0.5484	0.3561	-0.3910	0.4395
L8	138.00-137.75	-1.0402	-0.4795	-1.0670	-0.6854
L9	137.75-130.50	-1.0577	-0.4878	-1.0841	-0.6956
L10	130.50-129.16	-1.0670	-0.4922	-1.0935	-0.7014
L11	129.16-125.75	-0.2749	-0.3969	-0.2487	-0.7096
L12	125.75-125.50	0.0524	-0.0922	0.0860	-0.4697
L13	125.50-120.50	-0.0879	-0.8493	-0.0258	-1.0583
L14	120.50-120.25	-0.3675	-2.3553	-0.2569	-2.2636
L15	120.25-115.25	-0.3949	-1.6785	-0.3017	-1.7048
L16	115.25-113.83	-0.3138	-1.3075	-0.2653	-1.4681
L17	113.83-113.48	-0.3150	-1.3123	-0.2665	-1.4739
L18	113.48-113.25	-0.3155	-1.3142	-0.2669	-1.4761
L19	113.25-112.00	-0.3168	-1.3194	-0.2680	-1.4820
L20	112.00-111.75	-0.0748	0.0990	-0.0333	-0.1894
L21	111.75-106.75	0.1862	-0.0417	0.2057	-0.3589
L22	106.75-101.75	0.3707	-0.1395	0.3710	-0.4776
L23	101.75-98.42	1.5840	-0.3721	1.3579	-0.7265
L24	98.42-98.17	1.9304	-0.5780	1.8029	-0.9738
L25	98.17-93.17	2.1294	-0.6371	1.8252	-0.9843
L26	93.17-84.55	2.0679	-1.0199	1.7711	-1.3356
L27	84.55-83.55	2.9896	-1.1557	2.6133	-1.4884
L28	83.55-82.83	3.3232	-1.5195	2.9307	-1.8037
L29	82.83-82.58	3.3303	-1.5225	2.9368	-1.8071
L30	82.58-77.58	3.3695	-1.5351	2.9705	-1.8221
L31	77.58-73.42	2.9849	-0.9123	2.6601	-1.2433
L32	73.42-73.17	2.4287	-0.3267	2.3514	-0.7083
L33	73.17-72.42	2.8042	-0.2681	2.5250	-0.6463
L34	72.42-72.17	2.6941	-0.3207	2.4501	-0.6769
L35	72.17-68.08	2.0978	-1.0564	1.9055	-1.2339
L36	68.08-67.83	1.6264	-1.9518	1.4743	-1.9135
L37	67.83-65.58	2.6311	-0.4049	2.3886	-0.5269
L38	65.58-65.33	2.7573	-0.2308	2.5044	-0.3697
L39	65.33-64.25	2.7646	-0.2313	2.5109	-0.3705
L40	64.25-64.00	2.7718	-0.2318	2.5172	-0.3712
L41	64.00-59.00	3.3243	0.0225	2.9447	-0.1793
L42	59.00-54.00	3.6010	0.1274	3.1584	-0.1044
L43	54.00-43.66	3.6930	0.1190	3.2686	-0.1058
L44	43.66-42.66	4.7763	-1.1874	4.1761	-1.1789
L45	42.66-41.75	4.7929	-1.1913	4.1922	-1.1822
L46	41.75-41.50	4.8031	-1.1936	4.2010	-1.1844
L47	41.50-36.50	4.8486	-1.2042	4.2404	-1.1943
L48	36.50-32.75	5.0241	-1.4003	4.3398	-1.4448
L49	32.75-32.50	5.0903	-1.5874	4.3824	-1.6237
L50	32.50-32.25	5.0947	-1.5888	4.3863	-1.6249
L51	32.25-32.00	5.0992	-1.5901	4.3902	-1.6262
L52	32.00-30.33	4.4485	-1.6536	3.8449	-1.6812
L53	30.33-30.08	2.8362	-1.8007	2.4631	-1.8108
L54	30.08-28.25	2.8468	-1.8072	2.4726	-1.8168
L55	28.25-28.00	2.8573	-1.8138	2.4821	-1.8228
L56	28.00-23.00	1.8633	-3.7019	1.6049	-3.4569
L57	23.00-19.25	1.1474	-4.9844	0.9978	-4.5215
L58	19.25-19.00	1.1551	-5.0170	1.0052	-4.5501
L59	19.00-14.50	1.4383	-5.4152	1.2305	-4.8370
L60	14.50-14.25	1.5761	-5.6245	1.3392	-4.9892
L61	14.25-12.75	1.5804	-5.6393	1.3435	-5.0020
L62	12.75-12.50	1.5845	-5.6536	1.3477	-5.0143
L63	12.50-7.50	1.3635	-4.1629	1.2026	-3.7842
L64	7.50-3.50	1.0038	-1.7183	1.0176	-1.5575
L65	3.50-3.25	1.0105	-1.7294	1.0180	-1.5648
L66	3.25-3.00	1.0110	-1.7302	1.0174	-1.5650
L67	3.00-0.00	1.0158	-1.7382	1.0133	-1.5684

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
L1	2	Step Pegs	163.33 - 168.33	1.0000	1.0000
L2	2	Step Pegs	158.33 - 163.33	1.0000	1.0000
L3	2	Step Pegs	153.33 - 158.33	1.0000	1.0000
L4	2	Step Pegs	148.33 - 153.33	1.0000	1.0000
L5	2	Step Pegs	143.33 - 148.33	1.0000	1.0000
L5	22	CU12PSM9P6XXX(1-1/2)	143.33 - 148.00	1.0000	1.0000
L6	2	Step Pegs	138.33 - 143.33	1.0000	1.0000
L6	22	CU12PSM9P6XXX(1-1/2)	138.33 - 143.33	1.0000	1.0000
L6	89	CCI-SFP-040125	138.33 - 140.00	1.0000	1.0000
L6	90	CCI-SFP-040125	138.33 - 140.00	1.0000	1.0000
L6	91	CCI-SFP-040125	138.33 - 140.00	1.0000	1.0000
L6	92	CCI-SFP-040125	138.33 - 140.00	1.0000	1.0000
L7	2	Step Pegs	138.00 - 138.33	1.0000	1.0000
L7	22	CU12PSM9P6XXX(1-1/2)	138.00 - 138.33	1.0000	1.0000
L7	89	CCI-SFP-040125	138.00 - 138.33	1.0000	1.0000
L7	90	CCI-SFP-040125	138.00 - 138.33	1.0000	1.0000
L7	91	CCI-SFP-040125	138.00 - 138.33	1.0000	1.0000
L7	92	CCI-SFP-040125	138.00 - 138.33	1.0000	1.0000
L8	2	Step Pegs	137.75 - 138.00	1.0000	1.0000
L8	22	CU12PSM9P6XXX(1-1/2)	137.75 - 138.00	1.0000	1.0000
L8	24	HB114-U6S12-XXX-LI(1-1/4)	137.75 - 138.00	1.0000	1.0000
L8	25	HB158-1-08U8-S8J18(1-5/8)	137.75 - 138.00	1.0000	1.0000
L8	89	CCI-SFP-040125	137.75 - 138.00	1.0000	1.0000
L8	90	CCI-SFP-040125	137.75 - 138.00	1.0000	1.0000
L8	91	CCI-SFP-040125	137.75 - 138.00	1.0000	1.0000
L8	92	CCI-SFP-040125	137.75 - 138.00	1.0000	1.0000
L9	2	Step Pegs	130.50 - 137.75	1.0000	1.0000
L9	22	CU12PSM9P6XXX(1-1/2)	130.50 - 137.75	1.0000	1.0000
L9	24	HB114-U6S12-XXX-LI(1-1/4)	130.50 - 137.75	1.0000	1.0000
L9	25	HB158-1-08U8-S8J18(1-5/8)	130.50 - 137.75	1.0000	1.0000
L9	89	CCI-SFP-040125	130.50 - 137.75	1.0000	1.0000
L9	90	CCI-SFP-040125	130.50 - 137.75	1.0000	1.0000
L9	91	CCI-SFP-040125	130.50 - 137.75	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L9	92	CCI-SFP-040125	130.50 - 137.75	1.0000	1.0000
L10	2	Step Pegs	129.16 - 130.50	1.0000	1.0000
L10	22	CU12PSM9P6XXX(1-1/2)	129.16 - 130.50	1.0000	1.0000
L10	24	HB114-U6S12-XXX-LI(1-1/4)	129.16 - 130.50	1.0000	1.0000
L10	25	HB158-1-08U8-S8J18(1-5/8)	129.16 - 130.50	1.0000	1.0000
L10	89	CCI-SFP-040125	129.16 - 130.50	1.0000	1.0000
L10	90	CCI-SFP-040125	129.16 - 130.50	1.0000	1.0000
L10	91	CCI-SFP-040125	129.16 - 130.50	1.0000	1.0000
L10	92	CCI-SFP-040125	129.16 - 130.50	1.0000	1.0000
L11	2	Step Pegs	125.75 - 129.16	1.0000	1.0000
L11	22	CU12PSM9P6XXX(1-1/2)	125.75 - 129.16	1.0000	1.0000
L11	24	HB114-U6S12-XXX-LI(1-1/4)	125.75 - 129.16	1.0000	1.0000
L11	25	HB158-1-08U8-S8J18(1-5/8)	125.75 - 129.16	1.0000	1.0000
L11	30	(2) HB114-U6S12-XXX-LI(1-1/4) + (1) MLE Hybrid 3Power/6Fiber RL 2(1-1/4)	125.75 - 128.00	1.0000	1.0000
L11	76	CCI-SFP-045100	125.75 - 127.33	1.0000	1.0000
L11	77	CCI-SFP-045100	125.75 - 127.33	1.0000	1.0000
L11	78	CCI-SFP-045100	125.75 - 127.33	1.0000	1.0000
L11	89	CCI-SFP-040125	125.75 - 129.16	1.0000	1.0000
L11	90	CCI-SFP-040125	125.75 - 129.16	1.0000	1.0000
L11	91	CCI-SFP-040125	125.75 - 129.16	1.0000	1.0000
L11	92	CCI-SFP-040125	125.75 - 129.16	1.0000	1.0000
L12	2	Step Pegs	125.50 - 125.75	1.0000	1.0000
L12	22	CU12PSM9P6XXX(1-1/2)	125.50 - 125.75	1.0000	1.0000
L12	24	HB114-U6S12-XXX-LI(1-1/4)	125.50 - 125.75	1.0000	1.0000
L12	25	HB158-1-08U8-S8J18(1-5/8)	125.50 - 125.75	1.0000	1.0000
L12	30	(2) HB114-U6S12-XXX-LI(1-1/4) + (1) MLE Hybrid 3Power/6Fiber RL 2(1-1/4)	125.50 - 125.75	1.0000	1.0000
L12	76	CCI-SFP-045100	125.50 - 125.75	1.0000	1.0000
L12	77	CCI-SFP-045100	125.50 - 125.75	1.0000	1.0000
L12	78	CCI-SFP-045100	125.50 - 125.75	1.0000	1.0000
L12	89	CCI-SFP-040125	125.50 - 125.75	1.0000	1.0000
L12	90	CCI-SFP-040125	125.50 - 125.75	1.0000	1.0000
L12	91	CCI-SFP-040125	125.50 - 125.75	1.0000	1.0000
L12	92	CCI-SFP-040125	125.50 - 125.75	1.0000	1.0000
L13	2	Step Pegs	120.50 -	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L13	22	CU12PSM9P6XXX(1-1/2)	125.50 120.50 -	1.0000	1.0000
L13	24	HB114-U6S12-XXX-LI(1-1/4)	125.50 120.50 -	1.0000	1.0000
L13	25	HB158-1-08U8-S8J18(1-5/8)	125.50 120.50 -	1.0000	1.0000
L13	30	(2) HB114-U6S12-XXX-LI(1-1/4) + (1) MLE Hybrid 3Power/6Fiber RL 2(1-1/4)	125.50 120.50 -	1.0000	1.0000
L13	76	CCI-SFP-045100	120.50 - 125.50	1.0000	1.0000
L13	77	CCI-SFP-045100	120.50 - 125.50	1.0000	1.0000
L13	78	CCI-SFP-045100	120.50 - 125.50	1.0000	1.0000
L13	80	CCI-SFP-040125	120.50 - 122.00	1.0000	1.0000
L13	81	CCI-SFP-040125	120.50 - 122.00	1.0000	1.0000
L13	89	CCI-SFP-040125	120.50 - 125.50	1.0000	1.0000
L13	90	CCI-SFP-040125	120.50 - 125.50	1.0000	1.0000
L13	91	CCI-SFP-040125	120.50 - 125.50	1.0000	1.0000
L13	92	CCI-SFP-040125	120.50 - 125.50	1.0000	1.0000
L14	2	Step Pegs	120.25 - 120.50	1.0000	1.0000
L14	22	CU12PSM9P6XXX(1-1/2)	120.25 - 120.50	1.0000	1.0000
L14	24	HB114-U6S12-XXX-LI(1-1/4)	120.25 - 120.50	1.0000	1.0000
L14	25	HB158-1-08U8-S8J18(1-5/8)	120.25 - 120.50	1.0000	1.0000
L14	30	(2) HB114-U6S12-XXX-LI(1-1/4) + (1) MLE Hybrid 3Power/6Fiber RL 2(1-1/4)	120.25 - 120.50	1.0000	1.0000
L14	76	CCI-SFP-045100	120.25 - 120.50	1.0000	1.0000
L14	77	CCI-SFP-045100	120.25 - 120.50	1.0000	1.0000
L14	78	CCI-SFP-045100	120.25 - 120.50	1.0000	1.0000
L14	80	CCI-SFP-040125	120.25 - 120.50	1.0000	1.0000
L14	81	CCI-SFP-040125	120.25 - 120.50	1.0000	1.0000
L14	89	CCI-SFP-040125	120.25 - 120.50	1.0000	1.0000
L14	90	CCI-SFP-040125	120.25 - 120.50	1.0000	1.0000
L14	91	CCI-SFP-040125	120.25 - 120.50	1.0000	1.0000
L14	92	CCI-SFP-040125	120.25 - 120.50	1.0000	1.0000
L15	2	Step Pegs	115.25 - 120.25	1.0000	1.0000
L15	22	CU12PSM9P6XXX(1-1/2)	115.25 - 120.25	1.0000	1.0000
L15	24	HB114-U6S12-XXX-LI(1-1/4)	115.25 - 120.25	1.0000	1.0000
L15	25	HB158-1-08U8-S8J18(1-5/8)	115.25 - 120.25	1.0000	1.0000
L15	30	(2) HB114-U6S12-XXX-LI(1-1/4) + (1) MLE Hybrid 3Power/6Fiber RL 2(1-1/4)	115.25 - 120.25	1.0000	1.0000
L15	36	Shaft Reinforcement	115.25 -	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L15	37	[#PL0.625x5] Shaft Reinforcement	120.00 115.25 -	1.0000	1.0000
L15	38	[#PL0.625x5] Shaft Reinforcement	120.00 115.25 -	1.0000	1.0000
L15	56	[#PL0.625x5] Shaft Reinforcement	120.00 115.25 -	1.0000	1.0000
L15	57	[#PL1.25x5] Shaft Reinforcement	115.83 115.25 -	1.0000	1.0000
L15	58	[#PL1.25x5] Shaft Reinforcement	115.83 115.25 -	1.0000	1.0000
L15	76	CCI-SFP-045100	115.25 - 120.25	1.0000	1.0000
L15	77	CCI-SFP-045100	115.25 - 120.25	1.0000	1.0000
L15	78	CCI-SFP-045100	115.25 - 120.25	1.0000	1.0000
L15	80	CCI-SFP-040125	115.25 - 120.25	1.0000	1.0000
L15	81	CCI-SFP-040125	115.25 - 120.25	1.0000	1.0000
L15	89	CCI-SFP-040125	115.25 - 120.25	1.0000	1.0000
L15	90	CCI-SFP-040125	115.25 - 120.25	1.0000	1.0000
L15	91	CCI-SFP-040125	115.25 - 120.25	1.0000	1.0000
L15	92	CCI-SFP-040125	115.25 - 120.25	1.0000	1.0000
L16	2	Step Pegs	113.83 - 115.25	1.0000	1.0000
L16	22	CU12PSM9P6XXX(1-1/2)	113.83 - 115.25	1.0000	1.0000
L16	24	HB114-U6S12-XXX-LI(1-1/4)	113.83 - 115.25	1.0000	1.0000
L16	25	HB158-1-08U8-S8J18(1-5/8)	113.83 - 115.25	1.0000	1.0000
L16	30	(2) HB114-U6S12-XXX-LI(1-1/4) + (1) MLE Hybrid 3Power/6Fiber RL 2(1-1/4)	113.83 - 115.25	1.0000	1.0000
L16	36	Shaft Reinforcement [#PL0.625x5]	113.83 - 115.25	1.0000	1.0000
L16	37	Shaft Reinforcement [#PL0.625x5]	113.83 - 115.25	1.0000	1.0000
L16	38	Shaft Reinforcement [#PL0.625x5]	113.83 - 115.25	1.0000	1.0000
L16	56	Shaft Reinforcement [#PL1.25x5]	113.83 - 115.25	1.0000	1.0000
L16	57	Shaft Reinforcement [#PL1.25x5]	113.83 - 115.25	1.0000	1.0000
L16	58	Shaft Reinforcement [#PL1.25x5]	113.83 - 115.25	1.0000	1.0000
L16	76	CCI-SFP-045100	113.83 - 115.25	1.0000	1.0000
L16	77	CCI-SFP-045100	113.83 - 115.25	1.0000	1.0000
L16	78	CCI-SFP-045100	113.83 - 115.25	1.0000	1.0000
L16	80	CCI-SFP-040125	113.83 - 115.25	1.0000	1.0000
L16	81	CCI-SFP-040125	113.83 - 115.25	1.0000	1.0000
L16	89	CCI-SFP-040125	113.83 - 115.25	1.0000	1.0000
L16	90	CCI-SFP-040125	113.83 - 115.25	1.0000	1.0000
L16	91	CCI-SFP-040125	113.83 - 115.25	1.0000	1.0000
L16	92	CCI-SFP-040125	113.83 -	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L17	2	Step Pegs	115.25 113.48 - 113.83	1.0000	1.0000
L17	22	CU12PSM9P6XXX(1-1/2)	113.48 - 113.83	1.0000	1.0000
L17	24	HB114-U6S12-XXX-LI(1-1/4)	113.48 - 113.83	1.0000	1.0000
L17	25	HB158-1-08U8-S8J18(1-5/8)	113.48 - 113.83	1.0000	1.0000
L17	30	(2) HB114-U6S12-XXX-LI(1-1/4) + (1) MLE Hybrid 3Power/6Fiber RL 2(1-1/4)	113.48 - 113.83	1.0000	1.0000
L17	36	Shaft Reinforcement [#PL0.625x5]	113.48 - 113.83	1.0000	1.0000
L17	37	Shaft Reinforcement [#PL0.625x5]	113.48 - 113.83	1.0000	1.0000
L17	38	Shaft Reinforcement [#PL0.625x5]	113.48 - 113.83	1.0000	1.0000
L17	56	Shaft Reinforcement [#PL1.25x5]	113.48 - 113.83	1.0000	1.0000
L17	57	Shaft Reinforcement [#PL1.25x5]	113.48 - 113.83	1.0000	1.0000
L17	58	Shaft Reinforcement [#PL1.25x5]	113.48 - 113.83	1.0000	1.0000
L17	76	CCI-SFP-045100	113.48 - 113.83	1.0000	1.0000
L17	77	CCI-SFP-045100	113.48 - 113.83	1.0000	1.0000
L17	78	CCI-SFP-045100	113.48 - 113.83	1.0000	1.0000
L17	80	CCI-SFP-040125	113.48 - 113.83	1.0000	1.0000
L17	81	CCI-SFP-040125	113.48 - 113.83	1.0000	1.0000
L17	89	CCI-SFP-040125	113.48 - 113.83	1.0000	1.0000
L17	90	CCI-SFP-040125	113.48 - 113.83	1.0000	1.0000
L17	91	CCI-SFP-040125	113.48 - 113.83	1.0000	1.0000
L17	92	CCI-SFP-040125	113.48 - 113.83	1.0000	1.0000
L18	2	Step Pegs	113.25 - 113.48	1.0000	1.0000
L18	22	CU12PSM9P6XXX(1-1/2)	113.25 - 113.48	1.0000	1.0000
L18	24	HB114-U6S12-XXX-LI(1-1/4)	113.25 - 113.48	1.0000	1.0000
L18	25	HB158-1-08U8-S8J18(1-5/8)	113.25 - 113.48	1.0000	1.0000
L18	30	(2) HB114-U6S12-XXX-LI(1-1/4) + (1) MLE Hybrid 3Power/6Fiber RL 2(1-1/4)	113.25 - 113.48	1.0000	1.0000
L18	36	Shaft Reinforcement [#PL0.625x5]	113.25 - 113.48	1.0000	1.0000
L18	37	Shaft Reinforcement [#PL0.625x5]	113.25 - 113.48	1.0000	1.0000
L18	38	Shaft Reinforcement [#PL0.625x5]	113.25 - 113.48	1.0000	1.0000
L18	56	Shaft Reinforcement [#PL1.25x5]	113.25 - 113.48	1.0000	1.0000
L18	57	Shaft Reinforcement [#PL1.25x5]	113.25 - 113.48	1.0000	1.0000
L18	58	Shaft Reinforcement [#PL1.25x5]	113.25 - 113.48	1.0000	1.0000
L18	76	CCI-SFP-045100	113.25 - 113.48	1.0000	1.0000
L18	77	CCI-SFP-045100	113.25 - 113.48	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L18	78	CCI-SFP-045100	113.25 - 113.48	1.0000	1.0000
L18	80	CCI-SFP-040125	113.25 - 113.48	1.0000	1.0000
L18	81	CCI-SFP-040125	113.25 - 113.48	1.0000	1.0000
L18	89	CCI-SFP-040125	113.25 - 113.48	1.0000	1.0000
L18	90	CCI-SFP-040125	113.25 - 113.48	1.0000	1.0000
L18	91	CCI-SFP-040125	113.25 - 113.48	1.0000	1.0000
L18	92	CCI-SFP-040125	113.25 - 113.48	1.0000	1.0000
L19	2	Step Pegs	112.00 - 113.25	1.0000	1.0000
L19	22	CU12PSM9P6XXX(1-1/2)	112.00 - 113.25	1.0000	1.0000
L19	24	HB114-U6S12-XXX-LI(1-1/4)	112.00 - 113.25	1.0000	1.0000
L19	25	HB158-1-08U8-S8J18(1-5/8)	112.00 - 113.25	1.0000	1.0000
L19	30	(2) HB114-U6S12-XXX-LI(1-1/4) + (1) MLE Hybrid 3Power/6Fiber RL 2(1-1/4)	112.00 - 113.25	1.0000	1.0000
L19	36	Shaft Reinforcement [#PL0.625x5]	112.00 - 113.25	1.0000	1.0000
L19	37	Shaft Reinforcement [#PL0.625x5]	112.00 - 113.25	1.0000	1.0000
L19	38	Shaft Reinforcement [#PL0.625x5]	112.00 - 113.25	1.0000	1.0000
L19	56	Shaft Reinforcement [#PL1.25x5]	112.00 - 113.25	1.0000	1.0000
L19	57	Shaft Reinforcement [#PL1.25x5]	112.00 - 113.25	1.0000	1.0000
L19	58	Shaft Reinforcement [#PL1.25x5]	112.00 - 113.25	1.0000	1.0000
L19	76	CCI-SFP-045100	112.00 - 113.25	1.0000	1.0000
L19	77	CCI-SFP-045100	112.00 - 113.25	1.0000	1.0000
L19	78	CCI-SFP-045100	112.00 - 113.25	1.0000	1.0000
L19	80	CCI-SFP-040125	112.00 - 113.25	1.0000	1.0000
L19	81	CCI-SFP-040125	112.00 - 113.25	1.0000	1.0000
L19	89	CCI-SFP-040125	112.00 - 113.25	1.0000	1.0000
L19	90	CCI-SFP-040125	112.00 - 113.25	1.0000	1.0000
L19	91	CCI-SFP-040125	112.00 - 113.25	1.0000	1.0000
L19	92	CCI-SFP-040125	112.00 - 113.25	1.0000	1.0000
L20	2	Step Pegs	111.75 - 112.00	1.0000	1.0000
L20	22	CU12PSM9P6XXX(1-1/2)	111.75 - 112.00	1.0000	1.0000
L20	24	HB114-U6S12-XXX-LI(1-1/4)	111.75 - 112.00	1.0000	1.0000
L20	25	HB158-1-08U8-S8J18(1-5/8)	111.75 - 112.00	1.0000	1.0000
L20	30	(2) HB114-U6S12-XXX-LI(1-1/4) + (1) MLE Hybrid 3Power/6Fiber RL 2(1-1/4)	111.75 - 112.00	1.0000	1.0000
L20	36	Shaft Reinforcement [#PL0.625x5]	111.75 - 112.00	1.0000	1.0000
L20	37	Shaft Reinforcement	111.75 -	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L20	38	[#PL0.625x5] Shaft Reinforcement	112.00 111.75 -	1.0000	1.0000
L20	56	[#PL0.625x5] Shaft Reinforcement	112.00 111.75 -	1.0000	1.0000
L20	57	[#PL1.25x5] Shaft Reinforcement	112.00 111.75 -	1.0000	1.0000
L20	58	[#PL1.25x5] Shaft Reinforcement	112.00 111.75 -	1.0000	1.0000
L20	76	CCI-SFP-045100	112.00 111.75 -	1.0000	1.0000
L20	77	CCI-SFP-045100	112.00 111.75 -	1.0000	1.0000
L20	78	CCI-SFP-045100	112.00 111.75 -	1.0000	1.0000
L20	89	CCI-SFP-040125	112.00 111.75 -	1.0000	1.0000
L20	90	CCI-SFP-040125	112.00 111.75 -	1.0000	1.0000
L20	91	CCI-SFP-040125	112.00 111.75 -	1.0000	1.0000
L20	92	CCI-SFP-040125	112.00 111.75 -	1.0000	1.0000
L21	2	Step Pegs	106.75 - 111.75	1.0000	1.0000
L21	22	CU12PSM9P6XXX(1-1/2)	106.75 - 111.75	1.0000	1.0000
L21	24	HB114-U6S12-XXX-LI(1-1/4)	106.75 - 111.75	1.0000	1.0000
L21	25	HB158-1-08U8-S8J18(1-5/8)	106.75 - 111.75	1.0000	1.0000
L21	30	(2) HB114-U6S12-XXX-LI(1-1/4) + (1) MLE Hybrid 3Power/6Fiber RL 2(1-1/4)	106.75 - 111.75	1.0000	1.0000
L21	36	Shaft Reinforcement	106.75 - 111.75	1.0000	1.0000
L21	37	[#PL0.625x5] Shaft Reinforcement	111.75 106.75 -	1.0000	1.0000
L21	38	[#PL0.625x5] Shaft Reinforcement	111.75 106.75 -	1.0000	1.0000
L21	56	[#PL0.625x5] Shaft Reinforcement	111.75 106.75 -	1.0000	1.0000
L21	57	[#PL1.25x5] Shaft Reinforcement	111.75 106.75 -	1.0000	1.0000
L21	58	[#PL1.25x5] Shaft Reinforcement	111.75 106.75 -	1.0000	1.0000
L21	76	CCI-SFP-045100	111.75 106.75 -	1.0000	1.0000
L21	77	CCI-SFP-045100	111.75 106.75 -	1.0000	1.0000
L21	78	CCI-SFP-045100	111.75 106.75 -	1.0000	1.0000
L21	89	CCI-SFP-040125	111.75 110.00 -	1.0000	1.0000
L21	90	CCI-SFP-040125	111.75 110.00 -	1.0000	1.0000
L21	91	CCI-SFP-040125	111.75 110.00 -	1.0000	1.0000
L21	92	CCI-SFP-040125	111.75 110.00 -	1.0000	1.0000
L22	2	Step Pegs	101.75 - 106.75	1.0000	1.0000
L22	22	CU12PSM9P6XXX(1-1/2)	101.75 - 106.75	1.0000	1.0000
L22	24	HB114-U6S12-XXX-LI(1-1/4)	101.75 - 106.75	1.0000	1.0000
L22	25	HB158-1-08U8-S8J18(1-5/8)	101.75 - 106.75	1.0000	1.0000
L22	30	(2) HB114-U6S12-XXX-	101.75 -	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
		LI(1-1/4) + (1) MLE Hybrid 3Power/6Fiber RL 2(1-1/4)	106.75		
L22	36	Shaft Reinforcement [#PL0.625x5]	101.75 - 106.75	1.0000	1.0000
L22	37	Shaft Reinforcement [#PL0.625x5]	101.75 - 106.75	1.0000	1.0000
L22	38	Shaft Reinforcement [#PL0.625x5]	101.75 - 106.75	1.0000	1.0000
L22	56	Shaft Reinforcement [#PL1.25x5]	101.75 - 106.75	1.0000	1.0000
L22	57	Shaft Reinforcement [#PL1.25x5]	101.75 - 106.75	1.0000	1.0000
L22	58	Shaft Reinforcement [#PL1.25x5]	101.75 - 106.75	1.0000	1.0000
L22	76	CCI-SFP-045100	101.75 - 106.75	1.0000	1.0000
L22	77	CCI-SFP-045100	101.75 - 106.75	1.0000	1.0000
L22	78	CCI-SFP-045100	101.75 - 106.75	1.0000	1.0000
L23	2	Step Pegs	98.42 - 101.75	1.0000	1.0000
L23	22	CU12PSM9P6XXX(1-1/2)	98.42 - 101.75	1.0000	1.0000
L23	24	HB114-U6S12-XXX-LI(1- 1/4)	98.42 - 101.75	1.0000	1.0000
L23	25	HB158-1-08U8-S8J18(1- 5/8)	98.42 - 101.75	1.0000	1.0000
L23	30	(2) HB114-U6S12-XXX- LI(1-1/4) + (1) MLE Hybrid 3Power/6Fiber RL 2(1-1/4)	98.42 - 101.75	1.0000	1.0000
L23	36	Shaft Reinforcement [#PL0.625x5]	98.42 - 101.75	1.0000	1.0000
L23	37	Shaft Reinforcement [#PL0.625x5]	98.42 - 101.75	1.0000	1.0000
L23	38	Shaft Reinforcement [#PL0.625x5]	98.42 - 101.75	1.0000	1.0000
L23	56	Shaft Reinforcement [#PL1.25x5]	98.42 - 101.75	1.0000	1.0000
L23	57	Shaft Reinforcement [#PL1.25x5]	98.42 - 101.75	1.0000	1.0000
L23	58	Shaft Reinforcement [#PL1.25x5]	98.42 - 101.75	1.0000	1.0000
L23	76	CCI-SFP-045100	98.42 - 101.75	1.0000	1.0000
L23	77	CCI-SFP-045100	98.42 - 101.75	1.0000	1.0000
L23	78	CCI-SFP-045100	98.42 - 101.75	1.0000	1.0000
L23	94	CCI-SFP-050125	98.42 - 100.42	1.0000	1.0000
L23	96	CCI-SFP-050125	98.42 - 100.58	1.0000	1.0000
L23	97	CCI-SFP-050125	98.42 - 100.42	1.0000	1.0000
L23	99	CCI-SFP-050125	98.42 - 100.58	1.0000	1.0000
L24	2	Step Pegs	98.17 - 98.42	1.0000	1.0000
L24	22	CU12PSM9P6XXX(1-1/2)	98.17 - 98.42	1.0000	1.0000
L24	24	HB114-U6S12-XXX-LI(1- 1/4)	98.17 - 98.42	1.0000	1.0000
L24	25	HB158-1-08U8-S8J18(1- 5/8)	98.17 - 98.42	1.0000	1.0000
L24	30	(2) HB114-U6S12-XXX- LI(1-1/4) + (1) MLE Hybrid 3Power/6Fiber RL 2(1-1/4)	98.17 - 98.42	1.0000	1.0000
L24	36	Shaft Reinforcement	98.17 -	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L24	37	[#PL0.625x5] Shaft Reinforcement	98.42 98.17 -	1.0000	1.0000
L24	38	[#PL0.625x5] Shaft Reinforcement	98.42 98.17 -	1.0000	1.0000
L24	56	[#PL0.625x5] Shaft Reinforcement	98.42 98.17 -	1.0000	1.0000
L24	57	[#PL1.25x5] Shaft Reinforcement	98.42 98.17 -	1.0000	1.0000
L24	58	[#PL1.25x5] Shaft Reinforcement	98.42 98.17 -	1.0000	1.0000
L24	76	CCI-SFP-045100	98.17 - 98.42	1.0000	1.0000
L24	77	CCI-SFP-045100	98.17 - 98.42	1.0000	1.0000
L24	78	CCI-SFP-045100	98.17 - 98.42	1.0000	1.0000
L24	94	CCI-SFP-050125	98.17 - 98.42	1.0000	1.0000
L24	96	CCI-SFP-050125	98.17 - 98.42	1.0000	1.0000
L24	97	CCI-SFP-050125	98.17 - 98.42	1.0000	1.0000
L24	99	CCI-SFP-050125	98.17 - 98.42	1.0000	1.0000
L25	2	Step Pegs	93.17 - 98.17	1.0000	1.0000
L25	22	CU12PSM9P6XXX(1-1/2)	93.17 - 98.17	1.0000	1.0000
L25	24	HB114-U6S12-XXX-LI(1-1/4)	93.17 - 98.17	1.0000	1.0000
L25	25	HB158-1-08U8-S8J18(1-5/8)	93.17 - 98.17	1.0000	1.0000
L25	30	(2) HB114-U6S12-XXX-LI(1-1/4) + (1) MLE Hybrid 3Power/6Fiber RL 2(1-1/4)	93.17 - 98.17	1.0000	1.0000
L25	36	Shaft Reinforcement	93.17 - 98.17	1.0000	1.0000
L25	37	[#PL0.625x5] Shaft Reinforcement	93.17 - 98.17	1.0000	1.0000
L25	38	[#PL0.625x5] Shaft Reinforcement	93.17 - 98.17	1.0000	1.0000
L25	56	[#PL0.625x5] Shaft Reinforcement	93.17 - 98.17	1.0000	1.0000
L25	57	[#PL1.25x5] Shaft Reinforcement	93.17 - 98.17	1.0000	1.0000
L25	58	[#PL1.25x5] Shaft Reinforcement	93.17 - 98.17	1.0000	1.0000
L25	76	CCI-SFP-045100	93.17 - 98.17	1.0000	1.0000
L25	77	CCI-SFP-045100	93.17 - 98.17	1.0000	1.0000
L25	78	CCI-SFP-045100	93.17 - 98.17	1.0000	1.0000
L25	94	CCI-SFP-050125	93.17 - 98.17	1.0000	1.0000
L25	96	CCI-SFP-050125	93.17 - 98.17	1.0000	1.0000
L25	97	CCI-SFP-050125	93.17 - 98.17	1.0000	1.0000
L25	99	CCI-SFP-050125	93.17 - 98.17	1.0000	1.0000
L26	2	Step Pegs	84.55 - 93.17	1.0000	1.0000
L26	22	CU12PSM9P6XXX(1-1/2)	84.55 - 93.17	1.0000	1.0000
L26	24	HB114-U6S12-XXX-LI(1-1/4)	84.55 - 93.17	1.0000	1.0000
L26	25	HB158-1-08U8-S8J18(1-	84.55 -	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L26	30	(2) HB114-U6S12-XXX-LI(1-1/4) + (1) MLE Hybrid 3Power/6Fiber RL 2(1-1/4)	93.17 84.55 - 93.17	1.0000	1.0000
L26	34	Shaft Reinforcement [#PL0.625x5]	84.55 - 84.67	1.0000	1.0000
L26	35	Shaft Reinforcement [#PL0.625x5]	84.55 - 84.67	1.0000	1.0000
L26	36	Shaft Reinforcement [#PL0.625x5]	84.67 - 93.17	1.0000	1.0000
L26	37	Shaft Reinforcement [#PL0.625x5]	84.67 - 93.17	1.0000	1.0000
L26	38	Shaft Reinforcement [#PL0.625x5]	84.67 - 93.17	1.0000	1.0000
L26	52	Shaft Reinforcement [#PL1.25x5]	84.55 - 87.92	1.0000	1.0000
L26	53	Shaft Reinforcement [#PL1.25x5]	84.55 - 87.92	1.0000	1.0000
L26	54	Shaft Reinforcement [#PL1.25x5]	84.55 - 87.92	1.0000	1.0000
L26	55	Shaft Reinforcement [#PL1.25x5]	84.55 - 87.92	1.0000	1.0000
L26	56	Shaft Reinforcement [#PL1.25x5]	85.83 - 93.17	1.0000	1.0000
L26	57	Shaft Reinforcement [#PL1.25x5]	85.83 - 93.17	1.0000	1.0000
L26	58	Shaft Reinforcement [#PL1.25x5]	85.83 - 93.17	1.0000	1.0000
L26	76	CCI-SFP-045100	87.92 - 93.17	1.0000	1.0000
L26	77	CCI-SFP-045100	87.92 - 93.17	1.0000	1.0000
L26	78	CCI-SFP-045100	87.92 - 93.17	1.0000	1.0000
L26	82	CCI-SFP-050125	84.55 - 90.50	1.0000	1.0000
L26	83	CCI-SFP-050125	84.55 - 90.50	1.0000	1.0000
L26	94	CCI-SFP-050125	84.55 - 93.17	1.0000	1.0000
L26	96	CCI-SFP-050125	90.50 - 93.17	1.0000	1.0000
L26	97	CCI-SFP-050125	84.55 - 93.17	1.0000	1.0000
L26	99	CCI-SFP-050125	90.50 - 93.17	1.0000	1.0000
L27	2	Step Pegs	83.55 - 84.55	1.0000	1.0000
L27	22	CU12PSM9P6XXX(1-1/2)	83.55 - 84.55	1.0000	1.0000
L27	24	HB114-U6S12-XXX-LI(1-1/4)	83.55 - 84.55	1.0000	1.0000
L27	25	HB158-1-08U8-S8J18(1-5/8)	83.55 - 84.55	1.0000	1.0000
L27	30	(2) HB114-U6S12-XXX-LI(1-1/4) + (1) MLE Hybrid 3Power/6Fiber RL 2(1-1/4)	83.55 - 84.55	1.0000	1.0000
L27	34	Shaft Reinforcement [#PL0.625x5]	83.55 - 84.55	1.0000	1.0000
L27	35	Shaft Reinforcement [#PL0.625x5]	83.55 - 84.55	1.0000	1.0000
L27	52	Shaft Reinforcement [#PL1.25x5]	83.55 - 84.55	1.0000	1.0000
L27	53	Shaft Reinforcement [#PL1.25x5]	83.55 - 84.55	1.0000	1.0000
L27	54	Shaft Reinforcement [#PL1.25x5]	83.55 - 84.55	1.0000	1.0000
L27	55	Shaft Reinforcement [#PL1.25x5]	83.55 - 84.55	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L27	64	CCI-SFP-045100	83.55 - 84.33	1.0000	1.0000
L27	65	CCI-SFP-045100	83.55 - 84.33	1.0000	1.0000
L27	66	CCI-SFP-045100	83.55 - 84.33	1.0000	1.0000
L27	67	CCI-SFP-045100	83.55 - 84.33	1.0000	1.0000
L27	82	CCI-SFP-050125	83.55 - 84.55	1.0000	1.0000
L27	83	CCI-SFP-050125	83.55 - 84.55	1.0000	1.0000
L27	94	CCI-SFP-050125	83.55 - 84.55	1.0000	1.0000
L27	97	CCI-SFP-050125	83.55 - 84.55	1.0000	1.0000
L28	2	Step Pegs	82.83 - 83.55	1.0000	1.0000
L28	22	CU12PSM9P6XXX(1-1/2)	82.83 - 83.55	1.0000	1.0000
L28	24	HB114-U6S12-XXX-LI(1-1/4)	82.83 - 83.55	1.0000	1.0000
L28	25	HB158-1-08U8-S8J18(1-5/8)	82.83 - 83.55	1.0000	1.0000
L28	30	(2) HB114-U6S12-XXX-LI(1-1/4) + (1) MLE Hybrid 3Power/6Fiber RL 2(1-1/4)	82.83 - 83.55	1.0000	1.0000
L28	34	Shaft Reinforcement [#PL0.625x5]	82.83 - 83.55	1.0000	1.0000
L28	35	Shaft Reinforcement [#PL0.625x5]	82.83 - 83.55	1.0000	1.0000
L28	52	Shaft Reinforcement [#PL1.25x5]	82.83 - 83.55	1.0000	1.0000
L28	53	Shaft Reinforcement [#PL1.25x5]	82.83 - 83.55	1.0000	1.0000
L28	54	Shaft Reinforcement [#PL1.25x5]	82.83 - 83.55	1.0000	1.0000
L28	55	Shaft Reinforcement [#PL1.25x5]	82.83 - 83.55	1.0000	1.0000
L28	64	CCI-SFP-045100	82.83 - 83.55	1.0000	1.0000
L28	65	CCI-SFP-045100	82.83 - 83.55	1.0000	1.0000
L28	66	CCI-SFP-045100	82.83 - 83.55	1.0000	1.0000
L28	67	CCI-SFP-045100	82.83 - 83.55	1.0000	1.0000
L28	82	CCI-SFP-050125	82.83 - 83.55	1.0000	1.0000
L28	83	CCI-SFP-050125	82.83 - 83.55	1.0000	1.0000
L28	94	CCI-SFP-050125	82.83 - 83.55	1.0000	1.0000
L28	97	CCI-SFP-050125	82.83 - 83.55	1.0000	1.0000
L29	2	Step Pegs	82.58 - 82.83	1.0000	1.0000
L29	22	CU12PSM9P6XXX(1-1/2)	82.58 - 82.83	1.0000	1.0000
L29	24	HB114-U6S12-XXX-LI(1-1/4)	82.58 - 82.83	1.0000	1.0000
L29	25	HB158-1-08U8-S8J18(1-5/8)	82.58 - 82.83	1.0000	1.0000
L29	30	(2) HB114-U6S12-XXX-LI(1-1/4) + (1) MLE Hybrid 3Power/6Fiber RL 2(1-1/4)	82.58 - 82.83	1.0000	1.0000
L29	34	Shaft Reinforcement [#PL0.625x5]	82.58 - 82.83	1.0000	1.0000
L29	35	Shaft Reinforcement	82.58 -	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L29	52	[#PL0.625x5] Shaft Reinforcement	82.83 82.58 -	1.0000	1.0000
L29	53	[#PL1.25x5] Shaft Reinforcement	82.83 82.58 -	1.0000	1.0000
L29	54	[#PL1.25x5] Shaft Reinforcement	82.83 82.58 -	1.0000	1.0000
L29	55	[#PL1.25x5] Shaft Reinforcement	82.83 82.58 -	1.0000	1.0000
L29	64	CCI-SFP-045100	82.83 82.58 -	1.0000	1.0000
L29	65	CCI-SFP-045100	82.83 82.58 -	1.0000	1.0000
L29	66	CCI-SFP-045100	82.83 82.58 -	1.0000	1.0000
L29	67	CCI-SFP-045100	82.83 82.58 -	1.0000	1.0000
L29	82	CCI-SFP-050125	82.83 82.58 -	1.0000	1.0000
L29	83	CCI-SFP-050125	82.83 82.58 -	1.0000	1.0000
L29	94	CCI-SFP-050125	82.83 82.58 -	1.0000	1.0000
L29	97	CCI-SFP-050125	82.83 82.58 -	1.0000	1.0000
L30	2	Step Pegs	77.58 -	1.0000	1.0000
L30	22	CU12PSM9P6XXX(1-1/2)	82.58 77.58 -	1.0000	1.0000
L30	24	HB114-U6S12-XXX-LI(1-1/4)	82.58 77.58 -	1.0000	1.0000
L30	25	HB158-1-08U8-S8J18(1-5/8)	82.58 77.58 -	1.0000	1.0000
L30	30	(2) HB114-U6S12-XXX-LI(1-1/4) + (1) MLE Hybrid 3Power/6Fiber RL 2(1-1/4)	82.58 77.58 -	1.0000	1.0000
L30	34	Shaft Reinforcement	77.58 -	1.0000	1.0000
L30	35	[#PL0.625x5] Shaft Reinforcement	82.58 77.58 -	1.0000	1.0000
L30	52	[#PL0.625x5] Shaft Reinforcement	82.58 77.58 -	1.0000	1.0000
L30	53	[#PL1.25x5] Shaft Reinforcement	82.58 77.58 -	1.0000	1.0000
L30	54	[#PL1.25x5] Shaft Reinforcement	82.58 77.58 -	1.0000	1.0000
L30	55	[#PL1.25x5] Shaft Reinforcement	82.58 77.58 -	1.0000	1.0000
L30	64	CCI-SFP-045100	82.58 77.58 -	1.0000	1.0000
L30	65	CCI-SFP-045100	82.58 77.58 -	1.0000	1.0000
L30	66	CCI-SFP-045100	82.58 77.58 -	1.0000	1.0000
L30	67	CCI-SFP-045100	82.58 77.58 -	1.0000	1.0000
L30	82	CCI-SFP-050125	82.58 80.50 -	1.0000	1.0000
L30	83	CCI-SFP-050125	82.58 80.50 -	1.0000	1.0000
L30	94	CCI-SFP-050125	82.58 77.58 -	1.0000	1.0000
L30	95	CCI-SFP-050125	82.58 77.58 -	1.0000	1.0000
L30	97	CCI-SFP-050125	80.50 77.58 -	1.0000	1.0000
L30	98	CCI-SFP-050125	82.58 77.58 -	1.0000	1.0000
L31	2	Step Pegs	80.50 73.42 -	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
			77.58		
L31	22	CU12PSM9P6XXX(1-1/2)	73.42 - 77.58	1.0000	1.0000
L31	24	HB114-U6S12-XXX-LI(1-1/4)	73.42 - 77.58	1.0000	1.0000
L31	25	HB158-1-08U8-S8J18(1-5/8)	73.42 - 77.58	1.0000	1.0000
L31	30	(2) HB114-U6S12-XXX-LI(1-1/4) + (1) MLE Hybrid 3Power/6Fiber RL 2(1-1/4)	73.42 - 77.58	1.0000	1.0000
L31	34	Shaft Reinforcement [#PL0.625x5]	73.42 - 77.58	1.0000	1.0000
L31	35	Shaft Reinforcement [#PL0.625x5]	73.42 - 77.58	1.0000	1.0000
L31	48	Shaft Reinforcement [#PL1.25x5]	73.42 - 75.42	1.0000	1.0000
L31	49	Shaft Reinforcement [#PL1.25x5]	73.42 - 75.42	1.0000	1.0000
L31	50	Shaft Reinforcement [#PL1.25x5]	73.42 - 75.42	1.0000	1.0000
L31	51	Shaft Reinforcement [#PL1.25x5]	73.42 - 75.42	1.0000	1.0000
L31	52	Shaft Reinforcement [#PL1.25x5]	73.42 - 77.58	1.0000	1.0000
L31	53	Shaft Reinforcement [#PL1.25x5]	73.42 - 77.58	1.0000	1.0000
L31	54	Shaft Reinforcement [#PL1.25x5]	73.42 - 77.58	1.0000	1.0000
L31	55	Shaft Reinforcement [#PL1.25x5]	73.42 - 77.58	1.0000	1.0000
L31	64	CCI-SFP-045100	73.42 - 77.58	1.0000	1.0000
L31	65	CCI-SFP-045100	73.42 - 77.58	1.0000	1.0000
L31	66	CCI-SFP-045100	73.42 - 77.58	1.0000	1.0000
L31	67	CCI-SFP-045100	73.42 - 77.58	1.0000	1.0000
L31	94	CCI-SFP-050125	73.42 - 77.58	1.0000	1.0000
L31	95	CCI-SFP-050125	73.42 - 77.58	1.0000	1.0000
L31	97	CCI-SFP-050125	73.42 - 77.58	1.0000	1.0000
L31	98	CCI-SFP-050125	73.42 - 77.58	1.0000	1.0000
L32	2	Step Pegs	73.17 - 73.42	1.0000	1.0000
L32	22	CU12PSM9P6XXX(1-1/2)	73.17 - 73.42	1.0000	1.0000
L32	24	HB114-U6S12-XXX-LI(1-1/4)	73.17 - 73.42	1.0000	1.0000
L32	25	HB158-1-08U8-S8J18(1-5/8)	73.17 - 73.42	1.0000	1.0000
L32	30	(2) HB114-U6S12-XXX-LI(1-1/4) + (1) MLE Hybrid 3Power/6Fiber RL 2(1-1/4)	73.17 - 73.42	1.0000	1.0000
L32	34	Shaft Reinforcement [#PL0.625x5]	73.17 - 73.42	1.0000	1.0000
L32	35	Shaft Reinforcement [#PL0.625x5]	73.17 - 73.42	1.0000	1.0000
L32	48	Shaft Reinforcement [#PL1.25x5]	73.17 - 73.42	1.0000	1.0000
L32	49	Shaft Reinforcement [#PL1.25x5]	73.17 - 73.42	1.0000	1.0000
L32	50	Shaft Reinforcement [#PL1.25x5]	73.17 - 73.42	1.0000	1.0000
L32	51	Shaft Reinforcement [#PL1.25x5]	73.17 - 73.42	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L32	52	Shaft Reinforcement [#PL1.25x5]	73.17 - 73.42	1.0000	1.0000
L32	53	Shaft Reinforcement [#PL1.25x5]	73.17 - 73.42	1.0000	1.0000
L32	54	Shaft Reinforcement [#PL1.25x5]	73.17 - 73.42	1.0000	1.0000
L32	55	Shaft Reinforcement [#PL1.25x5]	73.17 - 73.42	1.0000	1.0000
L32	64	CCI-SFP-045100	73.17 - 73.42	1.0000	1.0000
L32	65	CCI-SFP-045100	73.17 - 73.42	1.0000	1.0000
L32	66	CCI-SFP-045100	73.17 - 73.42	1.0000	1.0000
L32	67	CCI-SFP-045100	73.17 - 73.42	1.0000	1.0000
L32	94	CCI-SFP-050125	73.17 - 73.42	1.0000	1.0000
L32	95	CCI-SFP-050125	73.17 - 73.42	1.0000	1.0000
L32	97	CCI-SFP-050125	73.17 - 73.42	1.0000	1.0000
L32	98	CCI-SFP-050125	73.17 - 73.42	1.0000	1.0000
L33	2	Step Pegs	72.42 - 73.17	1.0000	1.0000
L33	22	CU12PSM9P6XXX(1-1/2)	72.42 - 73.17	1.0000	1.0000
L33	24	HB114-U6S12-XXX-LI(1-1/4)	72.42 - 73.17	1.0000	1.0000
L33	25	HB158-1-08U8-S8J18(1-5/8)	72.42 - 73.17	1.0000	1.0000
L33	30	(2) HB114-U6S12-XXX-LI(1-1/4) + (1) MLE Hybrid 3Power/6Fiber RL 2(1-1/4)	72.42 - 73.17	1.0000	1.0000
L33	34	Shaft Reinforcement [#PL0.625x5]	72.42 - 73.17	1.0000	1.0000
L33	35	Shaft Reinforcement [#PL0.625x5]	72.42 - 73.17	1.0000	1.0000
L33	48	Shaft Reinforcement [#PL1.25x5]	72.42 - 73.17	1.0000	1.0000
L33	49	Shaft Reinforcement [#PL1.25x5]	72.42 - 73.17	1.0000	1.0000
L33	50	Shaft Reinforcement [#PL1.25x5]	72.42 - 73.17	1.0000	1.0000
L33	51	Shaft Reinforcement [#PL1.25x5]	72.42 - 73.17	1.0000	1.0000
L33	52	Shaft Reinforcement [#PL1.25x5]	72.92 - 73.17	1.0000	1.0000
L33	53	Shaft Reinforcement [#PL1.25x5]	72.92 - 73.17	1.0000	1.0000
L33	54	Shaft Reinforcement [#PL1.25x5]	72.92 - 73.17	1.0000	1.0000
L33	55	Shaft Reinforcement [#PL1.25x5]	72.92 - 73.17	1.0000	1.0000
L33	64	CCI-SFP-045100	72.42 - 73.17	1.0000	1.0000
L33	65	CCI-SFP-045100	72.42 - 73.17	1.0000	1.0000
L33	66	CCI-SFP-045100	72.42 - 73.17	1.0000	1.0000
L33	67	CCI-SFP-045100	72.42 - 73.17	1.0000	1.0000
L33	72	CCI-SFP-045100	72.42 - 72.75	1.0000	1.0000
L33	73	CCI-SFP-045100	72.42 - 72.75	1.0000	1.0000
L33	74	CCI-SFP-045100	72.42 - 72.75	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L33	75	CCI-SFP-045100	72.42 - 72.75	1.0000	1.0000
L33	94	CCI-SFP-050125	72.42 - 73.17	1.0000	1.0000
L33	95	CCI-SFP-050125	72.42 - 73.17	1.0000	1.0000
L33	97	CCI-SFP-050125	72.42 - 73.17	1.0000	1.0000
L33	98	CCI-SFP-050125	72.42 - 73.17	1.0000	1.0000
L34	2	Step Pegs	72.17 - 72.42	1.0000	1.0000
L34	22	CU12PSM9P6XXX(1-1/2)	72.17 - 72.42	1.0000	1.0000
L34	24	HB114-U6S12-XXX-LI(1-1/4)	72.17 - 72.42	1.0000	1.0000
L34	25	HB158-1-08U8-S8J18(1-5/8)	72.17 - 72.42	1.0000	1.0000
L34	30	(2) HB114-U6S12-XXX-LI(1-1/4) + (1) MLE Hybrid	72.17 - 72.42	1.0000	1.0000
L34	34	3Power/6Fiber RL 2(1-1/4) Shaft Reinforcement	72.17 - 72.42	1.0000	1.0000
L34	35	[#PL0.625x5] Shaft Reinforcement	72.17 - 72.42	1.0000	1.0000
L34	48	[#PL0.625x5] Shaft Reinforcement	72.17 - 72.42	1.0000	1.0000
L34	49	[#PL1.25x5] Shaft Reinforcement	72.17 - 72.42	1.0000	1.0000
L34	50	[#PL1.25x5] Shaft Reinforcement	72.17 - 72.42	1.0000	1.0000
L34	51	[#PL1.25x5] Shaft Reinforcement	72.17 - 72.42	1.0000	1.0000
L34	64	CCI-SFP-045100	72.17 - 72.42	1.0000	1.0000
L34	65	CCI-SFP-045100	72.17 - 72.42	1.0000	1.0000
L34	66	CCI-SFP-045100	72.17 - 72.42	1.0000	1.0000
L34	67	CCI-SFP-045100	72.17 - 72.42	1.0000	1.0000
L34	72	CCI-SFP-045100	72.17 - 72.42	1.0000	1.0000
L34	73	CCI-SFP-045100	72.17 - 72.42	1.0000	1.0000
L34	74	CCI-SFP-045100	72.17 - 72.42	1.0000	1.0000
L34	75	CCI-SFP-045100	72.17 - 72.42	1.0000	1.0000
L34	94	CCI-SFP-050125	72.17 - 72.42	1.0000	1.0000
L34	95	CCI-SFP-050125	72.17 - 72.42	1.0000	1.0000
L34	97	CCI-SFP-050125	72.17 - 72.42	1.0000	1.0000
L34	98	CCI-SFP-050125	72.17 - 72.42	1.0000	1.0000
L35	2	Step Pegs	68.08 - 72.17	1.0000	1.0000
L35	22	CU12PSM9P6XXX(1-1/2)	68.08 - 72.17	1.0000	1.0000
L35	24	HB114-U6S12-XXX-LI(1-1/4)	68.08 - 72.17	1.0000	1.0000
L35	25	HB158-1-08U8-S8J18(1-5/8)	68.08 - 72.17	1.0000	1.0000
L35	30	(2) HB114-U6S12-XXX-LI(1-1/4) + (1) MLE Hybrid	68.08 - 72.17	1.0000	1.0000
L35	32	3Power/6Fiber RL 2(1-1/4) LDF4-50A(1/2)	68.08 -	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
			70.00		
L35	34	Shaft Reinforcement	68.08 -	1.0000	1.0000
		[#PL0.625x5]	72.17		
L35	35	Shaft Reinforcement	68.08 -	1.0000	1.0000
		[#PL0.625x5]	72.17		
L35	48	Shaft Reinforcement	68.08 -	1.0000	1.0000
		[#PL1.25x5]	72.17		
L35	49	Shaft Reinforcement	68.08 -	1.0000	1.0000
		[#PL1.25x5]	72.17		
L35	50	Shaft Reinforcement	68.08 -	1.0000	1.0000
		[#PL1.25x5]	72.17		
L35	51	Shaft Reinforcement	68.08 -	1.0000	1.0000
		[#PL1.25x5]	72.17		
L35	64	CCI-SFP-045100	68.08 -	1.0000	1.0000
			72.17		
L35	65	CCI-SFP-045100	68.08 -	1.0000	1.0000
			72.17		
L35	66	CCI-SFP-045100	68.08 -	1.0000	1.0000
			72.17		
L35	67	CCI-SFP-045100	68.08 -	1.0000	1.0000
			72.17		
L35	72	CCI-SFP-045100	68.08 -	1.0000	1.0000
			72.17		
L35	73	CCI-SFP-045100	68.08 -	1.0000	1.0000
			72.17		
L35	74	CCI-SFP-045100	68.08 -	1.0000	1.0000
			72.17		
L35	75	CCI-SFP-045100	68.08 -	1.0000	1.0000
			72.17		
L35	94	CCI-SFP-050125	70.42 -	1.0000	1.0000
			72.17		
L35	95	CCI-SFP-050125	70.42 -	1.0000	1.0000
			72.17		
L35	97	CCI-SFP-050125	70.42 -	1.0000	1.0000
			72.17		
L35	98	CCI-SFP-050125	70.42 -	1.0000	1.0000
			72.17		
L35	101	CCI-SFP-050125	68.08 -	1.0000	1.0000
			70.08		
L35	102	CCI-SFP-050125	68.08 -	1.0000	1.0000
			70.08		
L36	2	Step Pegs	67.83 -	1.0000	1.0000
			68.08		
L36	22	CU12PSM9P6XXX(1-1/2)	67.83 -	1.0000	1.0000
			68.08		
L36	24	HB114-U6S12-XXX-LI(1-1/4)	67.83 -	1.0000	1.0000
			68.08		
L36	25	HB158-1-08U8-S8J18(1-5/8)	67.83 -	1.0000	1.0000
			68.08		
L36	30	(2) HB114-U6S12-XXX-LI(1-1/4) + (1) MLE Hybrid 3Power/6Fiber RL 2(1-1/4)	67.83 -	1.0000	1.0000
			68.08		
L36	32	LDF4-50A(1/2)	67.83 -	1.0000	1.0000
			68.08		
L36	34	Shaft Reinforcement	67.83 -	1.0000	1.0000
		[#PL0.625x5]	68.08		
L36	35	Shaft Reinforcement	67.83 -	1.0000	1.0000
		[#PL0.625x5]	68.08		
L36	48	Shaft Reinforcement	67.83 -	1.0000	1.0000
		[#PL1.25x5]	68.08		
L36	49	Shaft Reinforcement	67.83 -	1.0000	1.0000
		[#PL1.25x5]	68.08		
L36	50	Shaft Reinforcement	67.83 -	1.0000	1.0000
		[#PL1.25x5]	68.08		
L36	51	Shaft Reinforcement	67.83 -	1.0000	1.0000
		[#PL1.25x5]	68.08		
L36	64	CCI-SFP-045100	67.83 -	1.0000	1.0000
			68.08		
L36	65	CCI-SFP-045100	67.83 -	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L36	66	CCI-SFP-045100	68.08 67.83 -	1.0000	1.0000
L36	67	CCI-SFP-045100	68.08 67.83 -	1.0000	1.0000
L36	72	CCI-SFP-045100	68.08 67.83 -	1.0000	1.0000
L36	73	CCI-SFP-045100	68.08 67.83 -	1.0000	1.0000
L36	74	CCI-SFP-045100	68.08 67.83 -	1.0000	1.0000
L36	75	CCI-SFP-045100	68.08 67.83 -	1.0000	1.0000
L36	101	CCI-SFP-050125	68.08 67.83 -	1.0000	1.0000
L36	102	CCI-SFP-050125	68.08 67.83 -	1.0000	1.0000
L37	2	Step Pegs	65.58 - 67.83	1.0000	1.0000
L37	22	CU12PSM9P6XXX(1-1/2)	65.58 - 67.83	1.0000	1.0000
L37	24	HB114-U6S12-XXX-LI(1-1/4)	65.58 - 67.83	1.0000	1.0000
L37	25	HB158-1-08U8-S8J18(1-5/8)	65.58 - 67.83	1.0000	1.0000
L37	30	(2) HB114-U6S12-XXX-LI(1-1/4) + (1) MLE Hybrid 3Power/6Fiber RL 2(1-1/4)	65.58 - 67.83	1.0000	1.0000
L37	32	LDF4-50A(1/2)	65.58 - 67.83	1.0000	1.0000
L37	34	Shaft Reinforcement [#PL0.625x5]	65.58 - 67.83	1.0000	1.0000
L37	35	Shaft Reinforcement [#PL0.625x5]	65.58 - 67.83	1.0000	1.0000
L37	48	Shaft Reinforcement [#PL1.25x5]	65.58 - 67.83	1.0000	1.0000
L37	49	Shaft Reinforcement [#PL1.25x5]	65.58 - 67.83	1.0000	1.0000
L37	50	Shaft Reinforcement [#PL1.25x5]	65.58 - 67.83	1.0000	1.0000
L37	51	Shaft Reinforcement [#PL1.25x5]	65.58 - 67.83	1.0000	1.0000
L37	64	CCI-SFP-045100	65.58 - 67.83	1.0000	1.0000
L37	65	CCI-SFP-045100	65.58 - 67.83	1.0000	1.0000
L37	66	CCI-SFP-045100	65.58 - 67.83	1.0000	1.0000
L37	67	CCI-SFP-045100	65.58 - 67.83	1.0000	1.0000
L37	72	CCI-SFP-045100	65.58 - 67.83	1.0000	1.0000
L37	73	CCI-SFP-045100	65.58 - 67.83	1.0000	1.0000
L37	74	CCI-SFP-045100	65.58 - 67.83	1.0000	1.0000
L37	75	CCI-SFP-045100	65.58 - 67.83	1.0000	1.0000
L37	101	CCI-SFP-050125	65.58 - 67.83	1.0000	1.0000
L37	102	CCI-SFP-050125	65.58 - 67.83	1.0000	1.0000
L37	103	CCI-SFP-050125	65.58 - 67.58	1.0000	1.0000
L37	104	CCI-SFP-050125	65.58 - 67.58	1.0000	1.0000
L38	2	Step Pegs	65.33 - 65.58	1.0000	1.0000
L38	22	CU12PSM9P6XXX(1-1/2)	65.33 -	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L38	24	HB114-U6S12-XXX-LI(1-1/4)	65.58 65.33 - 65.58	1.0000	1.0000
L38	25	HB158-1-08U8-S8J18(1-5/8)	65.33 - 65.58	1.0000	1.0000
L38	30	(2) HB114-U6S12-XXX-LI(1-1/4) + (1) MLE Hybrid	65.33 - 65.58	1.0000	1.0000
L38	32	3Power/6Fiber RL 2(1-1/4) LDF4-50A(1/2)	65.33 - 65.58	1.0000	1.0000
L38	34	Shaft Reinforcement [#PL0.625x5]	65.33 - 65.58	1.0000	1.0000
L38	35	Shaft Reinforcement [#PL0.625x5]	65.33 - 65.58	1.0000	1.0000
L38	48	Shaft Reinforcement [#PL1.25x5]	65.33 - 65.58	1.0000	1.0000
L38	49	Shaft Reinforcement [#PL1.25x5]	65.33 - 65.58	1.0000	1.0000
L38	50	Shaft Reinforcement [#PL1.25x5]	65.33 - 65.58	1.0000	1.0000
L38	51	Shaft Reinforcement [#PL1.25x5]	65.33 - 65.58	1.0000	1.0000
L38	64	CCI-SFP-045100	65.33 - 65.58	1.0000	1.0000
L38	65	CCI-SFP-045100	65.33 - 65.58	1.0000	1.0000
L38	66	CCI-SFP-045100	65.33 - 65.58	1.0000	1.0000
L38	67	CCI-SFP-045100	65.33 - 65.58	1.0000	1.0000
L38	72	CCI-SFP-045100	65.33 - 65.58	1.0000	1.0000
L38	73	CCI-SFP-045100	65.33 - 65.58	1.0000	1.0000
L38	74	CCI-SFP-045100	65.33 - 65.58	1.0000	1.0000
L38	75	CCI-SFP-045100	65.33 - 65.58	1.0000	1.0000
L38	101	CCI-SFP-050125	65.33 - 65.58	1.0000	1.0000
L38	102	CCI-SFP-050125	65.33 - 65.58	1.0000	1.0000
L38	103	CCI-SFP-050125	65.33 - 65.58	1.0000	1.0000
L38	104	CCI-SFP-050125	65.33 - 65.58	1.0000	1.0000
L39	2	Step Pegs	64.25 - 65.33	1.0000	1.0000
L39	22	CU12PSM9P6XXX(1-1/2)	64.25 - 65.33	1.0000	1.0000
L39	24	HB114-U6S12-XXX-LI(1-1/4)	64.25 - 65.33	1.0000	1.0000
L39	25	HB158-1-08U8-S8J18(1-5/8)	64.25 - 65.33	1.0000	1.0000
L39	30	(2) HB114-U6S12-XXX-LI(1-1/4) + (1) MLE Hybrid	64.25 - 65.33	1.0000	1.0000
L39	32	3Power/6Fiber RL 2(1-1/4) LDF4-50A(1/2)	64.25 - 65.33	1.0000	1.0000
L39	34	Shaft Reinforcement [#PL0.625x5]	64.25 - 65.33	1.0000	1.0000
L39	35	Shaft Reinforcement [#PL0.625x5]	64.25 - 65.33	1.0000	1.0000
L39	48	Shaft Reinforcement [#PL1.25x5]	64.25 - 65.33	1.0000	1.0000
L39	49	Shaft Reinforcement [#PL1.25x5]	64.25 - 65.33	1.0000	1.0000
L39	50	Shaft Reinforcement [#PL1.25x5]	64.25 - 65.33	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L39	51	Shaft Reinforcement [#PL1.25x5]	64.25 - 65.33	1.0000	1.0000
L39	64	CCI-SFP-045100	64.25 - 65.33	1.0000	1.0000
L39	65	CCI-SFP-045100	64.25 - 65.33	1.0000	1.0000
L39	66	CCI-SFP-045100	64.25 - 65.33	1.0000	1.0000
L39	67	CCI-SFP-045100	64.25 - 65.33	1.0000	1.0000
L39	72	CCI-SFP-045100	64.25 - 65.33	1.0000	1.0000
L39	73	CCI-SFP-045100	64.25 - 65.33	1.0000	1.0000
L39	74	CCI-SFP-045100	64.25 - 65.33	1.0000	1.0000
L39	75	CCI-SFP-045100	64.25 - 65.33	1.0000	1.0000
L39	101	CCI-SFP-050125	64.25 - 65.33	1.0000	1.0000
L39	102	CCI-SFP-050125	64.25 - 65.33	1.0000	1.0000
L39	103	CCI-SFP-050125	64.25 - 65.33	1.0000	1.0000
L39	104	CCI-SFP-050125	64.25 - 65.33	1.0000	1.0000
L40	2	Step Pegs	64.00 - 64.25	1.0000	1.0000
L40	22	CU12PSM9P6XXX(1-1/2)	64.00 - 64.25	1.0000	1.0000
L40	24	HB114-U6S12-XXX-LI(1-1/4)	64.00 - 64.25	1.0000	1.0000
L40	25	HB158-1-08U8-S8J18(1-5/8)	64.00 - 64.25	1.0000	1.0000
L40	30	(2) HB114-U6S12-XXX-LI(1-1/4) + (1) MLE Hybrid 3Power/6Fiber RL 2(1-1/4)	64.00 - 64.25	1.0000	1.0000
L40	32	LDF4-50A(1/2)	64.00 - 64.25	1.0000	1.0000
L40	34	Shaft Reinforcement [#PL0.625x5]	64.00 - 64.25	1.0000	1.0000
L40	35	Shaft Reinforcement [#PL0.625x5]	64.00 - 64.25	1.0000	1.0000
L40	48	Shaft Reinforcement [#PL1.25x5]	64.00 - 64.25	1.0000	1.0000
L40	49	Shaft Reinforcement [#PL1.25x5]	64.00 - 64.25	1.0000	1.0000
L40	50	Shaft Reinforcement [#PL1.25x5]	64.00 - 64.25	1.0000	1.0000
L40	51	Shaft Reinforcement [#PL1.25x5]	64.00 - 64.25	1.0000	1.0000
L40	64	CCI-SFP-045100	64.00 - 64.25	1.0000	1.0000
L40	65	CCI-SFP-045100	64.00 - 64.25	1.0000	1.0000
L40	66	CCI-SFP-045100	64.00 - 64.25	1.0000	1.0000
L40	67	CCI-SFP-045100	64.00 - 64.25	1.0000	1.0000
L40	72	CCI-SFP-045100	64.00 - 64.25	1.0000	1.0000
L40	73	CCI-SFP-045100	64.00 - 64.25	1.0000	1.0000
L40	74	CCI-SFP-045100	64.00 - 64.25	1.0000	1.0000
L40	75	CCI-SFP-045100	64.00 - 64.25	1.0000	1.0000
L40	101	CCI-SFP-050125	64.00 - 64.25	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L40	102	CCI-SFP-050125	64.00 - 64.25	1.0000	1.0000
L40	103	CCI-SFP-050125	64.00 - 64.25	1.0000	1.0000
L40	104	CCI-SFP-050125	64.00 - 64.25	1.0000	1.0000
L41	2	Step Pegs	59.00 - 64.00	1.0000	1.0000
L41	22	CU12PSM9P6XXX(1-1/2)	59.00 - 64.00	1.0000	1.0000
L41	24	HB114-U6S12-XXX-LI(1-1/4)	59.00 - 64.00	1.0000	1.0000
L41	25	HB158-1-08U8-S8J18(1-5/8)	59.00 - 64.00	1.0000	1.0000
L41	30	(2) HB114-U6S12-XXX-LI(1-1/4) + (1) MLE Hybrid	59.00 - 64.00	1.0000	1.0000
L41	32	3Power/6Fiber RL 2(1-1/4) LDF4-50A(1/2)	59.00 - 64.00	1.0000	1.0000
L41	34	Shaft Reinforcement [#PL0.625x5]	59.00 - 64.00	1.0000	1.0000
L41	35	Shaft Reinforcement [#PL0.625x5]	59.00 - 64.00	1.0000	1.0000
L41	48	Shaft Reinforcement [#PL1.25x5]	59.00 - 64.00	1.0000	1.0000
L41	49	Shaft Reinforcement [#PL1.25x5]	59.00 - 64.00	1.0000	1.0000
L41	50	Shaft Reinforcement [#PL1.25x5]	59.00 - 64.00	1.0000	1.0000
L41	51	Shaft Reinforcement [#PL1.25x5]	59.00 - 64.00	1.0000	1.0000
L41	64	CCI-SFP-045100	59.00 - 64.00	1.0000	1.0000
L41	65	CCI-SFP-045100	59.00 - 64.00	1.0000	1.0000
L41	66	CCI-SFP-045100	59.00 - 64.00	1.0000	1.0000
L41	67	CCI-SFP-045100	59.00 - 64.00	1.0000	1.0000
L41	72	CCI-SFP-045100	62.75 - 64.00	1.0000	1.0000
L41	73	CCI-SFP-045100	62.75 - 64.00	1.0000	1.0000
L41	74	CCI-SFP-045100	62.75 - 64.00	1.0000	1.0000
L41	75	CCI-SFP-045100	62.75 - 64.00	1.0000	1.0000
L41	101	CCI-SFP-050125	59.00 - 64.00	1.0000	1.0000
L41	102	CCI-SFP-050125	59.00 - 64.00	1.0000	1.0000
L41	103	CCI-SFP-050125	59.00 - 64.00	1.0000	1.0000
L41	104	CCI-SFP-050125	59.00 - 64.00	1.0000	1.0000
L42	2	Step Pegs	54.00 - 59.00	1.0000	1.0000
L42	22	CU12PSM9P6XXX(1-1/2)	54.00 - 59.00	1.0000	1.0000
L42	24	HB114-U6S12-XXX-LI(1-1/4)	54.00 - 59.00	1.0000	1.0000
L42	25	HB158-1-08U8-S8J18(1-5/8)	54.00 - 59.00	1.0000	1.0000
L42	30	(2) HB114-U6S12-XXX-LI(1-1/4) + (1) MLE Hybrid	54.00 - 59.00	1.0000	1.0000
L42	32	3Power/6Fiber RL 2(1-1/4) LDF4-50A(1/2)	54.00 - 59.00	1.0000	1.0000
L42	34	Shaft Reinforcement	54.00 -	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L42	35	[#PL0.625x5] Shaft Reinforcement	59.00 54.00 -	1.0000	1.0000
L42	48	[#PL0.625x5] Shaft Reinforcement	59.00 54.00 -	1.0000	1.0000
L42	49	[#PL1.25x5] Shaft Reinforcement	59.00 54.00 -	1.0000	1.0000
L42	50	[#PL1.25x5] Shaft Reinforcement	59.00 54.00 -	1.0000	1.0000
L42	51	[#PL1.25x5] Shaft Reinforcement	59.00 54.00 -	1.0000	1.0000
L42	64	CCI-SFP-045100	54.00 - 59.00	1.0000	1.0000
L42	65	CCI-SFP-045100	54.00 - 59.00	1.0000	1.0000
L42	66	CCI-SFP-045100	54.00 - 59.00	1.0000	1.0000
L42	67	CCI-SFP-045100	54.00 - 59.00	1.0000	1.0000
L42	101	CCI-SFP-050125	54.00 - 59.00	1.0000	1.0000
L42	102	CCI-SFP-050125	54.00 - 59.00	1.0000	1.0000
L42	103	CCI-SFP-050125	54.00 - 59.00	1.0000	1.0000
L42	104	CCI-SFP-050125	54.00 - 59.00	1.0000	1.0000
L43	2	Step Pegs	43.66 - 54.00	1.0000	1.0000
L43	22	CU12PSM9P6XXX(1-1/2)	43.66 - 54.00	1.0000	1.0000
L43	24	HB114-U6S12-XXX-LI(1-1/4)	43.66 - 54.00	1.0000	1.0000
L43	25	HB158-1-08U8-S8J18(1-5/8)	43.66 - 54.00	1.0000	1.0000
L43	30	(2) HB114-U6S12-XXX-LI(1-1/4) + (1) MLE Hybrid	43.66 - 54.00	1.0000	1.0000
L43	32	3Power/6Fiber RL 2(1-1/4) LDF4-50A(1/2)	43.66 - 54.00	1.0000	1.0000
L43	34	Shaft Reinforcement	43.66 - 54.00	1.0000	1.0000
L43	35	[#PL0.625x5] Shaft Reinforcement	54.00 43.66 -	1.0000	1.0000
L43	44	[#PL0.625x5] Shaft Reinforcement	54.00 43.66 -	1.0000	1.0000
L43	45	[#PL1.25x6] Shaft Reinforcement	47.92 43.66 -	1.0000	1.0000
L43	46	[#PL1.25x6] Shaft Reinforcement	47.92 43.66 -	1.0000	1.0000
L43	47	[#PL1.25x6] Shaft Reinforcement	47.92 43.66 -	1.0000	1.0000
L43	48	[#PL1.25x5] Shaft Reinforcement	54.00 45.38 -	1.0000	1.0000
L43	49	[#PL1.25x5] Shaft Reinforcement	54.00 45.38 -	1.0000	1.0000
L43	50	[#PL1.25x5] Shaft Reinforcement	54.00 45.38 -	1.0000	1.0000
L43	51	[#PL1.25x5] Shaft Reinforcement	54.00 45.38 -	1.0000	1.0000
L43	60	CCI-SFP-060100	43.66 - 43.75	1.0000	1.0000
L43	61	CCI-SFP-060100	43.66 - 43.75	1.0000	1.0000
L43	62	CCI-SFP-060100	43.66 - 43.75	1.0000	1.0000
L43	63	CCI-SFP-060100	43.66 - 43.75	1.0000	1.0000
L43	64	CCI-SFP-045100	43.75 -	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L43	65	CCI-SFP-045100	54.00 43.75 -	1.0000	1.0000
L43	66	CCI-SFP-045100	54.00 43.75 -	1.0000	1.0000
L43	67	CCI-SFP-045100	54.00 43.75 -	1.0000	1.0000
L43	101	CCI-SFP-050125	54.00 43.66 -	1.0000	1.0000
L43	102	CCI-SFP-050125	54.00 43.66 -	1.0000	1.0000
L43	103	CCI-SFP-050125	54.00 43.66 -	1.0000	1.0000
L43	104	CCI-SFP-050125	54.00 43.66 -	1.0000	1.0000
L44	2	Step Pegs	54.00 42.66 -	1.0000	1.0000
L44	22	CU12PSM9P6XXX(1-1/2)	43.66 42.66 -	1.0000	1.0000
L44	24	HB114-U6S12-XXX-LI(1-1/4)	43.66 42.66 -	1.0000	1.0000
L44	25	HB158-1-08U8-S8J18(1-5/8)	43.66 42.66 -	1.0000	1.0000
L44	30	(2) HB114-U6S12-XXX-LI(1-1/4) + (1) MLE Hybrid 3Power/6Fiber RL 2(1-1/4)	43.66 42.66 -	1.0000	1.0000
L44	32	LDF4-50A(1/2)	43.66 42.66 -	1.0000	1.0000
L44	34	Shaft Reinforcement [#PL0.625x5]	43.66 42.66 -	1.0000	1.0000
L44	35	Shaft Reinforcement [#PL0.625x5]	43.66 42.66 -	1.0000	1.0000
L44	44	Shaft Reinforcement [#PL1.25x6]	43.66 42.66 -	1.0000	1.0000
L44	45	Shaft Reinforcement [#PL1.25x6]	43.66 42.66 -	1.0000	1.0000
L44	46	Shaft Reinforcement [#PL1.25x6]	43.66 42.66 -	1.0000	1.0000
L44	47	Shaft Reinforcement [#PL1.25x6]	43.66 42.66 -	1.0000	1.0000
L44	60	CCI-SFP-060100	43.66 42.66 -	1.0000	1.0000
L44	61	CCI-SFP-060100	43.66 42.66 -	1.0000	1.0000
L44	62	CCI-SFP-060100	43.66 42.66 -	1.0000	1.0000
L44	63	CCI-SFP-060100	43.66 42.66 -	1.0000	1.0000
L44	101	CCI-SFP-050125	43.66 42.66 -	1.0000	1.0000
L44	102	CCI-SFP-050125	43.66 42.66 -	1.0000	1.0000
L44	103	CCI-SFP-050125	43.66 42.66 -	1.0000	1.0000
L44	104	CCI-SFP-050125	43.66 42.66 -	1.0000	1.0000
L45	2	Step Pegs	42.66 41.75 -	1.0000	1.0000
L45	22	CU12PSM9P6XXX(1-1/2)	42.66 41.75 -	1.0000	1.0000
L45	24	HB114-U6S12-XXX-LI(1-1/4)	42.66 41.75 -	1.0000	1.0000
L45	25	HB158-1-08U8-S8J18(1-5/8)	42.66 41.75 -	1.0000	1.0000
L45	30	(2) HB114-U6S12-XXX-LI(1-1/4) + (1) MLE Hybrid 3Power/6Fiber RL 2(1-1/4)	42.66 41.75 -	1.0000	1.0000
L45	32	LDF4-50A(1/2)	42.66 41.75 -	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L45	34	Shaft Reinforcement [#PL0.625x5]	41.75 - 42.66	1.0000	1.0000
L45	35	Shaft Reinforcement [#PL0.625x5]	41.75 - 42.66	1.0000	1.0000
L45	44	Shaft Reinforcement [#PL1.25x6]	41.75 - 42.66	1.0000	1.0000
L45	45	Shaft Reinforcement [#PL1.25x6]	41.75 - 42.66	1.0000	1.0000
L45	46	Shaft Reinforcement [#PL1.25x6]	41.75 - 42.66	1.0000	1.0000
L45	47	Shaft Reinforcement [#PL1.25x6]	41.75 - 42.66	1.0000	1.0000
L45	60	CCI-SFP-060100	41.75 - 42.66	1.0000	1.0000
L45	61	CCI-SFP-060100	41.75 - 42.66	1.0000	1.0000
L45	62	CCI-SFP-060100	41.75 - 42.66	1.0000	1.0000
L45	63	CCI-SFP-060100	41.75 - 42.66	1.0000	1.0000
L45	101	CCI-SFP-050125	41.75 - 42.66	1.0000	1.0000
L45	102	CCI-SFP-050125	41.75 - 42.66	1.0000	1.0000
L45	103	CCI-SFP-050125	41.75 - 42.66	1.0000	1.0000
L45	104	CCI-SFP-050125	41.75 - 42.66	1.0000	1.0000
L46	2	Step Pegs	41.50 - 41.75	1.0000	1.0000
L46	22	CU12PSM9P6XXX(1-1/2)	41.50 - 41.75	1.0000	1.0000
L46	24	HB114-U6S12-XXX-LI(1-1/4)	41.50 - 41.75	1.0000	1.0000
L46	25	HB158-1-08U8-S8J18(1-5/8)	41.50 - 41.75	1.0000	1.0000
L46	30	(2) HB114-U6S12-XXX-LI(1-1/4) + (1) MLE Hybrid 3Power/6Fiber RL 2(1-1/4)	41.50 - 41.75	1.0000	1.0000
L46	32	LDF4-50A(1/2)	41.50 - 41.75	1.0000	1.0000
L46	34	Shaft Reinforcement [#PL0.625x5]	41.50 - 41.75	1.0000	1.0000
L46	35	Shaft Reinforcement [#PL0.625x5]	41.50 - 41.75	1.0000	1.0000
L46	44	Shaft Reinforcement [#PL1.25x6]	41.50 - 41.75	1.0000	1.0000
L46	45	Shaft Reinforcement [#PL1.25x6]	41.50 - 41.75	1.0000	1.0000
L46	46	Shaft Reinforcement [#PL1.25x6]	41.50 - 41.75	1.0000	1.0000
L46	47	Shaft Reinforcement [#PL1.25x6]	41.50 - 41.75	1.0000	1.0000
L46	60	CCI-SFP-060100	41.50 - 41.75	1.0000	1.0000
L46	61	CCI-SFP-060100	41.50 - 41.75	1.0000	1.0000
L46	62	CCI-SFP-060100	41.50 - 41.75	1.0000	1.0000
L46	63	CCI-SFP-060100	41.50 - 41.75	1.0000	1.0000
L46	101	CCI-SFP-050125	41.50 - 41.75	1.0000	1.0000
L46	102	CCI-SFP-050125	41.50 - 41.75	1.0000	1.0000
L46	103	CCI-SFP-050125	41.50 - 41.75	1.0000	1.0000
L46	104	CCI-SFP-050125	41.50 - 41.75	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L47	2	Step Pegs	36.50 - 41.50	1.0000	1.0000
L47	22	CU12PSM9P6XXX(1-1/2)	36.50 - 41.50	1.0000	1.0000
L47	24	HB114-U6S12-XXX-LI(1-1/4)	36.50 - 41.50	1.0000	1.0000
L47	25	HB158-1-08U8-S8J18(1-5/8)	36.50 - 41.50	1.0000	1.0000
L47	30	(2) HB114-U6S12-XXX-LI(1-1/4) + (1) MLE Hybrid 3Power/6Fiber RL 2(1-1/4)	36.50 - 41.50	1.0000	1.0000
L47	32	LDF4-50A(1/2)	36.50 - 41.50	1.0000	1.0000
L47	34	Shaft Reinforcement [#PL0.625x5]	36.50 - 41.50	1.0000	1.0000
L47	35	Shaft Reinforcement [#PL0.625x5]	36.50 - 41.50	1.0000	1.0000
L47	44	Shaft Reinforcement [#PL1.25x6]	36.50 - 41.50	1.0000	1.0000
L47	45	Shaft Reinforcement [#PL1.25x6]	36.50 - 41.50	1.0000	1.0000
L47	46	Shaft Reinforcement [#PL1.25x6]	36.50 - 41.50	1.0000	1.0000
L47	47	Shaft Reinforcement [#PL1.25x6]	36.50 - 41.50	1.0000	1.0000
L47	60	CCI-SFP-060100	36.50 - 41.50	1.0000	1.0000
L47	61	CCI-SFP-060100	36.50 - 41.50	1.0000	1.0000
L47	62	CCI-SFP-060100	36.50 - 41.50	1.0000	1.0000
L47	63	CCI-SFP-060100	36.50 - 41.50	1.0000	1.0000
L47	101	CCI-SFP-050125	36.50 - 41.50	1.0000	1.0000
L47	102	CCI-SFP-050125	36.50 - 41.50	1.0000	1.0000
L47	103	CCI-SFP-050125	36.50 - 41.50	1.0000	1.0000
L47	104	CCI-SFP-050125	36.50 - 41.50	1.0000	1.0000
L48	2	Step Pegs	32.75 - 36.50	1.0000	1.0000
L48	22	CU12PSM9P6XXX(1-1/2)	32.75 - 36.50	1.0000	1.0000
L48	24	HB114-U6S12-XXX-LI(1-1/4)	32.75 - 36.50	1.0000	1.0000
L48	25	HB158-1-08U8-S8J18(1-5/8)	32.75 - 36.50	1.0000	1.0000
L48	30	(2) HB114-U6S12-XXX-LI(1-1/4) + (1) MLE Hybrid 3Power/6Fiber RL 2(1-1/4)	32.75 - 36.50	1.0000	1.0000
L48	32	LDF4-50A(1/2)	32.75 - 36.50	1.0000	1.0000
L48	34	Shaft Reinforcement [#PL0.625x5]	32.75 - 36.50	1.0000	1.0000
L48	35	Shaft Reinforcement [#PL0.625x5]	32.75 - 36.50	1.0000	1.0000
L48	44	Shaft Reinforcement [#PL1.25x6]	32.75 - 36.50	1.0000	1.0000
L48	45	Shaft Reinforcement [#PL1.25x6]	32.75 - 36.50	1.0000	1.0000
L48	46	Shaft Reinforcement [#PL1.25x6]	32.75 - 36.50	1.0000	1.0000
L48	47	Shaft Reinforcement [#PL1.25x6]	32.75 - 36.50	1.0000	1.0000
L48	60	CCI-SFP-060100	32.75 - 36.50	1.0000	1.0000
L48	61	CCI-SFP-060100	32.75 -	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L48	62	CCI-SFP-060100	36.50 32.75 -	1.0000	1.0000
L48	63	CCI-SFP-060100	36.50 32.75 -	1.0000	1.0000
L48	86	CCI-SFP-065125	36.50 32.75 -	1.0000	1.0000
L48	87	CCI-SFP-065125	35.50 32.75 -	1.0000	1.0000
L48	101	CCI-SFP-050125	35.50 35.00 -	1.0000	1.0000
L48	102	CCI-SFP-050125	36.50 35.00 -	1.0000	1.0000
L48	103	CCI-SFP-050125	36.50 35.50 -	1.0000	1.0000
L48	104	CCI-SFP-050125	36.50 35.50 -	1.0000	1.0000
L48	106	CCI-SFP-065125	36.50 32.75 -	1.0000	1.0000
L48	107	CCI-SFP-065125	35.00 32.75 -	1.0000	1.0000
L49	2	Step Pegs	35.00 32.50 -	1.0000	1.0000
L49	22	CU12PSM9P6XXX(1-1/2)	32.75 32.50 -	1.0000	1.0000
L49	24	HB114-U6S12-XXX-LI(1-1/4)	32.75 32.50 -	1.0000	1.0000
L49	25	HB158-1-08U8-S8J18(1-5/8)	32.75 32.50 -	1.0000	1.0000
L49	30	(2) HB114-U6S12-XXX-LI(1-1/4) + (1) MLE Hybrid 3Power/6Fiber RL 2(1-1/4)	32.75 32.50 -	1.0000	1.0000
L49	32	LDF4-50A(1/2)	32.50 - 32.75	1.0000	1.0000
L49	34	Shaft Reinforcement [#PL0.625x5]	32.50 - 32.75	1.0000	1.0000
L49	35	Shaft Reinforcement [#PL0.625x5]	32.50 - 32.75	1.0000	1.0000
L49	44	Shaft Reinforcement [#PL1.25x6]	32.50 - 32.75	1.0000	1.0000
L49	45	Shaft Reinforcement [#PL1.25x6]	32.50 - 32.75	1.0000	1.0000
L49	46	Shaft Reinforcement [#PL1.25x6]	32.50 - 32.75	1.0000	1.0000
L49	47	Shaft Reinforcement [#PL1.25x6]	32.50 - 32.75	1.0000	1.0000
L49	60	CCI-SFP-060100	32.50 - 32.75	1.0000	1.0000
L49	61	CCI-SFP-060100	32.50 - 32.75	1.0000	1.0000
L49	62	CCI-SFP-060100	32.50 - 32.75	1.0000	1.0000
L49	63	CCI-SFP-060100	32.50 - 32.75	1.0000	1.0000
L49	86	CCI-SFP-065125	32.50 - 32.75	1.0000	1.0000
L49	87	CCI-SFP-065125	32.50 - 32.75	1.0000	1.0000
L49	106	CCI-SFP-065125	32.50 - 32.75	1.0000	1.0000
L49	107	CCI-SFP-065125	32.50 - 32.75	1.0000	1.0000
L50	2	Step Pegs	32.25 - 32.50	1.0000	1.0000
L50	22	CU12PSM9P6XXX(1-1/2)	32.25 - 32.50	1.0000	1.0000
L50	24	HB114-U6S12-XXX-LI(1-1/4)	32.25 - 32.50	1.0000	1.0000
L50	25	HB158-1-08U8-S8J18(1-	32.25 -	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L50	30	(2) HB114-U6S12-XXX-LI(1-1/4) + (1) MLE Hybrid 3Power/6Fiber RL 2(1-1/4)	32.50 32.25 - 32.50	1.0000	1.0000
L50	32	LDF4-50A(1/2)	32.25 - 32.50	1.0000	1.0000
L50	34	Shaft Reinforcement [#PL0.625x5]	32.25 - 32.50	1.0000	1.0000
L50	35	Shaft Reinforcement [#PL0.625x5]	32.25 - 32.50	1.0000	1.0000
L50	44	Shaft Reinforcement [#PL1.25x6]	32.25 - 32.50	1.0000	1.0000
L50	45	Shaft Reinforcement [#PL1.25x6]	32.25 - 32.50	1.0000	1.0000
L50	46	Shaft Reinforcement [#PL1.25x6]	32.25 - 32.50	1.0000	1.0000
L50	47	Shaft Reinforcement [#PL1.25x6]	32.25 - 32.50	1.0000	1.0000
L50	60	CCI-SFP-060100	32.25 - 32.50	1.0000	1.0000
L50	61	CCI-SFP-060100	32.25 - 32.50	1.0000	1.0000
L50	62	CCI-SFP-060100	32.25 - 32.50	1.0000	1.0000
L50	63	CCI-SFP-060100	32.25 - 32.50	1.0000	1.0000
L50	86	CCI-SFP-065125	32.25 - 32.50	1.0000	1.0000
L50	87	CCI-SFP-065125	32.25 - 32.50	1.0000	1.0000
L50	106	CCI-SFP-065125	32.25 - 32.50	1.0000	1.0000
L50	107	CCI-SFP-065125	32.25 - 32.50	1.0000	1.0000
L51	2	Step Pegs	32.00 - 32.25	1.0000	1.0000
L51	22	CU12PSM9P6XXX(1-1/2)	32.00 - 32.25	1.0000	1.0000
L51	24	HB114-U6S12-XXX-LI(1-1/4)	32.00 - 32.25	1.0000	1.0000
L51	25	HB158-1-08U8-S8J18(1-5/8)	32.00 - 32.25	1.0000	1.0000
L51	30	(2) HB114-U6S12-XXX-LI(1-1/4) + (1) MLE Hybrid 3Power/6Fiber RL 2(1-1/4)	32.00 - 32.25	1.0000	1.0000
L51	32	LDF4-50A(1/2)	32.00 - 32.25	1.0000	1.0000
L51	34	Shaft Reinforcement [#PL0.625x5]	32.00 - 32.25	1.0000	1.0000
L51	35	Shaft Reinforcement [#PL0.625x5]	32.00 - 32.25	1.0000	1.0000
L51	44	Shaft Reinforcement [#PL1.25x6]	32.00 - 32.25	1.0000	1.0000
L51	45	Shaft Reinforcement [#PL1.25x6]	32.00 - 32.25	1.0000	1.0000
L51	46	Shaft Reinforcement [#PL1.25x6]	32.00 - 32.25	1.0000	1.0000
L51	47	Shaft Reinforcement [#PL1.25x6]	32.00 - 32.25	1.0000	1.0000
L51	60	CCI-SFP-060100	32.00 - 32.25	1.0000	1.0000
L51	61	CCI-SFP-060100	32.00 - 32.25	1.0000	1.0000
L51	62	CCI-SFP-060100	32.00 - 32.25	1.0000	1.0000
L51	63	CCI-SFP-060100	32.00 - 32.25	1.0000	1.0000
L51	86	CCI-SFP-065125	32.00 - 32.25	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L51	87	CCI-SFP-065125	32.00 - 32.25	1.0000	1.0000
L51	106	CCI-SFP-065125	32.00 - 32.25	1.0000	1.0000
L51	107	CCI-SFP-065125	32.00 - 32.25	1.0000	1.0000
L52	2	Step Pegs	30.33 - 32.00	1.0000	1.0000
L52	22	CU12PSM9P6XXX(1-1/2)	30.33 - 32.00	1.0000	1.0000
L52	24	HB114-U6S12-XXX-LI(1-1/4)	30.33 - 32.00	1.0000	1.0000
L52	25	HB158-1-08U8-S8J18(1-5/8)	30.33 - 32.00	1.0000	1.0000
L52	30	(2) HB114-U6S12-XXX-LI(1-1/4) + (1) MLE Hybrid 3Power/6Fiber RL 2(1-1/4)	30.33 - 32.00	1.0000	1.0000
L52	32	LDF4-50A(1/2)	30.33 - 32.00	1.0000	1.0000
L52	34	Shaft Reinforcement [#PL0.625x5]	30.33 - 32.00	1.0000	1.0000
L52	35	Shaft Reinforcement [#PL0.625x5]	30.33 - 32.00	1.0000	1.0000
L52	40	Shaft Reinforcement [#PL1.25x6]	30.33 - 30.75	1.0000	1.0000
L52	41	Shaft Reinforcement [#PL1.25x6]	30.33 - 30.75	1.0000	1.0000
L52	42	Shaft Reinforcement [#PL1.25x6]	30.33 - 30.75	1.0000	1.0000
L52	43	Shaft Reinforcement [#PL1.25x6]	30.33 - 30.75	1.0000	1.0000
L52	44	Shaft Reinforcement [#PL1.25x6]	30.33 - 32.00	1.0000	1.0000
L52	45	Shaft Reinforcement [#PL1.25x6]	30.33 - 32.00	1.0000	1.0000
L52	46	Shaft Reinforcement [#PL1.25x6]	30.33 - 32.00	1.0000	1.0000
L52	47	Shaft Reinforcement [#PL1.25x6]	30.33 - 32.00	1.0000	1.0000
L52	60	CCI-SFP-060100	30.33 - 32.00	1.0000	1.0000
L52	61	CCI-SFP-060100	30.33 - 32.00	1.0000	1.0000
L52	62	CCI-SFP-060100	30.33 - 32.00	1.0000	1.0000
L52	63	CCI-SFP-060100	30.33 - 32.00	1.0000	1.0000
L52	86	CCI-SFP-065125	30.33 - 32.00	1.0000	1.0000
L52	87	CCI-SFP-065125	30.33 - 32.00	1.0000	1.0000
L52	106	CCI-SFP-065125	30.33 - 32.00	1.0000	1.0000
L52	107	CCI-SFP-065125	30.33 - 32.00	1.0000	1.0000
L53	2	Step Pegs	30.08 - 30.33	1.0000	1.0000
L53	22	CU12PSM9P6XXX(1-1/2)	30.08 - 30.33	1.0000	1.0000
L53	24	HB114-U6S12-XXX-LI(1-1/4)	30.08 - 30.33	1.0000	1.0000
L53	25	HB158-1-08U8-S8J18(1-5/8)	30.08 - 30.33	1.0000	1.0000
L53	30	(2) HB114-U6S12-XXX-LI(1-1/4) + (1) MLE Hybrid 3Power/6Fiber RL 2(1-1/4)	30.08 - 30.33	1.0000	1.0000
L53	32	LDF4-50A(1/2)	30.08 - 30.33	1.0000	1.0000
L53	34	Shaft Reinforcement	30.08 -	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L53	35	[#PL0.625x5] Shaft Reinforcement	30.33 30.08 -	1.0000	1.0000
L53	40	[#PL0.625x5] Shaft Reinforcement	30.33 30.08 -	1.0000	1.0000
L53	41	[#PL1.25x6] Shaft Reinforcement	30.33 30.08 -	1.0000	1.0000
L53	42	[#PL1.25x6] Shaft Reinforcement	30.33 30.08 -	1.0000	1.0000
L53	43	[#PL1.25x6] Shaft Reinforcement	30.33 30.08 -	1.0000	1.0000
L53	44	[#PL1.25x6] Shaft Reinforcement	30.33 30.08 -	1.0000	1.0000
L53	45	[#PL1.25x6] Shaft Reinforcement	30.33 30.08 -	1.0000	1.0000
L53	46	[#PL1.25x6] Shaft Reinforcement	30.33 30.08 -	1.0000	1.0000
L53	47	[#PL1.25x6] Shaft Reinforcement	30.33 30.08 -	1.0000	1.0000
L53	60	CCI-SFP-060100	30.08 - 30.33	1.0000	1.0000
L53	61	CCI-SFP-060100	30.08 - 30.33	1.0000	1.0000
L53	62	CCI-SFP-060100	30.08 - 30.33	1.0000	1.0000
L53	63	CCI-SFP-060100	30.08 - 30.33	1.0000	1.0000
L53	86	CCI-SFP-065125	30.08 - 30.33	1.0000	1.0000
L53	87	CCI-SFP-065125	30.08 - 30.33	1.0000	1.0000
L53	106	CCI-SFP-065125	30.08 - 30.33	1.0000	1.0000
L53	107	CCI-SFP-065125	30.08 - 30.33	1.0000	1.0000
L54	2	Step Pegs	28.25 - 30.08	1.0000	1.0000
L54	22	CU12PSM9P6XXX(1-1/2)	28.25 - 30.08	1.0000	1.0000
L54	24	HB114-U6S12-XXX-LI(1-1/4)	28.25 - 30.08	1.0000	1.0000
L54	25	HB158-1-08U8-S8J18(1-5/8)	28.25 - 30.08	1.0000	1.0000
L54	30	(2) HB114-U6S12-XXX-LI(1-1/4) + (1) MLE Hybrid	28.25 - 30.08	1.0000	1.0000
L54	32	3Power/6Fiber RL 2(1-1/4) LDF4-50A(1/2)	28.25 - 30.08	1.0000	1.0000
L54	34	Shaft Reinforcement [#PL0.625x5]	28.25 - 30.08	1.0000	1.0000
L54	35	Shaft Reinforcement [#PL0.625x5]	28.25 - 30.08	1.0000	1.0000
L54	40	Shaft Reinforcement [#PL1.25x6]	28.25 - 30.08	1.0000	1.0000
L54	41	Shaft Reinforcement [#PL1.25x6]	28.25 - 30.08	1.0000	1.0000
L54	42	Shaft Reinforcement [#PL1.25x6]	28.25 - 30.08	1.0000	1.0000
L54	43	Shaft Reinforcement [#PL1.25x6]	28.25 - 30.08	1.0000	1.0000
L54	44	Shaft Reinforcement [#PL1.25x6]	28.25 - 30.08	1.0000	1.0000
L54	45	Shaft Reinforcement [#PL1.25x6]	28.25 - 30.08	1.0000	1.0000
L54	46	Shaft Reinforcement [#PL1.25x6]	28.25 - 30.08	1.0000	1.0000
L54	47	Shaft Reinforcement [#PL1.25x6]	28.25 - 30.08	1.0000	1.0000
L54	60	CCI-SFP-060100	28.25 -	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L54	61	CCI-SFP-060100	30.08 28.25 -	1.0000	1.0000
L54	62	CCI-SFP-060100	30.08 28.25 -	1.0000	1.0000
L54	63	CCI-SFP-060100	30.08 28.25 -	1.0000	1.0000
L54	86	CCI-SFP-065125	30.08 28.25 -	1.0000	1.0000
L54	87	CCI-SFP-065125	30.08 28.25 -	1.0000	1.0000
L54	106	CCI-SFP-065125	30.08 28.25 -	1.0000	1.0000
L54	107	CCI-SFP-065125	30.08 28.25 -	1.0000	1.0000
L55	2	Step Pegs	30.08 28.00 -	1.0000	1.0000
L55	22	CU12PSM9P6XXX(1-1/2)	28.25 28.00 -	1.0000	1.0000
L55	24	HB114-U6S12-XXX-LI(1-1/4)	28.25 28.00 -	1.0000	1.0000
L55	25	HB158-1-08U8-S8J18(1-5/8)	28.25 28.00 -	1.0000	1.0000
L55	30	(2) HB114-U6S12-XXX-LI(1-1/4) + (1) MLE Hybrid	28.25 28.00 -	1.0000	1.0000
L55	32	3Power/6Fiber RL 2(1-1/4) LDF4-50A(1/2)	28.25 28.00 -	1.0000	1.0000
L55	34	Shaft Reinforcement [#PL0.625x5]	28.25 28.00 -	1.0000	1.0000
L55	35	Shaft Reinforcement [#PL0.625x5]	28.25 28.00 -	1.0000	1.0000
L55	40	Shaft Reinforcement [#PL1.25x6]	28.25 28.00 -	1.0000	1.0000
L55	41	Shaft Reinforcement [#PL1.25x6]	28.25 28.00 -	1.0000	1.0000
L55	42	Shaft Reinforcement [#PL1.25x6]	28.25 28.00 -	1.0000	1.0000
L55	43	Shaft Reinforcement [#PL1.25x6]	28.25 28.00 -	1.0000	1.0000
L55	44	Shaft Reinforcement [#PL1.25x6]	28.25 28.00 -	1.0000	1.0000
L55	45	Shaft Reinforcement [#PL1.25x6]	28.25 28.00 -	1.0000	1.0000
L55	46	Shaft Reinforcement [#PL1.25x6]	28.25 28.00 -	1.0000	1.0000
L55	47	Shaft Reinforcement [#PL1.25x6]	28.25 28.00 -	1.0000	1.0000
L55	60	CCI-SFP-060100	28.25 28.00 -	1.0000	1.0000
L55	61	CCI-SFP-060100	28.25 28.00 -	1.0000	1.0000
L55	62	CCI-SFP-060100	28.25 28.00 -	1.0000	1.0000
L55	63	CCI-SFP-060100	28.25 28.00 -	1.0000	1.0000
L55	86	CCI-SFP-065125	28.25 28.00 -	1.0000	1.0000
L55	87	CCI-SFP-065125	28.25 28.00 -	1.0000	1.0000
L55	106	CCI-SFP-065125	28.25 28.00 -	1.0000	1.0000
L55	107	CCI-SFP-065125	28.25 28.00 -	1.0000	1.0000
L56	2	Step Pegs	23.00 - 28.00	1.0000	1.0000
L56	22	CU12PSM9P6XXX(1-1/2)	23.00 - 28.00	1.0000	1.0000
L56	24	HB114-U6S12-XXX-LI(1-	23.00 -	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L56	25	1/4) HB158-1-08U8-S8J18(1-5/8)	28.00 23.00 - 28.00	1.0000	1.0000
L56	30	(2) HB114-U6S12-XXX-LI(1-1/4) + (1) MLE Hybrid 3Power/6Fiber RL 2(1-1/4)	23.00 - 28.00	1.0000	1.0000
L56	32	LDF4-50A(1/2)	23.00 - 28.00	1.0000	1.0000
L56	34	Shaft Reinforcement [#PL0.625x5]	23.00 - 28.00	1.0000	1.0000
L56	35	Shaft Reinforcement [#PL0.625x5]	23.00 - 28.00	1.0000	1.0000
L56	40	Shaft Reinforcement [#PL1.25x6]	23.00 - 28.00	1.0000	1.0000
L56	41	Shaft Reinforcement [#PL1.25x6]	23.00 - 28.00	1.0000	1.0000
L56	42	Shaft Reinforcement [#PL1.25x6]	23.00 - 28.00	1.0000	1.0000
L56	43	Shaft Reinforcement [#PL1.25x6]	23.00 - 28.00	1.0000	1.0000
L56	44	Shaft Reinforcement [#PL1.25x6]	27.83 - 28.00	1.0000	1.0000
L56	45	Shaft Reinforcement [#PL1.25x6]	27.83 - 28.00	1.0000	1.0000
L56	46	Shaft Reinforcement [#PL1.25x6]	27.83 - 28.00	1.0000	1.0000
L56	47	Shaft Reinforcement [#PL1.25x6]	27.83 - 28.00	1.0000	1.0000
L56	60	CCI-SFP-060100	23.00 - 28.00	1.0000	1.0000
L56	61	CCI-SFP-060100	23.00 - 28.00	1.0000	1.0000
L56	62	CCI-SFP-060100	23.00 - 28.00	1.0000	1.0000
L56	63	CCI-SFP-060100	23.00 - 28.00	1.0000	1.0000
L56	68	CCI-SFP-045100	23.00 - 27.75	1.0000	1.0000
L56	69	CCI-SFP-045100	23.00 - 27.75	1.0000	1.0000
L56	70	CCI-SFP-045100	23.00 - 27.75	1.0000	1.0000
L56	71	CCI-SFP-045100	23.00 - 27.75	1.0000	1.0000
L56	86	CCI-SFP-065125	25.50 - 28.00	1.0000	1.0000
L56	87	CCI-SFP-065125	25.50 - 28.00	1.0000	1.0000
L56	106	CCI-SFP-065125	23.00 - 28.00	1.0000	1.0000
L56	107	CCI-SFP-065125	23.00 - 28.00	1.0000	1.0000
L57	2	Step Pegs	19.25 - 23.00	1.0000	1.0000
L57	22	CU12PSM9P6XXX(1-1/2)	19.25 - 23.00	1.0000	1.0000
L57	24	HB114-U6S12-XXX-LI(1-1/4)	19.25 - 23.00	1.0000	1.0000
L57	25	HB158-1-08U8-S8J18(1-5/8)	19.25 - 23.00	1.0000	1.0000
L57	30	(2) HB114-U6S12-XXX-LI(1-1/4) + (1) MLE Hybrid 3Power/6Fiber RL 2(1-1/4)	19.25 - 23.00	1.0000	1.0000
L57	32	LDF4-50A(1/2)	19.25 - 23.00	1.0000	1.0000
L57	34	Shaft Reinforcement [#PL0.625x5]	19.25 - 23.00	1.0000	1.0000
L57	35	Shaft Reinforcement [#PL0.625x5]	19.25 - 23.00	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L57	40	Shaft Reinforcement [#PL1.25x6]	19.25 - 23.00	1.0000	1.0000
L57	41	Shaft Reinforcement [#PL1.25x6]	19.25 - 23.00	1.0000	1.0000
L57	42	Shaft Reinforcement [#PL1.25x6]	19.25 - 23.00	1.0000	1.0000
L57	43	Shaft Reinforcement [#PL1.25x6]	19.25 - 23.00	1.0000	1.0000
L57	60	CCI-SFP-060100	19.25 - 23.00	1.0000	1.0000
L57	61	CCI-SFP-060100	19.25 - 23.00	1.0000	1.0000
L57	62	CCI-SFP-060100	19.25 - 23.00	1.0000	1.0000
L57	63	CCI-SFP-060100	19.25 - 23.00	1.0000	1.0000
L57	68	CCI-SFP-045100	19.25 - 23.00	1.0000	1.0000
L57	69	CCI-SFP-045100	19.25 - 23.00	1.0000	1.0000
L57	70	CCI-SFP-045100	19.25 - 23.00	1.0000	1.0000
L57	71	CCI-SFP-045100	19.25 - 23.00	1.0000	1.0000
L57	106	CCI-SFP-065125	19.25 - 23.00	1.0000	1.0000
L57	107	CCI-SFP-065125	19.25 - 23.00	1.0000	1.0000
L58	2	Step Pegs	19.00 - 19.25	1.0000	1.0000
L58	22	CU12PSM9P6XXX(1-1/2)	19.00 - 19.25	1.0000	1.0000
L58	24	HB114-U6S12-XXX-LI(1-1/4)	19.00 - 19.25	1.0000	1.0000
L58	25	HB158-1-08U8-S8J18(1-5/8)	19.00 - 19.25	1.0000	1.0000
L58	30	(2) HB114-U6S12-XXX-LI(1-1/4) + (1) MLE Hybrid 3Power/6Fiber RL 2(1-1/4)	19.00 - 19.25	1.0000	1.0000
L58	32	LDF4-50A(1/2)	19.00 - 19.25	1.0000	1.0000
L58	34	Shaft Reinforcement [#PL0.625x5]	19.00 - 19.25	1.0000	1.0000
L58	35	Shaft Reinforcement [#PL0.625x5]	19.00 - 19.25	1.0000	1.0000
L58	40	Shaft Reinforcement [#PL1.25x6]	19.00 - 19.25	1.0000	1.0000
L58	41	Shaft Reinforcement [#PL1.25x6]	19.00 - 19.25	1.0000	1.0000
L58	42	Shaft Reinforcement [#PL1.25x6]	19.00 - 19.25	1.0000	1.0000
L58	43	Shaft Reinforcement [#PL1.25x6]	19.00 - 19.25	1.0000	1.0000
L58	60	CCI-SFP-060100	19.00 - 19.25	1.0000	1.0000
L58	61	CCI-SFP-060100	19.00 - 19.25	1.0000	1.0000
L58	62	CCI-SFP-060100	19.00 - 19.25	1.0000	1.0000
L58	63	CCI-SFP-060100	19.00 - 19.25	1.0000	1.0000
L58	68	CCI-SFP-045100	19.00 - 19.25	1.0000	1.0000
L58	69	CCI-SFP-045100	19.00 - 19.25	1.0000	1.0000
L58	70	CCI-SFP-045100	19.00 - 19.25	1.0000	1.0000
L58	71	CCI-SFP-045100	19.00 - 19.25	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L58	106	CCI-SFP-065125	19.00 - 19.25	1.0000	1.0000
L58	107	CCI-SFP-065125	19.00 - 19.25	1.0000	1.0000
L59	2	Step Pegs	14.50 - 19.00	1.0000	1.0000
L59	22	CU12PSM9P6XXX(1-1/2)	14.50 - 19.00	1.0000	1.0000
L59	24	HB114-U6S12-XXX-LI(1-1/4)	14.50 - 19.00	1.0000	1.0000
L59	25	HB158-1-08U8-S8J18(1-5/8)	14.50 - 19.00	1.0000	1.0000
L59	30	(2) HB114-U6S12-XXX-LI(1-1/4) + (1) MLE Hybrid 3Power/6Fiber RL 2(1-1/4)	14.50 - 19.00	1.0000	1.0000
L59	32	LDF4-50A(1/2)	14.50 - 19.00	1.0000	1.0000
L59	34	Shaft Reinforcement [#PL0.625x5]	14.50 - 19.00	1.0000	1.0000
L59	35	Shaft Reinforcement [#PL0.625x5]	14.50 - 19.00	1.0000	1.0000
L59	40	Shaft Reinforcement [#PL1.25x6]	14.50 - 19.00	1.0000	1.0000
L59	41	Shaft Reinforcement [#PL1.25x6]	14.50 - 19.00	1.0000	1.0000
L59	42	Shaft Reinforcement [#PL1.25x6]	14.50 - 19.00	1.0000	1.0000
L59	43	Shaft Reinforcement [#PL1.25x6]	14.50 - 19.00	1.0000	1.0000
L59	60	CCI-SFP-060100	14.50 - 19.00	1.0000	1.0000
L59	61	CCI-SFP-060100	14.50 - 19.00	1.0000	1.0000
L59	62	CCI-SFP-060100	14.50 - 19.00	1.0000	1.0000
L59	63	CCI-SFP-060100	14.50 - 19.00	1.0000	1.0000
L59	68	CCI-SFP-045100	17.75 - 19.00	1.0000	1.0000
L59	69	CCI-SFP-045100	17.75 - 19.00	1.0000	1.0000
L59	70	CCI-SFP-045100	17.75 - 19.00	1.0000	1.0000
L59	71	CCI-SFP-045100	17.75 - 19.00	1.0000	1.0000
L59	106	CCI-SFP-065125	14.50 - 19.00	1.0000	1.0000
L59	107	CCI-SFP-065125	14.50 - 19.00	1.0000	1.0000
L60	2	Step Pegs	14.25 - 14.50	1.0000	1.0000
L60	22	CU12PSM9P6XXX(1-1/2)	14.25 - 14.50	1.0000	1.0000
L60	24	HB114-U6S12-XXX-LI(1-1/4)	14.25 - 14.50	1.0000	1.0000
L60	25	HB158-1-08U8-S8J18(1-5/8)	14.25 - 14.50	1.0000	1.0000
L60	30	(2) HB114-U6S12-XXX-LI(1-1/4) + (1) MLE Hybrid 3Power/6Fiber RL 2(1-1/4)	14.25 - 14.50	1.0000	1.0000
L60	32	LDF4-50A(1/2)	14.25 - 14.50	1.0000	1.0000
L60	34	Shaft Reinforcement [#PL0.625x5]	14.25 - 14.50	1.0000	1.0000
L60	35	Shaft Reinforcement [#PL0.625x5]	14.25 - 14.50	1.0000	1.0000
L60	40	Shaft Reinforcement [#PL1.25x6]	14.25 - 14.50	1.0000	1.0000
L60	41	Shaft Reinforcement	14.25 -	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L60	42	[#PL1.25x6] Shaft Reinforcement	14.50 14.25 -	1.0000	1.0000
L60	43	[#PL1.25x6] Shaft Reinforcement	14.50 14.25 -	1.0000	1.0000
L60	60	[#PL1.25x6] CCI-SFP-060100	14.50 14.25 -	1.0000	1.0000
L60	61	CCI-SFP-060100	14.50 14.25 -	1.0000	1.0000
L60	62	CCI-SFP-060100	14.50 14.25 -	1.0000	1.0000
L60	63	CCI-SFP-060100	14.50 14.25 -	1.0000	1.0000
L60	106	CCI-SFP-065125	14.50 14.25 -	1.0000	1.0000
L60	107	CCI-SFP-065125	14.50 14.25 -	1.0000	1.0000
L61	2	Step Pegs	12.75 - 14.25	1.0000	1.0000
L61	22	CU12PSM9P6XXX(1-1/2)	12.75 - 14.25	1.0000	1.0000
L61	24	HB114-U6S12-XXX-LI(1-1/4)	12.75 - 14.25	1.0000	1.0000
L61	25	HB158-1-08U8-S8J18(1-5/8)	12.75 - 14.25	1.0000	1.0000
L61	30	(2) HB114-U6S12-XXX-LI(1-1/4) + (1) MLE Hybrid 3Power/6Fiber RL 2(1-1/4)	12.75 - 14.25	1.0000	1.0000
L61	32	LDF4-50A(1/2)	12.75 - 14.25	1.0000	1.0000
L61	34	Shaft Reinforcement [#PL0.625x5]	12.75 - 14.25	1.0000	1.0000
L61	35	Shaft Reinforcement [#PL0.625x5]	12.75 - 14.25	1.0000	1.0000
L61	40	Shaft Reinforcement [#PL1.25x6]	12.75 - 14.25	1.0000	1.0000
L61	41	Shaft Reinforcement [#PL1.25x6]	12.75 - 14.25	1.0000	1.0000
L61	42	Shaft Reinforcement [#PL1.25x6]	12.75 - 14.25	1.0000	1.0000
L61	43	Shaft Reinforcement [#PL1.25x6]	12.75 - 14.25	1.0000	1.0000
L61	60	CCI-SFP-060100	12.75 - 14.25	1.0000	1.0000
L61	61	CCI-SFP-060100	12.75 - 14.25	1.0000	1.0000
L61	62	CCI-SFP-060100	12.75 - 14.25	1.0000	1.0000
L61	63	CCI-SFP-060100	12.75 - 14.25	1.0000	1.0000
L61	106	CCI-SFP-065125	12.75 - 14.25	1.0000	1.0000
L61	107	CCI-SFP-065125	12.75 - 14.25	1.0000	1.0000
L62	2	Step Pegs	12.50 - 12.75	1.0000	1.0000
L62	22	CU12PSM9P6XXX(1-1/2)	12.50 - 12.75	1.0000	1.0000
L62	24	HB114-U6S12-XXX-LI(1-1/4)	12.50 - 12.75	1.0000	1.0000
L62	25	HB158-1-08U8-S8J18(1-5/8)	12.50 - 12.75	1.0000	1.0000
L62	30	(2) HB114-U6S12-XXX-LI(1-1/4) + (1) MLE Hybrid 3Power/6Fiber RL 2(1-1/4)	12.50 - 12.75	1.0000	1.0000
L62	32	LDF4-50A(1/2)	12.50 - 12.75	1.0000	1.0000
L62	34	Shaft Reinforcement [#PL0.625x5]	12.50 - 12.75	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L62	35	Shaft Reinforcement [#PL0.625x5]	12.50 - 12.75	1.0000	1.0000
L62	40	Shaft Reinforcement [#PL1.25x6]	12.50 - 12.75	1.0000	1.0000
L62	41	Shaft Reinforcement [#PL1.25x6]	12.50 - 12.75	1.0000	1.0000
L62	42	Shaft Reinforcement [#PL1.25x6]	12.50 - 12.75	1.0000	1.0000
L62	43	Shaft Reinforcement [#PL1.25x6]	12.50 - 12.75	1.0000	1.0000
L62	60	CCI-SFP-060100	12.50 - 12.75	1.0000	1.0000
L62	61	CCI-SFP-060100	12.50 - 12.75	1.0000	1.0000
L62	62	CCI-SFP-060100	12.50 - 12.75	1.0000	1.0000
L62	63	CCI-SFP-060100	12.50 - 12.75	1.0000	1.0000
L62	106	CCI-SFP-065125	12.50 - 12.75	1.0000	1.0000
L62	107	CCI-SFP-065125	12.50 - 12.75	1.0000	1.0000
L63	2	Step Pegs	10.00 - 12.50	1.0000	1.0000
L63	22	CU12PSM9P6XXX(1-1/2)	7.50 - 12.50	1.0000	1.0000
L63	24	HB114-U6S12-XXX-LI(1-1/4)	8.00 - 12.50	1.0000	1.0000
L63	25	HB158-1-08U8-S8J18(1-5/8)	8.00 - 12.50	1.0000	1.0000
L63	30	(2) HB114-U6S12-XXX-LI(1-1/4) + (1) MLE Hybrid 3Power/6Fiber RL 2(1-1/4)	8.00 - 12.50	1.0000	1.0000
L63	32	LDF4-50A(1/2)	8.00 - 12.50	1.0000	1.0000
L63	34	Shaft Reinforcement [#PL0.625x5]	7.50 - 12.50	1.0000	1.0000
L63	35	Shaft Reinforcement [#PL0.625x5]	7.50 - 12.50	1.0000	1.0000
L63	40	Shaft Reinforcement [#PL1.25x6]	7.50 - 12.50	1.0000	1.0000
L63	41	Shaft Reinforcement [#PL1.25x6]	7.50 - 12.50	1.0000	1.0000
L63	42	Shaft Reinforcement [#PL1.25x6]	7.50 - 12.50	1.0000	1.0000
L63	43	Shaft Reinforcement [#PL1.25x6]	7.50 - 12.50	1.0000	1.0000
L63	60	CCI-SFP-060100	7.50 - 12.50	1.0000	1.0000
L63	61	CCI-SFP-060100	7.50 - 12.50	1.0000	1.0000
L63	62	CCI-SFP-060100	7.50 - 12.50	1.0000	1.0000
L63	63	CCI-SFP-060100	7.50 - 12.50	1.0000	1.0000
L63	106	CCI-SFP-065125	10.00 - 12.50	1.0000	1.0000
L63	107	CCI-SFP-065125	10.00 - 12.50	1.0000	1.0000
L64	22	CU12PSM9P6XXX(1-1/2)	3.50 - 7.50	1.0000	1.0000
L64	34	Shaft Reinforcement [#PL0.625x5]	3.50 - 7.50	1.0000	1.0000
L64	35	Shaft Reinforcement [#PL0.625x5]	3.50 - 7.50	1.0000	1.0000
L64	40	Shaft Reinforcement [#PL1.25x6]	3.50 - 7.50	1.0000	1.0000
L64	41	Shaft Reinforcement [#PL1.25x6]	3.50 - 7.50	1.0000	1.0000
L64	42	Shaft Reinforcement [#PL1.25x6]	3.50 - 7.50	1.0000	1.0000
L64	43	Shaft Reinforcement [#PL1.25x6]	3.50 - 7.50	1.0000	1.0000
L64	60	CCI-SFP-060100	3.50 - 7.50	1.0000	1.0000
L64	61	CCI-SFP-060100	3.50 - 7.50	1.0000	1.0000
L64	62	CCI-SFP-060100	3.50 - 7.50	1.0000	1.0000

Tower Section	Feed Line Record No.	Description	Feed Line Segment Elev.	K _a No Ice	K _a Ice
L64	63	CCI-SFP-060100	3.50 - 7.50	1.0000	1.0000
L65	22	CU12PSM9P6XXX(1-1/2)	3.25 - 3.50	1.0000	1.0000
L65	34	Shaft Reinforcement [#PL0.625x5]	3.25 - 3.50	1.0000	1.0000
L65	35	Shaft Reinforcement [#PL0.625x5]	3.25 - 3.50	1.0000	1.0000
L65	40	Shaft Reinforcement [#PL1.25x6]	3.25 - 3.50	1.0000	1.0000
L65	41	Shaft Reinforcement [#PL1.25x6]	3.25 - 3.50	1.0000	1.0000
L65	42	Shaft Reinforcement [#PL1.25x6]	3.25 - 3.50	1.0000	1.0000
L65	43	Shaft Reinforcement [#PL1.25x6]	3.25 - 3.50	1.0000	1.0000
L65	60	CCI-SFP-060100	3.25 - 3.50	1.0000	1.0000
L65	61	CCI-SFP-060100	3.25 - 3.50	1.0000	1.0000
L65	62	CCI-SFP-060100	3.25 - 3.50	1.0000	1.0000
L65	63	CCI-SFP-060100	3.25 - 3.50	1.0000	1.0000
L66	22	CU12PSM9P6XXX(1-1/2)	3.00 - 3.25	1.0000	1.0000
L66	34	Shaft Reinforcement [#PL0.625x5]	3.00 - 3.25	1.0000	1.0000
L66	35	Shaft Reinforcement [#PL0.625x5]	3.00 - 3.25	1.0000	1.0000
L66	40	Shaft Reinforcement [#PL1.25x6]	3.00 - 3.25	1.0000	1.0000
L66	41	Shaft Reinforcement [#PL1.25x6]	3.00 - 3.25	1.0000	1.0000
L66	42	Shaft Reinforcement [#PL1.25x6]	3.00 - 3.25	1.0000	1.0000
L66	43	Shaft Reinforcement [#PL1.25x6]	3.00 - 3.25	1.0000	1.0000
L66	60	CCI-SFP-060100	3.00 - 3.25	1.0000	1.0000
L66	61	CCI-SFP-060100	3.00 - 3.25	1.0000	1.0000
L66	62	CCI-SFP-060100	3.00 - 3.25	1.0000	1.0000
L66	63	CCI-SFP-060100	3.00 - 3.25	1.0000	1.0000
L67	22	CU12PSM9P6XXX(1-1/2)	0.00 - 3.00	1.0000	1.0000
L67	34	Shaft Reinforcement [#PL0.625x5]	0.00 - 3.00	1.0000	1.0000
L67	35	Shaft Reinforcement [#PL0.625x5]	0.00 - 3.00	1.0000	1.0000
L67	40	Shaft Reinforcement [#PL1.25x6]	0.00 - 3.00	1.0000	1.0000
L67	41	Shaft Reinforcement [#PL1.25x6]	0.00 - 3.00	1.0000	1.0000
L67	42	Shaft Reinforcement [#PL1.25x6]	0.00 - 3.00	1.0000	1.0000
L67	43	Shaft Reinforcement [#PL1.25x6]	0.00 - 3.00	1.0000	1.0000
L67	60	CCI-SFP-060100	0.00 - 3.00	1.0000	1.0000
L67	61	CCI-SFP-060100	0.00 - 3.00	1.0000	1.0000
L67	62	CCI-SFP-060100	0.00 - 3.00	1.0000	1.0000
L67	63	CCI-SFP-060100	0.00 - 3.00	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
L6	89	CCI-SFP-040125	138.33 - 140.00	Auto	0.0324

Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L6	90	CCI-SFP-040125	138.33 - 140.00	Auto	0.0324
L6	91	CCI-SFP-040125	138.33 - 140.00	Auto	0.0324
L6	92	CCI-SFP-040125	138.33 - 140.00	Auto	0.0324
L7	89	CCI-SFP-040125	138.00 - 138.33	Auto	0.0250
L7	90	CCI-SFP-040125	138.00 - 138.33	Auto	0.0250
L7	91	CCI-SFP-040125	138.00 - 138.33	Auto	0.0250
L7	92	CCI-SFP-040125	138.00 - 138.33	Auto	0.0250
L8	89	CCI-SFP-040125	137.75 - 138.00	Auto	0.1329
L8	90	CCI-SFP-040125	137.75 - 138.00	Auto	0.1329
L8	91	CCI-SFP-040125	137.75 - 138.00	Auto	0.1329
L8	92	CCI-SFP-040125	137.75 - 138.00	Auto	0.1329
L9	89	CCI-SFP-040125	130.50 - 137.75	Auto	0.1054
L9	90	CCI-SFP-040125	130.50 - 137.75	Auto	0.1054
L9	91	CCI-SFP-040125	130.50 - 137.75	Auto	0.1054
L9	92	CCI-SFP-040125	130.50 - 137.75	Auto	0.1054
L10	89	CCI-SFP-040125	129.16 - 130.50	Auto	0.1155
L10	90	CCI-SFP-040125	129.16 - 130.50	Auto	0.1155
L10	91	CCI-SFP-040125	129.16 - 130.50	Auto	0.1155
L10	92	CCI-SFP-040125	129.16 - 130.50	Auto	0.1155
L11	76	CCI-SFP-045100	125.75 - 127.33	Auto	0.1901
L11	77	CCI-SFP-045100	125.75 - 127.33	Auto	0.1901
L11	78	CCI-SFP-045100	125.75 - 127.33	Auto	0.1901
L11	89	CCI-SFP-040125	125.75 - 129.16	Auto	0.0955
L11	90	CCI-SFP-040125	125.75 - 129.16	Auto	0.0955
L11	91	CCI-SFP-040125	125.75 - 129.16	Auto	0.0955
L11	92	CCI-SFP-040125	125.75 - 129.16	Auto	0.0955
L12	76	CCI-SFP-045100	125.50 - 125.75	Auto	0.2331
L12	77	CCI-SFP-045100	125.50 - 125.75	Auto	0.2331
L12	78	CCI-SFP-045100	125.50 - 125.75	Auto	0.2331
L12	89	CCI-SFP-040125	125.50 - 125.75	Auto	0.1373
L12	90	CCI-SFP-040125	125.50 - 125.75	Auto	0.1373
L12	91	CCI-SFP-040125	125.50 - 125.75	Auto	0.1373
L12	92	CCI-SFP-040125	125.50 - 125.75	Auto	0.1373
L13	76	CCI-SFP-045100	120.50 - 125.50	Auto	0.2113

Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L13	77	CCI-SFP-045100	120.50 - 125.50	Auto	0.2113
L13	78	CCI-SFP-045100	120.50 - 125.50	Auto	0.2113
L13	80	CCI-SFP-040125	120.50 - 122.00	Auto	0.1000
L13	81	CCI-SFP-040125	120.50 - 122.00	Auto	0.1000
L13	89	CCI-SFP-040125	120.50 - 125.50	Auto	0.1127
L13	90	CCI-SFP-040125	120.50 - 125.50	Auto	0.1127
L13	91	CCI-SFP-040125	120.50 - 125.50	Auto	0.1127
L13	92	CCI-SFP-040125	120.50 - 125.50	Auto	0.1127
L14	76	CCI-SFP-045100	120.25 - 120.50	Auto	0.2971
L14	77	CCI-SFP-045100	120.25 - 120.50	Auto	0.2971
L14	78	CCI-SFP-045100	120.25 - 120.50	Auto	0.2971
L14	80	CCI-SFP-040125	120.25 - 120.50	Auto	0.2092
L14	81	CCI-SFP-040125	120.25 - 120.50	Auto	0.2092
L14	89	CCI-SFP-040125	120.25 - 120.50	Auto	0.2092
L14	90	CCI-SFP-040125	120.25 - 120.50	Auto	0.2092
L14	91	CCI-SFP-040125	120.25 - 120.50	Auto	0.2092
L14	92	CCI-SFP-040125	120.25 - 120.50	Auto	0.2092
L15	36	Shaft Reinforcement [#PL0.625x5]	115.25 - 120.00	Auto	0.3426
L15	37	Shaft Reinforcement [#PL0.625x5]	115.25 - 120.00	Auto	0.3426
L15	38	Shaft Reinforcement [#PL0.625x5]	115.25 - 120.00	Auto	0.3426
L15	56	Shaft Reinforcement [#PL1.25x5]	115.25 - 115.83	Auto	0.3305
L15	57	Shaft Reinforcement [#PL1.25x5]	115.25 - 115.83	Auto	0.3305
L15	58	Shaft Reinforcement [#PL1.25x5]	115.25 - 115.83	Auto	0.3305
L15	76	CCI-SFP-045100	115.25 - 120.25	Auto	0.2704
L15	77	CCI-SFP-045100	115.25 - 120.25	Auto	0.2704
L15	78	CCI-SFP-045100	115.25 - 120.25	Auto	0.2704
L15	80	CCI-SFP-040125	115.25 - 120.25	Auto	0.1792
L15	81	CCI-SFP-040125	115.25 - 120.25	Auto	0.1792
L15	89	CCI-SFP-040125	115.25 - 120.25	Auto	0.1792
L15	90	CCI-SFP-040125	115.25 - 120.25	Auto	0.1792
L15	91	CCI-SFP-040125	115.25 - 120.25	Auto	0.1792
L15	92	CCI-SFP-040125	115.25 - 120.25	Auto	0.1792
L16	36	Shaft Reinforcement [#PL0.625x5]	113.83 - 115.25	Auto	0.3203
L16	37	Shaft Reinforcement [#PL0.625x5]	113.83 - 115.25	Auto	0.3203

Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L16	38	Shaft Reinforcement [#PL0.625x5]	113.83 - 115.25	Auto	0.3203
L16	56	Shaft Reinforcement [#PL1.25x5]	113.83 - 115.25	Auto	0.3203
L16	57	Shaft Reinforcement [#PL1.25x5]	113.83 - 115.25	Auto	0.3203
L16	58	Shaft Reinforcement [#PL1.25x5]	113.83 - 115.25	Auto	0.3203
L16	76	CCI-SFP-045100	113.83 - 115.25	Auto	0.2448
L16	77	CCI-SFP-045100	113.83 - 115.25	Auto	0.2448
L16	78	CCI-SFP-045100	113.83 - 115.25	Auto	0.2448
L16	80	CCI-SFP-040125	113.83 - 115.25	Auto	0.1504
L16	81	CCI-SFP-040125	113.83 - 115.25	Auto	0.1504
L16	89	CCI-SFP-040125	113.83 - 115.25	Auto	0.1504
L16	90	CCI-SFP-040125	113.83 - 115.25	Auto	0.1504
L16	91	CCI-SFP-040125	113.83 - 115.25	Auto	0.1504
L16	92	CCI-SFP-040125	113.83 - 115.25	Auto	0.1504
L17	36	Shaft Reinforcement [#PL0.625x5]	113.48 - 113.83	Auto	0.3284
L17	37	Shaft Reinforcement [#PL0.625x5]	113.48 - 113.83	Auto	0.3284
L17	38	Shaft Reinforcement [#PL0.625x5]	113.48 - 113.83	Auto	0.3284
L17	56	Shaft Reinforcement [#PL1.25x5]	113.48 - 113.83	Auto	0.3284
L17	57	Shaft Reinforcement [#PL1.25x5]	113.48 - 113.83	Auto	0.3284
L17	58	Shaft Reinforcement [#PL1.25x5]	113.48 - 113.83	Auto	0.3284
L17	76	CCI-SFP-045100	113.48 - 113.83	Auto	0.2538
L17	77	CCI-SFP-045100	113.48 - 113.83	Auto	0.2538
L17	78	CCI-SFP-045100	113.48 - 113.83	Auto	0.2538
L17	80	CCI-SFP-040125	113.48 - 113.83	Auto	0.1605
L17	81	CCI-SFP-040125	113.48 - 113.83	Auto	0.1605
L17	89	CCI-SFP-040125	113.48 - 113.83	Auto	0.1605
L17	90	CCI-SFP-040125	113.48 - 113.83	Auto	0.1605
L17	91	CCI-SFP-040125	113.48 - 113.83	Auto	0.1605
L17	92	CCI-SFP-040125	113.48 - 113.83	Auto	0.1605
L18	36	Shaft Reinforcement [#PL0.625x5]	113.25 - 113.48	Auto	0.3267
L18	37	Shaft Reinforcement [#PL0.625x5]	113.25 - 113.48	Auto	0.3267
L18	38	Shaft Reinforcement [#PL0.625x5]	113.25 - 113.48	Auto	0.3267
L18	56	Shaft Reinforcement [#PL1.25x5]	113.25 - 113.48	Auto	0.3267
L18	57	Shaft Reinforcement [#PL1.25x5]	113.25 - 113.48	Auto	0.3267
L18	58	Shaft Reinforcement [#PL1.25x5]	113.25 - 113.48	Auto	0.3267

Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L18	76	CCI-SFP-045100	113.25 - 113.48	Auto	0.2519
L18	77	CCI-SFP-045100	113.25 - 113.48	Auto	0.2519
L18	78	CCI-SFP-045100	113.25 - 113.48	Auto	0.2519
L18	80	CCI-SFP-040125	113.25 - 113.48	Auto	0.1584
L18	81	CCI-SFP-040125	113.25 - 113.48	Auto	0.1584
L18	89	CCI-SFP-040125	113.25 - 113.48	Auto	0.1584
L18	90	CCI-SFP-040125	113.25 - 113.48	Auto	0.1584
L18	91	CCI-SFP-040125	113.25 - 113.48	Auto	0.1584
L18	92	CCI-SFP-040125	113.25 - 113.48	Auto	0.1584
L19	36	Shaft Reinforcement [#PL0.625x5]	112.00 - 113.25	Auto	0.3180
L19	37	Shaft Reinforcement [#PL0.625x5]	112.00 - 113.25	Auto	0.3180
L19	38	Shaft Reinforcement [#PL0.625x5]	112.00 - 113.25	Auto	0.3180
L19	56	Shaft Reinforcement [#PL1.25x5]	112.00 - 113.25	Auto	0.3180
L19	57	Shaft Reinforcement [#PL1.25x5]	112.00 - 113.25	Auto	0.3180
L19	58	Shaft Reinforcement [#PL1.25x5]	112.00 - 113.25	Auto	0.3180
L19	76	CCI-SFP-045100	112.00 - 113.25	Auto	0.2422
L19	77	CCI-SFP-045100	112.00 - 113.25	Auto	0.2422
L19	78	CCI-SFP-045100	112.00 - 113.25	Auto	0.2422
L19	80	CCI-SFP-040125	112.00 - 113.25	Auto	0.1475
L19	81	CCI-SFP-040125	112.00 - 113.25	Auto	0.1475
L19	89	CCI-SFP-040125	112.00 - 113.25	Auto	0.1475
L19	90	CCI-SFP-040125	112.00 - 113.25	Auto	0.1475
L19	91	CCI-SFP-040125	112.00 - 113.25	Auto	0.1475
L19	92	CCI-SFP-040125	112.00 - 113.25	Auto	0.1475
L20	36	Shaft Reinforcement [#PL0.625x5]	111.75 - 112.00	Auto	0.2433
L20	37	Shaft Reinforcement [#PL0.625x5]	111.75 - 112.00	Auto	0.2433
L20	38	Shaft Reinforcement [#PL0.625x5]	111.75 - 112.00	Auto	0.2433
L20	56	Shaft Reinforcement [#PL1.25x5]	111.75 - 112.00	Auto	0.2433
L20	57	Shaft Reinforcement [#PL1.25x5]	111.75 - 112.00	Auto	0.2433
L20	58	Shaft Reinforcement [#PL1.25x5]	111.75 - 112.00	Auto	0.2433
L20	76	CCI-SFP-045100	111.75 - 112.00	Auto	0.1592
L20	77	CCI-SFP-045100	111.75 - 112.00	Auto	0.1592
L20	78	CCI-SFP-045100	111.75 - 112.00	Auto	0.1592
L20	89	CCI-SFP-040125	111.75 - 112.00	Auto	0.0541

Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L20	90	CCI-SFP-040125	111.75 - 112.00	Auto	0.0541
L20	91	CCI-SFP-040125	111.75 - 112.00	Auto	0.0541
L20	92	CCI-SFP-040125	111.75 - 112.00	Auto	0.0541
L21	36	Shaft Reinforcement [#PL0.625x5]	106.75 - 111.75	Auto	0.2236
L21	37	Shaft Reinforcement [#PL0.625x5]	106.75 - 111.75	Auto	0.2236
L21	38	Shaft Reinforcement [#PL0.625x5]	106.75 - 111.75	Auto	0.2236
L21	56	Shaft Reinforcement [#PL1.25x5]	106.75 - 111.75	Auto	0.2236
L21	57	Shaft Reinforcement [#PL1.25x5]	106.75 - 111.75	Auto	0.2236
L21	58	Shaft Reinforcement [#PL1.25x5]	106.75 - 111.75	Auto	0.2236
L21	76	CCI-SFP-045100	106.75 - 111.75	Auto	0.1374
L21	77	CCI-SFP-045100	106.75 - 111.75	Auto	0.1374
L21	78	CCI-SFP-045100	106.75 - 111.75	Auto	0.1374
L21	89	CCI-SFP-040125	110.00 - 111.75	Auto	0.0413
L21	90	CCI-SFP-040125	110.00 - 111.75	Auto	0.0413
L21	91	CCI-SFP-040125	110.00 - 111.75	Auto	0.0413
L21	92	CCI-SFP-040125	110.00 - 111.75	Auto	0.0413
L22	36	Shaft Reinforcement [#PL0.625x5]	101.75 - 106.75	Auto	0.1902
L22	37	Shaft Reinforcement [#PL0.625x5]	101.75 - 106.75	Auto	0.1902
L22	38	Shaft Reinforcement [#PL0.625x5]	101.75 - 106.75	Auto	0.1902
L22	56	Shaft Reinforcement [#PL1.25x5]	101.75 - 106.75	Auto	0.1902
L22	57	Shaft Reinforcement [#PL1.25x5]	101.75 - 106.75	Auto	0.1902
L22	58	Shaft Reinforcement [#PL1.25x5]	101.75 - 106.75	Auto	0.1902
L22	76	CCI-SFP-045100	101.75 - 106.75	Auto	0.1003
L22	77	CCI-SFP-045100	101.75 - 106.75	Auto	0.1003
L22	78	CCI-SFP-045100	101.75 - 106.75	Auto	0.1003
L23	36	Shaft Reinforcement [#PL0.625x5]	98.42 - 101.75	Auto	0.1617
L23	37	Shaft Reinforcement [#PL0.625x5]	98.42 - 101.75	Auto	0.1617
L23	38	Shaft Reinforcement [#PL0.625x5]	98.42 - 101.75	Auto	0.1617
L23	56	Shaft Reinforcement [#PL1.25x5]	98.42 - 101.75	Auto	0.1617
L23	57	Shaft Reinforcement [#PL1.25x5]	98.42 - 101.75	Auto	0.1617
L23	58	Shaft Reinforcement [#PL1.25x5]	98.42 - 101.75	Auto	0.1617
L23	76	CCI-SFP-045100	98.42 - 101.75	Auto	0.0685
L23	77	CCI-SFP-045100	98.42 - 101.75	Auto	0.0685
L23	78	CCI-SFP-045100	98.42 - 101.75	Auto	0.0685

Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L23	94	CCI-SFP-050125	98.42 - 100.42	Auto	0.1578
L23	96	CCI-SFP-050125	98.42 - 100.58	Auto	0.1583
L23	97	CCI-SFP-050125	98.42 - 100.42	Auto	0.1578
L23	99	CCI-SFP-050125	98.42 - 100.58	Auto	0.1583
L24	36	Shaft Reinforcement [#PL0.625x5]	98.17 - 98.42	Auto	0.2701
L24	37	Shaft Reinforcement [#PL0.625x5]	98.17 - 98.42	Auto	0.2701
L24	38	Shaft Reinforcement [#PL0.625x5]	98.17 - 98.42	Auto	0.2701
L24	56	Shaft Reinforcement [#PL1.25x5]	98.17 - 98.42	Auto	0.2701
L24	57	Shaft Reinforcement [#PL1.25x5]	98.17 - 98.42	Auto	0.2701
L24	58	Shaft Reinforcement [#PL1.25x5]	98.17 - 98.42	Auto	0.2701
L24	76	CCI-SFP-045100	98.17 - 98.42	Auto	0.1890
L24	77	CCI-SFP-045100	98.17 - 98.42	Auto	0.1890
L24	78	CCI-SFP-045100	98.17 - 98.42	Auto	0.1890
L24	94	CCI-SFP-050125	98.17 - 98.42	Auto	0.2701
L24	96	CCI-SFP-050125	98.17 - 98.42	Auto	0.2701
L24	97	CCI-SFP-050125	98.17 - 98.42	Auto	0.2701
L24	99	CCI-SFP-050125	98.17 - 98.42	Auto	0.2701
L25	36	Shaft Reinforcement [#PL0.625x5]	93.17 - 98.17	Auto	0.2505
L25	37	Shaft Reinforcement [#PL0.625x5]	93.17 - 98.17	Auto	0.2505
L25	38	Shaft Reinforcement [#PL0.625x5]	93.17 - 98.17	Auto	0.2505
L25	56	Shaft Reinforcement [#PL1.25x5]	93.17 - 98.17	Auto	0.2505
L25	57	Shaft Reinforcement [#PL1.25x5]	93.17 - 98.17	Auto	0.2505
L25	58	Shaft Reinforcement [#PL1.25x5]	93.17 - 98.17	Auto	0.2505
L25	76	CCI-SFP-045100	93.17 - 98.17	Auto	0.1672
L25	77	CCI-SFP-045100	93.17 - 98.17	Auto	0.1672
L25	78	CCI-SFP-045100	93.17 - 98.17	Auto	0.1672
L25	94	CCI-SFP-050125	93.17 - 98.17	Auto	0.2505
L25	96	CCI-SFP-050125	93.17 - 98.17	Auto	0.2505
L25	97	CCI-SFP-050125	93.17 - 98.17	Auto	0.2505
L25	99	CCI-SFP-050125	93.17 - 98.17	Auto	0.2505
L26	34	Shaft Reinforcement [#PL0.625x5]	84.55 - 84.67	Auto	0.1819
L26	35	Shaft Reinforcement [#PL0.625x5]	84.55 - 84.67	Auto	0.1819
L26	36	Shaft Reinforcement [#PL0.625x5]	84.67 - 93.17	Auto	0.2069
L26	37	Shaft Reinforcement [#PL0.625x5]	84.67 - 93.17	Auto	0.2069

Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L26	38	Shaft Reinforcement [#PL0.625x5]	84.67 - 93.17	Auto	0.2069
L26	52	Shaft Reinforcement [#PL1.25x5]	84.55 - 87.92	Auto	0.1914
L26	53	Shaft Reinforcement [#PL1.25x5]	84.55 - 87.92	Auto	0.1914
L26	54	Shaft Reinforcement [#PL1.25x5]	84.55 - 87.92	Auto	0.1914
L26	55	Shaft Reinforcement [#PL1.25x5]	84.55 - 87.92	Auto	0.1914
L26	56	Shaft Reinforcement [#PL1.25x5]	85.83 - 93.17	Auto	0.2103
L26	57	Shaft Reinforcement [#PL1.25x5]	85.83 - 93.17	Auto	0.2103
L26	58	Shaft Reinforcement [#PL1.25x5]	85.83 - 93.17	Auto	0.2103
L26	76	CCI-SFP-045100	87.92 - 93.17	Auto	0.1293
L26	77	CCI-SFP-045100	87.92 - 93.17	Auto	0.1293
L26	78	CCI-SFP-045100	87.92 - 93.17	Auto	0.1293
L26	82	CCI-SFP-050125	84.55 - 90.50	Auto	0.1989
L26	83	CCI-SFP-050125	84.55 - 90.50	Auto	0.1989
L26	94	CCI-SFP-050125	84.55 - 93.17	Auto	0.2066
L26	96	CCI-SFP-050125	90.50 - 93.17	Auto	0.2238
L26	97	CCI-SFP-050125	84.55 - 93.17	Auto	0.2066
L26	99	CCI-SFP-050125	90.50 - 93.17	Auto	0.2238
L27	34	Shaft Reinforcement [#PL0.625x5]	83.55 - 84.55	Auto	0.1745
L27	35	Shaft Reinforcement [#PL0.625x5]	83.55 - 84.55	Auto	0.1745
L27	52	Shaft Reinforcement [#PL1.25x5]	83.55 - 84.55	Auto	0.1745
L27	53	Shaft Reinforcement [#PL1.25x5]	83.55 - 84.55	Auto	0.1745
L27	54	Shaft Reinforcement [#PL1.25x5]	83.55 - 84.55	Auto	0.1745
L27	55	Shaft Reinforcement [#PL1.25x5]	83.55 - 84.55	Auto	0.1745
L27	64	CCI-SFP-045100	83.55 - 84.33	Auto	0.0821
L27	65	CCI-SFP-045100	83.55 - 84.33	Auto	0.0821
L27	66	CCI-SFP-045100	83.55 - 84.33	Auto	0.0821
L27	67	CCI-SFP-045100	83.55 - 84.33	Auto	0.0821
L27	82	CCI-SFP-050125	83.55 - 84.55	Auto	0.1745
L27	83	CCI-SFP-050125	83.55 - 84.55	Auto	0.1745
L27	94	CCI-SFP-050125	83.55 - 84.55	Auto	0.1745
L27	97	CCI-SFP-050125	83.55 - 84.55	Auto	0.1745
L28	34	Shaft Reinforcement [#PL0.625x5]	82.83 - 83.55	Auto	0.1695
L28	35	Shaft Reinforcement [#PL0.625x5]	82.83 - 83.55	Auto	0.1695
L28	52	Shaft Reinforcement [#PL1.25x5]	82.83 - 83.55	Auto	0.1695

Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L28	53	Shaft Reinforcement [#PL1.25x5]	82.83 - 83.55	Auto	0.1695
L28	54	Shaft Reinforcement [#PL1.25x5]	82.83 - 83.55	Auto	0.1695
L28	55	Shaft Reinforcement [#PL1.25x5]	82.83 - 83.55	Auto	0.1695
L28	64	CCI-SFP-045100	82.83 - 83.55	Auto	0.0773
L28	65	CCI-SFP-045100	82.83 - 83.55	Auto	0.0773
L28	66	CCI-SFP-045100	82.83 - 83.55	Auto	0.0773
L28	67	CCI-SFP-045100	82.83 - 83.55	Auto	0.0773
L28	82	CCI-SFP-050125	82.83 - 83.55	Auto	0.1695
L28	83	CCI-SFP-050125	82.83 - 83.55	Auto	0.1695
L28	94	CCI-SFP-050125	82.83 - 83.55	Auto	0.1695
L28	97	CCI-SFP-050125	82.83 - 83.55	Auto	0.1695
L29	34	Shaft Reinforcement [#PL0.625x5]	82.58 - 82.83	Auto	0.2020
L29	35	Shaft Reinforcement [#PL0.625x5]	82.58 - 82.83	Auto	0.2020
L29	52	Shaft Reinforcement [#PL1.25x5]	82.58 - 82.83	Auto	0.2020
L29	53	Shaft Reinforcement [#PL1.25x5]	82.58 - 82.83	Auto	0.2020
L29	54	Shaft Reinforcement [#PL1.25x5]	82.58 - 82.83	Auto	0.2020
L29	55	Shaft Reinforcement [#PL1.25x5]	82.58 - 82.83	Auto	0.2020
L29	64	CCI-SFP-045100	82.58 - 82.83	Auto	0.1133
L29	65	CCI-SFP-045100	82.58 - 82.83	Auto	0.1133
L29	66	CCI-SFP-045100	82.58 - 82.83	Auto	0.1133
L29	67	CCI-SFP-045100	82.58 - 82.83	Auto	0.1133
L29	82	CCI-SFP-050125	82.58 - 82.83	Auto	0.2020
L29	83	CCI-SFP-050125	82.58 - 82.83	Auto	0.2020
L29	94	CCI-SFP-050125	82.58 - 82.83	Auto	0.2020
L29	97	CCI-SFP-050125	82.58 - 82.83	Auto	0.2020
L30	34	Shaft Reinforcement [#PL0.625x5]	77.58 - 82.58	Auto	0.1780
L30	35	Shaft Reinforcement [#PL0.625x5]	77.58 - 82.58	Auto	0.1780
L30	52	Shaft Reinforcement [#PL1.25x5]	77.58 - 82.58	Auto	0.1780
L30	53	Shaft Reinforcement [#PL1.25x5]	77.58 - 82.58	Auto	0.1780
L30	54	Shaft Reinforcement [#PL1.25x5]	77.58 - 82.58	Auto	0.1780
L30	55	Shaft Reinforcement [#PL1.25x5]	77.58 - 82.58	Auto	0.1780
L30	64	CCI-SFP-045100	77.58 - 82.58	Auto	0.0867
L30	65	CCI-SFP-045100	77.58 - 82.58	Auto	0.0867
L30	66	CCI-SFP-045100	77.58 - 82.58	Auto	0.0867

Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L30	67	CCI-SFP-045100	77.58 - 82.58	Auto	0.0867
L30	82	CCI-SFP-050125	80.50 - 82.58	Auto	0.1864
L30	83	CCI-SFP-050125	80.50 - 82.58	Auto	0.1864
L30	94	CCI-SFP-050125	77.58 - 82.58	Auto	0.1780
L30	95	CCI-SFP-050125	77.58 - 80.50	Auto	0.1720
L30	97	CCI-SFP-050125	77.58 - 82.58	Auto	0.1780
L30	98	CCI-SFP-050125	77.58 - 80.50	Auto	0.1720
L31	34	Shaft Reinforcement [#PL0.625x5]	73.42 - 77.58	Auto	0.1516
L31	35	Shaft Reinforcement [#PL0.625x5]	73.42 - 77.58	Auto	0.1516
L31	48	Shaft Reinforcement [#PL1.25x5]	73.42 - 75.42	Auto	0.1454
L31	49	Shaft Reinforcement [#PL1.25x5]	73.42 - 75.42	Auto	0.1454
L31	50	Shaft Reinforcement [#PL1.25x5]	73.42 - 75.42	Auto	0.1454
L31	51	Shaft Reinforcement [#PL1.25x5]	73.42 - 75.42	Auto	0.1454
L31	52	Shaft Reinforcement [#PL1.25x5]	73.42 - 77.58	Auto	0.1516
L31	53	Shaft Reinforcement [#PL1.25x5]	73.42 - 77.58	Auto	0.1516
L31	54	Shaft Reinforcement [#PL1.25x5]	73.42 - 77.58	Auto	0.1516
L31	55	Shaft Reinforcement [#PL1.25x5]	73.42 - 77.58	Auto	0.1516
L31	64	CCI-SFP-045100	73.42 - 77.58	Auto	0.0574
L31	65	CCI-SFP-045100	73.42 - 77.58	Auto	0.0574
L31	66	CCI-SFP-045100	73.42 - 77.58	Auto	0.0574
L31	67	CCI-SFP-045100	73.42 - 77.58	Auto	0.0574
L31	94	CCI-SFP-050125	73.42 - 77.58	Auto	0.1516
L31	95	CCI-SFP-050125	73.42 - 77.58	Auto	0.1516
L31	97	CCI-SFP-050125	73.42 - 77.58	Auto	0.1516
L31	98	CCI-SFP-050125	73.42 - 77.58	Auto	0.1516
L32	34	Shaft Reinforcement [#PL0.625x5]	73.17 - 73.42	Auto	0.2269
L32	35	Shaft Reinforcement [#PL0.625x5]	73.17 - 73.42	Auto	0.2269
L32	48	Shaft Reinforcement [#PL1.25x5]	73.17 - 73.42	Auto	0.2269
L32	49	Shaft Reinforcement [#PL1.25x5]	73.17 - 73.42	Auto	0.2269
L32	50	Shaft Reinforcement [#PL1.25x5]	73.17 - 73.42	Auto	0.2269
L32	51	Shaft Reinforcement [#PL1.25x5]	73.17 - 73.42	Auto	0.2269
L32	52	Shaft Reinforcement [#PL1.25x5]	73.17 - 73.42	Auto	0.2269
L32	53	Shaft Reinforcement [#PL1.25x5]	73.17 - 73.42	Auto	0.2269
L32	54	Shaft Reinforcement [#PL1.25x5]	73.17 - 73.42	Auto	0.2269

Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L32	55	Shaft Reinforcement [#PL1.25x5]	73.17 - 73.42	Auto	0.2269
L32	64	CCI-SFP-045100	73.17 - 73.42	Auto	0.1410
L32	65	CCI-SFP-045100	73.17 - 73.42	Auto	0.1410
L32	66	CCI-SFP-045100	73.17 - 73.42	Auto	0.1410
L32	67	CCI-SFP-045100	73.17 - 73.42	Auto	0.1410
L32	94	CCI-SFP-050125	73.17 - 73.42	Auto	0.2269
L32	95	CCI-SFP-050125	73.17 - 73.42	Auto	0.2269
L32	97	CCI-SFP-050125	73.17 - 73.42	Auto	0.2269
L32	98	CCI-SFP-050125	73.17 - 73.42	Auto	0.2269
L33	34	Shaft Reinforcement [#PL0.625x5]	72.42 - 73.17	Auto	0.2240
L33	35	Shaft Reinforcement [#PL0.625x5]	72.42 - 73.17	Auto	0.2240
L33	48	Shaft Reinforcement [#PL1.25x5]	72.42 - 73.17	Auto	0.2240
L33	49	Shaft Reinforcement [#PL1.25x5]	72.42 - 73.17	Auto	0.2240
L33	50	Shaft Reinforcement [#PL1.25x5]	72.42 - 73.17	Auto	0.2240
L33	51	Shaft Reinforcement [#PL1.25x5]	72.42 - 73.17	Auto	0.2240
L33	52	Shaft Reinforcement [#PL1.25x5]	72.92 - 73.17	Auto	0.2255
L33	53	Shaft Reinforcement [#PL1.25x5]	72.92 - 73.17	Auto	0.2255
L33	54	Shaft Reinforcement [#PL1.25x5]	72.92 - 73.17	Auto	0.2255
L33	55	Shaft Reinforcement [#PL1.25x5]	72.92 - 73.17	Auto	0.2255
L33	64	CCI-SFP-045100	72.42 - 73.17	Auto	0.1378
L33	65	CCI-SFP-045100	72.42 - 73.17	Auto	0.1378
L33	66	CCI-SFP-045100	72.42 - 73.17	Auto	0.1378
L33	67	CCI-SFP-045100	72.42 - 73.17	Auto	0.1378
L33	72	CCI-SFP-045100	72.42 - 72.75	Auto	0.1365
L33	73	CCI-SFP-045100	72.42 - 72.75	Auto	0.1365
L33	74	CCI-SFP-045100	72.42 - 72.75	Auto	0.1365
L33	75	CCI-SFP-045100	72.42 - 72.75	Auto	0.1365
L33	94	CCI-SFP-050125	72.42 - 73.17	Auto	0.2240
L33	95	CCI-SFP-050125	72.42 - 73.17	Auto	0.2240
L33	97	CCI-SFP-050125	72.42 - 73.17	Auto	0.2240
L33	98	CCI-SFP-050125	72.42 - 73.17	Auto	0.2240
L34	34	Shaft Reinforcement [#PL0.625x5]	72.17 - 72.42	Auto	0.1508
L34	35	Shaft Reinforcement [#PL0.625x5]	72.17 - 72.42	Auto	0.1508
L34	48	Shaft Reinforcement [#PL1.25x5]	72.17 - 72.42	Auto	0.1508

Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L34	49	Shaft Reinforcement [#PL1.25x5]	72.17 - 72.42	Auto	0.1508
L34	50	Shaft Reinforcement [#PL1.25x5]	72.17 - 72.42	Auto	0.1508
L34	51	Shaft Reinforcement [#PL1.25x5]	72.17 - 72.42	Auto	0.1508
L34	64	CCI-SFP-045100	72.17 - 72.42	Auto	0.0564
L34	65	CCI-SFP-045100	72.17 - 72.42	Auto	0.0564
L34	66	CCI-SFP-045100	72.17 - 72.42	Auto	0.0564
L34	67	CCI-SFP-045100	72.17 - 72.42	Auto	0.0564
L34	72	CCI-SFP-045100	72.17 - 72.42	Auto	0.0564
L34	73	CCI-SFP-045100	72.17 - 72.42	Auto	0.0564
L34	74	CCI-SFP-045100	72.17 - 72.42	Auto	0.0564
L34	75	CCI-SFP-045100	72.17 - 72.42	Auto	0.0564
L34	94	CCI-SFP-050125	72.17 - 72.42	Auto	0.1508
L34	95	CCI-SFP-050125	72.17 - 72.42	Auto	0.1508
L34	97	CCI-SFP-050125	72.17 - 72.42	Auto	0.1508
L34	98	CCI-SFP-050125	72.17 - 72.42	Auto	0.1508
L35	34	Shaft Reinforcement [#PL0.625x5]	68.08 - 72.17	Auto	0.1295
L35	35	Shaft Reinforcement [#PL0.625x5]	68.08 - 72.17	Auto	0.1295
L35	48	Shaft Reinforcement [#PL1.25x5]	68.08 - 72.17	Auto	0.1295
L35	49	Shaft Reinforcement [#PL1.25x5]	68.08 - 72.17	Auto	0.1295
L35	50	Shaft Reinforcement [#PL1.25x5]	68.08 - 72.17	Auto	0.1295
L35	51	Shaft Reinforcement [#PL1.25x5]	68.08 - 72.17	Auto	0.1295
L35	64	CCI-SFP-045100	68.08 - 72.17	Auto	0.0327
L35	65	CCI-SFP-045100	68.08 - 72.17	Auto	0.0327
L35	66	CCI-SFP-045100	68.08 - 72.17	Auto	0.0327
L35	67	CCI-SFP-045100	68.08 - 72.17	Auto	0.0327
L35	72	CCI-SFP-045100	68.08 - 72.17	Auto	0.0327
L35	73	CCI-SFP-045100	68.08 - 72.17	Auto	0.0327
L35	74	CCI-SFP-045100	68.08 - 72.17	Auto	0.0327
L35	75	CCI-SFP-045100	68.08 - 72.17	Auto	0.0327
L35	94	CCI-SFP-050125	70.42 - 72.17	Auto	0.1362
L35	95	CCI-SFP-050125	70.42 - 72.17	Auto	0.1362
L35	97	CCI-SFP-050125	70.42 - 72.17	Auto	0.1362
L35	98	CCI-SFP-050125	70.42 - 72.17	Auto	0.1362
L35	101	CCI-SFP-050125	68.08 - 70.08	Auto	0.1234

Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L35	102	CCI-SFP-050125	68.08 - 70.08	Auto	0.1234
L36	34	Shaft Reinforcement [#PL0.625x5]	67.83 - 68.08	Auto	0.0994
L36	35	Shaft Reinforcement [#PL0.625x5]	67.83 - 68.08	Auto	0.0994
L36	48	Shaft Reinforcement [#PL1.25x5]	67.83 - 68.08	Auto	0.0994
L36	49	Shaft Reinforcement [#PL1.25x5]	67.83 - 68.08	Auto	0.0994
L36	50	Shaft Reinforcement [#PL1.25x5]	67.83 - 68.08	Auto	0.0994
L36	51	Shaft Reinforcement [#PL1.25x5]	67.83 - 68.08	Auto	0.0994
L36	64	CCI-SFP-045100	67.83 - 68.08	Auto	0.0000
L36	65	CCI-SFP-045100	67.83 - 68.08	Auto	0.0000
L36	66	CCI-SFP-045100	67.83 - 68.08	Auto	0.0000
L36	67	CCI-SFP-045100	67.83 - 68.08	Auto	0.0000
L36	72	CCI-SFP-045100	67.83 - 68.08	Auto	0.0000
L36	73	CCI-SFP-045100	67.83 - 68.08	Auto	0.0000
L36	74	CCI-SFP-045100	67.83 - 68.08	Auto	0.0000
L36	75	CCI-SFP-045100	67.83 - 68.08	Auto	0.0000
L36	101	CCI-SFP-050125	67.83 - 68.08	Auto	0.0994
L36	102	CCI-SFP-050125	67.83 - 68.08	Auto	0.0994
L37	34	Shaft Reinforcement [#PL0.625x5]	65.58 - 67.83	Auto	0.0922
L37	35	Shaft Reinforcement [#PL0.625x5]	65.58 - 67.83	Auto	0.0922
L37	48	Shaft Reinforcement [#PL1.25x5]	65.58 - 67.83	Auto	0.0922
L37	49	Shaft Reinforcement [#PL1.25x5]	65.58 - 67.83	Auto	0.0922
L37	50	Shaft Reinforcement [#PL1.25x5]	65.58 - 67.83	Auto	0.0922
L37	51	Shaft Reinforcement [#PL1.25x5]	65.58 - 67.83	Auto	0.0922
L37	64	CCI-SFP-045100	65.58 - 67.83	Auto	0.0000
L37	65	CCI-SFP-045100	65.58 - 67.83	Auto	0.0000
L37	66	CCI-SFP-045100	65.58 - 67.83	Auto	0.0000
L37	67	CCI-SFP-045100	65.58 - 67.83	Auto	0.0000
L37	72	CCI-SFP-045100	65.58 - 67.83	Auto	0.0000
L37	73	CCI-SFP-045100	65.58 - 67.83	Auto	0.0000
L37	74	CCI-SFP-045100	65.58 - 67.83	Auto	0.0000
L37	75	CCI-SFP-045100	65.58 - 67.83	Auto	0.0000
L37	101	CCI-SFP-050125	65.58 - 67.83	Auto	0.0922
L37	102	CCI-SFP-050125	65.58 - 67.83	Auto	0.0922
L37	103	CCI-SFP-050125	65.58 - 67.58	Auto	0.0914

Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L37	104	CCI-SFP-050125	65.58 - 67.58	Auto	0.0914
L38	34	Shaft Reinforcement [#PL0.625x5]	65.33 - 65.58	Auto	0.1730
L38	35	Shaft Reinforcement [#PL0.625x5]	65.33 - 65.58	Auto	0.1730
L38	48	Shaft Reinforcement [#PL1.25x5]	65.33 - 65.58	Auto	0.1730
L38	49	Shaft Reinforcement [#PL1.25x5]	65.33 - 65.58	Auto	0.1730
L38	50	Shaft Reinforcement [#PL1.25x5]	65.33 - 65.58	Auto	0.1730
L38	51	Shaft Reinforcement [#PL1.25x5]	65.33 - 65.58	Auto	0.1730
L38	64	CCI-SFP-045100	65.33 - 65.58	Auto	0.0811
L38	65	CCI-SFP-045100	65.33 - 65.58	Auto	0.0811
L38	66	CCI-SFP-045100	65.33 - 65.58	Auto	0.0811
L38	67	CCI-SFP-045100	65.33 - 65.58	Auto	0.0811
L38	72	CCI-SFP-045100	65.33 - 65.58	Auto	0.0811
L38	73	CCI-SFP-045100	65.33 - 65.58	Auto	0.0811
L38	74	CCI-SFP-045100	65.33 - 65.58	Auto	0.0811
L38	75	CCI-SFP-045100	65.33 - 65.58	Auto	0.0811
L38	101	CCI-SFP-050125	65.33 - 65.58	Auto	0.1730
L38	102	CCI-SFP-050125	65.33 - 65.58	Auto	0.1730
L38	103	CCI-SFP-050125	65.33 - 65.58	Auto	0.1730
L38	104	CCI-SFP-050125	65.33 - 65.58	Auto	0.1730
L39	34	Shaft Reinforcement [#PL0.625x5]	64.25 - 65.33	Auto	0.1603
L39	35	Shaft Reinforcement [#PL0.625x5]	64.25 - 65.33	Auto	0.1603
L39	48	Shaft Reinforcement [#PL1.25x5]	64.25 - 65.33	Auto	0.1603
L39	49	Shaft Reinforcement [#PL1.25x5]	64.25 - 65.33	Auto	0.1603
L39	50	Shaft Reinforcement [#PL1.25x5]	64.25 - 65.33	Auto	0.1603
L39	51	Shaft Reinforcement [#PL1.25x5]	64.25 - 65.33	Auto	0.1603
L39	64	CCI-SFP-045100	64.25 - 65.33	Auto	0.0670
L39	65	CCI-SFP-045100	64.25 - 65.33	Auto	0.0670
L39	66	CCI-SFP-045100	64.25 - 65.33	Auto	0.0670
L39	67	CCI-SFP-045100	64.25 - 65.33	Auto	0.0670
L39	72	CCI-SFP-045100	64.25 - 65.33	Auto	0.0670
L39	73	CCI-SFP-045100	64.25 - 65.33	Auto	0.0670
L39	74	CCI-SFP-045100	64.25 - 65.33	Auto	0.0670
L39	75	CCI-SFP-045100	64.25 - 65.33	Auto	0.0670
L39	101	CCI-SFP-050125	64.25 - 65.33	Auto	0.1603

Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L39	102	CCI-SFP-050125	64.25 - 65.33	Auto	0.1603
L39	103	CCI-SFP-050125	64.25 - 65.33	Auto	0.1603
L39	104	CCI-SFP-050125	64.25 - 65.33	Auto	0.1603
L40	34	Shaft Reinforcement [#PL0.625x5]	64.00 - 64.25	Auto	0.1213
L40	35	Shaft Reinforcement [#PL0.625x5]	64.00 - 64.25	Auto	0.1213
L40	48	Shaft Reinforcement [#PL1.25x5]	64.00 - 64.25	Auto	0.1213
L40	49	Shaft Reinforcement [#PL1.25x5]	64.00 - 64.25	Auto	0.1213
L40	50	Shaft Reinforcement [#PL1.25x5]	64.00 - 64.25	Auto	0.1213
L40	51	Shaft Reinforcement [#PL1.25x5]	64.00 - 64.25	Auto	0.1213
L40	64	CCI-SFP-045100	64.00 - 64.25	Auto	0.0237
L40	65	CCI-SFP-045100	64.00 - 64.25	Auto	0.0237
L40	66	CCI-SFP-045100	64.00 - 64.25	Auto	0.0237
L40	67	CCI-SFP-045100	64.00 - 64.25	Auto	0.0237
L40	72	CCI-SFP-045100	64.00 - 64.25	Auto	0.0237
L40	73	CCI-SFP-045100	64.00 - 64.25	Auto	0.0237
L40	74	CCI-SFP-045100	64.00 - 64.25	Auto	0.0237
L40	75	CCI-SFP-045100	64.00 - 64.25	Auto	0.0237
L40	101	CCI-SFP-050125	64.00 - 64.25	Auto	0.1213
L40	102	CCI-SFP-050125	64.00 - 64.25	Auto	0.1213
L40	103	CCI-SFP-050125	64.00 - 64.25	Auto	0.1213
L40	104	CCI-SFP-050125	64.00 - 64.25	Auto	0.1213
L41	34	Shaft Reinforcement [#PL0.625x5]	59.00 - 64.00	Auto	0.0974
L41	35	Shaft Reinforcement [#PL0.625x5]	59.00 - 64.00	Auto	0.0974
L41	48	Shaft Reinforcement [#PL1.25x5]	59.00 - 64.00	Auto	0.0974
L41	49	Shaft Reinforcement [#PL1.25x5]	59.00 - 64.00	Auto	0.0974
L41	50	Shaft Reinforcement [#PL1.25x5]	59.00 - 64.00	Auto	0.0974
L41	51	Shaft Reinforcement [#PL1.25x5]	59.00 - 64.00	Auto	0.0974
L41	64	CCI-SFP-045100	59.00 - 64.00	Auto	0.0027
L41	65	CCI-SFP-045100	59.00 - 64.00	Auto	0.0027
L41	66	CCI-SFP-045100	59.00 - 64.00	Auto	0.0027
L41	67	CCI-SFP-045100	59.00 - 64.00	Auto	0.0027
L41	72	CCI-SFP-045100	62.75 - 64.00	Auto	0.0091
L41	73	CCI-SFP-045100	62.75 - 64.00	Auto	0.0091
L41	74	CCI-SFP-045100	62.75 - 64.00	Auto	0.0091

Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L41	75	CCI-SFP-045100	62.75 - 64.00	Auto	0.0091
L41	101	CCI-SFP-050125	59.00 - 64.00	Auto	0.0974
L41	102	CCI-SFP-050125	59.00 - 64.00	Auto	0.0974
L41	103	CCI-SFP-050125	59.00 - 64.00	Auto	0.0974
L41	104	CCI-SFP-050125	59.00 - 64.00	Auto	0.0974
L42	34	Shaft Reinforcement [#PL0.625x5]	54.00 - 59.00	Auto	0.0598
L42	35	Shaft Reinforcement [#PL0.625x5]	54.00 - 59.00	Auto	0.0598
L42	48	Shaft Reinforcement [#PL1.25x5]	54.00 - 59.00	Auto	0.0598
L42	49	Shaft Reinforcement [#PL1.25x5]	54.00 - 59.00	Auto	0.0598
L42	50	Shaft Reinforcement [#PL1.25x5]	54.00 - 59.00	Auto	0.0598
L42	51	Shaft Reinforcement [#PL1.25x5]	54.00 - 59.00	Auto	0.0598
L42	64	CCI-SFP-045100	54.00 - 59.00	Auto	0.0000
L42	65	CCI-SFP-045100	54.00 - 59.00	Auto	0.0000
L42	66	CCI-SFP-045100	54.00 - 59.00	Auto	0.0000
L42	67	CCI-SFP-045100	54.00 - 59.00	Auto	0.0000
L42	101	CCI-SFP-050125	54.00 - 59.00	Auto	0.0598
L42	102	CCI-SFP-050125	54.00 - 59.00	Auto	0.0598
L42	103	CCI-SFP-050125	54.00 - 59.00	Auto	0.0598
L42	104	CCI-SFP-050125	54.00 - 59.00	Auto	0.0598
L43	34	Shaft Reinforcement [#PL0.625x5]	43.66 - 54.00	Auto	0.0112
L43	35	Shaft Reinforcement [#PL0.625x5]	43.66 - 54.00	Auto	0.0112
L43	44	Shaft Reinforcement [#PL1.25x6]	43.66 - 47.92	Auto	0.1577
L43	45	Shaft Reinforcement [#PL1.25x6]	43.66 - 47.92	Auto	0.1577
L43	46	Shaft Reinforcement [#PL1.25x6]	43.66 - 47.92	Auto	0.1577
L43	47	Shaft Reinforcement [#PL1.25x6]	43.66 - 47.92	Auto	0.1577
L43	48	Shaft Reinforcement [#PL1.25x5]	45.38 - 54.00	Auto	0.0135
L43	49	Shaft Reinforcement [#PL1.25x5]	45.38 - 54.00	Auto	0.0135
L43	50	Shaft Reinforcement [#PL1.25x5]	45.38 - 54.00	Auto	0.0135
L43	51	Shaft Reinforcement [#PL1.25x5]	45.38 - 54.00	Auto	0.0135
L43	60	CCI-SFP-060100	43.66 - 43.75	Auto	0.1477
L43	61	CCI-SFP-060100	43.66 - 43.75	Auto	0.1477
L43	62	CCI-SFP-060100	43.66 - 43.75	Auto	0.1477
L43	63	CCI-SFP-060100	43.66 - 43.75	Auto	0.1477
L43	64	CCI-SFP-045100	43.75 - 54.00	Auto	0.0000

Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L43	65	CCI-SFP-045100	43.75 - 54.00	Auto	0.0000
L43	66	CCI-SFP-045100	43.75 - 54.00	Auto	0.0000
L43	67	CCI-SFP-045100	43.75 - 54.00	Auto	0.0000
L43	101	CCI-SFP-050125	43.66 - 54.00	Auto	0.0112
L43	102	CCI-SFP-050125	43.66 - 54.00	Auto	0.0112
L43	103	CCI-SFP-050125	43.66 - 54.00	Auto	0.0112
L43	104	CCI-SFP-050125	43.66 - 54.00	Auto	0.0112
L44	34	Shaft Reinforcement [#PL0.625x5]	42.66 - 43.66	Auto	0.0000
L44	35	Shaft Reinforcement [#PL0.625x5]	42.66 - 43.66	Auto	0.0000
L44	44	Shaft Reinforcement [#PL1.25x6]	42.66 - 43.66	Auto	0.1596
L44	45	Shaft Reinforcement [#PL1.25x6]	42.66 - 43.66	Auto	0.1596
L44	46	Shaft Reinforcement [#PL1.25x6]	42.66 - 43.66	Auto	0.1596
L44	47	Shaft Reinforcement [#PL1.25x6]	42.66 - 43.66	Auto	0.1596
L44	60	CCI-SFP-060100	42.66 - 43.66	Auto	0.1596
L44	61	CCI-SFP-060100	42.66 - 43.66	Auto	0.1596
L44	62	CCI-SFP-060100	42.66 - 43.66	Auto	0.1596
L44	63	CCI-SFP-060100	42.66 - 43.66	Auto	0.1596
L44	101	CCI-SFP-050125	42.66 - 43.66	Auto	0.0000
L44	102	CCI-SFP-050125	42.66 - 43.66	Auto	0.0000
L44	103	CCI-SFP-050125	42.66 - 43.66	Auto	0.0000
L44	104	CCI-SFP-050125	42.66 - 43.66	Auto	0.0000
L45	34	Shaft Reinforcement [#PL0.625x5]	41.75 - 42.66	Auto	0.0000
L45	35	Shaft Reinforcement [#PL0.625x5]	41.75 - 42.66	Auto	0.0000
L45	44	Shaft Reinforcement [#PL1.25x6]	41.75 - 42.66	Auto	0.1550
L45	45	Shaft Reinforcement [#PL1.25x6]	41.75 - 42.66	Auto	0.1550
L45	46	Shaft Reinforcement [#PL1.25x6]	41.75 - 42.66	Auto	0.1550
L45	47	Shaft Reinforcement [#PL1.25x6]	41.75 - 42.66	Auto	0.1550
L45	60	CCI-SFP-060100	41.75 - 42.66	Auto	0.1550
L45	61	CCI-SFP-060100	41.75 - 42.66	Auto	0.1550
L45	62	CCI-SFP-060100	41.75 - 42.66	Auto	0.1550
L45	63	CCI-SFP-060100	41.75 - 42.66	Auto	0.1550
L45	101	CCI-SFP-050125	41.75 - 42.66	Auto	0.0000
L45	102	CCI-SFP-050125	41.75 - 42.66	Auto	0.0000
L45	103	CCI-SFP-050125	41.75 - 42.66	Auto	0.0000

Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L45	104	CCI-SFP-050125	41.75 - 42.66	Auto	0.0000
L46	34	Shaft Reinforcement [#PL0.625x5]	41.50 - 41.75	Auto	0.0003
L46	35	Shaft Reinforcement [#PL0.625x5]	41.50 - 41.75	Auto	0.0003
L46	44	Shaft Reinforcement [#PL1.25x6]	41.50 - 41.75	Auto	0.1669
L46	45	Shaft Reinforcement [#PL1.25x6]	41.50 - 41.75	Auto	0.1669
L46	46	Shaft Reinforcement [#PL1.25x6]	41.50 - 41.75	Auto	0.1669
L46	47	Shaft Reinforcement [#PL1.25x6]	41.50 - 41.75	Auto	0.1669
L46	60	CCI-SFP-060100	41.50 - 41.75	Auto	0.1669
L46	61	CCI-SFP-060100	41.50 - 41.75	Auto	0.1669
L46	62	CCI-SFP-060100	41.50 - 41.75	Auto	0.1669
L46	63	CCI-SFP-060100	41.50 - 41.75	Auto	0.1669
L46	101	CCI-SFP-050125	41.50 - 41.75	Auto	0.0003
L46	102	CCI-SFP-050125	41.50 - 41.75	Auto	0.0003
L46	103	CCI-SFP-050125	41.50 - 41.75	Auto	0.0003
L46	104	CCI-SFP-050125	41.50 - 41.75	Auto	0.0003
L47	34	Shaft Reinforcement [#PL0.625x5]	36.50 - 41.50	Auto	0.0000
L47	35	Shaft Reinforcement [#PL0.625x5]	36.50 - 41.50	Auto	0.0000
L47	44	Shaft Reinforcement [#PL1.25x6]	36.50 - 41.50	Auto	0.1505
L47	45	Shaft Reinforcement [#PL1.25x6]	36.50 - 41.50	Auto	0.1505
L47	46	Shaft Reinforcement [#PL1.25x6]	36.50 - 41.50	Auto	0.1505
L47	47	Shaft Reinforcement [#PL1.25x6]	36.50 - 41.50	Auto	0.1505
L47	60	CCI-SFP-060100	36.50 - 41.50	Auto	0.1505
L47	61	CCI-SFP-060100	36.50 - 41.50	Auto	0.1505
L47	62	CCI-SFP-060100	36.50 - 41.50	Auto	0.1505
L47	63	CCI-SFP-060100	36.50 - 41.50	Auto	0.1505
L47	101	CCI-SFP-050125	36.50 - 41.50	Auto	0.0000
L47	102	CCI-SFP-050125	36.50 - 41.50	Auto	0.0000
L47	103	CCI-SFP-050125	36.50 - 41.50	Auto	0.0000
L47	104	CCI-SFP-050125	36.50 - 41.50	Auto	0.0000
L48	34	Shaft Reinforcement [#PL0.625x5]	32.75 - 36.50	Auto	0.0000
L48	35	Shaft Reinforcement [#PL0.625x5]	32.75 - 36.50	Auto	0.0000
L48	44	Shaft Reinforcement [#PL1.25x6]	32.75 - 36.50	Auto	0.1258
L48	45	Shaft Reinforcement [#PL1.25x6]	32.75 - 36.50	Auto	0.1258
L48	46	Shaft Reinforcement [#PL1.25x6]	32.75 - 36.50	Auto	0.1258

Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L48	47	Shaft Reinforcement [#PL1.25x6]	32.75 - 36.50	Auto	0.1258
L48	60	CCI-SFP-060100	32.75 - 36.50	Auto	0.1258
L48	61	CCI-SFP-060100	32.75 - 36.50	Auto	0.1258
L48	62	CCI-SFP-060100	32.75 - 36.50	Auto	0.1258
L48	63	CCI-SFP-060100	32.75 - 36.50	Auto	0.1258
L48	86	CCI-SFP-065125	32.75 - 35.50	Auto	0.1908
L48	87	CCI-SFP-065125	32.75 - 35.50	Auto	0.1908
L48	101	CCI-SFP-050125	35.00 - 36.50	Auto	0.0000
L48	102	CCI-SFP-050125	35.00 - 36.50	Auto	0.0000
L48	103	CCI-SFP-050125	35.50 - 36.50	Auto	0.0000
L48	104	CCI-SFP-050125	35.50 - 36.50	Auto	0.0000
L48	106	CCI-SFP-065125	32.75 - 35.00	Auto	0.1897
L48	107	CCI-SFP-065125	32.75 - 35.00	Auto	0.1897
L49	34	Shaft Reinforcement [#PL0.625x5]	32.50 - 32.75	Auto	0.0000
L49	35	Shaft Reinforcement [#PL0.625x5]	32.50 - 32.75	Auto	0.0000
L49	44	Shaft Reinforcement [#PL1.25x6]	32.50 - 32.75	Auto	0.1308
L49	45	Shaft Reinforcement [#PL1.25x6]	32.50 - 32.75	Auto	0.1308
L49	46	Shaft Reinforcement [#PL1.25x6]	32.50 - 32.75	Auto	0.1308
L49	47	Shaft Reinforcement [#PL1.25x6]	32.50 - 32.75	Auto	0.1308
L49	60	CCI-SFP-060100	32.50 - 32.75	Auto	0.1308
L49	61	CCI-SFP-060100	32.50 - 32.75	Auto	0.1308
L49	62	CCI-SFP-060100	32.50 - 32.75	Auto	0.1308
L49	63	CCI-SFP-060100	32.50 - 32.75	Auto	0.1308
L49	86	CCI-SFP-065125	32.50 - 32.75	Auto	0.1976
L49	87	CCI-SFP-065125	32.50 - 32.75	Auto	0.1976
L49	106	CCI-SFP-065125	32.50 - 32.75	Auto	0.1976
L49	107	CCI-SFP-065125	32.50 - 32.75	Auto	0.1976
L50	34	Shaft Reinforcement [#PL0.625x5]	32.25 - 32.50	Auto	0.0000
L50	35	Shaft Reinforcement [#PL0.625x5]	32.25 - 32.50	Auto	0.0000
L50	44	Shaft Reinforcement [#PL1.25x6]	32.25 - 32.50	Auto	0.1296
L50	45	Shaft Reinforcement [#PL1.25x6]	32.25 - 32.50	Auto	0.1296
L50	46	Shaft Reinforcement [#PL1.25x6]	32.25 - 32.50	Auto	0.1296
L50	47	Shaft Reinforcement [#PL1.25x6]	32.25 - 32.50	Auto	0.1296
L50	60	CCI-SFP-060100	32.25 - 32.50	Auto	0.1296

Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L50	61	CCI-SFP-060100	32.25 - 32.50	Auto	0.1296
L50	62	CCI-SFP-060100	32.25 - 32.50	Auto	0.1296
L50	63	CCI-SFP-060100	32.25 - 32.50	Auto	0.1296
L50	86	CCI-SFP-065125	32.25 - 32.50	Auto	0.1965
L50	87	CCI-SFP-065125	32.25 - 32.50	Auto	0.1965
L50	106	CCI-SFP-065125	32.25 - 32.50	Auto	0.1965
L50	107	CCI-SFP-065125	32.25 - 32.50	Auto	0.1965
L51	34	Shaft Reinforcement [#PL0.625x5]	32.00 - 32.25	Auto	0.0000
L51	35	Shaft Reinforcement [#PL0.625x5]	32.00 - 32.25	Auto	0.0000
L51	44	Shaft Reinforcement [#PL1.25x6]	32.00 - 32.25	Auto	0.1357
L51	45	Shaft Reinforcement [#PL1.25x6]	32.00 - 32.25	Auto	0.1357
L51	46	Shaft Reinforcement [#PL1.25x6]	32.00 - 32.25	Auto	0.1357
L51	47	Shaft Reinforcement [#PL1.25x6]	32.00 - 32.25	Auto	0.1357
L51	60	CCI-SFP-060100	32.00 - 32.25	Auto	0.1357
L51	61	CCI-SFP-060100	32.00 - 32.25	Auto	0.1357
L51	62	CCI-SFP-060100	32.00 - 32.25	Auto	0.1357
L51	63	CCI-SFP-060100	32.00 - 32.25	Auto	0.1357
L51	86	CCI-SFP-065125	32.00 - 32.25	Auto	0.2022
L51	87	CCI-SFP-065125	32.00 - 32.25	Auto	0.2022
L51	106	CCI-SFP-065125	32.00 - 32.25	Auto	0.2022
L51	107	CCI-SFP-065125	32.00 - 32.25	Auto	0.2022
L52	34	Shaft Reinforcement [#PL0.625x5]	30.33 - 32.00	Auto	0.0000
L52	35	Shaft Reinforcement [#PL0.625x5]	30.33 - 32.00	Auto	0.0000
L52	40	Shaft Reinforcement [#PL1.25x6]	30.33 - 30.75	Auto	0.1207
L52	41	Shaft Reinforcement [#PL1.25x6]	30.33 - 30.75	Auto	0.1207
L52	42	Shaft Reinforcement [#PL1.25x6]	30.33 - 30.75	Auto	0.1207
L52	43	Shaft Reinforcement [#PL1.25x6]	30.33 - 30.75	Auto	0.1207
L52	44	Shaft Reinforcement [#PL1.25x6]	30.33 - 32.00	Auto	0.1237
L52	45	Shaft Reinforcement [#PL1.25x6]	30.33 - 32.00	Auto	0.1237
L52	46	Shaft Reinforcement [#PL1.25x6]	30.33 - 32.00	Auto	0.1237
L52	47	Shaft Reinforcement [#PL1.25x6]	30.33 - 32.00	Auto	0.1237
L52	60	CCI-SFP-060100	30.33 - 32.00	Auto	0.1237
L52	61	CCI-SFP-060100	30.33 - 32.00	Auto	0.1237
L52	62	CCI-SFP-060100	30.33 - 32.00	Auto	0.1237

Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L52	63	CCI-SFP-060100	30.33 - 32.00	Auto	0.1237
L52	86	CCI-SFP-065125	30.33 - 32.00	Auto	0.1911
L52	87	CCI-SFP-065125	30.33 - 32.00	Auto	0.1911
L52	106	CCI-SFP-065125	30.33 - 32.00	Auto	0.1911
L52	107	CCI-SFP-065125	30.33 - 32.00	Auto	0.1911
L53	34	Shaft Reinforcement [#PL0.625x5]	30.08 - 30.33	Auto	0.0000
L53	35	Shaft Reinforcement [#PL0.625x5]	30.08 - 30.33	Auto	0.0000
L53	40	Shaft Reinforcement [#PL1.25x6]	30.08 - 30.33	Auto	0.0898
L53	41	Shaft Reinforcement [#PL1.25x6]	30.08 - 30.33	Auto	0.0898
L53	42	Shaft Reinforcement [#PL1.25x6]	30.08 - 30.33	Auto	0.0898
L53	43	Shaft Reinforcement [#PL1.25x6]	30.08 - 30.33	Auto	0.0898
L53	44	Shaft Reinforcement [#PL1.25x6]	30.08 - 30.33	Auto	0.0898
L53	45	Shaft Reinforcement [#PL1.25x6]	30.08 - 30.33	Auto	0.0898
L53	46	Shaft Reinforcement [#PL1.25x6]	30.08 - 30.33	Auto	0.0898
L53	47	Shaft Reinforcement [#PL1.25x6]	30.08 - 30.33	Auto	0.0898
L53	60	CCI-SFP-060100	30.08 - 30.33	Auto	0.0898
L53	61	CCI-SFP-060100	30.08 - 30.33	Auto	0.0898
L53	62	CCI-SFP-060100	30.08 - 30.33	Auto	0.0898
L53	63	CCI-SFP-060100	30.08 - 30.33	Auto	0.0898
L53	86	CCI-SFP-065125	30.08 - 30.33	Auto	0.1598
L53	87	CCI-SFP-065125	30.08 - 30.33	Auto	0.1598
L53	106	CCI-SFP-065125	30.08 - 30.33	Auto	0.1598
L53	107	CCI-SFP-065125	30.08 - 30.33	Auto	0.1598
L54	34	Shaft Reinforcement [#PL0.625x5]	28.25 - 30.08	Auto	0.0000
L54	35	Shaft Reinforcement [#PL0.625x5]	28.25 - 30.08	Auto	0.0000
L54	40	Shaft Reinforcement [#PL1.25x6]	28.25 - 30.08	Auto	0.0848
L54	41	Shaft Reinforcement [#PL1.25x6]	28.25 - 30.08	Auto	0.0848
L54	42	Shaft Reinforcement [#PL1.25x6]	28.25 - 30.08	Auto	0.0848
L54	43	Shaft Reinforcement [#PL1.25x6]	28.25 - 30.08	Auto	0.0848
L54	44	Shaft Reinforcement [#PL1.25x6]	28.25 - 30.08	Auto	0.0848
L54	45	Shaft Reinforcement [#PL1.25x6]	28.25 - 30.08	Auto	0.0848
L54	46	Shaft Reinforcement [#PL1.25x6]	28.25 - 30.08	Auto	0.0848
L54	47	Shaft Reinforcement [#PL1.25x6]	28.25 - 30.08	Auto	0.0848
L54	60	CCI-SFP-060100	28.25 - 30.08	Auto	0.0848

Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L54	61	CCI-SFP-060100	28.25 - 30.08	Auto	0.0848
L54	62	CCI-SFP-060100	28.25 - 30.08	Auto	0.0848
L54	63	CCI-SFP-060100	28.25 - 30.08	Auto	0.0848
L54	86	CCI-SFP-065125	28.25 - 30.08	Auto	0.1552
L54	87	CCI-SFP-065125	28.25 - 30.08	Auto	0.1552
L54	106	CCI-SFP-065125	28.25 - 30.08	Auto	0.1552
L54	107	CCI-SFP-065125	28.25 - 30.08	Auto	0.1552
L55	34	Shaft Reinforcement [#PL0.625x5]	28.00 - 28.25	Auto	0.0000
L55	35	Shaft Reinforcement [#PL0.625x5]	28.00 - 28.25	Auto	0.0000
L55	40	Shaft Reinforcement [#PL1.25x6]	28.00 - 28.25	Auto	0.0944
L55	41	Shaft Reinforcement [#PL1.25x6]	28.00 - 28.25	Auto	0.0944
L55	42	Shaft Reinforcement [#PL1.25x6]	28.00 - 28.25	Auto	0.0944
L55	43	Shaft Reinforcement [#PL1.25x6]	28.00 - 28.25	Auto	0.0944
L55	44	Shaft Reinforcement [#PL1.25x6]	28.00 - 28.25	Auto	0.0944
L55	45	Shaft Reinforcement [#PL1.25x6]	28.00 - 28.25	Auto	0.0944
L55	46	Shaft Reinforcement [#PL1.25x6]	28.00 - 28.25	Auto	0.0944
L55	47	Shaft Reinforcement [#PL1.25x6]	28.00 - 28.25	Auto	0.0944
L55	60	CCI-SFP-060100	28.00 - 28.25	Auto	0.0944
L55	61	CCI-SFP-060100	28.00 - 28.25	Auto	0.0944
L55	62	CCI-SFP-060100	28.00 - 28.25	Auto	0.0944
L55	63	CCI-SFP-060100	28.00 - 28.25	Auto	0.0944
L55	86	CCI-SFP-065125	28.00 - 28.25	Auto	0.1641
L55	87	CCI-SFP-065125	28.00 - 28.25	Auto	0.1641
L55	106	CCI-SFP-065125	28.00 - 28.25	Auto	0.1641
L55	107	CCI-SFP-065125	28.00 - 28.25	Auto	0.1641
L56	34	Shaft Reinforcement [#PL0.625x5]	23.00 - 28.00	Auto	0.0000
L56	35	Shaft Reinforcement [#PL0.625x5]	23.00 - 28.00	Auto	0.0000
L56	40	Shaft Reinforcement [#PL1.25x6]	23.00 - 28.00	Auto	0.0744
L56	41	Shaft Reinforcement [#PL1.25x6]	23.00 - 28.00	Auto	0.0744
L56	42	Shaft Reinforcement [#PL1.25x6]	23.00 - 28.00	Auto	0.0744
L56	43	Shaft Reinforcement [#PL1.25x6]	23.00 - 28.00	Auto	0.0744
L56	44	Shaft Reinforcement [#PL1.25x6]	27.83 - 28.00	Auto	0.0860
L56	45	Shaft Reinforcement [#PL1.25x6]	27.83 - 28.00	Auto	0.0860
L56	46	Shaft Reinforcement [#PL1.25x6]	27.83 - 28.00	Auto	0.0860

Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L56	47	Shaft Reinforcement [#PL1.25x6]	27.83 - 28.00	Auto	0.0860
L56	60	CCI-SFP-060100	23.00 - 28.00	Auto	0.0744
L56	61	CCI-SFP-060100	23.00 - 28.00	Auto	0.0744
L56	62	CCI-SFP-060100	23.00 - 28.00	Auto	0.0744
L56	63	CCI-SFP-060100	23.00 - 28.00	Auto	0.0744
L56	68	CCI-SFP-045100	23.00 - 27.75	Auto	0.0000
L56	69	CCI-SFP-045100	23.00 - 27.75	Auto	0.0000
L56	70	CCI-SFP-045100	23.00 - 27.75	Auto	0.0000
L56	71	CCI-SFP-045100	23.00 - 27.75	Auto	0.0000
L56	86	CCI-SFP-065125	25.50 - 28.00	Auto	0.1512
L56	87	CCI-SFP-065125	25.50 - 28.00	Auto	0.1512
L56	106	CCI-SFP-065125	23.00 - 28.00	Auto	0.1456
L56	107	CCI-SFP-065125	23.00 - 28.00	Auto	0.1456
L57	34	Shaft Reinforcement [#PL0.625x5]	19.25 - 23.00	Auto	0.0000
L57	35	Shaft Reinforcement [#PL0.625x5]	19.25 - 23.00	Auto	0.0000
L57	40	Shaft Reinforcement [#PL1.25x6]	19.25 - 23.00	Auto	0.0533
L57	41	Shaft Reinforcement [#PL1.25x6]	19.25 - 23.00	Auto	0.0533
L57	42	Shaft Reinforcement [#PL1.25x6]	19.25 - 23.00	Auto	0.0533
L57	43	Shaft Reinforcement [#PL1.25x6]	19.25 - 23.00	Auto	0.0533
L57	60	CCI-SFP-060100	19.25 - 23.00	Auto	0.0533
L57	61	CCI-SFP-060100	19.25 - 23.00	Auto	0.0533
L57	62	CCI-SFP-060100	19.25 - 23.00	Auto	0.0533
L57	63	CCI-SFP-060100	19.25 - 23.00	Auto	0.0533
L57	68	CCI-SFP-045100	19.25 - 23.00	Auto	0.0000
L57	69	CCI-SFP-045100	19.25 - 23.00	Auto	0.0000
L57	70	CCI-SFP-045100	19.25 - 23.00	Auto	0.0000
L57	71	CCI-SFP-045100	19.25 - 23.00	Auto	0.0000
L57	106	CCI-SFP-065125	19.25 - 23.00	Auto	0.1261
L57	107	CCI-SFP-065125	19.25 - 23.00	Auto	0.1261
L58	34	Shaft Reinforcement [#PL0.625x5]	19.00 - 19.25	Auto	0.0000
L58	35	Shaft Reinforcement [#PL0.625x5]	19.00 - 19.25	Auto	0.0000
L58	40	Shaft Reinforcement [#PL1.25x6]	19.00 - 19.25	Auto	0.0106
L58	41	Shaft Reinforcement [#PL1.25x6]	19.00 - 19.25	Auto	0.0106
L58	42	Shaft Reinforcement [#PL1.25x6]	19.00 - 19.25	Auto	0.0106

Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L58	43	Shaft Reinforcement [#PL1.25x6]	19.00 - 19.25	Auto	0.0106
L58	60	CCI-SFP-060100	19.00 - 19.25	Auto	0.0106
L58	61	CCI-SFP-060100	19.00 - 19.25	Auto	0.0106
L58	62	CCI-SFP-060100	19.00 - 19.25	Auto	0.0106
L58	63	CCI-SFP-060100	19.00 - 19.25	Auto	0.0106
L58	68	CCI-SFP-045100	19.00 - 19.25	Auto	0.0000
L58	69	CCI-SFP-045100	19.00 - 19.25	Auto	0.0000
L58	70	CCI-SFP-045100	19.00 - 19.25	Auto	0.0000
L58	71	CCI-SFP-045100	19.00 - 19.25	Auto	0.0000
L58	106	CCI-SFP-065125	19.00 - 19.25	Auto	0.0867
L58	107	CCI-SFP-065125	19.00 - 19.25	Auto	0.0867
L59	34	Shaft Reinforcement [#PL0.625x5]	14.50 - 19.00	Auto	0.0000
L59	35	Shaft Reinforcement [#PL0.625x5]	14.50 - 19.00	Auto	0.0000
L59	40	Shaft Reinforcement [#PL1.25x6]	14.50 - 19.00	Auto	0.0009
L59	41	Shaft Reinforcement [#PL1.25x6]	14.50 - 19.00	Auto	0.0009
L59	42	Shaft Reinforcement [#PL1.25x6]	14.50 - 19.00	Auto	0.0009
L59	43	Shaft Reinforcement [#PL1.25x6]	14.50 - 19.00	Auto	0.0009
L59	60	CCI-SFP-060100	14.50 - 19.00	Auto	0.0009
L59	61	CCI-SFP-060100	14.50 - 19.00	Auto	0.0009
L59	62	CCI-SFP-060100	14.50 - 19.00	Auto	0.0009
L59	63	CCI-SFP-060100	14.50 - 19.00	Auto	0.0009
L59	68	CCI-SFP-045100	17.75 - 19.00	Auto	0.0000
L59	69	CCI-SFP-045100	17.75 - 19.00	Auto	0.0000
L59	70	CCI-SFP-045100	17.75 - 19.00	Auto	0.0000
L59	71	CCI-SFP-045100	17.75 - 19.00	Auto	0.0000
L59	106	CCI-SFP-065125	14.50 - 19.00	Auto	0.0728
L59	107	CCI-SFP-065125	14.50 - 19.00	Auto	0.0728
L60	34	Shaft Reinforcement [#PL0.625x5]	14.25 - 14.50	Auto	0.0000
L60	35	Shaft Reinforcement [#PL0.625x5]	14.25 - 14.50	Auto	0.0000
L60	40	Shaft Reinforcement [#PL1.25x6]	14.25 - 14.50	Auto	0.1527
L60	41	Shaft Reinforcement [#PL1.25x6]	14.25 - 14.50	Auto	0.1527
L60	42	Shaft Reinforcement [#PL1.25x6]	14.25 - 14.50	Auto	0.1527
L60	43	Shaft Reinforcement [#PL1.25x6]	14.25 - 14.50	Auto	0.1527
L60	60	CCI-SFP-060100	14.25 - 14.50	Auto	0.1527

Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L60	61	CCI-SFP-060100	14.25 - 14.50	Auto	0.1527
L60	62	CCI-SFP-060100	14.25 - 14.50	Auto	0.1527
L60	63	CCI-SFP-060100	14.25 - 14.50	Auto	0.1527
L60	106	CCI-SFP-065125	14.25 - 14.50	Auto	0.2179
L60	107	CCI-SFP-065125	14.25 - 14.50	Auto	0.2179
L61	34	Shaft Reinforcement [#PL0.625x5]	12.75 - 14.25	Auto	0.0000
L61	35	Shaft Reinforcement [#PL0.625x5]	12.75 - 14.25	Auto	0.0000
L61	40	Shaft Reinforcement [#PL1.25x6]	12.75 - 14.25	Auto	0.1118
L61	41	Shaft Reinforcement [#PL1.25x6]	12.75 - 14.25	Auto	0.1118
L61	42	Shaft Reinforcement [#PL1.25x6]	12.75 - 14.25	Auto	0.1118
L61	43	Shaft Reinforcement [#PL1.25x6]	12.75 - 14.25	Auto	0.1118
L61	60	CCI-SFP-060100	12.75 - 14.25	Auto	0.1118
L61	61	CCI-SFP-060100	12.75 - 14.25	Auto	0.1118
L61	62	CCI-SFP-060100	12.75 - 14.25	Auto	0.1118
L61	63	CCI-SFP-060100	12.75 - 14.25	Auto	0.1118
L61	106	CCI-SFP-065125	12.75 - 14.25	Auto	0.1801
L61	107	CCI-SFP-065125	12.75 - 14.25	Auto	0.1801
L62	34	Shaft Reinforcement [#PL0.625x5]	12.50 - 12.75	Auto	0.0000
L62	35	Shaft Reinforcement [#PL0.625x5]	12.50 - 12.75	Auto	0.0000
L62	40	Shaft Reinforcement [#PL1.25x6]	12.50 - 12.75	Auto	0.0269
L62	41	Shaft Reinforcement [#PL1.25x6]	12.50 - 12.75	Auto	0.0269
L62	42	Shaft Reinforcement [#PL1.25x6]	12.50 - 12.75	Auto	0.0269
L62	43	Shaft Reinforcement [#PL1.25x6]	12.50 - 12.75	Auto	0.0269
L62	60	CCI-SFP-060100	12.50 - 12.75	Auto	0.0269
L62	61	CCI-SFP-060100	12.50 - 12.75	Auto	0.0269
L62	62	CCI-SFP-060100	12.50 - 12.75	Auto	0.0269
L62	63	CCI-SFP-060100	12.50 - 12.75	Auto	0.0269
L62	106	CCI-SFP-065125	12.50 - 12.75	Auto	0.1018
L62	107	CCI-SFP-065125	12.50 - 12.75	Auto	0.1018
L63	34	Shaft Reinforcement [#PL0.625x5]	7.50 - 12.50	Auto	0.0000
L63	35	Shaft Reinforcement [#PL0.625x5]	7.50 - 12.50	Auto	0.0000
L63	40	Shaft Reinforcement [#PL1.25x6]	7.50 - 12.50	Auto	0.0075
L63	41	Shaft Reinforcement [#PL1.25x6]	7.50 - 12.50	Auto	0.0075
L63	42	Shaft Reinforcement [#PL1.25x6]	7.50 - 12.50	Auto	0.0075

Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L63	43	Shaft Reinforcement [#PL1.25x6]	7.50 - 12.50	Auto	0.0075
L63	60	CCI-SFP-060100	7.50 - 12.50	Auto	0.0075
L63	61	CCI-SFP-060100	7.50 - 12.50	Auto	0.0075
L63	62	CCI-SFP-060100	7.50 - 12.50	Auto	0.0075
L63	63	CCI-SFP-060100	7.50 - 12.50	Auto	0.0075
L63	106	CCI-SFP-065125	10.00 - 12.50	Auto	0.0889
L63	107	CCI-SFP-065125	10.00 - 12.50	Auto	0.0889
L64	34	Shaft Reinforcement [#PL0.625x5]	3.50 - 7.50	Auto	0.0000
L64	35	Shaft Reinforcement [#PL0.625x5]	3.50 - 7.50	Auto	0.0000
L64	40	Shaft Reinforcement [#PL1.25x6]	3.50 - 7.50	Auto	0.0000
L64	41	Shaft Reinforcement [#PL1.25x6]	3.50 - 7.50	Auto	0.0000
L64	42	Shaft Reinforcement [#PL1.25x6]	3.50 - 7.50	Auto	0.0000
L64	43	Shaft Reinforcement [#PL1.25x6]	3.50 - 7.50	Auto	0.0000
L64	60	CCI-SFP-060100	3.50 - 7.50	Auto	0.0000
L64	61	CCI-SFP-060100	3.50 - 7.50	Auto	0.0000
L64	62	CCI-SFP-060100	3.50 - 7.50	Auto	0.0000
L64	63	CCI-SFP-060100	3.50 - 7.50	Auto	0.0000
L65	34	Shaft Reinforcement [#PL0.625x5]	3.25 - 3.50	Auto	0.0000
L65	35	Shaft Reinforcement [#PL0.625x5]	3.25 - 3.50	Auto	0.0000
L65	40	Shaft Reinforcement [#PL1.25x6]	3.25 - 3.50	Auto	0.1216
L65	41	Shaft Reinforcement [#PL1.25x6]	3.25 - 3.50	Auto	0.1216
L65	42	Shaft Reinforcement [#PL1.25x6]	3.25 - 3.50	Auto	0.1216
L65	43	Shaft Reinforcement [#PL1.25x6]	3.25 - 3.50	Auto	0.1216
L65	60	CCI-SFP-060100	3.25 - 3.50	Auto	0.1216
L65	61	CCI-SFP-060100	3.25 - 3.50	Auto	0.1216
L65	62	CCI-SFP-060100	3.25 - 3.50	Auto	0.1216
L65	63	CCI-SFP-060100	3.25 - 3.50	Auto	0.1216
L66	34	Shaft Reinforcement [#PL0.625x5]	3.00 - 3.25	Auto	0.0000
L66	35	Shaft Reinforcement [#PL0.625x5]	3.00 - 3.25	Auto	0.0000
L66	40	Shaft Reinforcement [#PL1.25x6]	3.00 - 3.25	Auto	0.0251
L66	41	Shaft Reinforcement [#PL1.25x6]	3.00 - 3.25	Auto	0.0251
L66	42	Shaft Reinforcement [#PL1.25x6]	3.00 - 3.25	Auto	0.0251
L66	43	Shaft Reinforcement [#PL1.25x6]	3.00 - 3.25	Auto	0.0251
L66	60	CCI-SFP-060100	3.00 - 3.25	Auto	0.0251
L66	61	CCI-SFP-060100	3.00 - 3.25	Auto	0.0251
L66	62	CCI-SFP-060100	3.00 - 3.25	Auto	0.0251
L66	63	CCI-SFP-060100	3.00 - 3.25	Auto	0.0251
L67	34	Shaft Reinforcement [#PL0.625x5]	0.00 - 3.00	Auto	0.0000
L67	35	Shaft Reinforcement [#PL0.625x5]	0.00 - 3.00	Auto	0.0000
L67	40	Shaft Reinforcement [#PL1.25x6]	0.00 - 3.00	Auto	0.0172
L67	41	Shaft Reinforcement [#PL1.25x6]	0.00 - 3.00	Auto	0.0172
L67	42	Shaft Reinforcement [#PL1.25x6]	0.00 - 3.00	Auto	0.0172

Tower Section	Attachment Record No.	Description	Attachment Segment Elev.	Ratio Calculation Method	Effective Width Ratio
L67	43	Shaft Reinforcement [#PL1.25x6]	0.00 - 3.00	Auto	0.0172
L67	60	CCI-SFP-060100	0.00 - 3.00	Auto	0.0172
L67	61	CCI-SFP-060100	0.00 - 3.00	Auto	0.0172
L67	62	CCI-SFP-060100	0.00 - 3.00	Auto	0.0172
L67	63	CCI-SFP-060100	0.00 - 3.00	Auto	0.0172

Discrete Tower Loads

Description	Face or Leg	Offset Type	Offsets:		Azimuth Adjustment	Placement	C _{AA}		Weight	
			Horz Lateral	Vert			Front	Side		
			ft	ft	°	ft	ft ²	ft ²	K	
Site Pro 1 RMQP-xxx + PRK-1245 + HRK12 12.5' Platform with Handrails and Kickers	A	None			0.0000	168.00	No Ice	23.14	21.40	1.95
							1/2"	28.17	26.44	2.34
							Ice	33.23	31.60	2.85
							1" Ice			
6'x2" Mount Pipe	A	From Leg	1.00	0.00	0.0000	168.00	No Ice	1.43	1.43	0.02
							1/2"	1.92	1.92	0.03
							Ice	2.29	2.29	0.05
							1" Ice			
6'x2" Mount Pipe	B	From Leg	1.00	0.00	0.0000	168.00	No Ice	1.43	1.43	0.02
							1/2"	1.92	1.92	0.03
							Ice	2.29	2.29	0.05
							1" Ice			
6'x2" Mount Pipe	C	From Leg	1.00	0.00	0.0000	168.00	No Ice	1.43	1.43	0.02
							1/2"	1.92	1.92	0.03
							Ice	2.29	2.29	0.05
							1" Ice			
DMP65R-BU8D w/ Mount Pipe	C	From Leg	4.00	0.00	0.0000	168.00	No Ice	15.89	7.89	0.14
							1/2"	16.81	8.74	0.25
							Ice	17.76	9.60	0.38
							1" Ice			
DMP65R-BU6D w/ Mount Pipe	A	From Leg	4.00	0.00	0.0000	168.00	No Ice	11.96	5.97	0.11
							1/2"	12.70	6.63	0.20
							Ice	13.46	7.30	0.30
							1" Ice			
AIR 6419 B77G w/ Mount Pipe	A	From Leg	4.00	0.00	0.0000	168.00	No Ice	4.32	2.49	0.08
							1/2"	4.74	2.84	0.11
							Ice	5.17	3.21	0.15
							1" Ice			
AIR 6419 B77G w/ Mount Pipe	B	From Leg	4.00	0.00	0.0000	168.00	No Ice	4.32	2.49	0.08
							1/2"	4.74	2.84	0.11
							Ice	5.17	3.21	0.15
							1" Ice			
AIR 6419 B77G w/ Mount Pipe	C	From Leg	4.00	0.00	0.0000	168.00	No Ice	4.32	2.49	0.08
							1/2"	4.74	2.84	0.11
							Ice	5.17	3.21	0.15
							1" Ice			
AIR 6449 B77D w/ Mount Pipe	A	From Leg	4.00	0.00	0.0000	168.00	No Ice	3.58	2.31	0.09
							1/2"	3.92	2.60	0.13
							Ice	4.27	2.91	0.17
							1" Ice			
AIR 6449 B77D w/ Mount Pipe	B	From Leg	4.00	0.00	0.0000	168.00	No Ice	3.58	2.31	0.09
							1/2"	3.92	2.60	0.13
							Ice	4.27	2.91	0.17
							1" Ice			
AIR 6449 B77D w/ Mount Pipe	C	From Leg	4.00	0.00	0.0000	168.00	No Ice	3.58	2.31	0.09
							1/2"	3.92	2.60	0.13
							Ice	4.27	2.91	0.17
							1" Ice			

Description	Face or Leg	Offset Type	Offsets:		Azimuth Adjustment	Placement	C _A A _A Front	C _A A _A Side	Weight
			Horz	Lateral					
			ft	ft	°	ft	ft ²	ft ²	K
QD6616-7 w/ Mount Pipe	A	From Leg	4.00	0.0000	168.00	No Ice	12.56	6.93	0.16
			0.00			1/2"	13.30	7.60	0.25
			2.00			Ice	14.06	8.28	0.36
QD8616-7 w/ Mount Pipe	B	From Leg	4.00	0.0000	168.00	No Ice	16.93	9.31	0.18
			0.00			1/2"	17.87	10.17	0.31
			2.00			Ice	18.83	11.05	0.45
QD8616-7 w/ Mount Pipe	C	From Leg	4.00	0.0000	168.00	No Ice	16.93	9.31	0.18
			0.00			1/2"	17.87	10.17	0.31
			2.00			Ice	18.83	11.05	0.45
MS-MBA-3.2-H4-L4 w/ Mount Pipe	B	From Leg	4.00	0.0000	168.00	No Ice	14.90	16.87	0.16
			0.00			1/2"	15.53	18.12	0.31
			2.00			Ice	16.11	19.09	0.47
RRUS 32 B2	A	From Leg	4.00	0.0000	168.00	No Ice	2.73	1.67	0.05
			0.00			1/2"	2.95	1.86	0.07
			1.00			Ice	3.18	2.05	0.10
RRUS 32 B2	B	From Leg	4.00	0.0000	168.00	No Ice	2.73	1.67	0.05
			0.00			1/2"	2.95	1.86	0.07
			1.00			Ice	3.18	2.05	0.10
RRUS 32 B2	C	From Leg	4.00	0.0000	168.00	No Ice	2.73	1.67	0.05
			0.00			1/2"	2.95	1.86	0.07
			1.00			Ice	3.18	2.05	0.10
RRUS 32 B30	A	From Leg	4.00	0.0000	168.00	No Ice	2.69	1.57	0.06
			0.00			1/2"	2.91	1.76	0.08
			1.00			Ice	3.14	1.95	0.10
RRUS 32 B30	B	From Leg	4.00	0.0000	168.00	No Ice	2.69	1.57	0.06
			0.00			1/2"	2.91	1.76	0.08
			1.00			Ice	3.14	1.95	0.10
RRUS 32 B30	C	From Leg	4.00	0.0000	168.00	No Ice	2.69	1.57	0.06
			0.00			1/2"	2.91	1.76	0.08
			1.00			Ice	3.14	1.95	0.10
RRUS 4415 B25	A	From Leg	4.00	0.0000	168.00	No Ice	1.64	0.68	0.04
			0.00			1/2"	1.80	0.79	0.06
			1.00			Ice	1.97	0.91	0.07
RRUS 4415 B25	B	From Leg	4.00	0.0000	168.00	No Ice	1.64	0.68	0.04
			0.00			1/2"	1.80	0.79	0.06
			1.00			Ice	1.97	0.91	0.07
RRUS 4415 B25	C	From Leg	4.00	0.0000	168.00	No Ice	1.64	0.68	0.04
			0.00			1/2"	1.80	0.79	0.06
			1.00			Ice	1.97	0.91	0.07
RRUS 4449 B5/B12	A	From Leg	4.00	0.0000	168.00	No Ice	1.97	1.41	0.07
			0.00			1/2"	2.14	1.56	0.09
			1.00			Ice	2.33	1.73	0.11
RRUS 4449 B5/B12	B	From Leg	4.00	0.0000	168.00	No Ice	1.97	1.41	0.07
			0.00			1/2"	2.14	1.56	0.09
			1.00			Ice	2.33	1.73	0.11
RRUS 4449 B5/B12	C	From Leg	4.00	0.0000	168.00	No Ice	1.97	1.41	0.07
			0.00			1/2"	2.14	1.56	0.09
			1.00			Ice	2.33	1.73	0.11
RRUS E2 B29	A	From Leg	4.00	0.0000	168.00	No Ice	3.15	1.29	0.05

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment t °	Placement ft	C _{AA} Front ft ²	C _{AA} Side ft ²	Weight K	
			0.00			1/2"	3.36	1.44	0.08
			1.00			Ice	3.59	1.60	0.10
RRUS E2 B29	B	From Leg	4.00	0.0000	168.00	1" Ice	3.15	1.29	0.05
			0.00			No Ice	3.36	1.44	0.08
			1.00			1/2"	3.36	1.44	0.08
						Ice	3.59	1.60	0.10
						1" Ice			
RRUS E2 B29	C	From Leg	4.00	0.0000	168.00	No Ice	3.15	1.29	0.05
			0.00			1/2"	3.36	1.44	0.08
			1.00			Ice	3.59	1.60	0.10
						1" Ice			
DC6-48-60-18-8F	A	From Leg	1.00	0.0000	168.00	No Ice	0.92	0.92	0.02
			0.00			1/2"	1.46	1.46	0.04
			1.00			Ice	1.64	1.64	0.06
						1" Ice			
DC6-48-60-18-8F	B	From Leg	1.00	0.0000	168.00	No Ice	0.92	0.92	0.02
			0.00			1/2"	1.46	1.46	0.04
			1.00			Ice	1.64	1.64	0.06
						1" Ice			
DC6-48-60-18-8F	C	From Leg	1.00	0.0000	168.00	No Ice	0.92	0.92	0.02
			0.00			1/2"	1.46	1.46	0.04
			1.00			Ice	1.64	1.64	0.06
						1" Ice			
RRUS 4426 B66	B	From Leg	4.00	0.0000	168.00	No Ice	1.64	0.73	0.10
			0.00			1/2"	1.80	0.84	0.11
			2.00			Ice	1.97	0.97	0.13
						1" Ice			
RRUS 4426 B66	C	From Leg	4.00	0.0000	168.00	No Ice	1.64	0.73	0.10
			0.00			1/2"	1.80	0.84	0.11
			2.00			Ice	1.97	0.97	0.13
						1" Ice			
RRUS 8843 B2/B66A	A	From Leg	4.00	0.0000	168.00	No Ice	1.64	1.35	0.07
			0.00			1/2"	1.80	1.50	0.09
			2.00			Ice	1.97	1.65	0.11
						1" Ice			
RRUS 8843 B2/B66A	B	From Leg	4.00	0.0000	168.00	No Ice	1.64	1.35	0.07
			0.00			1/2"	1.80	1.50	0.09
			2.00			Ice	1.97	1.65	0.11
						1" Ice			
RRUS 8843 B2/B66A	C	From Leg	4.00	0.0000	168.00	No Ice	1.64	1.35	0.07
			0.00			1/2"	1.80	1.50	0.09
			2.00			Ice	1.97	1.65	0.11
						1" Ice			
(2) DBC0051F3V51-2	A	From Leg	4.00	0.0000	168.00	No Ice	0.41	0.29	0.01
			0.00			1/2"	0.50	0.37	0.02
			2.00			Ice	0.59	0.45	0.02
						1" Ice			
DBC0051F3V51-2	B	From Leg	4.00	0.0000	168.00	No Ice	0.41	0.29	0.01
			0.00			1/2"	0.50	0.37	0.02
			2.00			Ice	0.59	0.45	0.02
						1" Ice			
(2) DBC0051F3V51-2	C	From Leg	4.00	0.0000	168.00	No Ice	0.41	0.29	0.01
			0.00			1/2"	0.50	0.37	0.02
			2.00			Ice	0.59	0.45	0.02
						1" Ice			
DC6-48-60-18-8F	A	From Leg	4.00	0.0000	168.00	No Ice	0.92	0.92	0.02
			0.00			1/2"	1.46	1.46	0.04
			1.00			Ice	1.64	1.64	0.06
						1" Ice			
DC9-48-60-24-8C-EV	B	From Leg	4.00	0.0000	168.00	No Ice	2.74	4.78	0.03
			0.00			1/2"	2.96	5.06	0.06
			2.00			Ice	3.20	5.35	0.10
						1" Ice			

Site Pro 1 VFA12-HD 12'	A	From Leg	2.00	0.0000	158.00	No Ice	13.20	9.20	0.66

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment °	Placement ft	C _A A _A Front ft ²	C _A A _A Side ft ²	Weight K	
Heavy Duty V-Frame			0.00			1/2"	19.50	14.60	0.80
			0.00			Ice	25.80	19.50	1.01
						1" Ice			
Site Pro 1 VFA12-HD 12' Heavy Duty V-Frame	B	From Leg	2.00	0.0000	158.00	No Ice	13.20	9.20	0.66
			0.00			1/2"	19.50	14.60	0.80
			0.00			Ice	25.80	19.50	1.01
						1" Ice			
Site Pro 1 VFA12-HD 12' Heavy Duty V-Frame	C	From Leg	2.00	0.0000	158.00	No Ice	13.20	9.20	0.66
			0.00			1/2"	19.50	14.60	0.80
			0.00			Ice	25.80	19.50	1.01
						1" Ice			
Sector Frame Attachment Assembly [#MSFAA]	C	None		0.0000	158.00	No Ice	6.67	6.67	0.79
						1/2"	7.70	7.70	1.06
						Ice	8.74	8.74	1.34
						1" Ice			
(4) 8' Mount Pipe [#P2.0 Sch 40]	A	From Leg	4.00	0.0000	158.00	No Ice	1.90	1.90	0.03
			0.00			1/2"	2.73	2.73	0.04
			0.00			Ice	3.40	3.40	0.06
						1" Ice			
(4) 8' Mount Pipe [#P2.0 Sch 40]	B	From Leg	4.00	0.0000	158.00	No Ice	1.90	1.90	0.03
			0.00			1/2"	2.73	2.73	0.04
			0.00			Ice	3.40	3.40	0.06
						1" Ice			
(4) 8' Mount Pipe [#P2.0 Sch 40]	C	From Leg	4.00	0.0000	158.00	No Ice	1.90	1.90	0.03
			0.00			1/2"	2.73	2.73	0.04
			0.00			Ice	3.40	3.40	0.06
						1" Ice			
AIR6449 B41_T-MOBILE	A	From Leg	4.00	0.0000	158.00	No Ice	5.27	2.03	0.11
			0.00			1/2"	5.70	2.36	0.15
			0.00			Ice	6.14	2.70	0.20
						1" Ice			
AIR6449 B41_T-MOBILE	B	From Leg	4.00	0.0000	158.00	No Ice	5.27	2.03	0.11
			0.00			1/2"	5.70	2.36	0.15
			0.00			Ice	6.14	2.70	0.20
						1" Ice			
AIR6449 B41_T-MOBILE	C	From Leg	4.00	0.0000	158.00	No Ice	5.27	2.03	0.11
			0.00			1/2"	5.70	2.36	0.15
			0.00			Ice	6.14	2.70	0.20
						1" Ice			
APXVAALL24_43-U-NA20_TMO	A	From Leg	4.00	0.0000	158.00	No Ice	14.67	5.32	0.15
			0.00			1/2"	15.43	5.99	0.26
			0.00			Ice	16.21	6.68	0.38
						1" Ice			
APXVAALL24_43-U-NA20_TMO	B	From Leg	4.00	0.0000	158.00	No Ice	14.67	5.32	0.15
			0.00			1/2"	15.43	5.99	0.26
			0.00			Ice	16.21	6.68	0.38
						1" Ice			
APXVAALL24_43-U-NA20_TMO	C	From Leg	4.00	0.0000	158.00	No Ice	14.67	5.32	0.15
			0.00			1/2"	15.43	5.99	0.26
			0.00			Ice	16.21	6.68	0.38
						1" Ice			
RADIO 4460 B2/B25 B66_TMO	A	From Leg	4.00	0.0000	158.00	No Ice	2.14	1.69	0.11
			0.00			1/2"	2.32	1.85	0.13
			0.00			Ice	2.51	2.02	0.16
						1" Ice			
RADIO 4460 B2/B25 B66_TMO	B	From Leg	4.00	0.0000	158.00	No Ice	2.14	1.69	0.11
			0.00			1/2"	2.32	1.85	0.13
			0.00			Ice	2.51	2.02	0.16
						1" Ice			
RADIO 4460 B2/B25 B66_TMO	C	From Leg	4.00	0.0000	158.00	No Ice	2.14	1.69	0.11
			0.00			1/2"	2.32	1.85	0.13
			0.00			Ice	2.51	2.02	0.16
						1" Ice			
Radio 4480_TMOV2	A	From Leg	4.00	0.0000	158.00	No Ice	2.88	1.40	0.08
			0.00			1/2"	3.09	1.56	0.10

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment t °	Placement ft	C _{AA} Front ft ²	C _{AA} Side ft ²	Weight K
			0.00			Ice 3.31	1.73	0.13
Radio 4480_TMOV2	B	From Leg	4.00	0.0000	158.00	1" Ice 2.88	1.40	0.08
			0.00			No Ice 3.09	1.56	0.10
			0.00			1/2" Ice 3.31	1.73	0.13
Radio 4480_TMOV2	C	From Leg	4.00	0.0000	158.00	1" Ice 2.88	1.40	0.08
			0.00			No Ice 3.09	1.56	0.10
			0.00			1/2" Ice 3.31	1.73	0.13
						1" Ice		

Commscope MC-PK8-DSH	A	None		0.0000	148.00	No Ice 34.24	34.24	1.75
						1/2" 62.95	62.95	2.10
						Ice 91.66	91.66	2.45
						1" Ice		
(2) 8'x2" Mount Pipe	A	From Leg	4.00	0.0000	148.00	No Ice 1.90	1.90	0.03
			0.00			1/2" 2.73	2.73	0.04
			0.00			Ice 3.40	3.40	0.06
						1" Ice		
(2) 8'x2" Mount Pipe	B	From Leg	4.00	0.0000	148.00	No Ice 1.90	1.90	0.03
			0.00			1/2" 2.73	2.73	0.04
			0.00			Ice 3.40	3.40	0.06
						1" Ice		
(2) 8'x2" Mount Pipe	C	From Leg	4.00	0.0000	148.00	No Ice 1.90	1.90	0.03
			0.00			1/2" 2.73	2.73	0.04
			0.00			Ice 3.40	3.40	0.06
						1" Ice		
MX08FRO665-21 w/ Mount Pipe	A	From Leg	4.00	0.0000	148.00	No Ice 8.01	4.23	0.11
			0.00			1/2" 8.52	4.69	0.19
			0.00			Ice 9.04	5.16	0.29
						1" Ice		
MX08FRO665-21 w/ Mount Pipe	B	From Leg	4.00	0.0000	148.00	No Ice 8.01	4.23	0.11
			0.00			1/2" 8.52	4.69	0.19
			0.00			Ice 9.04	5.16	0.29
						1" Ice		
MX08FRO665-21 w/ Mount Pipe	C	From Leg	4.00	0.0000	148.00	No Ice 8.01	4.23	0.11
			0.00			1/2" 8.52	4.69	0.19
			0.00			Ice 9.04	5.16	0.29
						1" Ice		
TA08025-B604	A	From Leg	4.00	0.0000	148.00	No Ice 1.96	0.98	0.06
			0.00			1/2" 2.14	1.11	0.08
			0.00			Ice 2.32	1.25	0.10
						1" Ice		
TA08025-B604	B	From Leg	4.00	0.0000	148.00	No Ice 1.96	0.98	0.06
			0.00			1/2" 2.14	1.11	0.08
			0.00			Ice 2.32	1.25	0.10
						1" Ice		
TA08025-B604	C	From Leg	4.00	0.0000	148.00	No Ice 1.96	0.98	0.06
			0.00			1/2" 2.14	1.11	0.08
			0.00			Ice 2.32	1.25	0.10
						1" Ice		
TA08025-B605	A	From Leg	4.00	0.0000	148.00	No Ice 1.96	1.13	0.08
			0.00			1/2" 2.14	1.27	0.09
			0.00			Ice 2.32	1.41	0.11
						1" Ice		
TA08025-B605	B	From Leg	4.00	0.0000	148.00	No Ice 1.96	1.13	0.08
			0.00			1/2" 2.14	1.27	0.09
			0.00			Ice 2.32	1.41	0.11
						1" Ice		
TA08025-B605	C	From Leg	4.00	0.0000	148.00	No Ice 1.96	1.13	0.08
			0.00			1/2" 2.14	1.27	0.09
			0.00			Ice 2.32	1.41	0.11
						1" Ice		
RDIDC-9181-PF-48	A	From Leg	4.00	0.0000	148.00	No Ice 2.01	1.17	0.02
			0.00			1/2" 2.19	1.31	0.04

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment t °	Placement ft	C _{AA} Front ft ²	C _{AA} Side ft ²	Weight K	
			0.00			Ice 1" Ice	2.37 1.46	0.06	

Platform Mount [LP 303-1]	A	None		0.0000	138.00	No Ice 1/2" Ice 1" Ice	14.69 18.01 21.34	14.69 18.01 21.34	1.25 1.57 1.94
BSAMNT-SBS-1-2 Side By Side Bracket	A	From Leg	4.00 0.00 0.00	0.0000	138.00	No Ice 1/2" Ice 1" Ice	0.00 0.00 0.00	0.00 0.00 0.00	0.07 0.09 0.11
BSAMNT-SBS-1-2 Side By Side Bracket	B	From Leg	4.00 0.00 0.00	0.0000	138.00	No Ice 1/2" Ice 1" Ice	0.00 0.00 0.00	0.00 0.00 0.00	0.07 0.09 0.11
BSAMNT-SBS-1-2 Side By Side Bracket	C	From Leg	4.00 0.00 0.00	0.0000	138.00	No Ice 1/2" Ice 1" Ice	0.00 0.00 0.00	0.00 0.00 0.00	0.07 0.09 0.11
BXA-70063/4CF w/ Mount Pipe	A	From Leg	4.00 0.00 2.00	0.0000	138.00	No Ice 1/2" Ice 1" Ice	4.84 5.35 5.88	3.54 4.03 4.53	0.04 0.08 0.12
BXA-70063/4CF w/ Mount Pipe	B	From Leg	4.00 0.00 2.00	0.0000	138.00	No Ice 1/2" Ice 1" Ice	4.84 5.35 5.88	3.54 4.03 4.53	0.04 0.08 0.12
BXA-70063/4CF w/ Mount Pipe	C	From Leg	4.00 0.00 2.00	0.0000	138.00	No Ice 1/2" Ice 1" Ice	4.84 5.35 5.88	3.54 4.03 4.53	0.04 0.08 0.12
RFV01U-D1A	A	From Leg	4.00 0.00 2.00	0.0000	138.00	No Ice 1/2" Ice 1" Ice	1.88 2.05 2.22	1.25 1.39 1.54	0.08 0.10 0.12
RFV01U-D1A	B	From Leg	4.00 0.00 2.00	0.0000	138.00	No Ice 1/2" Ice 1" Ice	1.88 2.05 2.22	1.25 1.39 1.54	0.08 0.10 0.12
RFV01U-D1A	C	From Leg	4.00 0.00 2.00	0.0000	138.00	No Ice 1/2" Ice 1" Ice	1.88 2.05 2.22	1.25 1.39 1.54	0.08 0.10 0.12
RFV01U-D2A	A	From Leg	4.00 0.00 2.00	0.0000	138.00	No Ice 1/2" Ice 1" Ice	1.88 2.05 2.22	1.01 1.14 1.28	0.07 0.09 0.11
RFV01U-D2A	B	From Leg	4.00 0.00 2.00	0.0000	138.00	No Ice 1/2" Ice 1" Ice	1.88 2.05 2.22	1.01 1.14 1.28	0.07 0.09 0.11
RFV01U-D2A	C	From Leg	4.00 0.00 2.00	0.0000	138.00	No Ice 1/2" Ice 1" Ice	1.88 2.05 2.22	1.01 1.14 1.28	0.07 0.09 0.11
RVZDC-6627-PF-48	B	From Leg	4.00 0.00 2.00	0.0000	138.00	No Ice 1/2" Ice 1" Ice	3.79 4.04 4.30	2.51 2.73 2.95	0.03 0.06 0.10
NHH-65B-R2B w/ Mount Pipe	A	From Leg	4.00 0.00 2.00	0.0000	138.00	No Ice 1/2" Ice 1" Ice	4.09 4.48 4.88	3.29 3.67 4.06	0.07 0.13 0.21
NHH-65B-R2B w/ Mount Pipe	B	From Leg	4.00 0.00	0.0000	138.00	No Ice 1/2"	4.09 4.48	3.29 3.67	0.07 0.13

Description	Face or Leg	Offset Type	Offsets:		Azimuth Adjustment	Placement	C _A A _A Front	C _A A _A Side	Weight	
			Horz	Lateral						ft
			ft	ft	°	ft	ft ²	ft ²	K	
				2.00			Ice 4.88	4.06	0.21	
NHH-65B-R2B w/ Mount Pipe	C	From Leg		4.00	0.0000	138.00	1" Ice			
				0.00			No Ice	4.09	3.29	0.07
				2.00			1/2"	4.48	3.67	0.13
						Ice	4.88	4.06	0.21	
NHHSS-65B-R2B w/ Mount Pipe	A	From Leg		4.00	0.0000	138.00	1" Ice			
				0.00			No Ice	3.89	3.14	0.09
				2.00			1/2"	4.27	3.50	0.15
						Ice	4.65	3.87	0.23	
NHHSS-65B-R2B w/ Mount Pipe	B	From Leg		4.00	0.0000	138.00	1" Ice			
				0.00			No Ice	3.89	3.14	0.09
				2.00			1/2"	4.27	3.50	0.15
						Ice	4.65	3.87	0.23	
NHHSS-65B-R2B w/ Mount Pipe	C	From Leg		4.00	0.0000	138.00	1" Ice			
				0.00			No Ice	3.89	3.14	0.09
				2.00			1/2"	4.27	3.50	0.15
						Ice	4.65	3.87	0.23	
MT6407-77A w/ Mount Pipe	A	From Leg		4.00	0.0000	138.00	1" Ice			
				0.00			No Ice	4.91	2.68	0.10
				2.00			1/2"	5.26	3.14	0.14
						Ice	5.61	3.62	0.18	
MT6407-77A w/ Mount Pipe	B	From Leg		4.00	0.0000	138.00	1" Ice			
				0.00			No Ice	4.91	2.68	0.10
				2.00			1/2"	5.26	3.14	0.14
						Ice	5.61	3.62	0.18	
MT6407-77A w/ Mount Pipe	C	From Leg		4.00	0.0000	138.00	1" Ice			
				0.00			No Ice	4.91	2.68	0.10
				2.00			1/2"	5.26	3.14	0.14
						Ice	5.61	3.62	0.18	
CBRS RT4401-48A	A	From Leg		4.00	0.0000	138.00	1" Ice			
				0.00			No Ice	0.99	0.50	0.02
				2.00			1/2"	1.12	0.60	0.03
						Ice	1.26	0.70	0.04	
CBRS RT4401-48A	B	From Leg		4.00	0.0000	138.00	1" Ice			
				0.00			No Ice	0.99	0.50	0.02
				2.00			1/2"	1.12	0.60	0.03
						Ice	1.26	0.70	0.04	
CBRS RT4401-48A	C	From Leg		4.00	0.0000	138.00	1" Ice			
				0.00			No Ice	0.99	0.50	0.02
				2.00			1/2"	1.12	0.60	0.03
						Ice	1.26	0.70	0.04	
***						1" Ice				
Platform Mount [LP 303-1]	A	None			0.0000	128.00	No Ice	14.69	14.69	1.25
							1/2"	18.01	18.01	1.57
							Ice	21.34	21.34	1.94
6'x2" Mount Pipe	A	From Leg		4.00	0.0000	128.00	1" Ice			
				0.00			No Ice	1.43	1.43	0.02
				0.00			1/2"	1.92	1.92	0.03
						Ice	2.29	2.29	0.05	
6'x2" Mount Pipe	B	From Leg		4.00	0.0000	128.00	1" Ice			
				0.00			No Ice	1.43	1.43	0.02
				0.00			1/2"	1.92	1.92	0.03
						Ice	2.29	2.29	0.05	
6'x2" Mount Pipe	C	From Leg		4.00	0.0000	128.00	1" Ice			
				0.00			No Ice	1.43	1.43	0.02
				0.00			1/2"	1.92	1.92	0.03
						Ice	2.29	2.29	0.05	
AIR 32 B2A/B66AA w/ Mount Pipe	A	From Leg		4.00	0.0000	128.00	1" Ice			
				0.00			No Ice	3.76	3.15	0.19
				2.00			1/2"	4.12	3.49	0.25
						Ice	4.48	3.84	0.32	
AIR 32 B2A/B66AA w/ Mount Pipe	B	From Leg		4.00	0.0000	128.00	1" Ice			
				0.00			No Ice	3.76	3.15	0.19
						1/2"	4.12	3.49	0.25	

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft ft ft	Azimuth Adjustment t °	Placement ft	C _{AA} Front ft ²	C _{AA} Side ft ²	Weight K	
			2.00			Ice 1" Ice No Ice	4.48 3.76	3.84 3.15	0.32 0.19
AIR 32 B2A/B66AA w/ Mount Pipe	C	From Leg	4.00 0.00 2.00	0.0000	128.00	1/2" Ice 1" Ice	4.12 4.48	3.49 3.84	0.25 0.32
APXVAARR24_43-U-NA20 w/ Mount Pipe	A	From Leg	4.00 0.00 2.00	0.0000	128.00	No Ice 1/2" Ice	14.69 15.46 16.23	6.87 7.55 8.25	0.19 0.31 0.46
APXVAARR24_43-U-NA20 w/ Mount Pipe	B	From Leg	4.00 0.00 2.00	0.0000	128.00	No Ice 1/2" Ice	14.69 15.46 16.23	6.87 7.55 8.25	0.19 0.31 0.46
APXVAARR24_43-U-NA20 w/ Mount Pipe	C	From Leg	4.00 0.00 2.00	0.0000	128.00	No Ice 1/2" Ice	14.69 15.46 16.23	6.87 7.55 8.25	0.19 0.31 0.46
RADIO 4449 B12/B71	A	From Leg	4.00 0.00 2.00	0.0000	128.00	No Ice 1/2" Ice	1.65 1.81 1.98	1.30 1.44 1.60	0.08 0.09 0.11
RADIO 4449 B12/B71	B	From Leg	4.00 0.00 2.00	0.0000	128.00	No Ice 1/2" Ice	1.65 1.81 1.98	1.30 1.44 1.60	0.08 0.09 0.11
RADIO 4449 B12/B71	C	From Leg	4.00 0.00 2.00	0.0000	128.00	No Ice 1/2" Ice	1.65 1.81 1.98	1.30 1.44 1.60	0.08 0.09 0.11
KRY 112 144/1	A	From Leg	4.00 0.00 2.00	0.0000	128.00	No Ice 1/2" Ice	0.35 0.43 0.51	0.17 0.23 0.30	0.01 0.01 0.02
KRY 112 144/1	B	From Leg	4.00 0.00 2.00	0.0000	128.00	No Ice 1/2" Ice	0.35 0.43 0.51	0.17 0.23 0.30	0.01 0.01 0.02
KRY 112 144/1	C	From Leg	4.00 0.00 2.00	0.0000	128.00	No Ice 1/2" Ice	0.35 0.43 0.51	0.17 0.23 0.30	0.01 0.01 0.02
*** Side Arm Mount [SO 701- 1]	A	From Leg	1.50 0.00 0.00	0.0000	70.00	No Ice 1/2" Ice	0.85 1.14 1.43	1.67 2.34 3.01	0.07 0.08 0.09
GPS_A	A	From Leg	3.00 0.00 0.00	0.0000	70.00	No Ice 1/2" Ice 1" Ice	0.26 0.32 0.39	0.26 0.32 0.39	0.00 0.00 0.01

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

Sectio n No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
L1	168.33 - 163.33	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-10.26	-0.75	-1.74
			Max. Mx	8	-4.97	-49.15	0.74
			Max. My	14	-4.96	1.46	-49.97
			Max. Vy	20	-8.61	48.79	-1.86
			Max. Vx	14	8.66	1.46	-49.97
			Max. Torque	17			
L2	163.33 - 158.33	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-10.73	-0.77	-1.76
			Max. Mx	8	-5.28	-92.99	1.92
			Max. My	14	-5.27	2.65	-94.06
			Max. Vy	20	-8.93	92.64	-3.10
			Max. Vx	14	8.98	2.65	-94.06
			Max. Torque	17			

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
L3	158.33 - 153.33	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-19.86	-0.78	-1.80
			Max. Mx	8	-10.42	-162.15	3.14
			Max. My	14	-10.40	3.86	-163.49
			Max. Vy	20	-14.33	161.81	-4.39
			Max. Vx	14	14.38	3.86	-163.49
L4	153.33 - 148.33	Pole	Max. Torque	17			3.64
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-20.40	-0.80	-1.83
			Max. Mx	8	-10.86	-234.48	4.36
			Max. My	14	-10.84	5.09	-236.10
			Max. Vy	20	-14.62	234.16	-5.68
L5	148.33 - 143.33	Pole	Max. Vx	14	14.67	5.09	-236.10
			Max. Torque	17			3.63
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-25.91	-0.84	-1.54
			Max. Mx	8	-14.21	-324.21	5.70
			Max. My	14	-14.18	6.32	-326.12
L6	143.33 - 138.33	Pole	Max. Vy	20	-18.31	323.88	-6.88
			Max. Vx	14	18.40	6.32	-326.12
			Max. Torque	17			3.63
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-26.54	-0.88	-1.56
			Max. Mx	8	-14.77	-416.32	6.95
L7	138.33 - 138	Pole	Max. My	14	-14.75	7.54	-418.64
			Max. Vy	20	-18.56	415.98	-8.16
			Max. Vx	14	18.64	7.54	-418.64
			Max. Torque	17			3.52
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-26.59	-0.88	-1.56
L8	138 - 137.75	Pole	Max. Mx	8	-14.82	-422.44	7.03
			Max. My	14	-14.80	7.63	-424.79
			Max. Vy	20	-18.56	422.10	-8.24
			Max. Vx	14	18.64	7.63	-424.79
			Max. Torque	17			3.52
			Max Tension	1	0.00	0.00	0.00
L9	137.75 - 130.5	Pole	Max. Compression	26	-32.54	-1.33	-1.82
			Max. Mx	8	-18.01	-432.43	6.98
			Max. My	14	-17.99	7.53	-434.68
			Max. Vy	20	-21.79	431.78	-8.33
			Max. Vx	14	21.85	7.53	-434.68
			Max. Torque	17			3.99
L10	130.5 - 129.16	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-33.41	-1.32	-1.83
			Max. Mx	8	-18.68	-511.06	7.82
			Max. My	14	-18.66	8.36	-513.55
			Max. Vy	20	-22.04	510.44	-9.18
			Max. Vx	14	22.10	8.36	-513.55
L11	129.16 - 125.75	Pole	Max. Torque	17			3.99
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-35.35	-1.31	-1.84
			Max. Mx	8	-20.22	-622.34	8.99
			Max. My	14	-20.20	9.52	-625.15
			Max. Vy	20	-22.48	621.75	-10.36
L11	129.16 - 125.75	Pole	Max. Vx	14	22.54	9.52	-625.15
			Max. Torque	17			3.99
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-41.63	-1.33	-1.83
			Max. Mx	8	-24.01	-709.14	9.81
			Max. My	14	-23.99	10.30	-712.15
L11	129.16 - 125.75	Pole	Max. Vy	20	-25.54	708.55	-11.16
			Max. Vx	14	25.60	10.30	-712.15

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
L12	125.75 - 125.5	Pole	Max. Torque	17			3.99
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-41.72	-1.33	-1.83
			Max. Mx	8	-24.10	-715.52	9.87
			Max. My	14	-24.08	10.36	-718.55
			Max. Vy	20	-25.55	714.93	-11.22
			Max. Vx	14	25.61	10.36	-718.55
L13	125.5 - 120.5	Pole	Max. Torque	17			3.99
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-43.55	-1.36	-1.78
			Max. Mx	8	-25.55	-844.15	11.07
			Max. My	14	-25.53	11.50	-847.46
			Max. Vy	20	-25.92	843.53	-12.40
			Max. Vx	14	25.98	11.50	-847.46
L14	120.5 - 120.25	Pole	Max. Torque	17			3.99
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-43.65	-1.36	-1.77
			Max. Mx	8	-25.64	-850.62	11.13
			Max. My	14	-25.62	11.56	-853.96
			Max. Vy	20	-25.93	850.01	-12.46
			Max. Vx	14	25.99	11.56	-853.96
L15	120.25 - 115.25	Pole	Max. Torque	17			3.98
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-45.98	-1.38	-1.69
			Max. Mx	8	-27.44	-981.30	12.33
			Max. My	14	-27.40	12.71	-985.52
			Max. Vy	20	-26.36	980.67	-13.64
			Max. Vx	14	26.66	12.71	-985.52
L16	115.25 - 113.833	Pole	Max. Torque	17			3.98
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-46.68	-1.39	-1.67
			Max. Mx	8	-27.95	-1018.76	12.67
			Max. My	14	-27.91	13.03	-1023.40
			Max. Vy	20	-26.55	1018.13	-13.97
			Max. Vx	14	26.85	13.03	-1023.40
L17	113.833 - 113.483	Pole	Max. Torque	17			3.98
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-46.86	-1.39	-1.66
			Max. Mx	8	-28.11	-1028.05	12.76
			Max. My	14	-28.06	13.11	-1032.79
			Max. Vy	20	-26.58	1027.43	-14.05
			Max. Vx	14	26.88	13.11	-1032.79
L18	113.483 - 113.25	Pole	Max. Torque	17			3.98
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-46.99	-1.39	-1.66
			Max. Mx	8	-28.20	-1034.25	12.81
			Max. My	14	-28.16	13.17	-1039.06
			Max. Vy	20	-26.62	1033.62	-14.11
			Max. Vx	14	26.91	13.17	-1039.06
L19	113.25 - 112	Pole	Max. Torque	17			3.98
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-47.65	-1.39	-1.64
			Max. Mx	8	-28.70	-1067.61	13.12
			Max. My	14	-28.65	13.46	-1072.79
			Max. Vy	20	-26.79	1066.98	-14.40
			Max. Vx	14	27.09	13.46	-1072.79
L20	112 - 111.75	Pole	Max. Torque	17			3.98
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-47.76	-1.40	-1.64
			Max. Mx	8	-28.79	-1074.31	13.18
			Max. My	14	-28.75	13.51	-1079.57
Max. Vy	20	-26.80	1073.68	-14.46			

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
L21	111.75 - 106.75	Pole	Max. Vx	14	27.10	13.51	-1079.57
			Max. Torque	17			3.98
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-49.89	-1.43	-1.59
			Max. Mx	8	-30.46	-1209.16	14.38
			Max. My	14	-30.42	14.67	-1215.91
			Max. Vy	20	-27.17	1208.53	-15.63
L22	106.75 - 101.75	Pole	Max. Vx	14	27.47	14.67	-1215.91
			Max. Torque	17			3.98
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-51.99	-1.46	-1.53
			Max. Mx	8	-32.17	-1345.73	15.59
			Max. My	14	-32.13	15.82	-1353.97
			Max. Vy	20	-27.51	1345.11	-16.80
L23	101.75 - 98.42	Pole	Max. Vx	14	27.80	15.82	-1353.97
			Max. Torque	17			3.98
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-53.45	-1.51	-1.48
			Max. Mx	8	-33.31	-1437.60	16.39
			Max. My	14	-33.28	16.58	-1446.83
			Max. Vy	20	-27.72	1436.98	-17.58
L24	98.42 - 98.17	Pole	Max. Vx	14	28.02	16.58	-1446.83
			Max. Torque	17			3.97
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-53.59	-1.51	-1.47
			Max. Mx	8	-33.44	-1444.53	16.45
			Max. My	14	-33.40	16.64	-1453.83
			Max. Vy	20	-27.74	1443.91	-17.63
L25	98.17 - 93.17	Pole	Max. Vx	14	28.04	16.64	-1453.83
			Max. Torque	17			3.97
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-56.34	-1.61	-1.38
			Max. Mx	20	-35.60	1584.23	-18.79
			Max. My	14	-35.59	17.78	-1594.99
			Max. Vy	20	-28.41	1584.23	-18.79
L26	93.17 - 84.55	Pole	Max. Vx	14	28.45	17.78	-1594.99
			Max. Torque	17			3.97
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-58.59	-1.69	-1.28
			Max. Mx	20	-37.39	1700.16	-19.73
			Max. My	14	-37.39	18.71	-1711.08
			Max. Vy	20	-28.74	1700.16	-19.73
L27	84.55 - 83.55	Pole	Max. Vx	14	28.77	18.71	-1711.08
			Max. Torque	17			3.97
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-63.36	-1.75	-1.18
			Max. Mx	20	-41.33	1861.57	-21.04
			Max. My	14	-41.32	20.01	-1872.69
			Max. Vy	20	-29.32	1861.57	-21.04
L28	83.55 - 82.833	Pole	Max. Vx	14	29.36	20.01	-1872.69
			Max. Torque	17			3.97
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-63.76	-1.74	-1.17
			Max. Mx	20	-41.64	1882.61	-21.23
			Max. My	14	-41.63	20.19	-1893.76
			Max. Vy	20	-29.37	1882.61	-21.23
L29	82.833 - 82.583	Pole	Max. Vx	14	29.41	20.19	-1893.76
			Max. Torque	17			3.97
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-63.91	-1.74	-1.17

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
L30	82.583 - 77.583	Pole	Max. Mx	20	-41.77	1889.96	-21.29
			Max. My	14	-41.76	20.26	-1901.12
			Max. Vy	20	-29.38	1889.96	-21.29
			Max. Vx	14	29.42	20.26	-1901.12
			Max. Torque	17			3.97
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-66.97	-1.67	-1.13
			Max. Mx	20	-44.25	2037.84	-22.55
			Max. My	14	-44.24	21.52	-2049.17
			Max. Vy	20	-29.76	2037.84	-22.55
L31	77.583 - 73.417	Pole	Max. Vx	14	29.80	21.52	-2049.17
			Max. Torque	17			3.97
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-69.57	-1.61	-1.13
			Max. Mx	20	-46.34	2162.44	-23.60
			Max. My	14	-46.33	22.58	-2173.92
			Max. Vy	20	-30.06	2162.44	-23.60
			Max. Vx	14	30.10	22.58	-2173.92
			Max. Torque	17			3.97
			Max Tension	1	0.00	0.00	0.00
L32	73.417 - 73.167	Pole	Max. Compression	26	-69.75	-1.61	-1.14
			Max. Mx	20	-46.49	2169.96	-23.66
			Max. My	14	-46.49	22.64	-2181.44
			Max. Vy	20	-30.08	2169.96	-23.66
			Max. Vx	14	30.10	22.64	-2181.44
			Max. Torque	17			3.97
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-70.28	-1.60	-1.14
			Max. Mx	20	-46.92	2192.46	-23.85
			Max. My	14	-46.91	22.83	-2203.96
L33	73.167 - 72.42	Pole	Max. Vy	20	-30.15	2192.46	-23.85
			Max. Vx	14	30.17	22.83	-2203.96
			Max. Torque	17			3.97
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-70.44	-1.59	-1.14
			Max. Mx	20	-47.04	2200.00	-23.91
			Max. My	14	-47.03	22.90	-2211.50
			Max. Vy	20	-30.16	2200.00	-23.91
			Max. Vx	14	30.18	22.90	-2211.50
			Max. Torque	17			3.97
L34	72.42 - 72.17	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-73.02	-1.50	-0.82
			Max. Mx	20	-49.06	2324.12	-24.72
			Max. My	14	-49.06	23.93	-2335.41
			Max. Vy	20	-30.53	2324.12	-24.72
			Max. Vx	14	30.52	23.93	-2335.41
			Max. Torque	17			3.97
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-73.18	-1.49	-0.82
			Max. Mx	20	-49.20	2331.76	-24.78
L35	72.17 - 68.08	Pole	Max. My	14	-49.20	24.00	-2343.05
			Max. Vy	20	-30.53	2331.76	-24.78
			Max. Vx	14	30.53	24.00	-2343.05
			Max. Torque	17			3.84
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-74.68	-1.45	-0.84
			Max. Mx	20	-50.39	2400.66	-25.35
			Max. My	14	-50.39	24.57	-2411.92
			Max. Vy	20	-30.70	2400.66	-25.35
			Max. Vx	14	30.69	24.57	-2411.92
L36	68.08 - 67.83	Pole	Max. Torque	17			3.84
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-74.68	-1.45	-0.84
			Max. Mx	20	-50.39	2400.66	-25.35
			Max. My	14	-50.39	24.57	-2411.92
			Max. Vy	20	-30.70	2400.66	-25.35
			Max. Vx	14	30.69	24.57	-2411.92
			Max. Torque	17			3.84
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-74.68	-1.45	-0.84
L37	67.83 - 65.58	Pole	Max. Mx	20	-50.39	2400.66	-25.35
			Max. My	14	-50.39	24.57	-2411.92
			Max. Vy	20	-30.70	2400.66	-25.35
			Max. Vx	14	30.69	24.57	-2411.92
			Max. Torque	17			3.84
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-74.68	-1.45	-0.84
			Max. Mx	20	-50.39	2400.66	-25.35
			Max. My	14	-50.39	24.57	-2411.92
			Max. Vy	20	-30.70	2400.66	-25.35

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
L38	65.58 - 65.33	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-74.86	-1.45	-0.84
			Max. Mx	20	-50.55	2408.33	-25.41
			Max. My	14	-50.54	24.63	-2419.59
			Max. Vy	20	-30.70	2408.33	-25.41
			Max. Vx	14	30.69	24.63	-2419.59
L39	65.33 - 64.25	Pole	Max. Torque	17			3.84
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-75.64	-1.43	-0.86
			Max. Mx	20	-51.17	2441.55	-25.68
			Max. My	14	-51.16	24.91	-2452.79
			Max. Vy	20	-30.80	2441.55	-25.68
L40	64.25 - 64	Pole	Max. Vx	14	30.79	24.91	-2452.79
			Max. Torque	17			3.84
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-75.80	-1.43	-0.86
			Max. Mx	20	-51.30	2449.25	-25.75
			Max. My	14	-51.30	24.97	-2460.49
L41	64 - 59	Pole	Max. Vy	20	-30.80	2449.25	-25.75
			Max. Vx	14	30.79	24.97	-2460.49
			Max. Torque	17			3.84
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-78.95	-1.38	-0.93
			Max. Mx	20	-53.85	2604.16	-27.00
L42	59 - 54	Pole	Max. My	14	-53.84	26.23	-2615.33
			Max. Vy	20	-31.15	2604.16	-27.00
			Max. Vx	14	31.14	26.23	-2615.33
			Max. Torque	17			3.84
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-82.09	-1.33	-1.01
L43	54 - 43.66	Pole	Max. Mx	20	-56.42	2760.68	-28.25
			Max. My	14	-56.42	27.50	-2771.79
			Max. Vy	20	-31.46	2760.68	-28.25
			Max. Vx	14	31.45	27.50	-2771.79
			Max. Torque	17			3.84
			Max Tension	1	0.00	0.00	0.00
L44	43.66 - 42.66	Pole	Max. Compression	26	-85.28	-1.27	-1.07
			Max. Mx	20	-59.02	2918.71	-29.49
			Max. My	14	-59.02	28.76	-2929.75
			Max. Vy	20	-31.75	2918.71	-29.49
			Max. Vx	14	31.74	28.76	-2929.75
			Max. Torque	17			3.84
L45	42.66 - 41.75	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-92.14	-1.19	-1.14
			Max. Mx	20	-64.85	3121.89	-31.07
			Max. My	14	-64.84	30.36	-3132.84
			Max. Vy	20	-32.31	3121.89	-31.07
			Max. Vx	14	32.30	30.36	-3132.84
L46	41.75 - 41.5	Pole	Max. Torque	17			3.84
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-92.77	-1.18	-1.14
			Max. Mx	20	-65.37	3151.30	-31.30
			Max. My	14	-65.37	30.59	-3162.24
			Max. Vy	20	-32.35	3151.30	-31.30
L47	41.5 - 36.5	Pole	Max. Vx	14	32.34	30.59	-3162.24
			Max. Torque	17			3.84
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-92.96	-1.18	-1.14
			Max. Mx	20	-65.54	3159.39	-31.36
			Max. My	14	-65.53	30.65	-3170.32
L47	41.5 - 36.5	Pole	Max. Vy	20	-32.34	3159.39	-31.36
			Max. Vx	14	32.33	30.65	-3170.32
			Max. Torque	17			3.84
L47	41.5 - 36.5	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-96.58	-1.10	-1.13

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
L48	36.5 - 32.75	Pole	Max. Mx	20	-68.57	3321.80	-32.60
			Max. My	14	-68.57	31.91	-3332.66
			Max. Vy	20	-32.61	3321.80	-32.60
			Max. Vx	14	32.60	31.91	-3332.66
			Max. Torque	17			3.84
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-99.32	-1.06	-1.12
			Max. Mx	20	-70.88	3444.39	-33.52
			Max. My	14	-70.88	32.84	-3455.19
			Max. Vy	20	-32.78	3444.39	-33.52
L49	32.75 - 32.5	Pole	Max. Vx	14	32.77	32.84	-3455.19
			Max. Torque	17			3.84
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-99.50	-1.05	-1.12
			Max. Mx	20	-71.05	3452.58	-33.58
			Max. My	14	-71.05	32.91	-3463.38
			Max. Vy	20	-32.77	3452.58	-33.58
			Max. Vx	14	32.76	32.91	-3463.38
			Max. Torque	17			3.84
			Max Tension	1	0.00	0.00	0.00
L50	32.5 - 32.25	Pole	Max. Compression	26	-99.69	-1.05	-1.12
			Max. Mx	20	-71.21	3460.78	-33.64
			Max. My	14	-71.20	32.97	-3471.57
			Max. Vy	20	-32.78	3460.78	-33.64
			Max. Vx	14	32.77	32.97	-3471.57
			Max. Torque	17			3.84
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-99.88	-1.05	-1.12
			Max. Mx	20	-71.37	3468.98	-33.70
			Max. My	14	-71.37	33.03	-3479.77
L51	32.25 - 32	Pole	Max. Vy	20	-32.79	3468.98	-33.70
			Max. Vx	14	32.78	33.03	-3479.77
			Max. Torque	17			3.84
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-101.17	-1.03	-1.12
			Max. Mx	20	-72.43	3523.74	-34.11
			Max. My	14	-72.43	33.45	-3534.50
			Max. Vy	20	-32.90	3523.74	-34.11
			Max. Vx	14	32.89	33.45	-3534.50
			Max. Torque	17			3.84
L52	32 - 30.333	Pole	Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-101.35	-1.02	-1.12
			Max. Mx	20	-72.60	3531.96	-34.17
			Max. My	14	-72.60	33.51	-3542.72
			Max. Vy	20	-32.88	3531.96	-34.17
			Max. Vx	14	32.87	33.51	-3542.72
			Max. Torque	17			3.84
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-102.71	-0.99	-1.13
			Max. Mx	20	-73.68	3592.32	-34.62
L53	30.333 - 30.083	Pole	Max. My	14	-73.68	33.97	-3603.04
			Max. Vy	20	-32.99	3592.32	-34.62
			Max. Vx	14	32.98	33.97	-3603.04
			Max. Torque	17			3.84
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-102.91	-0.98	-1.13
			Max. Mx	20	-73.87	3600.56	-34.68
			Max. My	14	-73.87	34.03	-3611.28
			Max. Vy	20	-32.96	3600.56	-34.68
			Max. Vx	14	32.95	34.03	-3611.28
L54	30.083 - 28.25	Pole	Max. Torque	17			3.84
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-106.83	-0.84	-1.11
			Max. Mx	20	-77.16	3765.87	-35.90
			Max. My	14	-77.16	35.27	-3776.51
			Max. Vy	20	-33.16	3765.87	-35.90
			Max. Vx	14	33.14	35.27	-3776.51
			Max. Torque	17			3.84
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-106.83	-0.84	-1.11
L55	28 - 23	Pole	Max. Mx	20	-77.16	3765.87	-35.90
			Max. My	14	-77.16	35.27	-3776.51
			Max. Vy	20	-33.16	3765.87	-35.90
			Max. Vx	14	33.14	35.27	-3776.51
			Max. Torque	17			3.84
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-106.83	-0.84	-1.11
			Max. Mx	20	-77.16	3765.87	-35.90
			Max. My	14	-77.16	35.27	-3776.51
			Max. Vy	20	-33.16	3765.87	-35.90
Max. Vx	14	33.14	35.27	-3776.51			

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
L57	23 - 19.25	Pole	Max. Torque	17			3.84
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-109.76	-0.70	-1.07
			Max. Mx	20	-79.64	3890.40	-36.80
			Max. My	14	-79.64	36.19	-3900.97
			Max. Vy	20	-33.28	3890.40	-36.80
			Max. Vx	14	33.26	36.19	-3900.97
L58	19.25 - 19	Pole	Max. Torque	17			3.84
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-109.94	-0.69	-1.07
			Max. Mx	20	-79.81	3898.72	-36.86
			Max. My	14	-79.80	36.25	-3909.28
			Max. Vy	20	-33.25	3898.72	-36.86
			Max. Vx	14	33.24	36.25	-3909.28
L59	19 - 14.5	Pole	Max. Torque	17			3.84
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-113.07	-0.55	-1.04
			Max. Mx	20	-82.48	4048.59	-37.94
			Max. My	14	-82.48	37.35	-4059.08
			Max. Vy	20	-33.35	4048.59	-37.94
			Max. Vx	14	33.34	37.35	-4059.08
L60	14.5 - 14.25	Pole	Max. Torque	17			3.84
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-113.27	-0.54	-1.04
			Max. Mx	20	-82.68	4056.93	-38.00
			Max. My	14	-82.68	37.41	-4067.41
			Max. Vy	20	-33.33	4056.93	-38.00
			Max. Vx	14	33.32	37.41	-4067.41
L61	14.25 - 12.75	Pole	Max. Torque	17			3.84
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-114.51	-0.49	-1.03
			Max. Mx	20	-83.75	4106.99	-38.35
			Max. My	14	-83.75	37.78	-4117.45
			Max. Vy	20	-33.41	4106.99	-38.35
			Max. Vx	14	33.40	37.78	-4117.45
L62	12.75 - 12.5	Pole	Max. Torque	17			3.84
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-114.70	-0.48	-1.03
			Max. Mx	20	-83.93	4115.35	-38.41
			Max. My	14	-83.93	37.84	-4125.79
			Max. Vy	20	-33.39	4115.35	-38.41
			Max. Vx	14	33.38	37.84	-4125.79
L63	12.5 - 7.5	Pole	Max. Torque	17			3.84
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-118.43	-0.32	-1.07
			Max. Mx	20	-87.23	4282.68	-39.60
			Max. My	14	-87.23	39.05	-4293.03
			Max. Vy	20	-33.52	4282.68	-39.60
			Max. Vx	14	33.51	39.05	-4293.03
L64	7.5 - 3.5	Pole	Max. Torque	17			3.84
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-121.25	-0.18	-1.19
			Max. Mx	20	-89.79	4416.94	-40.56
			Max. My	14	-89.79	40.03	-4427.22
			Max. Vy	20	-33.60	4416.94	-40.56
			Max. Vx	14	33.59	40.03	-4427.22
L65	3.5 - 3.25	Pole	Max. Torque	17			3.83
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-121.46	-0.17	-1.20
			Max. Mx	20	-89.99	4425.34	-40.62
			Max. My	14	-89.99	40.09	-4435.62
			Max. Vy	20	-33.59	4425.34	-40.62
			Max. Vx	14	33.57	40.09	-4435.62
L66	3.25 - 3	Pole	Max. Torque	17			3.83
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-121.65	-0.16	-1.21
			Max. Mx	20	-90.17	4433.74	-40.68
			Max. My	14	-90.17	40.15	-4444.02

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Axial K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
L67	3 - 0	Pole	Max. Vy	20	-33.60	4433.74	-40.68
			Max. Vx	14	33.58	40.15	-4444.02
			Max. Torque	17			3.83
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	26	-123.86	-0.06	-1.30
			Max. Mx	20	-92.20	4534.73	-41.41
			Max. My	14	-92.20	40.88	-4544.96
			Max. Vy	20	-33.70	4534.73	-41.41
			Max. Vx	14	33.68	40.88	-4544.96
			Max. Torque	17			3.83

Maximum Reactions

Location	Condition	Gov. Load Comb.	Vertical K	Horizontal, X K	Horizontal, Z K
Pole	Max. Vert	26	123.86	-0.00	-0.00
	Max. H _x	20	92.21	33.67	-0.21
	Max. H _z	2	92.21	-0.21	33.43
	Max. M _x	2	4512.72	-0.21	33.43
	Max. M _z	8	4503.63	-33.39	0.21
	Max. Torsion	17	3.83	16.88	-29.05
	Min. Vert	17	69.16	16.88	-29.05
	Min. H _x	8	92.21	-33.39	0.21
	Min. H _z	14	92.21	0.21	-33.66
	Min. M _x	14	-4544.96	0.21	-33.66
	Min. M _z	20	-4534.73	33.67	-0.21
	Min. Torsion	5	-3.82	-16.88	29.05

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	76.84	0.00	0.00	1.52	1.06	-0.00
1.2 Dead+1.0 Wind 0 deg - No Ice	92.21	0.21	-33.43	-4512.72	-38.16	3.13
0.9 Dead+1.0 Wind 0 deg - No Ice	69.16	0.21	-33.43	-4428.97	-37.64	3.13
1.2 Dead+1.0 Wind 30 deg - No Ice	92.21	16.88	-29.05	-3926.46	-2285.89	3.82
0.9 Dead+1.0 Wind 30 deg - No Ice	69.16	16.88	-29.05	-3853.59	-2243.46	3.82
1.2 Dead+1.0 Wind 60 deg - No Ice	92.21	32.47	-18.88	-2464.76	-4225.24	3.46
0.9 Dead+1.0 Wind 60 deg - No Ice	69.16	32.47	-18.88	-2420.15	-4148.48	3.47
1.2 Dead+1.0 Wind 90 deg - No Ice	92.21	33.39	-0.21	-37.63	-4503.63	2.22
0.9 Dead+1.0 Wind 90 deg - No Ice	69.16	33.39	-0.21	-37.27	-4419.90	2.23
1.2 Dead+1.0 Wind 120 deg - No Ice	92.21	29.58	16.97	2273.19	-3965.94	0.31
0.9 Dead+1.0 Wind 120 deg - No Ice	69.16	29.58	16.97	2230.57	-3892.63	0.32
1.2 Dead+1.0 Wind 150 deg - No Ice	92.21	17.22	30.05	3991.20	-2275.46	-1.63
0.9 Dead+1.0 Wind 150 deg - No Ice	69.16	17.22	30.05	3916.91	-2233.79	-1.62
1.2 Dead+1.0 Wind 180 deg - No Ice	92.21	-0.21	33.66	4544.96	40.88	-3.15

Load Combination	Vertical K	Shear _x K	Shear _z K	Overturning Moment, M _x kip-ft	Overturning Moment, M _z kip-ft	Torque kip-ft
0.9 Dead+1.0 Wind 180 deg - No Ice	69.16	-0.21	33.66	4459.75	39.68	-3.16
1.2 Dead+1.0 Wind 210 deg - No Ice	92.21	-16.88	29.05	3930.04	2288.50	-3.83
0.9 Dead+1.0 Wind 210 deg - No Ice	69.16	-16.88	29.05	3856.17	2245.39	-3.83
1.2 Dead+1.0 Wind 240 deg - No Ice	92.21	-32.61	18.96	2476.78	4242.27	-3.45
0.9 Dead+1.0 Wind 240 deg - No Ice	69.16	-32.61	18.96	2431.08	4164.65	-3.46
1.2 Dead+1.0 Wind 270 deg - No Ice	92.21	-33.67	0.21	41.41	4534.73	-2.19
0.9 Dead+1.0 Wind 270 deg - No Ice	69.16	-33.67	0.21	40.05	4449.99	-2.21
1.2 Dead+1.0 Wind 300 deg - No Ice	92.21	-29.83	-17.11	-2283.40	3992.88	-0.30
0.9 Dead+1.0 Wind 300 deg - No Ice	69.16	-29.83	-17.11	-2241.63	3918.62	-0.31
1.2 Dead+1.0 Wind 330 deg - No Ice	92.21	-17.12	-29.87	-3964.56	2264.97	1.61
0.9 Dead+1.0 Wind 330 deg - No Ice	69.16	-17.12	-29.87	-3891.66	2222.84	1.61
1.2 Dead+1.0 Ice+1.0 Temp	123.86	0.00	0.00	1.30	-0.06	-0.00
1.2 Dead+1.0 Wind 0 deg+1.0 Ice+1.0 Temp	123.86	0.04	-9.55	-1305.23	-8.84	0.65
1.2 Dead+1.0 Wind 30 deg+1.0 Ice+1.0 Temp	123.86	4.81	-8.30	-1134.50	-660.03	0.77
1.2 Dead+1.0 Wind 60 deg+1.0 Ice+1.0 Temp	123.86	8.60	-4.99	-677.21	-1165.31	0.67
1.2 Dead+1.0 Wind 90 deg+1.0 Ice+1.0 Temp	123.86	9.55	-0.04	-7.17	-1304.83	0.41
1.2 Dead+1.0 Wind 120 deg+1.0 Ice+1.0 Temp	123.86	8.34	4.79	654.41	-1138.03	0.02
1.2 Dead+1.0 Wind 150 deg+1.0 Ice+1.0 Temp	123.86	4.74	8.25	1128.83	-645.10	-0.36
1.2 Dead+1.0 Wind 180 deg+1.0 Ice+1.0 Temp	123.86	-0.04	9.55	1308.17	8.42	-0.65
1.2 Dead+1.0 Wind 210 deg+1.0 Ice+1.0 Temp	123.86	-4.81	8.30	1137.32	659.56	-0.77
1.2 Dead+1.0 Wind 240 deg+1.0 Ice+1.0 Temp	123.86	-8.60	4.99	680.12	1164.89	-0.67
1.2 Dead+1.0 Wind 270 deg+1.0 Ice+1.0 Temp	123.86	-9.55	0.04	10.09	1304.53	-0.41
1.2 Dead+1.0 Wind 300 deg+1.0 Ice+1.0 Temp	123.86	-8.34	-4.79	-651.48	1137.59	-0.02
1.2 Dead+1.0 Wind 330 deg+1.0 Ice+1.0 Temp	123.86	-4.74	-8.25	-1125.76	644.60	0.36
Dead+Wind 0 deg - Service	76.84	0.05	-8.43	-1124.75	-8.77	0.81
Dead+Wind 30 deg - Service	76.84	4.26	-7.32	-978.51	-569.58	0.98
Dead+Wind 60 deg - Service	76.84	8.18	-4.76	-614.00	-1053.80	0.89
Dead+Wind 90 deg - Service	76.84	8.42	-0.05	-8.24	-1122.86	0.57
Dead+Wind 120 deg - Service	76.84	7.46	4.28	568.30	-988.76	0.08
Dead+Wind 150 deg - Service	76.84	4.34	7.58	996.97	-567.03	-0.42
Dead+Wind 180 deg - Service	76.84	-0.05	8.48	1135.07	10.91	-0.81
Dead+Wind 210 deg - Service	76.84	-4.26	7.32	981.67	571.70	-0.98
Dead+Wind 240 deg - Service	76.84	-8.22	4.78	619.29	1059.54	-0.89
Dead+Wind 270 deg - Service	76.84	-8.49	0.05	11.44	1132.14	-0.56
Dead+Wind 300 deg - Service	76.84	-7.52	-4.31	-568.61	997.01	-0.08
Dead+Wind 330 deg - Service	76.84	-4.31	-7.53	-988.06	565.88	0.42

Solution Summary

Load Comb.	Sum of Applied Forces			Sum of Reactions			% Error
	PX K	PY K	PZ K	PX K	PY K	PZ K	
1	0.00	-76.84	0.00	0.00	76.84	0.00	0.000%
2	0.21	-92.21	-33.43	-0.21	92.21	33.43	0.000%
3	0.21	-69.16	-33.43	-0.21	69.16	33.43	0.000%
4	16.88	-92.21	-29.05	-16.88	92.21	29.05	0.000%
5	16.88	-69.16	-29.05	-16.88	69.16	29.05	0.000%
6	32.47	-92.21	-18.88	-32.47	92.21	18.88	0.000%
7	32.47	-69.16	-18.88	-32.47	69.16	18.88	0.000%
8	33.39	-92.21	-0.21	-33.39	92.21	0.21	0.000%
9	33.39	-69.16	-0.21	-33.39	69.16	0.21	0.000%
10	29.58	-92.21	16.97	-29.58	92.21	-16.97	0.000%
11	29.58	-69.16	16.97	-29.58	69.16	-16.97	0.000%
12	17.22	-92.21	30.05	-17.22	92.21	-30.05	0.000%
13	17.22	-69.16	30.05	-17.22	69.16	-30.05	0.000%
14	-0.21	-92.21	33.66	0.21	92.21	-33.66	0.000%
15	-0.21	-69.16	33.66	0.21	69.16	-33.66	0.000%
16	-16.88	-92.21	29.05	16.88	92.21	-29.05	0.000%
17	-16.88	-69.16	29.05	16.88	69.16	-29.05	0.000%
18	-32.61	-92.21	18.96	32.61	92.21	-18.96	0.000%
19	-32.61	-69.16	18.96	32.61	69.16	-18.96	0.000%
20	-33.67	-92.21	0.21	33.67	92.21	-0.21	0.000%
21	-33.67	-69.16	0.21	33.67	69.16	-0.21	0.000%
22	-29.83	-92.21	-17.11	29.83	92.21	17.11	0.000%
23	-29.83	-69.16	-17.11	29.83	69.16	17.11	0.000%
24	-17.12	-92.21	-29.87	17.12	92.21	29.87	0.000%
25	-17.12	-69.16	-29.87	17.12	69.16	29.87	0.000%
26	0.00	-123.86	0.00	-0.00	123.86	-0.00	0.000%
27	0.04	-123.86	-9.55	-0.04	123.86	9.55	0.000%
28	4.81	-123.86	-8.30	-4.81	123.86	8.30	0.000%
29	8.60	-123.86	-4.99	-8.60	123.86	4.99	0.000%
30	9.55	-123.86	-0.04	-9.55	123.86	0.04	0.000%
31	8.34	-123.86	4.79	-8.34	123.86	-4.79	0.000%
32	4.74	-123.86	8.25	-4.74	123.86	-8.25	0.000%
33	-0.04	-123.86	9.55	0.04	123.86	-9.55	0.000%
34	-4.81	-123.86	8.30	4.81	123.86	-8.30	0.000%
35	-8.60	-123.86	4.99	8.60	123.86	-4.99	0.000%
36	-9.55	-123.86	0.04	9.55	123.86	-0.04	0.000%
37	-8.34	-123.86	-4.79	8.34	123.86	4.79	0.000%
38	-4.74	-123.86	-8.25	4.74	123.86	8.25	0.000%
39	0.05	-76.84	-8.43	-0.05	76.84	8.43	0.000%
40	4.26	-76.84	-7.32	-4.26	76.84	7.32	0.000%
41	8.18	-76.84	-4.76	-8.18	76.84	4.76	0.000%
42	8.42	-76.84	-0.05	-8.42	76.84	0.05	0.000%
43	7.46	-76.84	4.28	-7.46	76.84	-4.28	0.000%
44	4.34	-76.84	7.58	-4.34	76.84	-7.58	0.000%
45	-0.05	-76.84	8.48	0.05	76.84	-8.48	0.000%
46	-4.26	-76.84	7.32	4.26	76.84	-7.32	0.000%
47	-8.22	-76.84	4.78	8.22	76.84	-4.78	0.000%
48	-8.49	-76.84	0.05	8.49	76.84	-0.05	0.000%
49	-7.52	-76.84	-4.31	7.52	76.84	4.31	0.000%
50	-4.31	-76.84	-7.53	4.31	76.84	7.53	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	6	0.00000001	0.00070000
3	Yes	6	0.00000001	0.00025493
4	Yes	7	0.00000001	0.00070062
5	Yes	7	0.00000001	0.00017378
6	Yes	7	0.00000001	0.00070642
7	Yes	7	0.00000001	0.00016957
8	Yes	6	0.00000001	0.00019222

9	Yes	6	0.00000001	0.00007126
10	Yes	7	0.00000001	0.00067052
11	Yes	7	0.00000001	0.00016580
12	Yes	7	0.00000001	0.00067764
13	Yes	7	0.00000001	0.00016785
14	Yes	6	0.00000001	0.00030161
15	Yes	6	0.00000001	0.00011338
16	Yes	7	0.00000001	0.00064469
17	Yes	7	0.00000001	0.00015766
18	Yes	7	0.00000001	0.00076216
19	Yes	7	0.00000001	0.00018504
20	Yes	6	0.00000001	0.00058382
21	Yes	6	0.00000001	0.00021108
22	Yes	7	0.00000001	0.00066845
23	Yes	7	0.00000001	0.00016487
24	Yes	7	0.00000001	0.00064790
25	Yes	7	0.00000001	0.00015996
26	Yes	4	0.00000001	0.00033453
27	Yes	7	0.00000001	0.00035234
28	Yes	7	0.00000001	0.00048025
29	Yes	7	0.00000001	0.00048484
30	Yes	7	0.00000001	0.00035287
31	Yes	7	0.00000001	0.00047254
32	Yes	7	0.00000001	0.00046854
33	Yes	7	0.00000001	0.00035415
34	Yes	7	0.00000001	0.00047232
35	Yes	7	0.00000001	0.00049269
36	Yes	7	0.00000001	0.00035136
37	Yes	7	0.00000001	0.00046660
38	Yes	7	0.00000001	0.00045967
39	Yes	5	0.00000001	0.00044343
40	Yes	6	0.00000001	0.00014965
41	Yes	6	0.00000001	0.00013805
42	Yes	5	0.00000001	0.00030811
43	Yes	6	0.00000001	0.00013193
44	Yes	6	0.00000001	0.00013667
45	Yes	5	0.00000001	0.00038376
46	Yes	6	0.00000001	0.00012091
47	Yes	6	0.00000001	0.00016800
48	Yes	5	0.00000001	0.00036706
49	Yes	6	0.00000001	0.00012892
50	Yes	6	0.00000001	0.00012171

Maximum Tower Deflections - Service Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L1	168.33 - 163.33	34.084	47	2.0811	0.0191
L2	163.33 - 158.33	31.913	47	2.0621	0.0162
L3	158.33 - 153.33	29.775	47	2.0191	0.0135
L4	153.33 - 148.33	27.694	47	1.9516	0.0111
L5	148.33 - 143.33	25.698	47	1.8581	0.0089
L6	143.33 - 138.33	23.812	47	1.7411	0.0070
L7	138.33 - 138	22.060	47	1.6020	0.0053
L8	138 - 137.75	21.950	47	1.5921	0.0052
L9	137.75 - 130.5	21.867	47	1.5888	0.0052
L10	134.16 - 129.16	20.691	47	1.5381	0.0046
L11	129.16 - 125.75	19.101	47	1.4909	0.0042
L12	125.75 - 125.5	18.056	47	1.4370	0.0038
L13	125.5 - 120.5	17.980	47	1.4337	0.0038
L14	120.5 - 120.25	16.516	47	1.3636	0.0033
L15	120.25 - 115.25	16.444	47	1.3610	0.0033
L16	115.25 - 113.833	15.048	47	1.3061	0.0030
L17	113.833 - 113.483	14.663	47	1.2901	0.0029
L18	113.483 - 113.25	14.568	47	1.2862	0.0029
L19	113.25 - 112	14.505	47	1.2836	0.0029
L20	112 - 111.75	14.171	47	1.2696	0.0028

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L21	111.75 - 106.75	14.105	47	1.2659	0.0028
L22	106.75 - 101.75	12.819	47	1.1902	0.0025
L23	101.75 - 98.42	11.614	47	1.1110	0.0021
L24	98.42 - 98.17	10.858	47	1.0562	0.0019
L25	98.17 - 93.17	10.803	47	1.0535	0.0019
L26	93.17 - 84.55	9.729	47	0.9973	0.0018
L27	89.11 - 83.55	8.901	47	0.9507	0.0016
L28	83.55 - 82.833	7.814	47	0.9100	0.0015
L29	82.833 - 82.583	7.678	47	0.9008	0.0015
L30	82.583 - 77.583	7.631	47	0.8978	0.0015
L31	77.583 - 73.417	6.723	47	0.8378	0.0013
L32	73.417 - 73.167	6.013	47	0.7879	0.0012
L33	73.167 - 72.42	5.972	47	0.7854	0.0012
L34	72.42 - 72.17	5.850	47	0.7782	0.0012
L35	72.17 - 68.08	5.809	47	0.7754	0.0012
L36	68.08 - 67.83	5.166	47	0.7276	0.0011
L37	67.83 - 65.58	5.128	47	0.7245	0.0011
L38	65.58 - 65.33	4.793	47	0.6970	0.0010
L39	65.33 - 64.25	4.756	47	0.6946	0.0010
L40	64.25 - 64	4.600	47	0.6838	0.0010
L41	64 - 59	4.565	47	0.6811	0.0010
L42	59 - 54	3.880	47	0.6258	0.0009
L43	54 - 43.66	3.255	47	0.5695	0.0008
L44	49 - 42.66	2.688	47	0.5124	0.0007
L45	42.66 - 41.75	2.033	47	0.4692	0.0006
L46	41.75 - 41.5	1.944	47	0.4584	0.0006
L47	41.5 - 36.5	1.921	47	0.4556	0.0006
L48	36.5 - 32.75	1.473	47	0.3985	0.0005
L49	32.75 - 32.5	1.177	47	0.3556	0.0004
L50	32.5 - 32.25	1.159	47	0.3529	0.0004
L51	32.25 - 32	1.140	47	0.3502	0.0004
L52	32 - 30.333	1.122	47	0.3475	0.0004
L53	30.333 - 30.083	1.004	47	0.3297	0.0004
L54	30.083 - 28.25	0.987	47	0.3267	0.0004
L55	28.25 - 28	0.865	47	0.3053	0.0004
L56	28 - 23	0.849	47	0.3025	0.0004
L57	23 - 19.25	0.563	47	0.2453	0.0003
L58	19.25 - 19	0.387	47	0.2031	0.0002
L59	19 - 14.5	0.376	47	0.1999	0.0002
L60	14.5 - 14.25	0.215	47	0.1428	0.0002
L61	14.25 - 12.75	0.207	47	0.1408	0.0002
L62	12.75 - 12.5	0.165	47	0.1283	0.0001
L63	12.5 - 7.5	0.158	47	0.1257	0.0001
L64	7.5 - 3.5	0.055	47	0.0725	0.0001
L65	3.5 - 3.25	0.011	47	0.0306	0.0000
L66	3.25 - 3	0.010	47	0.0288	0.0000
L67	3 - 0	0.008	47	0.0266	0.0000

Critical Deflections and Radius of Curvature - Service Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
168.00	Site Pro 1 RMQP-xxx + PRK-1245 + HRK12 12.5' Platform with Handrails and Kickers	47	33.940	2.0802	0.0191	8873
158.00	Site Pro 1 VFA12-HD 12' Heavy Duty V-Frame	47	29.635	2.0154	0.0135	5052
148.00	Commscope MC-PK8-DSH	47	25.570	1.8510	0.0088	2681
138.00	Platform Mount [LP 303-1]	47	21.950	1.5921	0.0053	2740
128.00	Platform Mount [LP 303-1]	47	18.741	1.4732	0.0041	4090
70.00	Side Arm Mount [SO 701-1]	47	5.463	0.7503	0.0011	4933

Maximum Tower Deflections - Design Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L1	168.33 - 163.33	136.323	18	8.3360	0.0745
L2	163.33 - 158.33	127.675	18	8.2625	0.0630
L3	158.33 - 153.33	119.155	18	8.0927	0.0522
L4	153.33 - 148.33	110.858	18	7.8247	0.0427
L5	148.33 - 143.33	102.893	18	7.4520	0.0344
L6	143.33 - 138.33	95.360	18	6.9844	0.0271
L7	138.33 - 138	88.359	18	6.4279	0.0206
L8	138 - 137.75	87.918	18	6.3887	0.0202
L9	137.75 - 130.5	87.585	18	6.3753	0.0200
L10	134.16 - 129.16	82.883	18	6.1723	0.0179
L11	129.16 - 125.75	76.523	18	5.9833	0.0163
L12	125.75 - 125.5	72.339	18	5.7668	0.0147
L13	125.5 - 120.5	72.038	18	5.7536	0.0146
L14	120.5 - 120.25	66.175	18	5.4728	0.0129
L15	120.25 - 115.25	65.889	18	5.4624	0.0128
L16	115.25 - 113.833	60.298	18	5.2420	0.0116
L17	113.833 - 113.483	58.755	18	5.1776	0.0113
L18	113.483 - 113.25	58.377	18	5.1620	0.0112
L19	113.25 - 112	58.126	18	5.1516	0.0112
L20	112 - 111.75	56.788	18	5.0953	0.0109
L21	111.75 - 106.75	56.522	18	5.0807	0.0109
L22	106.75 - 101.75	51.371	18	4.7768	0.0096
L23	101.75 - 98.42	46.544	18	4.4584	0.0083
L24	98.42 - 98.17	43.516	18	4.2386	0.0076
L25	98.17 - 93.17	43.295	18	4.2276	0.0075
L26	93.17 - 84.55	38.992	18	4.0019	0.0068
L27	89.11 - 83.55	35.674	18	3.8147	0.0063
L28	83.55 - 82.833	31.318	18	3.6512	0.0058
L29	82.833 - 82.583	30.773	18	3.6141	0.0057
L30	82.583 - 77.583	30.585	18	3.6024	0.0057
L31	77.583 - 73.417	26.942	18	3.3614	0.0051
L32	73.417 - 73.167	24.100	18	3.1606	0.0046
L33	73.167 - 72.42	23.935	18	3.1509	0.0046
L34	72.42 - 72.17	23.444	18	3.1220	0.0045
L35	72.17 - 68.08	23.281	18	3.1105	0.0045
L36	68.08 - 67.83	20.701	18	2.9186	0.0041
L37	67.83 - 65.58	20.549	18	2.9063	0.0041
L38	65.58 - 65.33	19.206	18	2.7956	0.0039
L39	65.33 - 64.25	19.060	18	2.7858	0.0038
L40	64.25 - 64	18.435	18	2.7428	0.0038
L41	64 - 59	18.292	18	2.7319	0.0037
L42	59 - 54	15.550	18	2.5096	0.0033
L43	54 - 43.66	13.041	18	2.2836	0.0029
L44	49 - 42.66	10.771	18	2.0542	0.0026
L45	42.66 - 41.75	8.145	18	1.8811	0.0023
L46	41.75 - 41.5	7.791	18	1.8378	0.0022
L47	41.5 - 36.5	7.695	18	1.8264	0.0022
L48	36.5 - 32.75	5.903	18	1.5971	0.0019
L49	32.75 - 32.5	4.716	18	1.4251	0.0017
L50	32.5 - 32.25	4.642	18	1.4142	0.0016
L51	32.25 - 32	4.568	18	1.4034	0.0016
L52	32 - 30.333	4.495	18	1.3927	0.0016
L53	30.333 - 30.083	4.021	18	1.3211	0.0015
L54	30.083 - 28.25	3.952	18	1.3093	0.0015
L55	28.25 - 28	3.466	18	1.2233	0.0014
L56	28 - 23	3.403	18	1.2120	0.0014
L57	23 - 19.25	2.254	18	0.9830	0.0011
L58	19.25 - 19	1.548	18	0.8135	0.0009
L59	19 - 14.5	1.506	18	0.8008	0.0009
L60	14.5 - 14.25	0.860	18	0.5718	0.0006
L61	14.25 - 12.75	0.830	18	0.5640	0.0006
L62	12.75 - 12.5	0.660	18	0.5140	0.0005
L63	12.5 - 7.5	0.634	18	0.5035	0.0005
L64	7.5 - 3.5	0.218	18	0.2905	0.0003
L65	3.5 - 3.25	0.045	18	0.1226	0.0001

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
L66	3.25 - 3	0.039	18	0.1155	0.0001
L67	3 - 0	0.033	18	0.1066	0.0001

Critical Deflections and Radius of Curvature - Design Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
168.00	Site Pro 1 RMQP-xxx + PRK-1245 + HRK12 12.5' Platform with Handrails and Kickers	18	135.750	8.3325	0.0763	2400
158.00	Site Pro 1 VFA12-HD 12' Heavy Duty V-Frame	18	118.600	8.0780	0.0537	1340
148.00	Commscope MC-PK8-DSH	18	102.381	7.4235	0.0352	698
138.00	Platform Mount [LP 303-1]	18	87.918	6.3887	0.0208	704
128.00	Platform Mount [LP 303-1]	18	75.083	5.9123	0.0162	1044
70.00	Side Arm Mount [SO 701-1]	18	21.892	3.0097	0.0043	1236

Compression Checks

Pole Design Data

Section No.	Elevation ft	Size	L ft	L _u ft	KI/r	A in ²	P _u K	φP _n K	Ratio $\frac{P_u}{\phi P_n}$
L1	168.33 - 163.33 (1)	TP19.8343x19x0.1875	5.00	0.00	0.0	11.692 3	-4.92	684.00	0.007
L2	163.33 - 158.33 (2)	TP20.6686x19.8343x0.1875	5.00	0.00	0.0	12.188 8	-5.23	713.05	0.007
L3	158.33 - 153.33 (3)	TP21.503x20.6686x0.1875	5.00	0.00	0.0	12.685 4	-10.36	742.09	0.014
L4	153.33 - 148.33 (4)	TP22.3373x21.503x0.1875	5.00	0.00	0.0	13.181 9	-10.81	771.14	0.014
L5	148.33 - 143.33 (5)	TP23.1716x22.3373x0.1875	5.00	0.00	0.0	13.678 4	-14.15	800.19	0.018
L6	143.33 - 138.33 (6)	TP24.0059x23.1716x0.1875	5.00	0.00	0.0	14.175 0	-14.64	829.24	0.018
L7	138.33 - 138 (7)	TP24.061x24.0059x0.1875	0.33	0.00	0.0	14.207 7	-14.69	831.15	0.018
L8	138 - 137.75 (8)	TP24.1027x24.061x0.4375	0.25	0.00	0.0	32.862 1	-17.96	1922.43	0.009
L9	137.75 - 130.5 (9)	TP25.3125x24.1027x0.4375	7.25	0.00	0.0	33.694 0	-18.54	1971.10	0.009
L10	130.5 - 129.16 (10)	TP25.1505x24.3268x0.4938	5.00	0.00	0.0	38.641 2	-20.07	2260.51	0.009
L11	129.16 - 125.75 (11)	TP25.7123x25.1505x0.4875	3.41	0.00	0.0	39.031 0	-23.84	2283.31	0.010
L12	125.75 - 125.5 (12)	TP25.7535x25.7123x0.6125	0.25	0.00	0.0	48.876 0	-23.92	2859.25	0.008
L13	125.5 - 120.5 (13)	TP26.5773x25.7535x0.6125	5.00	0.00	0.0	49.471 1	-25.34	2894.06	0.009
L14	120.5 - 120.25 (14)	TP26.6184x26.5773x0.8625	0.25	0.00	0.0	70.508 8	-25.43	4124.77	0.006
L15	120.25 - 115.25 (15)	TP27.4422x26.6184x0.8375	5.00	0.00	0.0	70.721 2	-27.19	4137.19	0.007
L16	115.25 - 113.833 (16)	TP27.6756x27.4422x0.825	1.42	0.00	0.0	70.309 7	-27.70	4113.12	0.007
L17	113.833 -	TP27.7333x27.6756x0.8625	0.35	0.00	0.0	73.560	-27.86	4303.31	0.006

Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u K	φP _n K	Ratio P _u / φP _n
L18	113.483 (17) 113.483 - 113.25 (18)	25 TP27.7717x27.7333x0.86 25	0.23	0.00	0.0	8 73.665	-27.95	4309.46	0.006
L19	113.25 - 112 (19)	TP27.9776x27.7717x0.85	1.25	0.00	0.0	9 73.187	-28.44	4281.48	0.007
L20	112 - 111.75 (20)	TP28.0188x27.9776x0.65	0.25	0.00	0.0	6 56.464	-28.54	3303.18	0.009
L21	111.75 - 106.75 (21)	TP28.8426x28.0188x0.63 75	5.00	0.00	0.0	8 57.070	-30.21	3338.64	0.009
L22	106.75 - 101.75 (22)	TP29.6663x28.8426x0.62 5	5.00	0.00	0.0	8 57.610	-31.92	3370.23	0.009
L23	101.75 - 98.42 (23)	TP30.2149x29.6663x0.61 25	3.33	0.00	0.0	7 57.549	-33.08	3366.64	0.010
L24	98.42 - 98.17 (24)	TP30.2561x30.2149x0.95	0.25	0.00	0.0	3 88.366	-33.21	5169.45	0.006
L25	98.17 - 93.17 (25)	TP31.0799x30.2561x0.93 75	5.00	0.00	0.0	7 89.692	-35.37	5247.00	0.007
L26	93.17 - 84.55 (26)	TP32.5x31.0799x0.925	8.62	0.00	0.0	4 90.497	-37.17	5294.07	0.007
L27	84.55 - 83.55 (27)	TP32.1587x31.2487x0.86 25	5.56	0.00	0.0	0 85.675	-41.10	5012.04	0.008
L28	83.55 - 82.833 (28)	TP32.2761x32.1587x0.86 25	0.72	0.00	0.0	8 85.997	-41.41	5030.83	0.008
L29	82.833 - 82.583 (29)	TP32.317x32.2761x0.962 5	0.25	0.00	0.0	1 95.787	-41.54	5603.55	0.007
L30	82.583 - 77.583 (30)	TP33.1354x32.317x0.937 5	5.00	0.00	0.0	2 95.808	-44.00	5604.81	0.008
L31	77.583 - 73.417 (31)	TP33.8172x33.1354x0.93 75	4.17	0.00	0.0	7 97.837	-46.08	5723.50	0.008
L32	73.417 - 73.167 (32)	TP33.8581x33.8172x1.18 75	0.25	0.00	0.0	7 123.14	-46.24	7203.67	0.006
L33	73.167 - 72.42 (33)	TP33.9804x33.8581x1.18 75	0.75	0.00	0.0	00 123.60	-46.66	7230.63	0.006
L34	72.42 - 72.17 (34)	TP34.0213x33.9804x0.98 75	0.25	0.00	0.0	00 103.53	-46.78	6057.01	0.008
L35	72.17 - 68.08 (35)	TP34.6907x34.0213x0.96 25	4.09	0.00	0.0	90 103.03	-48.81	6027.77	0.008
L36	68.08 - 67.83 (36)	TP34.7316x34.6907x0.91 25	0.25	0.00	0.0	90 97.949	-48.95	5730.04	0.009
L37	67.83 - 65.58 (37)	TP35.0999x34.7316x0.91 25	2.25	0.00	0.0	5 99.016	-50.14	5792.44	0.009
L38	65.58 - 65.33 (38)	TP35.1408x35.0999x1.16 25	0.25	0.00	0.0	0 125.37	-50.30	7334.28	0.007
L39	65.33 - 64.25 (39)	TP35.3176x35.1408x1.13 75	1.08	0.00	0.0	20 123.40	-50.91	7219.16	0.007
L40	64.25 - 64 (40)	TP35.3585x35.3176x1.03 75	0.25	0.00	0.0	50 113.02	-51.05	6611.66	0.008
L41	64 - 59 (41)	TP36.1768x35.3585x1.01 25	5.00	0.00	0.0	00 113.00	-53.61	6610.89	0.008
L42	59 - 54 (42)	TP36.9952x36.1768x0.98 75	5.00	0.00	0.0	70 112.86	-56.20	6602.29	0.009
L43	54 - 43.66 (43)	TP38.6875x36.9952x0.96 25	10.34	0.00	0.0	00 112.57	-58.81	6585.87	0.009
L44	43.66 - 42.66 (44)	TP38.2316x37.1885x0.95 75	6.34	0.00	0.0	90 112.41	-64.65	6576.28	0.010
L45	42.66 - 41.75 (45)	TP38.3813x38.2316x0.95 50	0.91	0.00	0.0	50 112.86	-65.18	6602.69	0.010
L46	41.75 - 41.5 (46)	TP38.4224x38.3813x1	0.25	0.00	0.0	70 118.77	-65.35	6948.56	0.009
L47	41.5 - 36.5 (47)	TP39.245x38.4224x0.987 5	5.00	0.00	0.0	90 119.91	-68.40	7014.82	0.010
L48	36.5 - 32.75 (48)	TP39.862x39.245x0.975	3.75	0.00	0.0	10 120.34	-70.72	7039.98	0.010
L49	32.75 - 32.5 (49)	TP39.9031x39.862x1.025	0.25	0.00	0.0	20 126.48	-70.89	7399.32	0.010
L50	32.5 - 32.25 (50)	TP39.9442x39.9031x1.02 5	0.25	0.00	0.0	40 126.61	-71.05	7407.14	0.010
L51	32.25 - 32 (51)	TP39.9854x39.9442x1.05 5	0.25	0.00	0.0	80 129.76	-71.22	7590.95	0.009

Section No.	Elevation ft	Size	L ft	L _u ft	Kl/r	A in ²	P _u K	φP _n K	Ratio P _u / φP _n
L52	32 - 30.333 (52)	TP40.2596x39.9854x1.02 5	1.67	0.00	0.0	127.64 40	-72.28	7467.17	0.010
L53	30.333 - 30.083 (53)	TP40.3007x40.2596x0.92 5	0.25	0.00	0.0	115.60 50	-72.46	6762.90	0.011
L54	30.083 - 28.25 (54)	TP40.6023x40.3007x0.92 5	1.83	0.00	0.0	116.49 10	-73.55	6814.70	0.011
L55	28.25 - 28 (55)	TP40.6434x40.6023x0.97 5	0.25	0.00	0.0	122.76 00	-73.74	7181.46	0.010
L56	28 - 23 (56)	TP41.466x40.6434x0.95	5.00	0.00	0.0	122.16 80	-77.04	7146.83	0.011
L57	23 - 19.25 (57)	TP42.083x41.466x0.95	3.75	0.00	0.0	124.02 80	-79.55	7255.66	0.011
L58	19.25 - 19 (58)	TP42.1241x42.083x0.837 5	0.25	0.00	0.0	109.74 90	-79.71	6420.32	0.012
L59	19 - 14.5 (59)	TP42.8645x42.1241x0.82 5	4.50	0.00	0.0	110.08 20	-82.41	6439.82	0.013
L60	14.5 - 14.25 (60)	TP42.9056x42.8645x1.4	0.25	0.00	0.0	184.43 40	-82.61	10789.40	0.008
L61	14.25 - 12.75 (61)	TP43.1524x42.9056x1.27 5	1.50	0.00	0.0	169.47 10	-83.69	9914.08	0.008
L62	12.75 - 12.5 (62)	TP43.1935x43.1524x1	0.25	0.00	0.0	133.92 20	-83.87	7834.45	0.011
L63	12.5 - 7.5 (63)	TP44.0161x43.1935x0.97 5	5.00	0.00	0.0	133.19 70	-87.19	7792.03	0.011
L64	7.5 - 3.5 (64)	TP44.6742x44.0161x0.97 5	4.00	0.00	0.0	135.23 40	-89.77	7911.17	0.011
L65	3.5 - 3.25 (65)	TP44.7153x44.6742x1.47 5	0.25	0.00	0.0	202.43 60	-89.98	11842.50	0.008
L66	3.25 - 3 (66)	TP44.7564x44.7153x1.15	0.25	0.00	0.0	159.16 80	-90.15	9311.32	0.010
L67	3 - 0 (67)	TP45.25x44.7564x1.15	3.00	0.00	0.0	160.96 90	-92.20	9416.71	0.010

Pole Bending Design Data

Section No.	Elevation ft	Size	M _{ux} kip-ft	φM _{nx} kip-ft	Ratio M _{ux} / φM _{nx}	M _{uy} kip-ft	φM _{ny} kip-ft	Ratio M _{uy} / φM _{ny}
L1	168.33 - 163.33 (1)	TP19.8343x19x0.1875	50.83	341.82	0.149	0.00	341.82	0.000
L2	163.33 - 158.33 (2)	TP20.6686x19.8343x0.18 75	95.89	367.37	0.261	0.00	367.37	0.000
L3	158.33 - 153.33 (3)	TP21.503x20.6686x0.187 5	166.31	393.44	0.423	0.00	393.44	0.000
L4	153.33 - 148.33 (4)	TP22.3373x21.503x0.187 5	239.90	420.01	0.571	0.00	420.01	0.000
L5	148.33 - 143.33 (5)	TP23.1716x22.3373x0.18 75	330.89	447.03	0.740	0.00	447.03	0.000
L6	143.33 - 138.33 (6)	TP24.0059x23.1716x0.18 75	424.44	474.45	0.895	0.00	474.45	0.000
L7	138.33 - 138 (7)	TP24.061x24.0059x0.187 5	430.66	476.27	0.904	0.00	476.27	0.000
L8	138 - 137.75 (8)	TP24.1027x24.061x0.437 5	440.39	1175.72	0.375	0.00	1175.72	0.000
L9	137.75 - 130.5 (9)	TP25.3125x24.1027x0.43 75	520.25	1236.55	0.421	0.00	1236.55	0.000
L10	130.5 - 129.16 (10)	TP25.1505x24.3268x0.49 38	633.56	1438.22	0.441	0.00	1438.22	0.000
L11	129.16 - 125.75 (11)	TP25.7123x25.1505x0.48 75	722.03	1487.22	0.485	0.00	1487.22	0.000
L12	125.75 - 125.5 (12)	TP25.7535x25.7123x0.61 25	728.55	1847.04	0.394	0.00	1847.04	0.000
L13	125.5 - 120.5 (13)	TP26.5773x25.7535x0.6	860.85	1934.11	0.445	0.00	1934.11	0.000
L14	120.5 -	TP26.6184x26.5773x0.86	867.57	2705.63	0.321	0.00	2705.63	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 $\frac{M_{uy}}{\phi M_{ny}}$
L15	120.25 (14)	25						
	120.25 - 115.25 (15)	TP27.4422x26.6184x0.83	1004.04	2808.67	0.357	0.00	2808.67	0.000
L16	115.25 - 113.833 (16)	75						
	113.833 (16)	TP27.6756x27.4422x0.82	1043.47	2820.19	0.370	0.00	2820.19	0.000
L17	113.833 - 113.483 (17)	5						
	113.483 (17)	TP27.7333x27.6756x0.86	1053.28	2948.89	0.357	0.00	2948.89	0.000
L18	113.483 - 113.25 (18)	25						
	113.25 (18)	TP27.7717x27.7333x0.86	1059.81	2957.45	0.358	0.00	2957.45	0.000
L19	113.25 - 112 (19)	25						
	112 (19)	TP27.9776x27.7717x0.85	1095.00	2964.17	0.369	0.00	2964.17	0.000
L20	112 - 111.75 (20)	75						
	111.75 (20)	TP28.0188x27.9776x0.65	1102.08	2324.29	0.474	0.00	2324.29	0.000
L21	111.75 - 106.75 (21)	5						
	106.75 (21)	TP28.8426x28.0188x0.63	1244.57	2423.74	0.513	0.00	2423.74	0.000
L22	106.75 - 101.75 (22)	25						
	101.75 (22)	TP29.6663x28.8426x0.62	1389.08	2521.88	0.551	0.00	2521.88	0.000
L23	101.75 - 98.42 (23)	5						
	98.42 (23)	TP30.2149x29.6663x0.61	1486.43	2569.96	0.578	0.00	2569.96	0.000
L24	98.42 - 98.17 (24)	25						
	98.17 (24)	TP30.2561x30.2149x0.95	1493.78	3862.28	0.387	0.00	3862.28	0.000
L25	98.17 - 93.17 (25)	75						
	93.17 (25)	TP31.0799x30.2561x0.93	1642.40	4037.22	0.407	0.00	4037.22	0.000
L26	93.17 - 84.55 (26)	5						
	84.55 (26)	TP32.1587x31.0799x0.925	1765.30	4169.94	0.423	0.00	4169.94	0.000
L27	84.55 - 83.55 (27)	25						
	83.55 (27)	TP32.1587x31.2487x0.86	1936.93	4017.87	0.482	0.00	4017.87	0.000
L28	83.55 - 82.833 (28)	25						
	82.833 (28)	TP32.2761x32.1587x0.86	1959.41	4048.46	0.484	0.00	4048.46	0.000
L29	82.833 - 82.583 (29)	5						
	82.583 (29)	TP32.317x32.2761x0.962	1967.27	4486.72	0.438	0.00	4486.72	0.000
L30	82.583 - 77.583 (30)	5						
	77.583 (30)	TP33.1354x32.317x0.937	2126.53	4615.51	0.461	0.00	4615.51	0.000
L31	77.583 - 73.417 (31)	75						
	73.417 (31)	TP33.8172x33.1354x0.93	2262.32	4815.88	0.470	0.00	4815.88	0.000
L32	73.417 - 73.167 (32)	75						
	73.167 (32)	TP33.8581x33.8172x1.18	2270.56	5977.26	0.380	0.00	5977.26	0.000
L33	73.167 - 72.42 (33)	75						
	72.42 (33)	TP33.9804x33.8581x1.18	2295.24	6022.87	0.381	0.00	6022.87	0.000
L34	72.42 - 72.17 (34)	75						
	72.17 (34)	TP34.0213x33.9804x0.98	2303.53	5113.52	0.450	0.00	5113.52	0.000
L35	72.17 - 68.08 (35)	25						
	68.08 (35)	TP34.6907x34.0213x0.96	2439.89	5202.67	0.469	0.00	5202.67	0.000
L36	68.08 - 67.83 (36)	25						
	67.83 (36)	TP34.7316x34.6907x0.91	2448.29	4966.54	0.493	0.00	4966.54	0.000
L37	67.83 - 65.58 (37)	25						
	65.58 (37)	TP35.0999x34.7316x0.91	2524.33	5076.73	0.497	0.00	5076.73	0.000
L38	65.58 - 65.33 (38)	25						
	65.33 (38)	TP35.1408x35.0999x1.16	2532.83	6342.27	0.399	0.00	6342.27	0.000
L39	65.33 - 64.25 (39)	75						
	64.25 (39)	TP35.3176x35.1408x1.13	2569.66	6285.47	0.409	0.00	6285.47	0.000
L40	64.25 - 64 (40)	75						
	64 (40)	TP35.3585x35.3176x1.03	2578.22	5797.39	0.445	0.00	5797.39	0.000
L41	64 - 59 (41)	25						
	59 (41)	TP36.1768x35.3585x1.01	2750.44	5947.44	0.462	0.00	5947.44	0.000
L42	59 - 54 (42)	75						
	54 (42)	TP36.9952x36.1768x0.98	2924.71	6090.26	0.480	0.00	6090.26	0.000
L43	54 - 43.66 (43)	25						
	43.66 (43)	TP38.6875x36.9952x0.96	3100.88	6225.31	0.498	0.00	6225.31	0.000
L44	43.66 - 42.66 (44)	25						
	42.66 (44)	TP38.2316x37.1885x0.95	3327.72	6292.78	0.529	0.00	6292.78	0.000
L45	42.66 - 41.75 (45)	25						
	41.75 (45)	TP38.3813x38.2316x0.95	3360.60	6344.06	0.530	0.00	6344.06	0.000
L46	41.75 - 41.5 (46)	1						
	41.5 (46)	TP38.4224x38.3813x1	3369.64	6666.07	0.505	0.00	6666.07	0.000
L47	41.5 - 36.5 (47)	5						
	36.5 (47)	TP39.245x38.4224x0.987	3551.32	6885.92	0.516	0.00	6885.92	0.000
L48	36.5 - 32.75 (48)	5						
	32.75 (48)	TP39.862x39.245x0.975	3688.61	7029.38	0.525	0.00	7029.38	0.000

Section No.	Elevation ft	Size	M_{ux}	ϕM_{nx}	Ratio	M_{uy} kip-ft	ϕM_{ny}	Ratio
			kip-ft	kip-ft	$\frac{M_{ux}}{\phi M_{nx}}$		kip-ft	$\frac{M_{uy}}{\phi M_{ny}}$
L49	32.75 - 32.5 (49)	TP39.9031x39.862x1.025	3697.79	7377.19	0.501	0.00	7377.19	0.000
L50	32.5 - 32.25 (50)	TP39.9442x39.9031x1.025	3706.97	7393.01	0.501	0.00	7393.01	0.000
L51	32.25 - 32 (51)	TP39.9854x39.9442x1.05	3716.17	7574.95	0.491	0.00	7574.95	0.000
L52	32 - 30.333 (52)	TP40.2596x39.9854x1.025	3777.54	7514.87	0.503	0.00	7514.87	0.000
L53	30.333 - 30.083 (53)	TP40.3007x40.2596x0.925	3786.76	6848.16	0.553	0.00	6848.16	0.000
L54	30.083 - 28.25 (54)	TP40.6023x40.3007x0.925	3854.46	6954.67	0.554	0.00	6954.67	0.000
L55	28.25 - 28 (55)	TP40.6434x40.6023x0.975	3863.71	7318.27	0.528	0.00	7318.27	0.000
L56	28 - 23 (56)	TP41.466x40.6434x0.95	4049.30	7446.82	0.544	0.00	7446.82	0.000
L57	23 - 19.25 (57)	TP42.083x41.466x0.95	4189.20	7677.97	0.546	0.00	7677.97	0.000
L58	19.25 - 19 (58)	TP42.1241x42.083x0.8375	4198.54	6838.18	0.614	0.00	6838.18	0.000
L59	19 - 14.5 (59)	TP42.8645x42.1241x0.825	4366.93	6988.55	0.625	0.00	6988.55	0.000
L60	14.5 - 14.25 (60)	TP42.9056x42.8645x1.4	4376.29	11402.33	0.384	0.00	11402.33	0.000
L61	14.25 - 12.75 (61)	TP43.1524x42.9056x1.275	4432.53	10604.83	0.418	0.00	10604.83	0.000
L62	12.75 - 12.5 (62)	TP43.1935x43.1524x1	4441.91	8499.17	0.523	0.00	8499.17	0.000
L63	12.5 - 7.5 (63)	TP44.0161x43.1935x0.975	4629.74	8631.83	0.536	0.00	8631.83	0.000
L64	7.5 - 3.5 (64)	TP44.6742x44.0161x0.975	4780.33	8900.75	0.537	0.00	8900.75	0.000
L65	3.5 - 3.25 (65)	TP44.7153x44.6742x1.475	4789.76	13033.50	0.367	0.00	13033.50	0.000
L66	3.25 - 3 (66)	TP44.7564x44.7153x1.15	4799.18	10412.42	0.461	0.00	10412.42	0.000
L67	3 - 0 (67)	TP45.25x44.7564x1.15	4912.36	10652.58	0.461	0.00	10652.58	0.000

Pole Shear Design Data

Section No.	Elevation ft	Size	Actual V_u	ϕV_n	Ratio	Actual T_u	ϕT_n	Ratio
			K	K	$\frac{V_u}{\phi V_n}$	kip-ft	kip-ft	$\frac{T_u}{\phi T_n}$
L1	168.33 - 163.33 (1)	TP19.8343x19x0.1875	8.85	205.20	0.043	3.63	353.06	0.010
L2	163.33 - 158.33 (2)	TP20.6686x19.8343x0.1875	9.17	213.91	0.043	3.63	383.68	0.009
L3	158.33 - 153.33 (3)	TP21.503x20.6686x0.1875	14.58	222.63	0.065	3.63	415.58	0.009
L4	153.33 - 148.33 (4)	TP22.3373x21.503x0.1875	14.87	231.34	0.064	3.62	448.75	0.008
L5	148.33 - 143.33 (5)	TP23.1716x22.3373x0.1875	18.59	240.06	0.077	3.52	483.19	0.007
L6	143.33 - 138.33 (6)	TP24.0059x23.1716x0.1875	18.85	248.77	0.076	3.31	518.91	0.006
L7	138.33 - 138 (7)	TP24.061x24.0059x0.1875	18.86	249.35	0.076	3.31	521.31	0.006
L8	138 - 137.75 (8)	TP24.1027x24.061x0.4375	22.04	576.73	0.038	3.99	1195.27	0.003
L9	137.75 - 130.5 (9)	TP25.3125x24.1027x0.4375	22.40	591.33	0.038	3.71	1256.54	0.003
L10	130.5 - 129.16 (10)	TP25.1505x24.3268x0.4938	22.93	678.15	0.034	3.71	1464.34	0.003
L11	129.16 - 125.75 (11)	TP25.7123x25.1505x0.4875	26.07	684.99	0.038	3.71	1513.19	0.002
L12	125.75 - 125.5 (12)	TP25.7535x25.7123x0.6125	26.11	857.77	0.030	3.71	1888.58	0.002

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 $\frac{T_u}{\phi T_n}$
L13	125.5 - 120.5 (13)	TP26.5773x25.7535x0.6	26.86	868.22	0.031	3.70	1975.16	0.002
L14	120.5 - 120.25 (14)	TP26.6184x26.5773x0.86 25	26.90	1237.43	0.022	3.69	2791.12	0.001
L15	120.25 - 115.25 (15)	TP27.4422x26.6184x0.83 75	27.73	1241.16	0.022	3.67	2891.78	0.001
L16	115.25 - 113.833 (16)	TP27.6756x27.4422x0.82 5	27.97	1233.94	0.023	3.66	2901.53	0.001
L17	113.833 - 113.483 (17)	TP27.7333x27.6756x0.86 25	28.03	1290.99	0.022	3.65	3037.97	0.001
L18	113.483 - 113.25 (18)	TP27.7717x27.7333x0.86 25	28.08	1292.84	0.022	3.65	3046.66	0.001
L19	113.25 - 112 (19)	TP27.9776x27.7717x0.85	28.29	1284.44	0.022	3.65	3051.45	0.001
L20	112 - 111.75 (20)	TP28.0188x27.9776x0.65	28.31	990.95	0.029	3.65	2375.14	0.002
L21	111.75 - 106.75 (21)	TP28.8426x28.0188x0.63 75	28.73	1001.59	0.029	3.64	2473.99	0.001
L22	106.75 - 101.75 (22)	TP29.6663x28.8426x0.62 5	29.12	1011.07	0.029	3.64	2571.44	0.001
L23	101.75 - 98.42 (23)	TP30.2149x29.6663x0.61 25	29.39	1009.99	0.029	3.65	2618.33	0.001
L24	98.42 - 98.17 (24)	TP30.2561x30.2149x0.95	29.41	1550.84	0.019	3.65	3980.19	0.001
L25	98.17 - 93.17 (25)	TP31.0799x30.2561x0.93 75	30.09	1574.10	0.019	3.64	4155.18	0.001
L26	93.17 - 84.55 (26)	TP32.5x31.0799x0.925	30.50	1588.22	0.019	3.64	4287.23	0.001
L27	84.55 - 83.55 (27)	TP32.1587x31.2487x0.86 25	31.29	1503.61	0.021	3.64	4121.05	0.001
L28	83.55 - 82.833 (28)	TP32.2761x32.1587x0.86 25	31.40	1509.25	0.021	3.64	4152.01	0.001
L29	82.833 - 82.583 (29)	TP32.317x32.2761x0.962 5	31.44	1681.07	0.019	3.64	4615.99	0.001
L30	82.583 - 77.583 (30)	TP33.1354x32.317x0.937 5	32.25	1681.44	0.019	3.64	4741.21	0.001
L31	77.583 - 73.417 (31)	TP33.8172x33.1354x0.93 75	32.93	1717.05	0.019	3.65	4944.14	0.001
L32	73.417 - 73.167 (32)	TP33.8581x33.8172x1.18 75	32.97	2161.10	0.015	3.65	6183.18	0.001
L33	73.167 - 72.42 (33)	TP33.9804x33.8581x1.18 75	33.10	2169.19	0.015	3.65	6229.55	0.001
L34	72.42 - 72.17 (34)	TP34.0213x33.9804x0.98 75	33.14	1817.10	0.018	3.66	5256.76	0.001
L35	72.17 - 68.08 (35)	TP34.6907x34.0213x0.96 25	33.59	1808.33	0.019	3.45	5341.35	0.001
L36	68.08 - 67.83 (36)	TP34.7316x34.6907x0.91 25	33.61	1719.01	0.020	3.45	5091.22	0.001
L37	67.83 - 65.58 (37)	TP35.0999x34.7316x0.91 25	33.97	1737.73	0.020	3.45	5202.69	0.001
L38	65.58 - 65.33 (38)	TP35.1408x35.0999x1.16 25	34.00	2200.28	0.015	3.45	6547.27	0.001
L39	65.33 - 64.25 (39)	TP35.3176x35.1408x1.13 75	34.19	2165.75	0.016	3.46	6482.77	0.001
L40	64.25 - 64 (40)	TP35.3585x35.3176x1.03 75	34.22	1983.50	0.017	3.46	5961.72	0.001
L41	64 - 59 (41)	TP36.1768x35.3585x1.01 25	34.65	1983.27	0.017	3.46	6107.50	0.001
L42	59 - 54 (42)	TP36.9952x36.1768x0.98 75	35.04	1980.69	0.018	3.46	6245.84	0.001
L43	54 - 43.66 (43)	TP38.6875x36.9952x0.96 25	35.42	1975.76	0.018	3.45	6376.22	0.001
L44	43.66 - 42.66 (44)	TP38.2316x37.1885x0.95	36.09	1972.89	0.018	3.45	6441.33	0.001
L45	42.66 - 41.75 (45)	TP38.3813x38.2316x0.95	36.15	1980.81	0.018	3.45	6493.17	0.001
L46	41.75 - 41.5 (46)	TP38.4224x38.3813x1	36.15	2084.57	0.017	3.45	6831.68	0.001
L47	41.5 - 36.5	TP39.245x38.4224x0.987	36.50	2104.45	0.017	3.45	7050.74	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 $\frac{T_u}{\phi T_n}$
L48	(47) 36.5 - 32.75	5 TP39.862x39.245x0.975	36.73	2111.99	0.017	3.45	7192.45	0.000
L49	(48) 32.75 - 32.5	5 TP39.9031x39.862x1.025	36.72	2219.80	0.017	3.45	7557.84	0.000
L50	(49) 32.5 - 32.25	5 TP39.9442x39.9031x1.02	36.73	2222.14	0.017	3.45	7573.84	0.000
L51	(50) 32.25 - 32	5 TP39.9854x39.9442x1.05	36.75	2277.29	0.016	3.45	7765.00	0.000
L52	(51) 32 - 30.333	5 TP40.2596x39.9854x1.02	36.88	2240.15	0.016	3.45	7697.09	0.000
L53	(52) 30.333 -	5 TP40.3007x40.2596x0.92	36.86	2028.87	0.018	3.45	6996.22	0.000
L54	(53) 30.083 -	5 TP40.6023x40.3007x0.92	37.01	2044.41	0.018	3.45	7103.79	0.000
L55	(54) 28.25 - 28	5 TP40.6434x40.6023x0.97	36.98	2154.44	0.017	3.45	7484.43	0.000
L56	(55) 28 - 23 (56)	5 TP41.466x40.6434x0.95	37.24	2144.05	0.017	3.45	7607.49	0.000
L57	(56) 23 - 19.25	5 TP42.083x41.466x0.95	37.39	2176.70	0.017	3.45	7840.94	0.000
L58	(57) 19.25 - 19	5 TP42.1241x42.083x0.837	37.36	1926.10	0.019	3.45	6964.14	0.000
L59	(58) 19 - 14.5 (59)	5 TP42.8645x42.1241x0.82	37.46	1931.95	0.019	3.45	7112.66	0.000
L60	(59) 14.5 - 14.25	5 TP42.9056x42.8645x1.4	37.44	3236.82	0.012	3.45	11765.33	0.000
L61	(60) 14.25 - 12.75	5 TP43.1524x42.9056x1.27	37.52	2974.22	0.013	3.45	10907.67	0.000
L62	(61) 12.75 - 12.5	5 TP43.1935x43.1524x1	37.50	2350.33	0.016	3.45	8684.67	0.000
L63	(62) 12.5 - 7.5 (63)	5 TP44.0161x43.1935x0.97	37.61	2337.61	0.016	3.45	8811.17	0.000
L64	(63) 7.5 - 3.5 (64)	5 TP44.6742x44.0161x0.97	37.67	2373.35	0.016	3.45	9082.67	0.000
L65	(64) 3.5 - 3.25 (65)	5 TP44.7153x44.6742x1.47	37.65	3552.75	0.011	3.45	13453.42	0.000
L66	(65) 3.25 - 3 (66)	5 TP44.7564x44.7153x1.15	37.66	2793.40	0.013	3.45	10667.50	0.000
L67	(66) 3 - 0 (67)	5 TP45.25x44.7564x1.15	37.75	2825.01	0.013	3.45	10910.33	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	168.33 - 163.33 (1)	0.007	0.149	0.000	0.043	0.010	0.159	1.050	4.8.2
L2	163.33 - 158.33 (2)	0.007	0.261	0.000	0.043	0.009	0.271	1.050	4.8.2
L3	158.33 - 153.33 (3)	0.014	0.423	0.000	0.065	0.009	0.442	1.050	4.8.2
L4	153.33 - 148.33 (4)	0.014	0.571	0.000	0.064	0.008	0.590	1.050	4.8.2
L5	148.33 - 143.33 (5)	0.018	0.740	0.000	0.077	0.007	0.765	1.050	4.8.2
L6	143.33 - 138.33 (6)	0.018	0.895	0.000	0.076	0.006	0.919	1.050	4.8.2
L7	138.33 - 138 (7)	0.018	0.904	0.000	0.076	0.006	0.929	1.050	4.8.2
L8	138 - 137.75 (8)	0.009	0.375	0.000	0.038	0.003	0.386	1.050	4.8.2
L9	137.75 - 130.5 (9)	0.009	0.421	0.000	0.038	0.003	0.432	1.050	4.8.2
L10	130.5 - 129.16 (10)	0.009	0.441	0.000	0.034	0.003	0.451	1.050	4.8.2

Section No.	Elevation ft	Ratio	Ratio	Ratio	Ratio	Ratio	Comb. Stress Ratio	Allow. Stress Ratio	Criteria
		P_u	M_{ux}	M_{uy}	V_u	T_u			
		ϕP_n	ϕM_{nx}	ϕM_{ny}	ϕV_n	ϕT_n			
L11	129.16 - 125.75 (11)	0.010	0.485	0.000	0.038	0.002	0.498	1.050	4.8.2
L12	125.75 - 125.5 (12)	0.008	0.394	0.000	0.030	0.002	0.404	1.050	4.8.2
L13	125.5 - 120.5 (13)	0.009	0.445	0.000	0.031	0.002	0.455	1.050	4.8.2
L14	120.5 - 120.25 (14)	0.006	0.321	0.000	0.022	0.001	0.327	1.050	4.8.2
L15	120.25 - 115.25 (15)	0.007	0.357	0.000	0.022	0.001	0.365	1.050	4.8.2
L16	115.25 - 113.833 (16)	0.007	0.370	0.000	0.023	0.001	0.377	1.050	4.8.2
L17	113.833 - 113.483 (17)	0.006	0.357	0.000	0.022	0.001	0.364	1.050	4.8.2
L18	113.483 - 113.25 (18)	0.006	0.358	0.000	0.022	0.001	0.365	1.050	4.8.2
L19	113.25 - 112 (19)	0.007	0.369	0.000	0.022	0.001	0.377	1.050	4.8.2
L20	112 - 111.75 (20)	0.009	0.474	0.000	0.029	0.002	0.484	1.050	4.8.2
L21	111.75 - 106.75 (21)	0.009	0.513	0.000	0.029	0.001	0.523	1.050	4.8.2
L22	106.75 - 101.75 (22)	0.009	0.551	0.000	0.029	0.001	0.561	1.050	4.8.2
L23	101.75 - 98.42 (23)	0.010	0.578	0.000	0.029	0.001	0.589	1.050	4.8.2
L24	98.42 - 98.17 (24)	0.006	0.387	0.000	0.019	0.001	0.394	1.050	4.8.2
L25	98.17 - 93.17 (25)	0.007	0.407	0.000	0.019	0.001	0.414	1.050	4.8.2
L26	93.17 - 84.55 (26)	0.007	0.423	0.000	0.019	0.001	0.431	1.050	4.8.2
L27	84.55 - 83.55 (27)	0.008	0.482	0.000	0.021	0.001	0.491	1.050	4.8.2
L28	83.55 - 82.833 (28)	0.008	0.484	0.000	0.021	0.001	0.493	1.050	4.8.2
L29	82.833 - 82.583 (29)	0.007	0.438	0.000	0.019	0.001	0.446	1.050	4.8.2
L30	82.583 - 77.583 (30)	0.008	0.461	0.000	0.019	0.001	0.469	1.050	4.8.2
L31	77.583 - 73.417 (31)	0.008	0.470	0.000	0.019	0.001	0.478	1.050	4.8.2
L32	73.417 - 73.167 (32)	0.006	0.380	0.000	0.015	0.001	0.387	1.050	4.8.2
L33	73.167 - 72.42 (33)	0.006	0.381	0.000	0.015	0.001	0.388	1.050	4.8.2
L34	72.42 - 72.17 (34)	0.008	0.450	0.000	0.018	0.001	0.459	1.050	4.8.2
L35	72.17 - 68.08 (35)	0.008	0.469	0.000	0.019	0.001	0.477	1.050	4.8.2
L36	68.08 - 67.83 (36)	0.009	0.493	0.000	0.020	0.001	0.502	1.050	4.8.2
L37	67.83 - 65.58 (37)	0.009	0.497	0.000	0.020	0.001	0.506	1.050	4.8.2
L38	65.58 - 65.33 (38)	0.007	0.399	0.000	0.015	0.001	0.406	1.050	4.8.2
L39	65.33 - 64.25 (39)	0.007	0.409	0.000	0.016	0.001	0.416	1.050	4.8.2
L40	64.25 - 64 (40)	0.008	0.445	0.000	0.017	0.001	0.453	1.050	4.8.2
L41	64 - 59 (41)	0.008	0.462	0.000	0.017	0.001	0.471	1.050	4.8.2
L42	59 - 54 (42)	0.009	0.480	0.000	0.018	0.001	0.489	1.050	4.8.2
L43	54 - 43.66 (43)	0.009	0.498	0.000	0.018	0.001	0.507	1.050	4.8.2
L44	43.66 - 42.66 (44)	0.010	0.529	0.000	0.018	0.001	0.539	1.050	4.8.2
L45	42.66 - 41.75 (45)	0.010	0.530	0.000	0.018	0.001	0.540	1.050	4.8.2
L46	41.75 - 41.5	0.009	0.505	0.000	0.017	0.001	0.515	1.050	4.8.2

Section No.	Elevation ft	Ratio	Ratio	Ratio	Ratio	Ratio	Comb. Stress Ratio	Allow. Stress Ratio	Criteria
		P_u	M_{ux}	M_{uy}	V_u	T_u			
	(46)								
L47	41.5 - 36.5	0.010	0.516	0.000	0.017	0.000	0.526	1.050	4.8.2
	(47)								
L48	36.5 - 32.75	0.010	0.525	0.000	0.017	0.000	0.535	1.050	4.8.2
	(48)								
L49	32.75 - 32.5	0.010	0.501	0.000	0.017	0.000	0.511	1.050	4.8.2
	(49)								
L50	32.5 - 32.25	0.010	0.501	0.000	0.017	0.000	0.511	1.050	4.8.2
	(50)								
L51	32.25 - 32	0.009	0.491	0.000	0.016	0.000	0.500	1.050	4.8.2
	(51)								
L52	32 - 30.333	0.010	0.503	0.000	0.016	0.000	0.513	1.050	4.8.2
	(52)								
L53	30.333 - 30.083 (53)	0.011	0.553	0.000	0.018	0.000	0.564	1.050	4.8.2
L54	30.083 - 28.25 (54)	0.011	0.554	0.000	0.018	0.000	0.565	1.050	4.8.2
L55	28.25 - 28 (55)	0.010	0.528	0.000	0.017	0.000	0.539	1.050	4.8.2
L56	28 - 23 (56)	0.011	0.544	0.000	0.017	0.000	0.555	1.050	4.8.2
L57	23 - 19.25 (57)	0.011	0.546	0.000	0.017	0.000	0.557	1.050	4.8.2
L58	19.25 - 19 (58)	0.012	0.614	0.000	0.019	0.000	0.627	1.050	4.8.2
L59	19 - 14.5 (59)	0.013	0.625	0.000	0.019	0.000	0.638	1.050	4.8.2
L60	14.5 - 14.25 (60)	0.008	0.384	0.000	0.012	0.000	0.392	1.050	4.8.2
L61	14.25 - 12.75 (61)	0.008	0.418	0.000	0.013	0.000	0.427	1.050	4.8.2
L62	12.75 - 12.5 (62)	0.011	0.523	0.000	0.016	0.000	0.534	1.050	4.8.2
L63	12.5 - 7.5 (63)	0.011	0.536	0.000	0.016	0.000	0.548	1.050	4.8.2
L64	7.5 - 3.5 (64)	0.011	0.537	0.000	0.016	0.000	0.549	1.050	4.8.2
L65	3.5 - 3.25 (65)	0.008	0.367	0.000	0.011	0.000	0.375	1.050	4.8.2
L66	3.25 - 3 (66)	0.010	0.461	0.000	0.013	0.000	0.471	1.050	4.8.2
L67	3 - 0 (67)	0.010	0.461	0.000	0.013	0.000	0.471	1.050	4.8.2

Section Capacity Table

Section No.	Elevation ft	Component Type	Size	Critical Element	P K	ϕP_{allow} K	% Capacity	Pass Fail
L1	168.33 - 163.33	Pole	TP19.8343x19x0.1875	1	-4.92	718.20	15.1	Pass
L2	163.33 - 158.33	Pole	TP20.6686x19.8343x0.1875	2	-5.23	748.70	25.8	Pass
L3	158.33 - 153.33	Pole	TP21.503x20.6686x0.1875	3	-10.36	779.20	42.1	Pass
L4	153.33 - 148.33	Pole	TP22.3373x21.503x0.1875	4	-10.81	809.70	56.2	Pass
L5	148.33 - 143.33	Pole	TP23.1716x22.3373x0.1875	5	-14.15	840.20	72.9	Pass
L6	143.33 - 138.33	Pole	TP24.0059x23.1716x0.1875	6	-14.64	870.70	87.5	Pass
L7	138.33 - 138	Pole	TP24.061x24.0059x0.1875	7	-14.69	872.71	88.4	Pass
L8	138 - 137.75	Pole	TP24.1027x24.061x0.4375	8	-17.96	2018.55	36.7	Pass
L9	137.75 - 130.5	Pole	TP25.3125x24.1027x0.4375	9	-18.54	2069.65	41.1	Pass
L10	130.5 - 129.16	Pole	TP25.1505x24.3268x0.4938	10	-20.07	2373.54	42.9	Pass
L11	129.16 - 125.75	Pole	TP25.7123x25.1505x0.4875	11	-23.84	2397.48	47.4	Pass
L12	125.75 - 125.5	Pole	TP25.7535x25.7123x0.6125	12	-23.92	3002.21	38.5	Pass
L13	125.5 - 120.5	Pole	TP26.5773x25.7535x0.6	13	-25.34	3038.76	43.3	Pass
L14	120.5 - 120.25	Pole	TP26.6184x26.5773x0.8625	14	-25.43	4331.01	31.2	Pass
L15	120.25 - 115.25	Pole	TP27.4422x26.6184x0.8375	15	-27.19	4344.05	34.7	Pass
L16	115.25 - 113.833	Pole	TP27.6756x27.4422x0.825	16	-27.70	4318.78	35.9	Pass
L17	113.833 - 113.483	Pole	TP27.7333x27.6756x0.8625	17	-27.86	4518.48	34.7	Pass
L18	113.483 - 113.25	Pole	TP27.7717x27.7333x0.8625	18	-27.95	4524.93	34.8	Pass
L19	113.25 - 112	Pole	TP27.9776x27.7717x0.85	19	-28.44	4495.55	35.9	Pass
L20	112 - 111.75	Pole	TP28.0188x27.9776x0.65	20	-28.54	3468.34	46.1	Pass

Section No.	Elevation ft	Component Type	Size	Critical Element	P K	$\sigma_{P_{allow}}$ K	% Capacity	Pass Fail	
L21	111.75 - 106.75	Pole	TP28.8426x28.0188x0.6375	21	-30.21	3505.57	49.9	Pass	
L22	106.75 - 101.75	Pole	TP29.6663x28.8426x0.625	22	-31.92	3538.74	53.4	Pass	
L23	101.75 - 98.42	Pole	TP30.2149x29.6663x0.6125	23	-33.08	3534.97	56.1	Pass	
L24	98.42 - 98.17	Pole	TP30.2561x30.2149x0.95	24	-33.21	5427.92	37.5	Pass	
L25	98.17 - 93.17	Pole	TP31.0799x30.2561x0.9375	25	-35.37	5509.35	39.4	Pass	
L26	93.17 - 84.55	Pole	TP32.5x31.0799x0.925	26	-37.17	5558.77	41.0	Pass	
L27	84.55 - 83.55	Pole	TP32.1587x31.2487x0.8625	27	-41.10	5262.64	46.7	Pass	
L28	83.55 - 82.833	Pole	TP32.2761x32.1587x0.8625	28	-41.41	5282.37	46.9	Pass	
L29	82.833 - 82.583	Pole	TP32.317x32.2761x0.9625	29	-41.54	5883.73	42.5	Pass	
L30	82.583 - 77.583	Pole	TP33.1354x32.317x0.9375	30	-44.00	5885.05	44.7	Pass	
L31	77.583 - 73.417	Pole	TP33.8172x33.1354x0.9375	31	-46.08	6009.67	45.5	Pass	
L32	73.417 - 73.167	Pole	TP33.8581x33.8172x1.1875	32	-46.24	7563.85	36.8	Pass	
L33	73.167 - 72.42	Pole	TP33.9804x33.8581x1.1875	33	-46.66	7592.16	36.9	Pass	
L34	72.42 - 72.17	Pole	TP34.0213x33.9804x0.9875	34	-46.78	6359.86	43.7	Pass	
L35	72.17 - 68.08	Pole	TP34.6907x34.0213x0.9625	35	-48.81	6329.16	45.5	Pass	
L36	68.08 - 67.83	Pole	TP34.7316x34.6907x0.9125	36	-48.95	6016.54	47.8	Pass	
L37	67.83 - 65.58	Pole	TP35.0999x34.7316x0.9125	37	-50.14	6082.06	48.2	Pass	
L38	65.58 - 65.33	Pole	TP35.1408x35.0999x1.1625	38	-50.30	7700.99	38.7	Pass	
L39	65.33 - 64.25	Pole	TP35.3176x35.1408x1.1375	39	-50.91	7580.12	39.6	Pass	
L40	64.25 - 64	Pole	TP35.3585x35.3176x1.0375	40	-51.05	6942.24	43.1	Pass	
L41	64 - 59	Pole	TP36.1768x35.3585x1.0125	41	-53.61	6941.43	44.8	Pass	
L42	59 - 54	Pole	TP36.9952x36.1768x0.9875	42	-56.20	6932.40	46.6	Pass	
L43	54 - 43.66	Pole	TP38.6875x36.9952x0.9625	43	-58.81	6915.16	48.3	Pass	
L44	43.66 - 42.66	Pole	TP38.2316x37.1885x0.95	44	-64.65	6905.09	51.3	Pass	
L45	42.66 - 41.75	Pole	TP38.3813x38.2316x0.95	45	-65.18	6932.82	51.4	Pass	
L46	41.75 - 41.5	Pole	TP38.4224x38.3813x1	46	-65.35	7295.99	49.1	Pass	
L47	41.5 - 36.5	Pole	TP39.245x38.4224x0.9875	47	-68.40	7365.56	50.1	Pass	
L48	36.5 - 32.75	Pole	TP39.862x39.245x0.975	48	-70.72	7391.98	51.0	Pass	
L49	32.75 - 32.5	Pole	TP39.9031x39.862x1.025	49	-70.89	7769.29	48.7	Pass	
L50	32.5 - 32.25	Pole	TP39.9442x39.9031x1.025	50	-71.05	7777.50	48.7	Pass	
L51	32.25 - 32	Pole	TP39.9854x39.9442x1.05	51	-71.22	7970.50	47.6	Pass	
L52	32 - 30.333	Pole	TP40.2596x39.9854x1.025	52	-72.28	7840.53	48.8	Pass	
L53	30.333 - 30.083	Pole	TP40.3007x40.2596x0.925	53	-72.46	7101.04	53.7	Pass	
L54	30.083 - 28.25	Pole	TP40.6023x40.3007x0.925	54	-73.55	7155.43	53.8	Pass	
L55	28.25 - 28	Pole	TP40.6434x40.6023x0.975	55	-73.74	7540.53	51.3	Pass	
L56	28 - 23	Pole	TP41.466x40.6434x0.95	56	-77.04	7504.17	52.8	Pass	
L57	23 - 19.25	Pole	TP42.083x41.466x0.95	57	-79.55	7618.44	53.0	Pass	
L58	19.25 - 19	Pole	TP42.1241x42.083x0.8375	58	-79.71	6741.34	59.7	Pass	
L59	19 - 14.5	Pole	TP42.8645x42.1241x0.825	59	-82.41	6761.81	60.8	Pass	
L60	14.5 - 14.25	Pole	TP42.9056x42.8645x1.4	60	-82.61	11328.87	37.3	Pass	
L61	14.25 - 12.75	Pole	TP43.1524x42.9056x1.275	61	-83.69	10409.78	40.6	Pass	
L62	12.75 - 12.5	Pole	TP43.1935x43.1524x1	62	-83.87	8226.17	50.8	Pass	
L63	12.5 - 7.5	Pole	TP44.0161x43.1935x0.975	63	-87.19	8181.63	52.2	Pass	
L64	7.5 - 3.5	Pole	TP44.6742x44.0161x0.975	64	-89.77	8306.73	52.3	Pass	
L65	3.5 - 3.25	Pole	TP44.7153x44.6742x1.475	65	-89.98	12434.62	35.7	Pass	
L66	3.25 - 3	Pole	TP44.7564x44.7153x1.15	66	-90.15	9776.89	44.8	Pass	
L67	3 - 0	Pole	TP45.25x44.7564x1.15	67	-92.20	9887.55	44.9	Pass	
							Summary		
							Pole (L7)	88.4	Pass
							RATING =	88.4	Pass

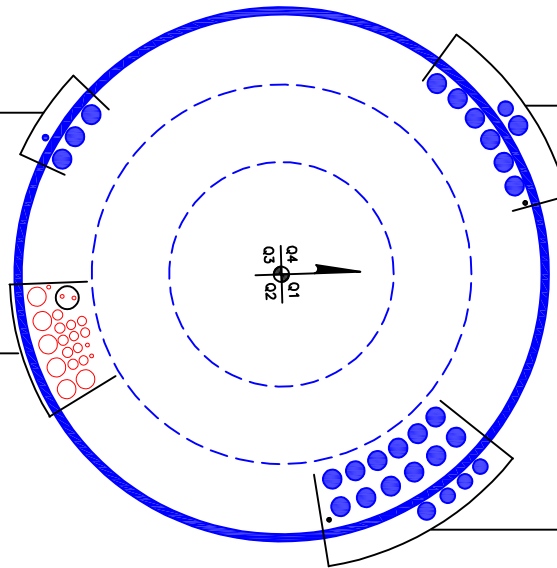
*NOTE: Above stress ratios for reinforced sections are approximate. More exact calculations are presented in Appendix C

APPENDIX B
BASE LEVEL DRAWING



(OTHER CONSIDERED EQUIPMENT)
(3) 1-5/8" TO 158 FT LEVEL
(1) 1/2" TO 70 FT LEVEL

(PROPOSED EQUIPMENT CONFIGURATION—IN CONDUIT)
(2) 3/8" TO 168 FT LEVEL
(PROPOSED EQUIPMENT CONFIGURATION)
(3) 3/8" TO 168 FT LEVEL
(6) 13/16" TO 168 FT LEVEL
(5) 7/8" TO 168 FT LEVEL
(6) 1-5/8" TO 168 FT LEVEL



(OTHER CONSIDERED EQUIPMENT)
(1) 3/8" GROUND TO TOWER LIGHTING
(OTHER CONSIDERED EQUIPMENT)
(1) 1-1/4" TO 138 FT LEVEL
(7) 1-5/8" TO 138 FT LEVEL

(OTHER CONSIDERED EQUIPMENT)
(1) 3/8" GROUND TO TOWER LIGHTING
(OTHER CONSIDERED EQUIPMENT)
(3) 1-1/4" TO 128 FT LEVEL
(12) 1-5/8" TO 128 FT LEVEL
(1) 1-1/2" TO 148 FT LEVEL

APPENDIX C
ADDITIONAL CALCULATIONS

Pole Geometry

	Pole Height Above Base (ft)	Section Length (ft)	Lap Splice Length (ft)	Number of Sides	Top Diameter (in)	Bottom Diameter (in)	Wall Thickness (in)	Bend Radius (in)	Pole Material
1	168.33	37.83	3.66	18	19	25.3125	0.1875	Auto	A572-65
2	134.16	49.61	4.56	18	24.33	32.5	0.25	Auto	A572-65
3	89.11	45.45	5.34	18	31.25	38.6875	0.3125	Auto	A572-65
4	49	49	0	18	37.19	45.25	0.375	Auto	A572-65

Reinforcement Configuration

	Bottom Effective Elevation (ft)	Top Effective Elevation (ft)	Type	Model	Pole Flat Width (in)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
1	87.833	113.833	plate	PL5"x1.25"	4.88				E2						E2							E2		
2	73.417	85.917	plate	PL5"x1.25"	5.69			E2					E2						E2					E2
3	47.375	73.417	plate	PL5"x1.25"	5.96		E2				E2					E2					E2			
4	30.333	45.417	plate	PL6"x1.25"	6.77			E2					E2							E2				E2
5	0	28.25	plate	PL6"x1.25" (Welded)	7.16		E2				E2					E2					E2			
6	3.25	41.75	plate	CFP-060100	6.77	E4						E4				E4					E4			
7	41.75	82.833	plate	CFP-045100	5.69	E4						E4				E4					E4			
8	19.25	30.333	plate	CCI-SFP-045100	7.1			E4				E4							E4					E4
9	64.25	73.417	plate	CCI-SFP-045100	5.96			E4				E4							E4					E4
10	85.917	125.75	plate	CCI-SFP-0450100 (Mod)	4.53			E4				E4							E4					E4
11	28.25	32.75	plate	CCI-SFP-065125	7.03					E									E					
12	32.75	65.58	plate	CCI-SFP-050125	6.19					P									P					
13	72.42	98.42	plate	CCI-SFP-050125	5.33					P									P					P
14	113.5	120.5	plate	CCI-SFP-040125	4.69										ES									
15	113.5	120.5	plate	PL3.125"x1.25"	4.69																			ES
16	0	3.5	plate	TS1.25"x7"	7.88	C					C					C						C		
17	112	138	plate	CCI-AFP-040125	4.24			P				P							P					P
18	32.25	68.08	plate	CCI-SFP-050125	6.12																			P
19	12.75	32.25	plate	CCI-SFP-065125	7.04																			P
20	0	14.5	plate	TS 1.25"x6.5"	7.56				P		P								P		P			
21																								

Reinforcement Details

	B (in)	H (in)	Gross Area (in ²)	Pole Face to Centroid (in)	Bottom Termination Type	Bottom Termination Length (in)	Top Termination Type	Top Termination Length (in)	Lu (in)	Net Area (in ²)	Bolt Hole Size (in)	Reinforcement Material
1	5	1.25	6.25	0.625	PC 8.8 - M20 (100)	24	PC 8.8 - M20 (100)	24.000	18.000	4.688	1.1875	A572-65
2	5	1.25	6.25	0.625	PC 8.8 - M20 (100)	24	PC 8.8 - M20 (100)	24.000	18.000	4.688	1.1875	A572-65
3	5	1.25	6.25	0.625	PC 8.8 - M20 (100)	24	PC 8.8 - M20 (100)	24.000	18.000	4.688	1.1875	A572-65
4	6	1.25	7.5	0.625	PC 8.8 - M20 (100)	30	PC 8.8 - M20 (100)	30.000	18.000	5.938	1.1875	A572-65
5	6	1.25	7.5	0.625	Welded	n/a	PC 8.8 - M20 (100)	30.000	18.000	5.938	1.1875	A572-65
6	6	1	6	0.5	PC 8.8 - M20 (100)	24	PC 8.8 - M20 (100)	24.000	12.000	4.750	1.1875	A572-65
7	4	1	4	0.5	PC 8.8 - M20 (100)	18	PC 8.8 - M20 (100)	18.000	12.000	2.750	1.1875	A572-65
8	4.5	1	4.5	0.5	PC 8.8 - M20 (100)	18	PC 8.8 - M20 (100)	18.000	20.000	3.250	1.1875	A572-65
9	4.5	1	4.5	0.5	PC 8.8 - M20 (100)	18	PC 8.8 - M20 (100)	18.000	20.000	3.250	1.1875	A572-65
10	4.5	1	4.5	0.5	PC 8.8 - M20 (100)	18	PC 8.8 - M20 (100)	19.000	20.000	3.250	1.1875	A572-65
11	6.5	1.25	8.125	0.625	PC 8.8 - M20 (100)	33	PC 8.8 - M20 (100)	33.000	19.000	6.563	1.1875	A572-65
12	5	1.25	6.25	0.625	PC 8.8 - M20 (100)	24	PC 8.8 - M20 (100)	24.000	23.000	4.688	1.1875	A572-65
13	5	1.25	6.25	0.625	PC 8.8 - M20 (100)	24	PC 8.8 - M20 (100)	24.000	23.000	4.688	1.1875	A572-65
14	4	1.25	5	0.625	PC 8.8 - M20 (100)	18	PC 8.8 - M20 (100)	18.000	27.000	3.438	1.1875	A572-65
15	3.125	1.25	3.90625	0.625	PC 8.8 - M20 (100)	18	PC 8.8 - M20 (100)	18.000	27.000	2.344	1.1875	A572-65
16	1.25	7	8.75	3.5	Welded	n/a	Welded	n/a	0.000	8.750	0.0000	A572-65
17	4	1.25	5	0.625	PC 8.8 - M20 (100)	24	PC 8.8 - M20 (100)	24.000	27.000	3.438	1.1875	A572-65
18	5	1.25	6.25	0.625	PC 8.8 - M20 (100)	24	PC 8.8 - M20 (100)	24.000	23.000	4.688	1.1875	A572-65
19	6.5	1.25	8.125	0.625	PC 8.8 - M20 (100)	33	PC 8.8 - M20 (100)	33.000	19.000	6.563	1.1875	A572-65
20	1.25	6.5	8.125	3.25	Welded	n/a	Welded	n/a	0.000	8.125	0.0000	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)
PL5"x1.25"	Top	8	N	3	3	-	-	-	-	-	-	-	-	-
	Bottom	8	N	3	3	-	-	-	-	-	-	-	-	-
PL6"x1.25"	Top	10	N	3	3	-	-	-	-	-	-	-	-	-
	Bottom	10	N	3	3	-	-	-	-	-	-	-	-	-
PL6"x1.25" (Welded)	Top	10	N	3	3	-	-	-	-	-	-	-	-	-
	Bottom	-	-	-	-	70	None	-	-	-	-	36	0.375	-
CCI-SFP-0450100 (Mod)	Top	7	N	3	1	-	-	-	-	-	-	-	-	-
	Bottom	6	N	3	3	-	-	-	-	-	-	-	-	-
PL3.125"x1.25"	Top	6	N	3	3	-	-	-	-	-	-	-	-	-
	Bottom	6	N	3	3	-	-	-	-	-	-	-	-	-
TS1.25"x7"	Top	-	-	-	-	80	None	-	-	-	-	23	0.313	-
	Bottom	-	-	-	-	80	CJP Groove	12.5	0.625	45	0.3125	-	-	-
CFP-060100	Top	8	N	3	3	-	-	-	-	-	-	-	-	-
	Bottom	8	N	3	3	-	-	-	-	-	-	-	-	-
CFP-045100	Top	6	N	3	3	-	-	-	-	-	-	-	-	-
	Bottom	6	N	3	3	-	-	-	-	-	-	-	-	-
TS 1.25"x6.5"	Top	-	-	-	-	80	None	-	-	-	-	24	0.313	-
	Bottom	-	-	-	-	80	CJP Groove	11.5	0.625	45	0.3125	-	-	-

TNX Geometry Input

Increment (ft): [Export to TNX](#)

	Section Height (ft)	Section Length (ft)	Lap Splice Length (ft)	Number of Sides	Top Diameter (in)	Bottom Diameter (in)	Wall Thickness (in)	Tapered Pole Grade	Weight Multiplier
1	168.33 - 163.33	5		18	19.000	19.834	0.1875	A572-65	1.000
2	163.33 - 158.33	5		18	19.834	20.669	0.1875	A572-65	1.000
3	158.33 - 153.33	5		18	20.669	21.503	0.1875	A572-65	1.000
4	153.33 - 148.33	5		18	21.503	22.337	0.1875	A572-65	1.000
5	148.33 - 143.33	5		18	22.337	23.172	0.1875	A572-65	1.000
6	143.33 - 138.33	5		18	23.172	24.006	0.1875	A572-65	1.000
7	138.33 - 138	0.33		18	24.006	24.061	0.1875	A572-65	1.000
8	138 - 137.75	0.25		18	24.061	24.103	0.4375	A572-65	1.042
9	137.75 - 134.16	7.25	3.66	18	24.103	25.313	0.4375	A572-65	1.027
10	134.16 - 129.16	5		18	24.327	25.151	0.49375	A572-65	1.029
11	129.16 - 125.75	3.41		18	25.151	25.712	0.4875	A572-65	1.030
12	125.75 - 125.5	0.25		18	25.712	25.754	0.6125	A572-65	1.099
13	125.5 - 120.5	5		18	25.754	26.577	0.6	A572-65	1.099
14	120.5 - 120.25	0.25		18	26.577	26.618	0.8625	A572-65	0.898
15	120.25 - 115.25	5		18	26.618	27.442	0.8375	A572-65	0.905
16	115.25 - 113.833	1.417		18	27.442	27.676	0.825	A572-65	0.913
17	113.833 - 113.483	0.35		18	27.676	27.733	0.8625	A572-65	1.007
18	113.483 - 113.25	0.233		18	27.733	27.772	0.8625	A572-65	1.006
19	113.25 - 112	1.25		18	27.772	27.978	0.85	A572-65	1.015
20	112 - 111.75	0.25		18	27.978	28.019	0.65	A572-65	0.961
21	111.75 - 106.75	5		18	28.019	28.843	0.6375	A572-65	0.963
22	106.75 - 101.75	5		18	28.843	29.666	0.625	A572-65	0.965
23	101.75 - 98.42	3.33		18	29.666	30.215	0.6125	A572-65	0.974
24	98.42 - 98.17	0.25		18	30.215	30.256	0.95	A572-65	0.917
25	98.17 - 93.17	5		18	30.256	31.080	0.9375	A572-65	0.911
26	93.17 - 89.11	8.62	4.56	18	31.080	32.500	0.925	A572-65	0.909
27	89.11 - 83.55	5.56		18	31.249	32.159	0.8625	A572-65	0.952
28	83.55 - 82.833	0.717		18	32.159	32.276	0.8625	A572-65	0.950
29	82.833 - 82.583	0.25		18	32.276	32.317	0.9625	A572-65	1.020
30	82.583 - 77.583	5		18	32.317	33.135	0.9375	A572-65	1.029
31	77.583 - 73.417	4.166		18	33.135	33.817	0.9375	A572-65	1.014
32	73.417 - 73.167	0.25		18	33.817	33.858	1.1875	A572-65	0.952
33	73.167 - 72.42	0.747		18	33.858	33.980	1.1875	A572-65	0.950
34	72.42 - 72.17	0.25		18	33.980	34.021	0.9875	A572-65	0.893
35	72.17 - 68.08	4.09		18	34.021	34.691	0.9625	A572-65	0.904
36	68.08 - 67.83	0.25		18	34.691	34.732	0.9125	A572-65	1.079
37	67.83 - 65.58	2.25		18	34.732	35.100	0.9125	A572-65	1.071
38	65.58 - 65.33	0.25		18	35.100	35.141	1.1625	A572-65	0.946
39	65.33 - 64.25	1.08		18	35.141	35.318	1.1375	A572-65	0.962
40	64.25 - 64	0.25		18	35.318	35.358	1.0375	A572-65	0.892
41	64 - 59	5		18	35.358	36.177	1.0125	A572-65	0.899
42	59 - 54	5		18	36.177	36.995	0.9875	A572-65	0.907
43	54 - 49	10.34	5.34	18	36.995	38.688	0.9625	A572-65	0.917
44	49 - 42.66	6.34		18	37.189	38.232	0.95	A572-65	1.032
45	42.66 - 41.75	0.91		18	38.232	38.381	0.95	A572-65	1.030
46	41.75 - 41.5	0.25		18	38.381	38.422	1	A572-65	1.046
47	41.5 - 36.5	5		18	38.422	39.245	0.9875	A572-65	1.045
48	36.5 - 32.75	3.75		18	39.245	39.862	0.975	A572-65	1.047
49	32.75 - 32.5	0.25		18	39.862	39.903	1.025	A572-65	1.026
50	32.5 - 32.25	0.25		18	39.903	39.944	1.025	A572-65	1.026
51	32.25 - 32	0.25		18	39.944	39.985	1.05	A572-65	1.030
52	32 - 30.333	1.667		18	39.985	40.260	1.025	A572-65	1.050
53	30.333 - 30.083	0.25		18	40.260	40.301	0.925	A572-65	1.056
54	30.083 - 28.25	1.833		18	40.301	40.602	0.925	A572-65	1.051
55	28.25 - 28	0.25		18	40.602	40.643	0.975	A572-65	1.109
56	28 - 23	5		18	40.643	41.466	0.95	A572-65	1.123
57	23 - 19.25	3.75		18	41.466	42.083	0.95	A572-65	1.112
58	19.25 - 19	0.25		18	42.083	42.124	0.8375	A572-65	1.093
59	19 - 14.5	4.5		18	42.124	42.864	0.825	A572-65	1.098
60	14.5 - 14.25	0.25		18	42.864	42.906	1.4	A572-65	0.832
61	14.25 - 12.75	1.5		18	42.906	43.152	1.275	A572-65	0.907
62	12.75 - 12.5	0.25		18	43.152	43.193	1	A572-65	1.026
63	12.5 - 7.5	5		18	43.193	44.016	0.975	A572-65	1.039
64	7.5 - 3.5	4		18	44.016	44.674	0.975	A572-65	1.030
65	3.5 - 3.25	0.25		18	44.674	44.715	1.475	A572-65	0.861
66	3.25 - 3	0.25		18	44.715	44.756	1.15	A572-65	0.944
67	3 - 0	3		18	44.756	45.250	1.15	A572-65	0.938

TNX Section Forces

Increment (ft):		TNX Output			
5		P _u (K)	M _{ux} (kip-ft)	V _u (K)	
Section Height (ft)					
1	168.33 - 163.33	4.92	50.83	8.85	
2	163.33 - 158.33	5.23	95.89	9.17	
3	158.33 - 153.33	10.36	166.31	14.58	
4	153.33 - 148.33	10.81	239.90	14.87	
5	148.33 - 143.33	14.15	330.89	18.59	
6	143.33 - 138.33	14.64	424.44	18.85	
7	138.33 - 138	18.16	434.91	21.70	
8	138 - 137.75	17.87	440.43	22.09	
9	137.75 - 134.16	18.54	520.25	22.40	
10	134.16 - 129.16	20.07	633.56	22.93	
11	129.16 - 125.75	23.84	722.03	26.07	
12	125.75 - 125.5	23.92	728.55	26.11	
13	125.5 - 120.5	25.34	860.85	26.86	
14	120.5 - 120.25	25.43	867.56	26.90	
15	120.25 - 115.25	27.19	1004.04	27.73	
16	115.25 - 113.833	27.70	1043.48	27.97	
17	113.833 - 113.483	27.86	1053.27	28.03	
18	113.483 - 113.25	27.95	1059.81	28.08	
19	113.25 - 112	28.44	1095.00	28.29	
20	112 - 111.75	28.54	1102.07	28.31	
21	111.75 - 106.75	30.21	1244.57	28.73	
22	106.75 - 101.75	31.92	1389.08	29.12	
23	101.75 - 98.42	33.08	1486.43	29.39	
24	98.42 - 98.17	33.21	1493.78	29.41	
25	98.17 - 93.17	35.37	1642.40	30.09	
26	93.17 - 89.11	37.17	1765.30	30.50	
27	89.11 - 83.55	41.10	1936.93	31.29	
28	83.55 - 82.833	41.41	1959.41	31.40	
29	82.833 - 82.583	41.54	1967.26	31.44	
30	82.583 - 77.583	44.00	2126.52	32.25	
31	77.583 - 73.417	46.08	2262.32	32.93	
32	73.417 - 73.167	46.24	2270.56	32.97	
33	73.167 - 72.42	46.66	2295.24	33.10	
34	72.42 - 72.17	46.78	2303.52	33.14	
35	72.17 - 68.08	48.81	2439.89	33.59	
36	68.08 - 67.83	48.95	2448.29	33.61	
37	67.83 - 65.58	50.14	2524.33	33.97	
38	65.58 - 65.33	50.30	2532.83	34.00	
39	65.33 - 64.25	50.91	2569.66	34.19	
40	64.25 - 64	51.05	2578.21	34.22	
41	64 - 59	53.61	2750.44	34.65	
42	59 - 54	56.20	2924.71	35.04	
43	54 - 49	58.81	3100.88	35.42	
44	49 - 42.66	64.65	3327.73	36.09	
45	42.66 - 41.75	65.18	3360.60	36.15	
46	41.75 - 41.5	65.35	3369.64	36.15	
47	41.5 - 36.5	68.40	3551.32	36.50	
48	36.5 - 32.75	70.72	3688.61	36.73	
49	32.75 - 32.5	70.89	3697.79	36.72	
50	32.5 - 32.25	71.05	3706.98	36.73	
51	32.25 - 32	71.22	3716.17	36.75	
52	32 - 30.333	72.28	3777.54	36.88	
53	30.333 - 30.083	72.46	3786.76	36.86	
54	30.083 - 28.25	73.55	3854.46	37.01	
55	28.25 - 28	73.74	3863.71	36.98	
56	28 - 23	77.04	4049.30	37.24	
57	23 - 19.25	79.55	4189.20	37.39	
58	19.25 - 19	79.71	4198.55	37.36	
59	19 - 14.5	82.41	4366.93	37.46	
60	14.5 - 14.25	82.61	4376.30	37.44	
61	14.25 - 12.75	83.69	4432.53	37.52	
62	12.75 - 12.5	83.87	4441.91	37.50	
63	12.5 - 7.5	87.19	4629.74	37.61	
64	7.5 - 3.5	89.77	4780.33	37.67	
65	3.5 - 3.25	89.98	4789.75	37.65	
66	3.25 - 3	90.15	4799.18	37.66	
67	3 - 0	92.20	4912.36	37.75	

Analysis Results

Elevation (ft)	Component Type	Size	Critical Element	% Capacity	Pass / Fail
168.33 - 163.33	Pole	TP19.834x19x0.1875	Pole	15.0%	Pass
163.33 - 158.33	Pole	TP20.669x19.834x0.1875	Pole	25.7%	Pass
158.33 - 153.33	Pole	TP21.503x20.669x0.1875	Pole	42.0%	Pass
153.33 - 148.33	Pole	TP22.337x21.503x0.1875	Pole	56.1%	Pass
148.33 - 143.33	Pole	TP23.172x22.337x0.1875	Pole	72.8%	Pass
143.33 - 138.33	Pole	TP24.006x23.172x0.1875	Pole	87.4%	Pass
138.33 - 138	Pole	TP24.061x24.006x0.1875	Pole	89.8%	Pass
138 - 137.75	Pole + Reinf.	TP24.103x24.061x0.4375	Reinf. 17 Tension Rupture	63.4%	Pass
137.75 - 134.16	Pole + Reinf.	TP25.313x24.103x0.4375	Reinf. 17 Tension Rupture	72.2%	Pass
134.16 - 129.16	Pole + Reinf.	TP25.151x24.327x0.4938	Reinf. 17 Tension Rupture	74.9%	Pass
129.16 - 125.75	Pole + Reinf.	TP25.712x25.151x0.4875	Reinf. 17 Tension Rupture	82.6%	Pass
125.75 - 125.5	Pole + Reinf.	TP25.754x25.712x0.6125	Reinf. 10 Tension Rupture	66.0%	Pass
125.5 - 120.5	Pole + Reinf.	TP26.577x25.754x0.6	Reinf. 10 Tension Rupture	74.5%	Pass
120.5 - 120.25	Pole + Reinf.	TP26.618x26.577x0.8625	Reinf. 15 Tension Rupture	66.9%	Pass
120.25 - 115.25	Pole + Reinf.	TP27.442x26.618x0.8375	Reinf. 15 Tension Rupture	74.4%	Pass
115.25 - 113.83	Pole + Reinf.	TP27.676x27.442x0.825	Reinf. 15 Tension Rupture	76.4%	Pass
113.83 - 113.48	Pole + Reinf.	TP27.733x27.676x0.8625	Reinf. 10 Tension Rupture	60.1%	Pass
113.48 - 113.25	Pole + Reinf.	TP27.772x27.733x0.8625	Reinf. 10 Tension Rupture	60.3%	Pass
113.25 - 112	Pole + Reinf.	TP27.978x27.772x0.85	Reinf. 10 Tension Rupture	61.7%	Pass
112 - 111.75	Pole + Reinf.	TP28.019x27.978x0.65	Reinf. 10 Tension Rupture	77.4%	Pass
111.75 - 106.75	Pole + Reinf.	TP28.843x28.019x0.6375	Reinf. 10 Tension Rupture	84.0%	Pass
106.75 - 101.75	Pole + Reinf.	TP29.666x28.843x0.625	Reinf. 10 Tension Rupture	90.1%	Pass
101.75 - 98.42	Pole + Reinf.	TP30.215x29.666x0.6125	Reinf. 10 Tension Rupture	93.9%	Pass
98.42 - 98.17	Pole + Reinf.	TP30.256x30.215x0.95	Reinf. 10 Tension Rupture	66.9%	Pass
98.17 - 93.17	Pole + Reinf.	TP31.08x30.256x0.9375	Reinf. 10 Tension Rupture	71.1%	Pass
93.17 - 89.11	Pole + Reinf.	TP32.5x31.08x0.925	Reinf. 10 Tension Rupture	74.4%	Pass
89.11 - 83.55	Pole + Reinf.	TP32.159x31.249x0.8625	Reinf. 13 Tension Rupture	78.5%	Pass
83.55 - 82.83	Pole + Reinf.	TP32.276x32.159x0.8625	Reinf. 13 Tension Rupture	79.0%	Pass
82.83 - 82.58	Pole + Reinf.	TP32.317x32.276x0.9625	Reinf. 13 Tension Rupture	70.7%	Pass
82.58 - 77.58	Pole + Reinf.	TP33.135x32.317x0.9375	Reinf. 13 Tension Rupture	73.9%	Pass
77.58 - 73.42	Pole + Reinf.	TP33.817x33.135x0.9375	Reinf. 13 Tension Rupture	76.5%	Pass
73.42 - 73.17	Pole + Reinf.	TP33.858x33.817x1.1875	Reinf. 9 Tension Rupture	63.5%	Pass
73.17 - 72.42	Pole + Reinf.	TP33.98x33.858x1.1875	Reinf. 9 Tension Rupture	63.9%	Pass
72.42 - 72.17	Pole + Reinf.	TP34.021x33.98x0.9875	Reinf. 7 Tension Rupture	82.3%	Pass
72.17 - 68.08	Pole + Reinf.	TP34.691x34.021x0.9625	Reinf. 7 Tension Rupture	85.0%	Pass
68.08 - 67.83	Pole + Reinf.	TP34.732x34.691x0.9125	Reinf. 9 Tension Rupture	81.4%	Pass
67.83 - 65.58	Pole + Reinf.	TP35.1x34.732x0.9125	Reinf. 9 Tension Rupture	82.7%	Pass
65.58 - 65.33	Pole + Reinf.	TP35.141x35.1x1.1625	Reinf. 9 Tension Rupture	67.5%	Pass
65.33 - 64.25	Pole + Reinf.	TP35.318x35.141x1.1375	Reinf. 9 Tension Rupture	68.1%	Pass
64.25 - 64	Pole + Reinf.	TP35.358x35.318x1.0375	Reinf. 7 Tension Rupture	81.9%	Pass
64 - 59	Pole + Reinf.	TP36.177x35.358x1.0125	Reinf. 7 Tension Rupture	84.8%	Pass
59 - 54	Pole + Reinf.	TP36.995x36.177x0.9875	Reinf. 7 Tension Rupture	87.5%	Pass
54 - 49	Pole + Reinf.	TP38.688x36.995x0.9625	Reinf. 7 Tension Rupture	90.1%	Pass
49 - 42.66	Pole + Reinf.	TP38.232x37.189x0.95	Reinf. 12 Tension Rupture	85.0%	Pass
42.66 - 41.75	Pole + Reinf.	TP38.381x38.232x0.95	Reinf. 12 Tension Rupture	85.3%	Pass
41.75 - 41.5	Pole + Reinf.	TP38.422x38.381x1	Reinf. 12 Tension Rupture	81.7%	Pass
41.5 - 36.5	Pole + Reinf.	TP39.245x38.422x0.9875	Reinf. 12 Tension Rupture	83.6%	Pass
36.5 - 32.75	Pole + Reinf.	TP39.862x39.245x0.975	Reinf. 12 Tension Rupture	85.0%	Pass
32.75 - 32.5	Pole + Reinf.	TP39.903x39.862x1.025	Reinf. 4 Tension Rupture	76.2%	Pass
32.5 - 32.25	Pole + Reinf.	TP39.944x39.903x1.025	Reinf. 4 Tension Rupture	76.3%	Pass
32.25 - 32	Pole + Reinf.	TP39.985x39.944x1.05	Reinf. 4 Tension Rupture	75.6%	Pass
32 - 30.33	Pole + Reinf.	TP40.26x39.985x1.025	Reinf. 4 Tension Rupture	76.2%	Pass
30.33 - 30.08	Pole + Reinf.	TP40.301x40.26x0.925	Reinf. 8 Tension Rupture	93.3%	Pass
30.08 - 28.25	Pole + Reinf.	TP40.602x40.301x0.925	Reinf. 8 Tension Rupture	94.0%	Pass
28.25 - 28	Pole + Reinf.	TP40.643x40.602x0.975	Reinf. 8 Tension Rupture	87.1%	Pass
28 - 23	Pole + Reinf.	TP41.466x40.643x0.95	Reinf. 8 Tension Rupture	88.8%	Pass
23 - 19.25	Pole + Reinf.	TP42.083x41.466x0.95	Reinf. 8 Tension Rupture	90.0%	Pass
19.25 - 19	Pole + Reinf.	TP42.124x42.083x0.8375	Reinf. 5 Tension Rupture	90.6%	Pass
19 - 14.5	Pole + Reinf.	TP42.864x42.124x0.825	Reinf. 5 Tension Rupture	91.9%	Pass
14.5 - 14.25	Pole + Reinf.	TP42.906x42.864x1.4	Reinf. 20 Weldment	67.4%	Pass
14.25 - 12.75	Pole + Reinf.	TP43.152x42.906x1.275	Reinf. 6 Tension Rupture	63.9%	Pass
12.75 - 12.5	Pole + Reinf.	TP43.193x43.152x1	Reinf. 6 Tension Rupture	77.5%	Pass
12.5 - 7.5	Pole + Reinf.	TP44.016x43.193x0.975	Reinf. 6 Tension Rupture	78.8%	Pass
7.5 - 3.5	Pole + Reinf.	TP44.674x44.016x0.975	Reinf. 6 Tension Rupture	79.7%	Pass
3.5 - 3.25	Pole + Reinf.	TP44.715x44.674x1.475	Reinf. 16 Weldment	73.4%	Pass
3.25 - 3	Pole + Reinf.	TP44.756x44.715x1.15	Reinf. 16 Tension Yield	65.1%	Pass
3 - 0	Pole + Reinf.	TP45.25x44.756x1.15	Reinf. 16 Tension Yield	65.7%	Pass
				Summary	
			Pole	89.8%	Pass
			Reinforcement	94.0%	Pass
			Overall	94.0%	Pass

Monopole Base Plate Connection

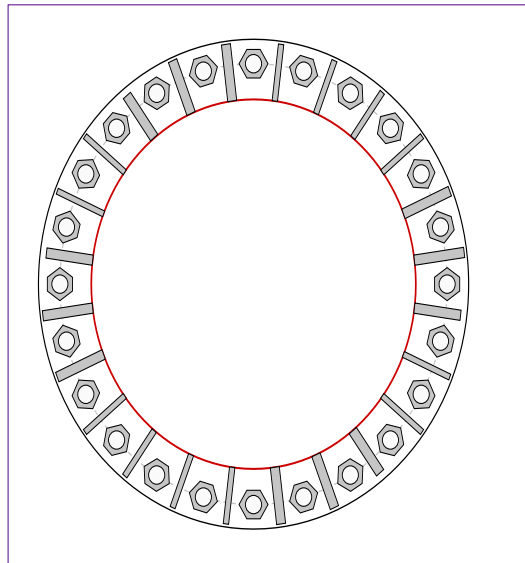


Site Info	
BU #	842859
Site Name	BRISTOL CENTER
Order #	586265 Rev. 0

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

Applied Loads	
Moment (kip-ft)	4912.36
Axial Force (kips)	92.20
Shear Force (kips)	37.75

*TIA-222-H Section 15.5 Applied



Connection Properties	Analysis Results
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Anchor Rod Data
 GROUP 1: (12) 2-1/4" ϕ bolts (A615-75 N; Fy=75 ksi, Fu=100 ksi) on 54" BC
 GROUP 2: (12) 2-1/4" ϕ bolts (A615-75 N; Fy=75 ksi, Fu=100 ksi) on 54" BC

Base Plate Data
 60" OD x 2" Plate (A572-60; Fy=60 ksi, Fu=75 ksi)

Stiffener Data
 Group 1: (12) 15"H x 7"W x 0.75"T, Notch: 0.75"
 plate: Fy= 65 ksi ; weld: Fy= 80 ksi
 horiz. weld: 0.375" groove, 45° dbl bevel, 0.375" fillet
 vert. weld: 0.3125" fillet

Group 2: (4) 45"H x 7"W x 1.25"T, Notch: 0.5"
 plate: Fy= 65 ksi ; weld: Fy= 70 ksi
 horiz. weld: 0.625" groove, 45° dbl bevel, 0.375" fillet
 vert. weld: 0.375" fillet

Group 3: (4) 65"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, 0.3125" fillet
 vert. weld: 0.3125" fillet

Group 4: (4) 198"H x 6.5"W x 1.25"T, Notch: 0.75" horiz. x 1.25" vert.
 plate: Fy= 65 ksi ; weld: Fy= 80 ksi
 horiz. weld: 0.625" groove, 45° dbl bevel, 0.3125" fillet
 vert. weld: 0.3125" fillet

Pole Data
 45.25" x 0.375" 18-sided pole (A572-65; Fy=65 ksi, Fu=80 ksi)

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

GROUP 1:		
Pu_t = 174.13	$\phi Pn_t = 243.75$	Stress Rating
Vu = 3.15	$\phi Vn = 149.1$	68.0%
Mu = n/a	$\phi Mn = n/a$	Pass

GROUP 2:		
Pu_t = 181.81	$\phi Pn_t = 243.75$	Stress Rating
Vu = 0	$\phi Vn = 149.1$	71.0%
Mu = n/a	$\phi Mn = n/a$	Pass

Base Plate Summary

Max Stress (ksi):	30.83	(Roark's Flexural)
Allowable Stress (ksi):	54	
Stress Rating:	54.4%	Pass

Stiffener Summary

Horizontal Weld:	47.8%	Pass
Vertical Weld:	61.3%	Pass
Plate Flexure+Shear:	20.8%	Pass
Plate Tension+Shear:	46.7%	Pass
Plate Compression:	59.3%	Pass

Pole Summary

Punching Shear:	19.8%	Pass
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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	Yes	Yes	No	

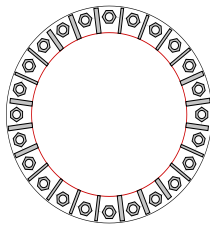
Custom Bolt Connection

Bolt	Bolt Group ID	Location (deg.)	Diameter (in)	Material	Bolt Circle (in)	Etc Factor, n _t	L _e (in)	Thread Type	Area Override, in ²	Tension Only
1	1	0	2.25	A615-75	54	0.55	1.8125	N-Included		No
2	1	30	2.25	A615-75	54	0.55	1.8125	N-Included		No
3	1	60	2.25	A615-75	54	0.55	1.8125	N-Included		No
4	1	90	2.25	A615-75	54	0.55	1.8125	N-Included		No
5	1	120	2.25	A615-75	54	0.55	1.8125	N-Included		No
6	1	150	2.25	A615-75	54	0.55	1.8125	N-Included		No
7	1	180	2.25	A615-75	54	0.55	1.8125	N-Included		No
8	1	210	2.25	A615-75	54	0.55	1.8125	N-Included		No
9	1	240	2.25	A615-75	54	0.55	1.8125	N-Included		No
10	1	270	2.25	A615-75	54	0.55	1.8125	N-Included		No
11	1	300	2.25	A615-75	54	0.55	1.8125	N-Included		No
12	1	330	2.25	A615-75	54	0.55	1.8125	N-Included		No
13	2	15	2.25	A615-75	54	0.55	1.8125	N-Included		No
14	2	45	2.25	A615-75	54	0.55	1.8125	N-Included		No
15	2	75	2.25	A615-75	54	0.55	1.8125	N-Included		No
16	2	105	2.25	A615-75	54	0.55	1.8125	N-Included		No
17	2	135	2.25	A615-75	54	0.55	1.8125	N-Included		No
18	2	165	2.25	A615-75	54	0.55	1.8125	N-Included		No
19	2	195	2.25	A615-75	54	0.55	1.8125	N-Included		No
20	2	225	2.25	A615-75	54	0.55	1.8125	N-Included		No
21	2	255	2.25	A615-75	54	0.55	1.8125	N-Included		No
22	2	285	2.25	A615-75	54	0.55	1.8125	N-Included		No
23	2	315	2.25	A615-75	54	0.55	1.8125	N-Included		No
24	2	345	2.25	A615-75	54	0.55	1.8125	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	37.5	7	15	0.75	0.75	0.75	65	Both	0.375	45	0.375	0.3125	80
2	1	52.5	7	15	0.75	0.75	0.75	65	Both	0.375	45	0.375	0.3125	80
3	1	67.5	7	15	0.75	0.75	0.75	65	Both	0.375	45	0.375	0.3125	80
4	1	82.5	7	15	0.75	0.75	0.75	65	Both	0.375	45	0.375	0.3125	80
5	4	127.5	6.5	198	1.25	0.75	1.25	65	Both	0.625	45	0.3125	0.3125	80
6	1	142.5	7	15	0.75	0.75	0.75	65	Both	0.375	45	0.375	0.3125	80
7	1	157.5	7	15	0.75	0.75	0.75	65	Both	0.375	45	0.375	0.3125	80
8	4	172.5	6.5	198	1.25	0.75	1.25	65	Both	0.625	45	0.3125	0.3125	80
9	1	217.5	7	15	0.75	0.75	0.75	65	Both	0.375	45	0.375	0.3125	80
10	1	232.5	7	15	0.75	0.75	0.75	65	Both	0.375	45	0.375	0.3125	80
11	1	247.5	7	15	0.75	0.75	0.75	65	Both	0.375	45	0.375	0.3125	80
12	1	262.5	7	15	0.75	0.75	0.75	65	Both	0.375	45	0.375	0.3125	80
13	4	307.5	6.5	198	1.25	0.75	1.25	65	Both	0.625	45	0.3125	0.3125	80
14	1	322.5	7	15	0.75	0.75	0.75	65	Both	0.375	45	0.375	0.3125	80
15	1	337.5	7	15	0.75	0.75	0.75	65	Both	0.375	45	0.375	0.3125	80
16	4	352.5	6.5	198	1.25	0.75	1.25	65	Both	0.625	45	0.3125	0.3125	80
17	2	7.5	7	45	1.25	0.5	0.5	65	Both	0.625	45	0.375	0.375	70
18	2	112.5	7	45	1.25	0.5	0.5	65	Both	0.625	45	0.375	0.375	70
19	2	187.5	7	45	1.25	0.5	0.5	65	Both	0.625	45	0.375	0.375	70
20	2	292.5	7	45	1.25	0.5	0.5	65	Both	0.625	45	0.375	0.375	70
21	3	22.5	7	65	1.25	0.75	0.75	65	Both	0.625	45	0.3125	0.3125	80
22	3	97.5	7	65	1.25	0.75	0.75	65	Both	0.625	45	0.3125	0.3125	80
23	3	202.5	7	65	1.25	0.75	0.75	65	Both	0.625	45	0.3125	0.3125	80
24	3	277.5	7	65	1.25	0.75	0.75	65	Both	0.625	45	0.3125	0.3125	80

Plot Graphic



Drilled Pier Foundation

BU # :	842859
Site Name:	BRISTOL CENTER
Order Number:	586265 Rev. 0
TIA-222 Revision:	H
Tower Type:	Monopole



Applied Loads		
	Comp.	Uplift
Moment (kip-ft)	4912.36	
Axial Force (kips)	92.21	
Shear Force (kips)	37.72	

Material Properties		
Concrete Strength, f _c :	4 ksi	Rebar 2, Fy Override (ksi)
Rebar Strength, F _y :	60 ksi	60
Tie Yield Strength, F _y :	60 ksi	

Pier Design Data		Rebar & Pier Options
Depth	26 ft	
Ext. Above Grade	1 ft	Embedded Pole Inputs
Pier Section 1		
From 1' above grade to 17.01' below grade		
Pier Diameter	6.5 ft	Belled Pier Inputs
Rebar Quantity	16	
Rebar Size	11	
Rebar Cage Diameter	67 in	
Tie Size	5	
Tie Spacing	12 in	
Rebar Quantity	8	
Rebar Size	11	
Rebar Cage Diameter	64 in	
Pier Section 2		
From 17.01' below grade to 26' below grade		
Pier Diameter	6.5 ft	
Rebar Quantity	16	
Rebar Size	11	
Rebar Cage Diameter	67 in	
Tie Size	5	
Tie Spacing	12 in	

Analysis Results		
Soil Lateral Check		
	Compression	Uplift
D _{crit} (ft from TOC)	7.97	-
Soil Safety Factor	1.99	-
Max Moment (kip-ft)	5261.18	-
Rating*	63.8%	-

Soil Vertical Check		
	Compression	Uplift
Skin Friction (kips)	529.45	-
End Bearing (kips)	412.76	-
Weight of Concrete (kips)	161.27	-
Total Capacity (kips)	942.20	-
Axial (kips)	253.48	-
Rating*	25.6%	-

Reinforced Concrete Flexure		
	Compression	Uplift
Critical Depth (ft from TOC)	7.78	-
Critical Moment (kip-ft)	5260.80	-
Critical Moment Capacity	5509.71	-
Rating*	90.9%	-

Reinforced Concrete Shear		
	Compression	Uplift
Critical Depth (ft from TOC)	23.41	-
Critical Shear (kip)	373.46	-
Critical Shear Capacity	707.17	-
Rating*	50.3%	-

Check Limitation	
Apply TIA-222-H Section 15.5:	<input checked="" type="checkbox"/>
N/A	<input type="checkbox"/>
Additional Longitudinal Rebar	
Input Effective Depths (else Actual):	<input checked="" type="checkbox"/>
Shear Design Options	
Check Shear along Depth of Pier:	<input checked="" type="checkbox"/>
Utilize Shear-Friction Methodology:	<input checked="" type="checkbox"/>
Override Critical Depth:	<input type="checkbox"/>

[Go to Soil Calculations](#)

Structural Foundation Rating*	90.9%
Soil Interaction Rating*	63.8%

*Rating per TIA-222-H Section 15.5

Shear-Friction Methodology is Applied

Soil Profile			
Groundwater Depth	N/A	# of Layers	8

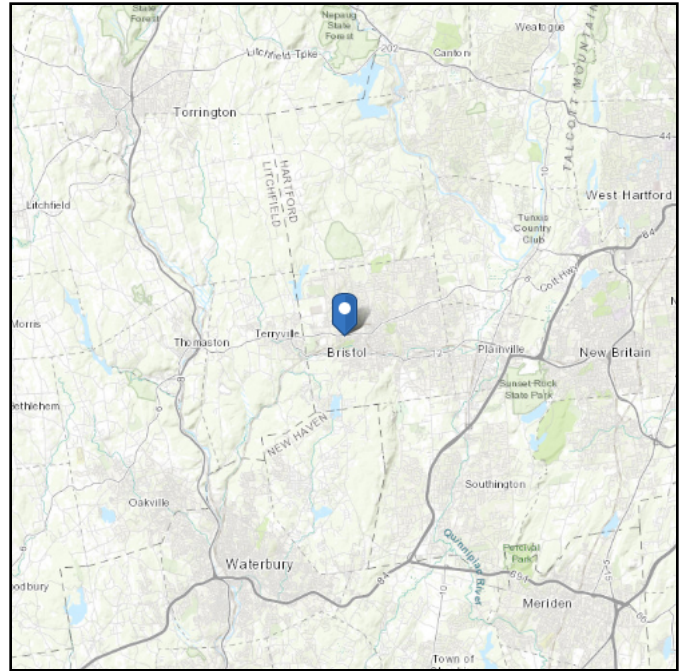
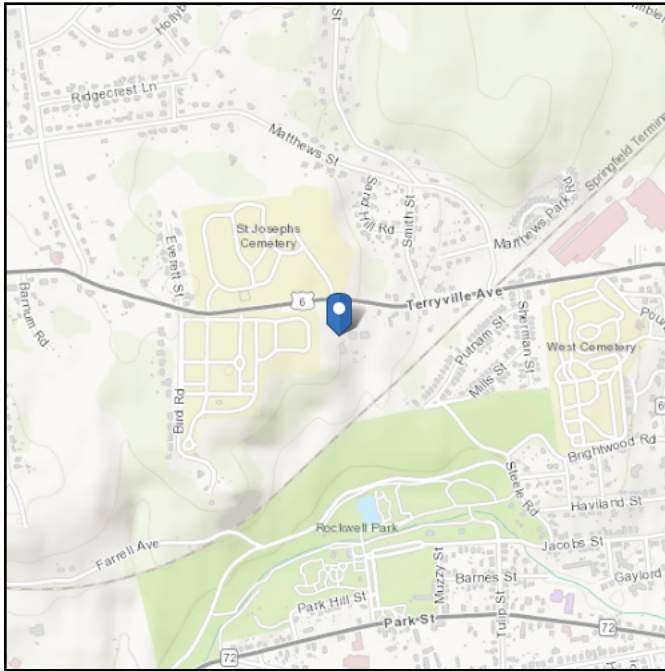
Layer	Top (ft)	Bottom (ft)	Thickness (ft)	γ _{soil} (pcf)	γ _{concrete} (pcf)	Cohesion (ksf)	Angle of Friction (degrees)	Calculated Ultimate Skin Friction Comp (ksf)	Calculated Ultimate Skin Friction Uplift (ksf)	Ultimate Skin Friction Comp Override (ksf)	Ultimate Skin Friction Uplift Override (ksf)	Ult. Net Bearing Capacity (ksf)	SPT Blow Count	Soil Type
1	0	4	4	105	150	0	0	0.000	0.000	0.00	0.00			Cohesionless
2	4	5	1	110	150	0	0	0.000	0.000	0.00	0.00			Cohesionless
3	5	6	1	110	150	0	30	0.000	0.000	1.35	1.35			Cohesionless
4	6	8	2	115	150	0	31	0.000	0.000	0.57	0.57			Cohesionless
5	8	12	4	120	150	0	33	0.000	0.000	1.19	1.19			Cohesionless
6	12	20	8	115	150	0	31	0.000	0.000	1.73	1.73			Cohesionless
7	20	25	5	125	150	0	35	0.00	0.00	2.22	2.22			Cohesionless
8	25	26	1	130	150	0	37	0.00	0.00	2.38	2.38	13.56		Cohesionless

ASCE 7 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)

Elevation: 564.8 ft (NAVD 88)
Latitude: 41.679919
Longitude: -72.96255



Wind

Results:

Wind Speed	116 Vmph
10-year MRI	75 Vmph
25-year MRI	84 Vmph
50-year MRI	90 Vmph
100-year MRI	96 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: Tue Jan 18 2022

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

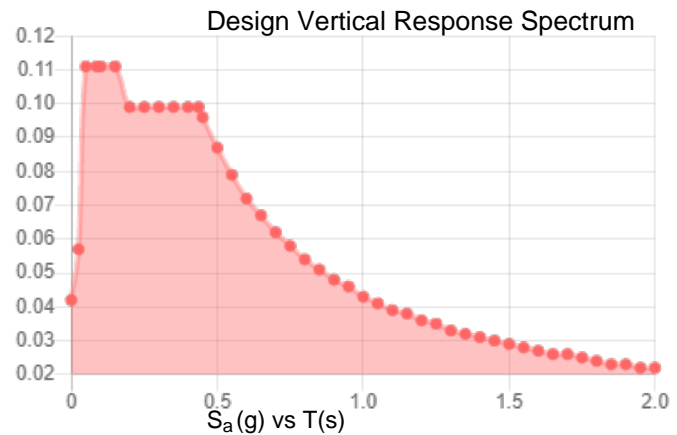
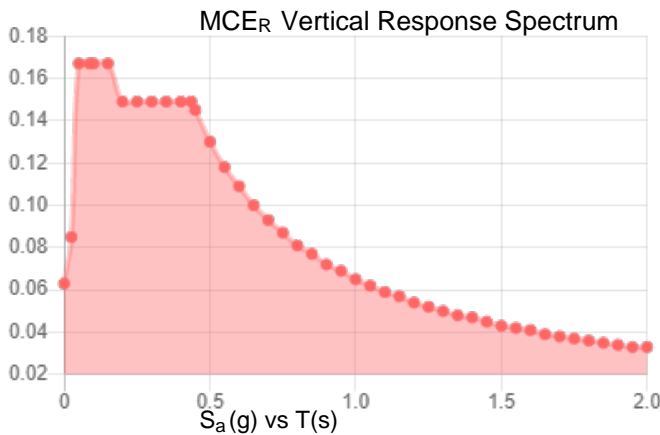
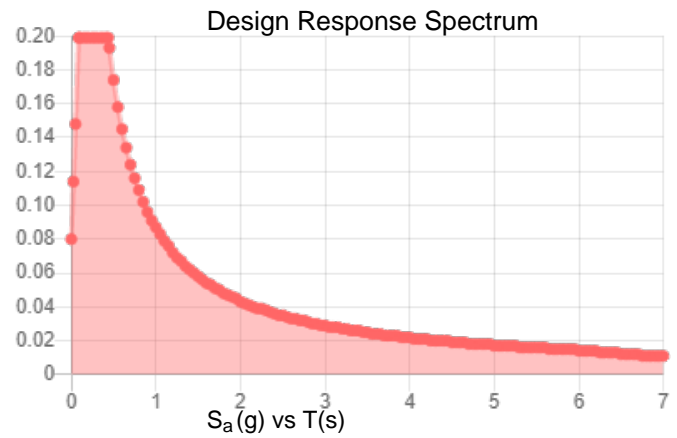
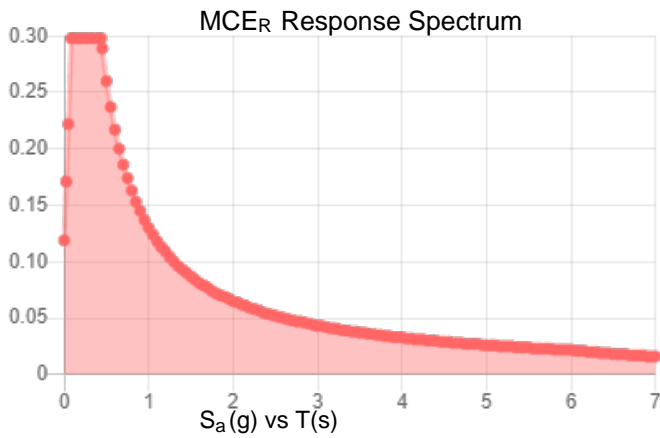
Site is in a hurricane-prone region as defined in ASCE/SEI 7-16 Section 26.2. Glazed openings need not be protected against wind-borne debris.

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

Results:

S_s :	0.186	S_{D1} :	0.087
S_1 :	0.054	T_L :	6
F_a :	1.6	PGA :	0.101
F_v :	2.4	PGA _M :	0.161
S_{MS} :	0.298	F_{PGA} :	1.598
S_{M1} :	0.13	I_e :	1
S_{DS} :	0.199	C_v :	0.7

Seismic Design Category B



Data Accessed: Tue Jan 18 2022

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: Tue Jan 18 2022

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.

The ASCE 7 Hazard Tool is provided for your convenience, for informational purposes only, and is provided “as is” and without warranties of any kind. The location data included herein has been obtained from information developed, produced, and maintained by third party providers; or has been extrapolated from maps incorporated in the ASCE 7 standard. While ASCE has made every effort to use data obtained from reliable sources or methodologies, ASCE does not make any representations or warranties as to the accuracy, completeness, reliability, currency, or quality of any data provided herein. Any third-party links provided by this Tool should not be construed as an endorsement, affiliation, relationship, or sponsorship of such third-party content by or from ASCE.

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APPENDIX D
STRUCTURAL DESIGN DRAWINGS

MONOPOLE REINFORCEMENT DRAWINGS

SITE NAME: BRISTOL CENTER

BU NUMBER: 842859

SITE ADDRESS:

**371 TERRYVILLE AVENUE
BRISTOL, CT 06010
HARTFORD COUNTY, USA**

HOT WORK INCLUDED

N/A	BASE GRINDING ONLY
X	BASE WELDING (AND GRINDING)
N/A	AERIAL GRINDING ONLY
X	AERIAL WELDING (AND GRINDING)



SAFETY CLIMB: 'LOOK UP'
THE INTEGRITY OF THE WIRE ROPE SAFETY CLIMB SYSTEM SHALL BE CONSIDERED DURING ALL STAGES OF DESIGN, INSTALLATION, AND INSPECTION. TOWER REINFORCEMENTS AND EQUIPMENT INSTALLATIONS SHALL NOT COMPROMISE THE INTEGRITY OR FUNCTIONAL USE OF ANY WIRE ROPE SAFETY CLIMB ON THE STRUCTURE. THIS SHALL INCLUDE, BUT NOT BE LIMITED TO: PINCHING OF THE WIRE ROPE, BENDING OF THE WIRE ROPE FROM ITS SUPPORTS, DIRECT CONTACT OR CLOSE PROXIMITY TO THE WIRE ROPE WHICH MAY CAUSE FRICTIONAL WEAR, OR IMPACT TO THE ANCHORAGE POINTS IN ANY WAY. ANY COMPROMISED SAFETY CLIMB MUST BE REPORTED TO YOUR CROWN POC FOR RESOLUTION, INCLUDING EXISTING CONDITIONS.

CODE COMPLIANCE

THIS REINFORCEMENT DESIGN IS BASED ON THE TIA-222-H STRUCTURAL STANDARD USING AN ULTIMATE 3-SECOND GUST WIND SPEED OF 116 MPH FROM THE 2018 CONNECTICUT STATE BUILDING CODE, 50 MPH WITH 1.00 INCH ICE THICKNESS AND 60 MPH UNDER SERVICE LOADS, EXPOSURE CATEGORY C.

TOWER INFORMATION

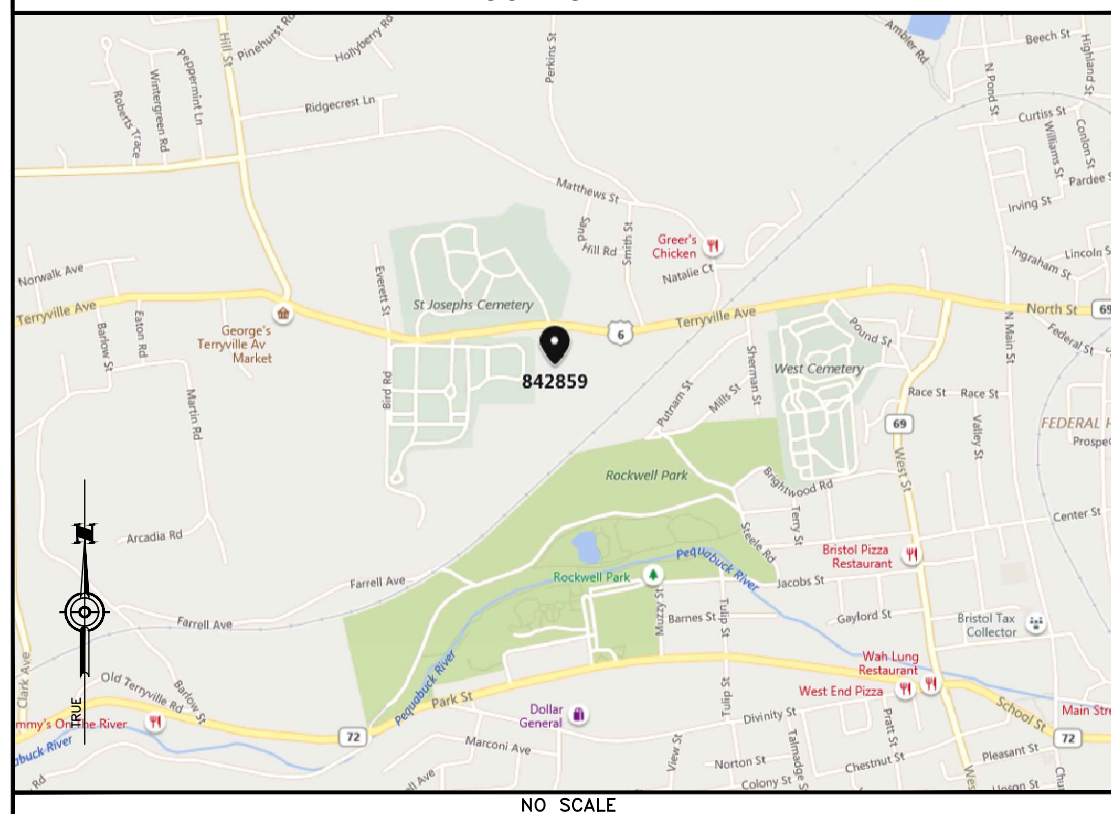
TOWER MANUFACTURER / CCI DOC #: EEI / CCI DOC #5135435
 TOWER HEIGHT / TYPE: 168.33 FT MONOPOLE TOWER
 TOWER LOCATION: LATITUDE 41° 40' 47.71"
 DATUM: NAD 1983 LONGITUDE -72° 57' 45.18"
 STRUCTURAL DESIGN DRAWING: B&V / WO #2066628
 STRUCTURAL ANALYSIS REPORT: MH / WO #2047816
 ORDER ID: 586265 REV #0

PROJECT CONTACTS

CROWN PROJECT MANAGER
 JOHN MCGEE
 (704) 877-8397
 JOHN.MCGEE@CROWNCastle.COM

BLACK & VEATCH CONTACTS
 CROWNCASTLERF@BV.COM
 ANTHONY REYES
 (913) 458-7320

LOCATION MAP



NO SCALE

DRIVING DIRECTIONS

FROM I-84 WEST TAKE EXIT 33 FOR CONNECTICUT 72 W TOWARD BRISTOL 0.3 MI. KEEP LEFT AT THE FORK AND MERGE ONTO CT-72 W 4.1 MI. TURN RIGHT ONTO CT-72 0.4 MI. TAKE THE 3RD RIGHT ONTO RIVERSIDE AVE 1.0 MI. TURN RIGHT ONTO N MAIN ST 0.7 MI. TURN LEFT ONTO NORTH ST DESTINATION WILL BE ON THE LEFT.

ATTENTION ALL CONTRACTORS

ANYTIME YOU ACCESS A CROWN SITE FOR ANY REASON YOU ARE TO CALL THE CROWN NOC UPON ARRIVAL AND DEPARTURE, DAILY AT 800-788-7011.

DRAWING INDEX

SHEET NO:	SHEET TITLE
TM-1	TITLE PAGE
TM-2	MODIFICATION INSPECTION CHECKLIST
TM-3	NOTES
TM-4	NOTES
TM-5	TOWER ELEVATION
TM-6	COAX FEEDLINE PLAN & SPLICE PLATE DETAIL
TM-7	TOWER SECTIONS
TM-8	TOWER SECTIONS
TM-9	CUSTOM FLAT PLATE DETAILS
TM-10	TRANSITION STIFFENER PLATE DETAILS

DO NOT SCALE DRAWINGS

CONTRACTOR SHALL VERIFY ALL PLANS & EXISTING DIMENSIONS & CONDITIONS ON THE JOB SITE & SHALL IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME

PREPARED FOR:

**CROWN
CASTLE**

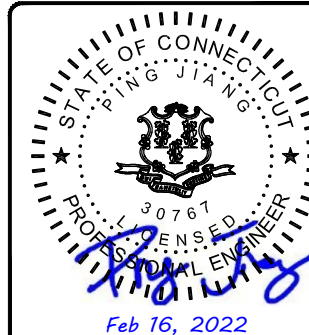


BLACK & VEATCH

6800 W 115TH ST, SUITE 2292
 OVERLAND PARK, KS 66211

PROJECT NO:	406642
DRAWN BY:	TYW
CHECKED BY:	AR

REV	DATE	DESCRIPTION
0	02/15/22	ISSUED FOR CONSTRUCTION



IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

BU #842859
 WO #2066628
 BRISTOL CENTER
 371 TERRYVILLE AVENUE
 BRISTOL, CT 06010
 HARTFORD COUNTY, USA

SHEET TITLE
 TITLE PAGE

SHEET NUMBER
TM-1

MI CHECKLIST			
REQUIRED	REPORT ITEM	APPLICABLE CROWN DOC #	BRIEF DESCRIPTION
PRE-CONSTRUCTION			
X	MI CHECKLIST DRAWING	CED-SOW-10007	THIS CHECKLIST SERVES AS A GUIDELINE FOR THE REQUIRED CONSTRUCTION DOCUMENTS AND INSPECTIONS FOR THIS MODIFICATION.
X	EOR APPROVED SHOP DRAWINGS	CED-SOW-10007	ONCE THE PRE-MODIFICATION MAPPING IS COMPLETE AND PRIOR TO FABRICATION, THE CONTRACTOR SHALL PROVIDE DETAILED ASSEMBLY DRAWINGS AND/OR SHOP DRAWINGS. THESE ARE TO INCLUDE, BUT ARE NOT LIMITED TO, A VISUAL LAYOUT OF NEW REINFORCEMENT, EXISTING REINFORCEMENT CONFIGURATION, PORTHOLES, MOUNTS, STEP PEGS, SAFETY CLIMBS AND ANY OTHER MISCELLANEOUS ITEMS WHICH MAY AFFECT SUCCESSFUL INSTALLATION OF MODIFICATIONS ON THE TOWER. THESE DRAWINGS SHALL BE SUBMITTED TO THE EOR FOR APPROVAL. SHOP DRAWING SUBMISSION SHALL INCLUDE THE EOR RFI FORM DETAILING ANY CHANGES FROM ORIGINAL DESIGN.
X	FABRICATION INSPECTION	CED-SOW-10007	A LETTER FROM THE FABRICATOR, STATING THAT THE WORK WAS PERFORMED IN ACCORDANCE WITH INDUSTRY STANDARDS AND THE CONTRACT DOCUMENTS, SHALL BE PROVIDED TO THE MI INSPECTOR FOR INCLUSION IN THE MI REPORT.
N/A	FABRICATOR CERTIFIED WELD INSPECTION	CED-SOW-10007 CED-STD-10069	A CWI SHALL INSPECT ALL WELDING PERFORMED ON STRUCTURAL MEMBERS DURING FABRICATION. A WRITTEN REPORT SHALL BE PROVIDED TO THE MI INSPECTOR FOR INCLUSION IN THE MI REPORT.
X	MATERIAL TEST REPORTS (MTR)	CED-SOW-10007	MATERIAL TEST REPORTS SHALL BE PROVIDED FOR MATERIAL USED AS REQUIRED PER SECTION 9.2.5 OF CED-SOW-10007. MTRS SHALL BE PROVIDED TO THE MI INSPECTOR FOR INCLUSION IN THE MI REPORT.
N/A	FABRICATOR NDE INSPECTION REPORT	CED-SOW-10066 CED-STD-10069	CRITICAL SHOP WELDS THAT REQUIRE TESTING ARE NOTED ON THESE CONTRACT DRAWINGS. A CERTIFIED NDT INSPECTOR SHALL PERFORM NON-DESTRUCTIVE EXAMINATION AND A REPORT SHALL BE PROVIDED TO THE MI INSPECTOR FOR INCLUSION IN THE MI REPORT.
N/A	NDE OF MONOPOLE BASE PLATE	ENG-SOW-10033	A NDE OF THE POLE TO BASE PLATE CONNECTION IS REQUIRED AND A WRITTEN REPORT SHALL BE PROVIDED TO THE MI INSPECTOR FOR INCLUSION IN THE MI REPORT.
X	PACKING SLIPS	CED-SOW-10007	PACKING/SHIPPING LIST FOR ALL MATERIAL USED DURING CONSTRUCTION OF THE MODIFICATION.
ADDITIONAL TESTING AND INSPECTIONS:			
N/A			
CONSTRUCTION			
N/A	FOUNDATION INSPECTIONS	CED-SOW-10144	A VISUAL OBSERVATION OF THE EXCAVATION AND REBAR SHALL BE PERFORMED BEFORE PLACING THE CONCRETE. A VISUAL OBSERVATION OF THE REBAR SHALL BE PERFORMED BEFORE PLACING THE EPOXY. A SEALED WRITTEN REPORT SHALL BE PROVIDED TO THE MI INSPECTOR FOR INCLUSION IN THE MI REPORT.
N/A	CONCRETE COMP. STRENGTH AND SLUMP TEST	CED-SOW-10144	THE CONCRETE MIX DESIGN, SLUMP TEST, AND COMPRESSIVE STRENGTH TESTS SHALL BE PROVIDED AS PART OF THE FOUNDATION REPORT.
N/A	EARTHWORK	CED-SOW-10144	FOUNDATION SUB-GRADES SHALL BE INSPECTED AND APPROVED BY AN APPROVED FOUNDATION INSPECTOR AND RESULTS INCLUDED AS PART OF THE FOUNDATION REPORT.
N/A	MICROPILE/ROCK ANCHOR	CED-SOW-10144	MICROPILES/ROCK ANCHORS SHALL BE INSPECTED BY THE FOUNDATION INSPECTION VENDOR AND SHALL BE INCLUDED AS PART OF THE FOUNDATION INSPECTION REPORT, ADDITIONAL TESTING AND/OR INSPECTION REQUIREMENTS ARE NOTED IN THESE CONTRACT DOCUMENTS.
N/A	POST-INSTALLED ANCHOR ROD VERIFICATION	CED-SOW-10007 CED-FRM-10358	POST INSTALLED ANCHOR ROD VERIFICATION SHALL BE PERFORMED IN ACCORDANCE WITH CROWN REQUIREMENTS AND A REPORT SHALL BE PROVIDED TO THE MI INSPECTOR FOR INCLUSION IN THE MI REPORT.
N/A	BASE PLATE GROUT VERIFICATION	ENG-STD-10323	THE GENERAL CONTRACTOR SHALL PROVIDE DOCUMENTATION TO THE MI INSPECTOR THAT CERTIFIES THAT THE GROUT WAS REMOVED AND/OR INSTALLED IN ACCORDANCE WITH CROWN REQUIREMENTS FOR INCLUSION IN THE MI REPORT.
X	FIELD CERTIFIED WELD INSPECTION	CED-SOW-10066 CED-STD-10069	A CROWN APPROVED CERTIFIED WELD INSPECTOR SHALL INSPECT AND TEST FIELD WELDS, FOLLOWING ALL PROCEDURES SPECIFIED IN CROWN STANDARD DOCUMENTS APPLICABLE TO WELD INSPECTIONS. A REPORT SHALL BE PROVIDED. NDE OF FIELD WELDS SHALL BE PERFORMED AS REQUIRED BY CROWN STANDARDS AND CONTRACT DOCUMENTS. THE NDE REPORT SHALL BE INCLUDED IN THE CWI REPORT.
X	ON-SITE COLD GALVANIZING VERIFICATION	ENG-STD-10149 CED-FRM-10358	THE GENERAL CONTRACTOR SHALL PROVIDE WRITTEN AND PHOTOGRAPHIC DOCUMENTATION TO THE MI INSPECTOR VERIFYING THAT ANY ON-SITE COLD GALVANIZING WAS APPLIED PER MANUFACTURER SPECIFICATIONS AND APPLICABLE STANDARDS.
N/A	TENSION TWIST AND PLUMB	CED-PRC-10182 CED-STD-10261	THE GENERAL CONTRACTOR SHALL PROVIDE A REPORT IN ACCORDANCE WITH APPLICABLE STANDARDS DOCUMENTING TENSION TWIST AND PLUMB.
X	GC AS-BUILT DRAWINGS	CED-SOW-10007	THE GENERAL CONTRACTOR SHALL SUBMIT A LEGIBLE COPY OF THE ORIGINAL DESIGN DRAWINGS EITHER STATING "INSTALLED AS DESIGNED" OR NOTING ANY CHANGES THAT WERE REQUIRED AND APPROVED BY THE ENGINEER OF RECORD. EOR/RFI FORMS APPROVING ALL CHANGES SHALL BE SUBMITTED.
ADDITIONAL TESTING AND INSPECTIONS:			
N/A			
POST-CONSTRUCTION			
X	CONSTRUCTION COMPLIANCE LETTER	CED-SOW-10007 CED-FRM-10358	A LETTER FROM THE GENERAL CONTRACTOR STATING THAT THE WORKMANSHIP WAS PERFORMED IN ACCORDANCE WITH INDUSTRY STANDARDS AND THESE CONTRACT DRAWINGS, INCLUDING LISTING ADDITIONAL PARTIES TO THE MODIFICATION PROCESS.
N/A	POST-INSTALLED ANCHOR ROD PULL TESTS	CED-PRC-10119	POST-INSTALLED ANCHOR RODS SHALL BE TESTED BY A CROWN APPROVED PULL TEST INSPECTOR AND A REPORT SHALL BE PROVIDED INDICATING TESTING RESULTS.
X	PHOTOGRAPHS	CED-SOW-10007	PHOTOGRAPHS SHALL BE SUBMITTED TO THE MI. PHOTOS SHALL DOCUMENT ALL PHASES OF THE CONSTRUCTION. THE PHOTOS SHALL BE ORGANIZED IN A MANNER THAT EASILY IDENTIFIES THE EXACT LOCATION OF THE PHOTO.
N/A	BOLT HOLE INSTALLATION VERIFICATION REPORT	CED-SOW-10007	THE MI INSPECTOR SHALL VERIFY THE INSTALLATION AND TIGHTNESS 10% OF ALL NON PRE-TENSIONED BOLTS INSTALLED AS PART OF THE MODIFICATION. THE MI INSPECTOR SHALL LOOSEN THE NUT AND VERIFY THE BOLT HOLE SIZE AND CONDITION. THE MI REPORT SHALL CONTAIN THE COMPLETED BOLT INSTALLATION VERIFICATION REPORT, INCLUDING THE SUPPORTING PHOTOGRAPHS.
X	PUNCHLIST DEVELOPMENT AND CORRECTION DOCUMENTATION	CED-PRC-10283 CED-FRM-10285	FINAL PUNCHLIST INDICATING ALL NONCONFORMANCE(S) IDENTIFIED AND THE FINAL RESOLUTION AND APPROVAL.
X	MI INSPECTOR REDLINE OR RECORD DRAWING(S)	CED-SOW-10007	THE MI INSPECTOR SHALL OBSERVE AND REPORT ANY DISCREPANCIES BETWEEN THE CONTRACTOR'S REDLINE DRAWING AND THE ACTUAL COMPLETED INSTALLATION.
ADDITIONAL TESTING AND INSPECTIONS:			
N/A			

THE MI CHECKLIST SHALL BE REVIEWED PRIOR TO THE START OF CONSTRUCTION. ALL PARTIES TO THE MODIFICATION SHALL UNDERSTAND CROWN REQUIREMENTS AND INSPECTIONS/DOCUMENTATION THAT ARE APPLICABLE TO THE SOW THEY ARE PERFORMING. ERRORS ON THE CHECKLIST DO NOT ABSOLVE THE GC OR MI INSPECTOR FROM PERFORMING/COLLECTING DOCUMENTATION.

MODIFICATION INSPECTION NOTES

GENERAL

1. THE MI IS AN ON-SITE VISUAL AND HANDS-ON INSPECTION OF TOWER MODIFICATIONS INCLUDING A REVIEW OF CONSTRUCTION REPORTS AND ADDITIONAL PERTINENT DOCUMENTATION PROVIDED BY THE GENERAL CONTRACTOR (GC), AS WELL AS ANY INSPECTION DOCUMENTS PROVIDED BY 3RD PARTY INSPECTORS. THE MI IS TO ENSURE THE INSTALLATION WAS CONSTRUCTED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS, NAMELY THE MODIFICATION DRAWINGS; IN ACCORDANCE WITH APPLICABLE CROWN STANDARDS; AND AS DESIGNED BY THE ENGINEER OF RECORD (EOR).
2. NO DOCUMENT, CODE OR POLICY CAN ANTICIPATE EVERY SITUATION THAT MAY ARISE. ACCORDINGLY, THIS CHECKLIST IS INTENDED TO SERVE AS A SOURCE OF GUIDING PRINCIPLES IN ESTABLISHING GUIDELINES FOR MODIFICATION INSPECTION.
3. THE MI IS TO CONFIRM INSTALLATION CONFIGURATION AND WORKMANSHIP ONLY AND IS NOT A REVIEW OF THE MODIFICATION DESIGN ITSELF, AND THE MI INSPECTOR DOES NOT TAKE OWNERSHIP OF THE MODIFICATION DESIGN. OWNERSHIP OF THE STRUCTURAL MODIFICATION DESIGN EFFECTIVENESS AND INTEGRITY RESIDES WITH THE EOR AT ALL TIMES. THE MI INSPECTOR SHALL INSPECT AND NOTE CONFORMANCE/NONCONFORMANCE AND PROVIDE TO THE CROWN POINT OF CONTACT (CROWN POC) FOR EVALUATION.
4. ALL MI'S SHALL BE CONDUCTED BY A CROWN APPROVED MI INSPECTOR, WORKING FOR A CROWN APPROVED MI VENDOR. SEE CROWN CED-LST-10173, "APPROVED MI VENDORS".
5. TO ENSURE THAT THE REQUIREMENTS OF THE MI ARE MET, IT IS VITAL THAT THE GENERAL CONTRACTOR (GC) AND THE MI INSPECTOR BEGIN COMMUNICATING AND COORDINATING AS SOON AS A PURCHASE ORDER (PO) IS RECEIVED. IT IS EXPECTED THAT EACH PARTY WILL BE PROACTIVE IN REACHING OUT TO THE OTHER PARTY. IF CONTACT INFORMATION IS NOT KNOWN THE GC AND/OR INSPECTOR SHALL CONTACT THE CROWN POINT OF CONTACT (CROWN POC).
6. REFER TO CROWN CED-SOW-10007, "MODIFICATION INSPECTION SOW", FOR FURTHER DETAILS AND REQUIREMENTS.

SERVICE LEVEL COMMITMENT

1. THE FOLLOWING RECOMMENDATIONS AND SUGGESTIONS ARE OFFERED TO ENHANCE THE EFFICIENCY AND EFFECTIVENESS OF DELIVERING AN MI REPORT:
 - THE GC SHALL PROVIDE A MINIMUM OF 5 BUSINESS DAYS NOTICE, PREFERABLY 10, TO THE MI INSPECTOR AS TO WHEN THE SITE WILL BE READY FOR THE MI TO BE CONDUCTED.
 - THE GC AND MI INSPECTOR COORDINATE CLOSELY THROUGHOUT THE ENTIRE PROJECT.
 - WHEN POSSIBLE, IT IS PREFERRED TO HAVE THE GC AND MI INSPECTOR ON-SITE SIMULTANEOUSLY FOR ANY GUY WIRE TENSIONING OR RE-TENSIONING OPERATIONS.
 - WHEN POSSIBLE, IT IS PREFERRED TO HAVE THE GC AND MI INSPECTOR ON-SITE DURING THE MI TO HAVE ANY MINOR DEFICIENCIES CORRECTED DURING THE INITIAL MI. THEREFORE, THE GC MAY CHOOSE TO COORDINATE THE MI CAREFULLY TO ENSURE ALL CONSTRUCTION FACILITIES ARE AT THEIR DISPOSAL WHEN THE MI INSPECTOR IS ON SITE.

REQUIRED PHOTOS

1. BETWEEN THE GC AND THE MI INSPECTOR THE FOLLOWING PHOTOGRAPHS, AT A MINIMUM, ARE TO BE TAKEN AND INCLUDED IN THE MI REPORT:
 - PRE-CONSTRUCTION GENERAL SITE CONDITION
 - PHOTOGRAPHS DURING THE REINFORCEMENT MODIFICATION CONSTRUCTION/ERECTION AND INSPECTION
 - RAW MATERIALS
 - PHOTOS OF ALL CRITICAL DETAILS
 - FOUNDATION MODIFICATIONS
 - WELD PREPARATION
 - BOLT INSTALLATION
 - FINAL INSTALLED CONDITION
 - SURFACE COATING REPAIR
 - POST CONSTRUCTION PHOTOGRAPHS
 - FINAL INFELD CONDITION
2. PHOTOS OF ELEVATED MODIFICATIONS TAKEN ONLY FROM THE GROUND SHALL BE CONSIDERED INADEQUATE.
3. THIS IS NOT A COMPLETE LIST OF REQUIRED PHOTOS, FOR COMPLETE LIST OF PHOTO SEE DOCUMENT # CED-SOW-10007.

PREPARED FOR:

CROWN CASTLE



BLACK & VEATCH

6800 W 115TH ST, SUITE 2292
OVERLAND PARK, KS 66211

PROJECT NO: 406642

DRAWN BY: TYW

CHECKED BY: AR

REV	DATE	DESCRIPTION
0	02/15/22	ISSUED FOR CONSTRUCTION



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BU #842859
WO #2066628
BRISTOL CENTER
371 TERRYVILLE AVENUE
BRISTOL, CT 06010
HARTFORD COUNTY, USA

SHEET TITLE
MODIFICATION
INSPECTION CHECKLIST

SHEET NUMBER
TM-2

GENERAL NOTES

1. The General Contractor (GC) shall reference CON-STD-10159, "Tower Modification Construction Specifications", as a continuation of the following General Notes. The GC shall keep a printed or electronic copy of this document with the Structural Design Drawings (SDD) at all times, in a location accessible to all Contractor Personnel, and shall ensure that all Contractor Personnel are aware of the information enclosed within the General Notes and CON-STD-10159.
2. The Contract Documents are the property of Crown Castle (Crown). They are provided to the GC and its Lower Tier Contractors and material suppliers for the limited purpose of use in completing the Work for this Site, and shall be kept in strict confidence and not disclosed to any third parties. The Contract Documents shall not be used for any other purpose whatsoever without the prior written consent of Crown.
3. Detail drawings, including notes and tables, shall govern over general notes and typical details. Contact the Crown Point of Contact (POC) and Engineer of Record (EOR) for clarification as needed.
4. Do not scale drawings.
5. Any Work performed without a prefabrication mapping is done at the risk of the GC and/or fabricator. All dimensions of existing structural elements are assumed based on the available documentation and are preliminary until field-verified by the GC, unless noted otherwise (UNO). Where discrepancies are found, GC shall contact the Crown POC and EOR through RFI.
6. For this analysis and modification, the tower has been assumed to be in good condition without any structural defects, UNO. If the GC discovers any indication of an existing structural defect, contact the Crown POC and EOR immediately.
7. All construction means and methods, including but not limited to erection plans, rigging plans, climbing plans, and rescue plans, shall be the responsibility of the GC responsible for the execution of the Work contained herein, and shall meet ANSI/ASSE A10.48 (latest edition); federal, state, and local regulations; and any applicable industry consensus standards related to the construction activities being performed. All rigging plans shall adhere to ANSI/ASSE A10.48 (latest edition) and Crown standard CED-STD-10253, "Rigging Program", including the required involvement of a qualified engineer for class IV construction to certify the supporting structure(s) in accordance with the ANSI/TIA-322 (latest edition).
8. The structural integrity of the modification design extends to the complete condition only. The GC must be cognizant that the removal of any structural component of an existing tower has the potential to cause the partial or complete collapse of the structure. All necessary precautions must be taken to ensure structural integrity, including, but not limited to, engineering assessment of construction stresses with installation maximum wind speed and/or temporary bracing and shoring.
9. Aerial and underground utilities and facilities may or may not be shown on the drawings. The GC shall take every precaution to preserve and protect these items, which may include aerial or underground power lines, telephone lines, water lines, sewer lines, cable television facilities, pipelines, structures and other public and private improvements within or adjacent to the Work area. The responsibility for determining the actual on-site location of these items shall rest exclusively with the GC.
10. All manufacturer's hardware assembly instructions shall be followed, UNO. Conflicting notes shall be brought to the attention of the EOR and the Crown POC.

11. The GC shall fabricate all required items per the materials specified below, UNO on the detail drawing sheets. If the GC finds for any component that the materials have not been clearly specified, the GC shall submit an RFI to the EOR to confirm the required material.

All structural elements shall be new and shall conform to the following requirements, UNO:

Monopoles:

- Structural shapes and plates: ASTM A572 Grade 65 (Fy = 65 KSI)
- Welding electrodes, SMAW: E80XX
- Welding electrodes, FCAW: E8XT-XX
- Welding electrodes, GMAW: ER80S-X

Self-Support and Guyed Towers:

- Structural shapes and plates: ASTM A572 Grade 50 (Fy = 50 KSI)
- Welding electrodes, SMAW: E70XX
- Welding electrodes, FCAW: E7XT-XX
- Welding electrodes, GMAW: ER70S-X

All tower types:

- Steel angle: ASTM A572 Grade 50 (Fy = 50 KSI)
- Solid rod: ASTM A36 (Fy = 36 KSI)
- Pipe/tube (round): ASTM A500 Grade C (Fy = 46 KSI)
- Pipe/tube (square): ASTM A500 Grade C (Fy = 50 KSI)
- Bolts: ASTM F3125 Grade A325 Type 1
- U-bolts: ASTM A307 Grade A, or SAE J429 Grade 2
- Nuts: ASTM A563 Grade DH
- Washers: ASTM F436 Type 1
- Guy Wires: ASTM A475 Grade EHS
- Bridge Strand: ASTM A586 Grade 1

12. After fabrication, hot-dip galvanize all steel items, UNO. Galvanize per ASTM A123, ASTM A153/A153M, or ASTM A653 G90, as applicable. ASTM A490 bolts shall not be hot-dip galvanized, but shall instead be coated with Magni 565 or EOR approved equivalent, per ASTM F2833.
13. Contractor Personnel shall not drill holes in any new or existing structural members, other than those drilled holes shown on structural drawings, without the approval of the EOR.
14. For a list of Crown-approved cold galvanizing compounds, refer to CON-STD-10149, "Tower Protective Coatings Guidelines".
15. All exposed structural steel as the result of this scope of Work including welds (after final inspection of the weld by the CWI), field drilled holes, and shaft interiors (where accessible), shall be cleaned and two (2) coats cold galvanizing shall be applied by brush in accordance with CON-STD-10149, "Tower Protective Coatings Guidelines". Photo documentation is required to be submitted to the MI inspector.
16. If removal of existing modifications is required per the modification scope, the GC shall clean and cold galvanize any existing empty bolt holes, UNO. If additional unexpected, oversized, or slotted holes are found, the GC shall contact the EOR and Crown POC for guidance prior to proceeding with the modifications.
17. All Work involving base plate grout scope items or resulting in disturbance of base plate grout shall reference ENG-STD-10323, "Base Plate Grout", and shall follow any Base Plate Grout Removal Notes contained herein.
18. If scope of modification involves bark removal or installation, the GC shall reference CED-SOW-10265, "Tree Concealment for Monopoles", as well as CED-STD-10395, "Installation Guidelines for Bark Surfaces".

19. If scope of modification involves concealment components including branching, the GC shall reference CED-CAT-10398 "Monopole Concealed Decorative Structures (CDS) Approved Components". All new branch installations require tethering.
20. If scope of modification involves cathodic protection, the GC shall reference CED-SOW-10397, "Cathodic Protection Installation, Replacement, and Enhancement".
21. All tower grounding affected by the Work shall be repaired or replaced in accordance with OPS-STD-10090, "Tower Grounding", and OPS-BUL-10133, "Grounding Repair Recommendation".
22. If scope of modification requires removal or covering of tower ID tag, the tag must be replaced.
23. Any hardware removed from the existing tower shall be replaced with new hardware of equal size and quality, UNO. No existing fasteners shall be reused.
24. All joints using ASTM A325 or A490 bolts, U-bolts, V-bolts, and threaded rods shall be snug tightened, UNO.
25. A nut locking device shall be installed on all proposed and/or replaced snug tightened ASTM A325 or A490 bolts, U-bolts, V-bolts, and threaded rods.
26. All joints are bearing type connections UNO. If no bolt length is given in the Bill of Materials, the connection may include threads in the shear planes, and the GC is responsible for sizing the length of the bolt.
27. Blind bolts shall be installed per the installation specifications on the corresponding Approved Fastener sheets contained in CED-CAT-10300, "Monopole Standard Drawings and Approved Reinforcement Components".
28. If ASTM A325 or A490 bolts, and/or threaded rods are specified to be pre-tensioned, these shall be installed and tightened to the pretensioned condition according to the requirements of the RCSC Specification for Structural Joints Using ASTM High Strength Bolts.
29. All proposed and/or replaced bolts shall be of sufficient length such that the end of the bolt be at least flush with the face of the nut. It is not permitted for the bolt end to be below the face of the nut after tightening is completed.

PREPARED FOR:



BLACK & VEATCH

6800 W 115TH ST, SUITE 2292
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PROJECT NO:	406642
DRAWN BY:	TYW
CHECKED BY:	AR

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WO #2066628
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SHEET TITLE
NOTES

SHEET NUMBER
TM-3

CONCRETE NOTES

- All concrete work shall be in accordance with ACI 301 specifications for structural concrete (latest edition). All concrete shall have a minimum 28 day compressive strength of 4500 PSI.
- Prepare and submit batch tickets for each type and strength of concrete.
- Concrete shall attain the following 28 day compressive strengths, (f'c) and water cementitious ratio (w/c) unless indicated otherwise:

Area	f'c	w/c
Foundations	4000 PSI	0.50
Slabs on Grade	4000 PSI	0.45
Columns, Walls, Beams, and Slabs	4000 PSI UNO	0.45
Topping Slabs	4000 PSI	0.45
Miscellaneous	4000 PSI	0.50

Hangar slab on grade and slabs on grade subjected to aircraft or vehicular traffic (including fork lifts) shall have a minimum flexural strength of 650 PSI. No chlorides or chloride salts shall be allowed in the concrete mixes.

- All concrete shall be normal weight concrete.
- Concrete mixes shall be designed by a qualified testing laboratory and shall be submitted to the structural engineer for review.
- The required slump for proper placement shall be determined by the contractor and supplier and included in the mix design submittal. Acceptance of proposed slump shall be obtained from the engineer prior to construction. Slump shall conform to ASTM C94 and meet the following tolerances.

Slump	Tolerance
A. 2" and less	1/2"±
B. More than 2" through 4"	1"±
C. More than 4"	1 1/2"±
- Cement shall conform to ASTM C150 Type II. Fine aggregate shall conform to ASTM C33. Course aggregate shall be gravel or crushed stone conforming to ASTM C33. Maximum aggregate size shall be 3/4".
- Do not use chloride-containing admixtures.
- Air entraining admixtures shall conform to ASTM C260.
- Hot weather concrete placement shall comply with ACI 305R. Cold weather concrete placement shall comply with ACI 306.1.
- Concrete shall be placed within 24 hours of excavation inspections. The contractor shall be responsible for protecting exposed excavations prior to concrete placement.
- Place concrete by using a chute or hopper device such that concrete shall not free fall from a height greater than 5 feet. Deposit concrete within the center of the steel reinforcing cage to prevent segregation.
- Consolidate placed concrete with mechanical vibrating equipment in accordance with ACI 309R. Do not use vibrators to transport concrete.
- Concrete shall be cured in accordance with ACI 301. When applicable, curing compounds shall be water clear, styrene acrylate type with a minimum solids content of 30%. Application shall be in conformance with manufacturer's instructions.
- All concrete testing shall be in accordance with ACI 318. A minimum of two 6"x12" concrete cylinders per anchor block (Guyed towers only) and a minimum six 6"x12" concrete cylinders per batch are required.
- A chamfer of 3/4" shall be provided at all exposed edges of concrete, unless noted otherwise, in accordance with ACI 301.

CONCRETE REINFORCING STEEL NOTES

- All reinforcing steel shall be deformed billet steel conforming to ASTM A615, Grade 60 unless noted otherwise.
- Reinforcing steel shall be detailed, fabricated, bent, and placed in accordance with the CRSI Manual of Standard Practice and ACI 315 (latest edition).
- Welding of reinforcing and embedments is prohibited.
- All reinforcing steel shall have a minimum three (3) inches concrete coverage unless noted otherwise.
- Spacing devices shall be used as required to maintain the side and bottom clearance between the steel reinforcement and excavation.

BASE PLATE GROUT REMOVAL NOTES

- When base plate grout removal is specified in the tower modification table, the contractor shall take the following steps:
 - The GC shall begin this procedure as early as possible during the modification process so that if issues arise, they can be resolved within the anticipated modification timeline.
 - If any deteriorated grout exists, begin at this location. Remove deteriorated grout and the grout around the nearest one or two anchor rods to fully expose the leveling nut. If the GC discovers that a half nut or jam nut was used as a leveling nut, or if no leveling nut is present, immediately contact CED and the Crown POC (typically the Mod PM) for a resolution. Do not remove any additional grout until directed to by Crown.
 - Otherwise, check the leveling nut for tightness in accordance with Section 7.2.3 of ENG-STD-10323 "Base Plate Grout". If severe corrosion / material loss is found or corrosion exists to the point where the leveling nut is unable to be tightened when obviously loose, immediately notify the Crown POC (typically the Mod PM). Reference ENG-BUL-10114 "Rust Classification" for examples of material loss. Do not remove any additional grout until directed to by Crown.
 - In the event that severe corrosion is not encountered, and being sure to check each anchor rod for corrosion per ENG-BUL-10114 "Rust Classification", remove all existing base plate grout while checking each leveling nut for tightness in accordance with Section 1.3.2.3 of ENG-STD-10323 "Base Plate Grout".
 - Consistent with Section 7.2.4 of ENG-STD-10323 "Base Plate Grout", hand tool clean to SSPC-SP2 and solvent clean to SSPC-SP1, all exposed structural steel elements, including anchor rods, leveling nuts, and underside of base plate to the greatest extent possible. Ensure that all existing grout is removed to allow cold galvanizing to adhere to the steel.
 - Apply by brush two coats of a Crown-approved cold-galvanizing compound to all exposed structural steel elements beneath the base plate, and allow curing in accordance with the manufacturer's recommendation. A list of Crown-approved direct application cold-galvanizing compounds can be found in ENG-STD-10149 "Tower Protective Coatings Guidelines" Section 2.1.1.
 - The GC shall provide photos of each anchor rod with leveling nut after cleaning but before cold-galvanization, and also again after cold-galvanization, for inclusion in the MI report.

PREPARED FOR:

CROWN CASTLE



BLACK & VEATCH

6800 W 115TH ST, SUITE 2292
OVERLAND PARK, KS 66211

PROJECT NO: 406642

DRAWN BY: TYW

CHECKED BY: AR

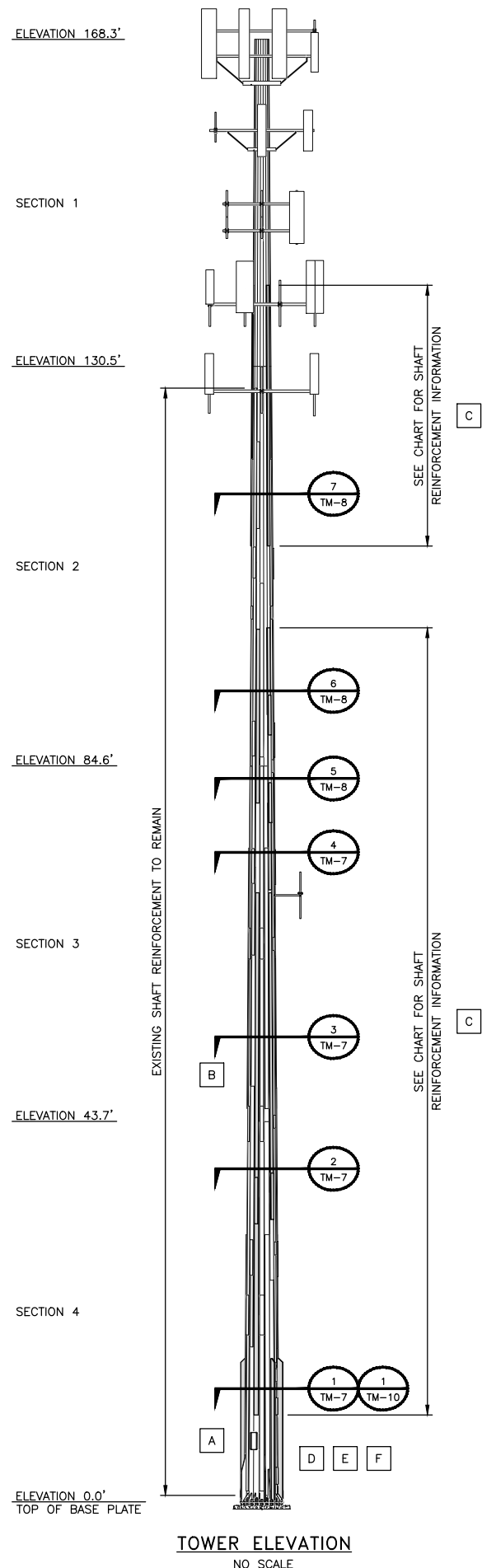
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TM-4



POLE MODIFICATION SCHEDULE			
CALLOUT	ELEVATION (FT)	MODIFICATION	REFERENCE SHEET
A	0.8 - 5.3 8.8 - 13.3	REMOVE EXISTING FLAT PLATE REINFORCEMENT ON FLAT 3, 5, 12 & 14	TM-7
B	45.5 - 55.5	REMOVE EXISTING FLAT PLATE REINFORCEMENT ON FLAT 5 & 12	TM-7
C	10 - 70.08 70.42 - 100.42 110 - 140	INSTALL NEW FLAT PLATE REINFORCEMENT	TM-6, TM-7, TM-8, & TM-9
D	0.0	REMOVE (4) EXISTING BASE PLATE STIFFENER PLATES	TM-10
E	0.0	INSTALL (4) NEW TRANSITION STIFFENER PLATES	TM-10
F	0.0	CLIMBING PATH MAY BECOME OBSTRUCTED AFTER INSTALLATION OF THE PROPOSED MODIFICATIONS. IF NOT ALREADY EXISTING ON THIS TOWER, CONTRACTOR TO PROVIDE NEW SIGNAGE PER CROWN CASTLE REQUIREMENTS.	-

FOR PARTS NOT DETAILED WITHIN THE DRAWING AND STARTING WITH "CCI-", SEE THE FOLLOWING CATALOG FOR DETAILS: CED-CAT-10300, MONOPOLE STANDARD DRAWINGS AND APPROVED REINFORCEMENT COMPONENTS.

PRIOR TO FABRICATION AND INSTALLATION, CONTRACTOR SHALL FIELD VERIFY ALL LENGTH AND QUANTITIES GIVEN. LENGTHS AND QUANTITIES GIVEN ARE FOR QUOTING PURPOSES ONLY, AND SHALL NOT BE USED FOR FABRICATION.

PRIOR TO FABRICATION AND INSTALLATION, CONTRACTOR SHALL FIELD VERIFY ALL LENGTHS AND QUANTITIES GIVEN. LENGTH AND QUANTITIES PROVIDED ARE FOR QUOTING PURPOSES ONLY AND SHALL NOT BE USED FOR FABRICATION.

CCI FLAT PLATE (65 KSI) REINFORCEMENT SCHEDULE										
BOTTOM ELEVATION	TOP ELEVATION	PART NUMBER	FLATS / DEGREES (°)	TERMINATION BOLTS (BOTTOM)	TERMINATION BOLTS (TOP)	MAX INTERMEDIATE BOLT SPACING	BOLT QUANTITY PER PLATE	STEEL WEIGHT PER PLATE (BLACK)	TOTAL BOLT QUANTITY	TOTAL STEEL WEIGHT (BLACK)
10'-0"	35'-0"	CCI-SFP-06512525	9, 17	11	11	1'-7"	34	690.6	68	1381
35'-1"	70'-1"	CCI-SFP-05012535	9, 17	8	8	1'-11"	32	745.5	64	1491
35'-7"	67'-7"	CFP-05012532	5, 12	8	8	1'-11"	31	680.6	62	1361
70'-5"	80'-5"	CCI-SFP-05012510	5, 12	8	8	1'-11"	19	213	38	426
70'-5"	100'-5"	CCI-SFP-05012530	9, 17	8	8	1'-11"	29	639	58	1278
90'-7"	100'-7"	CCI-SFP-05012510	5, 12	8	8	1'-11"	19	213	38	426
110'-0"	140'-0"	CCI-AFP-04012530	2, 6, 12, 15	8	8	2'-3"	27	511.2	108	2045
								TOTAL	436	8408

NOTES FOR CROWN REINFORCING (65 KSI) MATERIAL INCLUDING BOLTED BRIDGE STIFFENERS

- APPROVED FASTENERS MAY BE USED ON THIS PROJECT AS INDICATED IN THE FOLLOWING TABLE:

NEXGEN2	APPROVED	SPECIALTY FASTENERS	N/A
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ORDERING INFORMATION AND INSTALLATION DETAILS FOR APPROVED FASTENERS CAN BE FOUND IN CED-CAT-10300.
- ALL FLAT PLATE REINFORCEMENT IS TO BE INSTALLED CENTERED ON ITS DESIGNATED FLAT OR AZIMUTH, UNO, WITH A TOLERANCE FROM CENTER OF THE FLAT OR AZIMUTH AS FOLLOWS:

ALLOWABLE FLAT PLATE CENTERING TOLERANCE	3/8"
--	------

GC SHALL REDLINE ALL DEVIATIONS FROM CENTER, INCLUDING THOSE WITHIN TOLERANCE.
- GC SHALL REPLACE ANY STEP BOLTS AND STEP BOLT CLIPS THAT INTERFERE WITH THE INSTALLATION OF FLAT PLATE. REFERENCE CED-CAT-10300 FOR APPROVED OPTIONS. CCI-SB-0100 IS THE DEFAULT OPTION; OTHER OPTIONS MAY BE REQUIRED FOR FIT-UP.
- FOR PLATES STARTING AT 6", THE BOTTOM OF THE FLAT PLATE SHALL BEGIN AT 6" ± 1". FOR SINGLE PLATES OR MULTIPLE PLATES SPICED TOGETHER, THE BOTTOM OF THE FLAT PLATE RUN SHALL BEGIN AT THE PROPOSED ELEVATION 3". FOR MULTIPLE PLATES SPICED TOGETHER, THE TOP OF THE FLAT PLATE IS TO BE PLACED SUCH THAT THERE IS NO MORE THAN 3" DIFFERENCE BETWEEN THE ACTUAL OVERALL LENGTH OF THE SPAN AND THE PROPOSED OVERALL LENGTH OF THE SPAN, FROM THE BOTTOM OF THE BOTTOM PLATE TO THE TOP OF THE TOP PLATE.
- SHIMS FOR MONOPOLE REINFORCEMENT MEMBER SHALL BE REQUIRED WHERE GAPS BETWEEN THE POLE SHAFT AND REINFORCING MEMBER EXIST AT FASTENER LOCATIONS. FOR INTERMEDIATE CONNECTIONS, THE MINIMUM SHIM LENGTH AND WIDTH SHALL BE THE WIDTH OF THE REINFORCING MEMBER. FOR TERMINATION CONNECTIONS, A CONTINUOUS SHIM PLATE (PREFERRED) OR EQUIVALENT INDIVIDUAL SHIM PLATES THE WIDTH OF THE REINFORCING MEMBER MAY BE USED. SHIM THICKNESS SHALL BE NO LESS THAN 1/16". STACKING OF SHIMS IS PERMITTED. FINGER SHIMS AND HORSESHOE SHIMS ARE PERMITTED. SINGLE AND STACKED SHIMS IN BOLT TERMINATION REGIONS SHALL BE NO GREATER THAN A TOTAL OF 1/4" WITHOUT EOR APPROVAL. SINGLE AND STACKED SHIMS AT INTERMEDIATE CONNECTIONS SHALL BE NO GREATER THAN A TOTAL OF 5/8" WITHOUT EOR APPROVAL.
- SHIM MATERIAL SHALL BE STEEL GRADE A36 OR GREATER IF WELDED, UNO, AND SHALL REQUIRE MTR; IF SHIMS ARE NOT WELDED, THERE IS NO MINIMUM REQUIRED STEEL GRADE.
- IF UNEXPECTED HOLES ARE FOUND IN A LOCATION WHERE FLAT PLATE IS PROPOSED TO BE INSTALLED, THE GC SHALL NOT PLACE NEW BOLT HOLES WITHIN A CENTER-TO-CENTER DISTANCE OF 3 TIMES THE DIAMETER OF THE LARGER OF THE TWO HOLES, WITHOUT EOR APPROVAL. EXISTING HOLES MAY INCLUDE BUT ARE NOT LIMITED TO EMPTY BOLT HOLES AND JACKING NUTS WITH CENTER HOLES.

BOLT COUNT BY LENGTH	
LENGTH	QUANTITY
SHORT	350
MEDIUM	140
LONG	0
TOTAL	490

MANUFACTURER POLE SPECIFICATIONS							
POLE SHAFT TYPE	18 SIDED POLYGON						
TAPER	0.078 IN/FT						
BASE PLATE STEEL	ASTM A572 GRADE 65 (65 KSI)						
ANCHOR RODS	2 1/4" #18J ASTM A615 GRADE 75						

MANUFACTURER SHAFT SECTION DATA							
SHAFT SECTION	SHAFT LENGTH (FT)	THICKNESS (IN)	SECTION GRADE (KSI)	FLANGE PLATE GRADE (KSI)	LAP SPLICE (IN)	DIAMETER ACROSS FLAT (IN)	
						@ TOP	@ BOTTOM
1	37.83	0.1875	65	-	43.29	19.000	25.3125
2	49.61	0.2500	65	-		24.330	32.500
3	45.45	0.3125	65	-	54.72	31.250	38.6875
4	49.00	0.3750	65	-	64.08	37.190	45.250

NOTE: DIMENSIONS SHOWN DO NOT INCLUDE GALVANIZING TOLERANCES

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REV	DATE	DESCRIPTION
0	02/15/22	ISSUED FOR CONSTRUCTION

STATE OF CONNECTICUT
PING JIANG
30761
REGISTERED PROFESSIONAL ENGINEER
Feb 16, 2022

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

BU #842859
WO #2066628
BRISTOL CENTER
371 TERRYVILLE AVENUE
BRISTOL, CT 06010
HARTFORD COUNTY, USA

SHEET TITLE
TOWER ELEVATION

SHEET NUMBER
TM-5

PREPARED FOR:

**CROWN
CASTLE**



BLACK & VEATCH

6800 W 115TH ST, SUITE 2292
OVERLAND PARK, KS 66211

PROJECT NO: 406642

DRAWN BY: TYW

CHECKED BY: AR

REV	DATE	DESCRIPTION
0	02/15/22	ISSUED FOR CONSTRUCTION

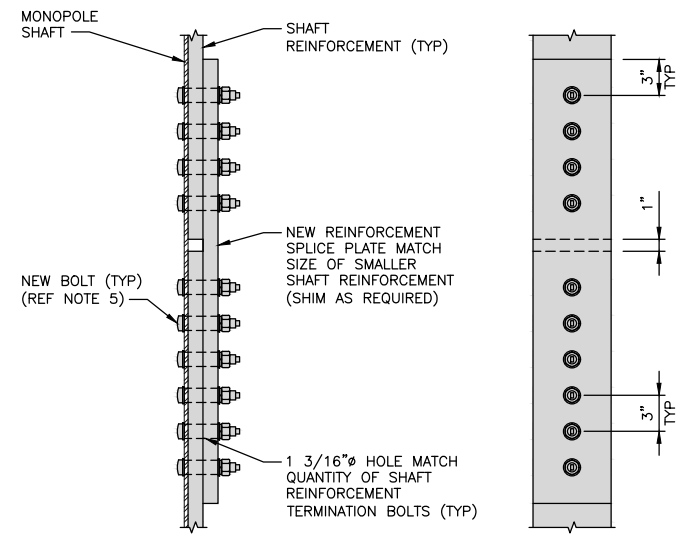
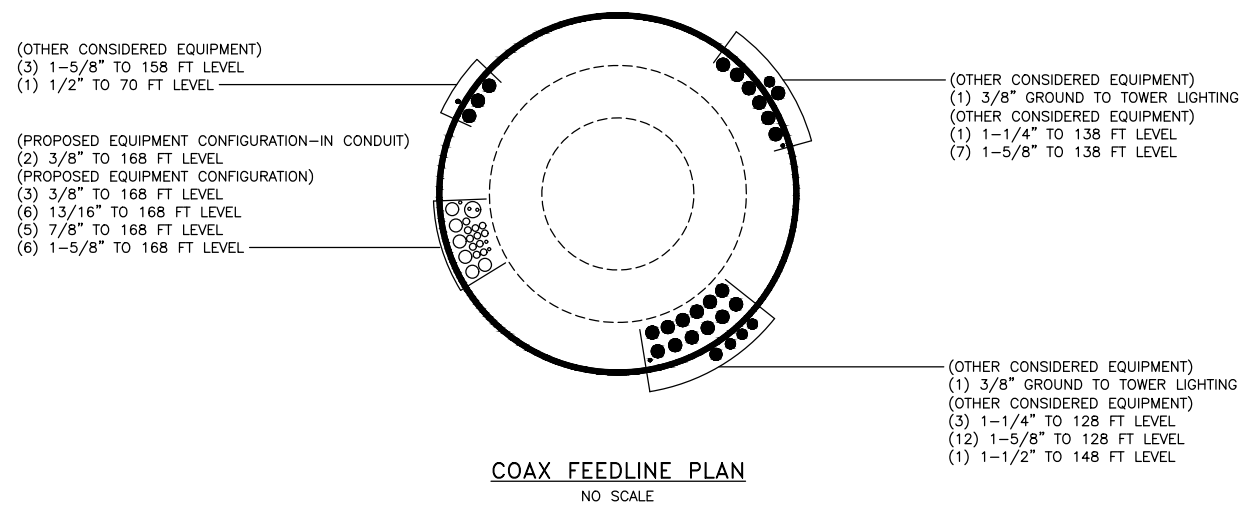
STATE OF CONNECTICUT
PING JIANG
30761
LICENSED PROFESSIONAL ENGINEER
[Signature]
Feb 16, 2022

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WO #2066628
BRISTOL CENTER
371 TERRYVILLE AVENUE
BRISTOL, CT 06010
HARTFORD COUNTY, USA

SHEET TITLE
COAX FEEDLINE PLAN
& SPLICE PLATE DETAIL

SHEET NUMBER
TM-6

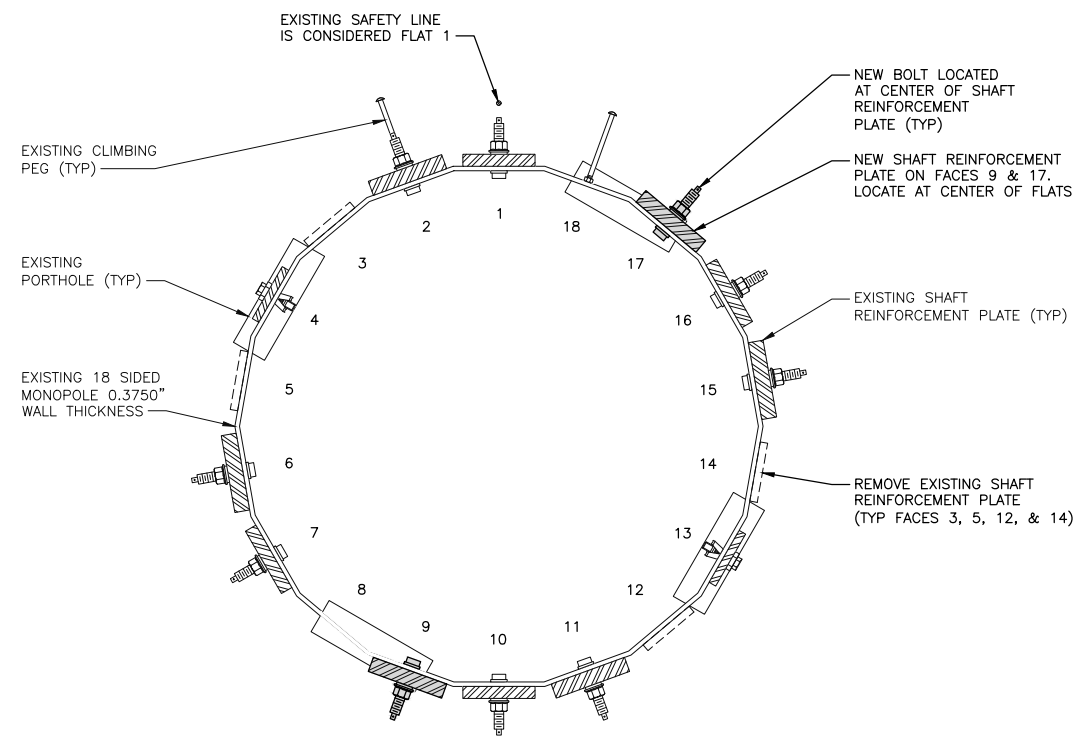


REINFORCED SPLICE PLATE DETAIL
NO SCALE

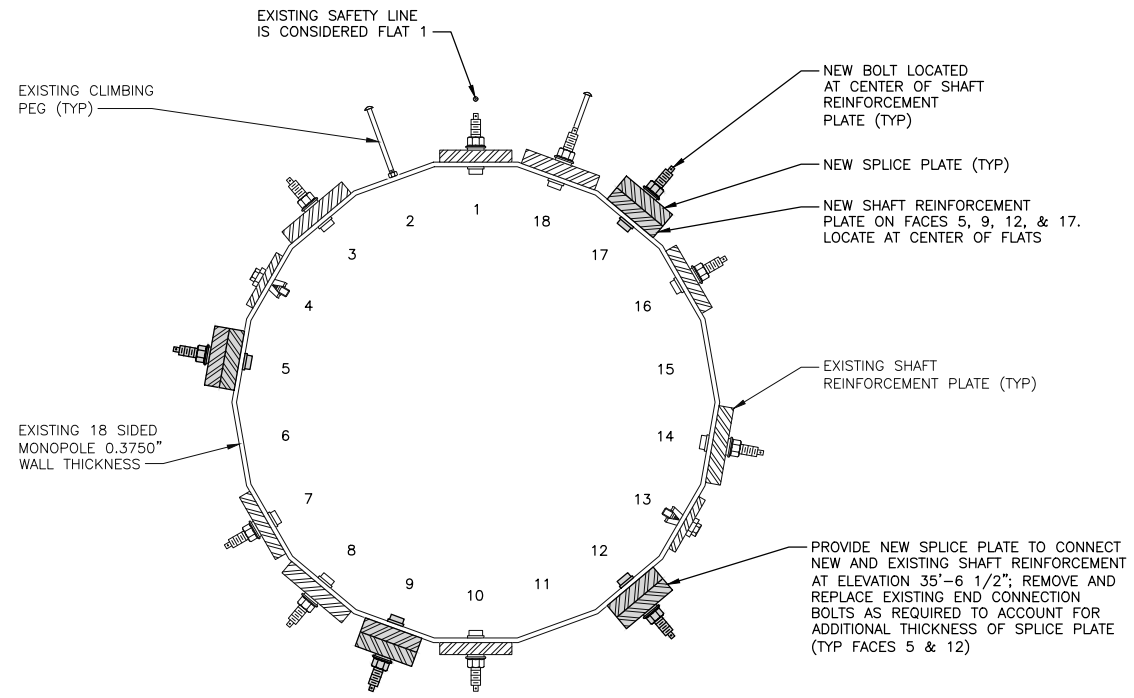
SPLICE PLATE SCHEDULE							
BOTTOM ELEVATION	TOP ELEVATION	CCI-PART # / DIMENSIONS	FLATS / DEGREES (°)	QUANTITY	QUANTITY OF BOLT HOLES PER PLATE	TOTAL BOLT HOLE QUANTITY	ADDITIONAL BOLTS*
32'-0"	37'-4"	CCI-SP-050125-8-11	9, 17	2	19	38	-
32'-6"	37'-10"	CCI-SP-050125-8-11	5, 12	2	19	38	22
78'-2"	82'-9"	CCI-SP-050125-8-8	5, 12	2	16	32	16
88'-3"	92'-10"	CCI-SP-050125-8-8	5, 12	2	16	32	16
					TOTAL	140	54

* NUMBER OF ADDITIONAL BOLTS WHEN SPLICING INTO EXISTING FLAT PLATE.

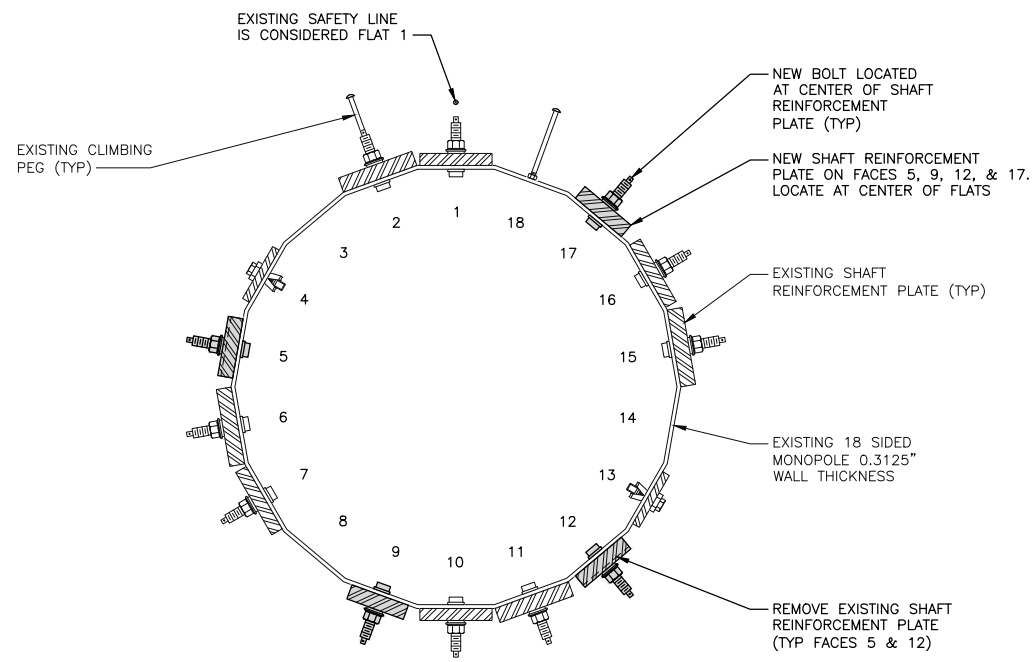
CLIMBING PATH MAY BECOME OBSTRUCTED AFTER INSTALLATION OF THE PROPOSED MODIFICATIONS. IF NOT ALREADY EXISTING ON THIS TOWER, CONTRACTOR TO PROVIDE NEW SIGNAGE PER CROWN CASTLE REQUIREMENTS.



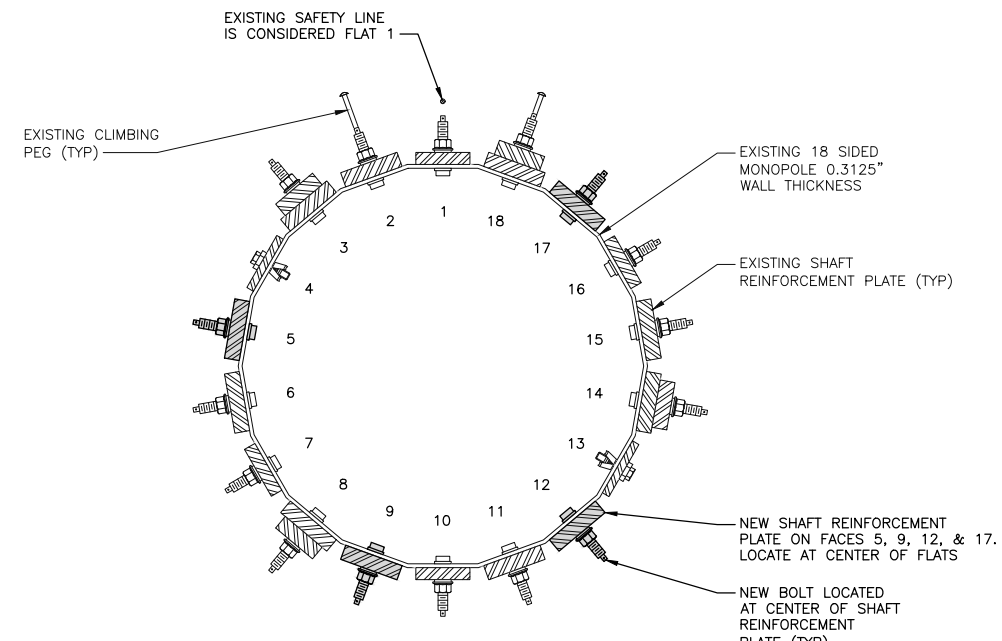
SECTION 1
NO SCALE



SECTION 2
NO SCALE



SECTION 3
NO SCALE



SECTION 4
NO SCALE

PREPARED FOR:

CROWN CASTLE



BLACK & VEATCH

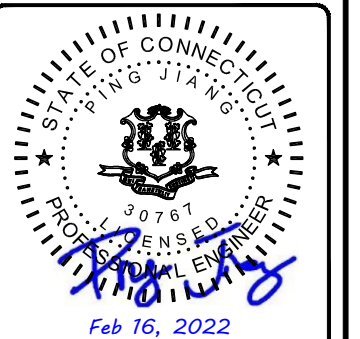
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OVERLAND PARK, KS 66211

PROJECT NO: 406642

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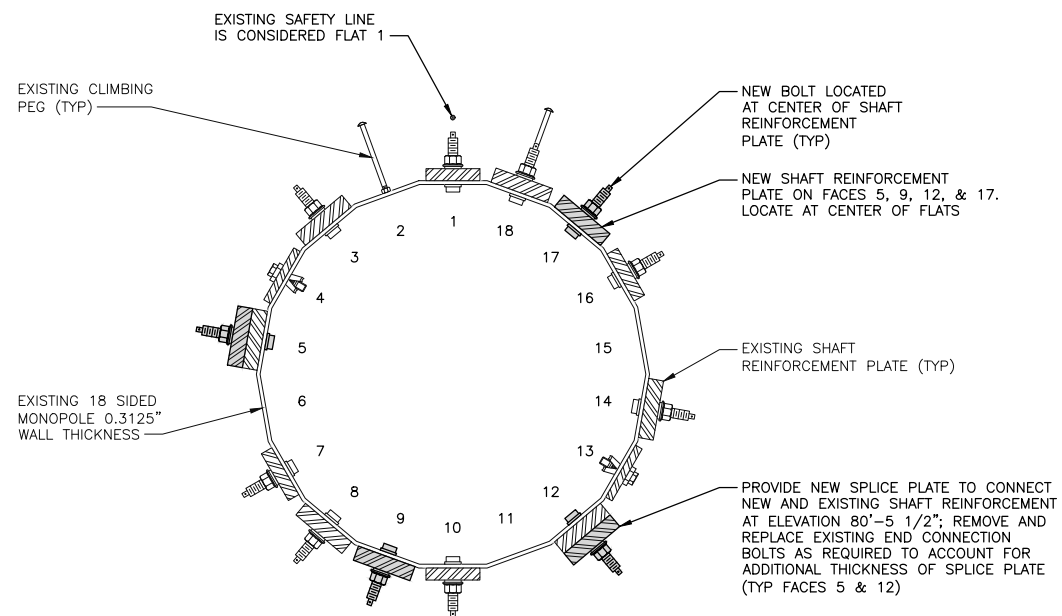
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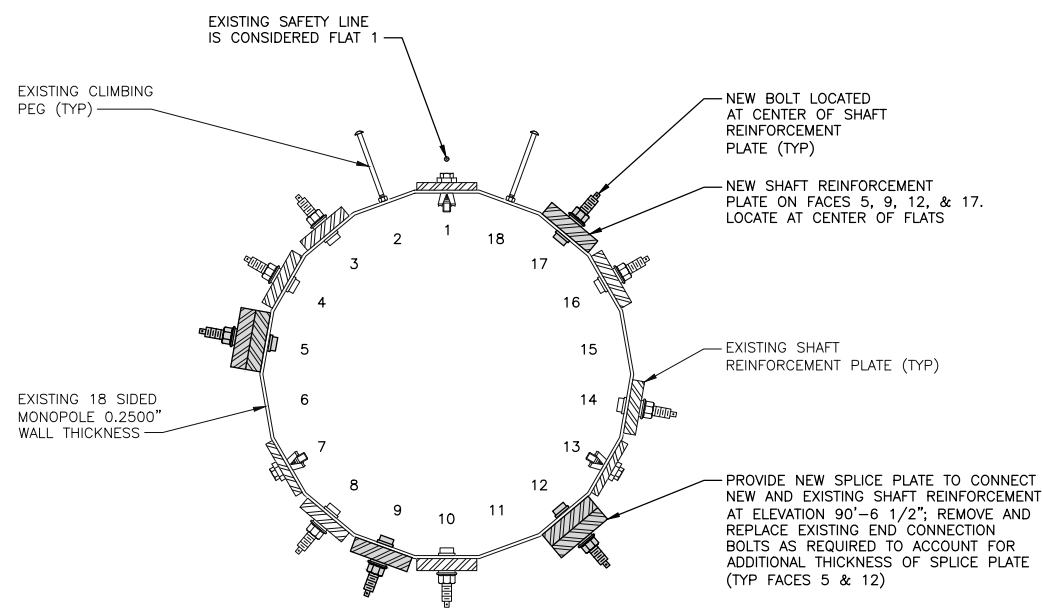
SHEET TITLE
TOWER SECTIONS

SHEET NUMBER
TM-7

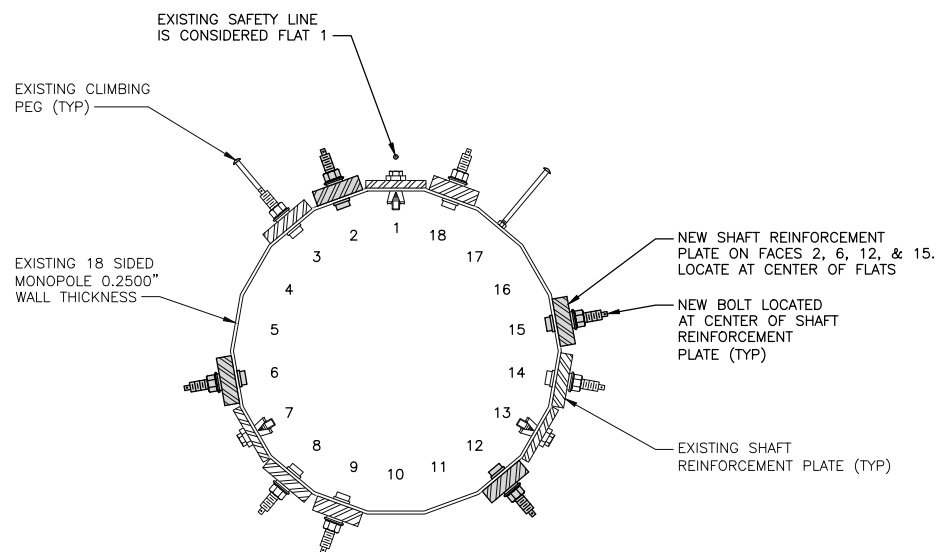
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SECTION 5
NO SCALE



SECTION 6
NO SCALE



SECTION 7
NO SCALE

PREPARED FOR:

CROWN CASTLE

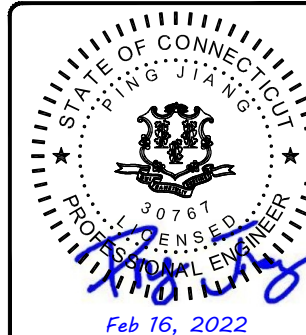


BLACK & VEATCH

6800 W 115TH ST, SUITE 2292
OVERLAND PARK, KS 66211

PROJECT NO: 406642
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SHEET TITLE
TOWER SECTIONS

SHEET NUMBER
TM-8

AFTER REMOVING EXISTING REINFORCEMENT ON FLATS 5 & 12 CONTRACTOR TO MATCH EXISTING BOLT HOLES ON TOWER WITH HOLES IN NEW FLAT PLATE REINFORCEMENT. HOLE LOCATIONS SHOWN HERE ARE PRELIMINARY AND BASED ON CURRENT KNOWLEDGE OF EXISTING REINFORCEMENTS. CONTRACTOR SHALL FIELD VERIFY LOCATIONS OF EXISTING HOLES PRIOR TO FABRICATION. REAM OUT EXISTING HOLES IN TOWER SHAFT AS REQUIRED TO ALLOW FOR NEW BOLT INSTALLATION. ALL BOLTS TO BE A MINIMUM 3" FROM ADJACENT BOLTS OR BOLT HOLES.

NOTES

1. ALL HOLES ARE TO BE DRILLED. DO NOT BURN OR PUNCH.
2. TOLERANCES: FRACTIONS $\pm 1/16"$
 ANGLES $\pm 1/2$ DEGREE
 DECIMALS $\pm .010"$
3. THE 65 KSI MATERIAL SHALL CONFORM TO THE FOLLOWING.
 - A. MATERIAL SHALL BE ASTM A572 HAVING A MINIMUM TENSILE STRENGTH (F_u) OF 80 KSI AND A MINIMUM YIELD STRENGTH (F_y) OF 65 KSI.
 - B. THE FINISH SHALL BE HOT-DIPPED GALVANIZED PER ASTM A123.

PREPARED FOR:

**CROWN
CASTLE**



BLACK & VEATCH

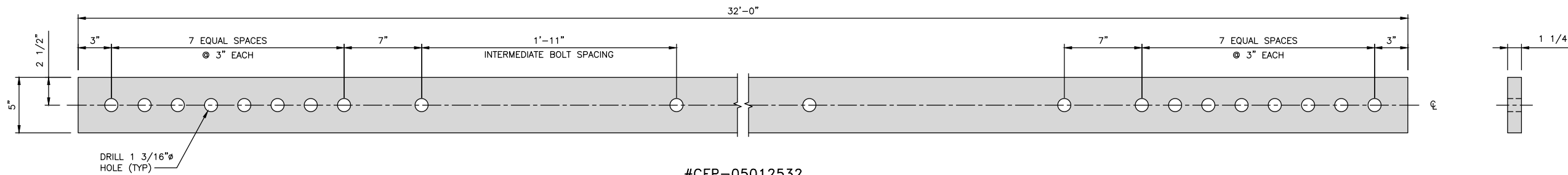
6800 W 115TH ST, SUITE 2292
 OVERLAND PARK, KS 66211

PROJECT NO: 406642

DRAWN BY: TYW

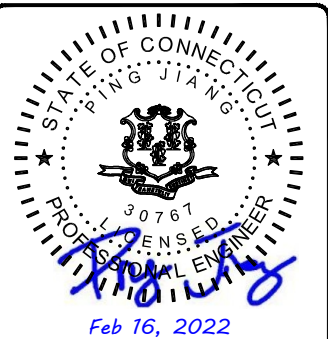
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DRILL 1 3/16"Ø HOLE (TYP)

#CFP-05012532
 CUSTOM FLAT PLATE
 (2) PL 1 1/2"x5"x32'-0" (A572-65)
 NO SCALE

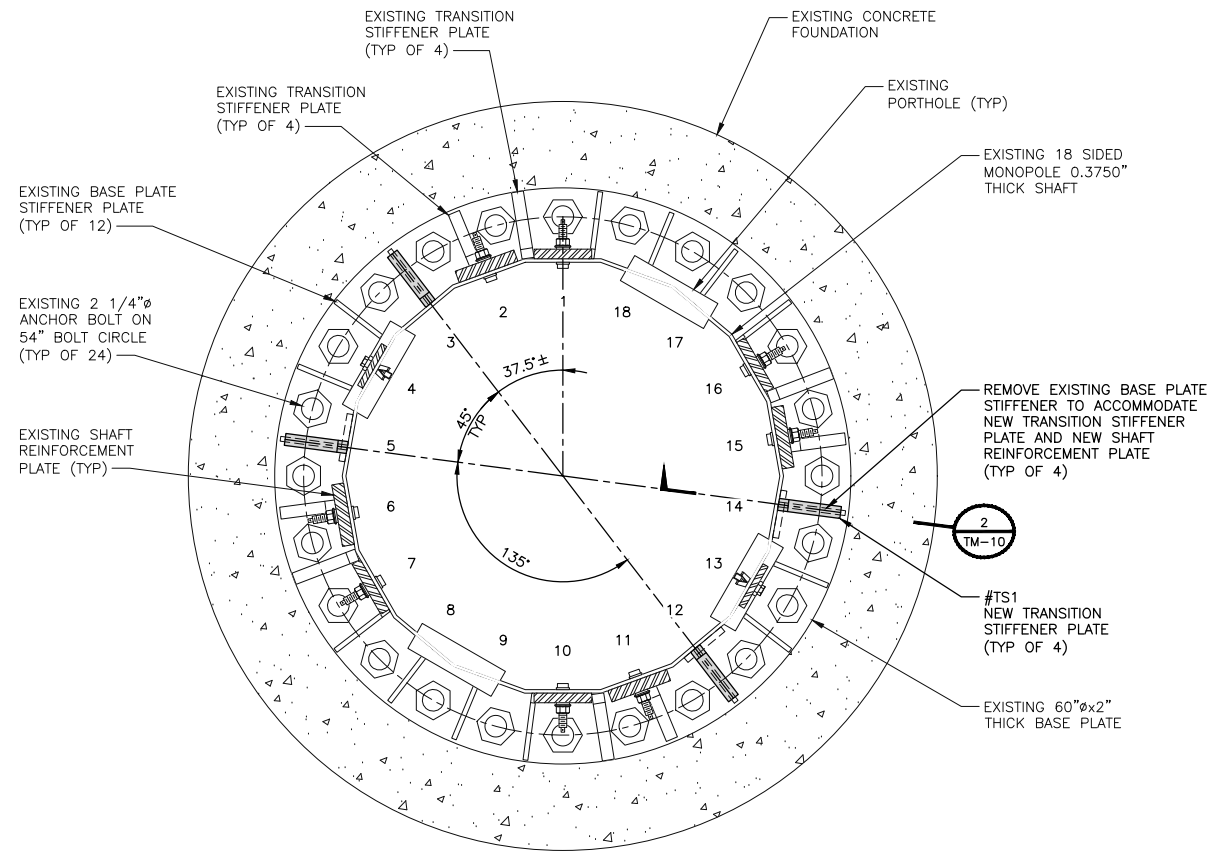


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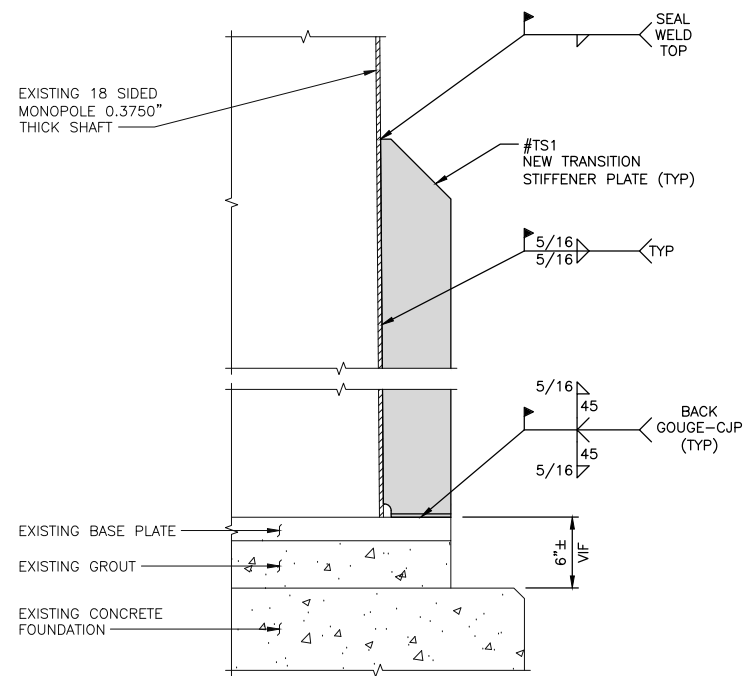
BU #842859
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SHEET TITLE
 CUSTOM FLAT PLATE
 DETAILS

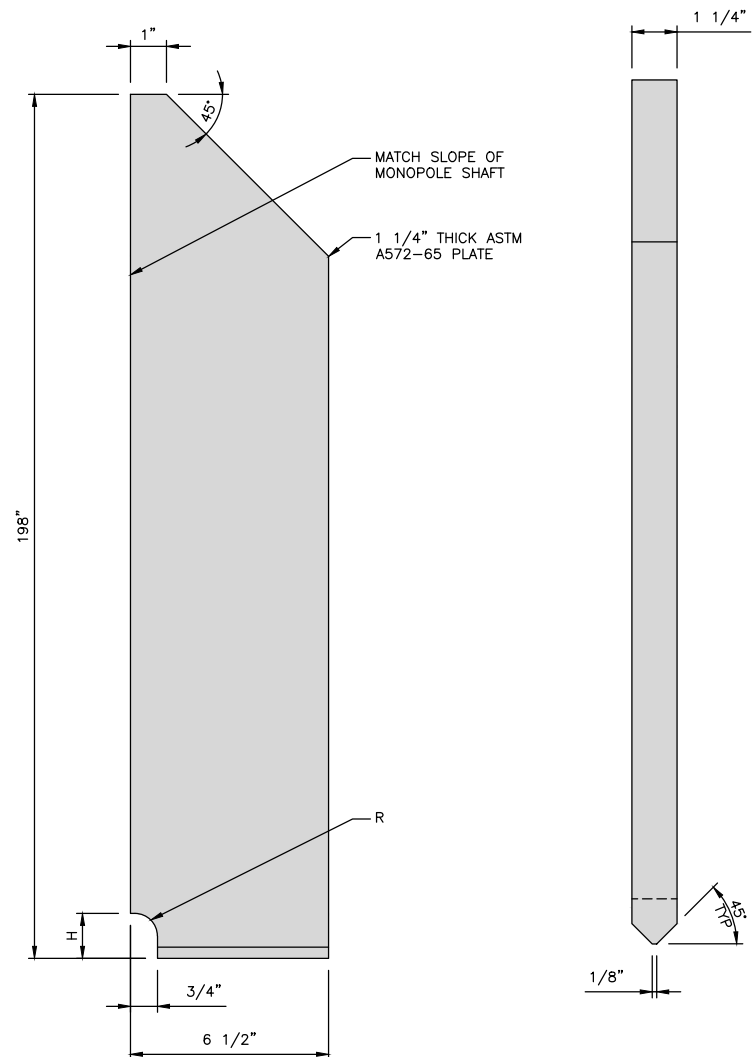
SHEET NUMBER
TM-9



SECTION 1
TRANSITION STIFFENER PLATE PLAN
NO SCALE



SECTION 2
TRANSITION STIFFENER PLATE DETAILS
NO SCALE



NOTE
R = STIFFENER THICKNESS/2
H = STIFFENER THICKNESS
#TS1
TRANSITION STIFFENER PLATE
NO SCALE

NOTES

1. ALL NEW PLATES SHALL BE HOT-DIPPED GALVANIZED.

PREPARED FOR:
CROWN CASTLE

BLACK & VEATCH
6800 W 115TH ST, SUITE 2292
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PING JIANG
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LICENSED PROFESSIONAL ENGINEER
Ping Jiang
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SHEET TITLE
TRANSITION STIFFENER PLATE DETAILS

SHEET NUMBER
TM-10