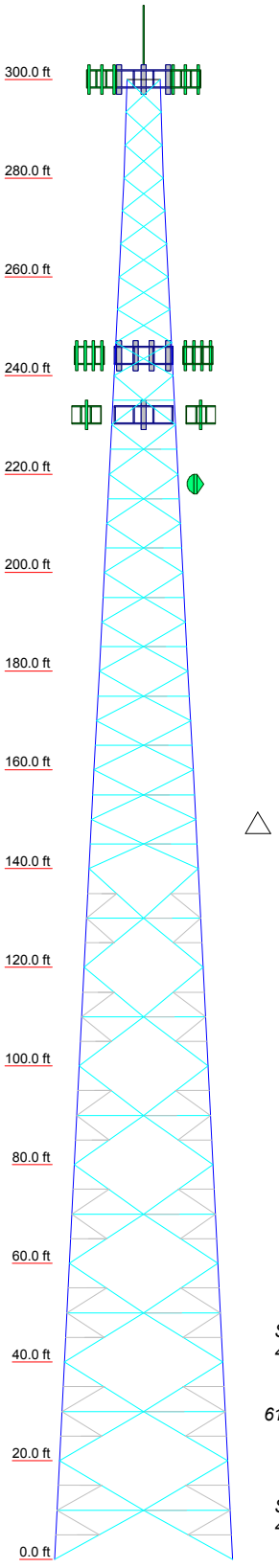
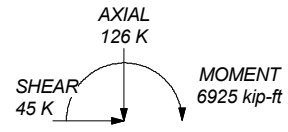
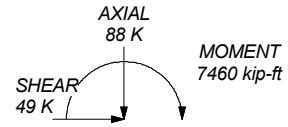
Section	T15	T14	T13	T12	T11	T10	T9	T8	T7	T6	T5	T4	T3	T2	T1
Legs	SR 4 1/2	SR 4 1/4			SR 4		SR 3 3/4		SR 3 1/2	SR 3 1/4			SR 3	SR 2 3/4	SR 2 1/4
Leg Grade	A36M-50														
Diagonals	2L3x3x1/4x3/8			2L3x3x3/16x3/8			L3x3x3/16			2L2 1/2x2 1/2x3/16x3/8			L3x3x3/16		A
Diagonal Grade	A36														
Top Girts	N.A.														A
Horizontals	2L3 1/2x3 1/2x1/4x3/8			2L3x3x3/16x3/8		2L2 1/2x2 1/2x3/16x3/8	B		L3x3x3/16		L2 1/2x2 1/2x3/16			N.A.	
Red. Horizontals				L2 1/2x2 1/2x3/16		C					N.A.				
Red. Diagonals				L2 1/2x2 1/2x3/16		ROHN 2 STD					N.A.				
Red. Hips				L2 1/2x2 1/2x3/16		C3x4.1					N.A.				
Inner Bracing	2L3 1/2x3 1/2x1/4x3/8			2L3x3x3/16x3/8		L4x4x1/4	L3 1/2x3 1/2x1/4		L3x3x3/16		L2 1/2x2 1/2x3/16			N.A.	
Face Width (ft)	36	34	32	30	28	26	24	22	20	18	16	14	12	10	8	6.6875
# Panels @ (ft)				14 @ 10						20 @ 5				9 @ 6.66667	
Weight (K)	77.5	9.1	8.8	7.6	6.7	6.1	5.9	5.4	5.9	4.6	4.1	3.8	3.3	2.5	2.2	1.6



MAX PIER FORCES:
DOWN: 268 K
UPLIFT: -192 K
SHEAR: 31 K



TORQUE 24 kip-ft
61 mph WIND - 0.5000 in ICE



TORQUE 24 kip-ft
REACTIONS - 70 mph WIND

DESIGNED APPURTENANCE LOADING

TYPE	ELEVATION	TYPE	ELEVATION
Lightning Rod 2"x15'	307.5	PiROD 15' Universal T-Frame Sector Mount	244
(3) ALP 8010	300	FR70-12-L2	232
(3) ALP 8010	300	FR70-12-L2	232
(3) ALP 8010	300	FR70-12-L2	232
PiROD 15' Universal T-Frame Sector Mount	300	PiROD 15' Universal T-Frame Sector Mount	232-23
(4) 68000/68010 w/Pipe Mount	244	Andrew 4' w/Radome	218
(4) 68000/68010 w/Pipe Mount	244		
(4) 68000/68010 w/Pipe Mount	244		

MATERIAL LIST

MARK	SIZE	MARK	SIZE
A	L2 1/2x2 1/2x3/16	C	2L1 1/2x1 1/2x1/8
B	L3 1/2x3 1/2x1/4		

MATERIAL STRENGTH

GRADE	YIELD	GRADE	YIELD
A36M-50	50 ksi	A36	36 ksi

TOWER DESIGN NOTES

1. Tower designed for a 70 mph basic wind in accordance with the TIA/EIA-222-F Standard.
2. Tower is also designed for a 61 mph basic wind with 0.50 in ice.
3. Deflections are based upon a 50 mph wind.
4. TOWER RATING: 74.3%

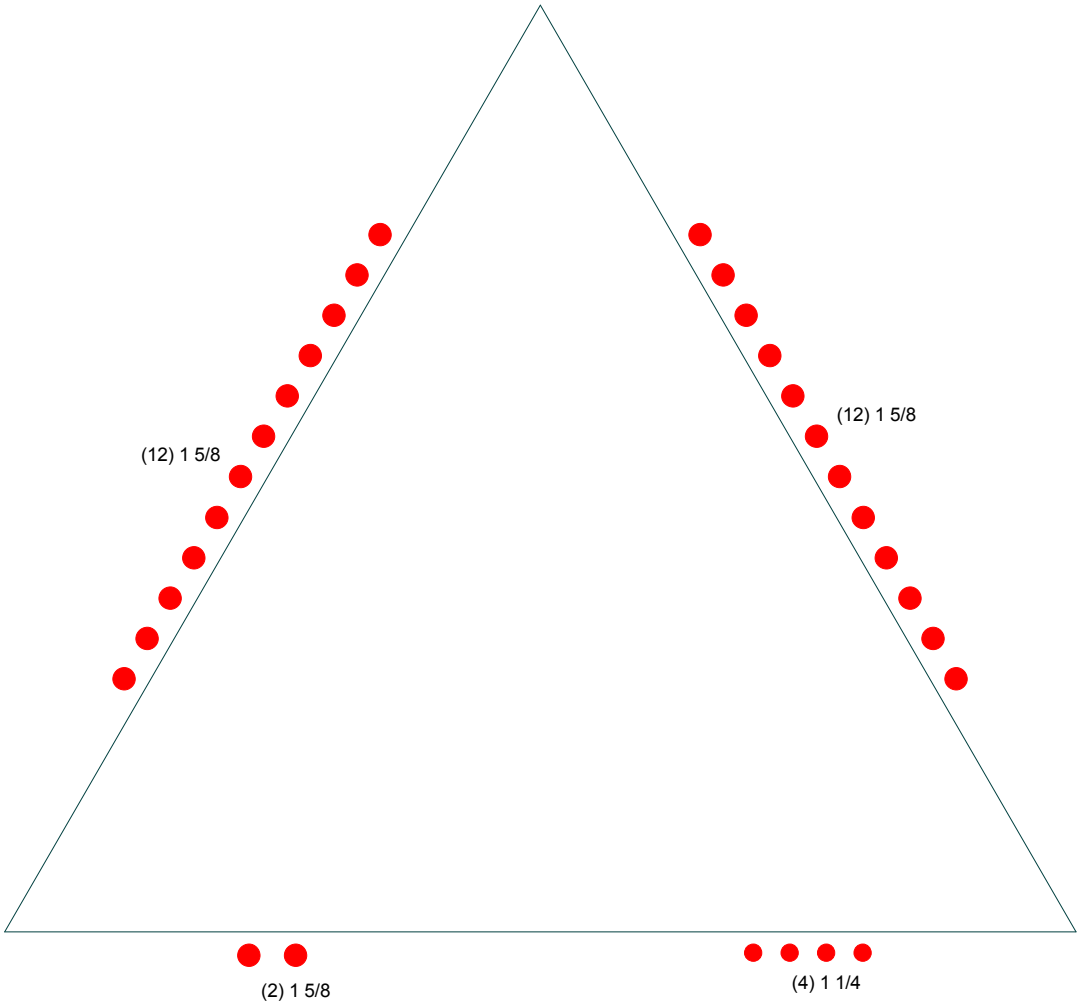
CCi
into the 21st Century

C-Concepts, inc.
12612 W. Mill Road
Menomonee Falls, WI 53051
Phone: (262) 252-3173
FAX: (262) 252-3134

Job: ***Free-Standing Tower Demo***			
Project: ***Example***			
Client: C-Concepts, Inc.	Drawn by: horn		App'd:
Code: TIA/EIA-222-F	Date: 01/28/03		Scale: NTS
Path: C:\MSDEV\PROJECTS\ERITower\Debug\Samples\demofreestand.eri			Dwg No. E-1

Feedline Plan

Round Flat App In Face App Out Face



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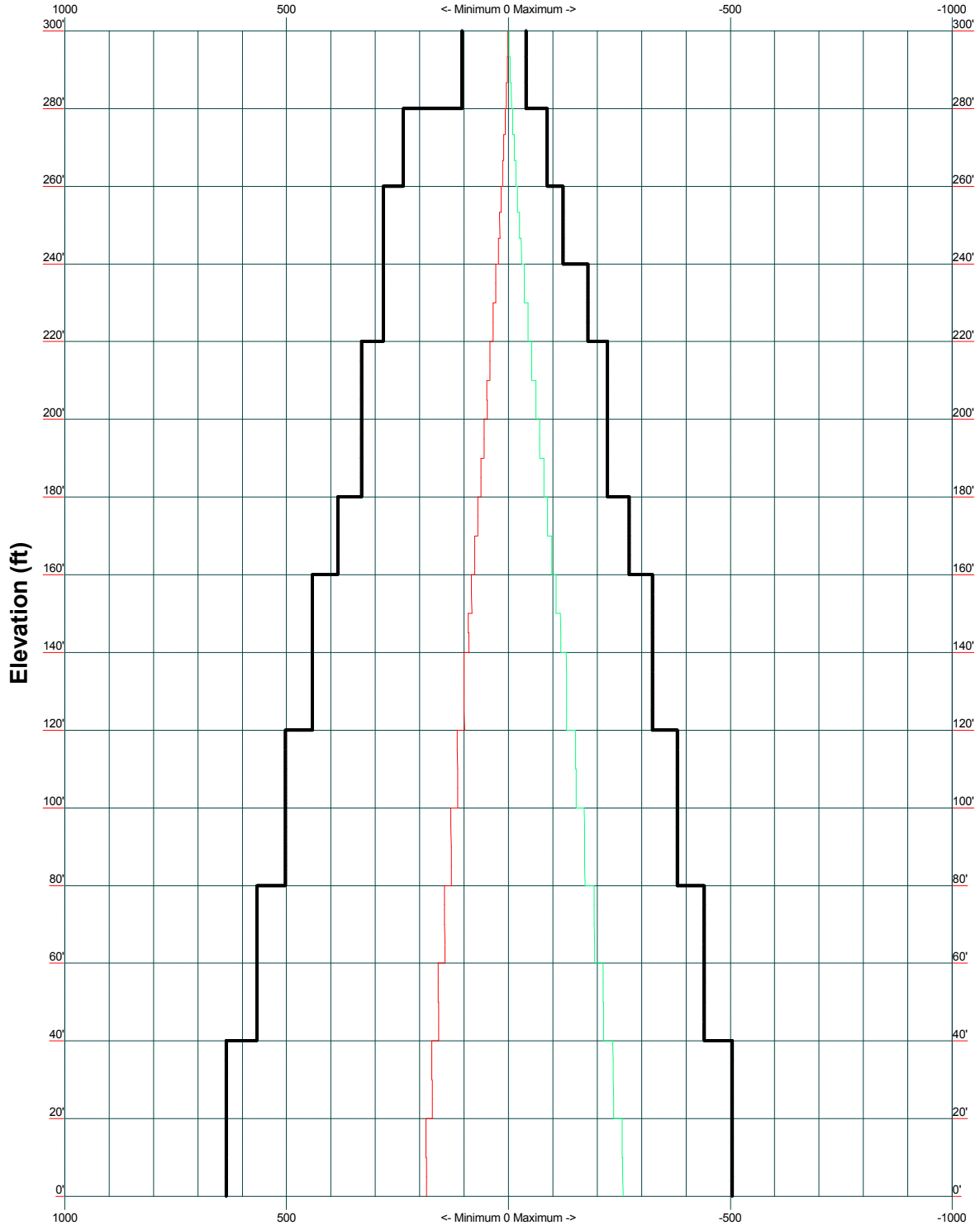
FAX: (262) 252-3134

Job: ***Free-Standing Tower Demo***			
Project: ***Example***			
Client: C-Concepts, Inc.	Drawn by: horn		App'd:
Code: TIA/EIA-222-F	Date: 01/28/03		Scale: NTS
Path: C:\MSDEV\PROJECTS\ERITower\Debug\Samples\demofreestand.eri			Dwg No. E-7

TIA/EIA-222-F - 70 mph/61 mph 0.5000 in Ice

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



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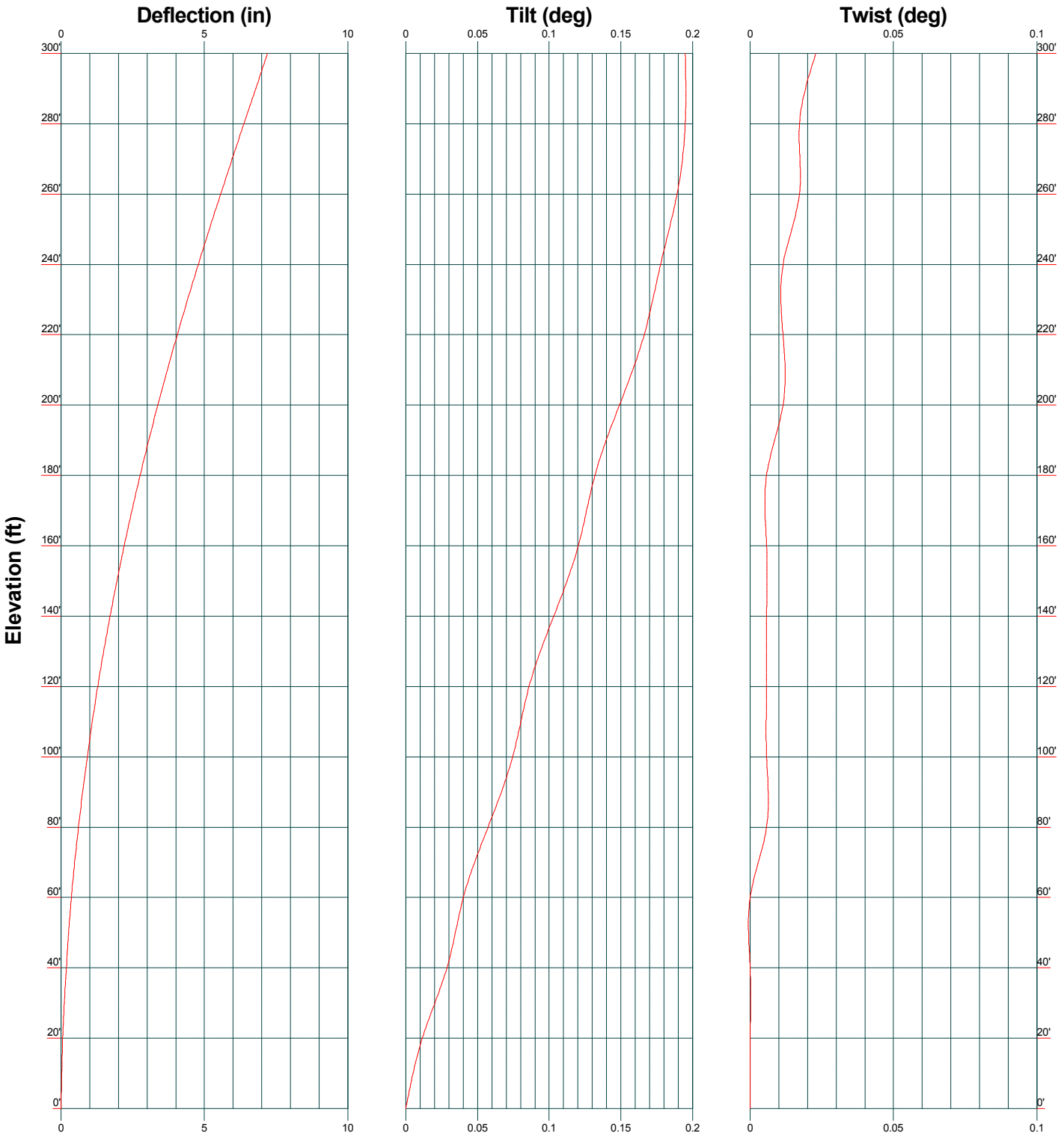
Menomonee Falls, WI 53051
Phone: (262) 252-3173
FAX: (262) 252-3134

Job: ***Free-Standing Tower Demo***			
Project: ***Example***			
Client: C-Concepts, Inc.	Drawn by: horn		App'd:
Code: TIA/EIA-222-F	Date: 01/28/03		Scale: NTS
Path: C:\MSDEV\PROJECTS\ERITower\Debug\Samples\demofreestand.eri			Dwg No. E-3

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

Maximum Values



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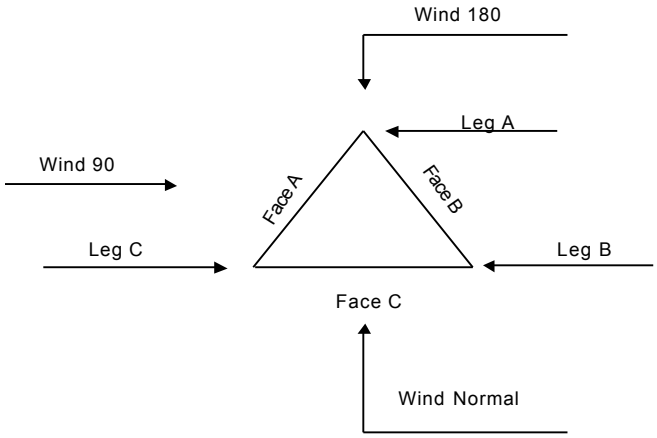
C-Concepts, inc.
12612 W. Mill Road
Menomonee Falls, WI 53051
Phone: (262) 252-3173
FAX: (262) 252-3134

Job: ***Free-Standing Tower Demo***			
Project: ***Example***			
Client: C-Concepts, Inc.	Drawn by: horn		App'd:
Code: TIA/EIA-222-F	Date: 01/28/03		Scale: NTS
Path: C:\MSDEV\PROJECTS\ERITower\Debug\Samples\demofreestand.eri			Dwg No. E-5

Tower Input Data

The main tower is a 3x free standing tower with an overall height of 300' above the ground line.
The base of the tower is set at an elevation of 0' above the ground line.
The face width of the tower is 6'8-1/4" at the top and 36' at the base.
This tower is designed using the TIA/EIA-222-F standard.
The following design criteria apply:

Basic wind speed of 70 mph.
Nominal ice thickness of 0.5000 in.
Ice density of 56 pcf.
A wind speed of 61 mph is used in combination with ice.
Deflections calculated using a wind speed of 50 mph.
Moments in legs is considered.
Feedline torque is considered.
Pressures are calculated at each section.
Stress ratio used in tower member design is 1.333



Triangular Tower

Tower Section Geometry

Tower Section	*Tower Elevation* *ft*	*Section Width* *ft*	*Number of Sections*	*Section Length* *ft*	*Diagonal Spacing* *ft*	*Bracing Type*	*Has K Brace End Panels*	*Has Horizontals*
T1	300'-280'	6'8-9/32"	1	20'	6'8-1/32"	X Brace	No	No
T2	280'-260'	8'	1	20'	6'8-1/32"	X Brace	No	No
T3	260'-240'	10'	1	20'	6'8-1/32"	X Brace	No	No

Tower Section	Tower Elevation ft	Section Width ft	Number of Sections	Section Length ft	Diagonal Spacing ft	Bracing Type	Has K Brace End Panels	Has Horizontals
T4	240'-220'	12'	1	20'	5'	Double K	No	Yes
T5	220'-200'	14'	1	20'	5'	Double K	No	Yes
T6	200'-180'	16'	1	20'	5'	Double K	No	Yes
T7	180'-160'	18'	1	20'	5'	Double K	No	Yes
T8	160'-140'	20'	1	20'	5'	Double K	No	Yes
T9	140'-120'	22'	1	20'	10'	Double K1	No	Yes
T10	120'-100'	24'	1	20'	10'	Double K1	No	Yes
T11	100'-80'	26'	1	20'	10'	Double K1	No	Yes
T12	80'-60'	28'	1	20'	10'	Double K1	No	Yes
T13	60'-40'	30'	1	20'	10'	Double K1	No	Yes
T14	40'-20'	32'	1	20'	10'	Double K1	No	Yes
T15	20'-0'	34'	1	20'	10'	Double K1	No	Yes

Tower Section Geometry *(cont'd)*

Tower Elevation ft	Leg Type	Leg Size	Leg Grade	Diagonal Type	Diagonal Size	Diagonal Grade
T1 300'-280'	Solid Round	2 1/4	A36M-50 (50 ksi)	Single Angle	L2 1/2x2 1/2x3/16	A36 (36 ksi)
T2 280'-260'	Solid Round	2 3/4	A36M-50 (50 ksi)	Single Angle	L3x3x3/16	A36 (36 ksi)
T3 260'-240'	Solid Round	3	A36M-50 (50 ksi)	Single Angle	L3x3x3/16	A36 (36 ksi)
T4 240'-220'	Solid Round	3	A36M-50 (50 ksi)	Double Angle	2L2 1/2x2 1/2x3/16x3/8	A36 (36 ksi)
T5 220'-200'	Solid Round	3 1/4	A36M-50 (50 ksi)	Double Angle	2L2 1/2x2 1/2x3/16x3/8	A36 (36 ksi)
T6 200'-180'	Solid Round	3 1/4	A36M-50 (50 ksi)	Double Angle	2L2 1/2x2 1/2x3/16x3/8	A36 (36 ksi)
T7 180'-160'	Solid Round	3 1/2	A36M-50 (50 ksi)	Double Angle	2L2 1/2x2 1/2x3/16x3/8	A36 (36 ksi)
T8 160'-140'	Solid Round	3 3/4	A36M-50 (50 ksi)	Double Angle	2L3x3x3/16x3/8	A36 (36 ksi)
T9 140'-120'	Solid Round	3 3/4	A36M-50 (50 ksi)	Double Angle	2L3x3x3/16x3/8	A36 (36 ksi)
T10 120'-100'	Solid Round	4	A36M-50 (50 ksi)	Double Angle	2L3x3x3/16x3/8	A36 (36 ksi)
T11 100'-80'	Solid Round	4	A36M-50 (50 ksi)	Double Angle	2L3x3x3/16x3/8	A36 (36 ksi)
T12 80'-60'	Solid Round	4 1/4	A36M-50 (50 ksi)	Double Angle	2L3x3x3/16x3/8	A36 (36 ksi)
T13 60'-40'	Solid Round	4 1/4	A36M-50 (50 ksi)	Double Angle	2L3x3x1/4x3/8	A36 (36 ksi)
T14 40'-20'	Solid Round	4 1/2	A36M-50 (50 ksi)	Double Angle	2L3x3x1/4x3/8	A36 (36 ksi)
T15 20'-0'	Solid Round	4 1/2	A36M-50 (50 ksi)	Double Angle	2L3x3x1/4x3/8	A36 (36 ksi)

Tower Section Geometry *(cont'd)*

Tower Elevation ft	Top Girt Type	Top Girt Size	Top Girt Grade	Bottom Girt Type	Bottom Girt Size	Bottom Girt Grade
T1 300'-280'	Single Angle	L2 1/2x2 1/2x3/16	A36 (36 ksi)	Single Angle		A36 (36 ksi)
T2 280'-260'	Flat Bar		A36 (36 ksi)	Flat Bar		A36 (36 ksi)
T3 260'-240'	Single Angle		A36 (36 ksi)	Single Angle		A36 (36 ksi)
T4 240'-220'	Flat Bar		A36 (36 ksi)	Flat Bar		A36 (36 ksi)
T5 220'-200'	Flat Bar		A36 (36 ksi)	Flat Bar		A36 (36 ksi)
T6 200'-180'	Flat Bar		A36 (36 ksi)	Flat Bar		A36 (36 ksi)
T7 180'-160'	Flat Bar		A36 (36 ksi)	Flat Bar		A36 (36 ksi)
T8 160'-140'	Flat Bar		A36 (36 ksi)	Flat Bar		A36 (36 ksi)
T9 140'-120'	Flat Bar		A36 (36 ksi)	Flat Bar		A36 (36 ksi)
T10 120'-100'	Flat Bar		A36 (36 ksi)	Flat Bar		A36 (36 ksi)
T11 100'-80'	Flat Bar		A36 (36 ksi)	Flat Bar		A36 (36 ksi)
T12 80'-60'	Flat Bar		A36 (36 ksi)	Flat Bar		A36 (36 ksi)
T13 60'-40'	Flat Bar		A36 (36 ksi)	Flat Bar		A36 (36 ksi)
T14 40'-20'	Flat Bar		A36 (36 ksi)	Flat Bar		A36 (36 ksi)
T15 20'-0'	Flat Bar		A36 (36 ksi)	Flat Bar		A36 (36 ksi)

Tower Section Geometry *(cont'd)*

Tower Elevation ft	No. of Mid Girts	Mid Girt Type	Mid Girt Size	Mid Girt Grade	Horizontal Type	Horizontal Size	Horizontal Grade
T1 300'-280'	None	Flat Bar		A36 (36 ksi)	Solid Round		A36 (36 ksi)
T2 280'-260'	None	Flat Bar		A36 (36 ksi)	Solid Round		A36 (36 ksi)
T3 260'-240'	None	Flat Bar		A36 (36 ksi)	Solid Round		A36 (36 ksi)
T4 240'-220'	None	Flat Bar		A36 (36 ksi)	Single Angle	L2 1/2x2 1/2x3/16	A36 (36 ksi)
T5 220'-200'	None	Flat Bar		A36 (36 ksi)	Single Angle	L2 1/2x2 1/2x3/16	A36 (36 ksi)
T6 200'-180'	None	Flat Bar		A36 (36 ksi)	Single Angle	L3x3x3/16	A36 (36 ksi)
T7 180'-160'	None	Flat Bar		A36 (36 ksi)	Single Angle	L3x3x3/16	A36 (36 ksi)
T8 160'-140'	None	Flat Bar		A36 (36 ksi)	Single Angle	L3 1/2x3 1/2x1/4	A36 (36 ksi)
T9 140'-120'	None	Flat Bar		A36 (36 ksi)	Double Angle	2L2 1/2x2 1/2x3/16x3/8	A36 (36 ksi)
T10 120'-100'	None	Flat Bar		A36 (36 ksi)	Double Angle	2L2 1/2x2 1/2x3/16x3/8	A36 (36 ksi)

Tower Elevation ft	No. of Mid Girts	Mid Girt Type	Mid Girt Size	Mid Girt Grade	Horizontal Type	Horizontal Size	Horizontal Grade
T11 100'-80'	None	Flat Bar		A36 (36 ksi)	Double Angle	2L3x3x3/16x3/8	A36 (36 ksi)
T12 80'-60'	None	Flat Bar		A36 (36 ksi)	Double Angle	2L3x3x3/16x3/8	A36 (36 ksi)
T13 60'-40'	None	Flat Bar		A36 (36 ksi)	Double Angle	2L3x3x3/16x3/8	A36 (36 ksi)
T14 40'-20'	None	Flat Bar		A36 (36 ksi)	Double Angle	2L3 1/2x3 1/2x1/4x3/8	A36 (36 ksi)
T15 20'-0'	None	Flat Bar		A36 (36 ksi)	Double Angle	2L3 1/2x3 1/2x1/4x3/8	A36 (36 ksi)

Tower Section Geometry *(cont'd)*

Tower Elevation ft	Secondary Horizontal Type	Secondary Horizontal Size	Secondary Horizontal Grade	Inner Bracing Type	Inner Bracing Size	Inner Bracing Grade
T1 300'-280'	Solid Round		A36 (36 ksi)	Solid Round		A36 (36 ksi)
T2 280'-260'	Solid Round		A36 (36 ksi)	Solid Round		A36 (36 ksi)
T3 260'-240'	Solid Round		A36 (36 ksi)	Solid Round		A36 (36 ksi)
T4 240'-220'	Solid Round		A36 (36 ksi)	Single Angle	L2 1/2x2 1/2x3/16	A36 (36 ksi)
T5 220'-200'	Solid Round		A36 (36 ksi)	Single Angle	L2 1/2x2 1/2x3/16	A36 (36 ksi)
T6 200'-180'	Solid Round		A36 (36 ksi)	Single Angle	L3x3x3/16	A36 (36 ksi)
T7 180'-160'	Solid Round		A36 (36 ksi)	Single Angle	L3x3x3/16	A36 (36 ksi)
T8 160'-140'	Solid Round		A36 (36 ksi)	Single Angle	L3 1/2x3 1/2x1/4	A36 (36 ksi)
T9 140'-120'	Solid Round		A36 (36 ksi)	Single Angle	L3 1/2x3 1/2x1/4	A36 (36 ksi)
T10 120'-100'	Solid Round		A36 (36 ksi)	Single Angle	L4x4x1/4	A36 (36 ksi)
T11 100'-80'	Solid Round		A36 (36 ksi)	Single Angle	L4x4x1/4	A36 (36 ksi)
T12 80'-60'	Solid Round		A36 (36 ksi)	Double Angle	2L3x3x3/16x3/8	A36 (36 ksi)
T13 60'-40'	Solid Round		A36 (36 ksi)	Double Angle	2L3x3x3/16x3/8	A36 (36 ksi)
T14 40'-20'	Solid Round		A36 (36 ksi)	Double Angle	2L3 1/2x3 1/2x1/4x3/8	A36 (36 ksi)
T15 20'-0'	Solid Round		A36 (36 ksi)	Double Angle	2L3 1/2x3 1/2x1/4x3/8	A36 (36 ksi)

Tower Section Geometry *(cont'd)*

Tower Elevation ft	Redundant Bracing Grade		Redundant Type	Redundant Size	K Factor
T1 300'-280'	A36	Horizontal	Single Angle		1
	(36 ksi)	Diagonal	Single Angle		1
		Sub-Horizontal	Single Angle		1
		Vertical	Single Angle		1
		Hip	Single Angle		1
T2 280'-260'	A36	Horizontal	Single Angle		1
	(36 ksi)	Diagonal	Single Angle		1
		Sub-Horizontal	Single Angle		1
		Vertical	Single Angle		1
		Hip	Single Angle		1
T3 260'-240'	A36	Horizontal	Single Angle		1
	(36 ksi)	Diagonal	Single Angle		1
		Sub-Horizontal	Single Angle		1
		Vertical	Single Angle		1
		Hip	Single Angle		1
T4 240'-220'	A36	Horizontal	Single Angle		1
	(36 ksi)	Diagonal	Single Angle		1
		Sub-Horizontal	Single Angle		1
		Vertical	Single Angle		1
		Hip	Single Angle		1
T5 220'-200'	A36	Horizontal	Single Angle		1
	(36 ksi)	Diagonal	Single Angle		1
		Sub-Horizontal	Single Angle		1
		Vertical	Single Angle		1
		Hip	Single Angle		1
T6 200'-180'	A36	Horizontal	Single Angle		1
	(36 ksi)	Diagonal	Single Angle		1
		Sub-Horizontal	Single Angle		1
		Vertical	Single Angle		1
		Hip	Single Angle		1
T7 180'-160'	A36	Horizontal	Single Angle		1
	(36 ksi)	Diagonal	Single Angle		1
		Sub-Horizontal	Single Angle		1
		Vertical	Single Angle		1
		Hip	Single Angle		1
T8 160'-140'	A36	Horizontal	Single Angle		1
	(36 ksi)	Diagonal	Single Angle		1
		Sub-Horizontal	Single Angle		1
		Vertical	Single Angle		1
		Hip	Single Angle		1
T9 140'-120'	A36	Horizontal	Double Angle	2L1 1/2x1 1/2x1/8	1
	(36 ksi)	Diagonal	Pipe	ROHN 2 STD	1
		Sub-Horizontal	Double Angle		1
		Vertical	Double Angle		1
		Hip	Channel	C3x4.1	1
T10 120'-100'	A36	Horizontal	Single Angle	L2 1/2x2 1/2x3/16	1
	(36 ksi)	Diagonal	Single Angle	L2 1/2x2 1/2x3/16	1
		Sub-Horizontal	Single Angle		1
		Vertical	Single Angle		1
		Hip	Single Angle	L2 1/2x2 1/2x3/16	1
T11 100'-80'	A36	Horizontal	Single Angle	L2 1/2x2 1/2x3/16	1
	(36 ksi)	Diagonal	Single Angle	L2 1/2x2 1/2x3/16	1
		Sub-Horizontal	Single Angle		1
		Vertical	Single Angle		1
		Hip	Single Angle	L2 1/2x2 1/2x3/16	1
T12 80'-60'	A36	Horizontal	Single Angle	L2 1/2x2 1/2x3/16	1
	(36 ksi)	Diagonal	Single Angle	L2 1/2x2 1/2x3/16	1
		Sub-Horizontal	Single Angle		1
		Vertical	Single Angle		1
		Hip	Single Angle	L2 1/2x2 1/2x3/16	1

Tower Elevation ft	Redundant Bracing Grade		Redundant Type	Redundant Size	K Factor
T13 60'-40'	A36 (36 ksi)	Horizontal	Single Angle	L2 1/2x2 1/2x3/16	1
		Diagonal	Single Angle	L2 1/2x2 1/2x3/16	1
		Sub-Horizontal	Single Angle		1
		Vertical	Single Angle		1
		Hip	Single Angle	L2 1/2x2 1/2x3/16	1
T14 40'-20'	A36 (36 ksi)	Horizontal	Single Angle	L2 1/2x2 1/2x3/16	1
		Diagonal	Single Angle	L2 1/2x2 1/2x3/16	1
		Sub-Horizontal	Single Angle		1
		Vertical	Single Angle		1
		Hip	Single Angle	L2 1/2x2 1/2x3/16	1
T15 20'-0'	A36 (36 ksi)	Horizontal	Single Angle	L2 1/2x2 1/2x3/16	1
		Diagonal	Single Angle	L2 1/2x2 1/2x3/16	1
		Sub-Horizontal	Single Angle		1
		Vertical	Single Angle		1
		Hip	Single Angle	L2 1/2x2 1/2x3/16	1

Tower Section Geometry *(cont'd)*

Tower Elevation ft	Gusset Area (per face) ft^2	Gusset Thickness in	Gusset Grade	Adjust. Factor A_f	Adjust. Factor A_r	Weight Mult.	Double Angle Stitch Bolt Spacing Diagonals in	Double Angle Stitch Bolt Spacing Horizontals in
T1 300'-280'	2.00	0.5000	A36 (36 ksi)	1	1	1.05	36.0000	36.0000
T2 280'-260'	2.00	0.5000	A36 (36 ksi)	1	1	1.05	36.0000	36.0000
T3 260'-240'	2.00	0.5000	A36 (36 ksi)	1	1	1.05	36.0000	36.0000
T4 240'-220'	2.00	0.5000	A36 (36 ksi)	1	1	1.05	36.0000	36.0000
T5 220'-200'	3.00	0.5000	A36 (36 ksi)	1	1	1.05	36.0000	36.0000
T6 200'-180'	3.00	0.5000	A36 (36 ksi)	1	1	1.05	36.0000	36.0000
T7 180'-160'	3.00	0.5000	A36 (36 ksi)	1	1	1.05	36.0000	36.0000
T8 160'-140'	3.00	0.5000	A36 (36 ksi)	1	1	1.05	36.0000	36.0000
T9 140'-120'	4.00	0.5000	A36 (36 ksi)	1	1	1.05	36.0000	36.0000
T10 120'-100'	4.00	0.5000	A36 (36 ksi)	1	1	1.05	36.0000	36.0000
T11 100'-80'	4.00	0.5000	A36 (36 ksi)	1	1	1.05	36.0000	36.0000
T12 80'-60'	4.00	0.5000	A36 (36 ksi)	1	1	1.05	36.0000	36.0000
T13 60'-40'	6.00	0.5000	A36 (36 ksi)	1	1	1.05	36.0000	36.0000
T14 40'-20'	6.00	0.5000	A36 (36 ksi)	1	1	1.05	36.0000	36.0000
T15 20'-0'	6.00	0.5000	A36 (36 ksi)	1	1	1.05	36.0000	36.0000

Tower Section Geometry *(cont'd)*

Tower Elevation ft	Calc K Single Angles	Calc K Solid Rounds	K Factors[1] Legs	X Brace Diags X Y	K Brace Diags X Y	Single Diags X Y	Girts X Y	Horiz. X Y	Inner Brace X Y	Truss Leg X Brace	Truss Leg Z Brace
T1 300'-280'	Yes	No	1	1	1	1	1	1	1	0.5	0.85
				1	1	1	1	1	1		
T2 280'-260'	Yes	No	1	1	1	1	1	1	1	0.5	0.85
				1	1	1	1	1	1		
T3 260'-240'	Yes	No	1	1	1	1	1	1	1	0.5	0.85
				1	1	1	1	1	1		
T4 240'-220'	Yes	No	1	1	1	1	1	1	1	0.5	0.85
				1	1	1	1	1	1		
T5 220'-200'	Yes	No	1	1	1	1	1	1	1	0.5	0.85
				1	1	1	1	1	1		
T6 200'-180'	Yes	No	1	1	1	1	1	1	1	0.5	0.85
				1	1	1	1	1	1		
T7 180'-160'	Yes	No	1	1	1	1	1	1	1	0.5	0.85
				1	1	1	1	1	1		
T8 160'-140'	Yes	No	1	1	1	1	1	1	1	0.5	0.85
				1	1	1	1	1	1		
T9 140'-120'	Yes	No	1	1	1	1	1	1	1	0.5	0.85
				1	1	1	1	1	1		
T10 120'-100'	Yes	No	1	1	1	1	1	1	1	0.5	0.85
				1	1	1	1	1	1		
T11 100'-80'	Yes	No	1	1	1	1	1	1	1	0.5	0.85
				1	1	1	1	1	1		
T12 80'-60'	Yes	No	1	1	1	1	1	1	1	0.5	0.85
				1	1	1	1	1	1		
T13 60'-40'	Yes	No	1	1	1	1	1	1	1	0.5	0.85
				1	1	1	1	1	1		
T14 40'-20'	Yes	No	1	1	1	1	1	1	1	0.5	0.85
				1	1	1	1	1	1		
T15 20'-0'	Yes	No	1	1	1	1	1	1	1	0.5	0.85
				1	1	1	1	1	1		

[1]*Note: K factors are applied to member segment lengths. K-braces without inner supporting members will have the K factor in the out-of-plane direction applied to the overall length.*

Tower Section Geometry *(cont'd)*

Tower Elevation ft	Leg		Diagonal		Top Girt		Bottom Girt		Mid Girt		Long Horizontal		Short Horizontal	
	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U
T1 300'-280'	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	1	0.0000	0.75	0.0000	1
T2 280'-260'	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	1	0.0000	0.75	0.0000	1
T3 260'-240'	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	1	0.0000	0.75	0.0000	1
T4 240'-220'	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	1	0.0000	0.75	0.0000	1
T5 220'-200'	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	1	0.0000	0.75	0.0000	1
T6 200'-180'	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	1	0.0000	0.75	0.0000	1
T7 180'-160'	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	1	0.0000	0.75	0.0000	1
T8 160'-140'	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	1	0.0000	0.75	0.0000	1
T9 140'-120'	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	1	0.0000	0.75	0.0000	1
T10 120'-100'	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	1	0.0000	0.75	0.0000	1

Tower Elevation ft	Leg		Diagonal		Top Girt		Bottom Girt		Mid Girt		Long Horizontal		Short Horizontal	
	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U	Net Width Deduct in	U
T11 100'-80'	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	1	0.0000	0.75	0.0000	1
T12 80'-60'	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	1	0.0000	0.75	0.0000	1
T13 60'-40'	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	1	0.0000	0.75	0.0000	1
T14 40'-20'	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	1	0.0000	0.75	0.0000	1
T15 20'-0'	0.0000	1	0.0000	0.75	0.0000	0.75	0.0000	0.75	0.0000	1	0.0000	0.75	0.0000	1

Tower Section Geometry *(cont'd)*

Tower Elevation ft	Leg Connection Type	Leg		Diagonal		Top Girt		Bottom Girt		Mid Girt		Long Horizontal		Short Horizontal	
		Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.	Bolt Size in	No.
T1 300'-280'	Flange	0.7500 A325N	4	0.6250 A325N	1	0.6250 A325N	1	0.6250 A325N	1	0.6250 A325N	0	0.6250 A325N	1	0.6250 A325N	0
T2 280'-260'	Flange	0.7500 A325N	4	0.6250 A325N	1	0.6250 A325N	1	0.6250 A325N	1	0.6250 A325N	0	0.6250 A325N	1	0.6250 A325N	0
T3 260'-240'	Flange	0.7500 A325N	4	0.6250 A325N	1	0.6250 A325N	1	0.6250 A325N	1	0.6250 A325N	0	0.6250 A325N	1	0.6250 A325N	0
T4 240'-220'	Flange	0.7500 A325N	4	0.6250 A325N	1	0.6250 A325N	1	0.6250 A325N	1	0.6250 A325N	0	0.6250 A325N	1	0.6250 A325N	0
T5 220'-200'	Flange	0.7500 A325N	4	0.6250 A325N	1	0.6250 A325N	1	0.6250 A325N	1	0.6250 A325N	0	0.6250 A325N	1	0.6250 A325N	0
T6 200'-180'	Flange	0.7500 A325N	4	0.6250 A325N	2	0.6250 A325N	1	0.6250 A325N	1	0.6250 A325N	0	0.6250 A325N	1	0.6250 A325N	0
T7 180'-160'	Flange	0.7500 A325N	4	0.6250 A325N	2	0.6250 A325N	1	0.6250 A325N	1	0.6250 A325N	0	0.6250 A325N	1	0.6250 A325N	0
T8 160'-140'	Flange	0.7500 A325N	6	0.6250 A325N	2	0.6250 A325N	1	0.6250 A325N	1	0.6250 A325N	0	0.6250 A325N	1	0.6250 A325N	0
T9 140'-120'	Flange	0.7500 A325N	6	0.6250 A325N	2	0.6250 A325N	1	0.6250 A325N	1	0.6250 A325N	0	0.6250 A325N	1	0.6250 A325N	0
T10 120'-100'	Flange	0.7500 A325N	6	0.6250 A325N	2	0.6250 A325N	1	0.6250 A325N	1	0.6250 A325N	0	0.6250 A325N	1	0.6250 A325N	0
T11 100'-80'	Flange	1.0000 A325N	8	0.6250 A325N	2	0.6250 A325N	1	0.6250 A325N	1	0.6250 A325N	0	0.6250 A325N	1	0.6250 A325N	0
T12 80'-60'	Flange	1.0000 A325N	8	0.6250 A325N	2	0.6250 A325N	1	0.6250 A325N	1	0.6250 A325N	0	0.6250 A325N	1	0.6250 A325N	0
T13 60'-40'	Flange	1.0000 A325N	8	0.6250 A325N	2	0.6250 A325N	1	0.6250 A325N	1	0.6250 A325N	0	0.6250 A325N	1	0.6250 A325N	0
T14 40'-20'	Flange	1.0000 A325N	8	0.6250 A325N	2	0.6250 A325N	1	0.6250 A325N	1	0.6250 A325N	0	0.6250 A325N	1	0.6250 A325N	0
T15 20'-0'	Flange	1.0000 A325N	8	0.6250 A325N	2	0.6250 A325N	1	0.6250 A325N	1	0.6250 A325N	0	0.6250 A325N	1	0.6250 A325N	0

Feed Line/Linear Appurtenances Treated As Structural Components

Description	Face	Allow Shield	Component Type	Placement ft	Total Number	Number Per Row	Clear Spacing in	Width or Diameter in	Perimeter in	Weight klf
1 5/8	B	Yes	Ar (CfAe)	244' - 0'	12	12	1.9800	1.9800		0.00
1 1/4	C	Yes	Ar (CfAe)	232' - 0'	4	4	1.5500	1.5500		0.00

Description	Face	Allow Shield	Component Type	Placement ft	Total Number	Number Per Row	Clear Spacing in	Width or Diameter in	Perimeter in	Weight klf
1 5/8	C	Yes	Ar (CfAe)	Offset: -0.25xFW 218' - 0'	2	2	1.9800	1.9800		0.00
1 5/8	A	Yes	Ar (CfAe)	Offset: 0.25xFW 300' - 0'	12	12	1.9800	1.9800		0.00

Feed Line/Linear Appurtenances Section Areas

Tower Section	Tower Elevation ft	Face	A_R ft^2	A_F ft^2	C_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight K
T1	300'-280'	A	39.600	0.000	0.000	0.000	0.25
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.000	0.00
T2	280'-260'	A	39.600	0.000	0.000	0.000	0.25
		B	0.000	0.000	0.000	0.000	0.00
		C	0.000	0.000	0.000	0.000	0.00
T3	260'-240'	A	39.600	0.000	0.000	0.000	0.25
		B	7.920	0.000	0.000	0.000	0.05
		C	0.000	0.000	0.000	0.000	0.00
T4	240'-220'	A	39.600	0.000	0.000	0.000	0.25
		B	39.600	0.000	0.000	0.000	0.25
		C	6.200	0.000	0.000	0.000	0.03
T5	220'-200'	A	39.600	0.000	0.000	0.000	0.25
		B	39.600	0.000	0.000	0.000	0.25
		C	16.273	0.000	0.000	0.000	0.09
T6	200'-180'	A	39.600	0.000	0.000	0.000	0.25
		B	39.600	0.000	0.000	0.000	0.25
		C	16.933	0.000	0.000	0.000	0.09
T7	180'-160'	A	39.600	0.000	0.000	0.000	0.25
		B	39.600	0.000	0.000	0.000	0.25
		C	16.933	0.000	0.000	0.000	0.09
T8	160'-140'	A	39.600	0.000	0.000	0.000	0.25
		B	39.600	0.000	0.000	0.000	0.25
		C	16.933	0.000	0.000	0.000	0.09
T9	140'-120'	A	39.600	0.000	0.000	0.000	0.25
		B	39.600	0.000	0.000	0.000	0.25
		C	16.933	0.000	0.000	0.000	0.09
T10	120'-100'	A	39.600	0.000	0.000	0.000	0.25
		B	39.600	0.000	0.000	0.000	0.25
		C	16.933	0.000	0.000	0.000	0.09
T11	100'-80'	A	39.600	0.000	0.000	0.000	0.25
		B	39.600	0.000	0.000	0.000	0.25
		C	16.933	0.000	0.000	0.000	0.09
T12	80'-60'	A	39.600	0.000	0.000	0.000	0.25
		B	39.600	0.000	0.000	0.000	0.25
		C	16.933	0.000	0.000	0.000	0.09
T13	60'-40'	A	39.600	0.000	0.000	0.000	0.25
		B	39.600	0.000	0.000	0.000	0.25
		C	16.933	0.000	0.000	0.000	0.09
T14	40'-20'	A	39.600	0.000	0.000	0.000	0.25
		B	39.600	0.000	0.000	0.000	0.25
		C	16.933	0.000	0.000	0.000	0.09
T15	20'-0'	A	39.600	0.000	0.000	0.000	0.25
		B	39.600	0.000	0.000	0.000	0.25
		C	16.933	0.000	0.000	0.000	0.09

Feed Line/Linear Appurtenances Section Areas - With Ice

Tower Section	Tower Elevation ft	Face	Ice Thickness in	A_R ft^2	A_F ft^2	C_AA_A In Face ft^2	C_AA_A Out Face ft^2	Weight K
T1	300'-280'	A	0.500	59.600	0.000	0.000	0.000	0.61
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	0.000	0.00
T2	280'-260'	A	0.500	59.600	0.000	0.000	0.000	0.61
		B		0.000	0.000	0.000	0.000	0.00
		C		0.000	0.000	0.000	0.000	0.00
T3	260'-240'	A	0.500	59.600	0.000	0.000	0.000	0.61
		B		11.920	0.000	0.000	0.000	0.12
		C		0.000	0.000	0.000	0.000	0.00
T4	240'-220'	A	0.500	59.600	0.000	0.000	0.000	0.61
		B		59.600	0.000	0.000	0.000	0.61
		C		10.200	0.000	0.000	0.000	0.09
T5	220'-200'	A	0.500	59.600	0.000	0.000	0.000	0.61
		B		59.600	0.000	0.000	0.000	0.61
		C		25.940	0.000	0.000	0.000	0.24
T6	200'-180'	A	0.500	59.600	0.000	0.000	0.000	0.61
		B		59.600	0.000	0.000	0.000	0.61
		C		26.933	0.000	0.000	0.000	0.26
T7	180'-160'	A	0.500	59.600	0.000	0.000	0.000	0.61
		B		59.600	0.000	0.000	0.000	0.61
		C		26.933	0.000	0.000	0.000	0.26
T8	160'-140'	A	0.500	59.600	0.000	0.000	0.000	0.61
		B		59.600	0.000	0.000	0.000	0.61
		C		26.933	0.000	0.000	0.000	0.26
T9	140'-120'	A	0.500	59.600	0.000	0.000	0.000	0.61
		B		59.600	0.000	0.000	0.000	0.61
		C		26.933	0.000	0.000	0.000	0.26
T10	120'-100'	A	0.500	59.600	0.000	0.000	0.000	0.61
		B		59.600	0.000	0.000	0.000	0.61
		C		26.933	0.000	0.000	0.000	0.26
T11	100'-80'	A	0.500	59.600	0.000	0.000	0.000	0.61
		B		59.600	0.000	0.000	0.000	0.61
		C		26.933	0.000	0.000	0.000	0.26
T12	80'-60'	A	0.500	59.600	0.000	0.000	0.000	0.61
		B		59.600	0.000	0.000	0.000	0.61
		C		26.933	0.000	0.000	0.000	0.26
T13	60'-40'	A	0.500	59.600	0.000	0.000	0.000	0.61
		B		59.600	0.000	0.000	0.000	0.61
		C		26.933	0.000	0.000	0.000	0.26
T14	40'-20'	A	0.500	59.600	0.000	0.000	0.000	0.61
		B		59.600	0.000	0.000	0.000	0.61
		C		26.933	0.000	0.000	0.000	0.26
T15	20'-0'	A	0.500	59.600	0.000	0.000	0.000	0.61
		B		59.600	0.000	0.000	0.000	0.61
		C		26.933	0.000	0.000	0.000	0.26

Feed Line Shielding

Section	Elevation ft	Face	A_R ft^2	A_R Ice ft^2	A_F ft^2	A_F Ice ft^2
T1	300'-280'	A	0.000	0.000	3.760	7.167
		B	0.000	0.000	0.000	0.000
		C	0.000	0.000	0.000	0.000
T2	280'-260'	A	0.000	0.000	3.702	6.810
		B	0.000	0.000	0.000	0.000
		C	0.000	0.000	0.000	0.000
T3	260'-240'	A	0.000	0.000	3.476	6.394

Section	Elevation	Face	A_R	A_R Ice	A_F	A_F Ice
	ft		ft^2	ft^2	ft^2	ft^2
		B	0.000	0.000	0.695	1.279
		C	0.000	0.000	0.000	0.000
T4	240'-220'	A	0.000	0.000	2.910	5.547
		B	0.000	0.000	2.910	5.547
		C	0.000	0.000	0.456	0.949
T5	220'-200'	A	0.000	0.000	2.810	5.357
		B	0.000	0.000	2.810	5.357
		C	0.000	0.000	1.155	2.331
T6	200'-180'	A	0.000	0.000	2.905	5.473
		B	0.000	0.000	2.905	5.473
		C	0.000	0.000	1.242	2.473
T7	180'-160'	A	0.000	0.000	2.855	5.377
		B	0.000	0.000	2.855	5.377
		C	0.000	0.000	1.221	2.430
T8	160'-140'	A	0.000	0.000	3.349	6.105
		B	0.000	0.000	3.349	6.105
		C	0.000	0.000	1.432	2.759
T9	140'-120'	A	1.040	2.223	2.221	4.278
		B	1.040	2.223	2.221	4.278
		C	0.445	1.005	0.950	1.933
T10	120'-100'	A	0.000	0.000	3.563	6.709
		B	0.000	0.000	3.563	6.709
		C	0.000	0.000	1.524	3.032
T11	100'-80'	A	0.000	0.000	3.580	6.709
		B	0.000	0.000	3.580	6.709
		C	0.000	0.000	1.531	3.032
T12	80'-60'	A	0.000	0.000	3.526	6.608
		B	0.000	0.000	3.526	6.608
		C	0.000	0.000	1.508	2.986
T13	60'-40'	A	0.000	0.000	3.481	6.524
		B	0.000	0.000	3.481	6.524
		C	0.000	0.000	1.488	2.948
T14	40'-20'	A	0.000	0.000	3.525	6.577
		B	0.000	0.000	3.525	6.577
		C	0.000	0.000	1.508	2.972
T15	20'-0'	A	0.000	0.000	3.493	6.517
		B	0.000	0.000	3.493	6.517
		C	0.000	0.000	1.494	2.945

Feed Line Center of Pressure

Section	Elevation	CP_X	CP_Z	CP_X Ice	CP_Z Ice
	ft	in	in	in	in
T1	300'-280'	-7.6900	-4.4398	-8.2963	-4.7899
T2	280'-260'	-8.2901	-4.7863	-9.2435	-5.3367
T3	260'-240'	-6.9645	-6.2128	-7.7898	-6.9490
T4	240'-220'	1.3322	-8.1773	1.5678	-8.6472
T5	220'-200'	0.9289	-5.8570	1.2279	-6.0807
T6	200'-180'	0.8512	-6.0780	1.1681	-6.3517
T7	180'-160'	0.9091	-6.4787	1.2547	-6.8093
T8	160'-140'	0.8877	-6.3168	1.2540	-6.7949
T9	140'-120'	1.0029	-7.1271	1.3771	-7.4523
T10	120'-100'	1.0238	-7.2674	1.4341	-7.7521
T11	100'-80'	1.0633	-7.5412	1.4965	-8.0818
T12	80'-60'	1.1037	-7.8213	1.5592	-8.4138
T13	60'-40'	1.1186	-7.9214	1.5922	-8.5860

Section	Elevation	CP_X	CP_Z	CP_X Ice	CP_Z Ice
	ft	in	in	in	in
T14	40'-20'	1.1356	-8.0371	1.6267	-8.7669
T15	20'-0'	1.1763	-8.3205	1.6870	-9.0868

Discrete Tower Loads

Description	Face or Leg	Offset Type	Offsets: Horz Lateral / Vert	Azimuth Adjustment	Placement		C_AA_A Front	C_AA_A Side	Weight
			ft	deg	ft		ft^2	ft^2	K
Lightning Rod 2"x15'	A	None		0.0000	307'6"	No Ice	3.00	3.00	0.08
						1/2" Ice	4.53	4.53	0.10
						1" Ice	6.07	6.07	0.14
						2" Ice	9.20	9.20	0.23
						4" Ice	13.87	13.87	0.54
(4) 68000/68010 w/Pipe Mount	A	From Face	4.00 0' 0'	0.0000	244'	No Ice	3.75	3.25	0.03
						1/2" Ice	4.22	4.07	0.06
						1" Ice	4.67	4.77	0.11
						2" Ice	5.67	6.22	0.21
						4" Ice	7.85	9.31	0.52
(4) 68000/68010 w/Pipe Mount	B	From Face	4.00 0' 0'	0.0000	244'	No Ice	3.75	3.25	0.03
						1/2" Ice	4.22	4.07	0.06
						1" Ice	4.67	4.77	0.11
						2" Ice	5.67	6.22	0.21
						4" Ice	7.85	9.31	0.52
(4) 68000/68010 w/Pipe Mount	C	From Face	4.00 0' 0'	0.0000	244'	No Ice	3.75	3.25	0.03
						1/2" Ice	4.22	4.07	0.06
						1" Ice	4.67	4.77	0.11
						2" Ice	5.67	6.22	0.21
						4" Ice	7.85	9.31	0.52
PiROD 15' Universal T-Frame Sector Mount	C	None		0.0000	244'	No Ice	15.00	15.00	0.50
						1/2" Ice	20.60	20.60	0.65
						1" Ice	26.20	26.20	0.80
						2" Ice	37.40	37.40	1.10
						4" Ice	59.80	59.80	1.70
FR70-12-L2	A	From Face	4.00 0' 0'	0.0000	232'	No Ice	5.60	3.27	0.02
						1/2" Ice	5.99	3.63	0.06
						1" Ice	6.40	4.00	0.09
						2" Ice	7.22	4.76	0.19
						4" Ice	8.99	6.40	0.43
FR70-12-L2	B	From Face	4.00 0' 0'	0.0000	232'	No Ice	5.60	3.27	0.02
						1/2" Ice	5.99	3.63	0.06
						1" Ice	6.40	4.00	0.09
						2" Ice	7.22	4.76	0.19
						4" Ice	8.99	6.40	0.43
FR70-12-L2	C	From Face	4.00 0' 0'	0.0000	232'	No Ice	5.60	3.27	0.02
						1/2" Ice	5.99	3.63	0.06
						1" Ice	6.40	4.00	0.09
						2" Ice	7.22	4.76	0.19
						4" Ice	8.99	6.40	0.43
PiROD 15' Universal T-Frame Sector Mount	C	None		0.0000	23' - 232'	No Ice	15.00	15.00	0.50
						1/2" Ice	20.60	20.60	0.65
						1" Ice	26.20	26.20	0.80
						2" Ice	37.40	37.40	1.10
						4" Ice	59.80	59.80	1.70
(3) ALP 8010	A	From Face	4.00	0.0000	300'	No Ice	3.98	3.98	0.01

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert ft	Azimuth Adjustment deg	Placement ft		C_AA_A Front ft^2	C_AA_A Side ft^2	Weight K
			0'			1/2" Ice	4.29	4.29	0.01
			0'			1" Ice	4.60	4.60	0.01
						2" Ice	5.22	5.22	0.02
						4" Ice	6.46	6.46	0.02
(3) ALP 8010	B	From Face	4.00	0.0000	300'	No Ice	3.98	3.98	0.01
			0'			1/2" Ice	4.29	4.29	0.01
			0'			1" Ice	4.60	4.60	0.01
						2" Ice	5.22	5.22	0.02
						4" Ice	6.46	6.46	0.02
(3) ALP 8010	C	From Face	4.00	0.0000	300'	No Ice	3.98	3.98	0.01
			0'			1/2" Ice	4.29	4.29	0.01
			0'			1" Ice	4.60	4.60	0.01
						2" Ice	5.22	5.22	0.02
						4" Ice	6.46	6.46	0.02
PiROD 15' Universal T-Frame Sector Mount	C	None		0.0000	300'	No Ice	15.00	15.00	0.50
						1/2" Ice	20.60	20.60	0.65
						1" Ice	26.20	26.20	0.80
						2" Ice	37.40	37.40	1.10
						4" Ice	59.80	59.80	1.70

Dishes

Description	Face or Leg	Dish Type	Offset Type	Offset Distance ft	Azimuth Adjustment deg	Elevation ft	Outside Diameter ft		Aperture Area ft^2	Weight K
Andrew 4' w/Radome	B	Paraboloid w/Radome	From Leg	2.00	0.0000	218'	4.00	No Ice	12.57	0.14
								1/2" Ice	13.10	0.28
								1" Ice	13.62	0.42
								2" Ice	14.68	0.71
								4" Ice	16.80	1.28

Tower Pressures - No Ice

$G_H = 1.088$

Section Elevation ft	z ft	K_Z	q_z psf	A_G ft^2	Face	A_F ft^2	A_R ft^2	A_{leg} ft^2	Leg % %	C_AA_A In Face ft^2	C_AA_A Out Face ft^2
T1 300'-280'	290'	1.861	23	150.627	A	11.680	47.105	7.505	12.77	0.000	0.000
					B	15.440	7.505		32.71		
					C	15.440	7.505		32.71		
T2 280'-260'	270'	1.823	23	184.589	A	14.693	48.782	9.182	14.47	0.000	0.000
					B	18.395	9.182		33.30		
					C	18.395	9.182		33.30		
T3 260'-240'	250'	1.783	22	225.006	A	17.392	49.617	10.017	14.95	0.000	0.000
					B	20.173	17.937		26.28		
					C	20.868	10.017		32.43		
T4 240'-220'	230'	1.741	22	265.006	A	17.814	49.617	10.017	14.85	0.000	0.000
					B	17.814	49.617		14.85		

Section Elevation ft	z ft	K_Z	q_z psf	A_G ft²	Face	A_F ft²	A_R ft²	A_{leg} ft²	Leg %	C_AA_A In Face ft²	C_AA_A Out Face ft²
					C	20.268	16.217		27.45		
T5 220'-200'	210'	1.697	21	305.423	A	21.090	50.451	10.851	15.17	0.000	0.000
					B	21.090	50.451		15.17		
					C	22.745	27.125		21.76		
T6 200'-180'	190'	1.649	21	345.423	A	24.638	50.451	10.851	14.45	0.000	0.000
					B	24.638	50.451		14.45		
					C	26.301	27.785		20.06		
T7 180'-160'	170'	1.597	20	385.841	A	27.125	51.286	11.686	14.90	0.000	0.000
					B	27.125	51.286		14.90		
					C	28.760	28.619		20.37		
T8 160'-140'	150'	1.541	19	426.258	A	34.642	52.121	12.521	14.43	0.000	0.000
					B	34.642	52.121		14.43		
					C	36.559	29.454		18.97		
T9 140'-120'	130'	1.48	19	466.258	A	27.217	56.952	12.521	14.88	0.000	0.000
					B	27.217	56.952		14.88		
					C	28.488	34.880		19.76		
T10 120'-100'	110'	1.411	18	506.675	A	35.550	52.956	13.356	15.09	0.000	0.000
					B	35.550	52.956		15.09		
					C	37.590	30.289		19.68		
T11 100'-80'	90'	1.332	17	546.675	A	38.813	52.956	13.356	14.55	0.000	0.000
					B	38.813	52.956		14.55		
					C	40.862	30.289		18.77		
T12 80'-60'	70'	1.24	16	587.092	A	41.122	53.790	14.190	14.95	0.000	0.000
					B	41.122	53.790		14.95		
					C	43.140	31.124		19.11		
T13 60'-40'	50'	1.126	14	627.092	A	45.472	53.790	14.190	14.30	0.000	0.000
					B	45.472	53.790		14.30		
					C	47.464	31.124		18.06		
T14 40'-20'	30'	1	13	667.509	A	49.089	54.625	15.025	14.49	0.000	0.000
					B	49.089	54.625		14.49		
					C	51.107	31.958		18.09		
T15 20'-0'	10'	1	13	707.509	A	51.550	54.625	15.025	14.15	0.000	0.000
					B	51.550	54.625		14.15		
					C	53.549	31.958		17.57		

Tower Pressure - With Ice

$G_H = 1.088$

Section Elevation ft	z ft	K_Z	q_z psf	t_Z in	A_G ft²	Face	A_F ft²	A_R ft²	A_{leg} ft²	Leg %	C_AA_A In Face ft²	C_AA_A Out Face ft²
T1 300'-280'	290'	1.861	18	0.5000	152.295	A	12.014	70.441	10.841	13.15	0.000	0.000
						B	19.181	10.841		36.11		
						C	19.181	10.841		36.11		
T2 280'-260'	270'	1.823	17	0.5000	186.258	A	15.385	72.121	12.521	14.31	0.000	0.000
						B	22.195	12.521		36.07		
						C	22.195	12.521		36.07		
T3 260'-240'	250'	1.783	17	0.5000	226.675	A	18.824	72.956	13.356	14.55	0.000	0.000
						B	23.939	25.276		27.14		
						C	25.218	13.356		34.62		
T4 240'-220'	230'	1.741	16	0.5000	266.675	A	20.327	72.956	13.356	14.32	0.000	0.000
						B	20.327	72.956		14.32		
						C	24.925	23.556		27.55		
T5 220'-200'	210'	1.697	16	0.5000	307.092	A	24.309	73.790	14.190	14.47	0.000	0.000

Section Elevation	z	K_Z	q_z	t_Z	A_G	Face	A_F	A_R	A_{leg}	Leg %	C_AA_A In Face	C_AA_A Out Face
ft	ft		psf	in	ft^2		ft^2	ft^2	ft^2		ft^2	ft^2
						B	24.309	73.790		14.47		
						C	27.334	40.130		21.03		
T6 200'-180'	190'	1.649	16	0.5000	347.092	A	28.436	73.790	14.190	13.88	0.000	0.000
						B	28.436	73.790		13.88		
						C	31.435	41.124		19.56		
T7 180'-160'	170'	1.597	15	0.5000	387.509	A	31.575	74.625	15.025	14.15	0.000	0.000
						B	31.575	74.625		14.15		
						C	34.522	41.958		19.65		
T8 160'-140'	150'	1.541	14	0.5000	427.927	A	39.471	75.460	15.860	13.80	0.000	0.000
						B	39.471	75.460		13.80		
						C	42.817	42.793		18.53		
T9 140'-120'	130'	1.48	14	0.5000	467.927	A	31.866	81.579	15.860	13.98	0.000	0.000
						B	31.866	81.579		13.98		
						C	34.210	50.131		18.80		
T10 120'-100'	110'	1.411	13	0.5000	508.344	A	41.288	76.294	16.694	14.20	0.000	0.000
						B	41.288	76.294		14.20		
						C	44.965	43.628		18.84		
T11 100'-80'	90'	1.332	13	0.5000	548.344	A	45.109	76.294	16.694	13.75	0.000	0.000
						B	45.109	76.294		13.75		
						C	48.787	43.628		18.06		
T12 80'-60'	70'	1.24	12	0.5000	588.761	A	48.010	77.129	17.529	14.01	0.000	0.000
						B	48.010	77.129		14.01		
						C	51.631	44.462		18.24		
T13 60'-40'	50'	1.126	11	0.5000	628.761	A	53.004	77.129	17.529	13.47	0.000	0.000
						B	53.004	77.129		13.47		
						C	56.580	44.462		17.35		
T14 40'-20'	30'	1	9	0.5000	669.178	A	57.167	77.964	18.364	13.59	0.000	0.000
						B	57.167	77.964		13.59		
						C	60.772	45.297		17.31		
T15 20'-0'	10'	1	9	0.5000	709.178	A	60.220	77.964	18.364	13.29	0.000	0.000
						B	60.220	77.964		13.29		
						C	63.792	45.297		16.83		

Tower Pressure - Service

$G_H = 1.088$

Section Elevation	z	K_Z	q_z	A_G	Face	A_F	A_R	A_{leg}	Leg %	C_AA_A In Face	C_AA_A Out Face
ft	ft		psf	ft^2		ft^2	ft^2	ft^2		ft^2	ft^2
T1 300'-280'	290'	1.861	12	150.627	A	11.680	47.105	7.505	12.77	0.000	0.000
					B	15.440	7.505		32.71		
					C	15.440	7.505		32.71		
T2 280'-260'	270'	1.823	12	184.589	A	14.693	48.782	9.182	14.47	0.000	0.000
					B	18.395	9.182		33.30		
					C	18.395	9.182		33.30		
T3 260'-240'	250'	1.783	11	225.006	A	17.392	49.617	10.017	14.95	0.000	0.000
					B	20.173	17.937		26.28		
					C	20.868	10.017		32.43		
T4 240'-220'	230'	1.741	11	265.006	A	17.814	49.617	10.017	14.85	0.000	0.000
					B	17.814	49.617		14.85		
					C	20.268	16.217		27.45		
T5 220'-200'	210'	1.697	11	305.423	A	21.090	50.451	10.851	15.17	0.000	0.000
					B	21.090	50.451		15.17		

Section Elevation	z	K_Z	q_z	A_G	Face	A_F	A_R	A_{leg}	Leg %	C_AA_A In Face	C_AA_A Out Face
ft	ft		psf	ft^2		ft^2	ft^2	ft^2		ft^2	ft^2
					C	22.745	27.125		21.76		
T6 200'-180'	190'	1.649	11	345.423	A	24.638	50.451	10.851	14.45	0.000	0.000
					B	24.638	50.451		14.45		
					C	26.301	27.785		20.06		
T7 180'-160'	170'	1.597	10	385.841	A	27.125	51.286	11.686	14.90	0.000	0.000
					B	27.125	51.286		14.90		
					C	28.760	28.619		20.37		
T8 160'-140'	150'	1.541	10	426.258	A	34.642	52.121	12.521	14.43	0.000	0.000
					B	34.642	52.121		14.43		
					C	36.559	29.454		18.97		
T9 140'-120'	130'	1.48	9	466.258	A	27.217	56.952	12.521	14.88	0.000	0.000
					B	27.217	56.952		14.88		
					C	28.488	34.880		19.76		
T10 120'-100'	110'	1.411	9	506.675	A	35.550	52.956	13.356	15.09	0.000	0.000
					B	35.550	52.956		15.09		
					C	37.590	30.289		19.68		
T11 100'-80'	90'	1.332	9	546.675	A	38.813	52.956	13.356	14.55	0.000	0.000
					B	38.813	52.956		14.55		
					C	40.862	30.289		18.77		
T12 80'-60'	70'	1.24	8	587.092	A	41.122	53.790	14.190	14.95	0.000	0.000
					B	41.122	53.790		14.95		
					C	43.140	31.124		19.11		
T13 60'-40'	50'	1.126	7	627.092	A	45.472	53.790	14.190	14.30	0.000	0.000
					B	45.472	53.790		14.30		
					C	47.464	31.124		18.06		
T14 40'-20'	30'	1	6	667.509	A	49.089	54.625	15.025	14.49	0.000	0.000
					B	49.089	54.625		14.49		
					C	51.107	31.958		18.09		
T15 20'-0'	10'	1	6	707.509	A	51.550	54.625	15.025	14.15	0.000	0.000
					B	51.550	54.625		14.15		
					C	53.549	31.958		17.57		

Tower Forces - No Ice - Wind Normal To Face

Section Elevation	Add Weight	Self Weight	Face	e	C_F	R_R	D_F	D_R	A_E	F	w	Ctrl. Face
ft	K	K							ft^2	K	klf	
T1 300'-280'	0.37	1.49	A	0.39	2.084	0.648	1	1	42.190	2.23	0.11	A
			B	0.152	2.763	0.582	1	1	19.807			
			C	0.152	2.763	0.582	1	1	19.807			
T2 280'-260'	0.37	2.06	A	0.344	2.186	0.63	1	1	45.440	2.47	0.12	A
			B	0.149	2.774	0.581	1	1	23.733			
			C	0.149	2.774	0.581	1	1	23.733			
T3 260'-240'	0.42	2.42	A	0.298	2.302	0.615	1	1	47.918	2.68	0.13	A
			B	0.169	2.701	0.585	1	1	30.659			
			C	0.137	2.819	0.58	1	1	26.674			
T4 240'-220'	0.65	3.16	A	0.254	2.424	0.603	1	1	47.734	2.75	0.14	B
			B	0.254	2.424	0.603	1	1	47.734			
			C	0.138	2.817	0.58	1	1	29.669			
T5 220'-200'	0.77	3.61	A	0.234	2.486	0.598	1	1	51.259	2.95	0.15	B
			B	0.234	2.486	0.598	1	1	51.259			
			C	0.163	2.723	0.584	1	1	38.575			
T6 200'-180'	0.78	3.90	A	0.217	2.539	0.594	1	1	54.611	3.12	0.16	B
			B	0.217	2.539	0.594	1	1	54.611			
			C	0.157	2.747	0.583	1	1	42.485			
T7 180'-160'	0.78	4.39	A	0.203	2.585	0.591	1	1	57.438	3.24	0.16	B

Section Elevation ft	Add Weight K	Self Weight K	Face	e	C_F	R_R	D_F	D_R	A_E ft²	F K	w klf	Ctrl. Face
			B	0.203	2.585	0.591	1	1	57.438			
			C	0.149	2.776	0.581	1	1	45.395			
T8 160'-140'	0.78	5.69	A	0.204	2.584	0.591	1	1	65.452	3.56	0.18	B
			B	0.204	2.584	0.591	1	1	65.452			
			C	0.155	2.754	0.582	1	1	53.708			
T9 140'-120'	0.84	5.13	A	0.181	2.662	0.587	1	1	60.626	3.26	0.16	B
			B	0.181	2.662	0.587	1	1	60.626			
			C	0.136	2.824	0.579	1	1	48.698			
T10 120'-100'	0.84	5.61	A	0.175	2.683	0.586	1	1	66.559	3.44	0.17	B
			B	0.175	2.683	0.586	1	1	66.559			
			C	0.134	2.831	0.579	1	1	55.132			
T11 100'-80'	0.84	5.90	A	0.168	2.707	0.584	1	1	69.758	3.43	0.17	B
			B	0.168	2.707	0.584	1	1	69.758			
			C	0.13	2.846	0.579	1	1	58.388			
T12 80'-60'	0.84	6.47	A	0.162	2.729	0.583	1	1	72.500	3.35	0.17	B
			B	0.162	2.729	0.583	1	1	72.500			
			C	0.126	2.86	0.578	1	1	61.135			
T13 60'-40'	0.96	7.22	A	0.158	2.741	0.583	1	1	76.820	3.24	0.16	B
			B	0.158	2.741	0.583	1	1	76.820			
			C	0.125	2.864	0.578	1	1	65.454			
T14 40'-20'	0.96	8.44	A	0.155	2.752	0.582	1	1	80.898	3.04	0.15	B
			B	0.155	2.752	0.582	1	1	80.898			
			C	0.124	2.868	0.578	1	1	69.575			
T15 20'-0'	0.96	8.70	A	0.15	2.771	0.581	1	1	83.313	3.15	0.16	B
			B	0.15	2.771	0.581	1	1	83.313			
			C	0.121	2.882	0.577	1	1	72.004			
Sum Weight:	11.16	77.50						OTM	6542.86 kip-ft	45.90		

Tower Forces - No Ice - Wind 60 To Face

Section Elevation ft	Add Weight K	Self Weight K	Face	e	C_F	R_R	D_F	D_R	A_E ft²	F K	w klf	Ctrl. Face
T1 300'-280'	0.37	1.49	A	0.39	2.084	0.648	0.8	1	39.853	2.11	0.11	A
			B	0.152	2.763	0.582	0.8	1	16.719			
			C	0.152	2.763	0.582	0.8	1	16.719			
T2 280'-260'	0.37	2.06	A	0.344	2.186	0.63	0.8	1	42.502	2.31	0.12	A
			B	0.149	2.774	0.581	0.8	1	20.054			
			C	0.149	2.774	0.581	0.8	1	20.054			
T3 260'-240'	0.42	2.42	A	0.298	2.302	0.615	0.8	1	44.439	2.49	0.12	A
			B	0.169	2.701	0.585	0.8	1	26.625			
			C	0.137	2.819	0.58	0.8	1	22.500			
T4 240'-220'	0.65	3.16	A	0.254	2.424	0.603	0.8	1	44.171	2.54	0.13	B
			B	0.254	2.424	0.603	0.8	1	44.171			
			C	0.138	2.817	0.58	0.8	1	25.615			
T5 220'-200'	0.77	3.61	A	0.234	2.486	0.598	0.8	1	47.041	2.71	0.14	B
			B	0.234	2.486	0.598	0.8	1	47.041			
			C	0.163	2.723	0.584	0.8	1	34.026			
T6 200'-180'	0.78	3.90	A	0.217	2.539	0.594	0.8	1	49.683	2.84	0.14	B
			B	0.217	2.539	0.594	0.8	1	49.683			
			C	0.157	2.747	0.583	0.8	1	37.225			
T7 180'-160'	0.78	4.39	A	0.203	2.585	0.591	0.8	1	52.013	2.93	0.15	B
			B	0.203	2.585	0.591	0.8	1	52.013			
			C	0.149	2.776	0.581	0.8	1	39.644			

Section Elevation ft	Add Weight K	Self Weight K	Face	e	C_F	R_R	D_F	D_R	A_E ft²	F K	w klf	Ctrl. Face
T8 160'-140'	0.78	5.69	A	0.204	2.584	0.591	0.8	1	58.524	3.18	0.16	B
			B	0.204	2.584	0.591	0.8	1	58.524			
			C	0.155	2.754	0.582	0.8	1	46.396			
T9 140'-120'	0.84	5.13	A	0.181	2.662	0.587	0.8	1	55.182	2.97	0.15	B
			B	0.181	2.662	0.587	0.8	1	55.182			
			C	0.136	2.824	0.579	0.8	1	43.001			
T10 120'-100'	0.84	5.61	A	0.175	2.683	0.586	0.8	1	59.449	3.07	0.15	B
			B	0.175	2.683	0.586	0.8	1	59.449			
			C	0.134	2.831	0.579	0.8	1	47.614			
T11 100'-80'	0.84	5.90	A	0.168	2.707	0.584	0.8	1	61.996	3.05	0.15	B
			B	0.168	2.707	0.584	0.8	1	61.996			
			C	0.13	2.846	0.579	0.8	1	50.216			
T12 80'-60'	0.84	6.47	A	0.162	2.729	0.583	0.8	1	64.275	2.97	0.15	B
			B	0.162	2.729	0.583	0.8	1	64.275			
			C	0.126	2.86	0.578	0.8	1	52.507			
T13 60'-40'	0.96	7.22	A	0.158	2.741	0.583	0.8	1	67.725	2.85	0.14	B
			B	0.158	2.741	0.583	0.8	1	67.725			
			C	0.125	2.864	0.578	0.8	1	55.961			
T14 40'-20'	0.96	8.44	A	0.155	2.752	0.582	0.8	1	71.080	2.67	0.13	B
			B	0.155	2.752	0.582	0.8	1	71.080			
			C	0.124	2.868	0.578	0.8	1	59.354			
T15 20'-0'	0.96	8.70	A	0.15	2.771	0.581	0.8	1	73.003	2.76	0.14	B
			B	0.15	2.771	0.581	0.8	1	73.003			
			C	0.121	2.882	0.577	0.8	1	61.294			
Sum Weight:	11.16	77.50						OTM	5981.60 kip-ft	41.44		

Tower Forces - No Ice - Wind 90 To Face

Section Elevation ft	Add Weight K	Self Weight K	Face	e	C_F	R_R	D_F	D_R	A_E ft²	F K	w klf	Ctrl. Face
T1 300'-280'	0.37	1.49	A	0.39	2.084	0.648	0.85	1	40.437	2.14	0.11	A
			B	0.152	2.763	0.582	0.85	1	17.491			
			C	0.152	2.763	0.582	0.85	1	17.491			
T2 280'-260'	0.37	2.06	A	0.344	2.186	0.63	0.85	1	43.236	2.35	0.12	A
			B	0.149	2.774	0.581	0.85	1	20.974			
			C	0.149	2.774	0.581	0.85	1	20.974			
T3 260'-240'	0.42	2.42	A	0.298	2.302	0.615	0.85	1	45.309	2.54	0.13	A
			B	0.169	2.701	0.585	0.85	1	27.633			
			C	0.137	2.819	0.58	0.85	1	23.543			
T4 240'-220'	0.65	3.16	A	0.254	2.424	0.603	0.85	1	45.062	2.60	0.13	B
			B	0.254	2.424	0.603	0.85	1	45.062			
			C	0.138	2.817	0.58	0.85	1	26.628			
T5 220'-200'	0.77	3.61	A	0.234	2.486	0.598	0.85	1	48.095	2.77	0.14	B
			B	0.234	2.486	0.598	0.85	1	48.095			
			C	0.163	2.723	0.584	0.85	1	35.163			
T6 200'-180'	0.78	3.90	A	0.217	2.539	0.594	0.85	1	50.915	2.91	0.15	B
			B	0.217	2.539	0.594	0.85	1	50.915			
			C	0.157	2.747	0.583	0.85	1	38.540			
T7 180'-160'	0.78	4.39	A	0.203	2.585	0.591	0.85	1	53.370	3.01	0.15	B
			B	0.203	2.585	0.591	0.85	1	53.370			
			C	0.149	2.776	0.581	0.85	1	41.081			
T8 160'-140'	0.78	5.69	A	0.204	2.584	0.591	0.85	1	60.256	3.27	0.16	B
			B	0.204	2.584	0.591	0.85	1	60.256			

Section Elevation ft	Add Weight K	Self Weight K	Face	e	C_F	R_R	D_F	D_R	A_E ft²	F K	w klf	Ctrl. Face
			C	0.155	2.754	0.582	0.85	1	48.224			
T9 140'-120'	0.84	5.13	A	0.181	2.662	0.587	0.85	1	56.543	3.04	0.15	B
			B	0.181	2.662	0.587	0.85	1	56.543			
			C	0.136	2.824	0.579	0.85	1	44.425			
T10 120'-100'	0.84	5.61	A	0.175	2.683	0.586	0.85	1	61.226	3.16	0.16	B
			B	0.175	2.683	0.586	0.85	1	61.226			
			C	0.134	2.831	0.579	0.85	1	49.493			
T11 100'-80'	0.84	5.90	A	0.168	2.707	0.584	0.85	1	63.936	3.15	0.16	B
			B	0.168	2.707	0.584	0.85	1	63.936			
			C	0.13	2.846	0.579	0.85	1	52.259			
T12 80'-60'	0.84	6.47	A	0.162	2.729	0.583	0.85	1	66.331	3.06	0.15	B
			B	0.162	2.729	0.583	0.85	1	66.331			
			C	0.126	2.86	0.578	0.85	1	54.664			
T13 60'-40'	0.96	7.22	A	0.158	2.741	0.583	0.85	1	69.999	2.95	0.15	B
			B	0.158	2.741	0.583	0.85	1	69.999			
			C	0.125	2.864	0.578	0.85	1	58.334			
T14 40'-20'	0.96	8.44	A	0.155	2.752	0.582	0.85	1	73.534	2.76	0.14	B
			B	0.155	2.752	0.582	0.85	1	73.534			
			C	0.124	2.868	0.578	0.85	1	61.909			
T15 20'-0'	0.96	8.70	A	0.15	2.771	0.581	0.85	1	75.581	2.86	0.14	B
			B	0.15	2.771	0.581	0.85	1	75.581			
			C	0.121	2.882	0.577	0.85	1	63.971			
Sum Weight:	11.16	77.50						OTM	6121.91 kip-ft	42.56		

Tower Forces - With Ice - Wind Normal To Face

Section Elevation ft	Add Weight K	Self Weight K	Face	e	C_F	R_R	D_F	D_R	A_E ft²	F K	w klf	Ctrl. Face
T1 300'-280'	0.77	2.06	A	0.541	1.852	0.719	1	1	62.696	2.21	0.11	A
			B	0.197	2.606	0.59	1	1	25.575			
			C	0.197	2.606	0.59	1	1	25.575			
T2 280'-260'	0.77	2.73	A	0.47	1.942	0.683	1	1	64.612	2.34	0.12	A
			B	0.186	2.642	0.588	1	1	29.554			
			C	0.186	2.642	0.588	1	1	29.554			
T3 260'-240'	0.89	3.18	A	0.405	2.054	0.654	1	1	66.508	2.49	0.12	A
			B	0.217	2.54	0.594	1	1	38.954			
			C	0.17	2.699	0.585	1	1	33.028			
T4 240'-220'	1.47	4.30	A	0.35	2.172	0.632	1	1	66.465	2.57	0.13	B
			B	0.35	2.172	0.632	1	1	66.465			
			C	0.182	2.658	0.587	1	1	38.748			
T5 220'-200'	1.70	4.87	A	0.319	2.246	0.622	1	1	70.209	2.74	0.14	B
			B	0.319	2.246	0.622	1	1	70.209			
			C	0.22	2.532	0.595	1	1	51.196			
T6 200'-180'	1.71	5.34	A	0.295	2.311	0.614	1	1	73.761	2.88	0.14	B
			B	0.295	2.311	0.614	1	1	73.761			
			C	0.209	2.566	0.592	1	1	55.792			
T7 180'-160'	1.71	5.96	A	0.274	2.367	0.608	1	1	76.970	2.98	0.15	B
			B	0.274	2.367	0.608	1	1	76.970			
			C	0.197	2.605	0.59	1	1	59.272			
T8 160'-140'	1.71	7.66	A	0.269	2.383	0.607	1	1	85.259	3.20	0.16	B
			B	0.269	2.383	0.607	1	1	85.259			
			C	0.2	2.596	0.59	1	1	68.082			
T9 140'-120'	1.79	6.86	A	0.242	2.46	0.6	1	1	80.811	3.01	0.15	B

Section Elevation ft	Add Weight K	Self Weight K	Face	e	C_F	R_R	D_F	D_R	A_E ft²	F K	w klf	Ctrl. Face
			B	0.242	2.46	0.6	1	1	80.811			
			C	0.18	2.663	0.587	1	1	63.616			
T10 120'-100'	1.79	7.52	A	0.231	2.495	0.597	1	1	86.858	3.13	0.16	B
			B	0.231	2.495	0.597	1	1	86.858			
			C	0.174	2.684	0.585	1	1	70.509			
T11 100'-80'	1.79	7.96	A	0.221	2.526	0.595	1	1	90.505	3.12	0.16	B
			B	0.221	2.526	0.595	1	1	90.505			
			C	0.169	2.704	0.584	1	1	74.287			
T12 80'-60'	1.79	8.70	A	0.213	2.555	0.593	1	1	93.750	3.04	0.15	B
			B	0.213	2.555	0.593	1	1	93.750			
			C	0.163	2.723	0.584	1	1	77.579			
T13 60'-40'	1.94	9.56	A	0.207	2.573	0.592	1	1	98.652	2.92	0.15	B
			B	0.207	2.573	0.592	1	1	98.652			
			C	0.161	2.733	0.583	1	1	82.509			
T14 40'-20'	1.94	11.01	A	0.202	2.59	0.591	1	1	103.227	2.74	0.14	B
			B	0.202	2.59	0.591	1	1	103.227			
			C	0.159	2.74	0.583	1	1	87.171			
T15 20'-0'	1.94	11.39	A	0.195	2.613	0.589	1	1	106.169	2.84	0.14	B
			B	0.195	2.613	0.589	1	1	106.169			
			C	0.154	2.757	0.582	1	1	90.158			
Sum Weight:	23.71	102.40						OTM	6081.74 kip-ft	42.21		

Tower Forces - With Ice - Wind 60 To Face

Section Elevation ft	Add Weight K	Self Weight K	Face	e	C_F	R_R	D_F	D_R	A_E ft²	F K	w klf	Ctrl. Face
T1 300'-280'	0.77	2.06	A	0.541	1.852	0.719	0.8	1	60.293	2.13	0.11	A
			B	0.197	2.606	0.59	0.8	1	21.739			
			C	0.197	2.606	0.59	0.8	1	21.739			
T2 280'-260'	0.77	2.73	A	0.47	1.942	0.683	0.8	1	61.535	2.23	0.11	A
			B	0.186	2.642	0.588	0.8	1	25.115			
			C	0.186	2.642	0.588	0.8	1	25.115			
T3 260'-240'	0.89	3.18	A	0.405	2.054	0.654	0.8	1	62.744	2.35	0.12	A
			B	0.217	2.54	0.594	0.8	1	34.166			
			C	0.17	2.699	0.585	0.8	1	27.984			
T4 240'-220'	1.47	4.30	A	0.35	2.172	0.632	0.8	1	62.399	2.42	0.12	B
			B	0.35	2.172	0.632	0.8	1	62.399			
			C	0.182	2.658	0.587	0.8	1	33.763			
T5 220'-200'	1.70	4.87	A	0.319	2.246	0.622	0.8	1	65.348	2.55	0.13	B
			B	0.319	2.246	0.622	0.8	1	65.348			
			C	0.22	2.532	0.595	0.8	1	45.729			
T6 200'-180'	1.71	5.34	A	0.295	2.311	0.614	0.8	1	68.074	2.65	0.13	B
			B	0.295	2.311	0.614	0.8	1	68.074			
			C	0.209	2.566	0.592	0.8	1	49.505			
T7 180'-160'	1.71	5.96	A	0.274	2.367	0.608	0.8	1	70.655	2.73	0.14	B
			B	0.274	2.367	0.608	0.8	1	70.655			
			C	0.197	2.605	0.59	0.8	1	52.367			
T8 160'-140'	1.71	7.66	A	0.269	2.383	0.607	0.8	1	77.365	2.91	0.15	B
			B	0.269	2.383	0.607	0.8	1	77.365			
			C	0.2	2.596	0.59	0.8	1	59.519			
T9 140'-120'	1.79	6.86	A	0.242	2.46	0.6	0.8	1	74.438	2.77	0.14	B
			B	0.242	2.46	0.6	0.8	1	74.438			
			C	0.18	2.663	0.587	0.8	1	56.774			

Section Elevation ft	Add Weight K	Self Weight K	Face	e	C_F	R_R	D_F	D_R	A_E ft^2	F K	w klf	Ctrl. Face
T10 120'-100'	1.79	7.52	A	0.231	2.495	0.597	0.8	1	78.600	2.83	0.14	B
			B	0.231	2.495	0.597	0.8	1	78.600			
			C	0.174	2.684	0.585	0.8	1	61.516			
T11 100'-80'	1.79	7.96	A	0.221	2.526	0.595	0.8	1	81.483	2.81	0.14	B
			B	0.221	2.526	0.595	0.8	1	81.483			
			C	0.169	2.704	0.584	0.8	1	64.529			
T12 80'-60'	1.79	8.70	A	0.213	2.555	0.593	0.8	1	84.148	2.73	0.14	B
			B	0.213	2.555	0.593	0.8	1	84.148			
			C	0.163	2.723	0.584	0.8	1	67.253			
T13 60'-40'	1.94	9.56	A	0.207	2.573	0.592	0.8	1	88.052	2.61	0.13	B
			B	0.207	2.573	0.592	0.8	1	88.052			
			C	0.161	2.733	0.583	0.8	1	71.193			
T14 40'-20'	1.94	11.01	A	0.202	2.59	0.591	0.8	1	91.794	2.43	0.12	B
			B	0.202	2.59	0.591	0.8	1	91.794			
			C	0.159	2.74	0.583	0.8	1	75.017			
T15 20'-0'	1.94	11.39	A	0.195	2.613	0.589	0.8	1	94.125	2.52	0.13	B
			B	0.195	2.613	0.589	0.8	1	94.125			
			C	0.154	2.757	0.582	0.8	1	77.400			
Sum Weight:	23.71	102.40						OTM	5646.27 kip-ft	38.66		

Tower Forces - With Ice - Wind 90 To Face

Section Elevation ft	Add Weight K	Self Weight K	Face	e	C_F	R_R	D_F	D_R	A_E ft^2	F K	w klf	Ctrl. Face
T1 300'-280'	0.77	2.06	A	0.541	1.852	0.719	0.85	1	60.894	2.15	0.11	A
			B	0.197	2.606	0.59	0.85	1	22.698			
			C	0.197	2.606	0.59	0.85	1	22.698			
T2 280'-260'	0.77	2.73	A	0.47	1.942	0.683	0.85	1	62.305	2.26	0.11	A
			B	0.186	2.642	0.588	0.85	1	26.225			
			C	0.186	2.642	0.588	0.85	1	26.225			
T3 260'-240'	0.89	3.18	A	0.405	2.054	0.654	0.85	1	63.685	2.39	0.12	A
			B	0.217	2.54	0.594	0.85	1	35.363			
			C	0.17	2.699	0.585	0.85	1	29.245			
T4 240'-220'	1.47	4.30	A	0.35	2.172	0.632	0.85	1	63.416	2.45	0.12	B
			B	0.35	2.172	0.632	0.85	1	63.416			
			C	0.182	2.658	0.587	0.85	1	35.010			
T5 220'-200'	1.70	4.87	A	0.319	2.246	0.622	0.85	1	66.563	2.60	0.13	B
			B	0.319	2.246	0.622	0.85	1	66.563			
			C	0.22	2.532	0.595	0.85	1	47.096			
T6 200'-180'	1.71	5.34	A	0.295	2.311	0.614	0.85	1	69.495	2.71	0.14	B
			B	0.295	2.311	0.614	0.85	1	69.495			
			C	0.209	2.566	0.592	0.85	1	51.077			
T7 180'-160'	1.71	5.96	A	0.274	2.367	0.608	0.85	1	72.233	2.80	0.14	B
			B	0.274	2.367	0.608	0.85	1	72.233			
			C	0.197	2.605	0.59	0.85	1	54.094			
T8 160'-140'	1.71	7.66	A	0.269	2.383	0.607	0.85	1	79.338	2.98	0.15	B
			B	0.269	2.383	0.607	0.85	1	79.338			
			C	0.2	2.596	0.59	0.85	1	61.660			
T9 140'-120'	1.79	6.86	A	0.242	2.46	0.6	0.85	1	76.031	2.83	0.14	B
			B	0.242	2.46	0.6	0.85	1	76.031			
			C	0.18	2.663	0.587	0.85	1	58.484			
T10 120'-100'	1.79	7.52	A	0.231	2.495	0.597	0.85	1	80.665	2.90	0.15	B
			B	0.231	2.495	0.597	0.85	1	80.665			

Section Elevation ft	Add Weight K	Self Weight K	Face	e	C_F	R_R	D_F	D_R	A_E ft²	F K	w klf	Ctrl. Face
			C	0.174	2.684	0.585	0.85	1	63.764			
T11 100'-80'	1.79	7.96	A	0.221	2.526	0.595	0.85	1	83.738	2.88	0.14	B
			B	0.221	2.526	0.595	0.85	1	83.738			
			C	0.169	2.704	0.584	0.85	1	66.969			
T12 80'-60'	1.79	8.70	A	0.213	2.555	0.593	0.85	1	86.549	2.80	0.14	B
			B	0.213	2.555	0.593	0.85	1	86.549			
			C	0.163	2.723	0.584	0.85	1	69.834			
T13 60'-40'	1.94	9.56	A	0.207	2.573	0.592	0.85	1	90.702	2.69	0.13	B
			B	0.207	2.573	0.592	0.85	1	90.702			
			C	0.161	2.733	0.583	0.85	1	74.022			
T14 40'-20'	1.94	11.01	A	0.202	2.59	0.591	0.85	1	94.652	2.51	0.13	B
			B	0.202	2.59	0.591	0.85	1	94.652			
			C	0.159	2.74	0.583	0.85	1	78.056			
T15 20'-0'	1.94	11.39	A	0.195	2.613	0.589	0.85	1	97.136	2.60	0.13	B
			B	0.195	2.613	0.589	0.85	1	97.136			
			C	0.154	2.757	0.582	0.85	1	80.590			
Sum Weight:	23.71	102.40						OTM	5755.14 kip-ft	39.55		

Tower Forces - Service - Wind Normal To Face

Section Elevation ft	Add Weight K	Self Weight K	Face	e	C_F	R_R	D_F	D_R	A_E ft²	F K	w klf	Ctrl. Face
T1 300'-280'	0.37	1.49	A	0.39	2.084	0.648	1	1	42.190	1.14	0.06	A
			B	0.152	2.763	0.582	1	1	19.807			
			C	0.152	2.763	0.582	1	1	19.807			
T2 280'-260'	0.37	2.06	A	0.344	2.186	0.63	1	1	45.440	1.26	0.06	A
			B	0.149	2.774	0.581	1	1	23.733			
			C	0.149	2.774	0.581	1	1	23.733			
T3 260'-240'	0.42	2.42	A	0.298	2.302	0.615	1	1	47.918	1.37	0.07	A
			B	0.169	2.701	0.585	1	1	30.659			
			C	0.137	2.819	0.58	1	1	26.674			
T4 240'-220'	0.65	3.16	A	0.254	2.424	0.603	1	1	47.734	1.40	0.07	B
			B	0.254	2.424	0.603	1	1	47.734			
			C	0.138	2.817	0.58	1	1	29.669			
T5 220'-200'	0.77	3.61	A	0.234	2.486	0.598	1	1	51.259	1.51	0.08	B
			B	0.234	2.486	0.598	1	1	51.259			
			C	0.163	2.723	0.584	1	1	38.575			
T6 200'-180'	0.78	3.90	A	0.217	2.539	0.594	1	1	54.611	1.59	0.08	B
			B	0.217	2.539	0.594	1	1	54.611			
			C	0.157	2.747	0.583	1	1	42.485			
T7 180'-160'	0.78	4.39	A	0.203	2.585	0.591	1	1	57.438	1.65	0.08	B
			B	0.203	2.585	0.591	1	1	57.438			
			C	0.149	2.776	0.581	1	1	45.395			
T8 160'-140'	0.78	5.69	A	0.204	2.584	0.591	1	1	65.452	1.81	0.09	B
			B	0.204	2.584	0.591	1	1	65.452			
			C	0.155	2.754	0.582	1	1	53.708			
T9 140'-120'	0.84	5.13	A	0.181	2.662	0.587	1	1	60.626	1.66	0.08	B
			B	0.181	2.662	0.587	1	1	60.626			
			C	0.136	2.824	0.579	1	1	48.698			
T10 120'-100'	0.84	5.61	A	0.175	2.683	0.586	1	1	66.559	1.75	0.09	B
			B	0.175	2.683	0.586	1	1	66.559			
			C	0.134	2.831	0.579	1	1	55.132			
T11 100'-80'	0.84	5.90	A	0.168	2.707	0.584	1	1	69.758	1.75	0.09	B

Section Elevation ft	Add Weight K	Self Weight K	Face	e	C_F	R_R	D_F	D_R	A_E ft²	F K	w klf	Ctrl. Face
			B	0.168	2.707	0.584	1	1	69.758			
			C	0.13	2.846	0.579	1	1	58.388			
T12 80'-60'	0.84	6.47	A	0.162	2.729	0.583	1	1	72.500	1.71	0.09	B
			B	0.162	2.729	0.583	1	1	72.500			
			C	0.126	2.86	0.578	1	1	61.135			
T13 60'-40'	0.96	7.22	A	0.158	2.741	0.583	1	1	76.820	1.65	0.08	B
			B	0.158	2.741	0.583	1	1	76.820			
			C	0.125	2.864	0.578	1	1	65.454			
T14 40'-20'	0.96	8.44	A	0.155	2.752	0.582	1	1	80.898	1.55	0.08	B
			B	0.155	2.752	0.582	1	1	80.898			
			C	0.124	2.868	0.578	1	1	69.575			
T15 20'-0'	0.96	8.70	A	0.15	2.771	0.581	1	1	83.313	1.61	0.08	B
			B	0.15	2.771	0.581	1	1	83.313			
			C	0.121	2.882	0.577	1	1	72.004			
Sum Weight:	11.16	77.50						OTM	3338.19 kip-ft	23.42		

Tower Forces - Service - Wind 60 To Face

Section Elevation ft	Add Weight K	Self Weight K	Face	e	C_F	R_R	D_F	D_R	A_E ft²	F K	w klf	Ctrl. Face
T1 300'-280'	0.37	1.49	A	0.39	2.084	0.648	0.8	1	39.853	1.08	0.05	A
			B	0.152	2.763	0.582	0.8	1	16.719			
			C	0.152	2.763	0.582	0.8	1	16.719			
T2 280'-260'	0.37	2.06	A	0.344	2.186	0.63	0.8	1	42.502	1.18	0.06	A
			B	0.149	2.774	0.581	0.8	1	20.054			
			C	0.149	2.774	0.581	0.8	1	20.054			
T3 260'-240'	0.42	2.42	A	0.298	2.302	0.615	0.8	1	44.439	1.27	0.06	A
			B	0.169	2.701	0.585	0.8	1	26.625			
			C	0.137	2.819	0.58	0.8	1	22.500			
T4 240'-220'	0.65	3.16	A	0.254	2.424	0.603	0.8	1	44.171	1.30	0.06	B
			B	0.254	2.424	0.603	0.8	1	44.171			
			C	0.138	2.817	0.58	0.8	1	25.615			
T5 220'-200'	0.77	3.61	A	0.234	2.486	0.598	0.8	1	47.041	1.38	0.07	B
			B	0.234	2.486	0.598	0.8	1	47.041			
			C	0.163	2.723	0.584	0.8	1	34.026			
T6 200'-180'	0.78	3.90	A	0.217	2.539	0.594	0.8	1	49.683	1.45	0.07	B
			B	0.217	2.539	0.594	0.8	1	49.683			
			C	0.157	2.747	0.583	0.8	1	37.225			
T7 180'-160'	0.78	4.39	A	0.203	2.585	0.591	0.8	1	52.013	1.50	0.07	B
			B	0.203	2.585	0.591	0.8	1	52.013			
			C	0.149	2.776	0.581	0.8	1	39.644			
T8 160'-140'	0.78	5.69	A	0.204	2.584	0.591	0.8	1	58.524	1.62	0.08	B
			B	0.204	2.584	0.591	0.8	1	58.524			
			C	0.155	2.754	0.582	0.8	1	46.396			
T9 140'-120'	0.84	5.13	A	0.181	2.662	0.587	0.8	1	55.182	1.51	0.08	B
			B	0.181	2.662	0.587	0.8	1	55.182			
			C	0.136	2.824	0.579	0.8	1	43.001			
T10 120'-100'	0.84	5.61	A	0.175	2.683	0.586	0.8	1	59.449	1.57	0.08	B
			B	0.175	2.683	0.586	0.8	1	59.449			
			C	0.134	2.831	0.579	0.8	1	47.614			
T11 100'-80'	0.84	5.90	A	0.168	2.707	0.584	0.8	1	61.996	1.56	0.08	B
			B	0.168	2.707	0.584	0.8	1	61.996			
			C	0.13	2.846	0.579	0.8	1	50.216			

Section Elevation ft	Add Weight K	Self Weight K	Face	e	C_F	R_R	D_F	D_R	A_E ft^2	F K	w klf	Ctrl. Face
T12 80'-60'	0.84	6.47	A	0.162	2.729	0.583	0.8	1	64.275	1.51	0.08	B
			B	0.162	2.729	0.583	0.8	1	64.275			
			C	0.126	2.86	0.578	0.8	1	52.507			
T13 60'-40'	0.96	7.22	A	0.158	2.741	0.583	0.8	1	67.725	1.46	0.07	B
			B	0.158	2.741	0.583	0.8	1	67.725			
			C	0.125	2.864	0.578	0.8	1	55.961			
T14 40'-20'	0.96	8.44	A	0.155	2.752	0.582	0.8	1	71.080	1.36	0.07	B
			B	0.155	2.752	0.582	0.8	1	71.080			
			C	0.124	2.868	0.578	0.8	1	59.354			
T15 20'-0'	0.96	8.70	A	0.15	2.771	0.581	0.8	1	73.003	1.41	0.07	B
			B	0.15	2.771	0.581	0.8	1	73.003			
			C	0.121	2.882	0.577	0.8	1	61.294			
Sum Weight:	11.16	77.50						OTM	3051.84 kip-ft	21.14		

Tower Forces - Service - Wind 90 To Face

Section Elevation ft	Add Weight K	Self Weight K	Face	e	C_F	R_R	D_F	D_R	A_E ft^2	F K	w klf	Ctrl. Face
T1 300'-280'	0.37	1.49	A	0.39	2.084	0.648	0.85	1	40.437	1.09	0.05	A
			B	0.152	2.763	0.582	0.85	1	17.491			
			C	0.152	2.763	0.582	0.85	1	17.491			
T2 280'-260'	0.37	2.06	A	0.344	2.186	0.63	0.85	1	43.236	1.20	0.06	A
			B	0.149	2.774	0.581	0.85	1	20.974			
			C	0.149	2.774	0.581	0.85	1	20.974			
T3 260'-240'	0.42	2.42	A	0.298	2.302	0.615	0.85	1	45.309	1.29	0.06	A
			B	0.169	2.701	0.585	0.85	1	27.633			
			C	0.137	2.819	0.58	0.85	1	23.543			
T4 240'-220'	0.65	3.16	A	0.254	2.424	0.603	0.85	1	45.062	1.32	0.07	B
			B	0.254	2.424	0.603	0.85	1	45.062			
			C	0.138	2.817	0.58	0.85	1	26.628			
T5 220'-200'	0.77	3.61	A	0.234	2.486	0.598	0.85	1	48.095	1.41	0.07	B
			B	0.234	2.486	0.598	0.85	1	48.095			
			C	0.163	2.723	0.584	0.85	1	35.163			
T6 200'-180'	0.78	3.90	A	0.217	2.539	0.594	0.85	1	50.915	1.48	0.07	B
			B	0.217	2.539	0.594	0.85	1	50.915			
			C	0.157	2.747	0.583	0.85	1	38.540			
T7 180'-160'	0.78	4.39	A	0.203	2.585	0.591	0.85	1	53.370	1.53	0.08	B
			B	0.203	2.585	0.591	0.85	1	53.370			
			C	0.149	2.776	0.581	0.85	1	41.081			
T8 160'-140'	0.78	5.69	A	0.204	2.584	0.591	0.85	1	60.256	1.67	0.08	B
			B	0.204	2.584	0.591	0.85	1	60.256			
			C	0.155	2.754	0.582	0.85	1	48.224			
T9 140'-120'	0.84	5.13	A	0.181	2.662	0.587	0.85	1	56.543	1.55	0.08	B
			B	0.181	2.662	0.587	0.85	1	56.543			
			C	0.136	2.824	0.579	0.85	1	44.425			
T10 120'-100'	0.84	5.61	A	0.175	2.683	0.586	0.85	1	61.226	1.61	0.08	B
			B	0.175	2.683	0.586	0.85	1	61.226			
			C	0.134	2.831	0.579	0.85	1	49.493			
T11 100'-80'	0.84	5.90	A	0.168	2.707	0.584	0.85	1	63.936	1.60	0.08	B
			B	0.168	2.707	0.584	0.85	1	63.936			
			C	0.13	2.846	0.579	0.85	1	52.259			
T12 80'-60'	0.84	6.47	A	0.162	2.729	0.583	0.85	1	66.331	1.56	0.08	B
			B	0.162	2.729	0.583	0.85	1	66.331			

Section Elevation ft	Add Weight K	Self Weight K	Face	e	C_F	R_R	D_F	D_R	A_E ft^2	F K	w klf	Ctrl. Face
			C	0.126	2.86	0.578	0.85	1	54.664			
T13 60'-40'	0.96	7.22	A	0.158	2.741	0.583	0.85	1	69.999	1.50	0.08	B
			B	0.158	2.741	0.583	0.85	1	69.999			
			C	0.125	2.864	0.578	0.85	1	58.334			
T14 40'-20'	0.96	8.44	A	0.155	2.752	0.582	0.85	1	73.534	1.41	0.07	B
			B	0.155	2.752	0.582	0.85	1	73.534			
			C	0.124	2.868	0.578	0.85	1	61.909			
T15 20'-0'	0.96	8.70	A	0.15	2.771	0.581	0.85	1	75.581	1.46	0.07	B
			B	0.15	2.771	0.581	0.85	1	75.581			
			C	0.121	2.882	0.577	0.85	1	63.971			
Sum Weight:	11.16	77.50						OTM	3123.42 kip-ft	21.71		

Mast Vectors - No Ice

Section No.	Section Elevation ft	Wind Azimuth deg	Directionality	F K	V_x K	V_z K	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
T1	300'-280'	0	Wind Normal	2.23	0.00	-2.23	-647.49	0.48	-1.43
		30	Wind 90	2.14	1.07	-1.85	-537.51	-309.69	-1.58
		60	Wind 60	2.11	1.83	-1.05	-305.97	-529.00	-1.35
		90	Wind 90	2.14	2.14	0.00	-0.27	-619.87	-0.79
		120	Wind Normal	2.23	1.93	1.12	323.33	-560.03	0.00
		150	Wind 90	2.14	1.07	1.85	536.96	-309.69	0.79
		180	Wind 60	2.11	0.00	2.11	611.11	0.48	1.35
		210	Wind 90	2.14	-1.07	1.85	536.96	310.65	1.58
		240	Wind Normal	2.23	-1.93	1.12	323.33	560.98	1.43
		270	Wind 90	2.14	-2.14	0.00	-0.27	620.82	0.79
		300	Wind 60	2.11	-1.83	-1.05	-305.97	529.95	0.00
		330	Wind 90	2.14	-1.07	-1.85	-537.51	310.65	-0.79
T2	280'-260'	0	Wind Normal	2.47	0.00	-2.47	-667.44	0.58	-1.71
		30	Wind 90	2.35	1.18	-2.04	-550.05	-316.80	-1.88
		60	Wind 60	2.31	2.00	-1.16	-312.32	-539.79	-1.60
		90	Wind 90	2.35	2.35	0.00	-0.33	-634.17	-0.94
		120	Wind Normal	2.47	2.14	1.24	333.22	-577.15	0.00
		150	Wind 90	2.35	1.18	2.04	549.38	-316.80	0.94
		180	Wind 60	2.31	0.00	2.31	623.63	0.58	1.60
		210	Wind 90	2.35	-1.18	2.04	549.38	317.95	1.88
		240	Wind Normal	2.47	-2.14	1.24	333.22	578.31	1.71
		270	Wind 90	2.35	-2.35	0.00	-0.33	635.33	0.94
		300	Wind 60	2.31	-2.00	-1.16	-312.32	540.95	0.00
		330	Wind 90	2.35	-1.18	-2.04	-550.05	317.95	-0.94
T3	260'-240'	0	Wind Normal	2.68	0.00	-2.68	-671.51	0.55	-1.56
		30	Wind 90	2.54	1.27	-2.20	-549.98	-316.69	-1.93
		60	Wind 60	2.49	2.16	-1.24	-311.65	-538.38	-1.84
		90	Wind 90	2.54	2.54	0.00	-0.49	-633.93	-1.31
		120	Wind Normal	2.68	2.32	1.34	335.02	-580.57	-0.42
		150	Wind 90	2.54	1.27	2.20	548.99	-316.69	0.62
		180	Wind 60	2.49	0.00	2.49	621.82	0.55	1.44
		210	Wind 90	2.54	-1.27	2.20	548.99	317.80	1.93
		240	Wind Normal	2.68	-2.32	1.34	335.02	581.67	1.98
		270	Wind 90	2.54	-2.54	0.00	-0.49	635.04	1.31
		300	Wind 60	2.49	-2.16	-1.24	-311.65	539.49	0.39
		330	Wind 90	2.54	-1.27	-2.20	-549.98	317.80	-0.62
T4	240'-220'	0	Wind Normal	2.75	0.00	-2.75	-633.25	-0.11	0.31
		30	Wind 90	2.60	1.30	-2.25	-517.86	-298.61	-0.63
		60	Wind 60	2.54	2.20	-1.27	-293.44	-506.92	-1.36

Section No.	Section Elevation ft	Wind Azimuth deg	Directionality	F K	V_x K	V_z K	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
		90	Wind 90	2.60	2.60	0.00	-0.83	-597.12	-1.77
		120	Wind Normal	2.75	2.38	1.37	315.38	-547.80	-1.78
		150	Wind 90	2.60	1.30	2.25	516.20	-298.61	-1.13
		180	Wind 60	2.54	0.00	2.54	584.38	-0.11	-0.28
		210	Wind 90	2.60	-1.30	2.25	516.20	298.40	0.63
		240	Wind Normal	2.75	-2.38	1.37	315.38	547.58	1.47
		270	Wind 90	2.60	-2.60	0.00	-0.83	596.91	1.77
		300	Wind 60	2.54	-2.20	-1.27	-293.44	506.70	1.64
		330	Wind 90	2.60	-1.30	-2.25	-517.86	298.40	1.13
T5	220'-200'	0	Wind Normal	2.95	0.00	-2.95	-620.16	-0.06	0.23
		30	Wind 90	2.77	1.38	-2.40	-504.06	-290.67	-0.49
		60	Wind 60	2.71	2.34	-1.35	-284.95	-492.38	-1.04
		90	Wind 90	2.77	2.77	0.00	-0.70	-581.29	-1.35
		120	Wind Normal	2.95	2.55	1.47	309.03	-536.53	-1.36
		150	Wind 90	2.77	1.38	2.40	502.66	-290.67	-0.86
		180	Wind 60	2.71	0.00	2.71	567.78	-0.06	-0.21
		210	Wind 90	2.77	-1.38	2.40	502.66	290.56	0.49
		240	Wind Normal	2.95	-2.55	1.47	309.03	536.41	1.13
		270	Wind 90	2.77	-2.77	0.00	-0.70	581.17	1.35
		300	Wind 60	2.71	-2.34	-1.35	-284.95	492.27	1.25
		330	Wind 90	2.77	-1.38	-2.40	-504.06	290.56	0.86
T6	200'-180'	0	Wind Normal	3.12	0.00	-3.12	-593.51	-0.05	0.22
		30	Wind 90	2.91	1.45	-2.52	-479.36	-276.36	-0.56
		60	Wind 60	2.84	2.46	-1.42	-270.40	-467.05	-1.14
		90	Wind 90	2.91	2.91	0.00	-0.78	-552.67	-1.47
		120	Wind Normal	3.12	2.70	1.56	295.59	-513.37	-1.48
		150	Wind 90	2.91	1.45	2.52	477.81	-276.36	-0.92
		180	Wind 60	2.84	0.00	2.84	538.47	-0.05	-0.20
		210	Wind 90	2.91	-1.45	2.52	477.81	276.26	0.56
		240	Wind Normal	3.12	-2.70	1.56	295.59	513.27	1.26
		270	Wind 90	2.91	-2.91	0.00	-0.78	552.57	1.47
		300	Wind 60	2.84	-2.46	-1.42	-270.40	466.96	1.35
		330	Wind 90	2.91	-1.45	-2.52	-479.36	276.26	0.92
T7	180'-160'	0	Wind Normal	3.24	0.00	-3.24	-551.07	-0.05	0.25
		30	Wind 90	3.01	1.50	-2.60	-443.60	-255.67	-0.61
		60	Wind 60	2.93	2.54	-1.47	-249.99	-431.54	-1.26
		90	Wind 90	3.01	3.01	0.00	-0.86	-511.29	-1.62
		120	Wind Normal	3.24	2.80	1.62	274.24	-476.55	-1.64
		150	Wind 90	3.01	1.50	2.60	441.87	-255.67	-1.01
		180	Wind 60	2.93	0.00	2.93	497.38	-0.05	-0.22
		210	Wind 90	3.01	-1.50	2.60	441.87	255.56	0.61
		240	Wind Normal	3.24	-2.80	1.62	274.24	476.44	1.39
		270	Wind 90	3.01	-3.01	0.00	-0.86	511.18	1.62
		300	Wind 60	2.93	-2.54	-1.47	-249.99	431.44	1.48
		330	Wind 90	3.01	-1.50	-2.60	-443.60	255.56	1.01
T8	160'-140'	0	Wind Normal	3.56	0.00	-3.56	-534.51	-0.06	0.26
		30	Wind 90	3.27	1.64	-2.84	-426.34	-245.66	-0.65
		60	Wind 60	3.18	2.75	-1.59	-239.49	-413.22	-1.33
		90	Wind 90	3.27	3.27	0.00	-0.95	-491.25	-1.72
		120	Wind Normal	3.56	3.08	1.78	265.82	-462.13	-1.75
		150	Wind 90	3.27	1.64	2.84	424.43	-245.66	-1.07
		180	Wind 60	3.18	0.00	3.18	476.12	-0.06	-0.24
		210	Wind 90	3.27	-1.64	2.84	424.43	245.54	0.65
		240	Wind Normal	3.56	-3.08	1.78	265.82	462.01	1.49
		270	Wind 90	3.27	-3.27	0.00	-0.95	491.14	1.72
		300	Wind 60	3.18	-2.75	-1.59	-239.49	413.10	1.57
		330	Wind 90	3.27	-1.64	-2.84	-426.34	245.54	1.07
T9	140'-120'	0	Wind Normal	3.26	0.00	-3.26	-424.64	-0.06	0.27
		30	Wind 90	3.04	1.52	-2.63	-343.18	-197.60	-0.68
		60	Wind 60	2.97	2.57	-1.48	-193.82	-333.97	-1.40
		90	Wind 90	3.04	3.04	0.00	-1.04	-395.13	-1.80

Section No.	Section Elevation ft	Wind Azimuth deg	Directionality	F K	V_x K	V_z K	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
		120	Wind Normal	3.26	2.82	1.63	210.75	-366.91	-1.81
		150	Wind 90	3.04	1.52	2.63	341.09	-197.60	-1.12
		180	Wind 60	2.97	0.00	2.97	384.51	-0.06	-0.25
		210	Wind 90	3.04	-1.52	2.63	341.09	197.47	0.68
		240	Wind Normal	3.26	-2.82	1.63	210.75	366.78	1.54
		270	Wind 90	3.04	-3.04	0.00	-1.04	395.00	1.80
		300	Wind 60	2.97	-2.57	-1.48	-193.82	333.84	1.65
		330	Wind 90	3.04	-1.52	-2.63	-343.18	197.47	1.12
T10	120'-100'	0	Wind Normal	3.44	0.00	-3.44	-379.17	-0.07	0.29
		30	Wind 90	3.16	1.58	-2.74	-302.29	-173.94	-0.72
		60	Wind 60	3.07	2.66	-1.53	-169.96	-292.48	-1.48
		90	Wind 90	3.16	3.16	0.00	-1.13	-347.82	-1.91
		120	Wind Normal	3.44	2.98	1.72	187.88	-327.46	-1.95
		150	Wind 90	3.16	1.58	2.74	300.02	-173.94	-1.19
		180	Wind 60	3.07	0.00	3.07	336.52	-0.07	-0.26
		210	Wind 90	3.16	-1.58	2.74	300.02	173.80	0.72
		240	Wind Normal	3.44	-2.98	1.72	187.88	327.32	1.66
		270	Wind 90	3.16	-3.16	0.00	-1.13	347.68	1.91
		300	Wind 60	3.07	-2.66	-1.53	-169.96	292.34	1.74
		330	Wind 90	3.16	-1.58	-2.74	-302.29	173.80	1.19
T11	100'-80'	0	Wind Normal	3.43	0.00	-3.43	-310.08	-0.08	0.30
		30	Wind 90	3.15	1.57	-2.72	-246.37	-141.61	-0.75
		60	Wind 60	3.05	2.64	-1.52	-138.47	-237.79	-1.52
		90	Wind 90	3.15	3.15	0.00	-1.22	-283.15	-1.98
		120	Wind Normal	3.43	2.97	1.72	153.20	-267.55	-2.02
		150	Wind 90	3.15	1.57	2.72	243.93	-141.61	-1.23
		180	Wind 60	3.05	0.00	3.05	273.26	-0.08	-0.27
		210	Wind 90	3.15	-1.57	2.72	243.93	141.46	0.75
		240	Wind Normal	3.43	-2.97	1.72	153.20	267.40	1.72
		270	Wind 90	3.15	-3.15	0.00	-1.22	283.00	1.98
		300	Wind 60	3.05	-2.64	-1.52	-138.47	237.64	1.79
		330	Wind 90	3.15	-1.57	-2.72	-246.37	141.46	1.23
T12	80'-60'	0	Wind Normal	3.35	0.00	-3.35	-235.58	-0.08	0.31
		30	Wind 90	3.06	1.53	-2.65	-186.93	-107.25	-0.75
		60	Wind 60	2.97	2.57	-1.48	-105.16	-179.95	-1.54
		90	Wind 90	3.06	3.06	0.00	-1.31	-214.42	-2.00
		120	Wind Normal	3.35	2.90	1.67	115.82	-202.96	-2.04
		150	Wind 90	3.06	1.53	2.65	184.31	-107.25	-1.24
		180	Wind 60	2.97	0.00	2.97	206.38	-0.08	-0.27
		210	Wind 90	3.06	-1.53	2.65	184.31	107.09	0.75
		240	Wind Normal	3.35	-2.90	1.67	115.82	202.80	1.74
		270	Wind 90	3.06	-3.06	0.00	-1.31	214.25	2.00
		300	Wind 60	2.97	-2.57	-1.48	-105.16	179.78	1.81
		330	Wind 90	3.06	-1.53	-2.65	-186.93	107.09	1.24
T13	60'-40'	0	Wind Normal	3.24	0.00	-3.24	-163.17	-0.09	0.30
		30	Wind 90	2.95	1.47	-2.55	-129.06	-73.79	-0.74
		60	Wind 60	2.85	2.47	-1.43	-72.71	-123.60	-1.50
		90	Wind 90	2.95	2.95	0.00	-1.40	-147.50	-1.95
		120	Wind Normal	3.24	2.80	1.62	79.48	-140.19	-2.00
		150	Wind 90	2.95	1.47	2.55	126.26	-73.79	-1.21
		180	Wind 60	2.85	0.00	2.85	141.22	-0.09	-0.27
		210	Wind 90	2.95	-1.47	2.55	126.26	73.62	0.74
		240	Wind Normal	3.24	-2.80	1.62	79.48	140.01	1.70
		270	Wind 90	2.95	-2.95	0.00	-1.40	147.32	1.95
		300	Wind 60	2.85	-2.47	-1.43	-72.71	123.43	1.76
		330	Wind 90	2.95	-1.47	-2.55	-129.06	73.62	1.21
T14	40'-20'	0	Wind Normal	3.04	0.00	-3.04	-92.62	-0.09	0.29
		30	Wind 90	2.76	1.38	-2.39	-73.23	-41.51	-0.70
		60	Wind 60	2.67	2.31	-1.33	-41.52	-69.43	-1.42
		90	Wind 90	2.76	2.76	0.00	-1.49	-82.92	-1.85
		120	Wind Normal	3.04	2.63	1.52	44.07	-79.01	-1.91

Section No.	Section Elevation ft	Wind Azimuth deg	Directionality	F K	V_x K	V_z K	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
		150	Wind 90	2.76	1.38	2.39	70.24	-41.51	-1.15
		180	Wind 60	2.67	0.00	2.67	78.57	-0.09	-0.25
		210	Wind 90	2.76	-1.38	2.39	70.24	41.32	0.70
		240	Wind Normal	3.04	-2.63	1.52	44.07	78.82	1.62
		270	Wind 90	2.76	-2.76	0.00	-1.49	82.74	1.85
		300	Wind 60	2.67	-2.31	-1.33	-41.52	69.25	1.67
		330	Wind 90	2.76	-1.38	-2.39	-73.23	41.32	1.15
T15	20'-0'	0	Wind Normal	3.15	0.00	-3.15	-33.08	-0.10	0.31
		30	Wind 90	2.86	1.43	-2.48	-26.33	-14.39	-0.75
		60	Wind 60	2.76	2.39	-1.38	-15.38	-24.00	-1.52
		90	Wind 90	2.86	2.86	0.00	-1.58	-28.68	-1.98
		120	Wind Normal	3.15	2.73	1.58	14.17	-27.38	-2.05
		150	Wind 90	2.86	1.43	2.48	23.17	-14.39	-1.23
		180	Wind 60	2.76	0.00	2.76	26.02	-0.10	-0.27
		210	Wind 90	2.86	-1.43	2.48	23.17	14.19	0.75
		240	Wind Normal	3.15	-2.73	1.58	14.17	27.18	1.74
		270	Wind 90	2.86	-2.86	0.00	-1.58	28.48	1.98
		300	Wind 60	2.76	-2.39	-1.38	-15.38	23.81	1.79
		330	Wind 90	2.86	-1.43	-2.48	-26.33	14.19	1.23

Mast Totals - No Ice

Wind Azimuth deg	V_x K	V_z K	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	0.00	-45.90	-6557.28	0.72	-1.36
30	21.28	-36.85	-5316.16	-3060.24	-13.43
60	35.89	-20.72	-3005.22	-5179.50	-21.31
90	42.56	0.00	-14.42	-6121.19	-24.45
120	39.75	22.95	3257.00	-5665.56	-22.20
150	21.28	36.85	5287.31	-3060.24	-11.02
180	0.00	41.44	5967.17	0.72	1.40
210	-21.28	36.85	5287.31	3061.67	13.43
240	-39.75	22.95	3257.00	5667.00	23.56
270	-42.56	0.00	-14.42	6122.63	24.45
300	-35.89	-20.72	-3005.22	5180.93	19.91
330	-21.28	-36.85	-5316.16	3061.67	11.02

Mast Vectors - With Ice

Section No.	Section Elevation ft	Wind Azimuth deg	Directionality	F K	V_x K	V_z K	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
T1	300'-280'	0	Wind Normal	2.21	0.00	-2.21	-641.81	1.17	-1.53
		30	Wind 90	2.15	1.07	-1.86	-539.96	-310.18	-1.71
		60	Wind 60	2.13	1.84	-1.06	-308.96	-532.79	-1.47
		90	Wind 90	2.15	2.15	0.00	-0.68	-621.54	-0.86
		120	Wind Normal	2.21	1.91	1.11	319.89	-554.07	0.00
		150	Wind 90	2.15	1.07	1.86	538.61	-310.18	0.86
		180	Wind 60	2.13	0.00	2.13	615.89	1.17	1.47
		210	Wind 90	2.15	-1.07	1.86	538.61	312.52	1.71
		240	Wind Normal	2.21	-1.91	1.11	319.89	556.41	1.53
		270	Wind 90	2.15	-2.15	0.00	-0.68	623.88	0.86
		300	Wind 60	2.13	-1.84	-1.06	-308.96	535.13	0.00

Section No.	Section Elevation ft	Wind Azimuth deg	Directionality	F K	V_x K	V_z K	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
		330	Wind 90	2.15	-1.07	-1.86	-539.96	312.52	-0.86
T2	280'-260'	0	Wind Normal	2.34	0.00	-2.34	-632.96	1.42	-1.80
		30	Wind 90	2.26	1.13	-1.96	-528.72	-303.36	-2.01
		60	Wind 60	2.23	1.93	-1.11	-301.84	-519.95	-1.72
		90	Wind 90	2.26	2.26	0.00	-0.82	-608.14	-1.00
		120	Wind Normal	2.34	2.03	1.17	315.25	-546.03	0.00
		150	Wind 90	2.26	1.13	1.96	527.07	-303.36	1.00
		180	Wind 60	2.23	0.00	2.23	601.21	1.42	1.72
		210	Wind 90	2.26	-1.13	1.96	527.07	306.20	2.01
		240	Wind Normal	2.34	-2.03	1.17	315.25	548.87	1.80
		270	Wind 90	2.26	-2.26	0.00	-0.82	610.99	1.00
		300	Wind 60	2.23	-1.93	-1.11	-301.84	522.80	0.00
		330	Wind 90	2.26	-1.13	-1.96	-528.72	306.20	-1.00
T3	260'-240'	0	Wind Normal	2.49	0.00	-2.49	-624.60	1.36	-1.62
		30	Wind 90	2.39	1.19	-2.07	-518.16	-297.10	-2.03
		60	Wind 60	2.35	2.04	-1.18	-295.26	-507.95	-1.94
		90	Wind 90	2.39	2.39	0.00	-1.21	-595.56	-1.38
		120	Wind Normal	2.49	2.16	1.25	310.48	-538.51	-0.44
		150	Wind 90	2.39	1.19	2.07	515.74	-297.10	0.65
		180	Wind 60	2.35	0.00	2.35	586.89	1.36	1.53
		210	Wind 90	2.39	-1.19	2.07	515.74	299.82	2.03
		240	Wind Normal	2.49	-2.16	1.25	310.48	541.23	2.06
		270	Wind 90	2.39	-2.39	0.00	-1.21	598.28	1.38
		300	Wind 60	2.35	-2.04	-1.18	-295.26	510.67	0.42
		330	Wind 90	2.39	-1.19	-2.07	-518.16	299.82	-0.65
T4	240'-220'	0	Wind Normal	2.57	0.00	-2.57	-593.67	-0.31	0.34
		30	Wind 90	2.45	1.23	-2.13	-490.89	-282.57	-0.61
		60	Wind 60	2.42	2.09	-1.21	-279.73	-481.37	-1.35
		90	Wind 90	2.45	2.45	0.00	-1.99	-564.84	-1.77
		120	Wind Normal	2.57	2.23	1.29	293.85	-512.71	-1.77
		150	Wind 90	2.45	1.23	2.13	486.91	-282.57	-1.16
		180	Wind 60	2.42	0.00	2.42	553.49	-0.31	-0.32
		210	Wind 90	2.45	-1.23	2.13	486.91	281.96	0.61
		240	Wind Normal	2.57	-2.23	1.29	293.85	512.10	1.44
		270	Wind 90	2.45	-2.45	0.00	-1.99	564.22	1.77
		300	Wind 60	2.42	-2.09	-1.21	-279.73	480.76	1.66
		330	Wind 90	2.45	-1.23	-2.13	-490.89	281.96	1.16
T5	220'-200'	0	Wind Normal	2.74	0.00	-2.74	-576.49	-0.23	0.28
		30	Wind 90	2.60	1.30	-2.25	-473.61	-272.73	-0.43
		60	Wind 60	2.55	2.21	-1.27	-269.15	-463.60	-0.99
		90	Wind 90	2.60	2.60	0.00	-1.62	-545.23	-1.32
		120	Wind Normal	2.74	2.37	1.37	285.81	-498.07	-1.34
		150	Wind 90	2.60	1.30	2.25	470.36	-272.73	-0.89
		180	Wind 60	2.55	0.00	2.55	533.43	-0.23	-0.26
		210	Wind 90	2.60	-1.30	2.25	470.36	272.28	0.43
		240	Wind Normal	2.74	-2.37	1.37	285.81	497.62	1.06
		270	Wind 90	2.60	-2.60	0.00	-1.62	544.78	1.32
		300	Wind 60	2.55	-2.21	-1.27	-269.15	463.14	1.25
		330	Wind 90	2.60	-1.30	-2.25	-473.61	272.28	0.89
T6	200'-180'	0	Wind Normal	2.88	0.00	-2.88	-548.20	-0.22	0.28
		30	Wind 90	2.71	1.35	-2.35	-447.63	-257.62	-0.49
		60	Wind 60	2.65	2.30	-1.33	-253.93	-436.94	-1.09
		90	Wind 90	2.71	2.71	0.00	-1.79	-515.03	-1.43
		120	Wind Normal	2.88	2.49	1.44	271.42	-473.42	-1.46
		150	Wind 90	2.71	1.35	2.35	444.06	-257.62	-0.95
		180	Wind 60	2.65	0.00	2.65	502.49	-0.22	-0.26
		210	Wind 90	2.71	-1.35	2.35	444.06	257.19	0.49
		240	Wind Normal	2.88	-2.49	1.44	271.42	472.99	1.18
		270	Wind 90	2.71	-2.71	0.00	-1.79	514.60	1.43
		300	Wind 60	2.65	-2.30	-1.33	-253.93	436.51	1.35
		330	Wind 90	2.71	-1.35	-2.35	-447.63	257.19	0.95

Section No.	Section Elevation ft	Wind Azimuth deg	Directionality	F K	V_x K	V_z K	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
T7	180'-160'	0	Wind Normal	2.98	0.00	-2.98	-508.31	-0.24	0.31
		30	Wind 90	2.80	1.40	-2.42	-413.50	-237.82	-0.54
		60	Wind 60	2.73	2.37	-1.37	-234.38	-402.75	-1.20
		90	Wind 90	2.80	2.80	0.00	-2.00	-475.40	-1.59
		120	Wind Normal	2.98	2.58	1.49	251.16	-438.73	-1.62
		150	Wind 90	2.80	1.40	2.42	409.51	-237.82	-1.05
		180	Wind 60	2.73	0.00	2.73	462.78	-0.24	-0.29
		210	Wind 90	2.80	-1.40	2.42	409.51	237.34	0.54
		240	Wind Normal	2.98	-2.58	1.49	251.16	438.24	1.31
		270	Wind 90	2.80	-2.80	0.00	-2.00	474.92	1.59
		300	Wind 60	2.73	-2.37	-1.37	-234.38	402.27	1.49
		330	Wind 90	2.80	-1.40	-2.42	-413.50	237.34	1.05
T8	160'-140'	0	Wind Normal	3.20	0.00	-3.20	-482.84	-0.27	0.33
		30	Wind 90	2.98	1.49	-2.58	-389.54	-223.90	-0.57
		60	Wind 60	2.91	2.52	-1.45	-220.27	-377.97	-1.27
		90	Wind 90	2.98	2.98	0.00	-2.20	-447.53	-1.69
		120	Wind Normal	3.20	2.77	1.60	238.12	-416.51	-1.74
		150	Wind 90	2.98	1.49	2.58	385.14	-223.90	-1.11
		180	Wind 60	2.91	0.00	2.91	433.93	-0.27	-0.30
		210	Wind 90	2.98	-1.49	2.58	385.14	223.36	0.57
		240	Wind Normal	3.20	-2.77	1.60	238.12	415.98	1.40
		270	Wind 90	2.98	-2.98	0.00	-2.20	446.99	1.69
		300	Wind 60	2.91	-2.52	-1.45	-220.27	377.44	1.58
		330	Wind 90	2.98	-1.49	-2.58	-389.54	223.36	1.11
T9	140'-120'	0	Wind Normal	3.01	0.00	-3.01	-393.73	-0.29	0.35
		30	Wind 90	2.83	1.42	-2.45	-321.26	-184.38	-0.60
		60	Wind 60	2.77	2.40	-1.39	-182.64	-312.46	-1.33
		90	Wind 90	2.83	2.83	0.00	-2.41	-368.47	-1.76
		120	Wind Normal	3.01	2.61	1.51	193.25	-339.18	-1.79
		150	Wind 90	2.83	1.42	2.45	316.44	-184.38	-1.16
		180	Wind 60	2.77	0.00	2.77	358.05	-0.29	-0.32
		210	Wind 90	2.83	-1.42	2.45	316.44	183.79	0.60
		240	Wind Normal	3.01	-2.61	1.51	193.25	338.60	1.45
		270	Wind 90	2.83	-2.83	0.00	-2.41	367.88	1.76
		300	Wind 60	2.77	-2.40	-1.39	-182.64	311.87	1.65
		330	Wind 90	2.83	-1.42	-2.45	-321.26	183.79	1.16
T10	120'-100'	0	Wind Normal	3.13	0.00	-3.13	-346.66	-0.32	0.37
		30	Wind 90	2.90	1.45	-2.52	-279.33	-160.08	-0.64
		60	Wind 60	2.83	2.45	-1.42	-158.29	-269.95	-1.41
		90	Wind 90	2.90	2.90	0.00	-2.62	-319.83	-1.88
		120	Wind Normal	3.13	2.71	1.56	169.41	-298.27	-1.94
		150	Wind 90	2.90	1.45	2.52	274.09	-160.08	-1.24
		180	Wind 60	2.83	0.00	2.83	308.72	-0.32	-0.34
		210	Wind 90	2.90	-1.45	2.52	274.09	159.44	0.64
		240	Wind Normal	3.13	-2.71	1.56	169.41	297.64	1.56
		270	Wind 90	2.90	-2.90	0.00	-2.62	319.20	1.88
		300	Wind 60	2.83	-2.45	-1.42	-158.29	269.31	1.75
		330	Wind 90	2.90	-1.45	-2.52	-279.33	159.44	1.24
T11	100'-80'	0	Wind Normal	3.12	0.00	-3.12	-283.27	-0.34	0.39
		30	Wind 90	2.88	1.44	-2.50	-227.54	-130.08	-0.66
		60	Wind 60	2.81	2.43	-1.40	-129.07	-219.00	-1.46
		90	Wind 90	2.88	2.88	0.00	-2.82	-259.82	-1.94
		120	Wind Normal	3.12	2.70	1.56	137.40	-243.21	-2.01
		150	Wind 90	2.88	1.44	2.50	221.89	-130.08	-1.28
		180	Wind 60	2.81	0.00	2.81	249.67	-0.34	-0.35
		210	Wind 90	2.88	-1.44	2.50	221.89	129.40	0.66
		240	Wind Normal	3.12	-2.70	1.56	137.40	242.53	1.62
		270	Wind 90	2.88	-2.88	0.00	-2.82	259.13	1.94
		300	Wind 60	2.81	-2.43	-1.40	-129.07	218.32	1.81
		330	Wind 90	2.88	-1.44	-2.50	-227.54	129.40	1.28
T12	80'-60'	0	Wind Normal	3.04	0.00	-3.04	-215.70	-0.37	0.39

Section No.	Section Elevation ft	Wind Azimuth deg	Directionality	F K	V_x K	V_z K	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
		30	Wind 90	2.80	1.40	-2.43	-173.06	-98.53	-0.67
		60	Wind 60	2.73	2.36	-1.36	-98.47	-165.68	-1.48
		90	Wind 90	2.80	2.80	0.00	-3.03	-196.70	-1.97
		120	Wind Normal	3.04	2.63	1.52	103.30	-184.54	-2.04
		150	Wind 90	2.80	1.40	2.43	167.00	-98.53	-1.30
		180	Wind 60	2.73	0.00	2.73	187.86	-0.37	-0.35
		210	Wind 90	2.80	-1.40	2.43	167.00	97.80	0.67
		240	Wind Normal	3.04	-2.63	1.52	103.30	183.81	1.65
		270	Wind 90	2.80	-2.80	0.00	-3.03	195.96	1.97
		300	Wind 60	2.73	-2.36	-1.36	-98.47	164.94	1.83
		330	Wind 90	2.80	-1.40	-2.43	-173.06	97.80	1.30
T13	60'-40'	0	Wind Normal	2.92	0.00	-2.92	-149.47	-0.39	0.39
		30	Wind 90	2.69	1.34	-2.33	-119.67	-67.62	-0.65
		60	Wind 60	2.61	2.26	-1.31	-68.50	-113.43	-1.44
		90	Wind 90	2.69	2.69	0.00	-3.24	-134.84	-1.92
		120	Wind Normal	2.92	2.53	1.46	69.88	-127.04	-2.01
		150	Wind 90	2.69	1.34	2.33	113.20	-67.62	-1.27
		180	Wind 60	2.61	0.00	2.61	127.29	-0.39	-0.35
		210	Wind 90	2.69	-1.34	2.33	113.20	66.83	0.65
		240	Wind Normal	2.92	-2.53	1.46	69.88	126.25	1.62
		270	Wind 90	2.69	-2.69	0.00	-3.24	134.06	1.92
		300	Wind 60	2.61	-2.26	-1.31	-68.50	112.64	1.79
		330	Wind 90	2.69	-1.34	-2.33	-119.67	66.83	1.27
T14	40'-20'	0	Wind Normal	2.74	0.00	-2.74	-85.50	-0.42	0.37
		30	Wind 90	2.51	1.25	-2.17	-68.61	-38.04	-0.62
		60	Wind 60	2.43	2.11	-1.22	-39.93	-63.61	-1.37
		90	Wind 90	2.51	2.51	0.00	-3.44	-75.66	-1.83
		120	Wind Normal	2.74	2.37	1.37	37.59	-71.49	-1.92
		150	Wind 90	2.51	1.25	2.17	61.72	-38.04	-1.21
		180	Wind 60	2.43	0.00	2.43	69.53	-0.42	-0.33
		210	Wind 90	2.51	-1.25	2.17	61.72	37.20	0.62
		240	Wind Normal	2.74	-2.37	1.37	37.59	70.65	1.55
		270	Wind 90	2.51	-2.51	0.00	-3.44	74.82	1.83
		300	Wind 60	2.43	-2.11	-1.22	-39.93	62.78	1.70
		330	Wind 90	2.51	-1.25	-2.17	-68.61	37.20	1.21
T15	20'-0'	0	Wind Normal	2.84	0.00	-2.84	-32.04	-0.44	0.40
		30	Wind 90	2.60	1.30	-2.25	-26.14	-13.43	-0.67
		60	Wind 60	2.52	2.18	-1.26	-16.23	-22.24	-1.47
		90	Wind 90	2.60	2.60	0.00	-3.65	-26.42	-1.97
		120	Wind Normal	2.84	2.46	1.42	10.55	-25.03	-2.06
		150	Wind 90	2.60	1.30	2.25	18.85	-13.43	-1.30
		180	Wind 60	2.52	0.00	2.52	21.52	-0.44	-0.35
		210	Wind 90	2.60	-1.30	2.25	18.85	12.54	0.67
		240	Wind Normal	2.84	-2.46	1.42	10.55	24.14	1.66
		270	Wind 90	2.60	-2.60	0.00	-3.65	25.53	1.97
		300	Wind 60	2.52	-2.18	-1.26	-16.23	21.35	1.83
		330	Wind 90	2.60	-1.30	-2.25	-26.14	12.54	1.30

Mast Totals - With Ice

Wind Azimuth deg	V_x K	V_z K	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	0.00	-42.21	-6115.26	0.12	-0.75
30	19.77	-34.25	-5017.61	-2877.45	-12.90
60	33.48	-19.33	-2856.65	-4889.70	-21.01
90	39.55	0.00	-33.52	-5755.02	-24.30

Wind Azimuth deg	V_x K	V_z K	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
120	36.55	21.10	3007.35	-5266.82	-22.14
150	19.77	34.25	4950.58	-2877.45	-11.41
180	0.00	38.66	5612.75	0.12	0.90
210	-19.77	34.25	4950.58	2877.69	12.90
240	-36.55	21.10	3007.35	5267.06	22.89
270	-39.55	0.00	-33.52	5755.26	24.30
300	-33.48	-19.33	-2856.65	4889.93	20.11
330	-19.77	-34.25	-5017.61	2877.69	11.41

Mast Vectors - Service

Section No.	Section Elevation ft	Wind Azimuth deg	Directionality	F K	V_x K	V_z K	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
T1	300'-280'	0	Wind Normal	1.14	0.00	-1.14	-330.49	0.48	-0.73
		30	Wind 90	1.09	0.55	-0.95	-274.37	-157.77	-0.81
		60	Wind 60	1.08	0.93	-0.54	-156.24	-269.66	-0.69
		90	Wind 90	1.09	1.09	0.00	-0.27	-316.02	-0.40
		120	Wind Normal	1.14	0.99	0.57	164.83	-285.50	0.00
		150	Wind 90	1.09	0.55	0.95	273.82	-157.77	0.40
		180	Wind 60	1.08	0.00	1.08	311.65	0.48	0.69
		210	Wind 90	1.09	-0.55	0.95	273.82	158.73	0.81
		240	Wind Normal	1.14	-0.99	0.57	164.83	286.45	0.73
		270	Wind 90	1.09	-1.09	0.00	-0.27	316.98	0.40
		300	Wind 60	1.08	-0.93	-0.54	-156.24	270.62	0.00
		330	Wind 90	1.09	-0.55	-0.95	-274.37	158.73	-0.40
T2	280'-260'	0	Wind Normal	1.26	0.00	-1.26	-340.69	0.58	-0.87
		30	Wind 90	1.20	0.60	-1.04	-280.80	-161.35	-0.96
		60	Wind 60	1.18	1.02	-0.59	-159.51	-275.12	-0.81
		90	Wind 90	1.20	1.20	0.00	-0.33	-323.27	-0.48
		120	Wind Normal	1.26	1.09	0.63	169.85	-294.18	0.00
		150	Wind 90	1.20	0.60	1.04	280.13	-161.35	0.48
		180	Wind 60	1.18	0.00	1.18	318.02	0.58	0.81
		210	Wind 90	1.20	-0.60	1.04	280.13	162.51	0.96
		240	Wind Normal	1.26	-1.09	0.63	169.85	295.34	0.87
		270	Wind 90	1.20	-1.20	0.00	-0.33	324.43	0.48
		300	Wind 60	1.18	-1.02	-0.59	-159.51	276.28	0.00
		330	Wind 90	1.20	-0.60	-1.04	-280.80	162.51	-0.48
T3	260'-240'	0	Wind Normal	1.37	0.00	-1.37	-342.85	0.55	-0.79
		30	Wind 90	1.29	0.65	-1.12	-280.84	-161.31	-0.99
		60	Wind 60	1.27	1.10	-0.64	-159.25	-274.41	-0.94
		90	Wind 90	1.29	1.29	0.00	-0.49	-323.16	-0.67
		120	Wind Normal	1.37	1.19	0.68	170.68	-295.94	-0.22
		150	Wind 90	1.29	0.65	1.12	279.85	-161.31	0.32
		180	Wind 60	1.27	0.00	1.27	317.01	0.55	0.74
		210	Wind 90	1.29	-0.65	1.12	279.85	162.41	0.99
		240	Wind Normal	1.37	-1.19	0.68	170.68	297.04	1.01
		270	Wind 90	1.29	-1.29	0.00	-0.49	324.27	0.67
		300	Wind 60	1.27	-1.10	-0.64	-159.25	275.52	0.20
		330	Wind 90	1.29	-0.65	-1.12	-280.84	162.41	-0.32
T4	240'-220'	0	Wind Normal	1.40	0.00	-1.40	-323.49	-0.11	0.16
		30	Wind 90	1.32	0.66	-1.15	-264.62	-152.41	-0.32
		60	Wind 60	1.30	1.12	-0.65	-150.12	-258.68	-0.69
		90	Wind 90	1.32	1.32	0.00	-0.83	-304.71	-0.90
		120	Wind Normal	1.40	1.21	0.70	160.50	-279.54	-0.91
		150	Wind 90	1.32	0.66	1.15	262.96	-152.41	-0.58
		180	Wind 60	1.30	0.00	1.30	297.75	-0.11	-0.14
		210	Wind 90	1.32	-0.66	1.15	262.96	152.19	0.32

Section No.	Section Elevation ft	Wind Azimuth deg	Directionality	F K	V_x K	V_z K	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
		240	Wind Normal	1.40	-1.21	0.70	160.50	279.33	0.75
		270	Wind 90	1.32	-1.32	0.00	-0.83	304.49	0.90
		300	Wind 60	1.30	-1.12	-0.65	-150.12	258.47	0.84
		330	Wind 90	1.32	-0.66	-1.15	-264.62	152.19	0.58
T5	220'-200'	0	Wind Normal	1.51	0.00	-1.51	-316.75	-0.06	0.12
		30	Wind 90	1.41	0.71	-1.22	-257.52	-148.33	-0.25
		60	Wind 60	1.38	1.20	-0.69	-145.73	-251.24	-0.53
		90	Wind 90	1.41	1.41	0.00	-0.70	-296.60	-0.69
		120	Wind Normal	1.51	1.30	0.75	157.32	-273.77	-0.69
		150	Wind 90	1.41	0.71	1.22	256.11	-148.33	-0.44
		180	Wind 60	1.38	0.00	1.38	289.34	-0.06	-0.11
		210	Wind 90	1.41	-0.71	1.22	256.11	148.22	0.25
		240	Wind Normal	1.51	-1.30	0.75	157.32	273.65	0.58
		270	Wind 90	1.41	-1.41	0.00	-0.70	296.49	0.69
		300	Wind 60	1.38	-1.20	-0.69	-145.73	251.13	0.64
		330	Wind 90	1.41	-0.71	-1.22	-257.52	148.22	0.44
T6	200'-180'	0	Wind Normal	1.59	0.00	-1.59	-303.19	-0.05	0.11
		30	Wind 90	1.48	0.74	-1.29	-244.95	-141.02	-0.28
		60	Wind 60	1.45	1.25	-0.72	-138.34	-238.31	-0.58
		90	Wind 90	1.48	1.48	0.00	-0.78	-282.00	-0.75
		120	Wind Normal	1.59	1.38	0.80	150.43	-261.95	-0.75
		150	Wind 90	1.48	0.74	1.29	243.40	-141.02	-0.47
		180	Wind 60	1.45	0.00	1.45	274.35	-0.05	-0.10
		210	Wind 90	1.48	-0.74	1.29	243.40	140.93	0.28
		240	Wind Normal	1.59	-1.38	0.80	150.43	261.85	0.64
		270	Wind 90	1.48	-1.48	0.00	-0.78	281.90	0.75
		300	Wind 60	1.45	-1.25	-0.72	-138.34	238.22	0.69
		330	Wind 90	1.48	-0.74	-1.29	-244.95	140.93	0.47
T7	180'-160'	0	Wind Normal	1.65	0.00	-1.65	-281.58	-0.05	0.13
		30	Wind 90	1.53	0.77	-1.33	-226.75	-130.47	-0.31
		60	Wind 60	1.50	1.29	-0.75	-127.97	-220.20	-0.64
		90	Wind 90	1.53	1.53	0.00	-0.86	-260.89	-0.83
		120	Wind Normal	1.65	1.43	0.83	139.49	-243.16	-0.83
		150	Wind 90	1.53	0.77	1.33	225.02	-130.47	-0.51
		180	Wind 60	1.50	0.00	1.50	253.34	-0.05	-0.11
		210	Wind 90	1.53	-0.77	1.33	225.02	130.36	0.31
		240	Wind Normal	1.65	-1.43	0.83	139.49	243.06	0.71
		270	Wind 90	1.53	-1.53	0.00	-0.86	260.78	0.83
		300	Wind 60	1.50	-1.29	-0.75	-127.97	220.09	0.76
		330	Wind 90	1.53	-0.77	-1.33	-226.75	130.36	0.51
T8	160'-140'	0	Wind Normal	1.81	0.00	-1.81	-273.18	-0.06	0.13
		30	Wind 90	1.67	0.84	-1.45	-217.99	-125.36	-0.33
		60	Wind 60	1.62	1.41	-0.81	-122.66	-210.85	-0.68
		90	Wind 90	1.67	1.67	0.00	-0.95	-250.67	-0.88
		120	Wind Normal	1.81	1.57	0.91	135.16	-235.81	-0.89
		150	Wind 90	1.67	0.84	1.45	216.08	-125.36	-0.55
		180	Wind 60	1.62	0.00	1.62	242.45	-0.06	-0.12
		210	Wind 90	1.67	-0.84	1.45	216.08	125.25	0.33
		240	Wind Normal	1.81	-1.57	0.91	135.16	235.69	0.76
		270	Wind 90	1.67	-1.67	0.00	-0.95	250.55	0.88
		300	Wind 60	1.62	-1.41	-0.81	-122.66	210.74	0.80
		330	Wind 90	1.67	-0.84	-1.45	-217.99	125.25	0.55
T9	140'-120'	0	Wind Normal	1.66	0.00	-1.66	-217.16	-0.06	0.14
		30	Wind 90	1.55	0.78	-1.34	-175.60	-100.85	-0.35
		60	Wind 60	1.51	1.31	-0.76	-99.40	-170.42	-0.72
		90	Wind 90	1.55	1.55	0.00	-1.04	-201.63	-0.92
		120	Wind Normal	1.66	1.44	0.83	107.01	-187.23	-0.92
		150	Wind 90	1.55	0.78	1.34	173.52	-100.85	-0.57
		180	Wind 60	1.51	0.00	1.51	195.67	-0.06	-0.13
		210	Wind 90	1.55	-0.78	1.34	173.52	100.72	0.35
		240	Wind Normal	1.66	-1.44	0.83	107.01	187.10	0.79

Section No.	Section Elevation ft	Wind Azimuth deg	Directionality	F K	V_x K	V_z K	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
		270	Wind 90	1.55	-1.55	0.00	-1.04	201.50	0.92
		300	Wind 60	1.51	-1.31	-0.76	-99.40	170.29	0.84
		330	Wind 90	1.55	-0.78	-1.34	-175.60	100.72	0.57
T10	120'-100'	0	Wind Normal	1.75	0.00	-1.75	-194.01	-0.07	0.15
		30	Wind 90	1.61	0.81	-1.40	-154.79	-88.78	-0.37
		60	Wind 60	1.57	1.36	-0.78	-87.27	-149.26	-0.75
		90	Wind 90	1.61	1.61	0.00	-1.13	-177.49	-0.98
		120	Wind Normal	1.75	1.52	0.88	95.30	-167.10	-0.99
		150	Wind 90	1.61	0.81	1.40	152.52	-88.78	-0.61
		180	Wind 60	1.57	0.00	1.57	171.14	-0.07	-0.13
		210	Wind 90	1.61	-0.81	1.40	152.52	88.64	0.37
		240	Wind Normal	1.75	-1.52	0.88	95.30	166.96	0.84
		270	Wind 90	1.61	-1.61	0.00	-1.13	177.35	0.98
		300	Wind 60	1.57	-1.36	-0.78	-87.27	149.12	0.89
		330	Wind 90	1.61	-0.81	-1.40	-154.79	88.64	0.61
T11	100'-80'	0	Wind Normal	1.75	0.00	-1.75	-158.80	-0.08	0.16
		30	Wind 90	1.60	0.80	-1.39	-126.30	-72.29	-0.38
		60	Wind 60	1.56	1.35	-0.78	-71.24	-121.36	-0.78
		90	Wind 90	1.60	1.60	0.00	-1.22	-144.50	-1.01
		120	Wind Normal	1.75	1.52	0.88	77.57	-136.54	-1.03
		150	Wind 90	1.60	0.80	1.39	123.85	-72.29	-0.63
		180	Wind 60	1.56	0.00	1.56	138.82	-0.08	-0.14
		210	Wind 90	1.60	-0.80	1.39	123.85	72.14	0.38
		240	Wind Normal	1.75	-1.52	0.88	77.57	136.39	0.88
		270	Wind 90	1.60	-1.60	0.00	-1.22	144.35	1.01
		300	Wind 60	1.56	-1.35	-0.78	-71.24	121.21	0.92
		330	Wind 90	1.60	-0.80	-1.39	-126.30	72.14	0.63
T12	80'-60'	0	Wind Normal	1.71	0.00	-1.71	-120.84	-0.08	0.16
		30	Wind 90	1.56	0.78	-1.35	-96.02	-54.76	-0.38
		60	Wind 60	1.51	1.31	-0.76	-54.30	-91.85	-0.78
		90	Wind 90	1.56	1.56	0.00	-1.31	-109.44	-1.02
		120	Wind Normal	1.71	1.48	0.85	58.45	-103.59	-1.04
		150	Wind 90	1.56	0.78	1.35	93.39	-54.76	-0.63
		180	Wind 60	1.51	0.00	1.51	104.65	-0.08	-0.14
		210	Wind 90	1.56	-0.78	1.35	93.39	54.60	0.38
		240	Wind Normal	1.71	-1.48	0.85	58.45	103.43	0.89
		270	Wind 90	1.56	-1.56	0.00	-1.31	109.27	1.02
		300	Wind 60	1.51	-1.31	-0.76	-54.30	91.69	0.92
		330	Wind 90	1.56	-0.78	-1.35	-96.02	54.60	0.63
T13	60'-40'	0	Wind Normal	1.65	0.00	-1.65	-83.94	-0.09	0.15
		30	Wind 90	1.50	0.75	-1.30	-66.54	-37.69	-0.38
		60	Wind 60	1.46	1.26	-0.73	-37.79	-63.10	-0.76
		90	Wind 90	1.50	1.50	0.00	-1.40	-75.30	-0.99
		120	Wind Normal	1.65	1.43	0.83	39.87	-71.57	-1.02
		150	Wind 90	1.50	0.75	1.30	63.73	-37.69	-0.62
		180	Wind 60	1.46	0.00	1.46	71.36	-0.09	-0.14
		210	Wind 90	1.50	-0.75	1.30	63.73	37.52	0.38
		240	Wind Normal	1.65	-1.43	0.83	39.87	71.39	0.87
		270	Wind 90	1.50	-1.50	0.00	-1.40	75.12	0.99
		300	Wind 60	1.46	-1.26	-0.73	-37.79	62.93	0.90
		330	Wind 90	1.50	-0.75	-1.30	-66.54	37.52	0.62
T14	40'-20'	0	Wind Normal	1.55	0.00	-1.55	-47.98	-0.09	0.15
		30	Wind 90	1.41	0.70	-1.22	-38.09	-21.22	-0.36
		60	Wind 60	1.36	1.18	-0.68	-21.92	-35.47	-0.73
		90	Wind 90	1.41	1.41	0.00	-1.49	-42.35	-0.94
		120	Wind Normal	1.55	1.34	0.77	21.75	-40.36	-0.97
		150	Wind 90	1.41	0.70	1.22	35.11	-21.22	-0.59
		180	Wind 60	1.36	0.00	1.36	39.36	-0.09	-0.13
		210	Wind 90	1.41	-0.70	1.22	35.11	21.04	0.36
		240	Wind Normal	1.55	-1.34	0.77	21.75	40.17	0.83
		270	Wind 90	1.41	-1.41	0.00	-1.49	42.17	0.94

Section No.	Section Elevation ft	Wind Azimuth deg	Directionality	F K	V_x K	V_z K	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
		300	Wind 60	1.36	-1.18	-0.68	-21.92	35.28	0.85
		330	Wind 90	1.41	-0.70	-1.22	-38.09	21.04	0.59
T15	20'-0'	0	Wind Normal	1.61	0.00	-1.61	-17.65	-0.10	0.16
		30	Wind 90	1.46	0.73	-1.26	-14.21	-7.39	-0.38
		60	Wind 60	1.41	1.22	-0.70	-8.62	-12.29	-0.78
		90	Wind 90	1.46	1.46	0.00	-1.58	-14.68	-1.01
		120	Wind Normal	1.61	1.39	0.80	6.45	-14.02	-1.04
		150	Wind 90	1.46	0.73	1.26	11.05	-7.39	-0.63
		180	Wind 60	1.41	0.00	1.41	12.50	-0.10	-0.14
		210	Wind 90	1.46	-0.73	1.26	11.05	7.19	0.38
		240	Wind Normal	1.61	-1.39	0.80	6.45	13.82	0.89
		270	Wind 90	1.46	-1.46	0.00	-1.58	14.48	1.01
		300	Wind 60	1.41	-1.22	-0.70	-8.62	12.10	0.91
		330	Wind 90	1.46	-0.73	-1.26	-14.21	7.19	0.63

Mast Totals - Service

Wind Azimuth deg	V_x K	V_z K	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	0.00	-23.42	-3352.62	0.72	-0.69
30	10.86	-18.80	-2719.39	-1560.99	-6.85
60	18.31	-10.57	-1540.34	-2642.25	-10.87
90	21.71	0.00	-14.42	-3122.71	-12.48
120	20.28	11.71	1654.67	-2890.24	-11.33
150	10.86	18.80	2690.54	-1560.99	-5.62
180	0.00	21.14	3037.41	0.72	0.71
210	-10.86	18.80	2690.54	1562.43	6.85
240	-20.28	11.71	1654.67	2891.68	12.02
270	-21.71	0.00	-14.42	3124.14	12.48
300	-18.31	-10.57	-1540.34	2643.69	10.16
330	-10.86	-18.80	-2719.39	1562.43	5.62

Discrete Appurtenance Pressures - No Ice

$G_H = 1.088$

Description	Aiming Azimuth deg	Weight K	$Offset_x$ ft	$Offset_z$ ft	z ft	K_z	q_z psf	C_AA_C Front ft^2	C_AA_C Side ft^2
Lightning Rod 2"x15'	0.0000	0.08	0'	0'	307'6"	1.892	24	3.00	3.00
68000/68010 w/Pipe Mount	300.0000	0.12	-6'4-5/16"	-3'8-1/32"	244'	1.771	22	14.99	12.99
68000/68010 w/Pipe Mount	60.0000	0.12	6'4-5/16"	-3'8-1/32"	244'	1.771	22	14.99	12.99
68000/68010 w/Pipe Mount	180.0000	0.12	0'	7'4-3/16"	244'	1.771	22	14.99	12.99
PiROD 15' Universal T-Frame Sector Mount	0.0000	0.50	0'	0'	244'	1.771	22	15.00	15.00
FR70-12-L2	300.0000	0.02	-6'7-29/32"	-3'10-3/16"	232'	1.746	22	5.60	3.27
FR70-12-L2	60.0000	0.02	6'7-29/32"	-3'10-3/16"	232'	1.746	22	5.60	3.27
FR70-12-L2	180.0000	0.02	0'	7'8-13/32"	232'	1.746	22	5.60	3.27

Description	Aiming Azimuth deg	Weight K	$Offset_x$ ft	$Offset_z$ ft	z ft	K_z	q_z psf	C_AA_C Front ft^2	C_AA_C Side ft^2
PiROD 15' Universal T-Frame Sector Mount	0.0000	0.50	0'	0'	127'6"	1.471	18	15.00	15.00
ALP 8010	300.0000	0.04	-5'1-11/16"	-2'11-5/8"	300'	1.879	24	11.94	11.94
ALP 8010	60.0000	0.04	5'1-11/16"	-2'11-5/8"	300'	1.879	24	11.94	11.94
ALP 8010	180.0000	0.04	0'	5'11-5/32"	300'	1.879	24	11.94	11.94
PiROD 15' Universal T-Frame Sector Mount	0.0000	0.50	0'	0'	300'	1.879	24	15.00	15.00
	Sum Weight:	2.11							

Discrete Appurtenance Vectors - No Ice

Lightning Rod 2"x15' - Elevation 307.5 - None A

Wind Azimuth deg	F_a K	F_s K	V_x K	V_z K	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	0.08	0.00	0.00	-0.08	-23.82	0.00	0.00
30	0.08	0.00	0.04	-0.07	-20.63	-11.91	0.00
60	0.08	0.00	0.07	-0.04	-11.91	-20.63	0.00
90	0.08	0.00	0.08	0.00	0.00	-23.82	0.00
120	0.08	0.00	0.07	0.04	11.91	-20.63	0.00
150	0.08	0.00	0.04	0.07	20.63	-11.91	0.00
180	0.08	0.00	0.00	0.08	23.82	0.00	0.00
210	0.08	0.00	-0.04	0.07	20.63	11.91	0.00
240	0.08	0.00	-0.07	0.04	11.91	20.63	0.00
270	0.08	0.00	-0.08	0.00	0.00	23.82	0.00
300	0.08	0.00	-0.07	-0.04	-11.91	20.63	0.00
330	0.08	0.00	-0.04	-0.07	-20.63	11.91	0.00

68000/68010 w/Pipe Mount - Elevation 244 - From Face A

Wind Azimuth deg	F_a K	F_s K	V_x K	V_z K	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	0.18	0.27	-0.02	-0.33	-80.01	5.87	-2.00
30	0.00	0.31	0.16	-0.27	-66.80	-37.55	-2.31
60	0.18	0.27	0.29	-0.14	-35.80	-70.70	-2.00
90	0.31	0.16	0.35	0.02	4.66	-84.70	-1.15
120	0.36	0.00	0.31	0.18	43.76	-75.80	0.00
150	0.31	0.16	0.19	0.29	71.02	-46.39	1.15
180	0.18	0.27	0.02	0.33	79.13	-4.34	2.00
210	0.00	0.31	-0.16	0.27	65.91	39.07	2.31
240	0.18	0.27	-0.29	0.14	34.92	72.22	2.00
270	0.31	0.16	-0.35	-0.02	-5.54	86.22	1.15
300	0.36	0.00	-0.31	-0.18	-44.64	77.33	0.00
330	0.31	0.16	-0.19	-0.29	-71.90	47.91	-1.15

68000/68010 w/Pipe Mount - Elevation 244 - From Face B

Wind Azimuth deg	F_a K	F_s K	V_x K	V_z K	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	0.18	0.27	0.02	-0.33	-80.01	-5.87	2.00
30	0.31	0.16	0.19	-0.29	-71.90	-47.91	1.15

68000/68010 w/Pipe Mount - Elevation 244 - From Face B							
Wind Azimuth deg	F_a K	F_s K	V_x K	V_z K	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
60	0.36	0.00	0.31	-0.18	-44.64	-77.33	0.00
90	0.31	0.16	0.35	-0.02	-5.54	-86.22	-1.15
120	0.18	0.27	0.29	0.14	34.92	-72.22	-2.00
150	0.00	0.31	0.16	0.27	65.91	-39.07	-2.31
180	0.18	0.27	-0.02	0.33	79.13	4.34	-2.00
210	0.31	0.16	-0.19	0.29	71.02	46.39	-1.15
240	0.36	0.00	-0.31	0.18	43.76	75.80	0.00
270	0.31	0.16	-0.35	0.02	4.66	84.70	1.15
300	0.18	0.27	-0.29	-0.14	-35.80	70.70	2.00
330	0.00	0.31	-0.16	-0.27	-66.80	37.55	2.31

68000/68010 w/Pipe Mount - Elevation 244 - From Face C							
Wind Azimuth deg	F_a K	F_s K	V_x K	V_z K	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	0.36	0.00	0.00	-0.36	-87.52	0.00	0.00
30	0.31	0.16	0.16	-0.31	-75.68	-38.31	1.15
60	0.18	0.27	0.27	-0.18	-43.32	-66.36	2.00
90	0.00	0.31	0.31	0.00	0.88	-76.62	2.31
120	0.18	0.27	0.27	0.18	45.09	-66.36	2.00
150	0.31	0.16	0.16	0.31	77.44	-38.31	1.15
180	0.36	0.00	0.00	0.36	89.29	0.00	0.00
210	0.31	0.16	-0.16	0.31	77.44	38.31	-1.15
240	0.18	0.27	-0.27	0.18	45.09	66.36	-2.00
270	0.00	0.31	-0.31	0.00	0.88	76.62	-2.31
300	0.18	0.27	-0.27	-0.18	-43.32	66.36	-2.00
330	0.31	0.16	-0.16	-0.31	-75.68	38.31	-1.15

PiROD 15' Universal T-Frame Sector Mount - Elevation 244 - None C							
Wind Azimuth deg	F_a K	F_s K	V_x K	V_z K	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	0.36	0.00	0.00	-0.36	-88.45	0.00	0.00
30	0.36	0.00	0.18	-0.31	-76.60	-44.22	0.00
60	0.36	0.00	0.31	-0.18	-44.22	-76.60	0.00
90	0.36	0.00	0.36	0.00	0.00	-88.45	0.00
120	0.36	0.00	0.31	0.18	44.22	-76.60	0.00
150	0.36	0.00	0.18	0.31	76.60	-44.22	0.00
180	0.36	0.00	0.00	0.36	88.45	0.00	0.00
210	0.36	0.00	-0.18	0.31	76.60	44.22	0.00
240	0.36	0.00	-0.31	0.18	44.22	76.60	0.00
270	0.36	0.00	-0.36	0.00	0.00	88.45	0.00
300	0.36	0.00	-0.31	-0.18	-44.22	76.60	0.00
330	0.36	0.00	-0.18	-0.31	-76.60	44.22	0.00

FR70-12-L2 - Elevation 232 - From Face A							
Wind Azimuth deg	F_a K	F_s K	V_x K	V_z K	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	0.07	0.07	-0.02	-0.09	-21.35	5.72	-0.52
30	0.00	0.08	0.04	-0.07	-15.71	-8.89	-0.60
60	0.07	0.07	0.09	-0.03	-5.88	-21.08	-0.52
90	0.12	0.04	0.12	0.02	5.51	-27.59	-0.30
120	0.13	0.00	0.12	0.07	15.40	-26.67	0.00

FR70-12-L2 - Elevation 232 - From Face A

Wind Azimuth deg	F_a K	F_s K	V_x K	V_z K	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
150	0.12	0.04	0.08	0.09	21.14	-18.56	0.30
180	0.07	0.07	0.02	0.09	21.20	-5.45	0.52
210	0.00	0.08	-0.04	0.07	15.56	9.16	0.60
240	0.07	0.07	-0.09	0.03	5.73	21.35	0.52
270	0.12	0.04	-0.12	-0.02	-5.66	27.86	0.30
300	0.13	0.00	-0.12	-0.07	-15.55	26.93	0.00
330	0.12	0.04	-0.08	-0.09	-21.29	18.83	-0.30

FR70-12-L2 - Elevation 232 - From Face B

Wind Azimuth deg	F_a K	F_s K	V_x K	V_z K	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	0.07	0.07	0.02	-0.09	-21.35	-5.72	0.52
30	0.12	0.04	0.08	-0.09	-21.29	-18.83	0.30
60	0.13	0.00	0.12	-0.07	-15.55	-26.93	0.00
90	0.12	0.04	0.12	-0.02	-5.66	-27.86	-0.30
120	0.07	0.07	0.09	0.03	5.73	-21.35	-0.52
150	0.00	0.08	0.04	0.07	15.56	-9.16	-0.60
180	0.07	0.07	-0.02	0.09	21.20	5.45	-0.52
210	0.12	0.04	-0.08	0.09	21.14	18.56	-0.30
240	0.13	0.00	-0.12	0.07	15.40	26.67	0.00
270	0.12	0.04	-0.12	0.02	5.51	27.59	0.30
300	0.07	0.07	-0.09	-0.03	-5.88	21.08	0.52
330	0.00	0.08	-0.04	-0.07	-15.71	8.89	0.60

FR70-12-L2 - Elevation 232 - From Face C

Wind Azimuth deg	F_a K	F_s K	V_x K	V_z K	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	0.13	0.00	0.00	-0.13	-30.79	0.00	0.00
30	0.12	0.04	0.04	-0.12	-26.65	-9.03	0.30
60	0.07	0.07	0.07	-0.07	-15.32	-15.63	0.52
90	0.00	0.08	0.08	0.00	0.15	-18.05	0.60
120	0.07	0.07	0.07	0.07	15.63	-15.63	0.52
150	0.12	0.04	0.04	0.12	26.96	-9.03	0.30
180	0.13	0.00	0.00	0.13	31.10	0.00	0.00
210	0.12	0.04	-0.04	0.12	26.96	9.03	-0.30
240	0.07	0.07	-0.07	0.07	15.63	15.63	-0.52
270	0.00	0.08	-0.08	0.00	0.15	18.05	-0.60
300	0.07	0.07	-0.07	-0.07	-15.32	15.63	-0.52
330	0.12	0.04	-0.04	-0.12	-26.65	9.03	-0.30

PiROD 15' Universal T-Frame Sector Mount - Elevation 23'-232' - None C

Wind Azimuth deg	F_a K	F_s K	V_x K	V_z K	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	0.30	0.00	0.00	-0.30	-38.39	0.00	0.00
30	0.30	0.00	0.15	-0.26	-33.25	-19.20	0.00
60	0.30	0.00	0.26	-0.15	-19.20	-33.25	0.00
90	0.30	0.00	0.30	0.00	0.00	-38.39	0.00
120	0.30	0.00	0.26	0.15	19.20	-33.25	0.00
150	0.30	0.00	0.15	0.26	33.25	-19.20	0.00
180	0.30	0.00	0.00	0.30	38.39	0.00	0.00
210	0.30	0.00	-0.15	0.26	33.25	19.20	0.00

PiROD 15' Universal T-Frame Sector Mount - Elevation 23'-232' - None C

Wind Azimuth deg	F_a K	F_s K	V_x K	V_z K	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
240	0.30	0.00	-0.26	0.15	19.20	33.25	0.00
270	0.30	0.00	-0.30	0.00	0.00	38.39	0.00
300	0.30	0.00	-0.26	-0.15	-19.20	33.25	0.00
330	0.30	0.00	-0.15	-0.26	-33.25	19.20	0.00

ALP 8010 - Elevation 300 - From Face A

Wind Azimuth deg	F_a K	F_s K	V_x K	V_z K	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	0.15	0.27	0.00	-0.31	-91.93	0.18	-1.57
30	0.00	0.31	0.15	-0.27	-79.63	-45.73	-1.82
60	0.15	0.27	0.27	-0.15	-46.02	-79.34	-1.57
90	0.27	0.15	0.31	0.00	-0.11	-91.64	-0.91
120	0.31	0.00	0.27	0.15	45.81	-79.34	0.00
150	0.27	0.15	0.15	0.27	79.42	-45.73	0.91
180	0.15	0.27	0.00	0.31	91.72	0.18	1.57
210	0.00	0.31	-0.15	0.27	79.42	46.10	1.82
240	0.15	0.27	-0.27	0.15	45.81	79.71	1.57
270	0.27	0.15	-0.31	0.00	-0.11	92.01	0.91
300	0.31	0.00	-0.27	-0.15	-46.02	79.71	0.00
330	0.27	0.15	-0.15	-0.27	-79.63	46.10	-0.91

ALP 8010 - Elevation 300 - From Face B

Wind Azimuth deg	F_a K	F_s K	V_x K	V_z K	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	0.15	0.27	0.00	-0.31	-91.93	-0.18	1.57
30	0.27	0.15	0.15	-0.27	-79.63	-46.10	0.91
60	0.31	0.00	0.27	-0.15	-46.02	-79.71	0.00
90	0.27	0.15	0.31	0.00	-0.11	-92.01	-0.91
120	0.15	0.27	0.27	0.15	45.81	-79.71	-1.57
150	0.00	0.31	0.15	0.27	79.42	-46.10	-1.82
180	0.15	0.27	0.00	0.31	91.72	-0.18	-1.57
210	0.27	0.15	-0.15	0.27	79.42	45.73	-0.91
240	0.31	0.00	-0.27	0.15	45.81	79.34	0.00
270	0.27	0.15	-0.31	0.00	-0.11	91.64	0.91
300	0.15	0.27	-0.27	-0.15	-46.02	79.34	1.57
330	0.00	0.31	-0.15	-0.27	-79.63	45.73	1.82

ALP 8010 - Elevation 300 - From Face C

Wind Azimuth deg	F_a K	F_s K	V_x K	V_z K	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	0.31	0.00	0.00	-0.31	-91.61	0.00	0.00
30	0.27	0.15	0.15	-0.27	-79.31	-45.91	0.91
60	0.15	0.27	0.27	-0.15	-45.70	-79.52	1.57
90	0.00	0.31	0.31	0.00	0.21	-91.83	1.82
120	0.15	0.27	0.27	0.15	46.13	-79.52	1.57
150	0.27	0.15	0.15	0.27	79.74	-45.91	0.91
180	0.31	0.00	0.00	0.31	92.04	0.00	0.00
210	0.27	0.15	-0.15	0.27	79.74	45.91	-0.91
240	0.15	0.27	-0.27	0.15	46.13	79.52	-1.57
270	0.00	0.31	-0.31	0.00	0.21	91.83	-1.82
300	0.15	0.27	-0.27	-0.15	-45.70	79.52	-1.57

ALP 8010 - Elevation 300 - From Face C							
Wind Azimuth deg	F_a K	F_s K	V_x K	V_z K	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
330	0.27	0.15	-0.15	-0.27	-79.31	45.91	-0.91

PiROD 15' Universal T-Frame Sector Mount - Elevation 300 - None C							
Wind Azimuth deg	F_a K	F_s K	V_x K	V_z K	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	0.38	0.00	0.00	-0.38	-115.36	0.00	0.00
30	0.38	0.00	0.19	-0.33	-99.91	-57.68	0.00
60	0.38	0.00	0.33	-0.19	-57.68	-99.91	0.00
90	0.38	0.00	0.38	0.00	0.00	-115.36	0.00
120	0.38	0.00	0.33	0.19	57.68	-99.91	0.00
150	0.38	0.00	0.19	0.33	99.91	-57.68	0.00
180	0.38	0.00	0.00	0.38	115.36	0.00	0.00
210	0.38	0.00	-0.19	0.33	99.91	57.68	0.00
240	0.38	0.00	-0.33	0.19	57.68	99.91	0.00
270	0.38	0.00	-0.38	0.00	0.00	115.36	0.00
300	0.38	0.00	-0.33	-0.19	-57.68	99.91	0.00
330	0.38	0.00	-0.19	-0.33	-99.91	57.68	0.00

Discrete Appurtenance Totals - No Ice

Wind Azimuth deg	V_x K	V_z K	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	0.00	-3.38	-862.54	0.00	0.00
30	1.69	-2.92	-746.98	-431.27	0.00
60	2.92	-1.69	-431.27	-746.98	0.00
90	3.38	0.00	0.00	-862.54	0.00
120	2.92	1.69	431.27	-746.98	0.00
150	1.69	2.92	746.98	-431.27	0.00
180	0.00	3.38	862.54	0.00	0.00
210	-1.69	2.92	746.98	431.27	0.00
240	-2.92	1.69	431.27	746.98	0.00
270	-3.38	0.00	0.00	862.54	0.00
300	-2.92	-1.69	-431.27	746.98	0.00
330	-1.69	-2.92	-746.98	431.27	0.00

Discrete Appurtenance Pressures - With Ice

$G_H = 1.088$

Description	Aiming Azimuth deg	Weight K	$Offset_x$ ft	$Offset_z$ ft	z ft	K_z	q_z psf	C_AA_C Front ft^2	C_AA_C Side ft^2	t_z in
Lightning Rod 2"x15'	0.0000	0.10	0'	0'	307'6"	1.892	18	4.53	4.53	0.5000
68000/68010 w/Pipe Mount	300.0000	0.26	-6'4-5/16"	-3'8-1/32"	244'	1.771	17	16.88	16.28	0.5000
68000/68010 w/Pipe Mount	60.0000	0.26	6'4-5/16"	-3'8-1/32"	244'	1.771	17	16.88	16.28	0.5000
68000/68010 w/Pipe Mount	180.0000	0.26	0'	7'4-3/16"	244'	1.771	17	16.88	16.28	0.5000
PiROD 15' Universal T-	0.0000	0.65	0'	0'	244'	1.771	17	20.60	20.60	0.5000

Description	Aiming Azimuth deg	Weight K	$Offset_x$ ft	$Offset_z$ ft	z ft	K_z	q_z psf	C_AA_C Front ft^2	C_AA_C Side ft^2	t_z in
Frame Sector Mount										
FR70-12-L2	300.0000	0.06	-6'7-29/32"	-3'10-3/16"	232'	1.746	16	5.99	3.63	0.5000
FR70-12-L2	60.0000	0.06	6'7-29/32"	-3'10-3/16"	232'	1.746	16	5.99	3.63	0.5000
FR70-12-L2	180.0000	0.06	0'	7'8-13/32"	232'	1.746	16	5.99	3.63	0.5000
PiROD 15' Universal T-Frame Sector Mount	0.0000	0.65	0'	0'	127'6"	1.471	14	20.60	20.60	0.5000
ALP 8010	300.0000	0.04	-5'1-11/16"	-2'11-5/8"	300'	1.879	18	12.87	12.87	0.5000
ALP 8010	60.0000	0.04	5'1-11/16"	-2'11-5/8"	300'	1.879	18	12.87	12.87	0.5000
ALP 8010	180.0000	0.04	0'	5'11-5/32"	300'	1.879	18	12.87	12.87	0.5000
PiROD 15' Universal T-Frame Sector Mount	0.0000	0.65	0'	0'	300'	1.879	18	20.60	20.60	0.5000
	Sum Weight:	3.11								

Discrete Appurtenance Vectors - With Ice

Lightning Rod 2"x15' - Elevation 307.5 - None A							
Wind Azimuth deg	F_a K	F_s K	V_x K	V_z K	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	0.09	0.00	0.00	-0.09	-26.94	0.00	0.00
30	0.09	0.00	0.04	-0.08	-23.33	-13.47	0.00
60	0.09	0.00	0.08	-0.04	-13.47	-23.33	0.00
90	0.09	0.00	0.09	0.00	0.00	-26.94	0.00
120	0.09	0.00	0.08	0.04	13.47	-23.33	0.00
150	0.09	0.00	0.04	0.08	23.33	-13.47	0.00
180	0.09	0.00	0.00	0.09	26.94	0.00	0.00
210	0.09	0.00	-0.04	0.08	23.33	13.47	0.00
240	0.09	0.00	-0.08	0.04	13.47	23.33	0.00
270	0.09	0.00	-0.09	0.00	0.00	26.94	0.00
300	0.09	0.00	-0.08	-0.04	-13.47	23.33	0.00
330	0.09	0.00	-0.04	-0.08	-23.33	13.47	0.00

68000/68010 w/Pipe Mount - Elevation 244 - From Face A							
Wind Azimuth deg	F_a K	F_s K	V_x K	V_z K	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	0.15	0.26	-0.00	-0.30	-73.62	2.78	-1.88
30	0.00	0.30	0.15	-0.26	-63.31	-34.36	-2.17
60	0.15	0.26	0.26	-0.14	-36.30	-61.86	-1.88
90	0.26	0.15	0.30	0.00	0.19	-72.35	-1.08
120	0.31	0.00	0.26	0.15	36.38	-63.01	0.00
150	0.26	0.15	0.16	0.26	62.56	-36.34	1.08
180	0.15	0.26	0.00	0.30	71.72	0.50	1.88
210	0.00	0.30	-0.15	0.26	61.42	37.65	2.17
240	0.15	0.26	-0.26	0.14	34.40	65.15	1.88
270	0.26	0.15	-0.30	-0.00	-2.09	75.63	1.08
300	0.31	0.00	-0.26	-0.15	-38.27	66.29	0.00
330	0.26	0.15	-0.16	-0.26	-64.45	39.63	-1.08

68000/68010 w/Pipe Mount - Elevation 244 - From Face B							
Wind Azimuth deg	F_a K	F_s K	V_x K	V_z K	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	0.15	0.26	0.00	-0.30	-73.62	-2.78	1.88
30	0.26	0.15	0.16	-0.26	-64.45	-39.63	1.08
60	0.31	0.00	0.26	-0.15	-38.27	-66.29	0.00
90	0.26	0.15	0.30	-0.00	-2.09	-75.63	-1.08
120	0.15	0.26	0.26	0.14	34.40	-65.15	-1.88
150	0.00	0.30	0.15	0.26	61.42	-37.65	-2.17
180	0.15	0.26	-0.00	0.30	71.72	-0.50	-1.88
210	0.26	0.15	-0.16	0.26	62.56	36.34	-1.08
240	0.31	0.00	-0.26	0.15	36.38	63.01	0.00
270	0.26	0.15	-0.30	0.00	0.19	72.35	1.08
300	0.15	0.26	-0.26	-0.14	-36.30	61.86	1.88
330	0.00	0.30	-0.15	-0.26	-63.31	34.36	2.17

68000/68010 w/Pipe Mount - Elevation 244 - From Face C							
Wind Azimuth deg	F_a K	F_s K	V_x K	V_z K	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	0.31	0.00	0.00	-0.31	-72.75	0.00	0.00
30	0.26	0.15	0.15	-0.26	-62.75	-36.01	1.08
60	0.15	0.26	0.26	-0.15	-35.43	-62.37	1.88
90	0.00	0.30	0.30	0.00	1.90	-72.01	2.17
120	0.15	0.26	0.26	0.15	39.22	-62.37	1.88
150	0.26	0.15	0.15	0.26	66.54	-36.01	1.08
180	0.31	0.00	0.00	0.31	76.54	0.00	0.00
210	0.26	0.15	-0.15	0.26	66.54	36.01	-1.08
240	0.15	0.26	-0.26	0.15	39.22	62.37	-1.88
270	0.00	0.30	-0.30	0.00	1.90	72.01	-2.17
300	0.15	0.26	-0.26	-0.15	-35.43	62.37	-1.88
330	0.26	0.15	-0.15	-0.26	-62.75	36.01	-1.08

PiROD 15' Universal T-Frame Sector Mount - Elevation 244 - None C							
Wind Azimuth deg	F_a K	F_s K	V_x K	V_z K	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	0.37	0.00	0.00	-0.37	-91.10	0.00	0.00
30	0.37	0.00	0.19	-0.32	-78.89	-45.55	0.00
60	0.37	0.00	0.32	-0.19	-45.55	-78.89	0.00
90	0.37	0.00	0.37	0.00	0.00	-91.10	0.00
120	0.37	0.00	0.32	0.19	45.55	-78.89	0.00
150	0.37	0.00	0.19	0.32	78.89	-45.55	0.00
180	0.37	0.00	0.00	0.37	91.10	0.00	0.00
210	0.37	0.00	-0.19	0.32	78.89	45.55	0.00
240	0.37	0.00	-0.32	0.19	45.55	78.89	0.00
270	0.37	0.00	-0.37	0.00	0.00	91.10	0.00
300	0.37	0.00	-0.32	-0.19	-45.55	78.89	0.00
330	0.37	0.00	-0.19	-0.32	-78.89	45.55	0.00

FR70-12-L2 - Elevation 232 - From Face A							
Wind Azimuth deg	F_a K	F_s K	V_x K	V_z K	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	0.05	0.06	-0.02	-0.08	-17.70	4.62	-0.43
30	0.00	0.06	0.03	-0.06	-13.23	-7.15	-0.50

FR70-12-L2 - Elevation 232 - From Face A							
Wind Azimuth deg	F_a K	F_s K	V_x K	V_z K	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
60	0.05	0.06	0.07	-0.02	-5.28	-16.90	-0.43
90	0.09	0.03	0.10	0.02	4.03	-22.02	-0.25
120	0.11	0.00	0.09	0.05	12.21	-21.14	0.00
150	0.09	0.03	0.06	0.07	17.05	-14.50	0.25
180	0.05	0.06	0.02	0.08	17.27	-3.88	0.43
210	0.00	0.06	-0.03	0.06	12.81	7.89	0.50
240	0.05	0.06	-0.07	0.02	4.85	17.64	0.43
270	0.09	0.03	-0.10	-0.02	-4.46	22.76	0.25
300	0.11	0.00	-0.09	-0.05	-12.63	21.88	0.00
330	0.09	0.03	-0.06	-0.07	-17.48	15.24	-0.25

FR70-12-L2 - Elevation 232 - From Face B							
Wind Azimuth deg	F_a K	F_s K	V_x K	V_z K	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	0.05	0.06	0.02	-0.08	-17.70	-4.62	0.43
30	0.09	0.03	0.06	-0.07	-17.48	-15.24	0.25
60	0.11	0.00	0.09	-0.05	-12.63	-21.88	0.00
90	0.09	0.03	0.10	-0.02	-4.46	-22.76	-0.25
120	0.05	0.06	0.07	0.02	4.85	-17.64	-0.43
150	0.00	0.06	0.03	0.06	12.81	-7.89	-0.50
180	0.05	0.06	-0.02	0.08	17.27	3.88	-0.43
210	0.09	0.03	-0.06	0.07	17.05	14.50	-0.25
240	0.11	0.00	-0.09	0.05	12.21	21.14	0.00
270	0.09	0.03	-0.10	0.02	4.03	22.02	0.25
300	0.05	0.06	-0.07	-0.02	-5.28	16.90	0.43
330	0.00	0.06	-0.03	-0.06	-13.23	7.15	0.50

FR70-12-L2 - Elevation 232 - From Face C							
Wind Azimuth deg	F_a K	F_s K	V_x K	V_z K	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	0.11	0.00	0.00	-0.11	-24.41	0.00	0.00
30	0.09	0.03	0.03	-0.09	-21.08	-7.52	0.25
60	0.05	0.06	0.06	-0.05	-11.99	-13.02	0.43
90	0.00	0.06	0.06	0.00	0.43	-15.03	0.50
120	0.05	0.06	0.06	0.05	12.85	-13.02	0.43
150	0.09	0.03	0.03	0.09	21.94	-7.52	0.25
180	0.11	0.00	0.00	0.11	25.27	0.00	0.00
210	0.09	0.03	-0.03	0.09	21.94	7.52	-0.25
240	0.05	0.06	-0.06	0.05	12.85	13.02	-0.43
270	0.00	0.06	-0.06	0.00	0.43	15.03	-0.50
300	0.05	0.06	-0.06	-0.05	-11.99	13.02	-0.43
330	0.09	0.03	-0.03	-0.09	-21.08	7.52	-0.25

PiROD 15' Universal T-Frame Sector Mount - Elevation 23'-232' - None C							
Wind Azimuth deg	F_a K	F_s K	V_x K	V_z K	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	0.31	0.00	0.00	-0.31	-39.54	0.00	0.00
30	0.31	0.00	0.16	-0.27	-34.25	-19.77	0.00
60	0.31	0.00	0.27	-0.16	-19.77	-34.25	0.00
90	0.31	0.00	0.31	0.00	0.00	-39.54	0.00
120	0.31	0.00	0.27	0.16	19.77	-34.25	0.00

PiROD 15' Universal T-Frame Sector Mount - Elevation 23'-232' - None C

Wind Azimuth deg	F_a K	F_s K	V_x K	V_z K	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
150	0.31	0.00	0.16	0.27	34.25	-19.77	0.00
180	0.31	0.00	0.00	0.31	39.54	0.00	0.00
210	0.31	0.00	-0.16	0.27	34.25	19.77	0.00
240	0.31	0.00	-0.27	0.16	19.77	34.25	0.00
270	0.31	0.00	-0.31	0.00	0.00	39.54	0.00
300	0.31	0.00	-0.27	-0.16	-19.77	34.25	0.00
330	0.31	0.00	-0.16	-0.27	-34.25	19.77	0.00

ALP 8010 - Elevation 300 - From Face A

Wind Azimuth deg	F_a K	F_s K	V_x K	V_z K	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	0.12	0.21	0.00	-0.25	-74.35	0.20	-1.27
30	0.00	0.25	0.12	-0.21	-64.40	-36.91	-1.47
60	0.12	0.21	0.21	-0.12	-37.23	-64.08	-1.27
90	0.21	0.12	0.25	0.00	-0.12	-74.03	-0.73
120	0.25	0.00	0.21	0.12	37.00	-64.08	0.00
150	0.21	0.12	0.12	0.21	64.17	-36.91	0.73
180	0.12	0.21	0.00	0.25	74.11	0.20	1.27
210	0.00	0.25	-0.12	0.21	64.17	37.32	1.47
240	0.12	0.21	-0.21	0.12	37.00	64.49	1.27
270	0.21	0.12	-0.25	0.00	-0.12	74.43	0.73
300	0.25	0.00	-0.21	-0.12	-37.23	64.49	0.00
330	0.21	0.12	-0.12	-0.21	-64.40	37.32	-0.73

ALP 8010 - Elevation 300 - From Face B

Wind Azimuth deg	F_a K	F_s K	V_x K	V_z K	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	0.12	0.21	0.00	-0.25	-74.35	-0.20	1.27
30	0.21	0.12	0.12	-0.21	-64.40	-37.32	0.73
60	0.25	0.00	0.21	-0.12	-37.23	-64.49	0.00
90	0.21	0.12	0.25	0.00	-0.12	-74.43	-0.73
120	0.12	0.21	0.21	0.12	37.00	-64.49	-1.27
150	0.00	0.25	0.12	0.21	64.17	-37.32	-1.47
180	0.12	0.21	0.00	0.25	74.11	-0.20	-1.27
210	0.21	0.12	-0.12	0.21	64.17	36.91	-0.73
240	0.25	0.00	-0.21	0.12	37.00	64.08	0.00
270	0.21	0.12	-0.25	0.00	-0.12	74.03	0.73
300	0.12	0.21	-0.21	-0.12	-37.23	64.08	1.27
330	0.00	0.25	-0.12	-0.21	-64.40	36.91	1.47

ALP 8010 - Elevation 300 - From Face C

Wind Azimuth deg	F_a K	F_s K	V_x K	V_z K	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	0.25	0.00	0.00	-0.25	-74.00	0.00	0.00
30	0.21	0.12	0.12	-0.21	-64.05	-37.12	0.73
60	0.12	0.21	0.21	-0.12	-36.88	-64.29	1.27
90	0.00	0.25	0.25	0.00	0.23	-74.23	1.47
120	0.12	0.21	0.21	0.12	37.35	-64.29	1.27
150	0.21	0.12	0.12	0.21	64.52	-37.12	0.73
180	0.25	0.00	0.00	0.25	74.46	0.00	0.00
210	0.21	0.12	-0.12	0.21	64.52	37.12	-0.73

ALP 8010 - Elevation 300 - From Face C							
Wind Azimuth deg	F_a K	F_s K	V_x K	V_z K	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
240	0.12	0.21	-0.21	0.12	37.35	64.29	-1.27
270	0.00	0.25	-0.25	0.00	0.23	74.23	-1.47
300	0.12	0.21	-0.21	-0.12	-36.88	64.29	-1.27
330	0.21	0.12	-0.12	-0.21	-64.05	37.12	-0.73

PiROD 15' Universal T-Frame Sector Mount - Elevation 300 - None C							
Wind Azimuth deg	F_a K	F_s K	V_x K	V_z K	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	0.40	0.00	0.00	-0.40	-118.81	0.00	0.00
30	0.40	0.00	0.20	-0.34	-102.90	-59.41	0.00
60	0.40	0.00	0.34	-0.20	-59.41	-102.90	0.00
90	0.40	0.00	0.40	0.00	0.00	-118.81	0.00
120	0.40	0.00	0.34	0.20	59.41	-102.90	0.00
150	0.40	0.00	0.20	0.34	102.90	-59.41	0.00
180	0.40	0.00	0.00	0.40	118.81	0.00	0.00
210	0.40	0.00	-0.20	0.34	102.90	59.41	0.00
240	0.40	0.00	-0.34	0.20	59.41	102.90	0.00
270	0.40	0.00	-0.40	0.00	0.00	118.81	0.00
300	0.40	0.00	-0.34	-0.20	-59.41	102.90	0.00
330	0.40	0.00	-0.20	-0.34	-102.90	59.41	0.00

Discrete Appurtenance Totals - With Ice

Wind Azimuth deg	V_x K	V_z K	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	0.00	-3.07	-778.89	0.00	0.00
30	1.53	-2.66	-674.54	-389.44	0.00
60	2.66	-1.53	-389.44	-674.54	0.00
90	3.07	0.00	0.00	-778.89	0.00
120	2.66	1.53	389.44	-674.54	0.00
150	1.53	2.66	674.54	-389.44	0.00
180	0.00	3.07	778.89	0.00	0.00
210	-1.53	2.66	674.54	389.44	0.00
240	-2.66	1.53	389.44	674.54	0.00
270	-3.07	0.00	0.00	778.89	0.00
300	-2.66	-1.53	-389.44	674.54	0.00
330	-1.53	-2.66	-674.54	389.44	0.00

Discrete Appurtenance Pressures - Service

$G_H = 1.088$

Description	Aiming Azimuth deg	Weight K	$Offset_x$ ft	$Offset_z$ ft	z ft	K_z	q_z psf	C_AA_C Front ft^2	C_AA_C Side ft^2
Lightning Rod 2"x15'	0.0000	0.08	0'	0'	307'6"	1.892	12	3.00	3.00
68000/68010 w/Pipe Mount	300.0000	0.12	-6'4-5/16"	-3'8-1/32"	244'	1.771	11	14.99	12.99
68000/68010 w/Pipe Mount	60.0000	0.12	6'4-5/16"	-3'8-1/32"	244'	1.771	11	14.99	12.99

Description	Aiming Azimuth deg	Weight K	$Offset_x$ ft	$Offset_z$ ft	z ft	K_z	q_z psf	C_AA_C Front ft^2	C_AA_C Side ft^2
68000/68010 w/Pipe Mount	180.0000	0.12	0'	7'4-3/16"	244'	1.771	11	14.99	12.99
PiROD 15' Universal T-Frame Sector Mount	0.0000	0.50	0'	0'	244'	1.771	11	15.00	15.00
FR70-12-L2	300.0000	0.02	-6'7-29/32"	-3'10-3/16"	232'	1.746	11	5.60	3.27
FR70-12-L2	60.0000	0.02	6'7-29/32"	-3'10-3/16"	232'	1.746	11	5.60	3.27
FR70-12-L2	180.0000	0.02	0'	7'8-13/32"	232'	1.746	11	5.60	3.27
PiROD 15' Universal T-Frame Sector Mount	0.0000	0.50	0'	0'	127'6"	1.471	9	15.00	15.00
ALP 8010	300.0000	0.04	-5'1-11/16"	-2'11-5/8"	300'	1.879	12	11.94	11.94
ALP 8010	60.0000	0.04	5'1-11/16"	-2'11-5/8"	300'	1.879	12	11.94	11.94
ALP 8010	180.0000	0.04	0'	5'11-5/32"	300'	1.879	12	11.94	11.94
PiROD 15' Universal T-Frame Sector Mount	0.0000	0.50	0'	0'	300'	1.879	12	15.00	15.00
	Sum Weight:	2.11							

Discrete Appurtenance Vectors - Service

Lightning Rod 2"x15' - Elevation 307.5 - None A

Wind Azimuth deg	F_a K	F_s K	V_x K	V_z K	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	0.04	0.00	0.00	-0.04	-12.15	0.00	0.00
30	0.04	0.00	0.02	-0.03	-10.52	-6.08	0.00
60	0.04	0.00	0.03	-0.02	-6.08	-10.52	0.00
90	0.04	0.00	0.04	0.00	0.00	-12.15	0.00
120	0.04	0.00	0.03	0.02	6.08	-10.52	0.00
150	0.04	0.00	0.02	0.03	10.52	-6.08	0.00
180	0.04	0.00	0.00	0.04	12.15	0.00	0.00
210	0.04	0.00	-0.02	0.03	10.52	6.08	0.00
240	0.04	0.00	-0.03	0.02	6.08	10.52	0.00
270	0.04	0.00	-0.04	0.00	0.00	12.15	0.00
300	0.04	0.00	-0.03	-0.02	-6.08	10.52	0.00
330	0.04	0.00	-0.02	-0.03	-10.52	6.08	0.00

68000/68010 w/Pipe Mount - Elevation 244 - From Face A

Wind Azimuth deg	F_a K	F_s K	V_x K	V_z K	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	0.09	0.14	-0.01	-0.17	-41.04	3.37	-1.02
30	0.00	0.16	0.08	-0.14	-34.30	-18.78	-1.18
60	0.09	0.14	0.15	-0.07	-18.48	-35.69	-1.02
90	0.16	0.08	0.18	0.01	2.16	-42.84	-0.59
120	0.18	0.00	0.16	0.09	22.11	-38.30	0.00
150	0.16	0.08	0.10	0.15	36.02	-23.29	0.59
180	0.09	0.14	0.01	0.17	40.15	-1.84	1.02
210	0.00	0.16	-0.08	0.14	33.41	20.31	1.18
240	0.09	0.14	-0.15	0.07	17.60	37.22	1.02
270	0.16	0.08	-0.18	-0.01	-3.04	44.37	0.59
300	0.18	0.00	-0.16	-0.09	-22.99	39.83	0.00

68000/68010 w/Pipe Mount - Elevation 244 - From Face A							
Wind Azimuth deg	F_a K	F_s K	V_x K	V_z K	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
330	0.16	0.08	-0.10	-0.15	-36.90	24.82	-0.59

68000/68010 w/Pipe Mount - Elevation 244 - From Face B							
Wind Azimuth deg	F_a K	F_s K	V_x K	V_z K	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	0.09	0.14	0.01	-0.17	-41.04	-3.37	1.02
30	0.16	0.08	0.10	-0.15	-36.90	-24.82	0.59
60	0.18	0.00	0.16	-0.09	-22.99	-39.83	0.00
90	0.16	0.08	0.18	-0.01	-3.04	-44.37	-0.59
120	0.09	0.14	0.15	0.07	17.60	-37.22	-1.02
150	0.00	0.16	0.08	0.14	33.41	-20.31	-1.18
180	0.09	0.14	-0.01	0.17	40.15	1.84	-1.02
210	0.16	0.08	-0.10	0.15	36.02	23.29	-0.59
240	0.18	0.00	-0.16	0.09	22.11	38.30	0.00
270	0.16	0.08	-0.18	0.01	2.16	42.84	0.59
300	0.09	0.14	-0.15	-0.07	-18.48	35.69	1.02
330	0.00	0.16	-0.08	-0.14	-34.30	18.78	1.18

68000/68010 w/Pipe Mount - Elevation 244 - From Face C							
Wind Azimuth deg	F_a K	F_s K	V_x K	V_z K	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	0.18	0.00	0.00	-0.18	-44.22	0.00	0.00
30	0.16	0.08	0.08	-0.16	-38.18	-19.55	0.59
60	0.09	0.14	0.14	-0.09	-21.67	-33.85	1.02
90	0.00	0.16	0.16	0.00	0.88	-39.09	1.18
120	0.09	0.14	0.14	0.09	23.43	-33.85	1.02
150	0.16	0.08	0.08	0.16	39.94	-19.55	0.59
180	0.18	0.00	0.00	0.18	45.99	0.00	0.00
210	0.16	0.08	-0.08	0.16	39.94	19.55	-0.59
240	0.09	0.14	-0.14	0.09	23.43	33.85	-1.02
270	0.00	0.16	-0.16	0.00	0.88	39.09	-1.18
300	0.09	0.14	-0.14	-0.09	-21.67	33.85	-1.02
330	0.16	0.08	-0.08	-0.16	-38.18	19.55	-0.59

PiROD 15' Universal T-Frame Sector Mount - Elevation 244 - None C							
Wind Azimuth deg	F_a K	F_s K	V_x K	V_z K	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	0.18	0.00	0.00	-0.18	-45.13	0.00	0.00
30	0.18	0.00	0.09	-0.16	-39.08	-22.56	0.00
60	0.18	0.00	0.16	-0.09	-22.56	-39.08	0.00
90	0.18	0.00	0.18	0.00	0.00	-45.13	0.00
120	0.18	0.00	0.16	0.09	22.56	-39.08	0.00
150	0.18	0.00	0.09	0.16	39.08	-22.56	0.00
180	0.18	0.00	0.00	0.18	45.13	0.00	0.00
210	0.18	0.00	-0.09	0.16	39.08	22.56	0.00
240	0.18	0.00	-0.16	0.09	22.56	39.08	0.00
270	0.18	0.00	-0.18	0.00	0.00	45.13	0.00
300	0.18	0.00	-0.16	-0.09	-22.56	39.08	0.00
330	0.18	0.00	-0.09	-0.16	-39.08	22.56	0.00

FR70-12-L2 - Elevation 232 - From Face A

Wind Azimuth deg	F_a K	F_s K	V_x K	V_z K	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	0.03	0.03	-0.01	-0.05	-10.93	2.98	-0.26
30	0.00	0.04	0.02	-0.03	-8.05	-4.47	-0.31
60	0.03	0.03	0.05	-0.01	-3.04	-10.69	-0.26
90	0.06	0.02	0.06	0.01	2.77	-14.01	-0.15
120	0.07	0.00	0.06	0.03	7.82	-13.54	0.00
150	0.06	0.02	0.04	0.05	10.75	-9.41	0.15
180	0.03	0.03	0.01	0.05	10.78	-2.72	0.26
210	0.00	0.04	-0.02	0.03	7.90	4.74	0.31
240	0.03	0.03	-0.05	0.01	2.88	10.96	0.26
270	0.06	0.02	-0.06	-0.01	-2.93	14.28	0.15
300	0.07	0.00	-0.06	-0.03	-7.97	13.81	0.00
330	0.06	0.02	-0.04	-0.05	-10.90	9.67	-0.15

FR70-12-L2 - Elevation 232 - From Face B

Wind Azimuth deg	F_a K	F_s K	V_x K	V_z K	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	0.03	0.03	0.01	-0.05	-10.93	-2.98	0.26
30	0.06	0.02	0.04	-0.05	-10.90	-9.67	0.15
60	0.07	0.00	0.06	-0.03	-7.97	-13.81	0.00
90	0.06	0.02	0.06	-0.01	-2.93	-14.28	-0.15
120	0.03	0.03	0.05	0.01	2.88	-10.96	-0.26
150	0.00	0.04	0.02	0.03	7.90	-4.74	-0.31
180	0.03	0.03	-0.01	0.05	10.78	2.72	-0.26
210	0.06	0.02	-0.04	0.05	10.75	9.41	-0.15
240	0.07	0.00	-0.06	0.03	7.82	13.54	0.00
270	0.06	0.02	-0.06	0.01	2.77	14.01	0.15
300	0.03	0.03	-0.05	-0.01	-3.04	10.69	0.26
330	0.00	0.04	-0.02	-0.03	-8.05	4.47	0.31

FR70-12-L2 - Elevation 232 - From Face C

Wind Azimuth deg	F_a K	F_s K	V_x K	V_z K	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	0.07	0.00	0.00	-0.07	-15.64	0.00	0.00
30	0.06	0.02	0.02	-0.06	-13.52	-4.61	0.15
60	0.03	0.03	0.03	-0.03	-7.74	-7.98	0.26
90	0.00	0.04	0.04	0.00	0.15	-9.21	0.31
120	0.03	0.03	0.03	0.03	8.05	-7.98	0.26
150	0.06	0.02	0.02	0.06	13.83	-4.61	0.15
180	0.07	0.00	0.00	0.07	15.94	0.00	0.00
210	0.06	0.02	-0.02	0.06	13.83	4.61	-0.15
240	0.03	0.03	-0.03	0.03	8.05	7.98	-0.26
270	0.00	0.04	-0.04	0.00	0.15	9.21	-0.31
300	0.03	0.03	-0.03	-0.03	-7.74	7.98	-0.26
330	0.06	0.02	-0.02	-0.06	-13.52	4.61	-0.15

PiROD 15' Universal T-Frame Sector Mount - Elevation 23'-232' - None C

Wind Azimuth deg	F_a K	F_s K	V_x K	V_z K	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	0.15	0.00	0.00	-0.15	-19.59	0.00	0.00
30	0.15	0.00	0.08	-0.13	-16.96	-9.79	0.00

PiROD 15' Universal T-Frame Sector Mount - Elevation 23'-232' - None C							
Wind Azimuth deg	F_a K	F_s K	V_x K	V_z K	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
60	0.15	0.00	0.13	-0.08	-9.79	-16.96	0.00
90	0.15	0.00	0.15	0.00	0.00	-19.59	0.00
120	0.15	0.00	0.13	0.08	9.79	-16.96	0.00
150	0.15	0.00	0.08	0.13	16.96	-9.79	0.00
180	0.15	0.00	0.00	0.15	19.59	0.00	0.00
210	0.15	0.00	-0.08	0.13	16.96	9.79	0.00
240	0.15	0.00	-0.13	0.08	9.79	16.96	0.00
270	0.15	0.00	-0.15	0.00	0.00	19.59	0.00
300	0.15	0.00	-0.13	-0.08	-9.79	16.96	0.00
330	0.15	0.00	-0.08	-0.13	-16.96	9.79	0.00

ALP 8010 - Elevation 300 - From Face A							
Wind Azimuth deg	F_a K	F_s K	V_x K	V_z K	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	0.08	0.14	0.00	-0.16	-46.96	0.18	-0.80
30	0.00	0.16	0.08	-0.14	-40.68	-23.24	-0.93
60	0.08	0.14	0.14	-0.08	-23.53	-40.39	-0.80
90	0.14	0.08	0.16	0.00	-0.11	-46.67	-0.46
120	0.16	0.00	0.14	0.08	23.32	-40.39	0.00
150	0.14	0.08	0.08	0.14	40.47	-23.24	0.46
180	0.08	0.14	0.00	0.16	46.74	0.18	0.80
210	0.00	0.16	-0.08	0.14	40.47	23.61	0.93
240	0.08	0.14	-0.14	0.08	23.32	40.76	0.80
270	0.14	0.08	-0.16	0.00	-0.11	47.04	0.46
300	0.16	0.00	-0.14	-0.08	-23.53	40.76	0.00
330	0.14	0.08	-0.08	-0.14	-40.68	23.61	-0.46

ALP 8010 - Elevation 300 - From Face B							
Wind Azimuth deg	F_a K	F_s K	V_x K	V_z K	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	0.08	0.14	0.00	-0.16	-46.96	-0.18	0.80
30	0.14	0.08	0.08	-0.14	-40.68	-23.61	0.46
60	0.16	0.00	0.14	-0.08	-23.53	-40.76	0.00
90	0.14	0.08	0.16	0.00	-0.11	-47.04	-0.46
120	0.08	0.14	0.14	0.08	23.32	-40.76	-0.80
150	0.00	0.16	0.08	0.14	40.47	-23.61	-0.93
180	0.08	0.14	0.00	0.16	46.74	-0.18	-0.80
210	0.14	0.08	-0.08	0.14	40.47	23.24	-0.46
240	0.16	0.00	-0.14	0.08	23.32	40.39	0.00
270	0.14	0.08	-0.16	0.00	-0.11	46.67	0.46
300	0.08	0.14	-0.14	-0.08	-23.53	40.39	0.80
330	0.00	0.16	-0.08	-0.14	-40.68	23.24	0.93

ALP 8010 - Elevation 300 - From Face C							
Wind Azimuth deg	F_a K	F_s K	V_x K	V_z K	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	0.16	0.00	0.00	-0.16	-46.64	0.00	0.00
30	0.14	0.08	0.08	-0.14	-40.36	-23.43	0.46
60	0.08	0.14	0.14	-0.08	-23.21	-40.57	0.80
90	0.00	0.16	0.16	0.00	0.21	-46.85	0.93
120	0.08	0.14	0.14	0.08	23.64	-40.57	0.80

ALP 8010 - Elevation 300 - From Face C							
Wind Azimuth deg	F_a K	F_s K	V_x K	V_z K	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
150	0.14	0.08	0.08	0.14	40.79	-23.43	0.46
180	0.16	0.00	0.00	0.16	47.06	0.00	0.00
210	0.14	0.08	-0.08	0.14	40.79	23.43	-0.46
240	0.08	0.14	-0.14	0.08	23.64	40.57	-0.80
270	0.00	0.16	-0.16	0.00	0.21	46.85	-0.93
300	0.08	0.14	-0.14	-0.08	-23.21	40.57	-0.80
330	0.14	0.08	-0.08	-0.14	-40.36	23.43	-0.46

PiROD 15' Universal T-Frame Sector Mount - Elevation 300 - None C							
Wind Azimuth deg	F_a K	F_s K	V_x K	V_z K	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	0.20	0.00	0.00	-0.20	-58.86	0.00	0.00
30	0.20	0.00	0.10	-0.17	-50.97	-29.43	0.00
60	0.20	0.00	0.17	-0.10	-29.43	-50.97	0.00
90	0.20	0.00	0.20	0.00	0.00	-58.86	0.00
120	0.20	0.00	0.17	0.10	29.43	-50.97	0.00
150	0.20	0.00	0.10	0.17	50.97	-29.43	0.00
180	0.20	0.00	0.00	0.20	58.86	0.00	0.00
210	0.20	0.00	-0.10	0.17	50.97	29.43	0.00
240	0.20	0.00	-0.17	0.10	29.43	50.97	0.00
270	0.20	0.00	-0.20	0.00	0.00	58.86	0.00
300	0.20	0.00	-0.17	-0.10	-29.43	50.97	0.00
330	0.20	0.00	-0.10	-0.17	-50.97	29.43	0.00

Discrete Appurtenance Totals - Service

Wind Azimuth deg	V_x K	V_z K	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	0.00	-1.72	-440.07	0.00	0.00
30	0.86	-1.49	-381.11	-220.04	0.00
60	1.49	-0.86	-220.04	-381.11	0.00
90	1.72	0.00	0.00	-440.07	0.00
120	1.49	0.86	220.04	-381.11	0.00
150	0.86	1.49	381.11	-220.04	0.00
180	0.00	1.72	440.07	0.00	0.00
210	-0.86	1.49	381.11	220.04	0.00
240	-1.49	0.86	220.04	381.11	0.00
270	-1.72	0.00	0.00	440.07	0.00
300	-1.49	-0.86	-220.04	381.11	0.00
330	-0.86	-1.49	-381.11	220.04	0.00

Dish Pressures - No Ice

Elevation ft	Dish Description	Aiming Azimuth deg	Weight K	$Offset_x$ ft	$Offset_z$ ft	K_z	A_A ft^2	q_z psf
218'	Andrew 4' w/Radome	120.0000	0.14	8'9-31/32"	5'1-3/16"	1.715	12.57	22
		Sum	0.14					

Elevation ft	Dish Description	Aiming Azimuth deg	Weight K	$Offset_x$ ft	$Offset_z$ ft	K_z	A_A ft^2	q_z psf
		Weight:						

Dish Vectors - No Ice

Andrew 4' w/Radome - Elevation 218 - From Leg B											
Wind Azimuth deg	C_A	C_S	C_M	F_A K	F_S K	F_M K	V_x K	V_z K	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	0.001070	0.001280	-0.000002	0.12	0.15	-0.00	-0.03	-0.19	-40.45	5.94	1.50
30	0.000340	0.001040	0.000390	0.04	0.12	0.18	0.03	-0.12	-26.10	-6.89	1.23
60	-0.000420	0.000890	0.000404	-0.05	0.10	0.19	0.09	-0.06	-13.33	-21.49	1.06
90	-0.001330	0.000700	0.000132	-0.15	0.08	0.06	0.17	0.01	2.19	-38.85	0.83
120	-0.001770	0.000000	0.000000	-0.20	0.00	0.00	0.18	0.10	22.88	-39.63	0.00
150	-0.001330	-0.000700	-0.000132	-0.15	-0.08	-0.06	0.09	0.15	32.56	-21.32	-0.83
180	-0.000420	-0.000890	-0.000404	-0.05	-0.10	-0.19	-0.01	0.11	25.28	0.80	-1.06
210	0.000340	-0.001040	-0.000390	0.04	-0.12	-0.18	-0.09	0.08	19.02	19.16	-1.23
240	0.001070	-0.001280	0.000002	0.12	-0.15	0.00	-0.18	0.07	15.08	38.01	-1.50
270	0.001950	-0.001050	0.000277	0.22	-0.12	0.13	-0.25	-0.01	-0.93	54.21	-1.22
300	0.002210	0.000000	0.000000	0.25	0.00	0.00	-0.22	-0.13	-26.96	46.70	0.00
330	0.001950	0.001050	-0.000277	0.22	0.12	-0.13	-0.13	-0.22	-46.49	27.91	1.22

Dish Totals - No Ice

Wind Azimuth deg	V_x K	V_z K	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	-0.03	-0.19	-40.45	5.94	1.50
30	0.03	-0.12	-26.10	-6.89	1.23
60	0.09	-0.06	-13.33	-21.49	1.06
90	0.17	0.01	2.19	-38.85	0.83
120	0.18	0.10	22.88	-39.63	0.00
150	0.09	0.15	32.56	-21.32	-0.83
180	-0.01	0.11	25.28	0.80	-1.06
210	-0.09	0.08	19.02	19.16	-1.23
240	-0.18	0.07	15.08	38.01	-1.50
270	-0.25	-0.01	-0.93	54.21	-1.22
300	-0.22	-0.13	-26.96	46.70	0.00
330	-0.13	-0.22	-46.49	27.91	1.22

Dish Pressures - With Ice

Elevation ft	Dish Description	Aiming Azimuth deg	Weight K	$Offset_x$ ft	$Offset_z$ ft	K_z	A_A ft^2	q_z psf	t_z in
218'	Andrew 4' w/Radome	120.0000	0.28	8'9-31/32"	5'1-3/16"	1.715	13.10	16	0.5000
		Sum Weight:	0.28						

Dish Vectors - With Ice

Andrew 4' w/Radome - Elevation 218 - From Leg B

Wind Azimuth deg	C_A	C_S	C_M	F_A K	F_S K	F_M K	V_x K	V_z K	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	0.001070	0.001280	-0.000002	0.10	0.11	-0.00	-0.03	-0.15	-30.75	3.14	1.17
30	0.000340	0.001040	0.000390	0.03	0.09	0.14	0.02	-0.10	-19.53	-6.89	0.96
60	-0.000420	0.000890	0.000404	-0.04	0.08	0.15	0.07	-0.05	-9.55	-18.31	0.83
90	-0.001330	0.000700	0.000132	-0.12	0.06	0.05	0.13	0.01	2.58	-31.87	0.65
120	-0.001770	0.000000	0.000000	-0.16	0.00	0.00	0.14	0.08	18.75	-32.48	0.00
150	-0.001330	-0.000700	-0.000132	-0.12	-0.06	-0.05	0.07	0.11	26.31	-18.17	-0.65
180	-0.000420	-0.000890	-0.000404	-0.04	-0.08	-0.15	-0.01	0.09	20.63	-0.88	-0.83
210	0.000340	-0.001040	-0.000390	0.03	-0.09	-0.14	-0.07	0.07	15.73	13.47	-0.96
240	0.001070	-0.001280	0.000002	0.10	-0.11	0.00	-0.14	0.05	12.66	28.20	-1.17
270	0.001950	-0.001050	0.000277	0.18	-0.09	0.10	-0.20	-0.01	0.14	40.87	-0.95
300	0.002210	0.000000	0.000000	0.20	0.00	0.00	-0.17	-0.10	-20.21	35.00	0.00
330	0.001950	0.001050	-0.000277	0.18	0.09	-0.10	-0.10	-0.17	-35.46	20.31	0.95

Dish Totals - With Ice

Wind Azimuth deg	V_x K	V_z K	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	-0.03	-0.15	-30.75	3.14	1.17
30	0.02	-0.10	-19.53	-6.89	0.96
60	0.07	-0.05	-9.55	-18.31	0.83
90	0.13	0.01	2.58	-31.87	0.65
120	0.14	0.08	18.75	-32.48	0.00
150	0.07	0.11	26.31	-18.17	-0.65
180	-0.01	0.09	20.63	-0.88	-0.83
210	-0.07	0.07	15.73	13.47	-0.96
240	-0.14	0.05	12.66	28.20	-1.17
270	-0.20	-0.01	0.14	40.87	-0.95
300	-0.17	-0.10	-20.21	35.00	0.00
330	-0.10	-0.17	-35.46	20.31	0.95

Dish Pressures - Service

Elevation ft	Dish Description	Aiming Azimuth deg	Weight K	$Offset_x$ ft	$Offset_z$ ft	K_z	A_A ft^2	q_z psf
218'	Andrew 4' w/Radome	120.0000	0.14	8'9-31/32"	5'1-3/16"	1.715	12.57	11
		Sum Weight:	0.14					

Dish Vectors - Service

Andrew 4' w/Radome - Elevation 218 - From Leg B											
Wind Azimuth deg	C_A	C_S	C_M	F_A K	F_S K	F_M K	V_x K	V_z K	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	0.001070	0.001280	-0.000002	0.06	0.08	-0.00	-0.02	-0.10	-20.29	2.43	0.77
30	0.000340	0.001040	0.000390	0.02	0.06	0.09	0.01	-0.06	-12.97	-4.12	0.63
60	-0.000420	0.000890	0.000404	-0.02	0.05	0.09	0.05	-0.03	-6.45	-11.57	0.54
90	-0.001330	0.000700	0.000132	-0.08	0.04	0.03	0.09	0.00	1.47	-20.43	0.42
120	-0.001770	0.000000	0.000000	-0.10	0.00	0.00	0.09	0.05	12.02	-20.83	0.00
150	-0.001330	-0.000700	-0.000132	-0.08	-0.04	-0.03	0.05	0.07	16.96	-11.48	-0.42
180	-0.000420	-0.000890	-0.000404	-0.02	-0.05	-0.09	-0.00	0.06	13.25	-0.20	-0.54
210	0.000340	-0.001040	-0.000390	0.02	-0.06	-0.09	-0.05	0.04	10.05	9.17	-0.63
240	0.001070	-0.001280	0.000002	0.06	-0.08	0.00	-0.09	0.03	8.04	18.78	-0.77

Andrew 4' w/Radome - Elevation 218 - From Leg B											
Wind Azimuth deg	C_A	C_S	C_M	F_A K	F_S K	F_M K	V_x K	V_z K	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
270	0.001950	-0.001050	0.000277	0.11	-0.06	0.06	-0.13	-0.00	-0.13	27.05	-0.62
300	0.002210	0.000000	0.000000	0.13	0.00	0.00	-0.11	-0.06	-13.41	23.22	0.00
330	0.001950	0.001050	-0.000277	0.11	0.06	-0.06	-0.07	-0.11	-23.37	13.64	0.62

Dish Totals - Service

Wind Azimuth deg	V_x K	V_z K	OTM_x kip-ft	OTM_z kip-ft	Torque kip-ft
0	-0.02	-0.10	-20.29	2.43	0.77
30	0.01	-0.06	-12.97	-4.12	0.63
60	0.05	-0.03	-6.45	-11.57	0.54
90	0.09	0.00	1.47	-20.43	0.42
120	0.09	0.05	12.02	-20.83	0.00
150	0.05	0.07	16.96	-11.48	-0.42
180	-0.00	0.06	13.25	-0.20	-0.54
210	-0.05	0.04	10.05	9.17	-0.63
240	-0.09	0.03	8.04	18.78	-0.77
270	-0.13	-0.00	-0.13	27.05	-0.62
300	-0.11	-0.06	-13.41	23.22	0.00
330	-0.07	-0.11	-23.37	13.64	0.62

Force Totals

Load Case	Total Weight K	Sum of Forces X K	Sum of Forces Z K	Sum of Overturning Moments, M_x kip-ft	Sum of Overturning Moments, M_z kip-ft	Sum of Torques kip-ft
Leg Weight	33.86					
Bracing Weight	40.33					
Total Member Self-Weight	74.19			-13.71	-0.52	
Gusset Weight	3.31					
Wind 0 deg - No Ice	87.60	-0.03	-49.46	-7460.28	6.66	0.14
Wind 30 deg - No Ice	87.60	22.99	-39.90	-6089.25	-3498.40	-12.20
Wind 60 deg - No Ice	87.60	38.91	-22.47	-3449.83	-5947.98	-20.25
Wind 90 deg - No Ice	87.60	46.10	0.01	-12.24	-7022.59	-23.63
Wind 120 deg - No Ice	87.60	42.85	24.74	3711.16	-6452.18	-22.20
Wind 150 deg - No Ice	87.60	23.06	39.92	6066.85	-3512.83	-11.85
Wind 180 deg - No Ice	87.60	-0.01	44.93	6855.00	1.52	0.34
Wind 210 deg - No Ice	87.60	-23.06	39.86	6053.31	3512.11	12.20
Wind 240 deg - No Ice	87.60	-42.85	24.70	3703.35	6451.99	22.06
Wind 270 deg - No Ice	87.60	-46.19	-0.01	-15.36	7039.39	23.23
Wind 300 deg - No Ice	87.60	-39.03	-22.54	-3463.46	5974.62	19.91
Wind 330 deg - No Ice	87.60	-23.10	-39.99	-6109.63	3520.86	12.24
Member Ice	24.90			-32.09	-2.36	
Gusset Ice	0.83					
Wind 0 deg - Ice	126.19	-0.03	-45.42	-6924.89	3.26	0.42
Wind 30 deg - Ice	126.19	21.33	-37.00	-5711.69	-3273.78	-11.93
Wind 60 deg - Ice	126.19	36.21	-20.92	-3255.65	-5582.54	-20.18
Wind 90 deg - Ice	126.19	42.75	0.01	-30.94	-6565.78	-23.66
Wind 120 deg - Ice	126.19	39.35	22.72	3415.55	-5973.84	-22.14
Wind 150 deg - Ice	126.19	21.38	37.02	5651.43	-3285.07	-12.05
Wind 180 deg - Ice	126.19	-0.01	41.82	6412.27	-0.76	0.07
Wind 210 deg - Ice	126.19	-21.38	36.97	5640.85	3280.60	11.93
Wind 240 deg - Ice	126.19	-39.35	22.69	3409.45	5969.79	21.71

Load Case	Total Weight K	Sum of Forces X K	Sum of Forces Z K	Sum of Overturning Moments, M_x kip-ft	Sum of Overturning Moments, M_z kip-ft	Sum of Torques kip-ft
Wind 270 deg - Ice	126.19	-42.82	-0.01	-33.38	6575.01	23.35
Wind 300 deg - Ice	126.19	-36.31	-20.96	-3266.30	5599.47	20.11
Wind 330 deg - Ice	126.19	-21.41	-37.08	-5727.61	3287.44	12.36
Wind 0 deg - Service	87.60	-0.02	-25.23	-3798.56	2.43	0.07
Wind 30 deg - Service	87.60	11.73	-20.36	-3099.05	-1785.87	-6.22
Wind 60 deg - Service	87.60	19.85	-11.47	-1752.41	-3035.65	-10.33
Wind 90 deg - Service	87.60	23.52	0.00	1.47	-3583.93	-12.05
Wind 120 deg - Service	87.60	21.86	12.62	1901.16	-3292.90	-11.33
Wind 150 deg - Service	87.60	11.76	20.37	3103.04	-1793.23	-6.05
Wind 180 deg - Service	87.60	-0.00	22.92	3505.16	-0.20	0.17
Wind 210 deg - Service	87.60	-11.77	20.34	3096.13	1790.92	6.22
Wind 240 deg - Service	87.60	-21.86	12.60	1897.18	3290.86	11.26
Wind 270 deg - Service	87.60	-23.56	-0.00	-0.13	3590.55	11.85
Wind 300 deg - Service	87.60	-19.92	-11.50	-1759.36	3047.30	10.16
Wind 330 deg - Service	87.60	-11.79	-20.41	-3109.45	1795.38	6.25

Load Combinations

Comb. No.	Description
1	Dead Only
2	Dead+Wind 0 deg - No Ice
3	Dead+Wind 30 deg - No Ice
4	Dead+Wind 60 deg - No Ice
5	Dead+Wind 90 deg - No Ice
6	Dead+Wind 120 deg - No Ice
7	Dead+Wind 150 deg - No Ice
8	Dead+Wind 180 deg - No Ice
9	Dead+Wind 210 deg - No Ice
10	Dead+Wind 240 deg - No Ice
11	Dead+Wind 270 deg - No Ice
12	Dead+Wind 300 deg - No Ice
13	Dead+Wind 330 deg - No Ice
14	Dead+Ice
15	Dead+Wind 0 deg+Ice
16	Dead+Wind 30 deg+Ice
17	Dead+Wind 60 deg+Ice
18	Dead+Wind 90 deg+Ice
19	Dead+Wind 120 deg+Ice
20	Dead+Wind 150 deg+Ice
21	Dead+Wind 180 deg+Ice
22	Dead+Wind 210 deg+Ice
23	Dead+Wind 240 deg+Ice
24	Dead+Wind 270 deg+Ice
25	Dead+Wind 300 deg+Ice
26	Dead+Wind 330 deg+Ice
27	Dead+Wind 0 deg - Service
28	Dead+Wind 30 deg - Service
29	Dead+Wind 60 deg - Service
30	Dead+Wind 90 deg - Service
31	Dead+Wind 120 deg - Service
32	Dead+Wind 150 deg - Service
33	Dead+Wind 180 deg - Service
34	Dead+Wind 210 deg - Service
35	Dead+Wind 240 deg - Service
36	Dead+Wind 270 deg - Service
37	Dead+Wind 300 deg - Service

Comb. No.	Description
38	Dead+Wind 330 deg - Service

Maximum Member Forces

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Force K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
T1	300 - 280	Leg	Max Tension	12	4.97	-0.12	0.00
			Max. Compression	2	-6.57	0.15	0.02
			Max. Mx	6	-3.54	0.17	0.00
			Max. My	18	-0.76	-0.00	0.18
			Max. Vy	4	-0.56	0.00	0.00
			Max. Vx	13	0.56	0.00	0.00
		Diagonal	Max Tension	9	1.38	0.00	0.00
			Max. Compression	9	-1.40	0.00	0.00
			Max. Mx	25	1.03	0.02	-0.00
			Max. Vy	25	0.01	0.02	-0.00
		Top Girt	Max Tension	6	0.22	0.00	0.00
			Max. Compression	4	-0.24	0.00	0.00
			Max. Mx	14	-0.02	-0.03	0.00
			Max. Vy	18	0.02	0.00	0.00
T2	280 - 260	Leg	Max Tension	12	13.32	-0.14	0.00
			Max. Compression	10	-16.82	0.19	-0.02
			Max. Mx	6	-16.61	0.19	0.00
			Max. My	7	-1.39	-0.01	-0.18
			Max. Vy	6	-0.14	0.19	0.00
			Max. Vx	7	-0.15	-0.01	-0.18
		Diagonal	Max Tension	3	1.94	0.00	0.00
			Max. Compression	3	-1.97	0.00	0.00
			Max. Mx	16	0.43	0.03	0.01
			Max. My	15	1.15	0.03	0.01
			Max. Vy	26	0.02	0.03	0.01
T3	260 - 240	Leg	Max Tension	12	23.23	-0.45	-0.00
			Max. Compression	2	-29.53	0.33	0.01
			Max. Mx	8	22.97	0.58	-0.01
			Max. My	5	-2.93	-0.02	-0.57
			Max. Vy	8	-0.44	-0.45	-0.01
			Max. Vx	11	-0.42	-0.01	-0.37
		Diagonal	Max Tension	9	2.85	0.00	0.00
			Max. Compression	9	-2.86	0.00	0.00
			Max. Mx	16	1.02	0.04	0.00
			Max. My	16	-2.67	0.03	0.01
			Max. Vy	16	0.03	0.04	0.00
T4	240 - 220	Leg	Max Tension	12	34.90	-0.12	-0.01
			Max. Compression	2	-44.50	0.03	-0.03
			Max. Mx	8	28.03	-0.36	-0.01
			Max. My	5	-3.12	-0.02	0.46
			Max. Vy	8	0.18	-0.12	0.00
			Max. Vx	11	0.23	-0.02	-0.24
		Diagonal	Max Tension	9	3.96	0.00	0.00
			Max. Compression	9	-4.08	0.00	0.00
			Max. Mx	26	-3.44	0.08	0.00
			Max. Vy	26	-0.04	0.00	0.00
		Horizontal	Max Tension	9	0.21	0.00	0.00
			Max. Compression	10	-0.22	0.00	0.00
			Max. Mx	15	0.05	0.03	-0.00
			Max. Vy	15	-0.02	0.03	-0.00
		Inner Bracing	Max Tension	10	0.00	0.00	0.00
			Max. Compression	23	-0.01	0.00	0.00
			Max. Mx	23	-0.00	-0.03	0.00

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Force K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Max. Vy	23	-0.02	0.00	0.00
T5	220 - 200	Leg	Max Tension	12	48.38	-0.03	-0.01
			Max. Compression	2	-61.83	-0.03	-0.00
			Max. Mx	2	-61.65	0.26	-0.00
			Max. My	5	-5.67	-0.04	0.27
			Max. Vy	10	-0.19	0.26	0.02
			Max. Vx	2	-0.21	-0.06	-0.23
		Diagonal	Max Tension	9	4.35	0.00	0.00
			Max. Compression	9	-4.48	0.00	0.00
			Max. Mx	26	3.88	0.10	0.00
			Max. Vy	26	-0.04	0.00	0.00
		Horizontal	Max Tension	13	0.31	0.00	0.00
			Max. Compression	2	-0.31	0.00	0.00
			Max. Mx	15	0.05	0.04	-0.00
			Max. Vy	15	-0.03	0.04	-0.00
		Inner Bracing	Max Tension	2	0.01	0.00	0.00
			Max. Compression	15	-0.01	0.00	0.00
			Max. Mx	15	-0.00	-0.04	0.00
			Max. Vy	15	-0.02	0.00	0.00
T6	200 - 180	Leg	Max Tension	12	62.22	-0.03	-0.01
			Max. Compression	2	-79.74	-0.07	-0.00
			Max. Mx	2	-79.56	0.30	-0.00
			Max. My	5	-7.26	-0.05	0.34
			Max. Vy	10	0.20	0.30	-0.00
			Max. Vx	5	-0.19	-0.05	0.34
		Diagonal	Max Tension	9	4.80	0.00	0.00
			Max. Compression	9	-4.96	0.00	0.00
			Max. Mx	26	-4.54	0.12	0.00
			Max. Vy	26	-0.05	0.00	0.00
		Horizontal	Max Tension	7	0.26	0.03	-0.00
			Max. Compression	6	-0.27	0.04	-0.00
			Max. Mx	15	0.04	0.06	-0.00
			Max. Vy	15	-0.04	0.06	-0.00
		Inner Bracing	Max Tension	6	0.00	0.00	0.00
			Max. Compression	26	-0.01	0.00	0.00
			Max. Mx	15	-0.00	-0.06	0.00
			Max. Vy	15	-0.03	0.00	0.00
T7	180 - 160	Leg	Max Tension	12	76.22	-0.03	-0.01
			Max. Compression	2	-98.26	-0.13	-0.00
			Max. Mx	2	-98.05	0.35	-0.00
			Max. My	5	-9.02	-0.08	0.49
			Max. Vy	10	0.22	0.35	-0.00
			Max. Vx	11	0.24	-0.08	-0.49
		Diagonal	Max Tension	9	5.31	0.00	0.00
			Max. Compression	9	-5.46	0.00	0.00
			Max. Mx	26	-5.04	0.14	0.00
			Max. Vy	26	0.05	0.00	0.00
		Horizontal	Max Tension	7	0.27	0.04	-0.00
			Max. Compression	6	-0.27	0.05	-0.00
			Max. Mx	15	0.01	0.08	-0.00
			Max. Vy	15	-0.04	0.08	-0.00
		Inner Bracing	Max Tension	6	0.00	0.00	0.00
			Max. Compression	19	-0.01	0.00	0.00
			Max. Mx	22	-0.00	-0.08	0.00
			Max. Vy	15	0.03	0.00	0.00
T8	160 - 140	Leg	Max Tension	12	90.19	-0.01	-0.01
			Max. Compression	2	-117.71	-0.62	-0.00
			Max. Mx	15	-116.32	-0.65	-0.00
			Max. My	5	-9.42	-0.08	0.49
			Max. Vy	6	0.37	0.52	0.00
			Max. Vx	5	0.24	-0.08	0.49

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Force K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
		Diagonal	Max Tension	9	5.98	0.00	0.00
			Max. Compression	9	-6.14	0.00	0.00
			Max. Mx	20	-5.67	0.20	0.00
			Max. My	25	0.28	0.00	-0.01
			Max. Vy	20	-0.07	0.00	0.00
		Horizontal	Max Tension	7	0.38	0.08	-0.00
			Max. Compression	13	-0.35	0.00	0.00
			Max. Mx	17	-0.03	0.14	-0.00
			Max. Vy	15	-0.06	0.14	-0.00
		Inner Bracing	Max Tension	13	0.00	0.00	0.00
			Max. Compression	26	-0.01	0.00	0.00
			Max. Mx	16	-0.01	-0.13	0.00
			Max. Vy	16	-0.05	0.00	0.00
T9	140 - 120	Leg	Max Tension	12	100.63	0.35	-0.00
			Max. Compression	2	-131.73	-0.86	-0.00
			Max. Mx	2	-130.72	0.93	0.00
			Max. My	11	-12.93	-0.13	-0.59
			Max. Vy	2	0.44	0.70	-0.00
			Max. Vx	11	0.29	-0.13	-0.59
		Diagonal	Max Tension	9	7.74	-0.06	0.02
			Max. Compression	9	-8.38	0.00	0.00
			Max. Mx	23	5.85	-0.13	-0.05
			Max. My	2	5.85	-0.11	-0.05
			Max. Vy	23	0.05	-0.13	-0.05
			Max. Vx	15	0.01	0.00	0.00
		Horizontal	Max Tension	12	0.56	0.00	0.00
			Max. Compression	6	-0.65	-0.11	0.00
			Max. Mx	15	0.19	-0.17	0.01
			Max. My	19	0.16	-0.17	0.01
			Max. Vy	15	0.07	-0.17	0.01
		Redund Horz Bracing	Max Tension	2	1.98	0.00	0.00
			Max. Compression	2	-1.98	0.00	0.00
			Max. Mx	15	1.95	0.02	0.00
			Max. Vy	15	0.01	0.00	0.00
		Redund Diag Bracing	Max Tension	2	1.34	0.00	0.00
			Max. Compression	2	-1.34	0.00	0.00
			Max. Mx	19	1.32	0.03	0.00
			Max. Vy	24	-0.02	0.00	0.00
		Redund Hip Bracing	Max Tension	2	0.01	0.00	0.00
			Max. Compression	25	-0.02	0.00	0.00
			Max. Mx	18	0.00	0.03	0.00
			Max. Vy	19	-0.02	0.00	0.00
		Inner Bracing	Max Tension	6	0.01	0.00	0.00
			Max. Compression	19	-0.02	0.00	0.00
			Max. Mx	25	0.01	-0.15	0.00
			Max. Vy	25	-0.05	0.00	0.00
T10	120 - 100	Leg	Max Tension	12	115.47	0.58	-0.01
			Max. Compression	2	-152.66	-1.02	-0.00
			Max. Mx	2	-151.53	1.15	0.00
			Max. My	11	-15.32	-0.18	-0.65
			Max. Vy	2	-0.54	1.15	0.00
			Max. Vx	11	0.32	-0.18	-0.65
		Diagonal	Max Tension	9	8.35	-0.06	0.01
			Max. Compression	9	-8.72	0.00	0.00
			Max. Mx	23	7.19	-0.13	-0.04
			Max. My	2	7.21	-0.11	-0.04
			Max. Vy	23	-0.05	-0.13	-0.04
			Max. Vx	15	-0.01	0.00	0.00
		Horizontal	Max Tension	12	0.56	0.00	0.00

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Force K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Max. Compression	6	-0.66	-0.12	0.00
			Max. Mx	25	-0.20	-0.20	0.00
			Max. My	23	0.19	-0.20	0.01
			Max. Vy	25	-0.08	-0.20	0.00
		Redund Horz Bracing	Max Tension	2	2.29	0.00	0.00
			Max. Compression	2	-2.29	0.00	0.00
			Max. Mx	17	-0.12	-0.03	0.00
			Max. Vy	25	0.02	0.00	0.00
		Redund Diag Bracing	Max Tension	2	1.50	0.00	0.00
			Max. Compression	2	-1.50	0.00	0.00
			Max. Mx	15	0.47	-0.04	0.00
			Max. Vy	15	-0.02	0.00	0.00
		Redund Hip Bracing	Max Tension	2	0.01	0.00	0.00
			Max. Compression	25	-0.02	0.00	0.00
			Max. Mx	22	-0.01	-0.03	0.00
			Max. Vy	20	0.02	0.00	0.00
		Inner Bracing	Max Tension	6	0.01	0.00	0.00
			Max. Compression	19	-0.02	0.00	0.00
			Max. Mx	21	0.01	-0.20	0.00
			Max. Vy	17	0.07	0.00	0.00
T11	100 - 80	Leg	Max Tension	12	129.67	0.61	-0.01
			Max. Compression	2	-172.37	-1.01	-0.00
			Max. Mx	2	-171.19	1.21	0.00
			Max. My	11	-16.01	-0.18	-0.65
			Max. Vy	2	-0.58	1.21	0.00
			Max. Vx	11	0.30	-0.14	-0.57
		Diagonal	Max Tension	9	8.64	-0.07	0.01
			Max. Compression	9	-9.43	0.00	0.00
			Max. Mx	23	6.70	-0.14	-0.04
			Max. My	2	6.83	-0.11	0.04
			Max. Vy	23	0.06	-0.14	-0.04
			Max. Vx	15	-0.01	0.00	0.00
		Horizontal	Max Tension	12	0.57	0.00	0.00
			Max. Compression	6	-0.67	-0.18	0.00
			Max. Mx	17	-0.20	-0.28	0.01
			Max. My	23	0.16	-0.28	0.01
			Max. Vy	17	0.10	-0.28	0.01
		Redund Horz Bracing	Max Tension	2	2.59	0.00	0.00
			Max. Compression	2	-2.59	0.00	0.00
			Max. Mx	17	-0.09	-0.03	0.00
			Max. Vy	25	0.02	0.00	0.00
		Redund Diag Bracing	Max Tension	2	1.65	0.00	0.00
			Max. Compression	2	-1.65	0.00	0.00
			Max. Mx	14	0.23	-0.04	0.00
			Max. Vy	26	0.02	0.00	0.00
		Redund Hip Bracing	Max Tension	2	0.01	0.00	0.00
			Max. Compression	25	-0.01	0.00	0.00
			Max. Mx	22	-0.01	-0.03	0.00
			Max. Vy	20	0.02	0.00	0.00
		Inner Bracing	Max Tension	6	0.01	0.00	0.00
			Max. Compression	19	-0.02	0.00	0.00
			Max. Mx	14	0.00	-0.24	0.00
			Max. Vy	14	0.07	0.00	0.00
T12	80 - 60	Leg	Max Tension	12	144.56	0.68	-0.01
			Max. Compression	2	-194.06	-1.17	-0.00
			Max. Mx	2	-192.78	1.38	0.00
			Max. My	11	-20.05	-0.25	-1.01

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Force K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Max. Vy	2	-0.61	1.38	0.00
			Max. Vx	11	0.42	-0.25	-1.01
		Diagonal	Max Tension	9	9.16	-0.07	0.01
			Max. Compression	9	-9.67	0.00	0.00
			Max. Mx	23	7.85	-0.15	-0.03
			Max. My	2	8.26	-0.12	0.04
			Max. Vy	23	0.06	-0.15	-0.03
			Max. Vx	15	0.01	0.00	0.00
		Horizontal	Max Tension	7	0.52	-0.20	0.01
			Max. Compression	6	-0.62	-0.20	0.00
			Max. Mx	15	0.13	-0.32	0.01
			Max. My	23	0.14	-0.32	0.01
			Max. Vy	15	0.11	-0.32	0.01
		Redund Horz Bracing	Max Tension	2	2.92	0.00	0.00
			Max. Compression	2	-2.92	0.00	0.00
			Max. Mx	21	-0.06	-0.04	0.00
			Max. Vy	19	0.02	0.00	0.00
		Redund Diag Bracing	Max Tension	2	1.81	0.00	0.00
			Max. Compression	2	-1.81	0.00	0.00
			Max. Mx	19	0.53	-0.05	0.00
			Max. Vy	19	0.02	0.00	0.00
		Redund Hip Bracing	Max Tension	2	0.01	0.00	0.00
			Max. Compression	25	-0.01	0.00	0.00
			Max. Mx	26	-0.01	-0.04	0.00
			Max. Vy	26	-0.02	0.00	0.00
		Inner Bracing	Max Tension	6	0.01	0.00	0.00
			Max. Compression	19	-0.02	0.00	0.00
			Max. Mx	15	0.01	0.32	0.00
			Max. Vy	15	0.09	0.00	0.00
T13	60 - 40	Leg	Max Tension	12	158.66	0.64	-0.02
			Max. Compression	2	-214.52	-1.14	-0.00
			Max. Mx	2	-213.12	1.37	0.00
			Max. My	11	-20.88	-0.25	-1.01
			Max. Vy	2	-0.64	1.37	0.00
			Max. Vx	11	-0.31	-0.25	-1.01
		Diagonal	Max Tension	9	9.38	-0.11	0.01
			Max. Compression	9	-10.49	0.00	0.00
			Max. Mx	23	7.80	-0.19	-0.04
			Max. My	2	7.99	-0.15	-0.04
			Max. Vy	23	-0.08	-0.19	-0.04
			Max. Vx	15	0.01	0.00	0.00
		Horizontal	Max Tension	7	0.51	-0.24	0.01
			Max. Compression	6	-0.61	-0.24	0.01
			Max. Mx	25	-0.13	-0.37	0.01
			Max. My	23	0.11	-0.36	0.01
			Max. Vy	25	0.12	-0.37	0.01
		Redund Horz Bracing	Max Tension	2	3.22	0.00	0.00
			Max. Compression	2	-3.22	0.00	0.00
			Max. Mx	25	-0.04	-0.04	0.00
			Max. Vy	25	-0.02	0.00	0.00
		Redund Diag Bracing	Max Tension	2	1.96	0.00	0.00
			Max. Compression	2	-1.96	0.00	0.00
			Max. Mx	15	0.49	-0.05	0.00
			Max. Vy	15	0.02	0.00	0.00
		Redund Hip Bracing	Max Tension	2	0.01	0.00	0.00
			Max. Compression	25	-0.02	0.00	0.00
			Max. Mx	26	-0.01	-0.04	0.00

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Force K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Max. Vy	26	-0.02	0.00	0.00
		Inner Bracing	Max Tension	6	0.01	0.00	0.00
			Max. Compression	19	-0.02	0.00	0.00
			Max. Mx	14	0.00	0.37	0.00
			Max. Vy	17	-0.09	0.00	0.00
T14	40 - 20	Leg	Max Tension	12	173.05	0.78	-0.01
			Max. Compression	2	-237.00	-1.64	-0.00
			Max. Mx	15	-233.42	-1.69	-0.00
			Max. My	11	-25.76	-0.33	-1.14
			Max. Vy	2	-0.65	1.53	0.00
			Max. Vx	11	0.44	-0.33	-1.14
		Diagonal	Max Tension	9	9.91	-0.15	-0.03
			Max. Compression	9	-10.71	0.00	0.00
			Max. Mx	19	9.02	-0.20	0.03
			Max. My	2	9.20	-0.16	-0.04
			Max. Vy	19	0.08	-0.20	0.03
			Max. Vx	15	0.01	0.00	0.00
		Horizontal	Max Tension	7	0.48	-0.41	0.01
			Max. Compression	6	-0.56	-0.40	0.01
			Max. Mx	15	0.08	-0.59	0.02
			Max. My	23	0.09	-0.59	0.02
			Max. Vy	15	0.18	-0.59	0.02
			Max. Vx	23	-0.01	-0.59	0.02
		Redund Horz Bracing	Max Tension	2	3.56	0.00	0.00
			Max. Compression	2	-3.56	0.00	0.00
			Max. Mx	17	1.92	-0.05	0.00
			Max. Vy	19	0.02	0.00	0.00
		Redund Diag Bracing	Max Tension	2	2.13	0.00	0.00
			Max. Compression	2	-2.13	0.00	0.00
			Max. Mx	15	0.60	-0.06	0.00
			Max. Vy	16	0.02	0.00	0.00
		Redund Hip Bracing	Max Tension	2	0.00	0.00	0.00
			Max. Compression	25	-0.01	0.00	0.00
			Max. Mx	14	-0.01	-0.05	0.00
			Max. Vy	26	0.02	0.00	0.00
		Inner Bracing	Max Tension	6	0.01	0.00	0.00
			Max. Compression	19	-0.02	0.00	0.00
			Max. Mx	15	0.01	0.58	0.00
			Max. Vy	15	-0.14	0.00	0.00
T15	20 - 0	Leg	Max Tension	12	186.18	0.91	-0.01
			Max. Compression	2	-258.17	0.00	-0.00
			Max. Mx	15	-251.74	-1.69	-0.00
			Max. My	11	-27.03	-0.33	-1.14
			Max. Vy	2	-0.78	1.64	0.00
			Max. Vx	11	-0.31	-0.33	-1.14
		Diagonal	Max Tension	9	10.16	-0.16	-0.03
			Max. Compression	6	-11.27	0.00	0.00
			Max. Mx	19	8.60	-0.21	0.03
			Max. My	2	8.83	-0.17	-0.03
			Max. Vy	19	0.08	-0.21	0.03
			Max. Vx	25	-0.01	-0.11	-0.03
		Horizontal	Max Tension	12	0.48	0.00	0.00
			Max. Compression	6	-0.62	-0.47	0.01
			Max. Mx	25	-0.18	-0.67	0.02
			Max. My	23	0.13	-0.64	0.02
			Max. Vy	25	0.19	-0.67	0.02
			Max. Vx	23	0.01	-0.64	0.02
		Redund Horz Bracing	Max Tension	2	3.88	0.00	0.00

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Force K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Max. Compression	2	-3.88	0.00	0.00
			Max. Mx	15	3.82	-0.05	0.00
			Max. Vy	15	-0.02	0.00	0.00
		Redund Diag Bracing	Max Tension	2	2.28	0.00	0.00
			Max. Compression	2	-2.28	0.00	0.00
			Max. Mx	24	0.67	-0.06	0.00
			Max. Vy	24	-0.02	0.00	0.00
		Redund Hip Bracing	Max Tension	2	0.00	0.00	0.00
			Max. Compression	25	-0.01	0.00	0.00
			Max. Mx	20	-0.00	-0.05	0.00
			Max. Vy	20	-0.02	0.00	0.00
		Inner Bracing	Max Tension	6	0.01	0.00	0.00
			Max. Compression	19	-0.03	0.00	0.00
			Max. Mx	14	0.00	0.66	0.00
			Max. Vy	14	-0.15	0.00	0.00

Maximum Reactions

Location	Condition	Gov. Load Comb.	Vertical K	Horizontal, X K	Horizontal, Z K
Leg C	Max. Vert	10	267.81	27.00	-16.00
	Max. H_x	10	267.81	27.00	-16.00
	Max. H_z	3	-165.63	-16.80	12.15
	Min. Vert	4	-191.35	-20.27	12.07
	Min. H_x	4	-191.35	-20.27	12.07
	Min. H_z	10	267.81	27.00	-16.00
Leg B	Max. Vert	6	267.94	-27.01	-16.01
	Max. H_x	12	-192.31	20.35	12.11
	Max. H_z	13	-166.59	16.87	12.19
	Min. Vert	12	-192.31	20.35	12.11
	Min. H_x	6	267.94	-27.01	-16.01
	Min. H_z	6	267.94	-27.01	-16.01
Leg A	Max. Vert	2	268.49	0.00	31.40
	Max. H_x	11	29.69	4.24	2.63
	Max. H_z	2	268.49	0.00	31.40
	Min. Vert	8	-190.67	0.01	-23.58
	Min. H_x	5	29.59	-4.25	2.62
	Min. H_z	8	-190.67	0.01	-23.58

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	87.60	0.00	0.00	-13.71	-0.52	0.00
Dead+Wind 0 deg - No Ice	87.60	-0.03	-49.46	-7460.28	6.66	0.14
Dead+Wind 30 deg - No Ice	87.60	22.99	-39.90	-6089.25	-3498.40	-12.20
Dead+Wind 60 deg - No Ice	87.60	38.91	-22.47	-3449.83	-5947.98	-20.25
Dead+Wind 90 deg - No Ice	87.60	46.10	0.01	-12.24	-7022.59	-23.63
Dead+Wind 120 deg - No Ice	87.60	42.85	24.74	3711.16	-6452.18	-22.20
Dead+Wind 150 deg - No Ice	87.60	23.06	39.92	6066.85	-3512.83	-11.85
Dead+Wind 180 deg - No Ice	87.60	-0.01	44.93	6855.00	1.52	0.34
Dead+Wind 210 deg - No Ice	87.60	-23.06	39.86	6053.31	3512.11	12.20

Load Combination	Vertical	$Shear_x$	$Shear_z$	Overturning Moment, M_x	Overturning Moment, M_z	Torque
	K	K	K	kip-ft	kip-ft	kip-ft
Dead+Wind 240 deg - No Ice	87.60	-42.85	24.70	3703.36	6451.99	22.06
Dead+Wind 270 deg - No Ice	87.60	-46.19	-0.01	-15.36	7039.39	23.23
Dead+Wind 300 deg - No Ice	87.60	-39.03	-22.54	-3463.46	5974.62	19.91
Dead+Wind 330 deg - No Ice	87.60	-23.10	-39.99	-6109.63	3520.86	12.24
Dead+Ice	126.19	0.00	0.00	-32.09	-2.35	0.00
Dead+Wind 0 deg+Ice	126.19	-0.03	-45.42	-6924.89	3.26	0.42
Dead+Wind 30 deg+Ice	126.19	21.33	-37.00	-5711.69	-3273.78	-11.93
Dead+Wind 60 deg+Ice	126.19	36.21	-20.92	-3255.65	-5582.54	-20.18
Dead+Wind 90 deg+Ice	126.19	42.75	0.01	-30.94	-6565.78	-23.66
Dead+Wind 120 deg+Ice	126.19	39.35	22.72	3415.55	-5973.84	-22.14
Dead+Wind 150 deg+Ice	126.19	21.38	37.02	5651.43	-3285.07	-12.05
Dead+Wind 180 deg+Ice	126.19	-0.01	41.82	6412.27	-0.76	0.07
Dead+Wind 210 deg+Ice	126.19	-21.38	36.97	5640.85	3280.60	11.93
Dead+Wind 240 deg+Ice	126.19	-39.35	22.69	3409.45	5969.79	21.71
Dead+Wind 270 deg+Ice	126.19	-42.82	-0.01	-33.38	6575.01	23.35
Dead+Wind 300 deg+Ice	126.19	-36.31	-20.96	-3266.30	5599.47	20.11
Dead+Wind 330 deg+Ice	126.19	-21.41	-37.08	-5727.62	3287.44	12.36
Dead+Wind 0 deg - Service	87.60	-0.02	-25.23	-3812.98	3.15	0.07
Dead+Wind 30 deg - Service	87.60	11.73	-20.36	-3113.47	-1785.15	-6.22
Dead+Wind 60 deg - Service	87.60	19.85	-11.47	-1766.83	-3034.94	-10.33
Dead+Wind 90 deg - Service	87.60	23.52	0.00	-12.96	-3583.21	-12.05
Dead+Wind 120 deg - Service	87.60	21.86	12.62	1886.73	-3292.18	-11.33
Dead+Wind 150 deg - Service	87.60	11.76	20.37	3088.61	-1792.51	-6.05
Dead+Wind 180 deg - Service	87.60	-0.00	22.92	3490.73	0.52	0.17
Dead+Wind 210 deg - Service	87.60	-11.77	20.34	3081.71	1791.64	6.22
Dead+Wind 240 deg - Service	87.60	-21.86	12.60	1882.75	3291.58	11.26
Dead+Wind 270 deg - Service	87.60	-23.56	-0.00	-14.55	3591.27	11.85
Dead+Wind 300 deg - Service	87.60	-19.92	-11.50	-1773.79	3048.02	10.16
Dead+Wind 330 deg - Service	87.60	-11.79	-20.41	-3123.87	1796.10	6.25

Solution Summary

	Sum of Applied Forces			Sum of Reactions			
Load Comb.	PX	PY	PZ	PX	PY	PZ	% Error
	K	K	K	K	K	K	
1	0.00	-87.60	0.00	0.00	87.60	0.00	0.000%
2	-0.03	-87.60	-49.46	0.03	87.60	49.46	0.000%
3	22.99	-87.60	-39.90	-22.99	87.60	39.90	0.000%
4	38.91	-87.60	-22.47	-38.91	87.60	22.47	0.000%
5	46.10	-87.60	0.01	-46.10	87.60	-0.01	0.000%
6	42.85	-87.60	24.74	-42.85	87.60	-24.74	0.000%
7	23.06	-87.60	39.92	-23.06	87.60	-39.92	0.000%
8	-0.01	-87.60	44.93	0.01	87.60	-44.93	0.000%
9	-23.06	-87.60	39.86	23.06	87.60	-39.86	0.000%
10	-42.85	-87.60	24.70	42.85	87.60	-24.70	0.000%
11	-46.19	-87.60	-0.01	46.19	87.60	0.01	0.000%
12	-39.03	-87.60	-22.54	39.03	87.60	22.54	0.000%
13	-23.10	-87.60	-39.99	23.10	87.60	39.99	0.000%
14	0.00	-126.19	0.00	0.00	126.19	0.00	0.000%
15	-0.03	-126.19	-45.42	0.03	126.19	45.42	0.000%
16	21.33	-126.19	-37.00	-21.33	126.19	37.00	0.000%
17	36.21	-126.19	-20.92	-36.21	126.19	20.92	0.000%
18	42.75	-126.19	0.01	-42.75	126.19	-0.01	0.000%
19	39.35	-126.19	22.72	-39.35	126.19	-22.72	0.000%
20	21.38	-126.19	37.02	-21.38	126.19	-37.02	0.000%
21	-0.01	-126.19	41.82	0.01	126.19	-41.82	0.000%
22	-21.38	-126.19	36.97	21.38	126.19	-36.97	0.000%
23	-39.35	-126.19	22.69	39.35	126.19	-22.69	0.000%
24	-42.82	-126.19	-0.01	42.82	126.19	0.01	0.000%

	Sum of Applied Forces			Sum of Reactions			
Load Comb.	PX K	PY K	PZ K	PX K	PY K	PZ K	% Error
25	-36.31	-126.19	-20.96	36.31	126.19	20.96	0.000%
26	-21.41	-126.19	-37.08	21.41	126.19	37.08	0.000%
27	-0.02	-87.60	-25.23	0.02	87.60	25.23	0.000%
28	11.73	-87.60	-20.36	-11.73	87.60	20.36	0.000%
29	19.85	-87.60	-11.47	-19.85	87.60	11.47	0.000%
30	23.52	-87.60	0.00	-23.52	87.60	-0.00	0.000%
31	21.86	-87.60	12.62	-21.86	87.60	-12.62	0.000%
32	11.76	-87.60	20.37	-11.76	87.60	-20.37	0.000%
33	-0.00	-87.60	22.92	0.00	87.60	-22.92	0.000%
34	-11.77	-87.60	20.34	11.77	87.60	-20.34	0.000%
35	-21.86	-87.60	12.60	21.86	87.60	-12.60	0.000%
36	-23.56	-87.60	-0.00	23.56	87.60	0.00	0.000%
37	-19.92	-87.60	-11.50	19.92	87.60	11.50	0.000%
38	-11.79	-87.60	-20.41	11.79	87.60	20.41	0.000%

Maximum Tower Deflections - Service Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt deg	Twist deg
T1	300 - 280	7.203	27	0.1968	0.0207
T2	280 - 260	6.374	27	0.1933	0.0193
T3	260 - 240	5.565	27	0.1862	0.0166
T4	240 - 220	4.784	27	0.1768	0.0133
T5	220 - 200	4.052	27	0.1635	0.0113
T6	200 - 180	3.374	27	0.1494	0.0098
T7	180 - 160	2.756	27	0.1331	0.0085
T8	160 - 140	2.200	27	0.1175	0.0072
T9	140 - 120	1.708	27	0.1027	0.0061
T10	120 - 100	1.279	27	0.0868	0.0050
T11	100 - 80	0.913	27	0.0721	0.0040
T12	80 - 60	0.608	27	0.0567	0.0031
T13	60 - 40	0.359	27	0.0424	0.0021
T14	40 - 20	0.185	27	0.0276	0.0014
T15	20 - 0	0.058	31	0.0139	0.0007

Critical Deflections and Radius of Curvature - Service Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt deg	Twist deg	Radius of Curvature ft
307'6"	Lightning Rod 2"x15'	27	7.203	0.1968	0.0207	737373
300'	(3) ALP 8010	27	7.203	0.1968	0.0207	737373
244'	(4) 68000/68010 w/Pipe Mount	27	4.937	0.1790	0.0139	97126
232'	FR70-12-L2	27	4.484	0.1718	0.0124	87720
226'10-13/16"	PiROD 15' Universal T-Frame Sector Mount	27	4.298	0.1683	0.0119	89909
221'9-19/32"	PiROD 15' Universal T-Frame Sector Mount	27	4.116	0.1647	0.0115	91924
218'	Andrew 4' w/Radome	27	3.981	0.1621	0.0111	91095
216'8-17/32"	PiROD 15' Universal T-Frame Sector Mount	27	3.936	0.1612	0.0110	90205
211'7-5/16"	PiROD 15' Universal T-Frame Sector Mount	27	3.761	0.1577	0.0107	86220

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt deg	Twist deg	Radius of Curvature ft
206'6-1/8"	PiROD 15' Universal T-Frame Sector Mount	27	3.588	0.1542	0.0103	82537
201'4-29/32"	PiROD 15' Universal T-Frame Sector Mount	27	3.420	0.1505	0.0099	79342
196'3-27/32"	PiROD 15' Universal T-Frame Sector Mount	27	3.255	0.1466	0.0095	78162
191'2-5/8"	PiROD 15' Universal T-Frame Sector Mount	27	3.095	0.1424	0.0092	77998
186'1-7/16"	PiROD 15' Universal T-Frame Sector Mount	27	2.938	0.1382	0.0089	77844
181'1/4"	PiROD 15' Universal T-Frame Sector Mount	27	2.786	0.1339	0.0085	77621
175'11-5/32"	PiROD 15' Universal T-Frame Sector Mount	27	2.638	0.1298	0.0082	76872
170'9-31/32"	PiROD 15' Universal T-Frame Sector Mount	27	2.493	0.1257	0.0079	75911
165'8-3/4"	PiROD 15' Universal T-Frame Sector Mount	27	2.353	0.1218	0.0075	74973
160'7-9/16"	PiROD 15' Universal T-Frame Sector Mount	27	2.217	0.1180	0.0072	74251
155'6-15/32"	PiROD 15' Universal T-Frame Sector Mount	27	2.085	0.1142	0.0069	74713
150'5-9/32"	PiROD 15' Universal T-Frame Sector Mount	27	1.957	0.1105	0.0066	75608
145'4-3/32"	PiROD 15' Universal T-Frame Sector Mount	27	1.833	0.1067	0.0063	76525
140'2-7/8"	PiROD 15' Universal T-Frame Sector Mount	27	1.714	0.1029	0.0061	77302
135'1-13/16"	PiROD 15' Universal T-Frame Sector Mount	27	1.598	0.0989	0.0058	77311
130'19/32"	PiROD 15' Universal T-Frame Sector Mount	27	1.487	0.0948	0.0055	77103
124'11-13/32"	PiROD 15' Universal T-Frame Sector Mount	27	1.379	0.0907	0.0053	76896
119'10-3/16"	PiROD 15' Universal T-Frame Sector Mount	27	1.276	0.0867	0.0050	76479
114'9-1/8"	PiROD 15' Universal T-Frame Sector Mount	27	1.177	0.0829	0.0048	75293
109'7-29/32"	PiROD 15' Universal T-Frame Sector Mount	27	1.081	0.0792	0.0045	73977
104'6-23/32"	PiROD 15' Universal T-Frame Sector Mount	27	0.990	0.0755	0.0043	72708
99'5-17/32"	PiROD 15' Universal T-Frame Sector Mount	27	0.904	0.0717	0.0040	73386
94'4-7/16"	PiROD 15' Universal T-Frame Sector Mount	27	0.821	0.0678	0.0038	80561
89'3-1/4"	PiROD 15' Universal T-Frame Sector Mount	27	0.743	0.0638	0.0035	90837
84'2-1/32"	PiROD 15' Universal T-Frame Sector Mount	27	0.668	0.0598	0.0033	104082
79'27/32"	PiROD 15' Universal T-Frame Sector Mount	27	0.595	0.0560	0.0030	106345
73'11-3/4"	PiROD 15' Universal T-Frame Sector Mount	27	0.526	0.0523	0.0028	82929
68'10-9/16"	PiROD 15' Universal T-Frame Sector Mount	27	0.461	0.0487	0.0025	66193
63'9-3/8"	PiROD 15' Universal T-Frame Sector Mount	27	0.400	0.0451	0.0023	55130
58'8-5/32"	PiROD 15' Universal T-Frame Sector Mount	27	0.345	0.0414	0.0020	52918
53'7-3/32"	PiROD 15' Universal T-Frame	27	0.296	0.0377	0.0019	65432

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt deg	Twist deg	Radius of Curvature ft
48'5-7/8"	Sector Mount PiROD 15' Universal T-Frame Sector Mount	27	0.251	0.0339	0.0017	89260
43'4-11/16"	PiROD 15' Universal T-Frame Sector Mount	27	0.211	0.0301	0.0015	139504
38'3-15/32"	PiROD 15' Universal T-Frame Sector Mount	27	0.172	0.0264	0.0013	161820
33'2-13/32"	PiROD 15' Universal T-Frame Sector Mount	27	0.135	0.0228	0.0012	100663
28'1-3/16"	PiROD 15' Universal T-Frame Sector Mount	27	0.101	0.0194	0.0010	71062
23'	PiROD 15' Universal T-Frame Sector Mount	31	0.072	0.0159	0.0008	55212

Maximum Tower Deflections - Design Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt deg	Twist deg
T1	300 - 280	14.091	2	0.3847	0.0423
T2	280 - 260	12.469	2	0.3780	0.0393
T3	260 - 240	10.888	2	0.3642	0.0338
T4	240 - 220	9.359	2	0.3457	0.0270
T5	220 - 200	7.927	2	0.3197	0.0228
T6	200 - 180	6.602	2	0.2923	0.0196
T7	180 - 160	5.393	2	0.2603	0.0168
T8	160 - 140	4.305	2	0.2298	0.0142
T9	140 - 120	3.343	2	0.2008	0.0120
T10	120 - 100	2.503	2	0.1698	0.0099
T11	100 - 80	1.786	2	0.1410	0.0079
T12	80 - 60	1.191	2	0.1109	0.0060
T13	60 - 40	0.702	2	0.0829	0.0041
T14	40 - 20	0.362	2	0.0540	0.0027
T15	20 - 0	0.113	6	0.0271	0.0014

Critical Deflections and Radius of Curvature - Design Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt deg	Twist deg	Radius of Curvature ft
307'6"	Lightning Rod 2"x15'	2	14.091	0.3847	0.0423	380318
300'	(3) ALP 8010	2	14.091	0.3847	0.0423	380318
244'	(4) 68000/68010 w/Pipe Mount	2	9.658	0.3500	0.0282	49740
232'	FR70-12-L2	2	8.774	0.3359	0.0250	44912
226'10-13/16"	PiROD 15' Universal T-Frame Sector Mount	2	8.410	0.3291	0.0240	46037
221'9-19/32"	PiROD 15' Universal T-Frame Sector Mount	2	8.052	0.3222	0.0231	47071
218'	Andrew 4' w/Radome	2	7.790	0.3170	0.0225	46642
216'8-17/32"	PiROD 15' Universal T-Frame Sector Mount	2	7.702	0.3153	0.0223	46182
211'7-5/16"	PiROD 15' Universal T-Frame Sector Mount	2	7.358	0.3085	0.0214	44126
206'6-1/8"	PiROD 15' Universal T-Frame	2	7.021	0.3016	0.0206	42227

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt deg	Twist deg	Radius of Curvature ft
201'4-29/32"	Sector Mount PiROD 15' Universal T-Frame Sector Mount	2	6.692	0.2943	0.0198	40581
196'3-27/32"	PiROD 15' Universal T-Frame Sector Mount	2	6.370	0.2866	0.0190	39977
191'2-5/8"	PiROD 15' Universal T-Frame Sector Mount	2	6.056	0.2786	0.0183	39897
186'1-7/16"	PiROD 15' Universal T-Frame Sector Mount	2	5.750	0.2703	0.0176	39823
181'1/4"	PiROD 15' Universal T-Frame Sector Mount	2	5.452	0.2620	0.0170	39712
175'11-5/32"	PiROD 15' Universal T-Frame Sector Mount	2	5.161	0.2538	0.0163	39325
170'9-31/32"	PiROD 15' Universal T-Frame Sector Mount	2	4.879	0.2459	0.0156	38826
165'8-3/4"	PiROD 15' Universal T-Frame Sector Mount	2	4.604	0.2382	0.0149	38340
160'7-9/16"	PiROD 15' Universal T-Frame Sector Mount	2	4.338	0.2307	0.0143	37965
155'6-15/32"	PiROD 15' Universal T-Frame Sector Mount	2	4.080	0.2234	0.0137	38201
150'5-9/32"	PiROD 15' Universal T-Frame Sector Mount	2	3.830	0.2161	0.0131	38661
145'4-3/32"	PiROD 15' Universal T-Frame Sector Mount	2	3.588	0.2087	0.0125	39132
140'2-7/8"	PiROD 15' Universal T-Frame Sector Mount	2	3.354	0.2012	0.0120	39531
135'1-13/16"	PiROD 15' Universal T-Frame Sector Mount	2	3.128	0.1933	0.0115	39536
130'19/32"	PiROD 15' Universal T-Frame Sector Mount	2	2.910	0.1854	0.0109	39430
124'11-13/32"	PiROD 15' Universal T-Frame Sector Mount	2	2.699	0.1774	0.0104	39324
119'10-3/16"	PiROD 15' Universal T-Frame Sector Mount	2	2.497	0.1696	0.0099	39110
114'9-1/8"	PiROD 15' Universal T-Frame Sector Mount	2	2.303	0.1621	0.0094	38502
109'7-29/32"	PiROD 15' Universal T-Frame Sector Mount	2	2.117	0.1549	0.0089	37827
104'6-23/32"	PiROD 15' Universal T-Frame Sector Mount	2	1.939	0.1476	0.0084	37177
99'5-17/32"	PiROD 15' Universal T-Frame Sector Mount	2	1.769	0.1402	0.0079	37523
94'4-7/16"	PiROD 15' Universal T-Frame Sector Mount	2	1.608	0.1326	0.0074	41195
89'3-1/4"	PiROD 15' Universal T-Frame Sector Mount	2	1.454	0.1248	0.0069	46456
84'2-1/32"	PiROD 15' Universal T-Frame Sector Mount	2	1.307	0.1171	0.0064	53240
79'27/32"	PiROD 15' Universal T-Frame Sector Mount	2	1.166	0.1095	0.0059	54396
73'11-3/4"	PiROD 15' Universal T-Frame Sector Mount	2	1.030	0.1023	0.0054	42400
68'10-9/16"	PiROD 15' Universal T-Frame Sector Mount	2	0.902	0.0953	0.0049	33833
63'9-3/8"	PiROD 15' Universal T-Frame Sector Mount	2	0.783	0.0882	0.0045	28172
58'8-5/32"	PiROD 15' Universal T-Frame Sector Mount	2	0.676	0.0811	0.0040	27040
53'7-3/32"	PiROD 15' Universal T-Frame Sector Mount	2	0.579	0.0737	0.0036	33438

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt deg	Twist deg	Radius of Curvature ft
48'5-7/8"	PiROD 15' Universal T-Frame Sector Mount	2	0.492	0.0662	0.0033	45625
43'4-11/16"	PiROD 15' Universal T-Frame Sector Mount	2	0.412	0.0588	0.0029	71339
38'3-15/32"	PiROD 15' Universal T-Frame Sector Mount	2	0.337	0.0516	0.0026	82780
33'2-13/32"	PiROD 15' Universal T-Frame Sector Mount	2	0.265	0.0447	0.0023	51476
28'1-3/16"	PiROD 15' Universal T-Frame Sector Mount	2	0.199	0.0379	0.0019	36332
23'	PiROD 15' Universal T-Frame Sector Mount	6	0.141	0.0311	0.0016	28225

Compression Checks

Leg Design Data (Compression):

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	F_a ksi	A in^2	Actual P K	Allow. P_a K	Ratio $\frac{P}{P_a}$
T1	300 - 280	2 1/4	20'1/8"	6'8-1/32"	142.3 K=1.00	7.372	3.9761	-6.57	29.31	0.224
T2	280 - 260	2 3/4	20'3/8"	6'8-5/32"	116.6 K=1.00	10.992	5.9396	-16.82	65.29	0.258
T3	260 - 240	3	20'3/8"	6'8-5/32"	106.8 K=1.00	13.081	7.0686	-29.27	92.47	0.317
T4	240 - 220	3	20'3/8"	5'1/8"	80.1 K=1.00	18.986	7.0686	-44.34	134.20	0.330
T5	220 - 200	3 1/4	20'3/8"	5'1/8"	74.0 K=1.00	20.191	8.2958	-61.65	167.50	0.368
T6	200 - 180	3 1/4	20'3/8"	5'1/8"	74.0 K=1.00	20.191	8.2958	-79.56	167.50	0.475
T7	180 - 160	3 1/2	20'3/8"	5'1/8"	68.7 K=1.00	21.180	9.6211	-98.05	203.78	0.481
T8	160 - 140	3 3/4	20'3/8"	5'1/8"	64.1 K=1.00	22.004	11.0447	-117.71	243.03	0.484
T9	140 - 120	3 3/4	20'3/8"	5'1/8"	64.1 K=1.00	22.004	11.0447	-131.73	243.03	0.542
T10	120 - 100	4	20'3/8"	5'1/8"	60.1 K=1.00	22.700	12.5664	-151.63	285.26	0.532
T11	100 - 80	4	20'3/8"	5'1/8"	60.1 K=1.00	22.700	12.5664	-171.28	285.26	0.600
T12	80 - 60	4 1/4	20'3/8"	5'1/8"	56.6 K=1.00	23.295	14.1863	-192.88	330.47	0.584
T13	60 - 40	4 1/4	20'3/8"	5'1/8"	56.6 K=1.00	23.295	14.1863	-213.26	330.47	0.645
T14	40 - 20	4 1/2	20'3/8"	5'1/8"	53.4 K=1.00	23.808	15.9043	-237.01	378.66	0.626
T15	20 - 0	4 1/2	20'3/8"	5'1/8"	53.4 K=1.00	23.808	15.9043	-256.55	378.66	0.678

Leg Bending Design Data (Compression):

Section No.	Elevation ft	Size	Actual M_x kip-ft	Actual f_{bx} ksi	Allow. F_{bx} ksi	Ratio $\frac{f_{bx}}{F_{bx}}$	Actual M_y kip-ft	Actual f_{by} ksi	Allow. F_{by} ksi	Ratio $\frac{f_{by}}{F_{by}}$
T1	300 - 280	2 1/4	0.15	-1.585	37.500	0.042	0.00	0.000	37.500	0.000
T2	280 - 260	2 3/4	0.19	-1.123	37.500	0.030	0.00	0.000	37.500	0.000
T3	260 - 240	3	0.54	-2.438	37.500	0.065	0.00	0.000	37.500	0.000
T4	240 - 220	3	0.19	-0.857	37.500	0.023	0.00	0.000	37.500	0.000
T5	220 - 200	3 1/4	0.26	-0.937	37.500	0.025	0.00	0.000	37.500	0.000
T6	200 - 180	3 1/4	0.30	-1.064	37.500	0.028	0.00	0.000	37.500	0.000
T7	180 - 160	3 1/2	0.35	-0.985	37.500	0.026	0.00	0.000	37.500	0.000
T8	160 - 140	3 3/4	0.62	-1.438	37.500	0.038	0.00	0.000	37.500	0.000
T9	140 - 120	3 3/4	0.86	-2.003	37.500	0.053	0.00	0.000	37.500	0.000
T10	120 - 100	4	1.15	-2.195	37.500	0.059	0.00	0.000	37.500	0.000
T11	100 - 80	4	1.21	-2.315	37.500	0.062	0.00	0.000	37.500	0.000
T12	80 - 60	4 1/4	1.38	-2.201	37.500	0.059	0.00	0.000	37.500	0.000
T13	60 - 40	4 1/4	1.37	-2.178	37.500	0.058	0.00	0.000	37.500	0.000
T14	40 - 20	4 1/2	1.64	-2.204	37.500	0.059	0.00	0.000	37.500	0.000
T15	20 - 0	4 1/2	1.64	-2.200	37.500	0.059	0.00	0.000	37.500	0.000

Leg Interaction Design Data (Compression):

Section No.	Elevation ft	Size	Ratio $\frac{P}{P_a}$	Ratio $\frac{f_{bx}}{F_{bx}}$	Ratio $\frac{f_{by}}{F_{by}}$	Comb. Stress Ratio	Allow. Stress Ratio	Criteria
T1	300 - 280	2 1/4	0.224	0.042	0.000	0.266 ✔	1.333	H1-3 ✔
T2	280 - 260	2 3/4	0.258	0.030	0.000	0.288 ✔	1.333	H1-3 ✔
T3	260 - 240	3	0.317	0.065	0.000	0.382 ✔	1.333	H1-3 ✔
T4	240 - 220	3	0.330	0.023	0.000	0.353 ✔	1.333	H1-3 ✔
T5	220 - 200	3 1/4	0.368	0.025	0.000	0.393 ✔	1.333	H1-3 ✔
T6	200 - 180	3 1/4	0.475	0.028	0.000	0.503 ✔	1.333	H1-3 ✔
T7	180 - 160	3 1/2	0.481	0.026	0.000	0.507 ✔	1.333	H1-3 ✔
T8	160 - 140	3 3/4	0.484	0.038	0.000	0.523 ✔	1.333	H1-3 ✔
T9	140 - 120	3 3/4	0.542	0.053	0.000	0.595 ✔	1.333	H1-3 ✔
T10	120 - 100	4	0.532	0.059	0.000	0.590 ✔	1.333	H1-3 ✔
T11	100 - 80	4	0.600	0.062	0.000	0.662 ✔	1.333	H1-3 ✔
T12	80 - 60	4 1/4	0.584	0.059	0.000	0.642 ✔	1.333	H1-3 ✔
T13	60 - 40	4 1/4	0.645	0.058	0.000	0.703 ✔	1.333	H1-3 ✔
T14	40 - 20	4 1/2	0.626	0.059	0.000	0.685 ✔	1.333	H1-3 ✔
T15	20 - 0	4 1/2	0.678	0.059	0.000	0.736 ✔	1.333	H1-3 ✔

Diagonal Design Data (Compression):

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	F_a ksi	A in^2	Actual P K	Allow. P_a K	Ratio $\frac{P}{P_a}$
T1	300 - 280	L2 1/2x2 1/2x3/16	10'3"	5'1/8"	121.4 K=1.00	10.077	0.9020	-1.40	9.09	0.154 ✔
T2	280 - 260	L3x3x3/16	11'8-7/8"	5'9-19/32"	117.6 K=1.01	10.539	1.0900	-1.97	11.49	0.171 ✔

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	F_a ksi	A in^2	Actual P K	Allow. P_a K	Ratio $\frac{P}{P_a}$
T3	260 - 240	L3x3x3/16	13'5-9/32"	6'7-9/16"	133.5 K=1.00	8.376	1.0900	-2.86	9.13	0.313 ✔
T4	240 - 220	2L2 1/2x2 1/2x3/16x3/8	8'7-3/16"	8'2-5/32"	126.2 K=1.00	9.383	1.8000	-4.08	16.89	0.241 ✔
T5	220 - 200	2L2 1/2x2 1/2x3/16x3/8	9'5-9/32"	9'	138.9 K=1.00	7.741	1.8000	-4.48	13.93	0.322 ✔
T6	200 - 180	2L2 1/2x2 1/2x3/16x3/8	10'3-19/32"	9'8-17/32"	138.4 K=0.92	7.802	1.8000	-4.96	14.04	0.353 ✔
T7	180 - 160	2L2 1/2x2 1/2x3/16x3/8	11'2-5/32"	10'7-3/32"	146.7 K=0.90	6.942	1.8000	-5.46	12.50	0.437 ✔
T8	160 - 140	2L3x3x3/16x3/8	12'31/32"	11'5-7/8"	136.5 K=0.93	8.019	2.1800	-6.14	17.48	0.351 ✔
T9	140 - 120	2L3x3x3/16x3/8	15'7-7/16"	7'7-3/16"	108.6 K=1.12	11.702	2.1800	-8.38	25.51	0.329 ✔
T10	120 - 100	2L3x3x3/16x3/8	16'4-13/16"	7'11-7/8"	111.0 K=1.09	11.387	2.1800	-8.72	24.82	0.351 ✔
T11	100 - 80	2L3x3x3/16x3/8	17'2-17/32"	8'4-11/16"	113.6 K=1.06	11.058	2.1800	-9.43	24.11	0.391 ✔
T12	80 - 60	2L3x3x3/16x3/8	18'3/8"	8'9-19/32"	116.2 K=1.03	10.716	2.1800	-9.67	23.36	0.414 ✔
T13	60 - 40	2L3x3x1/4x3/8	18'10-7/16"	9'2-5/8"	119.5 K=1.00	10.355	2.8800	-10.49	29.82	0.352 ✔
T14	40 - 20	2L3x3x1/4x3/8	19'8-3/4"	9'7-13/16"	123.5 K=0.99	9.779	2.8800	-10.71	28.16	0.380 ✔
T15	20 - 0	2L3x3x1/4x3/8	20'7-3/32"	10'31/32"	127.7 K=0.98	9.152	2.8800	-11.27	26.36	0.428 ✔

Horizontal Design Data (Compression):

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	F_a ksi	A in^2	Actual P K	Allow. P_a K	Ratio $\frac{P}{P_a}$
T4	240 - 220	L2 1/2x2 1/2x3/16	13'6"	6'5-7/8"	157.3 K=1.00	6.033	0.9020	-0.22	5.44	0.040 ✔
T5	220 - 200	L2 1/2x2 1/2x3/16	14'6"	6'11-3/4"	169.2 K=1.00	5.217	0.9020	-0.31	4.71	0.067 ✔
T6	200 - 180	L3x3x3/16	17'6"	8'5-3/4"	170.7 K=1.00	5.124	1.0900	-0.25	5.58	0.044 ✔
T7	180 - 160	L3x3x3/16	18'6"	8'11-5/8"	180.6 K=1.00	4.579	1.0900	-0.27	4.99	0.055 ✔
T8	160 - 140	L3 1/2x3 1/2x1/4	21'6"	10'5-17/32"	180.8 K=1.00	4.566	1.6900	-0.35	7.72	0.045 ✔
T9	140 - 120	2L2 1/2x2 1/2x3/16x3/8	23'	11'2-17/32"	172.9 K=1.00	4.997	1.8000	-0.65	8.99	0.072 ✔
T10	120 - 100	2L2 1/2x2 1/2x3/16x3/8	25'	12'2-13/32"	188.1 K=1.00	4.219	1.8000	-0.66	7.59	0.088 ✔
T11	100 - 80	2L3x3x3/16x3/8	27'	13'2-13/32"	168.7 K=1.00	5.249	2.1800	-0.67	11.44	0.059 ✔
T12	80 - 60	2L3x3x3/16x3/8	29'	14'2-9/32"	181.3 K=1.00	4.543	2.1800	-0.62	9.90	0.062 ✔
T13	60 - 40	2L3x3x3/16x3/8	31'	15'2-	194.1	3.964	2.1800	-0.61	8.64	0.071

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	F_a ksi	A in^2	Actual P K	Allow. P_a K	Ratio $\frac{P}{P_a}$
				9/32"	K=1.00					✔
T14	40 - 20	2L3 1/2x3 1/2x1/4x3/8	33'	16'2-5/32"	178.1 K=1.00	4.708	3.3800	-0.56	15.91	0.035 ✔
T15	20 - 0	2L3 1/2x3 1/2x1/4x3/8	35'	17'2-5/32"	189.1 K=1.00	4.176	3.3800	-0.62	14.11	0.044 ✔

Top Girt Design Data (Compression):

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	F_a ksi	A in^2	Actual P K	Allow. P_a K	Ratio $\frac{P}{P_a}$
T1	300 - 280	L2 1/2x2 1/2x3/16	6'8-9/32"	6'2-3/4"	151.0 K=1.00	6.548	0.9020	-0.24	5.91	0.040 ✔

Redundant Horizontal Design Data (Compression):

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	F_a ksi	A in^2	Actual P K	Allow. P_a K	Ratio $\frac{P}{P_a}$
T9	140 - 120	2L1 1/2x1 1/2x1/8	5'9"	5'7-3/32"	134.9 K=0.94	8.201	0.7188	-1.98	5.89	0.336 ✔
T10	120 - 100	L2 1/2x2 1/2x3/16	6'3"	6'31/32"	136.9 K=0.93	7.968	0.9020	-2.29	7.19	0.319 ✔
T11	100 - 80	L2 1/2x2 1/2x3/16	6'9"	6'6-31/32"	144.4 K=0.90	7.167	0.9020	-2.59	6.46	0.401 ✔
T12	80 - 60	L2 1/2x2 1/2x3/16	7'3"	7'27/32"	151.7 K=0.88	6.493	0.9020	-2.92	5.86	0.498 ✔
T13	60 - 40	L2 1/2x2 1/2x3/16	7'9"	7'6-27/32"	159.1 K=0.87	5.899	0.9020	-3.22	5.32	0.606 ✔
T14	40 - 20	L2 1/2x2 1/2x3/16	8'3"	8'23/32"	166.4 K=0.85	5.393	0.9020	-3.56	4.86	0.732 ✔
T15	20 - 0	L2 1/2x2 1/2x3/16	8'9"	8'6-23/32"	173.9 K=0.84	4.940	0.9020	-3.88	4.46	0.870 ✔

Redundant Diagonal Design Data (Compression):

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	F_a ksi	A in^2	Actual P K	Allow. P_a K	Ratio $\frac{P}{P_a}$
T9	140 - 120	ROHN 2 STD	7'9-23/32"	7'7-3/16"	115.9 K=1.00	10.867	1.0745	-1.34	11.68	0.115 ✔
T10	120 - 100	L2 1/2x2 1/2x3/16	8'2-13/32"	7'11-3/4"	165.2 K=0.85	5.469	0.9020	-1.50	4.93	0.305 ✔
T11	100 - 80	L2 1/2x2 1/2x3/16	8'7-3/16"	8'4-11/16"	171.3 K=0.84	5.087	0.9020	-1.65	4.59	0.360 ✔
T12	80 - 60	L2 1/2x2 1/2x3/16	9'1/4"	8'9-19/32"	177.4 K=0.83	4.747	0.9020	-1.81	4.28	0.423 ✔

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	F_a ksi	A in^2	Actual P K	Allow. P_a K	Ratio $\frac{P}{P_a}$
T13	60 - 40	L2 1/2x2 1/2x3/16	9'5-9/32"	9'2-5/8"	183.7 K=0.82	4.425	0.9020	-1.96	3.99	0.491 ✓
T14	40 - 20	L2 1/2x2 1/2x3/16	9'10-5/16"	9'7-11/16"	189.9 K=0.81	4.139	0.9020	-2.13	3.73	0.570 ✓
T15	20 - 0	L2 1/2x2 1/2x3/16	10'3-19/32"	10'31/32"	196.5 K=0.80	3.869	0.9020	-2.28	3.49	0.654 ✓

Redundant Hip Design Data (Compression):

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	F_a ksi	A in^2	Actual P K	Allow. P_a K	Ratio $\frac{P}{P_a}$
T9	140 - 120	C3x4.1	5'9"	5'9"	170.8 K=1.00	5.119	1.2100	-0.02	6.19	0.003 ✓
T10	120 - 100	L2 1/2x2 1/2x3/16	6'3"	6'3"	139.4 K=0.92	7.687	0.9020	-0.02	6.93	0.002 ✓
T11	100 - 80	L2 1/2x2 1/2x3/16	6'9"	6'9"	146.8 K=0.90	6.926	0.9020	-0.01	6.25	0.002 ✓
T12	80 - 60	L2 1/2x2 1/2x3/16	7'3"	7'3"	154.3 K=0.88	6.273	0.9020	-0.01	5.66	0.002 ✓
T13	60 - 40	L2 1/2x2 1/2x3/16	7'9"	7'9"	161.7 K=0.86	5.708	0.9020	-0.02	5.15	0.003 ✓
T14	40 - 20	L2 1/2x2 1/2x3/16	8'3"	8'3"	169.2 K=0.85	5.216	0.9020	-0.01	4.70	0.003 ✓
T15	20 - 0	L2 1/2x2 1/2x3/16	8'9"	8'9"	176.7 K=0.83	4.785	0.9020	-0.01	4.32	0.003 ✓

Inner Bracing Design Data (Compression):

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	F_a ksi	A in^2	Actual P K	Allow. P_a K	Ratio $\frac{P}{P_a}$
T4	240 - 220	L2 1/2x2 1/2x3/16	6'9"	6'9"	146.8 K=0.90	6.926	0.9020	-0.01	6.25	0.001 ✓
T5	220 - 200	L2 1/2x2 1/2x3/16	7'9"	7'9"	161.7 K=0.86	5.708	0.9020	-0.01	5.15	0.002 ✓
T6	200 - 180	L3x3x3/16	8'9"	8'9"	154.5 K=0.88	6.252	1.0900	-0.01	6.81	0.001 ✓
T7	180 - 160	L3x3x3/16	9'9"	9'9"	166.9 K=0.85	5.359	1.0900	-0.01	5.84	0.002 ✓
T8	160 - 140	L3 1/2x3 1/2x1/4	10'9"	10'9"	160.5 K=0.86	5.796	1.6900	-0.01	9.79	0.001 ✓
T9	140 - 120	L3 1/2x3 1/2x1/4	11'6"	11'6"	168.5 K=0.85	5.260	1.6900	-0.02	8.89	0.002 ✓
T10	120 - 100	L4x4x1/4	12'6"	12'6"	162.2 K=0.86	5.673	1.9400	-0.02	11.01	0.002 ✓
T11	100 - 80	L4x4x1/4	13'6"	13'6"	171.5 K=0.84	5.076	1.9400	-0.02	9.85	0.002 ✓
T12	80 - 60	2L3x3x3/16x3/8	14'6"	14'6"	160.2	5.821	2.1800	-0.02	12.69	0.002

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	F_a ksi	A in^2	Actual P K	Allow. P_a K	Ratio $\frac{P}{P_a}$
					K=0.86					✔
T13	60 - 40	2L3x3x3/16x3/8	15'6"	15'6"	168.0	5.290	2.1800	-0.02	11.53	0.002
					K=0.85					✔
T14	40 - 20	2L3 1/2x3 1/2x1/4x3/8	16'6"	16'6"	157.9	5.988	3.3800	-0.02	20.24	0.001
					K=0.87					✔
T15	20 - 0	2L3 1/2x3 1/2x1/4x3/8	17'6"	17'6"	164.7	5.506	3.3800	-0.03	18.61	0.001
					K=0.85					✔

Tension Checks

Leg Design Data (Tension):

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	F_a ksi	A in^2	Actual P K	Allow. P_a K	Ratio $\frac{P}{P_a}$
T1	300 - 280	2 1/4	20'1/8"	6'8-1/32"	142.3	30.000	3.9761	4.94	119.28	0.041
T2	280 - 260	2 3/4	20'3/8"	6'8-5/32"	116.6	30.000	5.9396	13.27	178.19	0.074
T3	260 - 240	3	20'3/8"	6'8-5/32"	106.8	30.000	7.0686	23.03	212.06	0.109
T4	240 - 220	3	20'3/8"	5'1/8"	80.1	30.000	7.0686	34.79	212.06	0.164
T5	220 - 200	3 1/4	20'3/8"	5'1/8"	74.0	30.000	8.2958	48.25	248.87	0.194
T6	200 - 180	3 1/4	20'3/8"	5'1/8"	74.0	30.000	8.2958	62.09	248.87	0.249
T7	180 - 160	3 1/2	20'3/8"	5'1/8"	68.7	30.000	9.6211	76.06	288.63	0.264
T8	160 - 140	3 3/4	20'3/8"	5'1/8"	64.1	30.000	11.0447	90.01	331.34	0.272
T9	140 - 120	3 3/4	20'3/8"	5'1/8"	64.1	30.000	11.0447	100.54	331.34	0.303
T10	120 - 100	4	20'3/8"	5'1/8"	60.1	30.000	12.5664	115.37	376.99	0.306
T11	100 - 80	4	20'3/8"	5'1/8"	60.1	30.000	12.5664	129.56	376.99	0.344
T12	80 - 60	4 1/4	20'3/8"	5'1/8"	56.6	30.000	14.1863	144.44	425.59	0.339
T13	60 - 40	4 1/4	20'3/8"	5'1/8"	56.6	30.000	14.1863	158.55	425.59	0.373
T14	40 - 20	4 1/2	20'3/8"	5'1/8"	53.4	30.000	15.9043	172.91	477.13	0.362
T15	20 - 0	4 1/2	20'3/8"	5'1/8"	53.4	30.000	15.9043	186.04	477.13	0.390

Leg Bending Design Data (Tension):

Section No.	Elevation ft	Size	Actual M_x kip-ft	Actual f_{bx} ksi	Allow. F_{bx} ksi	Ratio $\frac{f_{bx}}{F_{bx}}$	Actual M_y kip-ft	Actual f_{by} ksi	Allow. F_{by} ksi	Ratio $\frac{f_{by}}{F_{by}}$
T1	300 - 280	2 1/4	0.14	1.539	37.500	0.041	0.00	0.000	37.500	0.000
T2	280 - 260	2 3/4	0.18	1.071	37.500	0.029	0.00	0.000	37.500	0.000
T3	260 - 240	3	0.57	2.602	37.500	0.069	0.00	0.000	37.500	0.000
T4	240 - 220	3	0.15	0.675	37.500	0.018	0.00	0.000	37.500	0.000
T5	220 - 200	3 1/4	0.21	0.761	37.500	0.020	0.00	0.000	37.500	0.000
T6	200 - 180	3 1/4	0.24	0.841	37.500	0.022	0.00	0.000	37.500	0.000
T7	180 - 160	3 1/2	0.26	0.755	37.500	0.020	0.00	0.000	37.500	0.000
T8	160 - 140	3 3/4	0.40	0.928	37.500	0.025	0.00	0.000	37.500	0.000
T9	140 - 120	3 3/4	0.73	1.687	37.500	0.045	0.00	0.000	37.500	0.000
T10	120 - 100	4	0.91	1.737	37.500	0.046	0.00	0.000	37.500	0.000
T11	100 - 80	4	0.94	1.796	37.500	0.048	0.00	0.000	37.500	0.000
T12	80 - 60	4 1/4	1.09	1.728	37.500	0.046	0.00	0.000	37.500	0.000
T13	60 - 40	4 1/4	1.04	1.652	37.500	0.044	0.00	0.000	37.500	0.000

Section No.	Elevation ft	Size	Actual M_x kip-ft	Actual f_{bx} ksi	Allow. F_{bx} ksi	Ratio $\frac{f_{bx}}{F_{bx}}$	Actual M_y kip-ft	Actual f_{by} ksi	Allow. F_{by} ksi	Ratio $\frac{f_{by}}{F_{by}}$
T14	40 - 20	4 1/2	1.19	1.594	37.500	0.043	0.00	0.000	37.500	0.000
T15	20 - 0	4 1/2	1.22	1.636	37.500	0.044	0.00	0.000	37.500	0.000

Leg Interaction Design Data (Tension):

Section No.	Elevation ft	Size	Ratio $\frac{P}{P_a}$	Ratio $\frac{f_{bx}}{F_{bx}}$	Ratio $\frac{f_{by}}{F_{by}}$	Comb. Stress Ratio	Allow. Stress Ratio	Criteria
T1	300 - 280	2 1/4	0.041	0.041	0.000	0.082 ✔	1.333	H2-1 ✔
T2	280 - 260	2 3/4	0.074	0.029	0.000	0.103 ✔	1.333	H2-1 ✔
T3	260 - 240	3	0.109	0.069	0.000	0.178 ✔	1.333	H2-1 ✔
T4	240 - 220	3	0.164	0.018	0.000	0.182 ✔	1.333	H2-1 ✔
T5	220 - 200	3 1/4	0.194	0.020	0.000	0.214 ✔	1.333	H2-1 ✔
T6	200 - 180	3 1/4	0.249	0.022	0.000	0.272 ✔	1.333	H2-1 ✔
T7	180 - 160	3 1/2	0.264	0.020	0.000	0.284 ✔	1.333	H2-1 ✔
T8	160 - 140	3 3/4	0.272	0.025	0.000	0.296 ✔	1.333	H2-1 ✔
T9	140 - 120	3 3/4	0.303	0.045	0.000	0.348 ✔	1.333	H2-1 ✔
T10	120 - 100	4	0.306	0.046	0.000	0.352 ✔	1.333	H2-1 ✔
T11	100 - 80	4	0.344	0.048	0.000	0.392 ✔	1.333	H2-1 ✔
T12	80 - 60	4 1/4	0.339	0.046	0.000	0.385 ✔	1.333	H2-1 ✔
T13	60 - 40	4 1/4	0.373	0.044	0.000	0.417 ✔	1.333	H2-1 ✔
T14	40 - 20	4 1/2	0.362	0.043	0.000	0.405 ✔	1.333	H2-1 ✔
T15	20 - 0	4 1/2	0.390	0.044	0.000	0.434 ✔	1.333	H2-1 ✔

Diagonal Design Data (Tension):

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	F_a ksi	A in^2	Actual P K	Allow. P_a K	Ratio $\frac{P}{P_a}$
T1	300 - 280	L2 1/2x2 1/2x3/16	10'3"	5'1/8"	79.3	29.000	0.5798	1.38	16.81	0.082 ✔
T2	280 - 260	L3x3x3/16	11'8-7/8"	5'9-19/32"	75.9	29.000	0.7208	1.94	20.90	0.093 ✔
T3	260 - 240	L3x3x3/16	13'5-9/32"	6'7-9/16"	86.5	29.000	0.7208	2.85	20.90	0.136 ✔
T4	240 - 220	2L2 1/2x2 1/2x3/16x3/8	8'7-3/16"	8'2-5/32"	130.3	29.000	1.1566	3.96	33.54	0.118 ✔
T5	220 - 200	2L2 1/2x2 1/2x3/16x3/8	9'5-9/32"	9'	143.1	29.000	1.1566	4.35	33.54	0.130 ✔
T6	200 - 180	2L2 1/2x2 1/2x3/16x3/8	10'3-19/32"	9'8-17/32"	156.4	29.000	1.1566	4.80	33.54	0.143 ✔
T7	180 - 160	2L2 1/2x2 1/2x3/16x3/8	10'8-7/8"	10'1-13/16"	163.1	29.000	1.1566	5.31	33.54	0.158 ✔
T8	160 - 140	2L3x3x3/16x3/8	11'7-9/16"	11'3/8"	146.4	29.000	1.4416	5.98	41.81	0.143

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	F_a ksi	A in^2	Actual P K	Allow. P_a K	Ratio $\frac{P}{P_a}$
T9	140 - 120	2L3x3x3/16x3/8	15'7-7/16"	7'7-3/16"	99.8	29.000	1.4416	7.74	41.81	0.185 ✓
T10	120 - 100	2L3x3x3/16x3/8	16'4-13/16"	7'11-7/8"	104.8	29.000	1.4416	8.35	41.81	0.200 ✓
T11	100 - 80	2L3x3x3/16x3/8	17'2-17/32"	8'4-11/16"	109.9	29.000	1.4416	8.64	41.81	0.207 ✓
T12	80 - 60	2L3x3x3/16x3/8	18'3/8"	8'9-19/32"	115.2	29.000	1.4416	9.16	41.81	0.219 ✓
T13	60 - 40	2L3x3x1/4x3/8	18'10-7/16"	9'2-5/8"	121.7	29.000	1.9022	9.38	55.16	0.170 ✓
T14	40 - 20	2L3x3x1/4x3/8	18'10-7/16"	9'2-5/8"	121.7	29.000	1.9022	9.91	55.16	0.180 ✓
T15	20 - 0	2L3x3x1/4x3/8	19'8-3/4"	9'7-13/16"	127.3	29.000	1.9022	10.16	55.16	0.184 ✓

Horizontal Design Data (Tension):

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	F_a ksi	A in^2	Actual P K	Allow. P_a K	Ratio $\frac{P}{P_a}$
T4	240 - 220	L2 1/2x2 1/2x3/16	13'6"	6'5-7/8"	102.2	29.000	0.5798	0.21	16.81	0.013 ✓
T5	220 - 200	L2 1/2x2 1/2x3/16	14'6"	6'11-3/4"	109.7	29.000	0.5798	0.31	16.81	0.018 ✓
T6	200 - 180	L3x3x3/16	16'6"	7'11-3/4"	103.7	29.000	0.7208	0.26	20.90	0.013 ✓
T7	180 - 160	L3x3x3/16	18'6"	8'11-5/8"	116.3	29.000	0.7208	0.27	20.90	0.013 ✓
T8	160 - 140	L3 1/2x3 1/2x1/4	21'6"	10'5-17/32"	116.6	29.000	1.1386	0.38	33.02	0.011 ✓
T9	140 - 120	2L2 1/2x2 1/2x3/16x3/8	23'	11'2-17/32"	175.0	29.000	1.1566	0.56	33.54	0.017 ✓
T10	120 - 100	2L2 1/2x2 1/2x3/16x3/8	25'	12'2-13/32"	190.2	29.000	1.1566	0.56	33.54	0.017 ✓
T11	100 - 80	2L3x3x3/16x3/8	27'	13'2-13/32"	170.4	29.000	1.4416	0.57	41.81	0.014 ✓
T12	80 - 60	2L3x3x3/16x3/8	29'	14'2-9/32"	183.0	29.000	1.4416	0.52	41.81	0.013 ✓
T13	60 - 40	2L3x3x3/16x3/8	31'	15'2-9/32"	195.8	29.000	1.4416	0.51	41.81	0.012 ✓
T14	40 - 20	2L3 1/2x3 1/2x1/4x3/8	33'	16'2-5/32"	179.6	29.000	2.2772	0.48	66.04	0.007 ✓
T15	20 - 0	2L3 1/2x3 1/2x1/4x3/8	35'	17'2-5/32"	190.6	29.000	2.2772	0.48	66.04	0.007 ✓

Top Girt Design Data (Tension):

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	F_a ksi	A in^2	Actual P K	Allow. P_a K	Ratio $\frac{P}{P_a}$
T1	300 - 280	L2 1/2x2 1/2x3/16	6'8-9/32"	6'2-3/4"	100.3	29.000	0.5798	0.22	16.81	0.013 ✔

Redundant Horizontal Design Data (Tension):

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	F_a ksi	A in^2	Actual P K	Allow. P_a K	Ratio $\frac{P}{P_a}$
T9	140 - 120	2L1 1/2x1 1/2x1/8	5'9"	5'7-3/32"	144.3	21.600	0.7188	1.98	15.53	0.127 ✔
T10	120 - 100	L2 1/2x2 1/2x3/16	6'3"	6'31/32"	93.8	21.600	0.9020	2.29	19.48	0.118 ✔
T11	100 - 80	L2 1/2x2 1/2x3/16	6'9"	6'6-31/32"	101.5	21.600	0.9020	2.59	19.48	0.133 ✔
T12	80 - 60	L2 1/2x2 1/2x3/16	7'3"	7'27/32"	109.1	21.600	0.9020	2.92	19.48	0.150 ✔
T13	60 - 40	L2 1/2x2 1/2x3/16	7'9"	7'6-27/32"	116.8	21.600	0.9020	3.22	19.48	0.165 ✔
T14	40 - 20	L2 1/2x2 1/2x3/16	8'3"	8'23/32"	124.4	21.600	0.9020	3.56	19.48	0.183 ✔
T15	20 - 0	L2 1/2x2 1/2x3/16	8'9"	8'6-23/32"	132.1	21.600	0.9020	3.88	19.48	0.199 ✔

Redundant Diagonal Design Data (Tension):

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	F_a ksi	A in^2	Actual P K	Allow. P_a K	Ratio $\frac{P}{P_a}$
T9	140 - 120	ROHN 2 STD	7'9-23/32"	7'7-3/16"	115.9	21.600	1.0745	1.34	23.21	0.058 ✔
T10	120 - 100	L2 1/2x2 1/2x3/16	8'2-13/32"	7'11-3/4"	123.2	21.600	0.9020	1.50	19.48	0.077 ✔
T11	100 - 80	L2 1/2x2 1/2x3/16	8'7-3/16"	8'4-11/16"	129.5	21.600	0.9020	1.65	19.48	0.085 ✔
T12	80 - 60	L2 1/2x2 1/2x3/16	9'1/4"	8'9-19/32"	135.7	21.600	0.9020	1.81	19.48	0.093 ✔
T13	60 - 40	L2 1/2x2 1/2x3/16	9'5-9/32"	9'2-5/8"	142.2	21.600	0.9020	1.96	19.48	0.101 ✔
T14	40 - 20	L2 1/2x2 1/2x3/16	9'10-5/16"	9'7-11/16"	148.7	21.600	0.9020	2.13	19.48	0.109 ✔
T15	20 - 0	L2 1/2x2 1/2x3/16	10'3-19/32"	10'31/32"	155.5	21.600	0.9020	2.28	19.48	0.117 ✔

Redundant Hip Design Data (Tension):

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	F_a ksi	A in^2	Actual P K	Allow. P_a K	Ratio $\frac{P}{P_a}$
T9	140 - 120	C3x4.1	5'9"	5'9"	170.8	21.600	1.2100	0.01	26.14	0.000 ✔
T10	120 - 100	L2 1/2x2 1/2x3/16	6'3"	6'3"	96.4	21.600	0.9020	0.01	19.48	0.001 ✔
T11	100 - 80	L2 1/2x2 1/2x3/16	6'9"	6'9"	104.1	21.600	0.9020	0.01	19.48	0.000 ✔
T12	80 - 60	L2 1/2x2 1/2x3/16	7'3"	7'3"	111.8	21.600	0.9020	0.01	19.48	0.000 ✔
T13	60 - 40	L2 1/2x2 1/2x3/16	7'9"	7'9"	119.5	21.600	0.9020	0.01	19.48	0.000 ✔
T14	40 - 20	L2 1/2x2 1/2x3/16	8'3"	8'3"	127.2	21.600	0.9020	0.00	19.48	0.000 ✔
T15	20 - 0	L2 1/2x2 1/2x3/16	8'9"	8'9"	135.0	21.600	0.9020	0.00	19.48	0.000 ✔

Inner Bracing Design Data (Tension):

Section No.	Elevation ft	Size	L ft	L_u ft	Kl/r	F_a ksi	A in^2	Actual P K	Allow. P_a K	Ratio $\frac{P}{P_a}$
T4	240 - 220	L2 1/2x2 1/2x3/16	6'9"	6'9"	104.1	21.600	0.9020	0.00	19.48	0.000 ✔
T5	220 - 200	L2 1/2x2 1/2x3/16	7'3"	7'3"	111.8	21.600	0.9020	0.01	19.48	0.000 ✔
T6	200 - 180	L3x3x3/16	8'3"	8'3"	105.4	21.600	1.0900	0.00	23.54	0.000 ✔
T7	180 - 160	L3x3x3/16	9'3"	9'3"	118.2	21.600	1.0900	0.00	23.54	0.000 ✔
T8	160 - 140	L3 1/2x3 1/2x1/4	10'9"	10'9"	118.3	21.600	1.6900	0.00	36.50	0.000 ✔
T9	140 - 120	L3 1/2x3 1/2x1/4	11'6"	11'6"	126.6	21.600	1.6900	0.01	36.50	0.000 ✔
T10	120 - 100	L4x4x1/4	12'6"	12'6"	120.0	21.600	1.9400	0.01	41.90	0.000 ✔
T11	100 - 80	L4x4x1/4	13'6"	13'6"	129.6	21.600	1.9400	0.01	41.90	0.000 ✔
T12	80 - 60	2L3x3x3/16x3/8	14'6"	14'6"	185.3	21.600	2.1800	0.01	47.09	0.000 ✔
T13	60 - 40	2L3x3x3/16x3/8	15'6"	15'6"	198.1	21.600	2.1800	0.01	47.09	0.000 ✔
T14	40 - 20	2L3 1/2x3 1/2x1/4x3/8	16'6"	16'6"	181.7	21.600	3.3800	0.01	73.01	0.000 ✔
T15	20 - 0	2L3 1/2x3 1/2x1/4x3/8	17'6"	17'6"	192.7	21.600	3.3800	0.01	73.01	0.000 ✔

Bolt Design Data:

Section No.	Elevation ft	Component Type	Bolt Grade	Bolt Size in	Number Of Bolts	Maximum Load K	Allowable Load K	Ratio Load / Allowable	Allowable Ratio	Criteria
T1	300 - 280	Leg	A325N	0.7500	4	0.15	19.44	0.008 ✔	1.333	Bolt Tension
		Diagonal	A325N	0.6250	1	1.40	6.44	0.217 ✔	1.333	Bolt Shear
		Top Girt	A325N	0.6250	1	0.24	6.44	0.037 ✔	1.333	Bolt Shear
T2	280 - 260	Leg	A325N	0.7500	4	1.90	19.44	0.098 ✔	1.333	Bolt Tension
		Diagonal	A325N	0.6250	1	1.97	6.44	0.306 ✔	1.333	Bolt Shear
T3	260 - 240	Leg	A325N	0.7500	4	4.13	19.44	0.212 ✔	1.333	Bolt Tension
		Diagonal	A325N	0.6250	1	2.86	6.44	0.443 ✔	1.333	Bolt Shear
T4	240 - 220	Leg	A325N	0.7500	4	7.08	19.44	0.364 ✔	1.333	Bolt Tension
		Diagonal	A325N	0.6250	1	4.08	12.89	0.316 ✔	1.333	Bolt Shear
		Horizontal	A325N	0.6250	1	0.22	6.44	0.034 ✔	1.333	Bolt Shear
T5	220 - 200	Leg	A325N	0.7500	4	10.41	19.44	0.536 ✔	1.333	Bolt Tension
		Diagonal	A325N	0.6250	1	4.48	12.89	0.348 ✔	1.333	Bolt Shear
		Horizontal	A325N	0.6250	1	0.31	6.44	0.049 ✔	1.333	Bolt Shear
T6	200 - 180	Leg	A325N	0.7500	4	13.82	19.44	0.711 ✔	1.333	Bolt Tension
		Diagonal	A325N	0.6250	2	2.48	12.89	0.193 ✔	1.333	Bolt Shear
		Horizontal	A325N	0.6250	1	0.27	6.44	0.042 ✔	1.333	Bolt Shear
T7	180 - 160	Leg	A325N	0.7500	4	17.29	19.44	0.890 ✔	1.333	Bolt Tension
		Diagonal	A325N	0.6250	2	2.73	12.89	0.212 ✔	1.333	Bolt Shear
		Horizontal	A325N	0.6250	1	0.27	6.44	0.043 ✔	1.333	Bolt Shear
T8	160 - 140	Leg	A325N	0.7500	6	13.86	19.44	0.713 ✔	1.333	Bolt Tension
		Diagonal	A325N	0.6250	2	3.07	12.89	0.238 ✔	1.333	Bolt Shear
		Horizontal	A325N	0.6250	1	0.38	6.44	0.059 ✔	1.333	Bolt Shear
T9	140 - 120	Leg	A325N	0.7500	6	16.77	19.44	0.863 ✔	1.333	Bolt Tension
		Diagonal	A325N	0.6250	2	4.19	12.89	0.325 ✔	1.333	Bolt Shear
		Horizontal	A325N	0.6250	1	0.65	12.89	0.050 ✔	1.333	Bolt Shear
T10	120 - 100	Leg	A325N	0.7500	6	19.25	19.44	0.990 ✔	1.333	Bolt Tension
		Diagonal	A325N	0.6250	2	4.36	12.89	0.339 ✔	1.333	Bolt Shear
		Horizontal	A325N	0.6250	1	0.67	12.89	0.052 ✔	1.333	Bolt Shear
T11	100 - 80	Leg	A325N	1.0000	8	16.21	34.56	0.469 ✔	1.333	Bolt Tension
		Diagonal	A325N	0.6250	2	4.72	12.89	0.366 ✔	1.333	Bolt Shear
		Horizontal	A325N	0.6250	1	0.68	12.89	0.053 ✔	1.333	Bolt Shear
T12	80 - 60	Leg	A325N	1.0000	8	18.07	34.56	0.523 ✔	1.333	Bolt Tension
		Diagonal	A325N	0.6250	2	4.84	12.89	0.375 ✔	1.333	Bolt Shear
		Horizontal	A325N	0.6250	1	0.62	12.89	0.048 ✔	1.333	Bolt Shear
T13	60 - 40	Leg	A325N	1.0000	8	19.83	34.56	0.574 ✔	1.333	Bolt Tension
		Diagonal	A325N	0.6250	2	5.24	12.89	0.407 ✔	1.333	Bolt Shear
		Horizontal	A325N	0.6250	1	0.62	12.89	0.048 ✔	1.333	Bolt Shear
T14	40 - 20	Leg	A325N	1.0000	8	21.63	34.56	0.626 ✔	1.333	Bolt Tension
		Diagonal	A325N	0.6250	2	5.35	12.89	0.416 ✔	1.333	Bolt Shear
		Horizontal	A325N	0.6250	1	0.58	12.89	0.045 ✔	1.333	Bolt Shear

Section No.	Elevation ft	Component Type	Bolt Grade	Bolt Size in	Number Of Bolts	Maximum Load K	Allowable Load K	Ratio Load / Allowable	Allowable Ratio	Criteria
T15	20 - 0	Leg	A325N	1.0000	8	23.27	34.56	0.673 ✔	1.333	Bolt Tension
		Diagonal	A325N	0.6250	2	5.63	12.89	0.437 ✔	1.333	Bolt Shear
		Horizontal	A325N	0.6250	1	0.63	12.89	0.049 ✔	1.333	Bolt Shear

Section Capacity Table

Section No.	Elevation ft	Component Type	Size	Controlling Element	% Capacity	Pass Fail
T1	300 - 280	Leg	2 1/4	1	20.0	Pass
		Diagonal	L2 1/2x2 1/2x3/16	11	16.3	Pass
		Top Girt	L2 1/2x2 1/2x3/16	5	3.0	Pass
T2	280 - 260	Leg	2 3/4	25	21.6	Pass
		Diagonal	L3x3x3/16	32	22.9	Pass
T3	260 - 240	Leg	3	48	28.6	Pass
		Diagonal	L3x3x3/16	54	33.3	Pass
T4	240 - 220	Leg	3	68	27.3	Pass
		Diagonal	2L2 1/2x2 1/2x3/16x3/8	78	23.7	Pass
		Horizontal	L2 1/2x2 1/2x3/16	76	3.0	Pass
		Inner Bracing	L2 1/2x2 1/2x3/16	79	0.2	Pass
T5	220 - 200	Leg	3 1/4	107	40.2	Pass
		Diagonal	2L2 1/2x2 1/2x3/16x3/8	117	26.1	Pass
		Horizontal	L2 1/2x2 1/2x3/16	130	5.0	Pass
		Inner Bracing	L2 1/2x2 1/2x3/16	118	0.2	Pass
T6	200 - 180	Leg	3 1/4	146	53.3	Pass
		Diagonal	2L2 1/2x2 1/2x3/16x3/8	156	26.5	Pass
		Horizontal	L3x3x3/16	151	3.3	Pass
		Inner Bracing	L3x3x3/16	157	0.3	Pass
T7	180 - 160	Leg	3 1/2	185	66.7	Pass
		Diagonal	2L2 1/2x2 1/2x3/16x3/8	195	32.8	Pass
		Horizontal	L3x3x3/16	208	4.1	Pass
		Inner Bracing	L3x3x3/16	196	0.3	Pass
T8	160 - 140	Leg	3 3/4	224	53.5	Pass
		Diagonal	2L3x3x3/16x3/8	234	26.4	Pass
		Horizontal	L3 1/2x3 1/2x1/4	229	4.4	Pass
		Inner Bracing	L3 1/2x3 1/2x1/4	237	0.3	Pass
T9	140 - 120	Leg	3 3/4	263	64.7	Pass
		Diagonal	2L3x3x3/16x3/8	284	24.7	Pass
		Horizontal	2L2 1/2x2 1/2x3/16x3/8	272	5.4	Pass
		Redund Horz Bracing	2L1 1/2x1 1/2x1/8	302	25.2	Pass
		Redund Diag Bracing	ROHN 2 STD	303	8.6	Pass
		Redund Hip Bracing	C3x4.1	304	0.2	Pass
		Inner Bracing	L3 1/2x3 1/2x1/4	290	0.3	Pass
T10	120 - 100	Leg	4	314	74.3	Pass
		Diagonal	2L3x3x3/16x3/8	335	26.4	Pass
		Horizontal	2L2 1/2x2 1/2x3/16x3/8	323	6.6	Pass
		Redund Horz Bracing	L2 1/2x2 1/2x3/16	328	23.9	Pass
		Redund Diag Bracing	L2 1/2x2 1/2x3/16	358	22.9	Pass
		Redund Hip Bracing	L2 1/2x2 1/2x3/16	330	0.2	Pass

Section No.	Elevation ft	Component Type	Size	Controlling Element	% Capacity	Pass Fail
		Inner Bracing	L4x4x1/4	340	0.3	Pass
T11	100 - 80	Leg	4	366	49.7	Pass
		Diagonal	2L3x3x3/16x3/8	386	29.3	Pass
		Horizontal	2L3x3x3/16x3/8	374	4.4	Pass
		Redund Horz Bracing	L2 1/2x2 1/2x3/16	384	30.0	Pass
		Redund Diag Bracing	L2 1/2x2 1/2x3/16	405	27.0	Pass
		Redund Hip Bracing	L2 1/2x2 1/2x3/16	381	0.2	Pass
		Inner Bracing	L4x4x1/4	392	0.4	Pass
T12	80 - 60	Leg	4 1/4	417	48.2	Pass
		Diagonal	2L3x3x3/16x3/8	437	31.1	Pass
		Horizontal	2L3x3x3/16x3/8	425	4.7	Pass
		Redund Horz Bracing	L2 1/2x2 1/2x3/16	430	37.3	Pass
		Redund Diag Bracing	L2 1/2x2 1/2x3/16	456	31.8	Pass
		Redund Hip Bracing	L2 1/2x2 1/2x3/16	432	0.2	Pass
		Inner Bracing	2L3x3x3/16x3/8	443	0.4	Pass
T13	60 - 40	Leg	4 1/4	468	52.8	Pass
		Diagonal	2L3x3x1/4x3/8	488	30.5	Pass
		Horizontal	2L3x3x3/16x3/8	476	5.3	Pass
		Redund Horz Bracing	L2 1/2x2 1/2x3/16	481	45.4	Pass
		Redund Diag Bracing	L2 1/2x2 1/2x3/16	507	36.9	Pass
		Redund Hip Bracing	L2 1/2x2 1/2x3/16	483	0.2	Pass
		Inner Bracing	2L3x3x3/16x3/8	494	0.4	Pass
T14	40 - 20	Leg	4 1/2	519	51.4	Pass
		Diagonal	2L3x3x1/4x3/8	539	31.2	Pass
		Horizontal	2L3 1/2x3 1/2x1/4x3/8	527	3.4	Pass
		Redund Horz Bracing	L2 1/2x2 1/2x3/16	537	54.9	Pass
		Redund Diag Bracing	L2 1/2x2 1/2x3/16	558	42.8	Pass
		Redund Hip Bracing	L2 1/2x2 1/2x3/16	559	0.3	Pass
		Inner Bracing	2L3 1/2x3 1/2x1/4x3/8	545	0.4	Pass
T15	20 - 0	Leg	4 1/2	570	55.2	Pass
		Diagonal	2L3x3x1/4x3/8	579	32.8	Pass
		Horizontal	2L3 1/2x3 1/2x1/4x3/8	578	3.7	Pass
		Redund Horz Bracing	L2 1/2x2 1/2x3/16	583	65.3	Pass
		Redund Diag Bracing	L2 1/2x2 1/2x3/16	613	49.0	Pass
		Redund Hip Bracing	L2 1/2x2 1/2x3/16	585	0.4	Pass
		Inner Bracing	2L3 1/2x3 1/2x1/4x3/8	596	0.4	Pass
					Summary	
				Leg	74.3	Pass
				Diagonal	33.3	Pass
				Horizontal	6.6	Pass
				Top Girt	3.0	Pass
				Redund Horz Bracing	65.3	Pass
				Redund Diag Bracing	49.0	Pass
				Redund Hip	0.4	Pass

Section No.	Elevation ft	Component Type	Size	Controlling Element	% Capacity	Pass Fail
				Bracing		
				Inner Bracing	0.4	Pass
				RATING =	**74.3**	**Pass**