



## **Structural Analysis of 1,066' Guyed Tower**

SITE NAME

Location: Chautauqua County, NY

**Client/Company Name**

**Street Address**

City, State ZIP

May 2006



May 23, 2006

XXXX

**Client/Company Name**

Street Address

Street Address Line 2

Re: SITE NAME

Dear XXXX,

We have completed the analysis of SITE NAME tower located in Chautauqua County, NY and **have found it to be adequate to support the proposed antenna loading** within the scope of this analysis. The analysis was performed using 75.1 mph (fastest mile) wind w/o ice and 60.7 mph (fastest mile) wind w/ 1/2" ice. Per requirements of New York State for emergency communications towers the 1.15 importance factor was used in this analysis which increased 70 mph (fastest mile) basic wind speed required by EIA/TIA 222-F recommended standard for Chautauqua County, NY.

The tower we analyzed is a 999' PiRod KD-90 guyed tower with WNYB-TV Channel 26 ATW3H4-ETC4-26H TRASAR antenna (64.3' tall) mounted at the tower top. Tower consists of all-bolted sections with a face dimension of 7'-6". Tower members consist of solid rod legs and angle and solid rod bracing. Foundation capacities were based on the original design parameters.

The antenna loading used in the analysis consisted of the existing loads plus the following proposed loads:

- 2 – DB806-XT antennas at 650'
- 2 – 101-83B-09-03 antennas at 650'
- 1 – 421-83A-01261 TTA at 647'
- 1 – DA6-65B 6' dia dish at 510' @ 27.8° azimuth
- 1 – DA6-65B 6' dia dish at 510' @ 153.1° azimuth
- 1 – DA6-65B 6' dia dish at 520' @ 258.5° azimuth

We have assumed 1-5/8" feed lines going to the 650' level antennas, and EP65 feed lines going to dishes. Omni antennas can be mounted on either 3', 4', 5' or 6' Gate Booms. For detailed results of the analysis refer to Section Capacity Table (enclosed).

If you have any questions concerning this analysis, please contact us.

Sincerely,  
ARMOR TOWER, INC.

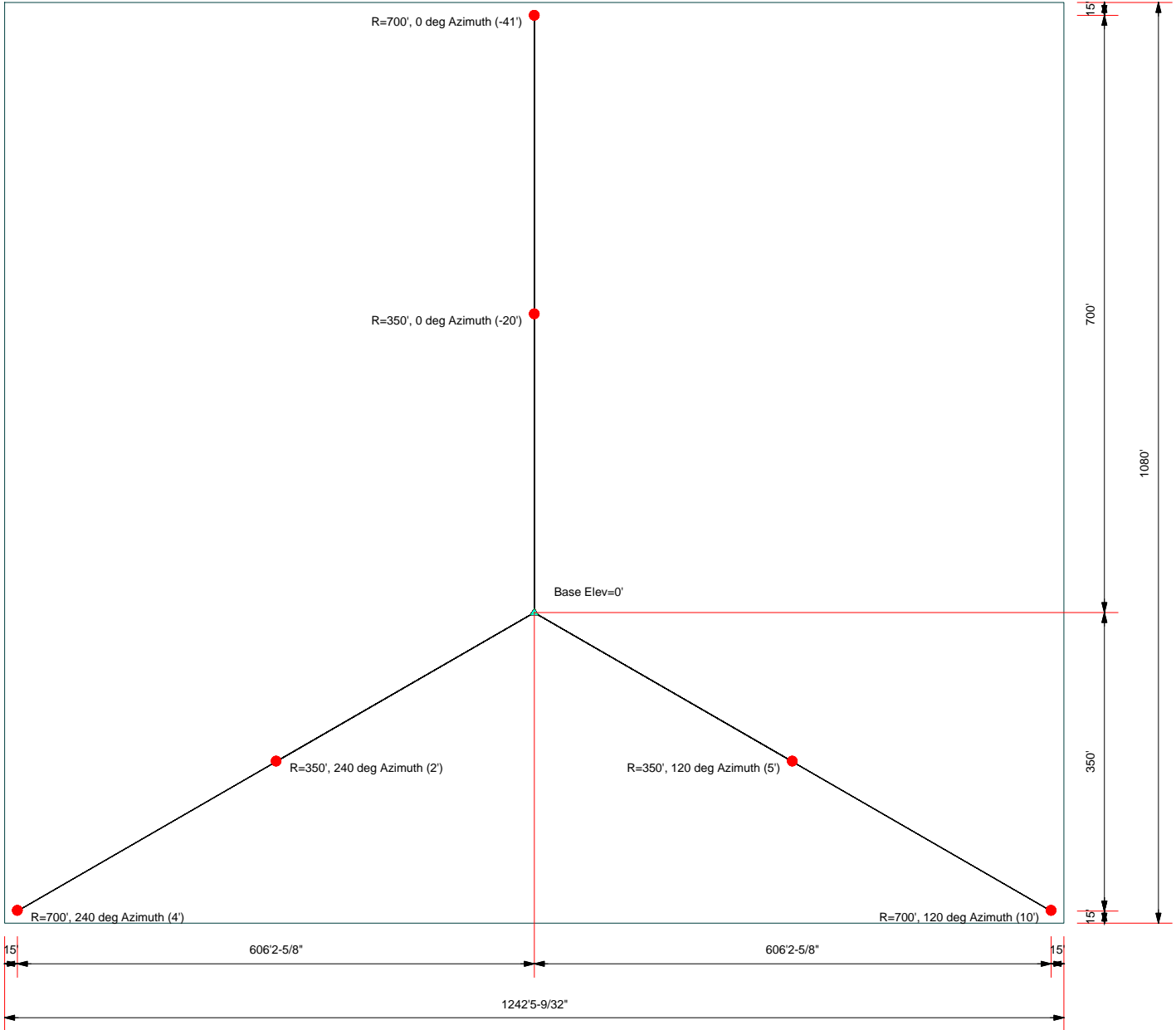
Ed Rosenbloom  
Structural Engineer





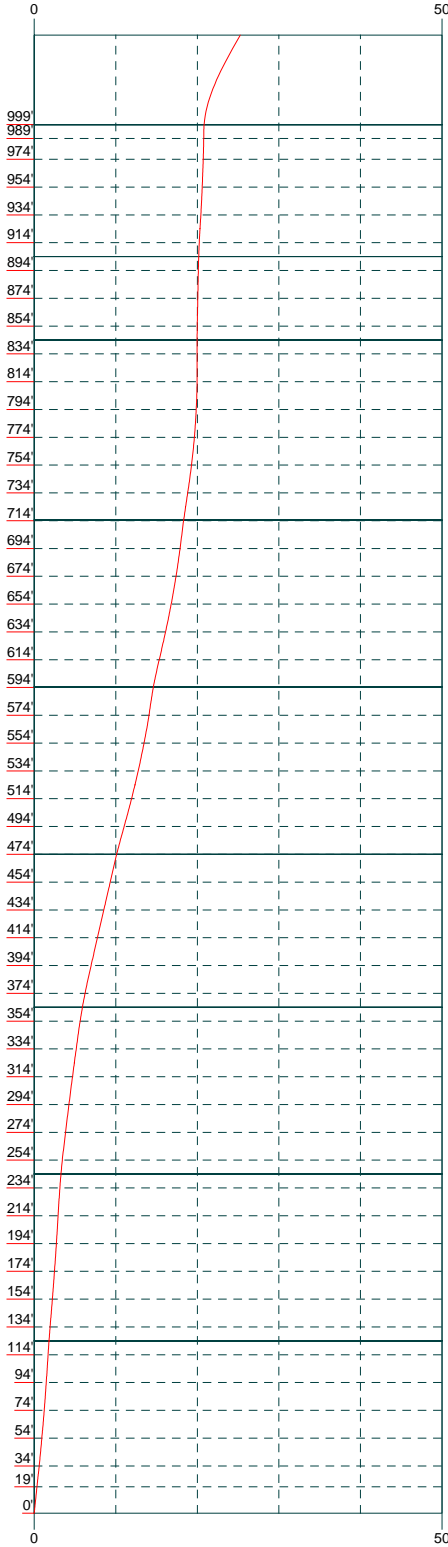


**Plot Plan**  
**Total Area - 30.80 Acres**

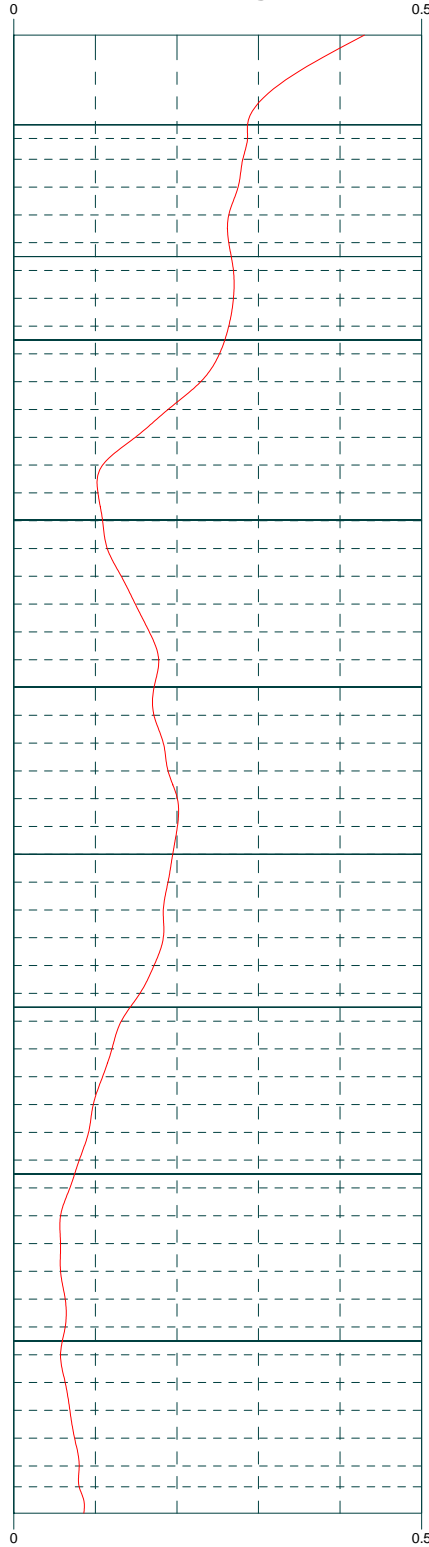


<b>Armor Tower, INC</b>		Job: <b>1,060' Pirod Guyed Tower Analysis</b>	
8014 Sherington Way		Project: <b>WXXX NETWORK TOWER, CHAUTAUQUA CNTY, NY</b>	
Charlotte, NC 28227		Client: CLIENT NAME	Drawn by: EDR
Phone: (585) 230-4406		Code: TIA/EIA-222-F	Date: 11/07/06
FAX: (866) 870-0840		Path: C:\Armor Tower\Projects\DDS\Arkwright\Website\Arkwright.en	App'd:
			Scale: NTS
			Dwg No. E-2

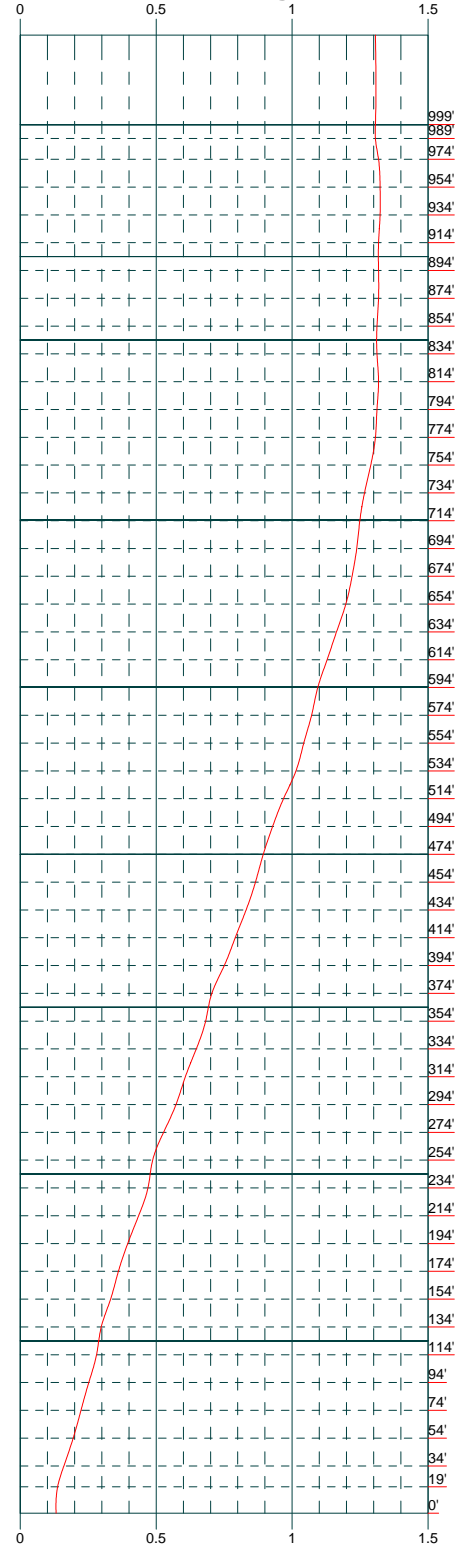
Deflection (in)



Tilt (deg)



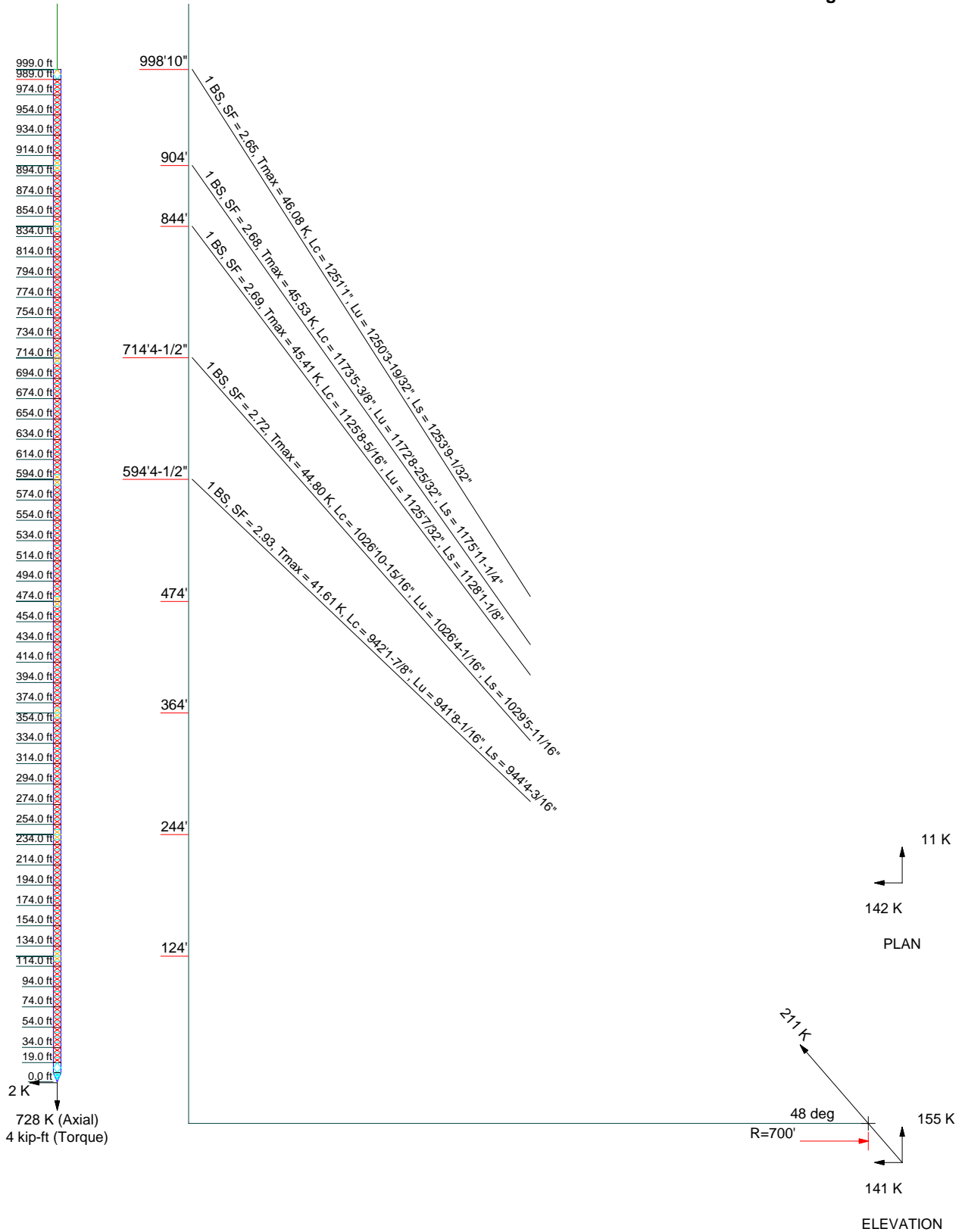
Twist (deg)



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	Code: TIA/EIA-222-F	Date: 11/07/06	Scale: NTS
	Path: C:\Armor Tower\Projects\DDS\Arkwright\WebSite\Arkwright.en		Dwg No. E-5

**Guy Tensions and Tower Reactions**  
TIA/EIA-222-F - 75 mph/61 mph 0.5000 in Ice

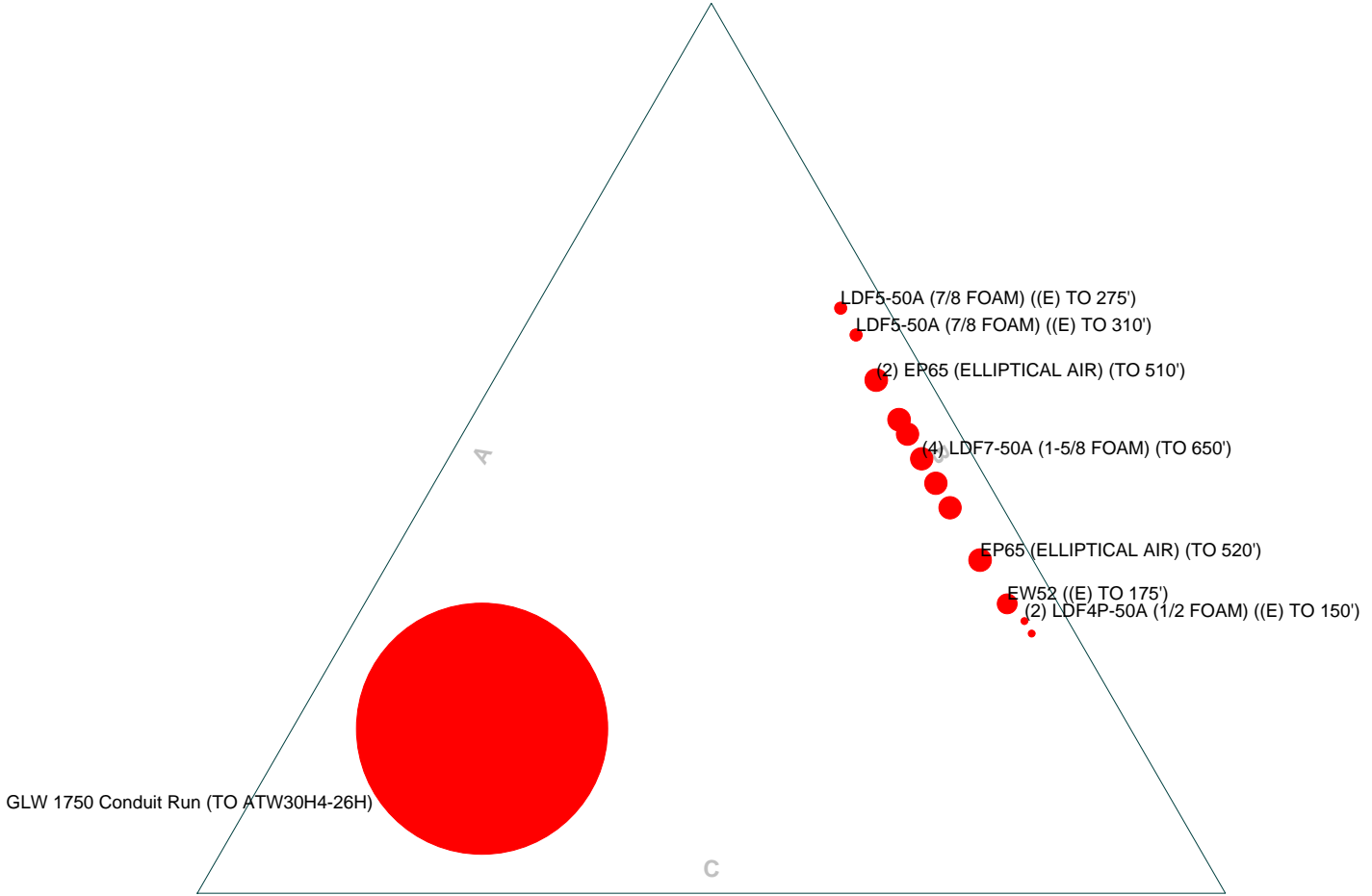
**Maximum Values**  
Anchor 'A' @ 700 ft Azimuth 0 deg Elev -41 ft  
Plane through centroid of tower



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	Code: TIA/EIA-222-F	Date: 11/07/06	Scale: NTS
	Path: C:\Armor Tower\Projects\DDS\Arkwright\Website\Arkwright.en		Dwg No. E-6


# Feedline Plan

— Round   
 — Flat   
 — App In Face   
 — App Out Face



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Code: TIA/EIA-222-F	Date: 11/07/06	Scale: NTS	
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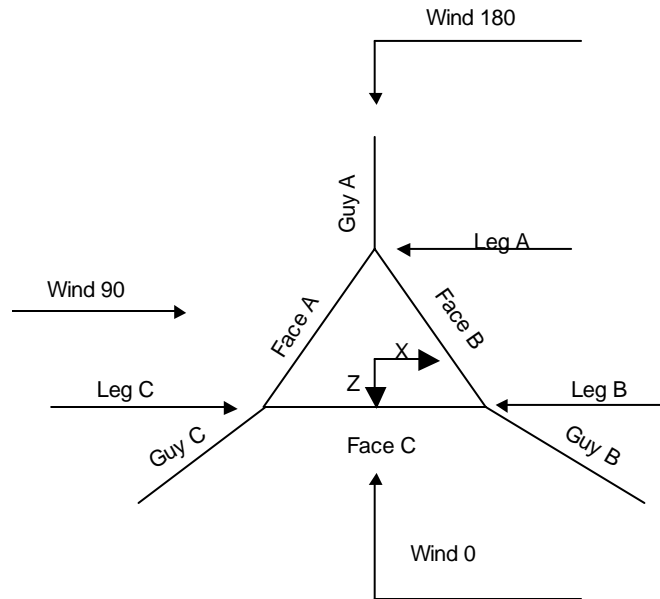
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	<b>Project</b> WXXX NETWORK TOWER, CHAUTAUQUA CNTY, NY	<b>Date</b> 23:22:04 11/07/06
	<b>Client</b> CLIENT NAME	<b>Designed by</b> EDR

**Tower Input Data**

The main tower is a 3x guyed tower with an overall height of 999' 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 7'6" at the top and tapered at the base.  
 This tower is designed using the TIA/EIA-222-F standard.

The following design criteria apply:

- Tower is located in Chautauqua County, New York.
- Basic wind speed of 75 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.
- Temperature drop of 50 °F.
- Deflections calculated using a wind speed of 50 mph.
- Weld together tower sections have flange connections..
- Connections use galvanized A325 bolts, nuts and locking devices. Installation per TIA/EIA-222 and AISC Specifications..
- Tower members are "hot dipped" galvanized in accordance with ASTM A123 and ASTM A153 Standards..
- Welds are fabricated with ER-70S-6 electrodes..
- Tension only take-up is 0.0313 in.
- Pressures are calculated at each section.
- Safety factor used in guy design is 2.3663.
- Stress ratio used in tower member design is 1.0891.
- Local bending stresses due to climbing loads, feedline supports, and appurtenance mounts are not considered.



**Corner & Starmount Guyed Tower**



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### Tower Section Geometry

Tower Section	Tower Elevation	Assembly Database	Description	Section Width	Number of Sections	Section Length
	ft			ft		ft
T1	999'-989'			7'6"	1	10'
T2	989'-974'			7'6"	1	15'
T3-T8	974'-854'			7'6"	6	20'
T9-T14	854'-734'			7'6"	6	20'
T15-T20	734'-614'			7'6"	6	20'
T21-T32	614'-374'			7'6"	12	20'
T33-T37	374'-274'			7'6"	5	20'
T38-T49	274'-34'			7'6"	12	20'
T50	34'-19'			7'6"	1	15'
T51	19'-9'			7'6"	1	10'
T52	9'-0'			7'6"	1	9'

### Tower Section Geometry (cont'd)

Tower Section	Tower Elevation	Diagonal Spacing	Bracing Type	Has K Brace End Panels	Has Horizontals	Top Girt Offset	Bottom Girt Offset
	ft	ft				in	in
T1	999'-989'	4'9-31/32"	Diamond	No	Yes	2.0000	2.0000
T2	989'-974'	4'10-9/16"	TX Brace	No	Yes	0.0000	4.5000
T3-T8	974'-854'	4'9-23/32"	TX Brace	No	Yes	4.5000	4.5000
T9-T14	854'-734'	4'9-23/32"	TX Brace	No	Yes	4.5000	4.5000
T15-T20	734'-614'	4'9-23/32"	TX Brace	No	Yes	4.5000	4.5000
T21-T32	614'-374'	4'9-23/32"	TX Brace	No	Yes	4.5000	4.5000
T33-T37	374'-274'	4'9-23/32"	TX Brace	No	Yes	4.5000	4.5000
T38-T49	274'-34'	4'9-23/32"	TX Brace	No	Yes	4.5000	4.5000
T50	34'-19'	4'10-9/16"	TX Brace	No	Yes	4.5000	0.0000
T51	19'-9'	4'9-31/32"	Diamond	No	Yes	2.0000	2.0000
T52	9'-0'	3'	X Brace	No	Yes	0.0000	0.0000

### Tower Section Geometry (cont'd)

Tower Elevation	Leg Type	Leg Size	Leg Grade	Diagonal Type	Diagonal Size	Diagonal Grade
ft						
T1 999'-989'	Solid Round	2 3/4	A572-50 (50 ksi)	Double Angle	2L2 1/2x2 1/2x5/16x3/8	A36 (36 ksi)
T2 989'-974'	Solid Round	2 3/4	A572-50 (50 ksi)	Solid Round	3/4	A572-50 (50 ksi)
T3-T8 974'-854'	Solid Round	2 3/4	A572-50 (50 ksi)	Solid Round	3/4	A572-50 (50 ksi)
T9-T14 854'-734'	Solid Round	3	A572-50 (50 ksi)	Solid Round	3/4	A572-50 (50 ksi)
T15-T20 734'-614'	Solid Round	3 1/4	A572-50 (50 ksi)	Solid Round	3/4	A572-50 (50 ksi)
T21-T32 614'-374'	Solid Round	3 1/2	A572-50 (50 ksi)	Solid Round	3/4	A572-50 (50 ksi)
T33-T37 374'-274'	Solid Round	3 3/4	A572-50 (50 ksi)	Solid Round	3/4	A572-50 (50 ksi)
T38-T49	Solid Round	4	A572-50	Solid Round	3/4	A572-50



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Tower Elevation ft	Leg Type	Leg Size	Leg Grade	Diagonal Type	Diagonal Size	Diagonal Grade
274'-34'			(50 ksi)			(50 ksi)
T50 34'-19'	Solid Round	4	A572-50	Solid Round	3/4	A572-50
T51 19'-9'	Solid Round	4	(50 ksi) A572-50	Double Equal Angle	2L2 1/2x2 1/2x5/16x3/8	(50 ksi) A36
T52 9'-0'	Solid Round	4	(50 ksi) A572-50	Solid Round	1 1/2	(50 ksi) A572-50

### 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 999'-989'	Channel	C10x15.3	A36	Double Equal Angle	2L2 1/2x2 1/2x5/16x3/8	A36
T2 989'-974'	Double Equal Angle	2L2 1/2x2 1/2x5/16	(36 ksi) A36	Double Equal Angle		(36 ksi) A36
T3-T8 974'-854'	Double Equal Angle	2L2 1/2x2 1/2x5/16	(36 ksi) A36	Double Equal Angle		(36 ksi) A36
T9-T14 854'-734'	Double Equal Angle	2L2 1/2x2 1/2x5/16	(36 ksi) A36	Double Equal Angle		(36 ksi) A36
T15-T20 734'-614'	Double Equal Angle	2L2 1/2x2 1/2x5/16	(36 ksi) A36	Double Equal Angle		(36 ksi) A36
T21-T32 614'-374'	Double Equal Angle	2L2 1/2x2 1/2x5/16	(36 ksi) A36	Double Equal Angle		(36 ksi) A36
T33-T37 374'-274'	Double Equal Angle	2L2 1/2x2 1/2x5/16	(36 ksi) A36	Double Equal Angle		(36 ksi) A36
T38-T49 274'-34'	Double Equal Angle	2L2 1/2x2 1/2x5/16	(36 ksi) A36	Double Equal Angle		(36 ksi) A36
T50 34'-19'	Double Equal Angle	2L2 1/2x2 1/2x5/16	(36 ksi) A36	Double Equal Angle		(36 ksi) A36
T51 19'-9'	Double Equal Angle	2L2 1/2x2 1/2x5/16	(36 ksi) A36	Double Equal Angle	2L2 1/2x2 1/2x5/16x3/8	(36 ksi) A36
T52 9'-0'	Flat Bar	1.5" x 6"	A36	Flat Bar	1.5" x 6"	A36

### 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 999'-989'	None	Flat Bar		A36	Double Equal Angle	2L2 1/2x2 1/2x5/16x3/8	A36
T2 989'-974'	None	Flat Bar		(36 ksi) A36	Double Equal Angle	2L2 1/2x2 1/2x5/16x3/8	(36 ksi) A36
T3-T8 974'-854'	None	Flat Bar		(36 ksi) A36	Double Equal Angle	2L2 1/2x2 1/2x5/16x3/8	(36 ksi) A36
T9-T14 854'-734'	None	Flat Bar		(36 ksi) A36	Double Equal Angle	2L2 1/2x2 1/2x5/16x3/8	(36 ksi) A36
T15-T20 734'-614'	None	Flat Bar		(36 ksi) A36	Double Equal Angle	2L2 1/2x2 1/2x5/16x3/8	(36 ksi) A36
T21-T32 614'-374'	None	Flat Bar		(36 ksi) A36	Double Equal Angle	2L2 1/2x2 1/2x5/16x3/8	(36 ksi) A36





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Tower Elevation ft	Calc K Single Angles	Calc K Solid Rounds	K Factors <sup>1</sup>								
			Legs	X Brace Diags	K Brace Diags	Single Diags	Girts	Horiz.	Sec. Horiz.	Inner Brace	
				X Y	X Y	X Y	X Y	X Y	X Y	X Y	
T3-T8 974'-854'	No	No	1	1	1	1	1	1	1	1	1
T9-T14 854'-734'	No	No	1	1	1	1	1	1	1	1	1
T15-T20 734'-614'	No	No	1	1	1	1	1	1	1	1	1
T21-T32 614'-374'	No	No	1	1	1	1	1	1	1	1	1
T33-T37 374'-274'	No	No	1	1	1	1	1	1	1	1	1
T38-T49 274'-34'	No	No	1	1	1	1	1	1	1	1	1
T50 34'-19'	No	No	1	1	1	1	1	1	1	1	1
T51 19'-9'	No	No	1	1	1	1	1	1	1	1	1
T52 9'-0'	No	No	1	1	1	1	1	1	1	1	1

<sup>1</sup>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 Connection Type	Leg Bolt Size in	Leg No.	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.
T1 999'-989'	Flange	1.0000	4	0.6250	2	0.6250	6	0.6250	2	0.6250	0	0.6250	2	0.6250	0
T2 989'-974'	Flange	1.0000	4	0.6250	2	0.6250	2	0.6250	2	0.6250	0	0.6250	2	0.6250	0
T3-T8 974'-854'	Flange	1.0000	4	0.6250	2	0.6250	2	0.6250	2	0.6250	0	0.6250	2	0.6250	0
T9-T14 854'-734'	Flange	1.0000	4	0.6250	2	0.6250	2	0.6250	2	0.6250	0	0.6250	2	0.6250	0
T15-T20 734'-614'	Flange	1.0000	4	0.6250	2	0.6250	2	0.6250	2	0.6250	0	0.6250	2	0.6250	0
T21-T32 614'-374'	Flange	1.0000	4	0.6250	2	0.6250	2	0.6250	2	0.6250	0	0.6250	2	0.6250	0
T33-T37 374'-274'	Flange	1.0000	4	0.6250	2	0.6250	2	0.6250	2	0.6250	0	0.6250	2	0.6250	0
T38-T49 274'-34'	Flange	1.0000	4	0.6250	2	0.6250	2	0.6250	2	0.6250	0	0.6250	2	0.6250	0
T50 34'-19'	Flange	1.0000	4	0.6250	2	0.6250	2	0.6250	2	0.6250	0	0.6250	2	0.6250	0
T51 19'-9'	Flange	1.0000	4	0.6250	2	0.6250	2	0.6250	2	0.6250	0	0.6250	2	0.6250	0
T52 9'-0'	Flange	1.0000	4	0.0000	0	0.0000	0	0.0000	0	0.6250	0	0.0000	0	0.6250	0



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### Guy Data

Guy Elevation	Guy Grade	Guy Size	Initial Tension	%	Guy Modulus	Guy Weight	$L_u$	Anchor Radius	Anchor Azimuth Adj.	Anchor Elevation	End Fitting Efficiency
ft			K		ksi	plf	ft	ft	°	ft	%
998.833	BS	A 1	12.20	10%	24000	2.100	1250'6-	700'	0.0000	-41'	100%
		B 1	12.20	10%	24000	2.100	23'32"	700'	0.0000	10'	100%
		C 1	12.20	10%	24000	2.100	1208'6-15'32"	700'	0.0000	4'	100%
904	BS	A 1	12.20	10%	24000	2.100	1172'11-3/4"	700'	0.0000	-41'	100%
		B 1	12.20	10%	24000	2.100	1132'4-3/32"	700'	0.0000	10'	100%
		C 1	12.20	10%	24000	2.100	1137'27/32"	700'	0.0000	4'	100%
844	BS	A 1	12.20	10%	24000	2.100	1125'3"	700'	0.0000	-41'	100%
		B 1	12.20	10%	24000	2.100	1085'7-	700'	0.0000	10'	100%
		C 1	12.20	10%	24000	2.100	11'16"	700'	0.0000	4'	100%
714.375	BS	A 1	12.20	10%	24000	2.100	1090'3"	700'	0.0000	-41'	100%
		B 1	12.20	10%	24000	2.100	1026'6-3/8"	700'	0.0000	10'	100%
		C 1	12.20	10%	24000	2.100	989'7-11/16"	700'	0.0000	4'	100%
594.375	BS	A 1	12.20	10%	24000	2.100	993'10-29/32"	700'	0.0000	-41'	100%
		B 1	12.20	10%	24000	2.100	941'9-27/32"	700'	0.0000	10'	100%
		C 1	12.20	10%	24000	2.100	908'2-3/4"	700'	0.0000	4'	100%
474	BS	A 1	12.20	10%	24000	2.100	912'1-3/32"	350'	0.0000	-20'	100%
		B 1	12.20	10%	24000	2.100	602'5-3/4"	350'	0.0000	5'	100%
		C 1	12.20	10%	24000	2.100	582'2-9/32"	350'	0.0000	2'	100%
364	BS	A 1	12.20	10%	24000	2.100	584'7-3/16"	350'	0.0000	-20'	100%
		B 1	12.20	10%	24000	2.100	516'3-15/32"	350'	0.0000	5'	100%
		C 1	12.20	10%	24000	2.100	498"	350'	0.0000	2'	100%
244	BS	A 1	12.20	10%	24000	2.100	500'1-29/32"	350'	0.0000	-20'	100%
		B 1	12.20	10%	24000	2.100	434'7-11/16"	350'	0.0000	5'	100%
		C 1	12.20	10%	24000	2.100	419'11-9/32"	350'	0.0000	2'	100%
124	BS	A 15/16	10.80	10%	24000	1.850	421'7-29/32"	350'	0.0000	-20'	100%
		B 15/16	10.80	10%	24000	1.850	374'2-9/32"	350'	0.0000	5'	100%
		C 15/16	10.80	10%	24000	1.850	365'3-27/32"	350'	0.0000	2'	100%

### Guy Data(cont'd)

Guy Elevation	Mount Type	Torque-Arm Spread	Torque-Arm Leg Angle	Torque-Arm Style	Torque-Arm Grade	Torque-Arm Type	Torque-Arm Size
ft		ft	°				
998.833	Corner						
904	Corner						
844	Corner						
714.375	Corner						
594.375	Corner						
474	Corner						
364	Corner						
244	Corner						
124	Corner						

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**Guy Data (cont'd)**


Guy Elevation ft	Diagonal Grade	Diagonal Type	Upper Diagonal Size	Lower Diagonal Size	Is Strap.	Pull-Off Grade	Pull-Off Type	Pull-Off Size
998'9-31/32"	A36 (36 ksi)	Double Equal Angle	2L2 1/2x2 1/2x5/16x3/8	2L2 1/2x2 1/2x5/16x3/8		A36 (36 ksi)	Equal Angle	
904'	A36 (36 ksi)	Double Equal Angle	2L2 1/2x2 1/2x5/16x3/8	2L2 1/2x2 1/2x5/16x3/8		A36 (36 ksi)	Equal Angle	
844'	A36 (36 ksi)	Double Equal Angle	2L2 1/2x2 1/2x5/16x3/8	2L2 1/2x2 1/2x5/16x3/8		A36 (36 ksi)	Equal Angle	
714'4-9/16"	A36 (36 ksi)	Double Equal Angle	2L2 1/2x2 1/2x5/16x3/8	2L2 1/2x2 1/2x5/16x3/8		A36 (36 ksi)	Equal Angle	
594'4-9/16"	A36 (36 ksi)	Double Equal Angle	2L2 1/2x2 1/2x5/16x3/8	2L2 1/2x2 1/2x5/16x3/8		A36 (36 ksi)	Equal Angle	
474'	A36 (36 ksi)	Double Equal Angle	2L2 1/2x2 1/2x5/16x3/8	2L2 1/2x2 1/2x5/16x3/8		A36 (36 ksi)	Equal Angle	
364'	A36 (36 ksi)	Double Equal Angle	2L2 1/2x2 1/2x5/16x3/8	2L2 1/2x2 1/2x5/16x3/8		A36 (36 ksi)	Equal Angle	
244'	A36 (36 ksi)	Double Equal Angle	2L2 1/2x2 1/2x5/16x3/8	2L2 1/2x2 1/2x5/16x3/8		A36 (36 ksi)	Equal Angle	
124'	A36 (36 ksi)	Double Equal Angle	2L2 1/2x2 1/2x5/16x3/8	2L2 1/2x2 1/2x5/16x3/8		A36 (36 ksi)	Equal Angle	

**Guy Data (cont'd)**

Guy Elevation ft	Cable Weight A K	Cable Weight B K	Cable Weight C K	Cable Weight D K	Tower Intercept A ft	Tower Intercept B ft	Tower Intercept C ft	Tower Intercept D ft
998.833	2.63	2.54	2.55		123'9-19/32" 19.2 sec/pulse	116'1-3/32" 18.6 sec/pulse	116'11-3/4" 18.7 sec/pulse	
904	2.46	2.38	2.39		109'8-7/8" 18.1 sec/pulse	102'8-5/32" 17.5 sec/pulse	103'5-7/8" 17.6 sec/pulse	
844	2.36	2.28	2.29		101'5-5/8" 17.4 sec/pulse	94'10-3/32" 16.8 sec/pulse	95'7-3/16" 16.9 sec/pulse	
714.375	2.16	2.08	2.09		85'3-31/32" 16.0 sec/pulse	79'7-11/16" 15.4 sec/pulse	80'3-15/32" 15.5 sec/pulse	
594.375	1.98	1.91	1.92		72'6-3/8" 14.7 sec/pulse	67'8-3/4" 14.2 sec/pulse	68'3-3/8" 14.3 sec/pulse	
474	1.27	1.22	1.23		30' 9.5 sec/pulse	28'27/32" 9.1 sec/pulse	28'3-19/32" 9.2 sec/pulse	
364	1.08	1.05	1.05		22'2-3/4" 8.1 sec/pulse	20'8-3/4" 7.9 sec/pulse	20'10-13/16" 7.9 sec/pulse	
244	0.91	0.88	0.89		15'11-1/32" 6.9 sec/pulse	14'10-11/16" 6.7 sec/pulse	15'1/8" 6.7 sec/pulse	
124	0.69	0.68	0.68		11'10-5/16" 5.9 sec/pulse	11'3-31/32" 5.8 sec/pulse	11'4-11/16" 5.8 sec/pulse	

**Guy Data (cont'd)**

Guy Elevation ft	Calc K Single Angles	Calc K Solid Rounds	Torque Arm		Pull Off		Diagonal	
			K <sub>x</sub>	K <sub>y</sub>	K <sub>x</sub>	K <sub>y</sub>	K <sub>x</sub>	K <sub>y</sub>
998.833	No	No			1	1	1	1

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Guy Elevation ft	Calc K Single Angles	Calc K Solid Rounds	Torque Arm		Pull Off		Diagonal	
			K <sub>x</sub>	K <sub>y</sub>	K <sub>x</sub>	K <sub>y</sub>	K <sub>x</sub>	K <sub>y</sub>
904	No	No			1	1	1	1
844	No	No			1	1	1	1
714.375	No	No			1	1	1	1
594.375	No	No			1	1	1	1
474	No	No			1	1	1	1
364	No	No			1	1	1	1
244	No	No			1	1	1	1
124	No	No			1	1	1	1

### Guy Pressures

Guy Elevation ft	Guy Location	z ft	q <sub>z</sub> psf	q <sub>z</sub> Ice psf	Ice Thickness in
998.833	A	478'11-1/32"	31	20	0.5000
	B	504'5-1/32"	31	21	0.5000
	C	501'5-1/32"	31	20	0.5000
904	A	431'6"	30	20	0.5000
	B	457'	31	20	0.5000
	C	454'	31	20	0.5000
844	A	401'6"	29	19	0.5000
	B	427'	30	20	0.5000
	C	424'	30	20	0.5000
714.375	A	336'8-9/32"	28	18	0.5000
	B	362'2-9/32"	29	19	0.5000
	C	359'2-9/32"	29	19	0.5000
594.375	A	276'8-9/32"	26	17	0.5000
	B	302'2-9/32"	27	18	0.5000
	C	299'2-9/32"	27	18	0.5000
474	A	227'	25	16	0.5000
	B	239'6"	25	17	0.5000
	C	238'	25	17	0.5000
364	A	172'	23	15	0.5000
	B	184'6"	24	15	0.5000
	C	183'	24	15	0.5000
244	A	112'	20	13	0.5000
	B	124'6"	21	14	0.5000
	C	123'	21	14	0.5000
124	A	52'	16	11	0.5000
	B	64'6"	17	11	0.5000
	C	63'	17	11	0.5000

### Feed Line/Linear Appurtenances - Entered As Round Or Flat

Description	Face or Leg	Allow Shield	Component Type	Placement ft	Face Offset in	Lateral Offset (Frac FW)	#	# Per Row	Clear Spacing in	Width or Diameter in	Perimeter in	Weight plf
***EL. 999' LEVEL (E)*** GLW 1750 Conduit Run (TO	C	No	Ar (Leg)	10' - 999'	0.0000	0.32	1	1	22.0000	22.0000		19.00





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Description	Face or Leg	Allow Shield	Component Type	Placement ft	Face Offset in	Lateral Offset (Frac FW)	#	# Per Row	Clear Spacing in	Width or Diameter in	Perimeter in	Weight plf
ATW30H4-26H)												
*												
LDF5-50A (7/8 FOAM) (E) TO 310')	B	Yes	Ar (CfAe)	10' - 310'	-3.0000	-0.15	1	1	1.0900	1.0900		0.33
LDF5-50A (7/8 FOAM) (E) TO 275')	B	Yes	Ar (CfAe)	10' - 275'	-3.0000	-0.18	1	1	1.0900	1.0900		0.33
EW52 (E) TO 175')	B	Yes	Ar (CfAe)	10' - 175'	-3.0000	0.15	1	1	1.7426	1.7426		0.59
LDF4P-50A (1/2 FOAM) (E) TO 150')	B	Yes	Ar (CfAe)	10' - 150'	-3.0000	0.18	2	2	0.6300	0.6300		0.15
*												
LDF7-50A (1-5/8 FOAM) (TO 650')	B	Yes	Ar (CfAe)	10' - 650'	-3.0000	0	4	4	0.5000 1.9800	1.9800		0.82
*												
EP65 (ELLIPTICAL AIR) (TO 520')	B	Yes	Ar (CfAe)	10' - 520'	-3.0000	0.1	1	1	2.0000	2.0000		0.67
EP65 (ELLIPTICAL AIR) (TO 510')	B	Yes	Ar (CfAe)	10' - 510'	-3.0000	-0.08	2	2	2.0000	2.0000		0.67

**Antenna Pole Forces ANDREW TRASAR (ATW30H4-ETC4-26H)**

Length of Pole	Ix	Iy	Modulus E	Antenna Pole C <sub>AA</sub>	Antenna Pole Weight	Length of Beacon	Beacon C <sub>AA</sub>	Beacon Weight	
ft	in <sup>4</sup>	in <sup>4</sup>	ksi	ft <sup>2</sup> /ft	plf	ft	ft <sup>2</sup>	K	
64'3-19/32"	1127.0000	1127.0000	29000	No Ice With Ice	1.84 1.99	168.74 185.60	3'	2.50 2.60	0.10 0.12

**Discrete Tower Loads**

Description	Face or Leg	Offset Type	Offsets: Horz Lateral Vert	Azimuth Adjustment	Placement	C <sub>AA</sub> Front	C <sub>AA</sub> Side	Weight
			ft ft ft	°	ft	ft <sup>2</sup>	ft <sup>2</sup>	K

\*\*\*ELEV. 310' LEVEL (E)\*\*\*

DB264 4-Bay DiPole or	A	From Leg	2.00	0.0000	330' - 310'	No Ice	3.16	3.16	0.04
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Description	Face or Leg	Offset Type	Offsets:		Azimuth Adjustment	Placement	C <sub>AA</sub> Front	C <sub>AA</sub> Side	Weight
			Horz	Lateral					
			ft	ft	°	ft	ft <sup>2</sup>	ft <sup>2</sup>	K
Similar (EXISTING)			0'	0'		1/2" Ice	5.69	5.69	0.05
* ***ELEV. 275' LEVEL (E)***									
3" Dia 20' Omni (EXISTING)	A	From Leg	2.00	0.0000	275'	No Ice	4.00	4.00	0.06
			0'			1/2" Ice	6.00	6.00	0.10
			0'						
* ICE SHIELD (EXISTING)									
	B	From Leg	2.00	0.0000	180'	No Ice	7.20	7.20	0.23
			0'			1/2" Ice	9.30	9.30	0.29
			0'						
* REFLECTOR (EXISTING)									
	B	From Leg	2.00	0.0000	150'	No Ice	4.00	4.00	0.06
			0'			1/2" Ice	6.00	6.00	0.10
			0'						
* DB806-XT (PROPOSED B LEG)									
	B	From Leg	6.00	0.0000	650'	No Ice	1.14	1.14	0.02
			0'			1/2" Ice	1.68	1.68	0.03
			0'						
* 101-83B-09-03/03N (PROPOSED B LEG)									
	B	From Leg	6.00	0.0000	650'	No Ice	3.57	3.57	0.05
			0'			1/2" Ice	4.61	4.61	0.07
			0'						
* TTA 421-83a-01261 (PROPOSED B LEG)									
	B	From Leg	1.00	0.0000	647'	No Ice	0.32	0.24	0.01
			0'			1/2" Ice	0.46	0.34	0.02
			0'						
* Pirod 6' Side Mount Standoff (1) (PROPOSED B LEG)									
	B	From Leg	3.00	0.0000	650'	No Ice	4.97	4.97	0.07
			0'			1/2" Ice	6.12	6.12	0.13
			0'						
* DB806-XT (PROPOSED C LEG)									
	C	From Leg	6.00	0.0000	650'	No Ice	1.14	1.14	0.02
			0'			1/2" Ice	1.68	1.68	0.03
			0'						
* 101-83B-09-03/03N (PROPOSED C LEG)									
	C	From Leg	6.00	0.0000	650'	No Ice	3.57	3.57	0.05
			0'			1/2" Ice	4.61	4.61	0.07
			0'						
* TTA 421-83a-01261 (PROPOSED C LEG)									
	C	From Leg	1.00	0.0000	647'	No Ice	0.32	0.24	0.01
			0'			1/2" Ice	0.46	0.34	0.02
			0'						
* Pirod 6' Side Mount Standoff (1) (PROPOSED C LEG)									
	C	From Leg	3.00	0.0000	650'	No Ice	4.97	4.97	0.07
			0'			1/2" Ice	6.12	6.12	0.13
			0'						
* ICE SHIELD (PROPOSED LEG C)									
	C	From Leg	2.00	0.0000	525'	No Ice	7.20	7.20	0.23
			0'			1/2" Ice	9.30	9.30	0.29
			0'						
* ICE SHIELD (PROPOSED LEG A)									
	A	From Leg	2.00	0.0000	515'	No Ice	7.20	7.20	0.23
			0'			1/2" Ice	9.30	9.30	0.29
			0'						
* ICE SHIELD (PROPOSED LEG B)									
	B	From Leg	2.00	0.0000	515'	No Ice	7.20	7.20	0.23
			0'			1/2" Ice	9.30	9.30	0.29
			0'						



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## Dishes

Description	Face or Leg	Dish Type	Offset Type	Offsets: Horz Lateral Vert	Azimuth Adjustment	3 dB Beam Width	Elevation	Outside Diameter	Aperture Area	Weight	
				ft	°	°	ft	ft	ft <sup>2</sup>	K	
ANDREW PL6-65 (EXISTING)	B	Paraboloid w/Radome	From Leg	1.00 0' 0'	0.0000		175'	6.00	No Ice 1/2" Ice	28.27 29.05	0.14 0.29
* *											
DA6-65BC (PROPOSED 258.5 az)	C	Paraboloid w/Shroud (HP)	From Leg	1.00 0' 0'	0.0000		520'	6.00	No Ice 1/2" Ice	28.30 29.05	0.44 0.59
* *											
DA6-65BC (PROPOSED 27.8 az)	A	Paraboloid w/Shroud (HP)	From Leg	1.00 0' 0'	0.0000		510'	6.00	No Ice 1/2" Ice	28.30 29.05	0.44 0.59
* *											
DA6-65BC (PROPOSED 153.1 az)	B	Paraboloid w/Shroud (HP)	From Leg	1.00 0' 0'	0.0000		510'	6.00	No Ice 1/2" Ice	28.30 29.05	0.44 0.59

## Load Combinations

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



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Comb. No.	Description
31	Dead+Wind 120 deg - Service+Guy
32	Dead+Wind 150 deg - Service+Guy
33	Dead+Wind 180 deg - Service+Guy
34	Dead+Wind 210 deg - Service+Guy
35	Dead+Wind 240 deg - Service+Guy
36	Dead+Wind 270 deg - Service+Guy
37	Dead+Wind 300 deg - Service+Guy
38	Dead+Wind 330 deg - Service+Guy

### 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	999 - 989	Leg	Max Tension	8	20.30	0.00	-0.00
			Max. Compression	21	-33.31	0.00	0.17
			Max. Mx	4	20.30	-0.75	0.44
			Max. My	8	-18.21	-0.01	-0.86
			Max. Vy	4	4.52	-0.75	0.44
			Max. Vx	8	5.16	-0.01	-0.86
		Diagonal	Max Tension	11	2.92	0.00	0.00
			Max. Compression	11	-2.77	0.00	0.00
			Max. Mx	21	-1.73	0.04	0.00
			Max. My	7	1.88	0.00	-0.00
			Max. Vy	21	-0.03	0.00	0.00
			Max. Vx	7	0.00	0.00	0.00
		Guy Lower Diagonal	Max Tension	12	3.69	0.00	0.00
			Max. Compression	6	-3.78	0.00	0.00
			Max. Mx	21	-2.12	0.04	0.00
			Max. My	7	1.76	0.00	-0.00
			Max. Vy	21	-0.03	0.00	0.00
			Max. Vx	7	0.00	0.00	0.00
		Top Girt	Max Tension	26	11.40	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	2	10.41	2.06	-0.00
			Max. My	8	3.34	-1.30	0.01
			Max. Vy	2	-0.58	0.00	0.00
			Max. Vx	8	0.00	-1.30	0.01
		Bottom Girt	Max Tension	12	1.24	-0.04	-0.00
			Max. Compression	6	-2.40	-0.01	0.00
			Max. Mx	2	0.20	-0.07	0.00
			Max. My	8	-0.58	0.01	0.00
			Max. Vy	15	0.04	-0.06	-0.00
			Max. Vx	8	-0.00	0.00	0.00
		Guy A	Bottom Tension	21	42.96		
			Top Tension	21	46.08		
Top Cable Vert	21		39.74				
Top Cable Norm	21		23.32				
Top Cable Tan	21		0.00				
Bot Cable Vert	21		-33.99				
Bot Cable Norm	21		26.28				
Bot Cable Tan	21		0.00				
Bottom Tension	25		41.98				
Top Tension	25		44.94				
Guy B	Top Cable Vert	25	38.21				
	Top Cable Norm	25	23.66				
	Top Cable Tan	25	0.00				
	Bot Cable Vert	25	-32.62				
	Bot Cable Norm	25	26.42				



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Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Force K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
T2	989 - 974	Guy C	Bot Cable Tan	25	0.00		
			Bottom Tension	17	41.99		
			Top Tension	17	44.97		
			Top Cable Vert	17	38.31		
			Top Cable Norm	17	23.56		
			Top Cable Tan	17	0.00		
			Bot Cable Vert	17	-32.70		
			Bot Cable Norm	17	26.35		
			Bot Cable Tan	17	0.00		
			Index Plate	12	5.27	-87.84	-0.25
		Max. Compression	6	-0.68	0.00	0.00	
		Max. Mx	2	-0.61	118.62	0.27	
		Max. My	2	3.63	-33.35	-0.98	
		Max. Vy	2	27.40	118.62	0.27	
		Max. Vx	2	-0.23	-33.35	-0.98	
		Pole Antenna	21	0.00	-0.00	-0.00	
		Max. Compression	14	-12.05	-0.00	0.06	
		Max. Mx	11	-10.91	154.63	-0.52	
		Max. My	8	-10.91	3.83	-155.47	
		Max. Vy	11	-4.66	154.63	-0.52	
		Max. Vx	8	4.69	3.83	-155.47	
		Max. Torque	7			0.04	
		Leg	1	0.00	0.00	0.00	
		Max. Compression	21	-39.84	0.07	0.51	
		Max. Mx	6	-17.74	-1.03	-0.45	
		Max. My	2	-20.84	-0.11	1.12	
		Max. Vy	6	-2.61	-1.03	-0.45	
		Max. Vx	2	2.84	-0.11	1.12	
		Diagonal	11	4.58	0.00	0.00	
		Horizontal	1	0.00	0.00	0.00	
		Max. Compression	35	-4.83	0.00	0.00	
		Max. Mx	14	-3.68	0.10	0.00	
		Max. My	7	-3.50	0.00	0.00	
		Max. Vy	14	-0.05	0.00	0.00	
		Max. Vx	7	-0.00	0.00	0.00	
		Top Girt	1	0.00	0.00	0.00	
		Max. Compression	10	-1.99	0.00	0.00	
		Max. Mx	14	-1.83	0.10	0.00	
		Max. My	7	-1.95	0.00	0.00	
		Max. Vy	14	-0.05	0.00	0.00	
Max. Vx	7	-0.00	0.00	0.00			
T3	974 - 954	Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	21	-43.34	0.00	-0.19
			Max. Mx	6	-17.76	0.93	0.41
			Max. My	2	-20.87	0.10	-1.01
			Max. Vy	4	3.09	-0.55	0.32
			Max. Vx	8	3.58	-0.03	-0.64
			Diagonal	6	3.64	0.00	0.00
			Horizontal	1	0.00	0.00	0.00
			Max. Compression	32	-4.77	0.00	0.00
			Max. Mx	14	-4.26	0.10	0.00
		Max. My	7	-3.88	0.00	0.00	
		Max. Vy	14	-0.05	0.00	0.00	
		Max. Vx	7	-0.00	0.00	0.00	
		Top Girt	1	0.00	0.00	0.00	
		Max. Compression	35	-3.64	0.00	0.00	
		Max. Mx	14	-3.54	0.10	0.00	
		Max. My	7	-3.35	0.00	0.00	
		Max. Vy	14	-0.05	0.00	0.00	
		Max. Vx	7	-0.00	0.00	0.00	
		T4	954 - 934	Leg	Max Tension	1	0.00



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<b>Client</b>	CLIENT NAME	<b>Designed by</b>	EDR

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Force K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft		
T5	934 - 914	Diagonal Horizontal	Max. Compression	21	-42.48	0.01	0.16		
			Max. Mx	4	-35.91	-0.55	0.32		
			Max. My	8	-36.71	-0.03	-0.64		
			Max. Vy	5	-0.16	-0.54	0.30		
			Max. Vx	8	-0.18	-0.03	-0.64		
			Max Tension	7	4.20	0.00	0.00		
			Max Tension	1	0.00	0.00	0.00		
			Max. Compression	31	-4.62	0.00	0.00		
			Max. Mx	14	-4.38	0.10	0.00		
			Max. My	7	-4.09	0.00	0.00		
			Max. Vy	14	-0.05	0.00	0.00		
			Max. Vx	7	-0.00	0.00	0.00		
			Max Tension	1	0.00	0.00	0.00		
			Max. Compression	32	-4.25	0.00	0.00		
			Max. Mx	14	-4.06	0.10	0.00		
			Max. My	7	-3.70	0.00	0.00		
		Max. Vy	14	-0.05	0.00	0.00			
		Max. Vx	7	-0.00	0.00	0.00			
		Max Tension	1	0.00	0.00	0.00			
		Leg		Diagonal Horizontal	Max. Compression	23	-51.68	-0.02	0.02
					Max. Mx	5	-45.27	0.04	-0.01
					Max. My	8	-41.82	-0.00	-0.05
					Max. Vy	12	0.04	0.04	0.03
					Max. Vx	8	-0.05	-0.00	-0.05
					Max Tension	3	5.87	0.00	0.00
					Max Tension	1	0.00	0.00	0.00
					Max. Compression	3	-4.58	0.00	0.00
				Max. Mx	14	-4.35	0.10	0.00	
				Max. My	7	-4.17	0.00	0.00	
				Max. Vy	14	-0.05	0.00	0.00	
				Max. Vx	7	-0.00	0.00	0.00	
				Max Tension	1	0.00	0.00	0.00	
Max. Compression	35			-4.56	0.00	0.00			
Max. Mx	14			-4.38	0.10	0.00			
Max. My	7			-4.13	0.00	0.00			
Max. Vy	14	-0.05	0.00	0.00					
Max. Vx	7	-0.00	0.00	0.00					
T6	914 - 894	Diagonal Guy Lower Diagonal Guy Upper Diagonal Horizontal	Max Tension	1	0.00	0.00	0.00		
			Max. Compression	23	-77.25	0.05	-0.02		
			Max. Mx	5	-50.42	-0.19	0.03		
			Max. My	8	-57.84	-0.00	-0.20		
			Max. Vy	5	0.07	-0.19	0.03		
			Max. Vx	8	0.08	-0.00	-0.20		
			Max Tension	3	6.42	0.00	0.00		
			Max Tension	12	11.56	0.00	0.00		
			Max Tension	8	15.51	0.00	0.00		
			Max Tension	1	0.00	0.00	0.00		
			Max. Compression	31	-13.17	0.00	0.00		
			Max. Mx	14	-9.55	0.10	0.00		
		Max. My	7	-12.56	0.00	0.00			
		Max. Vy	14	-0.05	0.00	0.00			
		Max. Vx	7	-0.00	0.00	0.00			
		Max Tension	1	0.00	0.00	0.00			
		Max. Compression	3	-5.11	0.00	0.00			
		Max. Mx	14	-4.08	0.10	0.00			
		Max. My	7	-4.05	0.00	0.00			
		Max. Vy	14	-0.05	0.00	0.00			
		Max. Vx	7	-0.00	0.00	0.00			
		Guy A		Bottom Tension	21	42.70			
				Top Tension	21	45.53			
				Top Cable Vert	21	38.07			



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Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Force K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft			
T7	894 - 874	Guy B	Top Cable Norm	21	24.98					
			Top Cable Tan	21	0.00					
			Bot Cable Vert	21	-32.73					
			Bot Cable Norm	21	27.42					
			Bot Cable Tan	21	0.00					
			Bottom Tension	25	41.56					
			Top Tension	25	44.24					
			Top Cable Vert	25	36.32					
			Top Cable Norm	25	25.25					
			Top Cable Tan	25	0.00					
			Bot Cable Vert	25	-31.15					
			Bot Cable Norm	25	27.51					
			Bot Cable Tan	25	0.00					
			Bottom Tension	17	41.65					
			Top Tension	17	44.35					
		Guy C		Horizontal	Top Cable Vert	17	36.49			
					Top Cable Norm	17	25.19			
					Top Cable Tan	17	0.00			
					Bot Cable Vert	17	-31.30			
					Bot Cable Norm	17	27.47			
					Bot Cable Tan	17	0.00			
					Max Tension	1	0.00	0.00	0.00	
					Max. Compression	23	-69.42	0.31	-0.17	
					Max. Mx	35	-34.68	0.49	-0.27	
				Max. My	27	-35.58	-0.01	0.55		
				Max. Vy	12	0.14	0.16	0.09		
				Max. Vx	8	-0.16	0.00	-0.18		
				Diagonal		Max Tension	11	3.27	0.00	0.00
						Max Tension	1	0.00	0.00	0.00
						Max. Compression	1	-4.09	0.00	0.00
						Max. Mx	14	-3.53	0.10	0.00
						Max. My	7	-3.53	0.00	0.00
						Max. Vy	14	-0.05	0.00	0.00
Max. Vx	7	-0.00	0.00			0.00				
Top Girt		Max Tension	1			0.00	0.00	0.00		
		Max. Compression	1			-3.85	0.00	0.00		
		Max. Mx	14	-3.59	0.10	0.00				
		Max. My	7	-3.31	0.00	0.00				
		Max. Vy	14	-0.05	0.00	0.00				
		Max. Vx	7	-0.00	0.00	0.00				
		T8	874 - 854	Leg	Max Tension	1	0.00	0.00	0.00	
					Max. Compression	23	-76.80	0.03	-0.02	
					Max. Mx	4	-36.66	1.01	-0.61	
Max. My	8				-37.92	0.02	1.19			
Max. Vy	4				3.14	-0.16	0.10			
Max. Vx	8				3.68	0.01	-0.19			
Diagonal					Max Tension	4	3.22	0.00	0.00	
					Max Tension	1	0.00	0.00	0.00	
					Max. Compression	35	-4.21	0.00	0.00	
				Max. Mx	14	-3.23	0.10	0.00		
				Max. My	20	-3.40	0.00	0.00		
				Max. Vy	14	-0.05	0.00	0.00		
				Max. Vx	20	-0.00	0.00	0.00		
				Top Girt		Max Tension	1	0.00	0.00	0.00
						Max. Compression	35	-3.77	0.00	0.00
Max. Mx	14					-3.51	0.10	0.00		
Max. My	7					-3.23	0.00	0.00		
Max. Vy	14					-0.05	0.00	0.00		
Max. Vx	7	-0.00	0.00			0.00				
T9	854 - 834	Leg	Max Tension			1	0.00	0.00	0.00	
			Max. Compression			15	-94.98	-0.02	-0.14	



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Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Force K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Max. Mx	6	-58.19	1.64	0.78
			Max. My	2	-60.85	0.12	-1.77
			Max. Vy	6	-8.47	-1.54	-0.72
			Max. Vx	2	9.17	-0.12	1.67
		Diagonal	Max Tension	11	8.01	0.00	0.00
		Guy Lower Diagonal	Max Tension	11	12.98	0.00	0.00
		Guy Upper Diagonal	Max Tension	8	13.29	0.00	0.00
		Horizontal	Max Tension	1	0.00	0.00	0.00
			Max. Compression	27	-13.03	0.00	0.00
			Max. Mx	14	-9.27	0.10	0.00
			Max. My	20	-11.09	0.00	0.00
			Max. Vy	14	-0.05	0.00	0.00
			Max. Vx	20	-0.00	0.00	0.00
		Top Girt	Max Tension	1	0.00	0.00	0.00
			Max. Compression	35	-3.21	0.00	0.00
			Max. Mx	14	-2.98	0.10	0.00
			Max. My	20	-2.51	0.00	0.00
			Max. Vy	14	-0.05	0.00	0.00
			Max. Vx	20	-0.00	0.00	0.00
		Guy A	Bottom Tension	21	42.75		
			Top Tension	21	45.41		
			Top Cable Vert	21	37.07		
			Top Cable Norm	21	26.22		
			Top Cable Tan	21	0.00		
			Bot Cable Vert	21	-31.99		
			Bot Cable Norm	21	28.36		
			Bot Cable Tan	21	0.00		
		Guy B	Bottom Tension	25	41.54		
			Top Tension	25	44.04		
			Top Cable Vert	25	35.20		
			Top Cable Norm	25	26.47		
			Top Cable Tan	25	0.00		
			Bot Cable Vert	25	-30.29		
			Bot Cable Norm	25	28.43		
			Bot Cable Tan	25	0.00		
		Guy C	Bottom Tension	17	41.67		
			Top Tension	17	44.19		
			Top Cable Vert	17	35.41		
			Top Cable Norm	17	26.43		
			Top Cable Tan	17	0.00		
			Bot Cable Vert	17	-30.48		
			Bot Cable Norm	17	28.41		
			Bot Cable Tan	17	0.00		
T10	834 - 814	Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	21	-109.73	0.01	0.01
			Max. Mx	6	-58.34	1.64	0.78
			Max. My	2	-61.00	0.12	-1.77
			Max. Vy	6	0.43	-0.40	-0.18
			Max. Vx	2	-0.46	-0.04	0.43
		Diagonal	Max Tension	11	7.66	0.00	0.00
		Horizontal	Max Tension	1	0.00	0.00	0.00
			Max. Compression	11	-5.68	0.00	0.00
			Max. Mx	14	-3.50	0.10	0.00
			Max. My	20	-2.59	0.00	0.00
			Max. Vy	14	-0.05	0.00	0.00
			Max. Vx	20	-0.00	0.00	0.00
		Top Girt	Max Tension	1	0.00	0.00	0.00
			Max. Compression	11	-6.53	0.00	0.00
			Max. Mx	14	-3.15	0.10	0.00
			Max. My	20	-2.75	0.00	0.00
			Max. Vy	14	-0.05	0.00	0.00





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Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Force K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft	
T11	814 - 794	Leg	Max. Vx	20	-0.00	0.00	0.00	
			Max Tension	1	0.00	0.00	0.00	
			Max. Compression	21	-119.22	0.01	0.02	
			Max. Mx	5	-43.39	0.06	0.01	
			Max. My	2	-96.44	0.00	-0.06	
			Max. Vy	6	0.03	0.01	0.02	
			Max. Vx	8	0.04	-0.00	0.01	
			Diagonal	Max Tension	11	4.45	0.00	0.00
				Max Tension	1	0.00	0.00	0.00
			Horizontal	Max. Compression	31	-4.01	0.00	0.00
		Max. Mx		14	-3.47	0.10	0.00	
		Top Girt	Max. My	20	-2.45	0.00	0.00	
			Max. Vy	14	-0.05	0.00	0.00	
			Max. Vx	20	-0.00	0.00	0.00	
			Max Tension	1	0.00	0.00	0.00	
			Max. Compression	11	-4.00	0.00	0.00	
			Max. Mx	14	-3.50	0.10	0.00	
			Max. My	20	-2.55	0.00	0.00	
			Max. Vy	14	-0.05	0.00	0.00	
			Max. Vx	20	-0.00	0.00	0.00	
Max Tension	1		0.00	0.00	0.00			
T12	794 - 774	Leg	Max. Vx	20	-0.00	0.00	0.00	
			Max Tension	1	0.00	0.00	0.00	
			Max. Compression	21	-121.24	0.01	0.02	
			Max. Mx	5	-110.14	0.06	0.00	
			Max. My	2	-98.65	0.01	-0.07	
			Max. Vy	6	-0.03	0.03	0.01	
			Max. Vx	2	0.03	0.00	-0.02	
			Diagonal	Max Tension	27	2.88	0.00	0.00
				Max Tension	1	0.00	0.00	0.00
			Horizontal	Max. Compression	31	-4.01	0.00	0.00
		Max. Mx		14	-3.43	0.10	0.00	
		Top Girt	Max. My	7	-3.24	0.00	-0.00	
			Max. Vy	14	-0.05	0.00	0.00	
			Max. Vx	7	0.00	0.00	0.00	
			Max Tension	1	0.00	0.00	0.00	
			Max. Compression	31	-4.01	0.00	0.00	
			Max. Mx	14	-3.46	0.10	0.00	
			Max. My	20	-2.42	0.00	0.00	
			Max. Vy	14	-0.05	0.00	0.00	
			Max. Vx	20	-0.00	0.00	0.00	
Max Tension	1		0.00	0.00	0.00			
T13	774 - 754	Leg	Max. Vx	20	-0.00	0.00	0.00	
			Max Tension	1	0.00	0.00	0.00	
			Max. Compression	21	-120.15	0.01	0.00	
			Max. Mx	4	-105.87	0.76	-0.46	
			Max. My	8	-108.05	-0.02	0.90	
			Max. Vy	12	0.21	0.19	0.11	
			Max. Vx	8	-0.25	-0.00	-0.22	
			Diagonal	Max Tension	3	3.70	0.00	0.00
				Max Tension	1	0.00	0.00	0.00
			Horizontal	Max. Compression	31	-3.99	0.00	0.00
		Max. Mx		14	-3.25	0.10	0.00	
		Top Girt	Max. My	7	-3.08	0.00	-0.00	
			Max. Vy	14	-0.05	0.00	0.00	
			Max. Vx	7	0.00	0.00	0.00	
			Max Tension	1	0.00	0.00	0.00	
			Max. Compression	31	-3.99	0.00	0.00	
			Max. Mx	14	-3.42	0.10	0.00	
			Max. My	7	-3.23	0.00	-0.00	
			Max. Vy	14	-0.05	0.00	0.00	
			Max. Vx	7	0.00	0.00	0.00	
Max Tension	1		0.00	0.00	0.00			
T14	754 - 734	Leg	Max. Vx	20	-0.00	0.00	0.00	
			Max Tension	1	0.00	0.00	0.00	
			Max. Compression	21	-112.16	-0.00	0.17	
			Max. Mx	12	-90.02	-2.23	-1.20	



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Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Force K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft					
T15	734 - 714	Diagonal Horizontal	Max. My	8	-92.34	-0.13	2.58					
			Max. Vy	12	-6.91	0.36	0.19					
			Max. Vx	8	7.96	0.02	-0.41					
			Max Tension	3	6.69	0.00	0.00					
			Max Tension	1	0.00	0.00	0.00					
			Max. Compression	3	-5.45	0.00	0.00					
			Max. Mx	14	-3.06	0.10	0.00					
			Max. My	7	-4.44	0.00	-0.00					
			Max. Vy	14	-0.05	0.00	0.00					
			Max. Vx	7	0.00	0.00	0.00					
			Max Tension	1	0.00	0.00	0.00					
			Max. Compression	31	-3.78	0.00	0.00					
		Top Girt			Max. Mx	14	-3.25	0.10	0.00			
					Max. My	7	-3.08	0.00	-0.00			
					Max. Vy	14	-0.05	0.00	0.00			
					Max. Vx	7	0.00	0.00	0.00			
					Max Tension	1	0.00	0.00	0.00			
					Max. Compression	31	-3.78	0.00	0.00			
					Leg			Max. Mx	14	-3.25	0.10	0.00
								Max. My	7	-3.08	0.00	-0.00
								Max. Vy	14	-0.05	0.00	0.00
								Max. Vx	7	0.00	0.00	0.00
								Max Tension	1	0.00	0.00	0.00
								Max. Compression	15	-121.93	0.02	1.01
		Max. Mx	12	-84.30				2.94	1.57			
		Max. My	8	-86.53				0.17	-3.39			
		Max. Vy	12	-6.90				2.94	1.57			
		Max. Vx	8	7.96				0.17	-3.39			
		Max Tension	3	8.00				0.00	0.00			
		Guy Upper Diagonal Horizontal						Max Tension	12	15.40	0.00	0.00
					Max Tension	1	0.00	0.00	0.00			
					Max. Compression	12	-12.43	0.00	0.00			
					Max. Mx	17	-7.93	0.10	0.00			
					Max. My	7	-5.44	0.00	-0.00			
					Max. Vy	17	-0.05	0.00	0.00			
					Max. Vx	7	0.00	0.00	0.00			
					Top Girt			Max Tension	1	0.00	0.00	0.00
								Max. Compression	3	-6.07	0.00	0.00
								Max. Mx	14	-3.09	0.10	0.00
								Max. My	7	-4.95	0.00	-0.00
								Max. Vy	14	-0.05	0.00	0.00
		Max. Vx	7	0.00				0.00	0.00			
Guy A			Bottom Tension	8				43.22				
			Top Tension	8				44.80				
			Top Cable Vert	8				33.88				
			Top Cable Norm	8				29.30				
			Top Cable Tan	8				0.00				
			Bot Cable Vert	8				-30.65				
			Bot Cable Norm	8	30.47							
			Bot Cable Tan	8	0.00							
			Guy B			Bottom Tension	12	41.94				
						Top Tension	12	43.41				
						Top Cable Vert	12	31.82				
						Top Cable Norm	12	29.53				
Top Cable Tan	12	0.00										
Bot Cable Vert	12	-28.72										
Bot Cable Norm	12	30.57										
Bot Cable Tan	12	0.00										
Guy C						Bottom Tension	4	42.11				
						Top Tension	4	43.59				
						Top Cable Vert	4	32.08				
						Top Cable Norm	4	29.51				
			Top Cable Tan	4	0.00							
			Bot Cable Vert	4	-28.96							
			Bot Cable Norm	4	30.57							
			Bot Cable Tan	4	0.00							
			Leg			Max Tension	1	0.00	0.00	0.00		



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<b>Project</b>	WXXX NETWORK TOWER, CHAUTAUQUA CNTY, NY	<b>Date</b>	23:22:04 11/07/06
<b>Client</b>	CLIENT NAME	<b>Designed by</b>	EDR

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Force K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft	
T17	694 - 674	Guy Lower Diagonal	Max. Compression	21	-127.06	0.01	0.01	
			Max. Mx	25	-117.59	-1.17	-0.64	
			Max. My	21	-121.08	-0.02	1.30	
			Max. Vy	12	-0.35	0.50	0.22	
			Max. Vx	8	0.38	0.03	-0.53	
			Max Tension	11	5.97	0.00	0.00	
			Max Tension	11	11.99	0.00	0.00	
			Max Tension	1	0.00	0.00	0.00	
			Max. Compression	31	-9.50	0.00	0.00	
			Max. Mx	17	-2.77	0.10	0.00	
			Max. My	7	-4.03	0.00	-0.00	
			Max. Vy	17	-0.05	0.00	0.00	
		Top Girt	Max. Vx	7	0.00	0.00	0.00	
			Max Tension	1	0.00	0.00	0.00	
			Max. Compression	34	-10.65	0.00	0.00	
			Max. Mx	17	-6.89	0.10	0.00	
			Max. My	7	-6.72	0.00	-0.00	
			Max. Vy	17	-0.05	0.00	0.00	
			Max. Vx	7	0.00	0.00	0.00	
			Leg	Max Tension	1	0.00	0.00	0.00
				Max. Compression	21	-136.89	0.01	0.02
				Max. Mx	5	-70.15	0.07	0.01
				Max. My	2	-117.56	0.00	-0.07
				Max. Vy	12	-0.03	-0.00	0.00
		Max. Vx		8	0.04	-0.00	0.01	
		Diagonal		Max Tension	11	4.17	0.00	0.00
				Max Tension	1	0.00	0.00	0.00
		Horizontal		Max. Compression	31	-3.78	0.00	0.00
Max. Mx	17			-2.84	0.10	0.00		
Max. My	7			-3.02	0.00	-0.00		
Max. Vy	17			-0.05	0.00	0.00		
Max. Vx	7		0.00	0.00	0.00			
Top Girt	Max Tension		1	0.00	0.00	0.00		
	Max. Compression		31	-3.78	0.00	0.00		
T18	674 - 654		Leg	Max. Mx	17	-2.79	0.10	0.00
				Max. My	7	-3.51	0.00	-0.00
				Max. Vy	17	-0.05	0.00	0.00
				Max. Vx	7	0.00	0.00	0.00
				Max Tension	1	0.00	0.00	0.00
		Max. Compression		21	-139.37	0.01	0.02	
		Max. Mx		6	-52.97	0.07	0.03	
		Max. My		2	-119.82	0.00	-0.08	
		Max. Vy		11	-0.04	0.03	0.05	
		Max. Vx		7	0.04	-0.00	-0.03	
		Diagonal		Max Tension	2	2.75	0.00	0.00
				Max Tension	1	0.00	0.00	0.00
Horizontal	Max. Compression	31	-3.77	0.00	0.00			
	Max. Mx	17	-2.84	0.10	0.00			
	Max. My	7	-3.00	0.00	-0.00			
	Max. Vy	17	-0.05	0.00	0.00			
	Max. Vx	7	0.00	0.00	0.00			
	Top Girt	Max Tension	1	0.00	0.00	0.00		
		Max. Compression	31	-3.78	0.00	0.00		
	T19	654 - 634	Leg	Max. Mx	17	-2.84	0.10	0.00
				Max. My	7	-3.02	0.00	-0.00
				Max. Vy	17	-0.05	0.00	0.00
				Max. Vx	7	0.00	0.00	0.00
				Max Tension	1	0.00	0.00	0.00
Max. Compression				21	-138.55	0.01	-0.01	
Max. Mx				5	-121.86	0.90	-0.26	
Max. My				8	-122.68	-0.08	0.98	



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<b>Client</b>	CLIENT NAME	<b>Designed by</b>	EDR

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Force K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft	
T20	634 - 614	Diagonal Horizontal	Max. Vy	5	0.30	-0.07	-0.02	
			Max. Vx	13	-0.27	0.03	0.05	
			Max Tension	5	4.62	0.00	0.00	
			Max Tension	1	0.00	0.00	0.00	
			Max. Compression	27	-3.77	0.00	0.00	
			Max. Mx	17	-2.89	0.10	0.00	
			Max. My	7	-2.89	0.00	-0.00	
			Max. Vy	17	-0.05	0.00	0.00	
			Max. Vx	7	0.00	0.00	0.00	
			Top Girt	Max Tension	1	0.00	0.00	0.00
				Max. Compression	31	-3.75	0.00	0.00
				Max. Mx	17	-2.83	0.10	0.00
				Max. My	7	-2.98	0.00	-0.00
				Max. Vy	17	-0.05	0.00	0.00
				Max. Vx	7	0.00	0.00	0.00
				Leg	Max Tension	1	0.00	0.00
		Max. Compression			21	-130.18	-0.02	0.17
		Max. Mx	12		-104.42	-2.42	-1.05	
		Max. My	8		-105.93	-0.23	2.68	
		Max. Vy	12		-7.39	0.35	0.16	
		Max. Vx	8		8.20	0.03	-0.39	
		Diagonal Horizontal	Max Tension		5	7.53	0.00	0.00
			Max Tension		1	0.00	0.00	0.00
			Max. Compression		5	-6.17	0.00	0.00
			Max. Mx		17	-2.78	0.10	0.00
			Max. My		7	-4.34	0.00	-0.00
			Max. Vy		17	-0.05	0.00	0.00
			Max. Vx		7	0.00	0.00	0.00
			Top Girt		Max Tension	1	0.00	0.00
		Max. Compression			5	-4.14	0.00	0.00
		Max. Mx			17	-2.70	0.10	0.00
		Max. My		7	-2.89	0.00	-0.00	
Max. Vy	17	-0.05		0.00	0.00			
Max. Vx	7	0.00		0.00	0.00			
T21	614 - 594	Leg		Max Tension	1	0.00	0.00	0.00
				Max. Compression	17	-147.20	-0.03	-0.05
			Max. Mx	12	-98.53	3.12	1.37	
			Max. My	8	-99.89	0.29	-3.47	
			Max. Vy	25	7.72	1.56	0.92	
			Max. Vx	21	-8.72	-0.00	-1.76	
			Diagonal Guy Upper Diagonal	Max Tension	5	8.51	0.00	0.00
				Max Tension	12	15.23	0.00	0.00
				Max Tension	1	0.00	0.00	0.00
				Max. Compression	12	-12.20	0.00	0.00
				Max. Mx	17	-2.88	0.10	0.00
				Max. My	7	-4.81	0.00	-0.00
		Horizontal	Max. Vy	17	-0.05	0.00	0.00	
			Max. Vx	7	0.00	0.00	0.00	
			Top Girt	Max Tension	1	0.00	0.00	0.00
				Max. Compression	5	-6.76	0.00	0.00
				Max. Mx	17	-2.65	0.10	0.00
				Max. My	7	-4.86	0.00	-0.00
				Max. Vy	17	-0.05	0.00	0.00
				Max. Vx	7	0.00	0.00	0.00
			Guy A	Bottom Tension	8	40.28		
				Top Tension	8	41.61		
				Top Cable Vert	8	28.95		
				Top Cable Norm	8	29.89		
Top Cable Tan	8	0.00						
Bot Cable Vert	8	-26.12						
Bot Cable Norm	8	30.67						



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<b>Client</b>	CLIENT NAME	<b>Designed by</b>	EDR

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Force K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft		
T22	594 - 574	Guy B	Bot Cable Tan	8	0.00				
			Bottom Tension	12	39.07				
			Top Tension	12	40.29				
			Top Cable Vert	12	26.80				
			Top Cable Norm	12	30.09				
			Top Cable Tan	12	0.00				
			Bot Cable Vert	12	-24.10				
			Bot Cable Norm	12	30.76				
			Bot Cable Tan	12	0.00				
			Guy C	Bottom Tension	4	39.25			
				Top Tension	4	40.48			
				Top Cable Vert	4	27.08			
				Top Cable Norm	4	30.09			
				Top Cable Tan	4	0.00			
				Bot Cable Vert	4	-24.36			
				Bot Cable Norm	4	30.77			
		Bot Cable Tan		4	0.00				
		Leg	Max Tension	1	0.00		0.00		
			Max. Compression	17	-153.70	-0.27	0.20		
			Max. Mx	25	-131.68	-1.34	-0.77		
			Max. My	21	-133.94	-0.01	1.51		
			Max. Vy	11	-0.41	0.68	0.11		
			Max. Vx	8	0.46	-0.02	-0.71		
			Diagonal	Max Tension	13	6.87	0.00	0.00	
				Guy Lower Diagonal	Max Tension	13	11.93	0.00	0.00
					Max Tension	1	0.00	0.00	0.00
				Horizontal	Max. Compression	13	-9.34	0.00	0.00
			Max. Mx		17	-6.17	0.10	0.00	
			Max. My		7	-9.24	0.00	-0.00	
			Max. Vy		14	-0.05	0.00	0.00	
			Max. Vx		7	0.00	0.00	0.00	
			Top Girt		Max Tension	1	0.00	0.00	0.00
Max. Compression	34				-10.02	0.00	0.00		
Max. Mx	17				-5.81	0.10	0.00		
Max. My	7			-5.87	0.00	-0.00			
Max. Vy	14			-0.05	0.00	0.00			
Max. Vx	7			0.00	0.00	0.00			
T23	574 - 554			Leg	Max Tension	1	0.00	0.00	0.00
					Max. Compression	21	-154.92	0.00	0.01
			Max. Mx		10	-95.10	-0.07	0.03	
			Max. My		2	-99.09	-0.00	-0.08	
		Max. Vy	6		0.03	0.02	0.04		
		Max. Vx	2		-0.03	0.00	-0.03		
		Diagonal	Max Tension		13	5.53	0.00	0.00	
			Horizontal		Max Tension	1	0.00	0.00	0.00
				Max. Compression	13	-4.35	0.00	0.00	
			Max. Mx	17	-2.55	0.10	0.00		
		Max. My	7	-3.25	0.00	-0.00			
		Max. Vy	14	-0.05	0.00	0.00			
		Max. Vx	7	0.00	0.00	0.00			
		Top Girt	Max Tension	1	0.00	0.00	0.00		
			Max. Compression	13	-4.83	0.00	0.00		
			Max. Mx	17	-2.52	0.10	0.00		
Max. My	7		-4.71	0.00	-0.00				
Max. Vy	14		-0.05	0.00	0.00				
Max. Vx	7		0.00	0.00	0.00				
T24	554 - 534		Leg	Max Tension	1	0.00	0.00	0.00	
				Max. Compression	21	-160.74	0.00	0.02	
		Max. Mx		6	-145.25	0.07	0.03		
		Max. My		2	-142.74	-0.00	-0.08		
		Max. Vy	5	-0.03	0.03	0.01			



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<b>Client</b>	CLIENT NAME	<b>Designed by</b>	EDR

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Force K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft	
T25	534 - 514	Diagonal	Max. Vx	2	0.03	0.00	-0.04	
			Max Tension	13	3.31	0.00	0.00	
			Horizontal	Max Tension	1	0.00	0.00	0.00
				Max. Compression	27	-3.56	0.00	0.00
				Max. Mx	17	-2.61	0.10	0.00
				Max. My	7	-2.82	0.00	-0.00
				Max. Vy	14	-0.05	0.00	0.00
				Max. Vx	7	0.00	0.00	0.00
			Top Girt	Max Tension	1	0.00	0.00	0.00
				Max. Compression	27	-3.56	0.00	0.00
				Max. Mx	17	-2.60	0.10	0.00
				Max. My	7	-2.92	0.00	-0.00
		Max. Vy		14	-0.05	0.00	0.00	
		Max. Vx		7	0.00	0.00	0.00	
		Leg	Max Tension	1	0.00	0.00	0.00	
			Max. Compression	17	-161.75	-0.05	0.02	
			Max. Mx	6	-145.46	0.31	-0.02	
			Max. My	7	-133.67	-0.02	0.31	
			Max. Vy	5	0.34	-0.04	0.05	
			Max. Vx	7	0.33	-0.00	-0.02	
			Diagonal	Max Tension	6	4.51	0.00	0.00
				Horizontal	Max Tension	1	0.00	0.00
					Max. Compression	28	-3.56	0.00
			Max. Mx		17	-2.69	0.10	0.00
			Max. My	7	-2.77	0.00	-0.00	
			Max. Vy	14	-0.05	0.00	0.00	
			Top Girt	Max. Vx	7	0.00	0.00	0.00
				Max Tension	1	0.00	0.00	0.00
				Max. Compression	27	-3.53	0.00	0.00
				Max. Mx	14	-3.01	0.10	0.00
Max. My	7			-2.82	0.00	-0.00		
Max. Vy	14			-0.05	0.00	0.00		
T26	514 - 494	Leg	Max. Vx	7	0.00	0.00	0.00	
			Max Tension	1	0.00	0.00		
			Max. Compression	25	-158.21	0.03	0.08	
			Max. Mx	11	-133.97	-0.45	0.05	
			Max. My	8	-117.72	-0.00	0.51	
			Max. Vy	11	-0.58	0.12	0.05	
		Diagonal	Max. Vx	8	0.61	-0.02	-0.09	
			Max Tension	5	7.48	0.00	0.00	
			Horizontal	Max Tension	1	0.00	0.00	
		Max. Compression		6	-6.05	0.00	0.00	
		Max. Mx		17	-2.36	0.10	0.00	
		Max. My	7	-3.28	0.00	-0.00		
		Max. Vy	14	-0.05	0.00	0.00		
		Top Girt	Max. Vx	7	0.00	0.00	0.00	
			Max Tension	1	0.00	0.00		
			Max. Compression	6	-4.26	0.00	0.00	
			Max. Mx	17	-2.61	0.10	0.00	
			Max. My	7	-2.76	0.00	-0.00	
Max. Vy	14		-0.05	0.00	0.00			
T27	494 - 474	Leg	Max. Vx	7	0.00	0.00	0.00	
			Max Tension	1	0.00	0.00		
			Max. Compression	21	-170.22	-0.01	0.10	
			Max. Mx	5	-137.93	-0.69	0.10	
			Max. My	8	-150.77	-0.02	-0.76	
			Max. Vy	5	0.19	-0.69	0.10	
		Diagonal	Max. Vx	8	0.21	-0.02	-0.76	
			Max Tension	5	8.87	0.00	0.00	
			Guy Upper Diagonal	Max Tension	12	12.40	0.00	0.00
		Horizontal		Max Tension	1	0.00	0.00	



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<b>Client</b>	CLIENT NAME	<b>Designed by</b>	EDR

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Force K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft					
T28	474 - 454	Top Girt	Max. Compression	12	-9.84	0.00	0.00					
			Max. Mx	17	-5.38	0.10	0.00					
			Max. My	7	-5.48	0.00	-0.00					
			Max. Vy	17	-0.05	0.00	0.00					
			Max. Vx	7	0.00	0.00	0.00					
			Max Tension	1	0.00	0.00	0.00					
			Max. Compression	6	-6.51	0.00	0.00					
			Max. Mx	17	-2.30	0.10	0.00					
			Max. My	7	-4.98	0.00	-0.00					
			Max. Vy	14	-0.05	0.00	0.00					
			Max. Vx	7	0.00	0.00	0.00					
			Max Tension	1	0.00	0.00	0.00					
		Leg			Max. Compression	21	-180.66	0.03	-0.15			
					Max. Mx	12	-149.96	0.23	0.12			
					Max. My	8	-151.57	0.00	-0.24			
					Max. Vy	11	-0.08	0.17	0.03			
					Max. Vx	8	0.09	0.03	-0.18			
					Max Tension	13	3.14	0.00	0.00			
					Guy Lower Diagonal			Max Tension	38	9.01	0.00	0.00
								Max Tension	1	0.00	0.00	0.00
								Max. Compression	27	-8.23	0.00	0.00
					Top Girt			Max. Mx	17	-1.87	0.10	0.00
								Max. My	7	-6.65	0.00	-0.00
								Max. Vy	17	-0.05	0.00	0.00
		Max. Vx	7	0.00				0.00	0.00			
		Max Tension	1	0.00				0.00	0.00			
		Max. Compression	1	-9.74				0.00	0.00			
		Max. Mx	17	-4.86				0.10	0.00			
		Max. My	7	-4.99				0.00	-0.00			
		Max. Vy	17	-0.05				0.00	0.00			
		Max. Vx	7	0.00				0.00	0.00			
		Guy A						Bottom Tension	8	38.99		
								Top Tension	8	40.02		
					Top Cable Vert	8	33.22					
					Top Cable Norm	8	22.31					
					Top Cable Tan	8	0.00					
					Bot Cable Vert	8	-31.36					
					Bot Cable Norm	8	23.16					
					Bot Cable Tan	8	0.00					
					Guy B			Bottom Tension	12	37.98		
								Top Tension	12	38.96		
								Top Cable Vert	12	31.80		
								Top Cable Norm	12	22.51		
		Top Cable Tan	12	0.00								
		Bot Cable Vert	12	-30.00								
		Guy C			Bot Cable Norm	12	23.29					
					Bot Cable Tan	12	0.00					
					Bottom Tension	4	38.11					
Top Tension	4				39.09							
Top Cable Vert	4				31.97							
Top Cable Norm	4				22.49							
Leg	454 - 434		Top Cable Tan	4	0.00							
			Bot Cable Vert	4	-30.17							
			Bot Cable Norm	4	23.28							
			Bot Cable Tan	4	0.00							
			Max Tension	1	0.00	0.00	0.00					
			Max. Compression	22	-176.24	-0.01	-0.01					
			Max. Mx	19	-142.28	0.03	0.01					
			Max. My	15	-161.95	0.00	-0.04					
			Max. Vy	11	-0.02	0.01	0.01					
			Max. Vx	2	-0.03	0.00	0.01					



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<b>Project</b>	WXXX NETWORK TOWER, CHAUTAUQUA CNTY, NY	<b>Date</b>	23:22:04 11/07/06
<b>Client</b>	CLIENT NAME	<b>Designed by</b>	EDR

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Force K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft	
T30	434 - 414	Diagonal	Max Tension	38	2.50	0.00	0.00	
			Horizontal	Max Tension	1	0.00	0.00	0.00
		Top Girt	Max. Compression	1	-3.15	0.00	0.00	
			Max. Mx	14	-2.59	0.10	0.00	
			Max. My	7	-2.32	0.00	-0.00	
			Max. Vy	14	-0.05	0.00	0.00	
			Max. Vx	7	0.00	0.00	0.00	
			Max Tension	1	0.00	0.00	0.00	
			Max. Compression	1	-3.16	0.00	0.00	
			Max. Mx	14	-2.62	0.10	0.00	
			Max. My	7	-2.33	0.00	-0.00	
			Max. Vy	14	-0.05	0.00	0.00	
		Leg	Max. Vx	7	0.00	0.00	0.00	
			Max Tension	1	0.00	0.00	0.00	
			Max. Compression	21	-180.03	0.00	-0.01	
			Max. Mx	19	-161.58	0.04	0.01	
			Max. My	15	-160.64	-0.00	-0.05	
			Max. Vy	11	0.03	0.01	0.00	
			Max. Vx	2	0.03	0.00	0.00	
			Diagonal	Max Tension	6	4.05	0.00	0.00
				Horizontal	Max Tension	1	0.00	0.00
Top Girt	Max. Compression		6	-3.22	0.00	0.00		
	Max. Mx	14	-2.56	0.10	0.00			
	Max. My	7	-2.27	0.00	-0.00			
	Max. Vy	14	-0.05	0.00	0.00			
	Max. Vx	7	0.00	0.00	0.00			
	Max Tension	1	0.00	0.00	0.00			
	Max. Compression	1	-3.13	0.00	0.00			
	Max. Mx	14	-2.58	0.10	0.00			
	Max. My	7	-2.28	0.00	-0.00			
	Max. Vy	14	-0.05	0.00	0.00			
T31	414 - 394	Leg	Max. Vx	7	0.00	0.00	0.00	
			Max Tension	1	0.00	0.00	0.00	
			Max. Compression	21	-187.65	0.18	-0.07	
			Max. Mx	5	-130.55	1.04	-0.31	
			Max. My	8	-123.42	-0.13	1.09	
		Top Girt	Max. Vy	5	-0.29	-0.27	0.12	
			Max. Vx	8	-0.30	0.02	-0.30	
			Max Tension	6	6.32	0.00	0.00	
			Horizontal	Max Tension	1	0.00	0.00	0.00
			Max. Compression	6	-5.13	0.00	0.00	
			Max. Mx	14	-2.48	0.10	0.00	
			Max. My	7	-2.41	0.00	-0.00	
			Max. Vy	14	-0.05	0.00	0.00	
			Max. Vx	7	0.00	0.00	0.00	
			Max Tension	1	0.00	0.00	0.00	
Leg	Max. Compression	6	-3.64	0.00	0.00			
	Max. Mx	14	-2.54	0.10	0.00			
	Max. My	7	-2.23	0.00	-0.00			
	Max. Vy	14	-0.05	0.00	0.00			
	Max. Vx	7	0.00	0.00	0.00			
T32	394 - 374	Leg	Max Tension	1	0.00	0.00	0.00	
			Max. Compression	6	-208.17	-0.14	-0.06	
			Max. Mx	5	-107.19	2.61	-0.63	
			Max. My	8	-97.63	-0.27	2.84	
			Max. Vy	5	7.86	-0.34	0.12	
		Diagonal	Max. Vx	8	8.62	0.01	-0.39	
			Horizontal	Max Tension	6	8.54	0.00	0.00
			Max Tension	1	0.00	0.00	0.00	
			Max. Compression	6	-7.07	0.00	0.00	
			Max. Mx	14	-2.53	0.10	0.00	





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<b>Client</b>	CLIENT NAME	<b>Designed by</b>	EDR

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Force K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft	
T33	374 - 354	Top Girt	Max. My	7	-3.98	0.00	-0.00	
			Max. Vy	14	-0.05	0.00	0.00	
			Max. Vx	7	0.00	0.00	0.00	
			Max Tension	1	0.00	0.00	0.00	
			Max. Compression	6	-5.53	0.00	0.00	
			Max. Mx	14	-2.53	0.10	0.00	
		Leg	Max. My	7	-3.76	0.00	-0.00	
			Max. Vy	14	-0.05	0.00	0.00	
			Max. Vx	7	0.00	0.00	0.00	
			Max Tension	1	0.00	0.00	0.00	
			Max. Compression	6	-230.67	-0.15	-0.19	
			Max. Mx	5	-107.22	-3.28	0.86	
			Max. My	8	-97.65	0.30	-3.62	
			Max. Vy	5	7.86	-3.28	0.86	
			Max. Vx	8	8.62	0.30	-3.62	
			Diagonal	Max Tension	6	8.71	0.00	0.00
			Guy Lower Diagonal	Max Tension	12	10.27	0.00	0.00
			Guy Upper Diagonal	Max Tension	12	12.08	0.00	0.00
			Horizontal	Max Tension	1	0.00	0.00	0.00
			Max. Compression	1	-9.80	0.00	0.00	
			Max. Mx	14	-7.43	0.10	0.00	
			Max. My	7	-8.76	0.00	-0.00	
			Max. Vy	14	-0.05	0.00	0.00	
			Max. Vx	7	0.00	0.00	0.00	
		Top Girt	Max Tension	1	0.00	0.00	0.00	
			Max. Compression	6	-7.33	0.00	0.00	
			Max. Mx	14	-2.40	0.10	0.00	
			Max. My	7	-5.59	0.00	-0.00	
			Max. Vy	14	-0.05	0.00	0.00	
			Max. Vx	7	0.00	0.00	0.00	
		Guy A	Bottom Tension	8	33.29			
			Top Tension	8	34.10			
			Top Cable Vert	8	25.76			
			Top Cable Norm	8	22.33			
			Top Cable Tan	8	0.00			
			Bot Cable Vert	8	-24.23			
			Bot Cable Norm	8	22.83			
			Bot Cable Tan	8	0.00			
			Guy B	Bottom Tension	12	32.48		
				Top Tension	12	33.23		
				Top Cable Vert	12	24.36		
				Top Cable Norm	12	22.60		
Top Cable Tan	12	0.00						
Bot Cable Vert	12	-22.89						
Guy C	Bot Cable Norm	12	23.05					
	Bot Cable Tan	12	0.00					
	Bottom Tension	4	32.56					
	Top Tension	4	33.31					
	Top Cable Vert	4	24.52					
	Top Cable Norm	4	22.56					
	Top Cable Tan	4	0.00					
	Bot Cable Vert	4	-23.03					
Leg	Bot Cable Norm	4	23.01					
	Bot Cable Tan	4	0.00					
	Max Tension	1	0.00	0.00	0.00			
	Max. Compression	6	-218.59	-0.27	-0.16			
	Max. Mx	10	-218.05	-0.91	0.52			
	Max. My	2	-215.04	-0.10	-1.07			
	Max. Vy	10	-0.25	0.27	-0.15			
	Max. Vx	2	-0.30	0.01	0.32			
	Diagonal	Max Tension	13	5.30	0.00	0.00		



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<b>Client</b>	CLIENT NAME	<b>Designed by</b>	EDR

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Force K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft		
T35	334 - 314	Horizontal	Max Tension	1	0.00	0.00	0.00		
			Max. Compression	13	-3.93	0.00	0.00		
			Max. Mx	14	-2.56	0.10	0.00		
			Max. My	7	-3.81	0.00	-0.00		
			Max. Vy	14	-0.05	0.00	0.00		
			Max. Vx	7	0.00	0.00	0.00		
			Top Girt	Max Tension	1	0.00	0.00	0.00	
				Max. Compression	13	-4.44	0.00	0.00	
				Max. Mx	14	-2.43	0.10	0.00	
				Max. My	7	-4.32	0.00	-0.00	
				Max. Vy	14	-0.05	0.00	0.00	
				Max. Vx	7	0.00	0.00	0.00	
		Leg	Max Tension	1	0.00	0.00	0.00		
			Max. Compression	20	-208.56	-0.02	-0.02		
			Max. Mx	11	-144.06	0.05	-0.01		
			Max. My	2	-150.89	-0.00	0.06		
			Max. Vy	5	-0.03	-0.05	-0.01		
			Max. Vx	2	0.03	0.00	0.05		
			Diagonal Horizontal	Max Tension	13	3.14	0.00	0.00	
				Max Tension	1	0.00	0.00	0.00	
				Max. Compression	1	-3.10	0.00	0.00	
				Max. Mx	14	-2.54	0.10	0.00	
				Max. My	7	-2.35	0.00	-0.00	
				Max. Vy	14	-0.05	0.00	0.00	
Top Girt	Max. Vx	7	0.00	0.00	0.00				
	Max Tension	1	0.00	0.00	0.00				
	Max. Compression	1	-3.11	0.00	0.00				
	Max. Mx	14	-2.56	0.10	0.00				
	Max. My	7	-2.69	0.00	-0.00				
	Max. Vy	14	-0.05	0.00	0.00				
T36	314 - 294	Leg	Max. Vx	7	0.00	0.00	0.00		
			Max Tension	1	0.00	0.00	0.00		
			Max. Compression	20	-210.24	-0.12	-0.16		
			Max. Mx	38	-125.32	-0.44	-0.19		
			Max. My	33	-125.26	-0.04	0.48		
			Max. Vy	12	0.13	0.15	0.08		
			Max. Vx	8	-0.15	0.01	-0.18		
			Diagonal Horizontal	Max Tension	38	2.36	0.00	0.00	
				Max Tension	1	0.00	0.00	0.00	
				Max. Compression	1	-3.09	0.00	0.00	
				Max. Mx	14	-2.50	0.10	0.00	
				Max. My	7	-2.19	0.00	-0.00	
		Max. Vy		14	-0.05	0.00	0.00		
		Top Girt	Max. Vx	7	0.00	0.00	0.00		
			Max Tension	1	0.00	0.00	0.00		
			Max. Compression	1	-3.08	0.00	0.00		
			Max. Mx	14	-2.53	0.10	0.00		
			Max. My	7	-2.19	0.00	-0.00		
			Max. Vy	14	-0.05	0.00	0.00		
		T37	294 - 274	Leg	Max. Vx	7	0.00	0.00	0.00
					Max Tension	1	0.00	0.00	0.00
					Max. Compression	6	-217.89	-0.16	-0.02
					Max. Mx	12	-141.84	-1.16	-0.53
					Max. My	8	-137.54	-0.17	1.30
Max. Vy	5				3.58	-0.20	-0.02		
Diagonal Horizontal	Max. Vx			8	3.93	0.06	-0.18		
	Max Tension			2	3.87	0.00	0.00		
	Max Tension			1	0.00	0.00	0.00		
	Max. Compression			1	-3.23	0.00	0.00		
	Max. Mx			14	-2.57	0.10	0.00		
	Max. My			7	-2.35	0.00	-0.00		



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<b>Client</b>	CLIENT NAME	<b>Designed by</b>	EDR

Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Force K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
T38	274 - 254	Top Girt	Max. Vy	14	-0.05	0.00	0.00
			Max. Vx	7	0.00	0.00	0.00
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	1	-3.06	0.00	0.00
			Max. Mx	14	-2.53	0.10	0.00
			Max. My	7	-2.21	0.00	-0.00
		Leg	Max. Vy	14	-0.05	0.00	0.00
			Max. Vx	7	0.00	0.00	0.00
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	6	-235.73	0.04	0.02
			Max. Mx	5	-143.22	-1.55	0.47
			Max. My	8	-137.57	0.29	-1.65
			Max. Vy	5	5.48	-1.01	0.43
			Max. Vx	8	6.01	0.11	-1.11
			Max Tension	9	5.66	0.00	0.00
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	2	-4.55	0.00	0.00
			Max. Mx	14	-3.00	0.10	0.00
			Max. My	7	-2.63	0.00	-0.00
			Max. Vy	14	-0.05	0.00	0.00
T39	254 - 234	Top Girt	Max. Vx	7	0.00	0.00	0.00
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	2	-3.60	0.00	0.00
			Max. Mx	14	-2.61	0.10	0.00
			Max. My	7	-2.34	0.00	-0.00
			Max. Vy	14	-0.05	0.00	0.00
		Leg	Max. Vx	7	0.00	0.00	0.00
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	6	-252.57	-0.67	-0.52
			Max. Mx	5	-131.02	-1.01	0.43
			Max. My	9	-129.19	0.18	-1.12
			Max. Vy	11	-0.22	0.84	0.08
			Max. Vx	7	0.23	-0.26	-0.92
			Max Tension	13	6.83	0.00	0.00
			Max Tension	12	10.56	0.00	0.00
			Max Tension	13	11.04	0.00	0.00
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	27	-9.04	0.00	0.00
			Max. Mx	14	-7.18	0.10	0.00
			Max. My	7	-7.44	0.00	-0.00
Max. Vy	14	-0.05	0.00	0.00			
Top Girt	Max. Vx	7	0.00	0.00	0.00		
	Max Tension	1	0.00	0.00	0.00		
	Max. Compression	9	-4.75	0.00	0.00		
	Max. Mx	14	-2.63	0.10	0.00		
	Max. My	7	-3.27	0.00	-0.00		
	Max. Vy	14	-0.05	0.00	0.00		
	Max. Vx	7	0.00	0.00	0.00		
	Guy A	Bottom Tension	8	27.43			
		Top Tension	8	27.98			
		Top Cable Vert	8	17.38			
		Top Cable Norm	8	21.93			
		Top Cable Tan	8	0.00			
		Bot Cable Vert	8	-16.20			
		Bot Cable Norm	8	22.13			
Bot Cable Tan		8	0.00				
Guy B		Bottom Tension	12	26.96			
		Top Tension	12	27.46			
		Top Cable Vert	12	16.01			
		Top Cable Norm	12	22.31			
		Top Cable Tan	12	0.00			



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Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Force K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft	
T40	234 - 214	Guy C	Bot Cable Vert	12	-14.89			
			Bot Cable Norm	12	22.48			
			Bot Cable Tan	12	0.00			
			Bottom Tension	4	26.90			
			Top Tension	4	27.41			
			Top Cable Vert	4	16.11			
			Top Cable Norm	4	22.17			
			Top Cable Tan	4	0.00			
			Bot Cable Vert	4	-14.98			
			Bot Cable Norm	4	22.34			
			Bot Cable Tan	4	0.00			
			Max Tension	1	0.00	0.00	0.00	
			Max. Compression	6	-237.89	-0.07	-0.04	
			Max. Mx	12	-197.96	-0.14	-0.02	
		Max. My	9	-177.00	0.01	0.14		
		Max. Vy	11	-0.06	0.07	-0.02		
		Max. Vx	2	-0.06	0.00	0.08		
		Diagonal Horizontal	Max Tension	13	7.10	0.00	0.00	
			Max Tension	1	0.00	0.00	0.00	
			Max. Compression	13	-5.67	0.00	0.00	
			Max. Mx	14	-2.57	0.10	0.00	
			Max. My	7	-5.56	0.00	-0.00	
			Max. Vy	14	-0.05	0.00	0.00	
			Max. Vx	7	0.00	0.00	0.00	
			Top Girt	Max Tension	1	0.00	0.00	0.00
				Max. Compression	13	-5.81	0.00	0.00
				Max. Mx	14	-2.43	0.10	0.00
				Max. My	7	-5.70	0.00	-0.00
Max. Vy	14			-0.05	0.00	0.00		
Max. Vx	7			0.00	0.00	0.00		
T41	214 - 194			Leg	Max Tension	1	0.00	0.00
		Max. Compression			22	-225.20	0.01	0.01
		Max. Mx			5	-177.04	-0.04	-0.02
		Max. My			2	-176.06	-0.00	0.04
		Max. Vy	5		0.02	-0.02	-0.02	
		Max. Vx	2		-0.03	-0.00	0.04	
		Diagonal Horizontal	Max Tension		13	5.31	0.00	0.00
			Max Tension	1	0.00	0.00	0.00	
			Max. Compression	13	-4.23	0.00	0.00	
			Max. Mx	14	-2.54	0.10	0.00	
			Max. My	7	-4.14	0.00	-0.00	
			Max. Vy	14	-0.05	0.00	0.00	
			Max. Vx	7	0.00	0.00	0.00	
		Top Girt	Max Tension	1	0.00	0.00	0.00	
Max. Compression	13		-4.59	0.00	0.00			
Max. Mx	14		-2.56	0.10	0.00			
Max. My	7		-4.49	0.00	-0.00			
Max. Vy	14		-0.05	0.00	0.00			
Max. Vx	7		0.00	0.00	0.00			
T42	194 - 174		Leg	Max Tension	1	0.00	0.00	0.00
		Max. Compression		25	-221.19	0.01	0.01	
		Max. Mx		11	-189.83	-0.17	-0.03	
		Max. My		2	-185.95	-0.01	-0.18	
		Max. Vy		11	-0.21	0.04	-0.02	
		Max. Vx		2	-0.22	0.00	0.04	
		Diagonal Horizontal		Max Tension	13	3.57	0.00	0.00
			Max Tension	1	0.00	0.00	0.00	
			Max. Compression	1	-3.09	0.00	0.00	
			Max. Mx	14	-2.51	0.10	0.00	
			Max. My	7	-2.71	0.00	-0.00	
			Max. Vy	14	-0.05	0.00	0.00	



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Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Force K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft	
T43	174 - 154	Top Girt	Max. Vx	7	0.00	0.00	0.00	
			Max Tension	1	0.00	0.00	0.00	
			Max. Compression	13	-3.15	0.00	0.00	
			Max. Mx	14	-2.53	0.10	0.00	
			Max. My	7	-3.06	0.00	-0.00	
			Max. Vy	14	-0.05	0.00	0.00	
		Leg	Max. Vx	7	0.00	0.00	0.00	
			Max Tension	1	0.00	0.00	0.00	
			Max. Compression	25	-222.63	-0.01	-0.00	
			Max. Mx	11	-198.48	0.04	-0.01	
			Max. My	13	-189.88	0.01	0.04	
			Max. Vy	11	0.03	0.04	-0.01	
			Diagonal Horizontal	Max. Vx	2	0.03	0.01	0.03
				Max Tension	12	2.37	0.00	0.00
Max Tension	1			0.00	0.00	0.00		
Max. Compression	1			-3.06	0.00	0.00		
Max. Mx	14			-2.48	0.10	0.00		
Max. My	7			-2.24	0.00	-0.00		
Top Girt	Max. Vy		14	-0.05	0.00	0.00		
	Max. Vx		7	0.00	0.00	0.00		
	Max Tension	1	0.00	0.00	0.00			
	Max. Compression	1	-3.07	0.00	0.00			
	Max. Mx	14	-2.50	0.10	0.00			
	Max. My	7	-2.24	0.00	-0.00			
	Leg	Max. Vy	14	-0.05	0.00	0.00		
		Max. Vx	7	0.00	0.00	0.00		
		Max Tension	1	0.00	0.00	0.00		
		Max. Compression	21	-227.13	0.05	0.06		
		Max. Mx	12	-192.30	-0.14	-0.04		
		Max. My	15	-208.37	0.03	-0.14		
		Diagonal Horizontal	Max. Vy	10	-0.05	0.02	-0.01	
			Max. Vx	2	-0.07	-0.00	0.02	
Max Tension			12	3.47	0.00	0.00		
Max Tension			1	0.00	0.00	0.00		
Max. Compression			1	-3.04	0.00	0.00		
Max. Mx			14	-2.44	0.10	0.00		
Top Girt		Max. My	7	-2.22	0.00	-0.00		
		Max. Vy	14	-0.05	0.00	0.00		
	Max. Vx	7	0.00	0.00	0.00			
	Max Tension	1	0.00	0.00	0.00			
	Max. Compression	1	-3.04	0.00	0.00			
	Max. Mx	14	-2.47	0.10	0.00			
	Leg	Max. My	7	-2.23	0.00	-0.00		
		Max. Vy	14	-0.05	0.00	0.00		
		Max. Vx	7	0.00	0.00	0.00		
		Max Tension	1	0.00	0.00	0.00		
		Max. Compression	21	-239.77	-0.06	-0.46		
		Max. Mx	6	-196.49	-0.57	-0.19		
		Diagonal	Max. My	7	-216.34	-0.18	-0.65	
			Max. Vy	6	-0.15	-0.57	-0.19	
Max. Vx			7	-0.17	-0.18	-0.65		
Max Tension			7	5.18	0.00	0.00		
Guy Lower Diagonal			38	9.05	0.00	0.00		
Guy Upper Diagonal			37	9.07	0.00	0.00		
Horizontal		Max Tension	1	0.00	0.00	0.00		
		Max. Compression	27	-8.08	0.00	0.00		
	Max. Mx	14	-6.66	0.10	0.00			
	Max. My	7	-6.27	0.00	-0.00			
	Max. Vy	14	-0.05	0.00	0.00			
	Max. Vx	7	0.00	0.00	0.00			
Top Girt	Max Tension	1	0.00	0.00	0.00			



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Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Force K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
			Max. Compression	12	-2.91	0.00	0.00
			Max. Mx	14	-2.28	0.10	0.00
			Max. My	7	-2.08	0.00	-0.00
			Max. Vy	14	-0.05	0.00	0.00
			Max. Vx	7	0.00	0.00	0.00
		Guy A	Bottom Tension	21	21.78		
			Top Tension	21	22.17		
			Top Cable Vert	21	9.00		
			Top Cable Norm	21	20.26		
			Top Cable Tan	21	0.00		
			Bot Cable Vert	21	-7.87		
			Bot Cable Norm	21	20.31		
			Bot Cable Tan	21	0.00		
		Guy B	Bottom Tension	25	21.52		
			Top Tension	25	21.85		
			Top Cable Vert	25	7.59		
			Top Cable Norm	25	20.49		
			Top Cable Tan	25	0.00		
			Bot Cable Vert	25	-6.51		
			Bot Cable Norm	25	20.52		
			Bot Cable Tan	25	0.00		
		Guy C	Bottom Tension	17	21.45		
			Top Tension	17	21.78		
			Top Cable Vert	17	7.73		
			Top Cable Norm	17	20.37		
			Top Cable Tan	17	0.00		
			Bot Cable Vert	17	-6.64		
			Bot Cable Norm	17	20.40		
			Bot Cable Tan	17	0.00		
T46	114 - 94	Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	21	-242.21	0.02	0.03
			Max. Mx	12	-195.99	-0.15	-0.03
			Max. My	15	-213.15	-0.00	-0.16
			Max. Vy	12	-0.05	0.02	-0.00
			Max. Vx	2	-0.05	0.00	0.02
		Diagonal	Max Tension	7	5.29	0.00	0.00
		Horizontal	Max Tension	1	0.00	0.00	0.00
			Max. Compression	7	-4.20	0.00	0.00
			Max. Mx	14	-2.29	0.10	0.00
			Max. My	7	-4.20	0.00	-0.00
			Max. Vy	14	-0.05	0.00	0.00
			Max. Vx	7	0.00	0.00	0.00
		Top Girt	Max Tension	1	0.00	0.00	0.00
			Max. Compression	7	-4.36	0.00	0.00
			Max. Mx	14	-2.17	0.10	0.00
			Max. My	7	-4.36	0.00	-0.00
			Max. Vy	14	-0.05	0.00	0.00
			Max. Vx	7	0.00	0.00	0.00
T47	94 - 74	Leg	Max Tension	1	0.00	0.00	0.00
			Max. Compression	21	-250.65	0.00	0.03
			Max. Mx	12	-192.66	-0.05	-0.02
			Max. My	7	-198.15	0.00	0.06
			Max. Vy	5	0.02	0.01	-0.01
			Max. Vx	9	0.02	-0.00	0.02
		Diagonal	Max Tension	7	3.69	0.00	0.00
		Horizontal	Max Tension	1	0.00	0.00	0.00
			Max. Compression	7	-2.91	0.00	0.00
			Max. Mx	14	-2.27	0.10	0.00
			Max. My	7	-2.91	0.00	-0.00
			Max. Vy	14	-0.05	0.00	0.00
			Max. Vx	7	0.00	0.00	0.00



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Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Force K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft	
T48	74 - 54	Top Girt	Max Tension	1	0.00	0.00	0.00	
			Max. Compression	7	-3.22	0.00	0.00	
			Max. Mx	14	-2.29	0.10	0.00	
			Max. My	7	-3.22	0.00	-0.00	
			Max. Vy	14	-0.05	0.00	0.00	
		Leg	Max. Vx	7	0.00	0.00	0.00	
			Max Tension	1	0.00	0.00	0.00	
			Max. Compression	21	-254.38	-0.02	0.29	
			Max. Mx	31	-166.87	0.42	-0.16	
			Max. My	32	-171.30	-0.04	0.44	
			Max. Vy	31	-0.11	-0.10	0.06	
			Max. Vx	33	-0.12	0.01	-0.11	
			Diagonal	Max Tension	7	2.35	0.00	0.00
				Max. Compression	1	0.00	0.00	0.00
			Horizontal	Max. Compression	1	-2.89	0.00	0.00
Max. Mx	14	-2.24		0.10	0.00			
T49	54 - 34	Top Girt	Max. My	7	-2.09	0.00	-0.00	
			Max. Vy	14	-0.05	0.00	0.00	
			Max. Vx	7	0.00	0.00	0.00	
			Max Tension	1	0.00	0.00	0.00	
			Max. Compression	1	-2.88	0.00	0.00	
		Leg	Max. Mx	14	-2.26	0.10	0.00	
			Max. My	7	-2.10	0.00	-0.00	
			Max. Vy	14	-0.05	0.00	0.00	
			Max. Vx	7	0.00	0.00	0.00	
			Max Tension	1	0.00	0.00	0.00	
			Max. Compression	21	-254.82	-0.00	0.08	
			Max. Mx	12	-215.65	-0.93	-0.40	
			Max. My	8	-218.91	-0.09	0.99	
			Max. Vy	12	-2.31	-0.07	-0.04	
			Max. Vx	8	2.43	-0.00	0.08	
Diagonal	Max Tension	31	2.26	0.00	0.00			
	Max. Compression	1	0.00	0.00	0.00			
Horizontal	Max. Compression	1	-3.03	0.00	0.00			
	Max. Mx	14	-2.36	0.10	0.00			
T50	34 - 19	Top Girt	Max. My	7	-2.27	0.00	-0.00	
			Max. Vy	14	-0.05	0.00	0.00	
			Max. Vx	7	0.00	0.00	0.00	
			Max Tension	1	0.00	0.00	0.00	
			Max. Compression	1	-2.89	0.00	0.00	
		Leg	Max. Mx	14	-2.29	0.10	0.00	
			Max. My	7	-2.14	0.00	-0.00	
			Max. Vy	14	-0.05	0.00	0.00	
			Max. Vx	7	0.00	0.00	0.00	
			Max Tension	1	0.00	0.00	0.00	
			Max. Compression	21	-253.07	-0.01	0.21	
			Max. Mx	12	-215.68	0.80	0.32	
			Max. My	8	-217.92	0.09	-0.84	
			Max. Vy	12	-2.32	0.80	0.32	
			Max. Vx	8	2.44	0.09	-0.84	
Diagonal	Max Tension	12	2.67	0.00	0.00			
	Max. Compression	1	0.00	0.00	0.00			
Horizontal	Max. Compression	1	-3.08	0.00	0.00			
	Max. Mx	14	-2.43	0.10	0.00			
T50	34 - 19	Top Girt	Max. My	7	-2.12	0.00	-0.00	
			Max. Vy	14	-0.05	0.00	0.00	
			Max. Vx	7	0.00	0.00	0.00	
			Max Tension	1	0.00	0.00	0.00	
			Max. Compression	1	-2.75	0.00	0.00	
		Leg	Max. Mx	14	-2.19	0.10	0.00	
			Max. My	7	-2.05	0.00	-0.00	



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Section No.	Elevation ft	Component Type	Condition	Gov. Load Comb.	Force K	Major Axis Moment kip-ft	Minor Axis Moment kip-ft
T51	19 - 9	Leg	Max. Vy	14	-0.05	0.00	0.00
			Max. Vx	7	0.00	0.00	0.00
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	21	-249.00	0.03	-0.02
			Max. Mx	17	-244.68	-3.17	1.90
			Max. My	21	-245.83	-0.15	-3.71
		Diagonal	Max. Vy	25	-24.14	3.09	2.02
			Max. Vx	21	27.92	-0.15	-3.71
			Max Tension	12	2.35	0.00	0.00
			Max. Compression	12	-2.37	0.00	0.00
			Max. Mx	20	0.96	0.04	0.00
			Max. My	6	0.66	0.00	-0.00
		Top Girt	Max. Vy	20	-0.03	0.00	0.00
			Max. Vx	6	0.00	0.00	0.00
			Max Tension	12	0.10	-0.21	-0.00
			Max. Compression	6	-2.24	-0.23	0.00
			Max. Mx	21	-0.95	-0.28	0.00
			Max. My	6	-1.18	-0.21	-0.00
		Bottom Girt	Max. Vy	21	0.10	-0.28	0.00
			Max. Vx	6	-0.00	0.00	0.00
			Max Tension	21	16.28	0.00	0.00
Max. Compression	1		0.00	0.00	0.00		
Max. Mx	21		15.00	0.23	0.00		
Max. My	7		12.19	0.17	-0.00		
T52	9 - 0	Leg	Max. Vy	21	0.09	0.00	0.00
			Max. Vx	7	0.00	0.00	0.00
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	21	-273.95	-1.25	0.78
			Max. Mx	21	-269.23	3.71	-0.13
			Max. My	7	-230.71	-1.04	2.96
		Diagonal	Max. Vy	21	1.57	-1.41	0.06
			Max. Vx	7	-1.10	-1.04	2.96
			Max Tension	1	0.00	0.00	0.00
			Max. Compression	20	-15.67	0.00	0.00
			Max. Mx	21	-15.43	0.04	0.00
			Max. My	21	-3.32	-0.03	0.02
		Horizontal	Max. Vy	21	0.03	0.00	0.00
			Max. Vx	20	-0.01	-0.02	0.02
			Max Tension	21	14.84	0.00	0.00
			Max. Compression	1	0.00	0.00	0.00
			Max. Mx	25	12.62	0.11	0.00
			Max. My	20	12.70	0.00	0.03
		Top Girt	Max. Vy	25	-0.08	0.00	0.00
			Max. Vx	20	-0.02	0.00	0.00
			Max Tension	21	53.94	0.00	0.00
Max. Compression	1		0.00	0.00	0.00		
Max. Mx	25		53.01	0.24	0.00		
Max. My	20		53.00	0.00	0.06		
	Max. Vy	25	-0.13	0.00	0.00		
	Max. Vx	20	-0.03	0.00	0.00		

### Maximum Reactions

Location	Condition	Gov. Load Comb.	Vertical K	Horizontal, X K	Horizontal, Z K
Mast	Max. Vert	21	727.53	-0.00	-1.40





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Location	Condition	Gov. Load Comb.	Vertical K	Horizontal, X K	Horizontal, Z K	
Guy C @ 700 ft Elev 4 ft Azimuth 240 deg	Max. H <sub>x</sub>	12	609.81	1.74	1.00	
	Max. H <sub>z</sub>	15	677.29	-0.01	1.95	
	Max. M <sub>x</sub>	1	0.00	-0.02	0.00	
	Max. M <sub>z</sub>	1	0.00	-0.02	0.00	
	Max. Torsion	13	4.26	1.11	1.27	
	Min. Vert	1	474.75	-0.02	0.00	
	Min. H <sub>x</sub>	4	610.31	-1.77	1.00	
	Min. H <sub>z</sub>	8	615.17	-0.01	-1.84	
	Min. M <sub>x</sub>	1	0.00	-0.02	0.00	
	Min. M <sub>z</sub>	1	0.00	-0.02	0.00	
	Min. Torsion	7	-4.49	-0.43	-1.39	
	Max. Vert	10	-7.05	-3.74	2.16	
	Guy B @ 700 ft Elev 10 ft Azimuth 120 deg	Max. H <sub>x</sub>	10	-7.05	-3.74	2.16
		Max. H <sub>z</sub>	17	-145.56	-123.51	71.30
Min. Vert		4	-147.85	-122.29	70.61	
Min. H <sub>x</sub>		17	-145.56	-123.51	71.30	
Min. H <sub>z</sub>		10	-7.05	-3.74	2.16	
Max. Vert		6	-6.89	3.71	2.14	
Guy A @ 700 ft Elev -41 ft Azimuth 0 deg	Max. H <sub>x</sub>	25	-144.63	123.58	71.33	
	Max. H <sub>z</sub>	25	-144.63	123.58	71.33	
	Min. Vert	12	-146.90	122.38	70.64	
	Min. H <sub>x</sub>	6	-6.89	3.71	2.14	
	Min. H <sub>z</sub>	6	-6.89	3.71	2.14	
	Max. Vert	2	-8.55	-0.00	-4.78	
Guy C @ 350 ft Elev 2 ft Azimuth 240 deg	Max. H <sub>x</sub>	24	-86.87	10.81	-78.20	
	Max. H <sub>z</sub>	2	-8.55	-0.00	-4.78	
	Min. Vert	8	-155.49	0.02	-140.79	
	Min. H <sub>x</sub>	18	-86.63	-10.81	-78.01	
	Min. H <sub>z</sub>	21	-153.09	0.01	-142.23	
	Max. Vert	10	-3.11	-5.83	3.37	
Guy B @ 350 ft Elev 5 ft Azimuth 120 deg	Max. H <sub>x</sub>	10	-3.11	-5.83	3.37	
	Max. H <sub>z</sub>	4	-74.36	-75.53	43.61	
	Min. Vert	4	-74.36	-75.53	43.61	
	Min. H <sub>x</sub>	4	-74.36	-75.53	43.61	
	Min. H <sub>z</sub>	10	-3.11	-5.83	3.37	
	Max. Vert	6	-3.04	5.84	3.37	
Guy A @ 350 ft Elev -20 ft Azimuth 0 deg	Max. H <sub>x</sub>	12	-73.85	75.85	43.78	
	Max. H <sub>z</sub>	12	-73.85	75.85	43.78	
	Min. Vert	12	-73.85	75.85	43.78	
	Min. H <sub>x</sub>	6	-3.04	5.84	3.37	
	Min. H <sub>z</sub>	6	-3.04	5.84	3.37	
	Max. Vert	2	-3.65	-0.00	-6.71	
Guy A @ 350 ft Elev -20 ft Azimuth 0 deg	Max. H <sub>x</sub>	24	-42.74	2.86	-51.28	
	Max. H <sub>z</sub>	2	-3.65	-0.00	-6.71	
	Min. Vert	8	-79.10	0.01	-86.63	
	Min. H <sub>x</sub>	18	-42.69	-2.86	-51.23	
	Min. H <sub>z</sub>	8	-79.10	0.01	-86.63	



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## Tower Mast Reaction Summary

Load Combination	Vertical	Shear <sub>x</sub>	Shear <sub>z</sub>	Overturning Moment, M <sub>x</sub>	Overturning Moment, M <sub>z</sub>	Torque
	K	K	K	kip-ft	kip-ft	kip-ft
Dead Only	474.75	0.02	-0.00	0.00	0.00	-0.00
Dead+Wind 0 deg - No Ice+Guy	620.29	0.02	-1.48	0.00	0.00	-2.38
Dead+Wind 30 deg - No Ice+Guy	618.65	1.14	-1.28	0.00	0.00	0.02
Dead+Wind 60 deg - No Ice+Guy	610.31	1.77	-1.00	0.00	0.00	0.98
Dead+Wind 90 deg - No Ice+Guy	621.38	1.62	-0.41	0.00	0.00	1.80
Dead+Wind 120 deg - No Ice+Guy	628.62	1.12	0.52	0.00	0.00	3.56
Dead+Wind 150 deg - No Ice+Guy	625.88	0.43	1.39	0.00	0.00	4.49
Dead+Wind 180 deg - No Ice+Guy	615.17	0.01	1.84	0.00	0.00	2.83
Dead+Wind 210 deg - No Ice+Guy	625.41	-0.42	1.41	0.00	0.00	0.02
Dead+Wind 240 deg - No Ice+Guy	627.60	-1.11	0.54	0.00	0.00	-1.21
Dead+Wind 270 deg - No Ice+Guy	620.56	-1.61	-0.41	0.00	0.00	-2.03
Dead+Wind 300 deg - No Ice+Guy	609.81	-1.74	-1.00	0.00	0.00	-3.74
Dead+Wind 330 deg - No Ice+Guy	618.28	-1.11	-1.27	0.00	0.00	-4.26
Dead+Ice+Temp+Guy	602.52	0.01	0.01	0.00	0.00	0.00
Dead+Wind 0 deg+Ice+Temp+Guy	677.29	0.01	-1.95	0.00	0.00	-1.27
Dead+Wind 30 deg+Ice+Temp+Guy	708.62	0.83	-1.47	0.00	0.00	0.86
Dead+Wind 60 deg+Ice+Temp+Guy	724.07	1.35	-0.78	0.00	0.00	0.48
Dead+Wind 90 deg+Ice+Temp+Guy	710.16	1.67	-0.02	0.00	0.00	0.06
Dead+Wind 120 deg+Ice+Temp+Guy	683.02	1.59	0.83	0.00	0.00	1.92
Dead+Wind 150 deg+Ice+Temp+Guy	712.83	0.83	1.30	0.00	0.00	2.96
Dead+Wind 180 deg+Ice+Temp+Guy	727.53	0.00	1.40	0.00	0.00	1.18
Dead+Wind 210 deg+Ice+Temp+Guy	712.51	-0.82	1.31	0.00	0.00	-0.84
Dead+Wind 240 deg+Ice+Temp+Guy	682.19	-1.59	0.85	0.00	0.00	-0.65
Dead+Wind 270 deg+Ice+Temp+Guy	709.62	-1.65	-0.02	0.00	0.00	-0.23
Dead+Wind 300 deg+Ice+Temp+Guy	723.66	-1.33	-0.77	0.00	0.00	-1.63
Dead+Wind 330 deg+Ice+Temp+Guy	708.39	-0.81	-1.46	0.00	0.00	-2.77
Dead+Wind 0 deg - Service+Guy	491.32	0.01	-1.19	0.00	0.00	-2.14
Dead+Wind 30 deg - Service+Guy	496.69	0.58	-0.99	0.00	0.00	-0.16
Dead+Wind 60 deg - Service+Guy	501.53	0.98	-0.56	0.00	0.00	0.48
Dead+Wind 90 deg - Service+Guy	498.56	1.15	-0.02	0.00	0.00	1.04



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Load Combination	Vertical K	Shear <sub>x</sub> K	Shear <sub>z</sub> K	Overturning Moment, M <sub>x</sub> kip-ft	Overturning Moment, M <sub>z</sub> kip-ft	Torque kip-ft
Dead+Wind 120 deg - Service+Guy	495.62	1.02	0.54	0.00	0.00	2.74
Dead+Wind 150 deg - Service+Guy	499.55	0.57	0.92	0.00	0.00	3.57
Dead+Wind 180 deg - Service+Guy	503.12	0.01	1.05	0.00	0.00	2.15
Dead+Wind 210 deg - Service+Guy	499.22	-0.55	0.92	0.00	0.00	0.17
Dead+Wind 240 deg - Service+Guy	495.00	-1.00	0.54	0.00	0.00	-0.59
Dead+Wind 270 deg - Service+Guy	498.20	-1.12	-0.02	0.00	0.00	-1.14
Dead+Wind 300 deg - Service+Guy	501.36	-0.96	-0.57	0.00	0.00	-2.60
Dead+Wind 330 deg - Service+Guy	496.65	-0.56	-0.99	0.00	0.00	-3.42

### Maximum Tower Deflections - Service Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
Pole	1063.3 - 999	25.258	33	0.4312	1.3045
Antenna					
T1	999 - 989	20.835	33	0.2848	1.3038
T2	989 - 974	20.786	33	0.2856	1.3058
T3	974 - 954	20.722	33	0.2820	1.3155
T4	954 - 934	20.597	33	0.2731	1.3233
T5	934 - 914	20.426	33	0.2654	1.3244
T6	914 - 894	20.237	33	0.2656	1.3195
T7	894 - 874	20.124	33	0.2710	1.3184
T8	874 - 854	20.058	33	0.2668	1.3198
T9	854 - 834	19.986	33	0.2614	1.3147
T10	834 - 814	19.968	33	0.2533	1.3138
T11	814 - 794	19.965	33	0.2270	1.3166
T12	794 - 774	19.863	33	0.1893	1.3135
T13	774 - 754	19.637	33	0.1478	1.3047
T14	754 - 734	19.284	33	0.1080	1.2900
T15	734 - 714	18.819	33	0.1059	1.2681
T16	714 - 694	18.316	33	0.1081	1.2473
T17	694 - 674	17.883	33	0.1167	1.2377
T18	674 - 654	17.387	33	0.1325	1.2204
T19	654 - 634	16.795	33	0.1509	1.1976
T20	634 - 614	16.103	33	0.1668	1.1653
T21	614 - 594	15.329	33	0.1750	1.1260
T22	594 - 574	14.597	31	0.1719	1.0934
T23	574 - 554	14.072	31	0.1730	1.0733
T24	554 - 534	13.464	31	0.1807	1.0444
T25	534 - 514	12.751	31	0.1910	1.0123
T26	514 - 494	11.936	31	0.2000	0.9704
T27	494 - 474	11.028	31	0.2026	0.9267
T28	474 - 454	10.110	31	0.1951	0.8923
T29	454 - 434	9.321	31	0.1894	0.8655
T30	434 - 414	8.537	31	0.1857	0.8293
T31	414 - 394	7.751	31	0.1806	0.7912
T32	394 - 374	6.976	31	0.1705	0.7509
T33	374 - 354	6.234	31	0.1521	0.7063
T34	354 - 334	5.633	31	0.1314	0.6816



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Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
T35	334 - 314	5.150	31	0.1176	0.6459
T36	314 - 294	4.697	31	0.1081	0.6092
T37	294 - 274	4.262	31	0.1002	0.5712
T38	274 - 254	3.842	31	0.0911	0.5299
T39	254 - 234	3.447	31	0.0798	0.4882
T40	234 - 214	3.146	31	0.0662	0.4672
T41	214 - 194	2.932	31	0.0594	0.4328
T42	194 - 174	2.719	31	0.0579	0.3972
T43	174 - 154	2.487	31	0.0594	0.3613
T44	154 - 134	2.228	31	0.0613	0.3296
T45	134 - 114	1.949	31	0.0612	0.2978
T46	114 - 94	1.700	31	0.0592	0.2814
T47	94 - 74	1.479	31	0.0613	0.2523
T48	74 - 54	1.228	31	0.0666	0.2226
T49	54 - 34	0.938	31	0.0732	0.1920
T50	34 - 19	0.609	31	0.0794	0.1595
T51	19 - 9	0.339	31	0.0828	0.1350
T52	9 - 0	0.161	31	0.0841	0.1298

### Critical Deflections and Radius of Curvature - Service Wind

Elevation ft	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
998'9-31/32"	Guy	33	20.833	0.2848	1.3038	5216
904'	Guy	33	20.170	0.2688	1.3182	49246
844'	Guy	33	19.970	0.2589	1.3134	68141
714'4-9/16"	Guy	33	18.325	0.1080	1.2476	35836
650'	DB806-XT	33	16.665	0.1544	1.1920	26179
647'	TTA 421-83a-01261	33	16.564	0.1570	1.1875	26618
594'4-9/16"	Guy	31	14.607	0.1719	1.0939	30085
525'	ICE SHIELD	31	12.397	0.1954	0.9945	46141
520'	DA6-65BC	31	12.191	0.1977	0.9837	45975
515'	ICE SHIELD	31	11.979	0.1996	0.9726	46385
510'	DA6-65BC	31	11.761	0.2013	0.9614	51636
474'	Guy	31	10.110	0.1951	0.8923	24665
364'	Guy	31	5.914	0.1413	0.6932	30973
330'	DB264 4-Bay DiPole or Similar	31	5.058	0.1155	0.6384	502225
325'	DB264 4-Bay DiPole or Similar	31	4.944	0.1130	0.6292	375066
320'	DB264 4-Bay DiPole or Similar	31	4.831	0.1107	0.6201	298439
315'	DB264 4-Bay DiPole or Similar	31	4.719	0.1086	0.6111	251883
310'	DB264 4-Bay DiPole or Similar	31	4.608	0.1065	0.6018	243474
275'	3" Dia 20' Omni	31	3.863	0.0916	0.5321	784489
244'	Guy	31	3.282	0.0727	0.4771	43295
180'	ICE SHIELD	31	2.559	0.0588	0.3717	170792
175'	ANDREW PL6-65	31	2.500	0.0593	0.3630	146308
150'	REFLECTOR	31	2.173	0.0615	0.3227	236722
124'	Guy	31	1.819	0.0600	0.2894	110575



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### Maximum Tower Deflections - Design Wind

Section No.	Elevation ft	Horz. Deflection in	Gov. Load Comb.	Tilt °	Twist °
Pole	1063.3 - 999	73.108	8	1.1493	2.0587
Antenna					
T1	999 - 989	61.688	9	0.2412	2.0613
T2	989 - 974	61.448	9	0.2374	2.0664
T3	974 - 954	61.112	9	0.2416	2.0927
T4	954 - 934	60.582	9	0.2531	2.1160
T5	934 - 914	59.957	9	0.2579	2.1236
T6	914 - 894	59.293	9	0.2413	2.1193
T7	894 - 874	58.906	10	0.2107	2.1276
T8	874 - 854	58.921	6	0.2030	2.1415
T9	854 - 834	58.945	6	0.1910	2.1425
T10	834 - 814	59.123	6	0.1844	2.1473
T11	814 - 794	59.333	6	0.2054	2.1528
T12	794 - 774	59.269	6	0.2407	2.1633
T13	774 - 754	58.897	6	0.2803	2.1608
T14	754 - 734	58.205	6	0.3143	2.1451
T15	734 - 714	57.201	6	0.3382	2.1134
T16	714 - 694	56.063	6	0.3330	2.0923
T17	694 - 674	55.140	6	0.3416	2.0713
T18	674 - 654	54.021	6	0.3666	2.0571
T19	654 - 634	52.645	6	0.3978	2.0317
T20	634 - 614	50.989	6	0.4300	1.9812
T21	614 - 594	49.063	6	0.4500	1.8996
T22	594 - 574	47.052	6	0.4440	1.8340
T23	574 - 554	45.347	6	0.4496	1.7723
T24	554 - 534	43.495	6	0.4792	1.7202
T25	534 - 514	41.430	6	0.5199	1.6802
T26	514 - 494	39.131	6	0.5602	1.6156
T27	494 - 474	36.541	6	0.5859	1.5252
T28	474 - 454	33.856	6	0.5838	1.4489
T29	454 - 434	31.433	6	0.5852	1.4146
T30	434 - 414	28.963	6	0.5883	1.3693
T31	414 - 394	26.436	6	0.5850	1.3145
T32	394 - 374	23.859	6	0.5669	1.2371
T33	374 - 354	21.287	6	0.5261	1.1440
T34	354 - 334	19.136	6	0.4770	1.0902
T35	334 - 314	17.300	6	0.4406	1.0183
T36	314 - 294	15.543	6	0.4115	0.9707
T37	294 - 274	13.865	6	0.3835	0.9221
T38	274 - 254	12.265	6	0.3506	0.8624
T39	254 - 234	10.754	6	0.3123	0.7996
T40	234 - 214	9.554	6	0.2676	0.7515
T41	214 - 194	8.665	6	0.2380	0.6412
T42	194 - 174	7.797	6	0.2211	0.5606
T43	174 - 154	6.929	6	0.2118	0.5088
T44	154 - 134	6.051	6	0.2043	0.4719
T45	134 - 114	5.173	6	0.1934	0.4353
T46	114 - 94	4.414	6	0.1790	0.4031
T47	94 - 74	3.781	6	0.1753	0.3275
T48	74 - 54	3.090	6	0.1805	0.2796
T49	54 - 34	2.334	6	0.1903	0.2418
T50	34 - 19	1.505	6	0.2008	0.2010
T51	19 - 9	0.841	6	0.2069	0.1700
T52	9 - 0	0.398	6	0.2094	0.1634



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### Critical Deflections and Radius of Curvature - Design Wind

Elevation	Appurtenance	Gov. Load Comb.	Deflection in	Tilt °	Twist °	Radius of Curvature ft
998'9-31/32"	Guy	9	61.681	0.2409	2.0614	2292
904'	Guy	9	59.027	0.2251	2.1215	22117
844'	Guy	6	59.014	0.1852	2.1444	24187
714'4-9/16"	Guy	6	56.082	0.3331	2.0926	10429
650'	DB806-XT	6	52.337	0.4037	2.0242	16581
647'	TTA 421-83a-01261	6	52.098	0.4079	2.0179	16647
594'4-9/16"	Guy	6	47.087	0.4441	1.8352	8628
525'	ICE SHIELD	6	40.430	0.5387	1.6554	17609
520'	DA6-65BC	6	39.851	0.5488	1.6386	15917
515'	ICE SHIELD	6	39.253	0.5584	1.6197	14782
510'	DA6-65BC	6	38.635	0.5673	1.5987	15753
474'	Guy	6	33.856	0.5838	1.4489	10043
364'	Guy	6	20.155	0.5009	1.1157	10610
330'	DB264 4-Bay DiPole or Similar	6	16.945	0.4345	1.0065	119465
325'	DB264 4-Bay DiPole or Similar	6	16.503	0.4271	0.9941	90080
320'	DB264 4-Bay DiPole or Similar	6	16.064	0.4199	0.9832	69289
315'	DB264 4-Bay DiPole or Similar	6	15.629	0.4129	0.9728	55416
310'	DB264 4-Bay DiPole or Similar	6	15.200	0.4061	0.9619	52655
275'	3" Dia 20' Omni	6	12.344	0.3524	0.8657	88613
244'	Guy	6	10.107	0.2894	0.7797	12681
180'	ICE SHIELD	6	7.189	0.2141	0.5222	95554
175'	ANDREW PL6-65	6	6.973	0.2122	0.5109	81266
150'	REFLECTOR	6	5.872	0.2025	0.4642	109264
124'	Guy	6	4.773	0.1857	0.4227	29658

### Bolt Design Data

Section No.	Elevation ft	Component Type	Bolt Grade	Bolt Size in	Number Of Bolts	Maximum Load per Bolt K	Allowable Load K	Ratio Load/Allowable	Allowable Ratio	Criteria	
T1	999	Leg	A325X	1.0000	4	0.00	34.53	0.000	✓	1.0891	Bolt Tension
		Diagonal	A325N	0.6250	2	1.46	12.89	0.113	✓	1.0891	Bolt Shear
		Top Girt	A325N	0.6250	6	1.90	6.44	0.295	✓	1.0891	Bolt Shear
		Bottom Girt	A325N	0.6250	2	1.20	12.89	0.093	✓	1.0891	Bolt Shear
T2	989	Leg	A325X	1.0000	4	0.00	34.52	0.000	✓	1.0891	Bolt Tension
		Diagonal	A325N	0.6250	2	2.29	6.44	0.355	✓	1.0891	Bolt Shear
		Horizontal	A325N	0.6250	2	2.40	12.89	0.187	✓	1.0891	Bolt Shear
		Top Girt	A325N	0.6250	2	1.00	12.89	0.077	✓	1.0891	Bolt Shear
T3	974	Leg	A325X	1.0000	4	0.00	34.51	0.000	✓	1.0891	Bolt Tension
		Diagonal	A325N	0.6250	2	1.82	6.44	0.282	✓	1.0891	Bolt Shear
		Horizontal	A325N	0.6250	2	2.36	12.89	0.183	✓	1.0891	Bolt Shear
		Top Girt	A325N	0.6250	2	1.82	12.89	0.141	✓	1.0891	Bolt Shear
T4	954	Leg	A325X	1.0000	4	0.00	34.56	0.000	✓	1.0891	Bolt Tension
		Diagonal	A325N	0.6250	2	2.10	6.44	0.326	✓	1.0891	Bolt Shear
		Horizontal	A325N	0.6250	2	2.28	12.89	0.177	✓	1.0891	Bolt Shear



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Section No.	Elevation ft	Component Type	Bolt Grade	Bolt Size in	Number Of Bolts	Maximum Load per Bolt K	Allowable Load K	Ratio Load Allowable	Allowable Ratio	Criteria
T5	934	Top Girt	A325N	0.6250	2	2.09	12.89	0.162 ✓	1.0891	Bolt Shear
		Leg	A325X	1.0000	4	0.00	34.56	0.000 ✓	1.0891	Bolt Tension
		Diagonal	A325N	0.6250	2	2.93	6.44	0.455 ✓	1.0891	Bolt Shear
		Horizontal	A325N	0.6250	2	2.29	12.89	0.178 ✓	1.0891	Bolt Shear
T6	914	Top Girt	A325N	0.6250	2	2.26	12.89	0.176 ✓	1.0891	Bolt Shear
		Leg	A325X	1.0000	4	0.00	34.56	0.000 ✓	1.0891	Bolt Tension
		Diagonal	A325N	0.6250	2	3.21	6.44	0.499 ✓	1.0891	Bolt Shear
		Horizontal	A325N	0.6250	2	6.48	12.89	0.503 ✓	1.0891	Bolt Shear
T7	894	Top Girt	A325N	0.6250	2	2.56	12.89	0.198 ✓	1.0891	Bolt Shear
		Leg	A325X	1.0000	4	0.00	34.56	0.000 ✓	1.0891	Bolt Tension
		Diagonal	A325N	0.6250	2	1.63	6.44	0.253 ✓	1.0891	Bolt Shear
		Horizontal	A325N	0.6250	2	2.05	12.89	0.159 ✓	1.0891	Bolt Shear
T8	874	Top Girt	A325N	0.6250	2	1.93	12.89	0.150 ✓	1.0891	Bolt Shear
		Leg	A325X	1.0000	4	0.00	34.50	0.000 ✓	1.0891	Bolt Tension
		Diagonal	A325N	0.6250	2	1.61	6.44	0.250 ✓	1.0891	Bolt Shear
		Horizontal	A325N	0.6250	2	2.10	12.89	0.163 ✓	1.0891	Bolt Shear
T9	854	Top Girt	A325N	0.6250	2	1.88	12.89	0.146 ✓	1.0891	Bolt Shear
		Leg	A325X	1.0000	4	0.00	34.21	0.000 ✓	1.0891	Bolt Tension
		Diagonal	A325N	0.6250	2	4.01	6.44	0.622 ✓	1.0891	Bolt Shear
		Horizontal	A325N	0.6250	2	6.32	12.89	0.490 ✓	1.0891	Bolt Shear
T10	834	Top Girt	A325N	0.6250	2	1.59	12.89	0.123 ✓	1.0891	Bolt Shear
		Leg	A325X	1.0000	4	0.00	34.56	0.000 ✓	1.0891	Bolt Tension
		Diagonal	A325N	0.6250	2	3.83	6.44	0.594 ✓	1.0891	Bolt Shear
		Horizontal	A325N	0.6250	2	2.84	12.89	0.220 ✓	1.0891	Bolt Shear
T11	814	Top Girt	A325N	0.6250	2	3.26	12.89	0.253 ✓	1.0891	Bolt Shear
		Leg	A325X	1.0000	4	0.00	34.56	0.000 ✓	1.0891	Bolt Tension
		Diagonal	A325N	0.6250	2	2.22	6.44	0.345 ✓	1.0891	Bolt Shear
		Horizontal	A325N	0.6250	2	1.92	12.89	0.149 ✓	1.0891	Bolt Shear
T12	794	Top Girt	A325N	0.6250	2	2.00	12.89	0.155 ✓	1.0891	Bolt Shear
		Leg	A325X	1.0000	4	0.00	34.56	0.000 ✓	1.0891	Bolt Tension
		Diagonal	A325N	0.6250	2	1.43	6.44	0.222 ✓	1.0891	Bolt Shear
		Horizontal	A325N	0.6250	2	1.91	12.89	0.148 ✓	1.0891	Bolt Shear
T13	774	Top Girt	A325N	0.6250	2	1.91	12.89	0.148 ✓	1.0891	Bolt Shear
		Leg	A325X	1.0000	4	0.00	34.56	0.000 ✓	1.0891	Bolt Tension
		Diagonal	A325N	0.6250	2	1.85	6.44	0.287 ✓	1.0891	Bolt Shear
		Horizontal	A325N	0.6250	2	1.90	12.89	0.147 ✓	1.0891	Bolt Shear
T14	754	Top Girt	A325N	0.6250	2	1.89	12.89	0.147 ✓	1.0891	Bolt Shear
		Leg	A325X	1.0000	4	0.00	34.30	0.000 ✓	1.0891	Bolt Tension
		Diagonal	A325N	0.6250	2	3.34	6.44	0.519 ✓	1.0891	Bolt Shear
		Horizontal	A325N	0.6250	2	2.72	12.89	0.211 ✓	1.0891	Bolt Shear



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**Project**  
 WXXX NETWORK TOWER, CHAUTAUQUA CNTY, NY

**Date**  
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**Client**  
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Section No.	Elevation ft	Component Type	Bolt Grade	Bolt Size in	Number Of Bolts	Maximum Load per Bolt K	Allowable Load K	Ratio Load Allowable	Allowable Ratio	Criteria
T15	734	Top Girt	A325N	0.6250	2	1.79	12.89	0.139 ✓	1.0891	Bolt Shear
		Leg	A325X	1.0000	4	0.00	34.32	0.000 ✓	1.0891	Bolt Tension
		Diagonal	A325N	0.6250	2	4.00	6.44	0.621 ✓	1.0891	Bolt Shear
		Horizontal	A325N	0.6250	2	6.22	12.89	0.483 ✓	1.0891	Bolt Shear
T16	714	Top Girt	A325N	0.6250	2	3.03	12.89	0.235 ✓	1.0891	Bolt Shear
		Leg	A325X	1.0000	4	0.00	34.56	0.000 ✓	1.0891	Bolt Tension
		Diagonal	A325N	0.6250	2	2.99	6.44	0.464 ✓	1.0891	Bolt Shear
		Horizontal	A325N	0.6250	2	4.71	12.89	0.365 ✓	1.0891	Bolt Shear
T17	694	Top Girt	A325N	0.6250	2	5.12	12.89	0.397 ✓	1.0891	Bolt Shear
		Leg	A325X	1.0000	4	0.00	34.56	0.000 ✓	1.0891	Bolt Tension
		Diagonal	A325N	0.6250	2	2.08	6.44	0.323 ✓	1.0891	Bolt Shear
		Horizontal	A325N	0.6250	2	1.83	12.89	0.142 ✓	1.0891	Bolt Shear
T18	674	Top Girt	A325N	0.6250	2	1.88	12.89	0.146 ✓	1.0891	Bolt Shear
		Leg	A325X	1.0000	4	0.00	34.56	0.000 ✓	1.0891	Bolt Tension
		Diagonal	A325N	0.6250	2	1.38	6.44	0.213 ✓	1.0891	Bolt Shear
		Horizontal	A325N	0.6250	2	1.81	12.89	0.141 ✓	1.0891	Bolt Shear
T19	654	Top Girt	A325N	0.6250	2	1.82	12.89	0.141 ✓	1.0891	Bolt Shear
		Leg	A325X	1.0000	4	0.00	34.56	0.000 ✓	1.0891	Bolt Tension
		Diagonal	A325N	0.6250	2	2.31	6.44	0.358 ✓	1.0891	Bolt Shear
		Horizontal	A325N	0.6250	2	1.83	12.89	0.142 ✓	1.0891	Bolt Shear
T20	634	Top Girt	A325N	0.6250	2	1.80	12.89	0.140 ✓	1.0891	Bolt Shear
		Leg	A325X	1.0000	4	0.00	34.29	0.000 ✓	1.0891	Bolt Tension
		Diagonal	A325N	0.6250	2	3.76	6.44	0.584 ✓	1.0891	Bolt Shear
		Horizontal	A325N	0.6250	2	3.08	12.89	0.239 ✓	1.0891	Bolt Shear
T21	614	Top Girt	A325N	0.6250	2	2.07	12.89	0.161 ✓	1.0891	Bolt Shear
		Leg	A325X	1.0000	4	0.00	34.24	0.000 ✓	1.0891	Bolt Tension
		Diagonal	A325N	0.6250	2	4.26	6.44	0.660 ✓	1.0891	Bolt Shear
		Horizontal	A325N	0.6250	2	6.10	12.89	0.473 ✓	1.0891	Bolt Shear
T22	594	Top Girt	A325N	0.6250	2	3.38	12.89	0.262 ✓	1.0891	Bolt Shear
		Leg	A325X	1.0000	4	0.00	34.56	0.000 ✓	1.0891	Bolt Tension
		Diagonal	A325N	0.6250	2	3.44	6.44	0.533 ✓	1.0891	Bolt Shear
		Horizontal	A325N	0.6250	2	4.67	12.89	0.362 ✓	1.0891	Bolt Shear
T23	574	Top Girt	A325N	0.6250	2	4.91	12.89	0.381 ✓	1.0891	Bolt Shear
		Leg	A325X	1.0000	4	0.00	34.56	0.000 ✓	1.0891	Bolt Tension
		Diagonal	A325N	0.6250	2	2.76	6.44	0.429 ✓	1.0891	Bolt Shear
		Horizontal	A325N	0.6250	2	2.17	12.89	0.169 ✓	1.0891	Bolt Shear
T24	554	Top Girt	A325N	0.6250	2	2.41	12.89	0.187 ✓	1.0891	Bolt Shear
		Leg	A325X	1.0000	4	0.00	34.56	0.000 ✓	1.0891	Bolt Tension
		Diagonal	A325N	0.6250	2	1.65	6.44	0.257 ✓	1.0891	Bolt Shear
		Horizontal	A325N	0.6250	2	1.75	12.89	0.136 ✓	1.0891	Bolt Shear





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**Project**  
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**Date**  
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Section No.	Elevation ft	Component Type	Bolt Grade	Bolt Size in	Number Of Bolts	Maximum Load per Bolt K	Allowable Load K	Ratio Load Allowable	Allowable Ratio	Criteria
T25	534	Top Girt	A325N	0.6250	2	1.76	12.89	0.136 ✓	1.0891	Bolt Shear
		Leg	A325X	1.0000	4	0.00	34.56	0.000 ✓	1.0891	Bolt Tension
		Diagonal	A325N	0.6250	2	2.25	6.44	0.350 ✓	1.0891	Bolt Shear
		Horizontal	A325N	0.6250	2	1.74	12.89	0.135 ✓	1.0891	Bolt Shear
T26	514	Top Girt	A325N	0.6250	2	1.74	12.89	0.135 ✓	1.0891	Bolt Shear
		Leg	A325X	1.0000	4	0.00	34.56	0.000 ✓	1.0891	Bolt Tension
		Diagonal	A325N	0.6250	2	3.74	6.44	0.580 ✓	1.0891	Bolt Shear
		Horizontal	A325N	0.6250	2	3.02	12.89	0.235 ✓	1.0891	Bolt Shear
T27	494	Top Girt	A325N	0.6250	2	2.13	12.89	0.165 ✓	1.0891	Bolt Shear
		Leg	A325X	1.0000	4	0.00	34.56	0.000 ✓	1.0891	Bolt Tension
		Diagonal	A325N	0.6250	2	4.44	6.44	0.688 ✓	1.0891	Bolt Shear
		Horizontal	A325N	0.6250	2	4.92	12.89	0.382 ✓	1.0891	Bolt Shear
T28	474	Top Girt	A325N	0.6250	2	3.25	12.89	0.253 ✓	1.0891	Bolt Shear
		Leg	A325X	1.0000	4	0.00	34.56	0.000 ✓	1.0891	Bolt Tension
		Diagonal	A325N	0.6250	2	1.57	6.44	0.244 ✓	1.0891	Bolt Shear
		Horizontal	A325N	0.6250	2	4.04	12.89	0.313 ✓	1.0891	Bolt Shear
T29	454	Top Girt	A325N	0.6250	2	4.87	12.89	0.378 ✓	1.0891	Bolt Shear
		Leg	A325X	1.0000	4	0.00	34.56	0.000 ✓	1.0891	Bolt Tension
		Diagonal	A325N	0.6250	2	1.18	6.44	0.183 ✓	1.0891	Bolt Shear
		Horizontal	A325N	0.6250	2	1.58	12.89	0.122 ✓	1.0891	Bolt Shear
T30	434	Top Girt	A325N	0.6250	2	1.58	12.89	0.122 ✓	1.0891	Bolt Shear
		Leg	A325X	1.0000	4	0.00	34.56	0.000 ✓	1.0891	Bolt Tension
		Diagonal	A325N	0.6250	2	2.03	6.44	0.314 ✓	1.0891	Bolt Shear
		Horizontal	A325N	0.6250	2	1.61	12.89	0.125 ✓	1.0891	Bolt Shear
T31	414	Top Girt	A325N	0.6250	2	1.56	12.89	0.121 ✓	1.0891	Bolt Shear
		Leg	A325X	1.0000	4	0.00	34.56	0.000 ✓	1.0891	Bolt Tension
		Diagonal	A325N	0.6250	2	3.16	6.44	0.491 ✓	1.0891	Bolt Shear
		Horizontal	A325N	0.6250	2	2.57	12.89	0.199 ✓	1.0891	Bolt Shear
T32	394	Top Girt	A325N	0.6250	2	1.82	12.89	0.141 ✓	1.0891	Bolt Shear
		Leg	A325X	1.0000	4	0.00	34.26	0.000 ✓	1.0891	Bolt Tension
		Diagonal	A325N	0.6250	2	4.27	6.44	0.663 ✓	1.0891	Bolt Shear
		Horizontal	A325N	0.6250	2	3.54	12.89	0.274 ✓	1.0891	Bolt Shear
T33	374	Top Girt	A325N	0.6250	2	2.77	12.89	0.215 ✓	1.0891	Bolt Shear
		Leg	A325X	1.0000	4	0.00	34.43	0.000 ✓	1.0891	Bolt Tension
		Diagonal	A325N	0.6250	2	4.35	6.44	0.676 ✓	1.0891	Bolt Shear
		Horizontal	A325N	0.6250	2	4.90	12.89	0.380 ✓	1.0891	Bolt Shear
T34	354	Top Girt	A325N	0.6250	2	3.67	12.89	0.285 ✓	1.0891	Bolt Shear
		Leg	A325X	1.0000	4	0.00	34.56	0.000 ✓	1.0891	Bolt Tension
		Diagonal	A325N	0.6250	2	2.65	6.44	0.412 ✓	1.0891	Bolt Shear
		Horizontal	A325N	0.6250	2	1.96	12.89	0.152 ✓	1.0891	Bolt Shear



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Section No.	Elevation ft	Component Type	Bolt Grade	Bolt Size in	Number Of Bolts	Maximum Load per Bolt K	Allowable Load K	Ratio Load Allowable	Allowable Ratio	Criteria
T35	334	Top Girt	A325N	0.6250	2	2.22	12.89	0.172 ✓	1.0891	Bolt Shear
		Leg	A325X	1.0000	4	0.00	34.56	0.000 ✓	1.0891	Bolt Tension
		Diagonal	A325N	0.6250	2	1.57	6.44	0.243 ✓	1.0891	Bolt Shear
		Horizontal	A325N	0.6250	2	1.55	12.89	0.120 ✓	1.0891	Bolt Shear
T36	314	Top Girt	A325N	0.6250	2	1.56	12.89	0.121 ✓	1.0891	Bolt Shear
		Leg	A325X	1.0000	4	0.00	34.56	0.000 ✓	1.0891	Bolt Tension
		Diagonal	A325N	0.6250	2	1.11	6.44	0.172 ✓	1.0891	Bolt Shear
		Horizontal	A325N	0.6250	2	1.54	12.89	0.120 ✓	1.0891	Bolt Shear
T37	294	Top Girt	A325N	0.6250	2	1.54	12.89	0.120 ✓	1.0891	Bolt Shear
		Leg	A325X	1.0000	4	0.00	34.49	0.000 ✓	1.0891	Bolt Tension
		Diagonal	A325N	0.6250	2	1.93	6.44	0.300 ✓	1.0891	Bolt Shear
		Horizontal	A325N	0.6250	2	1.61	12.89	0.125 ✓	1.0891	Bolt Shear
T38	274	Top Girt	A325N	0.6250	2	1.53	12.89	0.119 ✓	1.0891	Bolt Shear
		Leg	A325X	1.0000	4	0.00	34.41	0.000 ✓	1.0891	Bolt Tension
		Diagonal	A325N	0.6250	2	2.83	6.44	0.439 ✓	1.0891	Bolt Shear
		Horizontal	A325N	0.6250	2	2.27	12.89	0.176 ✓	1.0891	Bolt Shear
T39	254	Top Girt	A325N	0.6250	2	1.80	12.89	0.140 ✓	1.0891	Bolt Shear
		Leg	A325X	1.0000	4	0.00	34.56	0.000 ✓	1.0891	Bolt Tension
		Diagonal	A325N	0.6250	2	3.42	6.44	0.530 ✓	1.0891	Bolt Shear
		Horizontal	A325N	0.6250	2	4.37	12.89	0.339 ✓	1.0891	Bolt Shear
T40	234	Top Girt	A325N	0.6250	2	2.37	12.89	0.184 ✓	1.0891	Bolt Shear
		Leg	A325X	1.0000	4	0.00	34.56	0.000 ✓	1.0891	Bolt Tension
		Diagonal	A325N	0.6250	2	3.55	6.44	0.551 ✓	1.0891	Bolt Shear
		Horizontal	A325N	0.6250	2	2.84	12.89	0.220 ✓	1.0891	Bolt Shear
T41	214	Top Girt	A325N	0.6250	2	2.90	12.89	0.225 ✓	1.0891	Bolt Shear
		Leg	A325X	1.0000	4	0.00	34.56	0.000 ✓	1.0891	Bolt Tension
		Diagonal	A325N	0.6250	2	2.66	6.44	0.412 ✓	1.0891	Bolt Shear
		Horizontal	A325N	0.6250	2	2.12	12.89	0.164 ✓	1.0891	Bolt Shear
T42	194	Top Girt	A325N	0.6250	2	2.29	12.89	0.178 ✓	1.0891	Bolt Shear
		Leg	A325X	1.0000	4	0.00	34.56	0.000 ✓	1.0891	Bolt Tension
		Diagonal	A325N	0.6250	2	1.79	6.44	0.277 ✓	1.0891	Bolt Shear
		Horizontal	A325N	0.6250	2	1.54	12.89	0.120 ✓	1.0891	Bolt Shear
T43	174	Top Girt	A325N	0.6250	2	1.57	12.89	0.122 ✓	1.0891	Bolt Shear
		Leg	A325X	1.0000	4	0.00	34.56	0.000 ✓	1.0891	Bolt Tension
		Diagonal	A325N	0.6250	2	1.19	6.44	0.184 ✓	1.0891	Bolt Shear
		Horizontal	A325N	0.6250	2	1.53	12.89	0.119 ✓	1.0891	Bolt Shear
T44	154	Top Girt	A325N	0.6250	2	1.53	12.89	0.119 ✓	1.0891	Bolt Shear
		Leg	A325X	1.0000	4	0.00	34.56	0.000 ✓	1.0891	Bolt Tension
		Diagonal	A325N	0.6250	2	1.74	6.44	0.270 ✓	1.0891	Bolt Shear
		Horizontal	A325N	0.6250	2	1.52	12.89	0.118 ✓	1.0891	Bolt Shear



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Section No.	Elevation ft	Component Type	Bolt Grade	Bolt Size in	Number Of Bolts	Maximum Load per Bolt K	Allowable Load K	Ratio Load Allowable	Allowable Ratio	Criteria
T45	134	Top Girt	A325N	0.6250	2	1.52	12.89	0.118 ✓	1.0891	Bolt Shear
		Leg	A325X	1.0000	4	0.00	34.56	0.000 ✓	1.0891	Bolt Tension
		Diagonal	A325N	0.6250	2	2.59	6.44	0.402 ✓	1.0891	Bolt Shear
		Horizontal	A325N	0.6250	2	4.04	12.89	0.313 ✓	1.0891	Bolt Shear
T46	114	Top Girt	A325N	0.6250	2	1.46	12.89	0.113 ✓	1.0891	Bolt Shear
		Leg	A325X	1.0000	4	0.00	34.56	0.000 ✓	1.0891	Bolt Tension
		Diagonal	A325N	0.6250	2	2.65	6.44	0.411 ✓	1.0891	Bolt Shear
		Horizontal	A325N	0.6250	2	2.10	12.89	0.163 ✓	1.0891	Bolt Shear
T47	94	Top Girt	A325N	0.6250	2	2.18	12.89	0.169 ✓	1.0891	Bolt Shear
		Leg	A325X	1.0000	4	0.00	34.56	0.000 ✓	1.0891	Bolt Tension
		Diagonal	A325N	0.6250	2	1.84	6.44	0.286 ✓	1.0891	Bolt Shear
		Horizontal	A325N	0.6250	2	1.45	12.89	0.113 ✓	1.0891	Bolt Shear
T48	74	Top Girt	A325N	0.6250	2	1.61	12.89	0.125 ✓	1.0891	Bolt Shear
		Leg	A325X	1.0000	4	0.00	34.56	0.000 ✓	1.0891	Bolt Tension
		Diagonal	A325N	0.6250	2	1.18	6.44	0.183 ✓	1.0891	Bolt Shear
		Horizontal	A325N	0.6250	2	1.44	12.89	0.112 ✓	1.0891	Bolt Shear
T49	54	Top Girt	A325N	0.6250	2	1.44	12.89	0.112 ✓	1.0891	Bolt Shear
		Leg	A325X	1.0000	4	0.00	34.53	0.000 ✓	1.0891	Bolt Tension
		Diagonal	A325N	0.6250	2	1.08	6.44	0.168 ✓	1.0891	Bolt Shear
		Horizontal	A325N	0.6250	2	1.52	12.89	0.118 ✓	1.0891	Bolt Shear
T50	34	Top Girt	A325N	0.6250	2	1.45	12.89	0.112 ✓	1.0891	Bolt Shear
		Leg	A325X	1.0000	4	0.00	34.56	0.000 ✓	1.0891	Bolt Tension
		Diagonal	A325N	0.6250	2	1.34	6.44	0.208 ✓	1.0891	Bolt Shear
		Horizontal	A325N	0.6250	2	1.54	12.89	0.120 ✓	1.0891	Bolt Shear
T51	19	Top Girt	A325N	0.6250	2	1.38	12.89	0.107 ✓	1.0891	Bolt Shear
		Leg	A325X	1.0000	4	0.00	31.31	0.000 ✓	1.0891	Bolt Tension
		Diagonal	A325N	0.6250	2	1.18	12.89	0.092 ✓	1.0891	Bolt Shear
		Top Girt	A325N	0.6250	2	1.12	12.89	0.087 ✓	1.0891	Bolt Shear
T52	9	Bottom Girt	A325N	0.6250	2	8.14	12.89	0.632 ✓	1.0891	Bolt Shear
T52	9	Leg	A325X	1.0000	4	0.00	34.55	0.000 ✓	1.0891	Bolt Tension

### Guy Design Data

Section No.	Elevation ft	Size	Initial Tension K	Breaking Load K	Actual T K	Allowable T <sub>a</sub> K	Required S.F.	Actual S.F.
T1	998'9-31/32" (A) (1963)	1 BS	12.20	122.00	46.08	51.56	2.366	2.648 ✓
	998'9-31/32" (B) (1962)	1 BS	12.20	122.00	44.94	51.56	2.366	2.715 ✓



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Section No.	Elevation ft	Size	Initial Tension K	Breaking Load K	Actual T K	Allowable $T_a$ K	Required S.F.	Actual S.F.
	998'9-31/32" (C) (1961)	1 BS	12.20	122.00	44.97	51.56	2.366	2.713 ✓
T6	904' (A) (1966)	1 BS	12.20	122.00	45.53	51.56	2.366	2.680 ✓
	904' (B) (1965)	1 BS	12.20	122.00	44.24	51.56	2.366	2.758 ✓
	904' (C) (1964)	1 BS	12.20	122.00	44.35	51.56	2.366	2.751 ✓
T9	844' (A) (1969)	1 BS	12.20	122.00	45.41	51.56	2.366	2.687 ✓
	844' (B) (1968)	1 BS	12.20	122.00	44.04	51.56	2.366	2.770 ✓
	844' (C) (1967)	1 BS	12.20	122.00	44.19	51.56	2.366	2.761 ✓
T15	714'4-9/16" (A) (1972)	1 BS	12.20	122.00	44.80	51.56	2.366	2.723 ✓
	714'4-9/16" (B) (1971)	1 BS	12.20	122.00	43.41	51.56	2.366	2.810 ✓
	714'4-9/16" (C) (1970)	1 BS	12.20	122.00	43.59	51.56	2.366	2.799 ✓
T21	594'4-9/16" (A) (1975)	1 BS	12.20	122.00	41.61	51.56	2.366	2.932 ✓
	594'4-9/16" (B) (1974)	1 BS	12.20	122.00	40.29	51.56	2.366	3.028 ✓
	594'4-9/16" (C) (1973)	1 BS	12.20	122.00	40.48	51.56	2.366	3.014 ✓
T28	474' (A) (1978)	1 BS	12.20	122.00	40.02	51.56	2.366	3.049 ✓
	474' (B) (1977)	1 BS	12.20	122.00	38.96	51.56	2.366	3.132 ✓
	474' (C) (1976)	1 BS	12.20	122.00	39.09	51.56	2.366	3.121 ✓
T33	364' (A) (1981)	1 BS	12.20	122.00	34.10	51.56	2.366	3.578 ✓
	364' (B) (1980)	1 BS	12.20	122.00	33.23	51.56	2.366	3.671 ✓
	364' (C) (1979)	1 BS	12.20	122.00	33.31	51.56	2.366	3.662 ✓
T39	244' (A) (1984)	1 BS	12.20	122.00	27.98	51.56	2.366	4.360 ✓
	244' (B) (1983)	1 BS	12.20	122.00	27.46	51.56	2.366	4.443 ✓
	244' (C) (1982)	1 BS	12.20	122.00	27.41	51.56	2.366	4.451 ✓
T45	124' (A) (1987)	15/16 BS	10.80	108.00	22.17	45.64	2.366	4.871 ✓
	124' (B) (1986)	15/16 BS	10.80	108.00	21.85	45.64	2.366	4.943 ✓
	124' (C) (1985)	15/16 BS	10.80	108.00	21.78	45.64	2.366	4.958 ✓

### Compression Checks

### Leg Design Data (Compression)

Section No.	Elevation ft	Size	L ft	$L_u$ ft	$Kl/r$	Mast Stability Index	$F_a$ ksi	A $in^2$	Actual P K	Allow. $P_a$ K	Ratio $\frac{P}{P_a}$
T1	999 - 989	2 3/4	10'	4'9-31/32"	84.4 K=1.00	1.00	18.126	5.9396	-33.31	107.66	0.309 ✓
T2	989 - 974	2 3/4	15'	4'10-9/16"	85.1 K=1.00	1.00	17.975	5.9396	-39.84	106.77	0.373 ✓



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<b>Client</b>	CLIENT NAME	<b>Designed by</b>	EDR

Section No.	Elevation ft	Size	L ft	L <sub>a</sub> ft	KL/r K=1.00	Mast Stability Index	F <sub>a</sub> ksi	A in <sup>2</sup>	Actual P K	Allow. P <sub>a</sub> K	Ratio P P <sub>a</sub>
T3	974 - 954	2 3/4	20'	4'9-23/32"	84.0 K=1.00	1.00	18.201	5.9396	-43.34	108.11	0.401
T4	954 - 934	2 3/4	20'	5'	87.3 K=1.00	1.00	17.519	5.9396	-42.48	104.05	0.408
T5	934 - 914	2 3/4	20'	5'	87.3 K=1.00	1.00	17.519	5.9396	-51.68	104.05	0.497
T6	914 - 894	2 3/4	20'	5'	87.3 K=1.00	1.00	17.519	5.9396	-77.25	104.05	0.742
T7	894 - 874	2 3/4	20'	5'	87.3 K=1.00	1.00	17.519	5.9396	-69.42	104.05	0.667
T8	874 - 854	2 3/4	20'	4'9-23/32"	84.0 K=1.00	1.00	18.201	5.9396	-76.80	108.11	0.710
T9	854 - 834	3	20'	4'9-23/32"	77.0 K=1.00	1.00	19.605	7.0686	-94.98	138.58	0.685
T10	834 - 814	3	20'	5'	80.0 K=1.00	1.00	19.012	7.0686	-109.73	134.39	0.817
T11	814 - 794	3	20'	5'	80.0 K=1.00	1.00	19.012	7.0686	-119.22	134.39	0.887
T12	794 - 774	3	20'	5'	80.0 K=1.00	1.00	19.012	7.0686	-121.24	134.39	0.902
T13	774 - 754	3	20'	5'	80.0 K=1.00	1.00	19.012	7.0686	-120.15	134.39	0.894
T14	754 - 734	3	20'	4'9-23/32"	77.0 K=1.00	1.00	19.605	7.0686	-112.16	138.58	0.809
T15	734 - 714	3 1/4	20'	4'9-23/32"	71.1 K=1.00	1.00	20.737	8.2958	-121.93	172.03	0.709
T16	714 - 694	3 1/4	20'	5'	73.8 K=1.00	1.00	20.215	8.2958	-127.06	167.69	0.758
T17	694 - 674	3 1/4	20'	5'	73.8 K=1.00	1.00	20.215	8.2958	-136.89	167.69	0.816
T18	674 - 654	3 1/4	20'	5'	73.8 K=1.00	1.00	20.215	8.2958	-139.37	167.69	0.831
T19	654 - 634	3 1/4	20'	5'	73.8 K=1.00	1.00	20.215	8.2958	-138.55	167.69	0.826
T20	634 - 614	3 1/4	20'	4'9-23/32"	71.1 K=1.00	1.00	20.737	8.2958	-130.18	172.03	0.757
T21	614 - 594	3 1/2	20'	4'9-23/32"	66.0 K=1.00	1.00	21.667	9.6211	-147.20	208.46	0.706
T22	594 - 574	3 1/2	20'	5'	68.6 K=1.00	1.00	21.201	9.6211	-153.70	203.98	0.754
T23	574 - 554	3 1/2	20'	5'	68.6 K=1.00	1.00	21.201	9.6211	-154.92	203.98	0.759
T24	554 - 534	3 1/2	20'	5'	68.6 K=1.00	1.00	21.201	9.6211	-160.74	203.98	0.788
T25	534 - 514	3 1/2	20'	5'	68.6 K=1.00	1.00	21.201	9.6211	-161.75	203.98	0.793
T26	514 - 494	3 1/2	20'	5'	68.6 K=1.00	1.00	21.201	9.6211	-158.21	203.98	0.776
T27	494 - 474	3 1/2	20'	5'	68.6 K=1.00	1.00	21.201	9.6211	-170.22	203.98	0.835
T28	474 - 454	3 1/2	20'	5'	68.6 K=1.00	1.00	21.201	9.6211	-180.66	203.98	0.886



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**Project**  
 WXXX NETWORK TOWER, CHAUTAUQUA CNTY, NY

**Date**  
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**Client**  
 CLIENT NAME

**Designed by**  
 EDR

Section No.	Elevation ft	Size	L ft	L <sub>a</sub> ft	Kl/r	Mast Stability Index	F <sub>a</sub> ksi	A in <sup>2</sup>	Actual P K	Allow. P <sub>a</sub> K	Ratio P P <sub>a</sub>
T29	454 - 434	3 1/2	20'	5'	68.6 K=1.00	1.00	21.201	9.6211	-176.24	203.98	0.864
T30	434 - 414	3 1/2	20'	5'	68.6 K=1.00	1.00	21.201	9.6211	-180.03	203.98	0.883
T31	414 - 394	3 1/2	20'	5'	68.6 K=1.00	1.00	21.201	9.6211	-187.65	203.98	0.920
T32	394 - 374	3 1/2	20'	4'-23/32"	66.0 K=1.00	1.00	21.667	9.6211	-208.17	208.46	0.999
T33	374 - 354	3 3/4	20'	4'-23/32"	61.6 K=1.00	1.00	22.442	11.0447	-230.67	247.87	0.931
T34	354 - 334	3 3/4	20'	5'	64.0 K=1.00	1.00	22.023	11.0447	-218.59	243.24	0.899
T35	334 - 314	3 3/4	20'	5'	64.0 K=1.00	1.00	22.023	11.0447	-208.56	243.24	0.857
T36	314 - 294	3 3/4	20'	5'	64.0 K=1.00	1.00	22.023	11.0447	-210.24	243.24	0.864
T37	294 - 274	3 3/4	20'	4'-23/32"	61.6 K=1.00	1.00	22.442	11.0447	-217.89	247.87	0.879
T38	274 - 254	4	20'	4'-23/32"	57.8 K=1.00	1.00	23.098	12.5664	-235.73	290.26	0.812
T39	254 - 234	4	20'	5'	60.0 K=1.00	1.00	22.718	12.5664	-252.57	285.48	0.885
T40	234 - 214	4	20'	5'	60.0 K=1.00	1.00	22.718	12.5664	-237.89	285.48	0.833
T41	214 - 194	4	20'	5'	60.0 K=1.00	1.00	22.718	12.5664	-225.20	285.48	0.789
T42	194 - 174	4	20'	5'	60.0 K=1.00	1.00	22.718	12.5664	-221.19	285.48	0.775
T43	174 - 154	4	20'	5'	60.0 K=1.00	1.00	22.718	12.5664	-222.63	285.48	0.780
T44	154 - 134	4	20'	5'	60.0 K=1.00	1.00	22.718	12.5664	-227.13	285.48	0.796
T45	134 - 114	4	20'	5'	60.0 K=1.00	1.00	22.718	12.5664	-239.78	285.48	0.840
T46	114 - 94	4	20'	5'	60.0 K=1.00	1.00	22.718	12.5664	-242.21	285.48	0.848
T47	94 - 74	4	20'	5'	60.0 K=1.00	1.00	22.718	12.5664	-250.65	285.48	0.878
T48	74 - 54	4	20'	5'	60.0 K=1.00	1.00	22.718	12.5664	-254.38	285.48	0.891
T49	54 - 34	4	20'	4'-23/32"	57.8 K=1.00	1.00	23.098	12.5664	-254.82	290.26	0.878
T50	34 - 19	4	15'	4'-10-9/16"	58.5 K=1.00	1.00	22.972	12.5664	-253.07	288.67	0.877
T51	19 - 9	4	10'	4'-31/32"	58.0 K=1.00	1.00	23.056	12.5664	-249.00	289.73	0.859
T52	9 - 0	4	9'-11-7/8"	3'-31/32"	40.0 K=1.00	0.99	25.657	12.5664	-273.95	322.41	0.850



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### Diagonal Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L <sub>a</sub> ft	Kl/r	F <sub>a</sub> ksi	A in <sup>2</sup>	Actual P K	Allow. P <sub>a</sub> K	Ratio P P <sub>a</sub>
T1	999 - 989	2L2 1/2x2 1/2x5/16x3/8	6'1-7/16"	5'11-5/32"	94.5 K=1.00	13.658	2.9300	-2.77	40.02	0.069 ✓
T51	19 - 9	2L 'a' > 34.2975 in - 11 2L2 1/2x2 1/2x5/16x3/8	6'1-7/16"	5'10-3/16"	94.0 K=1.00	13.723	2.9300	-2.37	40.21	0.059 ✓
T52	9 - 0	2L 'a' > 33.8061 in - 1926 1 1/2	4'10-5/16"	3'3/8"	96.8 K=1.00	15.434	1.7672	-15.67	27.27	0.575 ✓

### Guy Lower Diagonal Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L <sub>a</sub> ft	Kl/r	F <sub>a</sub> ksi	A in <sup>2</sup>	Actual P K	Allow. P <sub>a</sub> K	Ratio P P <sub>a</sub>
T1	999 - 989	2L2 1/2x2 1/2x5/16x3/8	6'1-7/16"	5'11-5/32"	94.5 K=1.00	13.658	2.9300	-3.78	40.02	0.094 ✓
		2L 'a' > 34.2975 in - 17								

### Horizontal Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L <sub>a</sub> ft	Kl/r	F <sub>a</sub> ksi	A in <sup>2</sup>	Actual P K	Allow. P <sub>a</sub> K	Ratio P P <sub>a</sub>
T2	989 - 974	2L2 1/2x2 1/2x5/16x3/8	7'6"	7'3-1/4"	114.7 K=1.00	11.036	2.9300	-4.81	32.34	0.149* ✓
T3	974 - 954	2L2 1/2x2 1/2x5/16x3/8	7'6"	7'3-1/4"	114.7 K=1.00	11.036	2.9300	-4.71	32.34	0.146* ✓
T4	954 - 934	2L2 1/2x2 1/2x5/16x3/8	7'6"	7'3-1/4"	114.7 K=1.00	11.036	2.9300	-4.57	32.34	0.141* ✓
T5	934 - 914	2L2 1/2x2 1/2x5/16x3/8	7'6"	7'3-1/4"	114.7 K=1.00	11.036	2.9300	-4.52	32.34	0.140* ✓
T6	914 - 894	2L2 1/2x2 1/2x5/16x3/8	7'6"	7'3-1/4"	114.7 K=1.00	11.036	2.9300	-12.96	32.34	0.401* ✓
T7	894 - 874	2L2 1/2x2 1/2x5/16x3/8	7'6"	7'3-1/4"	114.7 K=1.00	11.036	2.9300	-4.09	32.34	0.127* ✓
T8	874 - 854	2L2 1/2x2 1/2x5/16x3/8	7'6"	7'3-1/4"	114.7 K=1.00	11.036	2.9300	-4.20	32.34	0.130* ✓
T9	854 - 834	2L2 1/2x2 1/2x5/16x3/8	7'6"	7'3"	114.3 K=1.00	11.082	2.9300	-12.64	32.47	0.389* ✓
T10	834 - 814	2L2 1/2x2 1/2x5/16x3/8	7'6"	7'3"	114.3 K=1.00	11.082	2.9300	-5.68	32.47	0.175 ✓
T11	814 - 794	2L2 1/2x2 1/2x5/16x3/8	7'6"	7'3"	114.3 K=1.00	11.082	2.9300	-3.84	32.47	0.118* ✓
T12	794 - 774	2L2 1/2x2 1/2x5/16x3/8	7'6"	7'3"	114.3 K=1.00	11.082	2.9300	-3.81	32.47	0.117* ✓



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<b>Client</b>	CLIENT NAME	<b>Designed by</b>	EDR

Section No.	Elevation ft	Size	L ft	L <sub>a</sub> ft	Kl/r	F <sub>a</sub> ksi	A in <sup>2</sup>	Actual P K	Allow. P <sub>a</sub> K	Ratio P P <sub>a</sub>
T13	774 - 754	2L2 1/2x2 1/2x5/16x3/8	7'6"	7'3"	114.3 K=1.00	11.082	2.9300	-3.79	32.47	0.117*
T14	754 - 734	2L2 1/2x2 1/2x5/16x3/8	7'6"	7'3"	114.3 K=1.00	11.082	2.9300	-5.45	32.47	0.168
T15	734 - 714	2L2 1/2x2 1/2x5/16x3/8	7'6"	7'2-3/4"	114.0 K=1.00	11.127	2.9300	-12.43	32.60	0.381
T16	714 - 694	2L2 1/2x2 1/2x5/16x3/8	7'6"	7'2-3/4"	114.0 K=1.00	11.127	2.9300	-9.41	32.60	0.289*
T17	694 - 674	2L2 1/2x2 1/2x5/16x3/8	7'6"	7'2-3/4"	114.0 K=1.00	11.127	2.9300	-3.65	32.60	0.112*
T18	674 - 654	2L2 1/2x2 1/2x5/16x3/8	7'6"	7'2-3/4"	114.0 K=1.00	11.127	2.9300	-3.63	32.60	0.111*
T19	654 - 634	2L2 1/2x2 1/2x5/16x3/8	7'6"	7'2-3/4"	114.0 K=1.00	11.127	2.9300	-3.60	32.60	0.111*
T20	634 - 614	2L2 1/2x2 1/2x5/16x3/8	7'6"	7'2-3/4"	114.0 K=1.00	11.127	2.9300	-6.17	32.60	0.189
T21	614 - 594	2L2 1/2x2 1/2x5/16x3/8	7'6"	7'2-17/32"	113.7 K=1.00	11.172	2.9300	-12.20	32.74	0.373
T22	594 - 574	2L2 1/2x2 1/2x5/16x3/8	7'6"	7'2-17/32"	113.7 K=1.00	11.172	2.9300	-9.19	32.74	0.281*
T23	574 - 554	2L2 1/2x2 1/2x5/16x3/8	7'6"	7'2-17/32"	113.7 K=1.00	11.172	2.9300	-4.35	32.74	0.133
T24	554 - 534	2L2 1/2x2 1/2x5/16x3/8	7'6"	7'2-17/32"	113.7 K=1.00	11.172	2.9300	-3.51	32.74	0.107*
T25	534 - 514	2L2 1/2x2 1/2x5/16x3/8	7'6"	7'2-17/32"	113.7 K=1.00	11.172	2.9300	-3.48	32.74	0.106*
T26	514 - 494	2L2 1/2x2 1/2x5/16x3/8	7'6"	7'2-17/32"	113.7 K=1.00	11.172	2.9300	-6.05	32.74	0.185
T27	494 - 474	2L2 1/2x2 1/2x5/16x3/8	7'6"	7'2-17/32"	113.7 K=1.00	11.172	2.9300	-9.84	32.74	0.301
T28	474 - 454	2L2 1/2x2 1/2x5/16x3/8	7'6"	7'2-17/32"	113.7 K=1.00	11.172	2.9300	-8.08	32.74	0.247*
T29	454 - 434	2L2 1/2x2 1/2x5/16x3/8	7'6"	7'2-17/32"	113.7 K=1.00	11.172	2.9300	-3.15	32.74	0.096*
T30	434 - 414	2L2 1/2x2 1/2x5/16x3/8	7'6"	7'2-17/32"	113.7 K=1.00	11.172	2.9300	-3.12	32.74	0.095*
T31	414 - 394	2L2 1/2x2 1/2x5/16x3/8	7'6"	7'2-17/32"	113.7 K=1.00	11.172	2.9300	-5.13	32.74	0.157
T32	394 - 374	2L2 1/2x2 1/2x5/16x3/8	7'6"	7'2-17/32"	113.7 K=1.00	11.172	2.9300	-7.07	32.74	0.216
T33	374 - 354	2L2 1/2x2 1/2x5/16x3/8	7'6"	7'2-9/32"	113.3 K=1.00	11.218	2.9300	-9.80	32.87	0.298*
T34	354 - 334	2L2 1/2x2 1/2x5/16x3/8	7'6"	7'2-9/32"	113.3 K=1.00	11.218	2.9300	-3.93	32.87	0.119
T35	334 - 314	2L2 1/2x2 1/2x5/16x3/8	7'6"	7'2-9/32"	113.3 K=1.00	11.218	2.9300	-3.10	32.87	0.094*
T36	314 - 294	2L2 1/2x2 1/2x5/16x3/8	7'6"	7'2-9/32"	113.3 K=1.00	11.218	2.9300	-3.09	32.87	0.094*
T37	294 - 274	2L2 1/2x2 1/2x5/16x3/8	7'6"	7'2-9/32"	113.3 K=1.00	11.218	2.9300	-3.23	32.87	0.098*
T38	274 - 254	2L2 1/2x2 1/2x5/16x3/8	7'6"	7'2-1/32"	113.0 K=1.00	11.263	2.9300	-4.55	33.00	0.138
T39	254 - 234	2L2 1/2x2 1/2x5/16x3/8	7'6"	7'2-1/32"	113.0	11.263	2.9300	-8.64	33.00	0.262*





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**Job**  
 1,060' Pirod Guyed Tower Analysis

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**Project**  
 WXXX NETWORK TOWER, CHAUTAUQUA CNTY, NY

**Date**  
 23:22:04 11/07/06

**Client**  
 CLIENT NAME

**Designed by**  
 EDR

Section No.	Elevation ft	Size	L ft	L <sub>a</sub> ft	Kl/r	F <sub>a</sub> ksi	A in <sup>2</sup>	Actual P K	Allow. P <sub>a</sub> K	Ratio P P <sub>a</sub>
T40	234 - 214	2L2 1/2x2 1/2x5/16x3/8	7'6"	7'2-1/32"	K=1.00 113.0	11.263	2.9300	-5.67	33.00	0.172
T41	214 - 194	2L2 1/2x2 1/2x5/16x3/8	7'6"	7'2-1/32"	K=1.00 113.0	11.263	2.9300	-4.23	33.00	0.128
T42	194 - 174	2L2 1/2x2 1/2x5/16x3/8	7'6"	7'2-1/32"	K=1.00 113.0	11.263	2.9300	-3.09	33.00	0.094*
T43	174 - 154	2L2 1/2x2 1/2x5/16x3/8	7'6"	7'2-1/32"	K=1.00 113.0	11.263	2.9300	-3.06	33.00	0.093*
T44	154 - 134	2L2 1/2x2 1/2x5/16x3/8	7'6"	7'2-1/32"	K=1.00 113.0	11.263	2.9300	-3.04	33.00	0.092*
T45	134 - 114	2L2 1/2x2 1/2x5/16x3/8	7'6"	7'2-1/32"	K=1.00 113.0	11.263	2.9300	-8.08	33.00	0.245*
T46	114 - 94	2L2 1/2x2 1/2x5/16x3/8	7'6"	7'2-1/32"	K=1.00 113.0	11.263	2.9300	-4.20	33.00	0.127
T47	94 - 74	2L2 1/2x2 1/2x5/16x3/8	7'6"	7'2-1/32"	K=1.00 113.0	11.263	2.9300	-2.90	33.00	0.088*
T48	74 - 54	2L2 1/2x2 1/2x5/16x3/8	7'6"	7'2-1/32"	K=1.00 113.0	11.263	2.9300	-2.89	33.00	0.088*
T49	54 - 34	2L2 1/2x2 1/2x5/16x3/8	7'6"	7'2-1/32"	K=1.00 113.0	11.263	2.9300	-3.03	33.00	0.092*
T50	34 - 19	2L2 1/2x2 1/2x5/16x3/8	7'6"	7'2-1/32"	K=1.00 113.0	11.263	2.9300	-3.08	33.00	0.093*



\* DL controls

### Top Girt Design Data (Compression)

Section No.	Elevation ft	Size	L ft	L <sub>a</sub> ft	Kl/r	F <sub>a</sub> ksi	A in <sup>2</sup>	Actual P K	Allow. P <sub>a</sub> K	Ratio P P <sub>a</sub>
T2	989 - 974	2L2 1/2x2 1/2x5/16	7'6"	7'3-1/4"	K=1.00 114.7	11.036	2.9300	-1.86	32.34	0.057*
T3	974 - 954	2L2 1/2x2 1/2x5/16	7'6"	7'3-1/4"	K=1.00 114.7	11.036	2.9300	-3.64	32.34	0.113*
T4	954 - 934	2L2 1/2x2 1/2x5/16	7'6"	7'3-1/4"	K=1.00 114.7	11.036	2.9300	-4.18	32.34	0.129*
T5	934 - 914	2L2 1/2x2 1/2x5/16	7'6"	7'3-1/4"	K=1.00 114.7	11.036	2.9300	-4.53	32.34	0.140*
T6	914 - 894	2L2 1/2x2 1/2x5/16	7'6"	7'3-1/4"	K=1.00 114.7	11.036	2.9300	-5.11	32.34	0.158
T7	894 - 874	2L2 1/2x2 1/2x5/16	7'6"	7'3-1/4"	K=1.00 114.7	11.036	2.9300	-3.85	32.34	0.119*
T8	874 - 854	2L2 1/2x2 1/2x5/16	7'6"	7'3-1/4"	K=1.00 114.7	11.036	2.9300	-3.76	32.34	0.116*
T9	854 - 834	2L2 1/2x2 1/2x5/16	7'6"	7'3"	K=1.00 114.3	11.082	2.9300	-3.17	32.47	0.098*
T10	834 - 814	2L2 1/2x2 1/2x5/16	7'6"	7'3"	K=1.00 114.3	11.082	2.9300	-6.53	32.47	0.201
T11	814 - 794	2L2 1/2x2 1/2x5/16	7'6"	7'3"	K=1.00 114.3	11.082	2.9300	-3.85	32.47	0.119*





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**Project**  
 WXXX NETWORK TOWER, CHAUTAUQUA CNTY, NY

**Date**  
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**Client**  
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 EDR

Section No.	Elevation ft	Size	L ft	L <sub>a</sub> ft	Kl/r	F <sub>a</sub> ksi	A in <sup>2</sup>	Actual P K	Allow. P <sub>a</sub> K	Ratio P P <sub>a</sub>
T12	794 - 774	2L2 1/2x2 1/2x5/16	7'6"	7'3"	K=1.00 114.3	11.082	2.9300	-3.82	32.47	0.118*
T13	774 - 754	2L2 1/2x2 1/2x5/16	7'6"	7'3"	K=1.00 114.3	11.082	2.9300	-3.79	32.47	0.117*
T14	754 - 734	2L2 1/2x2 1/2x5/16	7'6"	7'3"	K=1.00 114.3	11.082	2.9300	-3.59	32.47	0.111*
T15	734 - 714	2L2 1/2x2 1/2x5/16	7'6"	7'2-3/4"	K=1.00 114.0	11.127	2.9300	-6.07	32.60	0.186
T16	714 - 694	2L2 1/2x2 1/2x5/16	7'6"	7'2-3/4"	K=1.00 114.0	11.127	2.9300	-10.24	32.60	0.314*
T17	694 - 674	2L2 1/2x2 1/2x5/16	7'6"	7'2-3/4"	K=1.00 114.0	11.127	2.9300	-3.66	32.60	0.112*
T18	674 - 654	2L2 1/2x2 1/2x5/16	7'6"	7'2-3/4"	K=1.00 114.0	11.127	2.9300	-3.63	32.60	0.111*
T19	654 - 634	2L2 1/2x2 1/2x5/16	7'6"	7'2-3/4"	K=1.00 114.0	11.127	2.9300	-3.60	32.60	0.111*
T20	634 - 614	2L2 1/2x2 1/2x5/16	7'6"	7'2-3/4"	K=1.00 114.0	11.127	2.9300	-4.14	32.60	0.127
T21	614 - 594	2L2 1/2x2 1/2x5/16	7'6"	7'2-17/32"	K=1.00 113.7	11.172	2.9300	-6.76	32.74	0.207
T22	594 - 574	2L2 1/2x2 1/2x5/16	7'6"	7'2-17/32"	K=1.00 113.7	11.172	2.9300	-9.83	32.74	0.300*
T23	574 - 554	2L2 1/2x2 1/2x5/16	7'6"	7'2-17/32"	K=1.00 113.7	11.172	2.9300	-4.83	32.74	0.148
T24	554 - 534	2L2 1/2x2 1/2x5/16	7'6"	7'2-17/32"	K=1.00 113.7	11.172	2.9300	-3.51	32.74	0.107*
T25	534 - 514	2L2 1/2x2 1/2x5/16	7'6"	7'2-17/32"	K=1.00 113.7	11.172	2.9300	-3.49	32.74	0.107*
T26	514 - 494	2L2 1/2x2 1/2x5/16	7'6"	7'2-17/32"	K=1.00 113.7	11.172	2.9300	-4.26	32.74	0.130
T27	494 - 474	2L2 1/2x2 1/2x5/16	7'6"	7'2-17/32"	K=1.00 113.7	11.172	2.9300	-6.51	32.74	0.199
T28	474 - 454	2L2 1/2x2 1/2x5/16	7'6"	7'2-17/32"	K=1.00 113.7	11.172	2.9300	-9.74	32.74	0.298*
T29	454 - 434	2L2 1/2x2 1/2x5/16	7'6"	7'2-17/32"	K=1.00 113.7	11.172	2.9300	-3.16	32.74	0.096*
T30	434 - 414	2L2 1/2x2 1/2x5/16	7'6"	7'2-17/32"	K=1.00 113.7	11.172	2.9300	-3.13	32.74	0.096*
T31	414 - 394	2L2 1/2x2 1/2x5/16	7'6"	7'2-17/32"	K=1.00 113.7	11.172	2.9300	-3.64	32.74	0.111
T32	394 - 374	2L2 1/2x2 1/2x5/16	7'6"	7'2-17/32"	K=1.00 113.7	11.172	2.9300	-5.53	32.74	0.169
T33	374 - 354	2L2 1/2x2 1/2x5/16	7'6"	7'2-9/32"	K=1.00 113.3	11.218	2.9300	-7.33	32.87	0.223
T34	354 - 334	2L2 1/2x2 1/2x5/16	7'6"	7'2-9/32"	K=1.00 113.3	11.218	2.9300	-4.44	32.87	0.135
T35	334 - 314	2L2 1/2x2 1/2x5/16	7'6"	7'2-9/32"	K=1.00 113.3	11.218	2.9300	-3.11	32.87	0.095*
T36	314 - 294	2L2 1/2x2 1/2x5/16	7'6"	7'2-9/32"	K=1.00 113.3	11.218	2.9300	-3.08	32.87	0.094*
T37	294 - 274	2L2 1/2x2 1/2x5/16	7'6"	7'2-9/32"	K=1.00 113.3	11.218	2.9300	-3.06	32.87	0.093*





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<b>Project</b>	WXXX NETWORK TOWER, CHAUTAUQUA CNTY, NY	<b>Date</b>	23:22:04 11/07/06
<b>Client</b>	CLIENT NAME	<b>Designed by</b>	EDR

### Tension Checks

### Leg Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L <sub>a</sub> ft	Kl/r	F <sub>a</sub> ksi	A in <sup>2</sup>	Actual P K	Allow. P <sub>a</sub> K	Ratio P P <sub>a</sub>
T1	999 - 989	2 3/4	10'	4'-9-31/32"	84.4	30.000	5.9396	20.30	178.19	0.114 ✓

### Diagonal Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L <sub>a</sub> ft	Kl/r	F <sub>a</sub> ksi	A in <sup>2</sup>	Actual P K	Allow. P <sub>a</sub> K	Ratio P P <sub>a</sub>
T1	999 - 989	2L2 1/2x2 1/2x5/16x3/8	6'-7/16"	5'-11-5/32"	93.5	29.000	1.8459	2.92	53.53	0.054 ✓
		2L 'a' > 34.2975 in - 12								
T2	989 - 974	3/4	8'-11-13/32"	8'-8-1/32"	555.0	30.000	0.4418	4.58	13.25	0.346 ✓
T3	974 - 954	3/4	8'-10-29/32"	8'-7-11/16"	552.9	30.000	0.4418	3.64	13.25	0.275 ✓
T4	954 - 934	3/4	9'-1/8"	8'-8-7/8"	559.5	30.000	0.4418	4.20	13.25	0.317 ✓
T5	934 - 914	3/4	9'-1/8"	8'-8-7/8"	559.5	30.000	0.4418	5.87	13.25	0.443 ✓
T6	914 - 894	3/4	9'-1/8"	8'-8-7/8"	559.5	30.000	0.4418	6.42	13.25	0.485 ✓
T7	894 - 874	3/4	9'-1/8"	8'-8-7/8"	559.5	30.000	0.4418	3.27	13.25	0.246 ✓
T8	874 - 854	3/4	8'-10-29/32"	8'-7-11/16"	552.9	30.000	0.4418	3.22	13.25	0.243 ✓
T9	854 - 834	3/4	8'-10-29/32"	8'-7-5/16"	551.3	30.000	0.4418	8.01	13.25	0.605 ✓
T10	834 - 814	3/4	9'-1/8"	8'-8-5/8"	557.9	30.000	0.4418	7.66	13.25	0.578 ✓
T11	814 - 794	3/4	9'-1/8"	8'-8-5/8"	557.9	30.000	0.4418	4.45	13.25	0.336 ✓
T12	794 - 774	3/4	9'-1/8"	8'-8-5/8"	557.9	30.000	0.4418	2.86	13.25	0.216 ✓
T13	774 - 754	3/4	9'-1/8"	8'-8-5/8"	557.9	30.000	0.4418	3.70	13.25	0.279 ✓
T14	754 - 734	3/4	8'-10-29/32"	8'-7-5/16"	551.3	30.000	0.4418	6.69	13.25	0.505 ✓
T15	734 - 714	3/4	8'-10-29/32"	8'-7-3/32"	549.7	30.000	0.4418	8.00	13.25	0.604 ✓
T16	714 - 694	3/4	9'-1/8"	8'-8-9/32"	556.3	30.000	0.4418	5.97	13.25	0.451 ✓
T17	694 - 674	3/4	9'-1/8"	8'-8-9/32"	556.3	30.000	0.4418	4.17	13.25	0.314 ✓
T18	674 - 654	3/4	9'-1/8"	8'-8-9/32"	556.3	30.000	0.4418	2.75	13.25	0.208 ✓



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T19	654 - 634	3/4	9'1/8"	8'8-9/32"	556.3	30.000	0.4418	4.62	13.25	0.348
T20	634 - 614	3/4	8'10-29/32"	8'7-3/32"	549.7	30.000	0.4418	7.53	13.25	0.568
T21	614 - 594	3/4	8'10-29/32"	8'6-23/32"	548.1	30.000	0.4418	8.51	13.25	0.642
T22	594 - 574	3/4	9'1/8"	8'8-1/32"	554.7	30.000	0.4418	6.87	13.25	0.518
T23	574 - 554	3/4	9'1/8"	8'8-1/32"	554.7	30.000	0.4418	5.53	13.25	0.417
T24	554 - 534	3/4	9'1/8"	8'8-1/32"	554.7	30.000	0.4418	3.31	13.25	0.249
T25	534 - 514	3/4	9'1/8"	8'8-1/32"	554.7	30.000	0.4418	4.51	13.25	0.340
T26	514 - 494	3/4	9'1/8"	8'8-1/32"	554.7	30.000	0.4418	7.48	13.25	0.564
T27	494 - 474	3/4	9'1/8"	8'8-1/32"	554.7	30.000	0.4418	8.87	13.25	0.669
T28	474 - 454	3/4	9'1/8"	8'8-1/32"	554.7	30.000	0.4418	3.14	13.25	0.237
T29	454 - 434	3/4	9'1/8"	8'8-1/32"	554.7	30.000	0.4418	2.36	13.25	0.178
T30	434 - 414	3/4	9'1/8"	8'8-1/32"	554.7	30.000	0.4418	4.05	13.25	0.306
T31	414 - 394	3/4	9'1/8"	8'8-1/32"	554.7	30.000	0.4418	6.32	13.25	0.477
T32	394 - 374	3/4	8'10-29/32"	8'6-23/32"	548.1	30.000	0.4418	8.54	13.25	0.644
T33	374 - 354	3/4	8'10-29/32"	8'6-15/32"	546.6	30.000	0.4418	8.71	13.25	0.657
T34	354 - 334	3/4	9'1/8"	8'7-11/16"	553.1	30.000	0.4418	5.30	13.25	0.400
T35	334 - 314	3/4	9'1/8"	8'7-11/16"	553.1	30.000	0.4418	3.14	13.25	0.237
T36	314 - 294	3/4	9'1/8"	8'7-11/16"	553.1	30.000	0.4418	2.22	13.25	0.167
T37	294 - 274	3/4	8'10-29/32"	8'6-15/32"	546.6	30.000	0.4418	3.87	13.25	0.292
T38	274 - 254	3/4	8'10-29/32"	8'6-1/4"	545.0	30.000	0.4418	5.66	13.25	0.427
T39	254 - 234	3/4	9'1/8"	8'7-7/16"	551.5	30.000	0.4418	6.83	13.25	0.516
T40	234 - 214	3/4	9'1/8"	8'7-7/16"	551.5	30.000	0.4418	7.10	13.25	0.536
T41	214 - 194	3/4	9'1/8"	8'7-7/16"	551.5	30.000	0.4418	5.31	13.25	0.401
T42	194 - 174	3/4	9'1/8"	8'7-7/16"	551.5	30.000	0.4418	3.57	13.25	0.270
T43	174 - 154	3/4	9'1/8"	8'7-7/16"	551.5	30.000	0.4418	2.37	13.25	0.179
T44	154 - 134	3/4	9'1/8"	8'7-7/16"	551.5	30.000	0.4418	3.47	13.25	0.262
T45	134 - 114	3/4	9'1/8"	8'7-7/16"	551.5	30.000	0.4418	5.18	13.25	0.391



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T46	114 - 94	3/4	9'1/8"	8'7-7/16"	551.5	30.000	0.4418	5.29	13.25	0.399
T47	94 - 74	3/4	9'1/8"	8'7-7/16"	551.5	30.000	0.4418	3.69	13.25	0.278
T48	74 - 54	3/4	9'1/8"	8'7-7/16"	551.5	30.000	0.4418	2.35	13.25	0.178
T49	54 - 34	3/4	8'10-29/32"	8'6-1/4"	545.0	30.000	0.4418	2.17	13.25	0.164
T50	34 - 19	3/4	8'11-13/32"	8'6-19/32"	547.0	30.000	0.4418	2.67	13.25	0.202
T51	19 - 9	2L2 1/2x2 1/2x5/16x3/8	6'1-7/16"	5'10-3/16"	92.2	29.000	1.8459	2.35	53.53	0.044
2L 'a' > 33.8061 in - 1925										

### Guy Lower Diagonal Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L <sub>a</sub> ft	Kl/r	F <sub>a</sub> ksi	A in <sup>2</sup>	Actual P K	Allow. P <sub>a</sub> K	Ratio P P <sub>a</sub>
T1	999 - 989	2L2 1/2x2 1/2x5/16x3/8	6'1-7/16"	5'11-5/32"	93.5	21.600	2.9300	3.69	63.29	0.058
2L 'a' > 34.2975 in - 17										
T6	914 - 894	2L2 1/2x2 1/2x5/16x3/8	9'1/8"	8'8-7/8"	137.8	21.600	2.9300	11.56	63.29	0.183
T9	854 - 834	2L2 1/2x2 1/2x5/16x3/8	8'10-29/32"	8'7-5/16"	135.8	21.600	2.9300	12.98	63.29	0.205
T16	714 - 694	2L2 1/2x2 1/2x5/16x3/8	9'1/8"	8'8-9/32"	137.0	21.600	2.9300	11.99	63.29	0.190
T22	594 - 574	2L2 1/2x2 1/2x5/16x3/8	9'1/8"	8'7-29/32"	136.6	21.600	2.9300	11.93	63.29	0.188
T28	474 - 454	2L2 1/2x2 1/2x5/16x3/8	9'1/8"	8'7-29/32"	136.6	21.600	2.9300	8.09	63.29	0.128*
T33	374 - 354	2L2 1/2x2 1/2x5/16x3/8	8'10-29/32"	8'6-15/32"	134.7	21.600	2.9300	10.27	63.29	0.162
T39	254 - 234	2L2 1/2x2 1/2x5/16x3/8	9'1/8"	8'7-5/16"	135.8	21.600	2.9300	10.56	63.29	0.167
T45	134 - 114	2L2 1/2x2 1/2x5/16x3/8	9'1/8"	8'7-5/16"	135.8	21.600	2.9300	8.99	63.29	0.142

\* DL controls

### Guy Upper Diagonal Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L <sub>a</sub> ft	Kl/r	F <sub>a</sub> ksi	A in <sup>2</sup>	Actual P K	Allow. P <sub>a</sub> K	Ratio P P <sub>a</sub>
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Section No.	Elevation ft	Size	L ft	L <sub>a</sub> ft	Kl/r	F <sub>a</sub> ksi	A in <sup>2</sup>	Actual P K	Allow. P <sub>a</sub> K	Ratio P P <sub>a</sub>
T6	914 - 894	2L2 1/2x2 1/2x5/16x3/8	9'1/8"	8'8-7/8"	137.8	21.600	2.9300	15.51	63.29	0.245
T9	854 - 834	2L2 1/2x2 1/2x5/16x3/8	8'10-29/32"	8'7-5/16"	135.8	21.600	2.9300	13.29	63.29	0.210
T15	734 - 714	2L2 1/2x2 1/2x5/16x3/8	8'10-29/32"	8'7-3/32"	135.4	21.600	2.9300	15.40	63.29	0.243
T21	614 - 594	2L2 1/2x2 1/2x5/16x3/8	8'10-29/32"	8'6-23/32"	135.1	21.600	2.9300	15.23	63.29	0.241
T27	494 - 474	2L2 1/2x2 1/2x5/16x3/8	9'1/8"	8'7-29/32"	136.6	21.600	2.9300	12.40	63.29	0.196
T33	374 - 354	2L2 1/2x2 1/2x5/16x3/8	8'10-29/32"	8'6-15/32"	134.7	21.600	2.9300	12.08	63.29	0.191
T39	254 - 234	2L2 1/2x2 1/2x5/16x3/8	9'1/8"	8'7-5/16"	135.8	21.600	2.9300	11.04	63.29	0.174
T45	134 - 114	2L2 1/2x2 1/2x5/16x3/8	9'1/8"	8'7-5/16"	135.8	21.600	2.9300	9.07	63.29	0.143

### Horizontal Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L <sub>a</sub> ft	Kl/r	F <sub>a</sub> ksi	A in <sup>2</sup>	Actual P K	Allow. P <sub>a</sub> K	Ratio P P <sub>a</sub>
T52	9 - 0	1.5" x 6"	2'6"	2'2-1/32"	60.0	21.600	9.0000	14.84	194.40	0.076

### Top Girt Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L <sub>a</sub> ft	Kl/r	F <sub>a</sub> ksi	A in <sup>2</sup>	Actual P K	Allow. P <sub>a</sub> K	Ratio P P <sub>a</sub>
T1	999 - 989	C10x15.3	7'6"	7'3-1/4"	122.4	21.600	4.4900	11.40	96.98	0.118
T51	19 - 9	2L2 1/2x2 1/2x5/16	7'6"	7'2-1/32"	81.1	29.000	1.8459	0.10	53.53	0.002
T52	9 - 0	1.5" x 6"	7'6"	7'2-1/32"	198.6	21.600	9.0000	53.94	194.40	0.277

### Bottom Girt Design Data (Tension)

Section No.	Elevation ft	Size	L ft	L <sub>a</sub> ft	Kl/r	F <sub>a</sub> ksi	A in <sup>2</sup>	Actual P K	Allow. P <sub>a</sub> K	Ratio P P <sub>a</sub>
T1	999 - 989	2L2 1/2x2 1/2x5/16x3/8	7'6"	7'3-1/4"	72.7	29.000	1.8459	1.24	53.53	0.023



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Section No.	Elevation ft	Size	L ft	L <sub>a</sub> ft	Kl/r	F <sub>a</sub> ksi	A in <sup>2</sup>	Actual P K	Allow. P <sub>a</sub> K	Ratio P/P <sub>a</sub>
T51	19 - 9	2L 'a' > 26.6658 in - 8 2L2 1/2x2 1/2x5/16x3/8	7'6"	7'2-1/32"	71.7	29.000	1.8459	16.28	53.53	0.304
		2L 'a' > 26.2838 in - 1924								✓

### Section Capacity Table

Section No.	Elevation ft	Component Type	Size	Critical Element	P K	SF*P <sub>allow</sub> K	% Capacity	Pass Fail
T1	999 - 989	Leg	2 3/4	4	-33.31	117.25	28.4	Pass
T2	989 - 974	Leg	2 3/4	25	-39.84	116.28	34.3	Pass
T3	974 - 954	Leg	2 3/4	55	-43.34	117.74	36.8	Pass
T4	954 - 934	Leg	2 3/4	94	-42.48	113.33	37.5	Pass
T5	934 - 914	Leg	2 3/4	131	-51.68	113.33	45.6	Pass
T6	914 - 894	Leg	2 3/4	170	-77.25	113.33	68.2	Pass
T7	894 - 874	Leg	2 3/4	209	-69.42	113.33	61.3	Pass
T8	874 - 854	Leg	2 3/4	248	-76.80	117.74	65.2	Pass
T9	854 - 834	Leg	3	289	-94.98	150.93	62.9	Pass
T10	834 - 814	Leg	3	328	-109.73	146.37	75.0	Pass
T11	814 - 794	Leg	3	367	-119.22	146.37	81.5	Pass
T12	794 - 774	Leg	3	406	-121.24	146.37	82.8	Pass
T13	774 - 754	Leg	3	445	-120.15	146.37	82.1	Pass
T14	754 - 734	Leg	3	484	-112.16	150.93	74.3	Pass
T15	734 - 714	Leg	3 1/4	523	-121.93	187.36	65.1	Pass
T16	714 - 694	Leg	3 1/4	562	-127.06	182.64	69.6	Pass
T17	694 - 674	Leg	3 1/4	601	-136.89	182.64	75.0	Pass
T18	674 - 654	Leg	3 1/4	640	-139.37	182.64	76.3	Pass
T19	654 - 634	Leg	3 1/4	679	-138.55	182.64	75.9	Pass
T20	634 - 614	Leg	3 1/4	718	-130.18	187.36	69.5	Pass
T21	614 - 594	Leg	3 1/2	757	-147.20	227.04	64.8	Pass
T22	594 - 574	Leg	3 1/2	796	-153.70	222.15	69.2	Pass
T23	574 - 554	Leg	3 1/2	835	-154.92	222.15	69.7	Pass
T24	554 - 534	Leg	3 1/2	874	-160.74	222.15	72.4	Pass
T25	534 - 514	Leg	3 1/2	911	-161.75	222.15	72.8	Pass
T26	514 - 494	Leg	3 1/2	951	-158.21	222.15	71.2	Pass
T27	494 - 474	Leg	3 1/2	989	-170.22	222.15	76.6	Pass
T28	474 - 454	Leg	3 1/2	1028	-180.66	222.15	81.3	Pass
T29	454 - 434	Leg	3 1/2	1068	-176.24	222.15	79.3	Pass
T30	434 - 414	Leg	3 1/2	1106	-180.03	222.15	81.0	Pass
T31	414 - 394	Leg	3 1/2	1145	-187.65	222.15	84.5	Pass
T32	394 - 374	Leg	3 1/2	1185	-208.17	227.04	91.7	Pass
T33	374 - 354	Leg	3 3/4	1224	-230.67	269.96	85.4	Pass
T34	354 - 334	Leg	3 3/4	1263	-218.59	264.91	82.5	Pass
T35	334 - 314	Leg	3 3/4	1302	-208.56	264.91	78.7	Pass
T36	314 - 294	Leg	3 3/4	1341	-210.24	264.91	79.4	Pass
T37	294 - 274	Leg	3 3/4	1380	-217.89	269.96	80.7	Pass
T38	274 - 254	Leg	4	1419	-235.73	316.12	74.6	Pass
T39	254 - 234	Leg	4	1458	-252.57	310.91	81.2	Pass
T40	234 - 214	Leg	4	1497	-237.89	310.91	76.5	Pass
T41	214 - 194	Leg	4	1535	-225.20	310.91	72.4	Pass
T42	194 - 174	Leg	4	1575	-221.19	310.91	71.1	Pass
T43	174 - 154	Leg	4	1614	-222.63	310.91	71.6	Pass
T44	154 - 134	Leg	4	1653	-227.13	310.91	73.1	Pass
T45	134 - 114	Leg	4	1692	-239.78	310.91	77.1	Pass
T46	114 - 94	Leg	4	1732	-242.21	310.91	77.9	Pass
T47	94 - 74	Leg	4	1771	-250.65	310.91	80.6	Pass





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Section No.	Elevation ft	Component Type	Size	Critical Element	P K	SF*P <sub>allow</sub> K	% Capacity	Pass Fail
T48	74 - 54	Leg	4	1810	-254.38	310.91	81.8	Pass
T49	54 - 34	Leg	4	1849	-254.82	316.12	80.6	Pass
T50	34 - 19	Leg	4	1888	-253.07	314.39	80.5	Pass
T51	19 - 9	Leg	4	1918	-249.00	315.54	78.9	Pass
T52	9 - 0	Leg	4	1939	-273.95	351.14	78.0	Pass
T1	999 - 989	Diagonal	2L2 1/2x2 1/2x5/16x3/8	11	-2.77	43.58	6.4	Pass
T2	989 - 974	Diagonal	3/4	47	4.58	14.43	10.4 (b)	Pass
T3	974 - 954	Diagonal	3/4	87	3.64	14.43	31.7 32.6 (b) 25.2	Pass
T4	954 - 934	Diagonal	3/4	101	4.20	14.43	25.9 (b) 29.1	Pass
T5	934 - 914	Diagonal	3/4	142	5.87	14.43	29.9 (b) 40.6	Pass
T6	914 - 894	Diagonal	3/4	208	6.42	14.43	41.8 (b) 44.5	Pass
T7	894 - 874	Diagonal	3/4	242	3.27	14.43	45.8 (b) 22.6	Pass
T8	874 - 854	Diagonal	3/4	268	3.22	14.43	23.3 (b) 22.3	Pass
T9	854 - 834	Diagonal	3/4	293	8.01	14.43	22.9 (b) 55.5	Pass
T10	834 - 814	Diagonal	3/4	359	7.66	14.43	57.1 (b) 53.0	Pass
T11	814 - 794	Diagonal	3/4	398	4.45	14.43	54.6 (b) 30.8	Pass
T12	794 - 774	Diagonal	3/4	437	2.86	14.43	31.7 (b) 19.8	Pass
T13	774 - 754	Diagonal	3/4	454	3.70	14.43	20.4 (b) 25.6	Pass
T14	754 - 734	Diagonal	3/4	493	6.69	14.43	26.3 (b) 46.3	Pass
T15	734 - 714	Diagonal	3/4	541	8.00	14.43	47.6 (b) 55.5	Pass
T16	714 - 694	Diagonal	3/4	584	5.97	14.43	57.0 (b) 41.4	Pass
T17	694 - 674	Diagonal	3/4	632	4.17	14.43	42.6 (b) 28.9	Pass
T18	674 - 654	Diagonal	3/4	674	2.75	14.43	29.7 (b) 19.1	Pass
T19	654 - 634	Diagonal	3/4	683	4.62	14.43	19.6 (b) 32.0	Pass
T20	634 - 614	Diagonal	3/4	722	7.53	14.43	32.9 (b) 52.1	Pass
T21	614 - 594	Diagonal	3/4	770	8.51	14.43	53.6 (b) 59.0	Pass
T22	594 - 574	Diagonal	3/4	821	6.87	14.43	60.6 (b) 47.6	Pass
T23	574 - 554	Diagonal	3/4	869	5.53	14.43	49.0 (b) 38.3	Pass
T24	554 - 534	Diagonal	3/4	908	3.31	14.43	39.4 (b) 22.9	Pass
T25	534 - 514	Diagonal	3/4	917	4.51	14.43	23.6 (b) 31.2	Pass
T26	514 - 494	Diagonal	3/4	956	7.48	14.43	32.1 (b) 51.8	Pass
T27	494 - 474	Diagonal	3/4	1004	8.87	14.43	53.3 (b) 61.5	Pass
T28	474 - 454	Diagonal	3/4	1055	3.14	14.43	63.2 (b) 21.8 22.4 (b)	Pass



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Section No.	Elevation ft	Component Type	Size	Critical Element	P K	SF*P <sub>allow</sub> K	% Capacity	Pass Fail
T29	454 - 434	Diagonal	3/4	1073	2.36	14.43	16.4	Pass
T30	434 - 414	Diagonal	3/4	1112	4.05	14.43	16.8 (b) 28.1	Pass
T31	414 - 394	Diagonal	3/4	1151	6.32	14.43	28.9 (b) 43.8	Pass
T32	394 - 374	Diagonal	3/4	1190	8.54	14.43	45.1 (b) 59.2	Pass
T33	374 - 354	Diagonal	3/4	1256	8.71	14.43	60.8 (b) 60.3	Pass
T34	354 - 334	Diagonal	3/4	1298	5.30	14.43	62.1 (b) 36.7	Pass
T35	334 - 314	Diagonal	3/4	1337	3.14	14.43	37.8 (b) 21.7	Pass
T36	314 - 294	Diagonal	3/4	1350	2.22	14.43	22.3 (b) 15.4	Pass
T37	294 - 274	Diagonal	3/4	1390	3.87	14.43	15.8 (b) 26.8	Pass
T38	274 - 254	Diagonal	3/4	1428	5.66	14.43	27.6 (b) 39.2	Pass
T39	254 - 234	Diagonal	3/4	1466	6.83	14.43	40.3 (b) 47.3	Pass
T40	234 - 214	Diagonal	3/4	1532	7.10	14.43	48.7 (b) 49.2	Pass
T41	214 - 194	Diagonal	3/4	1571	5.31	14.43	50.6 (b) 36.8	Pass
T42	194 - 174	Diagonal	3/4	1610	3.57	14.43	37.9 (b) 24.8	Pass
T43	174 - 154	Diagonal	3/4	1620	2.37	14.43	25.5 (b) 16.4	Pass
T44	154 - 134	Diagonal	3/4	1659	3.47	14.43	16.9 (b) 24.1	Pass
T45	134 - 114	Diagonal	3/4	1699	5.18	14.43	24.8 (b) 35.9	Pass
T46	114 - 94	Diagonal	3/4	1765	5.29	14.43	36.9 (b) 36.7	Pass
T47	94 - 74	Diagonal	3/4	1804	3.69	14.43	37.7 (b) 25.6	Pass
T48	74 - 54	Diagonal	3/4	1843	2.35	14.43	26.3 (b) 16.3	Pass
T49	54 - 34	Diagonal	3/4	1863	2.17	14.43	16.8 (b) 15.0	Pass
T50	34 - 19	Diagonal	3/4	1893	2.67	14.43	15.5 (b) 18.5	Pass
T51	19 - 9	Diagonal	2L2 1/2x2 1/2x5/16x3/8	1926	-2.37	43.79	19.1 (b) 5.4	Pass
T52	9 - 0	Diagonal	1 1/2	1951	-15.67	29.70	8.4 (b) 52.8	Pass
T1	999 - 989	Guy Lower	2L2 1/2x2 1/2x5/16x3/8	17	-3.78	43.58	8.7	Pass
T6	914 - 894	Diagonal@998.833 Guy Lower	2L2 1/2x2 1/2x5/16x3/8	185	11.56	68.93	16.8	Pass
T9	854 - 834	Diagonal@904 Guy Lower	2L2 1/2x2 1/2x5/16x3/8	302	12.98	68.93	18.8	Pass
T16	714 - 694	Diagonal@844 Guy Lower	2L2 1/2x2 1/2x5/16x3/8	593	11.99	68.93	17.4	Pass
T22	594 - 574	Diagonal@714.375 Guy Lower	2L2 1/2x2 1/2x5/16x3/8	830	11.93	68.93	17.3	Pass
T28	474 - 454	Diagonal@594.375 Guy Lower	2L2 1/2x2 1/2x5/16x3/8	1064	8.09	63.29	12.8	Pass
T33	374 - 354	Diagonal@474 Guy Lower	2L2 1/2x2 1/2x5/16x3/8	1241	10.27	68.93	14.9	Pass
		Diagonal@364						



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Section No.	Elevation ft	Component Type	Size	Critical Element	P K	SF*P <sub>allow</sub> K	% Capacity	Pass Fail
T39	254 - 234	Guy Lower Diagonal@244	2L2 1/2x2 1/2x5/16x3/8	1475	10.56	68.93	15.3	Pass
T45	134 - 114	Guy Lower Diagonal@124	2L2 1/2x2 1/2x5/16x3/8	1709	8.99	68.93	13.0	Pass
T6	914 - 894	Guy Upper Diagonal@904	2L2 1/2x2 1/2x5/16x3/8	198	15.51	68.93	22.5	Pass
T9	854 - 834	Guy Upper Diagonal@844	2L2 1/2x2 1/2x5/16x3/8	315	13.29	68.93	19.3	Pass
T15	734 - 714	Guy Upper Diagonal@714.375	2L2 1/2x2 1/2x5/16x3/8	528	15.40	68.93	22.3	Pass
T21	614 - 594	Guy Upper Diagonal@594.375	2L2 1/2x2 1/2x5/16x3/8	762	15.23	68.93	22.1	Pass
T27	494 - 474	Guy Upper Diagonal@474	2L2 1/2x2 1/2x5/16x3/8	996	12.40	68.93	18.0	Pass
T33	374 - 354	Guy Upper Diagonal@364	2L2 1/2x2 1/2x5/16x3/8	1248	12.08	68.93	17.5	Pass
T39	254 - 234	Guy Upper Diagonal@244	2L2 1/2x2 1/2x5/16x3/8	1482	11.04	68.93	16.0	Pass
T45	134 - 114	Guy Upper Diagonal@124	2L2 1/2x2 1/2x5/16x3/8	1716	9.07	68.93	13.2	Pass
T2	989 - 974	Horizontal	2L2 1/2x2 1/2x5/16x3/8	44	-4.81	32.34	14.9	Pass
T3	974 - 954	Horizontal	2L2 1/2x2 1/2x5/16x3/8	74	-4.71	32.34	17.1 (b) 14.6	Pass
T4	954 - 934	Horizontal	2L2 1/2x2 1/2x5/16x3/8	113	-4.57	32.34	16.8 (b) 14.1	Pass
T5	934 - 914	Horizontal	2L2 1/2x2 1/2x5/16x3/8	162	-4.52	32.34	16.3 (b) 14.0	Pass
T6	914 - 894	Horizontal	2L2 1/2x2 1/2x5/16x3/8	191	-12.96	32.34	40.1 16.3 (b)	Pass
T7	894 - 874	Horizontal	2L2 1/2x2 1/2x5/16x3/8	239	-4.09	32.34	46.2 (b) 12.7	Pass
T8	874 - 854	Horizontal	2L2 1/2x2 1/2x5/16x3/8	269	-4.20	32.34	14.6 (b) 13.0	Pass
T9	854 - 834	Horizontal	2L2 1/2x2 1/2x5/16x3/8	308	-12.64	32.47	15.0 (b) 38.9	Pass
T10	834 - 814	Horizontal	2L2 1/2x2 1/2x5/16x3/8	356	-5.68	35.36	45.0 (b) 16.1	Pass
T11	814 - 794	Horizontal	2L2 1/2x2 1/2x5/16x3/8	395	-3.84	32.47	20.2 (b) 11.8	Pass
T12	794 - 774	Horizontal	2L2 1/2x2 1/2x5/16x3/8	434	-3.81	32.47	13.7 (b) 11.7	Pass
T13	774 - 754	Horizontal	2L2 1/2x2 1/2x5/16x3/8	473	-3.79	32.47	13.6 (b) 11.7	Pass
T14	754 - 734	Horizontal	2L2 1/2x2 1/2x5/16x3/8	496	-5.45	35.36	13.5 (b) 15.4	Pass
T15	734 - 714	Horizontal	2L2 1/2x2 1/2x5/16x3/8	533	-12.43	35.51	19.4 (b) 35.0	Pass
T16	714 - 694	Horizontal	2L2 1/2x2 1/2x5/16x3/8	590	-9.41	32.60	44.3 (b) 28.9	Pass
T17	694 - 674	Horizontal	2L2 1/2x2 1/2x5/16x3/8	629	-3.65	32.60	33.5 (b) 11.2	Pass
T18	674 - 654	Horizontal	2L2 1/2x2 1/2x5/16x3/8	668	-3.63	32.60	13.0 (b) 11.1	Pass
T19	654 - 634	Horizontal	2L2 1/2x2 1/2x5/16x3/8	707	-3.60	32.60	12.9 (b) 11.1	Pass
T20	634 - 614	Horizontal	2L2 1/2x2 1/2x5/16x3/8	728	-6.17	35.51	13.0 (b) 17.4	Pass
T21	614 - 594	Horizontal	2L2 1/2x2 1/2x5/16x3/8	767	-12.20	35.65	22.0 (b) 34.2	Pass
T22	594 - 574	Horizontal	2L2 1/2x2 1/2x5/16x3/8	824	-9.19	32.74	43.5 (b) 28.1	Pass



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Section No.	Elevation ft	Component Type	Size	Critical Element	P K	SF*P <sub>allow</sub> K	% Capacity	Pass Fail
T23	574 - 554	Horizontal	2L2 1/2x2 1/2x5/16x3/8	864	-4.35	35.65	33.3 (b) 12.2	Pass
T24	554 - 534	Horizontal	2L2 1/2x2 1/2x5/16x3/8	903	-3.51	32.74	15.5 (b) 10.7	Pass
T25	534 - 514	Horizontal	2L2 1/2x2 1/2x5/16x3/8	943	-3.48	32.74	12.5 (b) 10.6	Pass
T26	514 - 494	Horizontal	2L2 1/2x2 1/2x5/16x3/8	962	-6.05	35.65	12.4 (b) 17.0	Pass
T27	494 - 474	Horizontal	2L2 1/2x2 1/2x5/16x3/8	1001	-9.84	35.65	21.5 (b) 27.6	Pass
T28	474 - 454	Horizontal	2L2 1/2x2 1/2x5/16x3/8	1060	-8.08	32.74	35.1 (b) 24.7	Pass
T29	454 - 434	Horizontal	2L2 1/2x2 1/2x5/16x3/8	1098	-3.15	32.74	28.8 (b) 9.6	Pass
T30	434 - 414	Horizontal	2L2 1/2x2 1/2x5/16x3/8	1138	-3.12	32.74	11.2 (b) 9.5	Pass
T31	414 - 394	Horizontal	2L2 1/2x2 1/2x5/16x3/8	1157	-5.13	35.65	11.5 (b) 14.4	Pass
T32	394 - 374	Horizontal	2L2 1/2x2 1/2x5/16x3/8	1196	-7.07	35.65	18.3 (b) 19.8	Pass
T33	374 - 354	Horizontal	2L2 1/2x2 1/2x5/16x3/8	1246	-9.80	32.87	25.2 (b) 29.8	Pass
T34	354 - 334	Horizontal	2L2 1/2x2 1/2x5/16x3/8	1293	-3.93	35.80	34.9 (b) 11.0	Pass
T35	334 - 314	Horizontal	2L2 1/2x2 1/2x5/16x3/8	1333	-3.10	32.87	14.0 (b) 9.4	Pass
T36	314 - 294	Horizontal	2L2 1/2x2 1/2x5/16x3/8	1372	-3.09	32.87	11.1 (b) 9.4	Pass
T37	294 - 274	Horizontal	2L2 1/2x2 1/2x5/16x3/8	1401	-3.23	32.87	11.0 (b) 9.8	Pass
T38	274 - 254	Horizontal	2L2 1/2x2 1/2x5/16x3/8	1432	-4.55	35.94	11.5 (b) 12.7	Pass
T39	254 - 234	Horizontal	2L2 1/2x2 1/2x5/16x3/8	1488	-8.64	33.00	16.2 (b) 26.2	Pass
T40	234 - 214	Horizontal	2L2 1/2x2 1/2x5/16x3/8	1527	-5.67	35.94	31.2 (b) 15.8	Pass
T41	214 - 194	Horizontal	2L2 1/2x2 1/2x5/16x3/8	1566	-4.23	35.94	20.2 (b) 11.8	Pass
T42	194 - 174	Horizontal	2L2 1/2x2 1/2x5/16x3/8	1604	-3.09	33.00	15.1 (b) 9.4	Pass
T43	174 - 154	Horizontal	2L2 1/2x2 1/2x5/16x3/8	1645	-3.06	33.00	11.0 (b) 9.3	Pass
T44	154 - 134	Horizontal	2L2 1/2x2 1/2x5/16x3/8	1684	-3.04	33.00	10.9 (b) 9.2	Pass
T45	134 - 114	Horizontal	2L2 1/2x2 1/2x5/16x3/8	1723	-8.08	33.00	10.8 (b) 24.5	Pass
T46	114 - 94	Horizontal	2L2 1/2x2 1/2x5/16x3/8	1761	-4.20	35.94	28.8 (b) 11.7	Pass
T47	94 - 74	Horizontal	2L2 1/2x2 1/2x5/16x3/8	1799	-2.90	33.00	15.0 (b) 8.8	Pass
T48	74 - 54	Horizontal	2L2 1/2x2 1/2x5/16x3/8	1838	-2.89	33.00	10.4 (b) 8.8	Pass
T49	54 - 34	Horizontal	2L2 1/2x2 1/2x5/16x3/8	1868	-3.03	33.00	10.3 (b) 9.2	Pass
T50	34 - 19	Horizontal	2L2 1/2x2 1/2x5/16x3/8	1898	-3.08	33.00	10.8 (b) 9.3	Pass
T52	9 - 0	Horizontal	1.5" x 6"	1945	14.84	211.72	11.0 (b) 7.0	Pass
T1	999 - 989	Top Girt	C10x15.3	5	11.40	105.63	10.8	Pass
T2	989 - 974	Top Girt	2L2 1/2x2 1/2x5/16	27	-1.86	32.34	27.1 (b) 5.7	Pass



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Section No.	Elevation ft	Component Type	Size	Critical Element	P K	SF*P <sub>allow</sub> K	% Capacity	Pass Fail
T3	974 - 954	Top Girt	2L2 1/2x2 1/2x5/16	56	-3.64	32.34	7.1 (b) 11.3	Pass
T4	954 - 934	Top Girt	2L2 1/2x2 1/2x5/16	95	-4.18	32.34	13.0 (b) 12.9	Pass
T5	934 - 914	Top Girt	2L2 1/2x2 1/2x5/16	134	-4.53	32.34	14.9 (b) 14.0	Pass
T6	914 - 894	Top Girt	2L2 1/2x2 1/2x5/16	175	-5.11	35.22	16.1 (b) 14.5	Pass
T7	894 - 874	Top Girt	2L2 1/2x2 1/2x5/16	212	-3.85	32.34	18.2 (b) 11.9	Pass
T8	874 - 854	Top Girt	2L2 1/2x2 1/2x5/16	251	-3.76	32.34	13.7 (b) 11.6	Pass
T9	854 - 834	Top Girt	2L2 1/2x2 1/2x5/16	291	-3.17	32.47	13.4 (b) 9.8	Pass
T10	834 - 814	Top Girt	2L2 1/2x2 1/2x5/16	329	-6.53	35.36	11.3 (b) 18.5	Pass
T11	814 - 794	Top Girt	2L2 1/2x2 1/2x5/16	368	-3.85	32.47	23.3 (b) 11.9	Pass
T12	794 - 774	Top Girt	2L2 1/2x2 1/2x5/16	407	-3.82	32.47	14.2 (b) 11.8	Pass
T13	774 - 754	Top Girt	2L2 1/2x2 1/2x5/16	446	-3.79	32.47	13.6 (b) 11.7	Pass
T14	754 - 734	Top Girt	2L2 1/2x2 1/2x5/16	485	-3.59	32.47	13.5 (b) 11.1	Pass
T15	734 - 714	Top Girt	2L2 1/2x2 1/2x5/16	526	-6.07	35.51	12.8 (b) 17.1	Pass
T16	714 - 694	Top Girt	2L2 1/2x2 1/2x5/16	563	-10.24	32.60	21.6 (b) 31.4	Pass
T17	694 - 674	Top Girt	2L2 1/2x2 1/2x5/16	602	-3.66	32.60	36.5 (b) 11.2	Pass
T18	674 - 654	Top Girt	2L2 1/2x2 1/2x5/16	641	-3.63	32.60	13.4 (b) 11.1	Pass
T19	654 - 634	Top Girt	2L2 1/2x2 1/2x5/16	680	-3.60	32.60	12.9 (b) 11.1	Pass
T20	634 - 614	Top Girt	2L2 1/2x2 1/2x5/16	719	-4.14	35.51	12.8 (b) 11.6	Pass
T21	614 - 594	Top Girt	2L2 1/2x2 1/2x5/16	758	-6.76	35.65	14.7 (b) 19.0	Pass
T22	594 - 574	Top Girt	2L2 1/2x2 1/2x5/16	797	-9.83	32.74	24.1 (b) 30.0	Pass
T23	574 - 554	Top Girt	2L2 1/2x2 1/2x5/16	837	-4.83	35.65	35.0 (b) 13.5	Pass
T24	554 - 534	Top Girt	2L2 1/2x2 1/2x5/16	876	-3.51	32.74	17.2 (b) 10.7	Pass
T25	534 - 514	Top Girt	2L2 1/2x2 1/2x5/16	916	-3.49	32.74	12.5 (b) 10.7	Pass
T26	514 - 494	Top Girt	2L2 1/2x2 1/2x5/16	953	-4.26	35.65	12.4 (b) 11.9	Pass
T27	494 - 474	Top Girt	2L2 1/2x2 1/2x5/16	992	-6.51	35.65	15.2 (b) 18.3	Pass
T28	474 - 454	Top Girt	2L2 1/2x2 1/2x5/16	1033	-9.74	32.74	23.2 (b) 29.8	Pass
T29	454 - 434	Top Girt	2L2 1/2x2 1/2x5/16	1072	-3.16	32.74	34.7 (b) 9.6	Pass
T30	434 - 414	Top Girt	2L2 1/2x2 1/2x5/16	1111	-3.13	32.74	11.2 (b) 9.6	Pass
T31	414 - 394	Top Girt	2L2 1/2x2 1/2x5/16	1148	-3.64	35.65	11.1 (b) 10.2	Pass
T32	394 - 374	Top Girt	2L2 1/2x2 1/2x5/16	1187	-5.53	35.65	13.0 (b) 15.5	Pass
							19.7 (b)	



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Section No.	Elevation ft	Component Type	Size	Critical Element	P K	SF*P <sub>allow</sub> K	% Capacity	Pass Fail
T33	374 - 354	Top Girt	2L2 1/2x2 1/2x5/16	1226	-7.33	35.80	20.5	Pass
							26.1 (b)	
T34	354 - 334	Top Girt	2L2 1/2x2 1/2x5/16	1266	-4.44	35.80	12.4	Pass
							15.8 (b)	
T35	334 - 314	Top Girt	2L2 1/2x2 1/2x5/16	1306	-3.11	32.87	9.5	Pass
							11.1 (b)	
T36	314 - 294	Top Girt	2L2 1/2x2 1/2x5/16	1345	-3.08	32.87	9.4	Pass
							11.0 (b)	
T37	294 - 274	Top Girt	2L2 1/2x2 1/2x5/16	1383	-3.06	32.87	9.3	Pass
							10.9 (b)	
T38	274 - 254	Top Girt	2L2 1/2x2 1/2x5/16	1423	-3.60	35.94	10.0	Pass
							12.8 (b)	
T39	254 - 234	Top Girt	2L2 1/2x2 1/2x5/16	1462	-4.75	35.94	13.2	Pass
							16.9 (b)	
T40	234 - 214	Top Girt	2L2 1/2x2 1/2x5/16	1500	-5.81	35.94	16.2	Pass
							20.7 (b)	
T41	214 - 194	Top Girt	2L2 1/2x2 1/2x5/16	1539	-4.59	35.94	12.8	Pass
							16.4 (b)	
T42	194 - 174	Top Girt	2L2 1/2x2 1/2x5/16	1577	-3.09	33.00	9.4	Pass
							11.2 (b)	
T43	174 - 154	Top Girt	2L2 1/2x2 1/2x5/16	1618	-3.07	33.00	9.3	Pass
							10.9 (b)	
T44	154 - 134	Top Girt	2L2 1/2x2 1/2x5/16	1657	-3.04	33.00	9.2	Pass
							10.8 (b)	
T45	134 - 114	Top Girt	2L2 1/2x2 1/2x5/16	1696	-2.85	33.00	8.6	Pass
							10.4 (b)	
T46	114 - 94	Top Girt	2L2 1/2x2 1/2x5/16	1734	-4.36	35.94	12.1	Pass
							15.5 (b)	
T47	94 - 74	Top Girt	2L2 1/2x2 1/2x5/16	1773	-3.22	35.94	9.0	Pass
							11.5 (b)	
T48	74 - 54	Top Girt	2L2 1/2x2 1/2x5/16	1811	-2.88	33.00	8.7	Pass
							10.3 (b)	
T49	54 - 34	Top Girt	2L2 1/2x2 1/2x5/16	1850	-2.89	33.00	8.8	Pass
							10.3 (b)	
T50	34 - 19	Top Girt	2L2 1/2x2 1/2x5/16	1890	-2.75	33.00	8.3	Pass
							9.8 (b)	
T51	19 - 9	Top Girt	2L2 1/2x2 1/2x5/16	1919	-2.24	48.60	4.6	Pass
							8.0 (b)	
T52	9 - 0	Top Girt	1.5" x 6"	1942	53.94	211.72	25.5	Pass
T1	999 - 989	Bottom Girt	2L2 1/2x2 1/2x5/16x3/8	8	-2.40	40.00	6.0	Pass
							8.5 (b)	
T51	19 - 9	Bottom Girt	2L2 1/2x2 1/2x5/16x3/8	1924	16.28	58.30	27.9	Pass
							58.0 (b)	
T1	999 - 989	Guy A@998.833	1	1963	46.08	51.56	89.4	Pass
T6	914 - 894	Guy A@904	1	1966	45.53	51.56	88.3	Pass
T9	854 - 834	Guy A@844	1	1969	45.41	51.56	88.1	Pass
T15	734 - 714	Guy A@714.375	1	1972	44.80	51.56	86.9	Pass
T21	614 - 594	Guy A@594.375	1	1975	41.61	51.56	80.7	Pass
T28	474 - 454	Guy A@474	1	1978	40.02	51.56	77.6	Pass
T33	374 - 354	Guy A@364	1	1981	34.10	51.56	66.1	Pass
T39	254 - 234	Guy A@244	1	1984	27.98	51.56	54.3	Pass
T45	134 - 114	Guy A@124	15/16	1987	22.17	45.64	48.6	Pass
T1	999 - 989	Guy B@998.833	1	1962	44.94	51.56	87.2	Pass
T6	914 - 894	Guy B@904	1	1965	44.24	51.56	85.8	Pass
T9	854 - 834	Guy B@844	1	1968	44.04	51.56	85.4	Pass
T15	734 - 714	Guy B@714.375	1	1971	43.41	51.56	84.2	Pass
T21	614 - 594	Guy B@594.375	1	1974	40.29	51.56	78.2	Pass
T28	474 - 454	Guy B@474	1	1977	38.96	51.56	75.6	Pass
T33	374 - 354	Guy B@364	1	1980	33.23	51.56	64.5	Pass
T39	254 - 234	Guy B@244	1	1983	27.46	51.56	53.3	Pass
T45	134 - 114	Guy B@124	15/16	1986	21.85	45.64	47.9	Pass

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Section No.	Elevation ft	Component Type	Size	Critical Element	P K	SF*P <sub>allow</sub> K	% Capacity	Pass Fail	
T1	999 - 989	Guy C@998.833	1	1961	44.97	51.56	87.2	Pass	
T6	914 - 894	Guy C@904	1	1964	44.35	51.56	86.0	Pass	
T9	854 - 834	Guy C@844	1	1967	44.19	51.56	85.7	Pass	
T15	734 - 714	Guy C@714.375	1	1970	43.59	51.56	84.5	Pass	
T21	614 - 594	Guy C@594.375	1	1973	40.48	51.56	78.5	Pass	
T28	474 - 454	Guy C@474	1	1976	39.09	51.56	75.8	Pass	
T33	374 - 354	Guy C@364	1	1979	33.31	51.56	64.6	Pass	
T39	254 - 234	Guy C@244	1	1982	27.41	51.56	53.2	Pass	
T45	134 - 114	Guy C@124	15/16	1985	21.78	45.64	47.7	Pass	
							Summary		
							Leg (T32)	91.7	Pass
							Diagonal (T27)	63.2	Pass
							Guy Lower Diagonal (T9)	18.8	Pass
							Guy Upper Diagonal (T6)	22.5	Pass
							Horizontal (T6)	46.2	Pass
							Top Girt (T16)	36.5	Pass
							Bottom Girt (T51)	58.0	Pass
							Guy A (T1)	89.4	Pass
							Guy B (T1)	87.2	Pass
							Guy C (T1)	87.2	Pass
							Bolt Checks	63.2	Pass
							<b>RATING =</b>	<b>91.7</b>	<b>Pass</b>

## Foundations

Download / Design Download = 96 % Design Capacity;

Inner (350') Guy Anchor Resultant / Design Resultant = 66 % Design Capacity;

Outer (700') Guy Anchor Resultant / Design Resultant = 86 % Design Capacity.