



AMERICAN TOWER®
CORPORATION

Structural Analysis Report

Structure : 152 ft Monopole
ATC Site Name : Coppola, FL
ATC Site Number : 302653
Engineering Number : 54524321
Proposed Carrier : Metro PCS
Carrier Site Name : Spectrasite Coconut Creek
Carrier Site Number : SFL681 – 6FB1426M
Site Location : 6933 NW 39 Ave
Pompano Beach, FL 33073-2107
26.316758,-80.177647
County : Broward
Date : October 10, 2013
Max Usage : 57%
Result : Pass

Tsega Melesse, E.I.



William Garrett, PE
ATC Tower Services Inc.
400 Regency Forest Dr. #300
Cary NC 27518
FL ENG. NO. 62629
FL COA. NO. 9053

Oct 14 2013 8:38 AM



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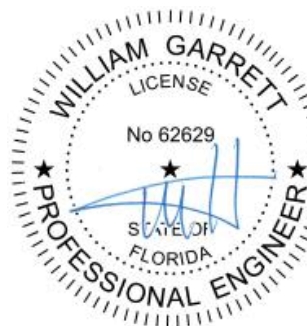
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ATC Tower Services Inc.
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Introduction

The purpose of this report is to summarize results of a structural analysis performed on the 152 ft monopole to reflect the change in loading by Metro PCS.

Supporting Documents

Tower Drawings	EI Drawing #GS51429, dated May 3, 1999
Foundation Drawing	EI Drawing #4968-150, dated May 19, 1999

Analysis

The tower was analyzed using American Tower Corporation's tower analysis software. This program considers an elastic three-dimensional model and second-order effects per ANSI/TIA-222.

Basic Wind Speed:	132 mph (3-Second Gust, V_{ASD}) / 170 mph (3-Second Gust, V_{ULT})
Basic Wind Speed w/ Ice:	No ice loading considered
Code:	ANSI/TIA-222-G / 2009 IBC / 2010 Florida Building Code
Structure Class:	II
Exposure Category:	C
Topographic Category:	1

Conclusion

Based on the analysis results, the structure meets the requirements per the applicable codes listed above. The tower and foundation can support the equipment as described in this report.

If you have any questions or require additional information, please contact me via email at tsega.melesse@americantower.com or call 919-466-5243.



Existing and Reserved Equipment

Mount Elev. ¹ (ft)	Qty.	Antenna	Mount Type	Lines	Carrier
146.0	3	CSS X7-665-4	Low Profile Platform	(12) 1 5/8" Coax	Verizon
	6	Scala AP17-1900/090D/DT6			
132.0	1	36" x 16" Panel	Stand-Off	(1) 1" Conduit	Aoptix Technologies
	1	Belfort Instrument 6500			
	1	Hoffman A1212CHFL			
	2	Transtector -48VDC-OD			
	1	Vivotek IP8331			
125.0	2	EMS RR65-18-00VDPL2/-R	Low Profile Platform	(3) 1 1/4" Hybriflex (3) 1 5/8" Coax	Sprint Nextel
	1	EMS RR90-17-00DP			
	3	Ericsson 800 MHz SMR Filter			
	3	Ericsson RRUS A2 Module			
	9	Ericsson RRUS-11 1900 MHz			
	3	Ericsson RRUS-11 800 MHz			
	9	RFS ACU-A20-N			
	3	RFS APXVERR18-C			
118.0	2	Andrew VHLP2-18-1WH	Stand-Off	(6) 5/16" Coax (2) 1/2" Coax	Clearwire
	2	DragonWave Horizon Compact			
	3	Motorola Vx DAP I/V			
	3	Powerwave P65-18-XXW2-R			
80.0	9	48" x 12" Panel	Platform w/ Handrails	(12) 1 5/8" Coax	Sprint Nextel
	3	72" x 12" Panel			

Proposed Equipment

Elevation ¹ (ft)		Qty.	Antenna	Mount Type	Lines	Carrier
Mount	RAD					
140.0	140.0	9	CellMax CMA-BDHH/6520/E0-8	Low Profile Platform	(6) 1 5/8" Coax (1) 1.58" Hybrid	Metro PCS
		1	Nokia ASU9338TYP01			
		1	Nokia FRIE			
		3	Nokia FRIG w/o S.S.			
		2	Nokia FXFB			

¹Mount elevation is defined as height above bottom of steel structure to the bottom of mount, RAD elevation is defined as center of antenna above ground level (AGL).

Install proposed coax inside the pole shaft.

Structure Usages

Structural Component	Controlling Usage	Pass/Fail
Anchor Bolts	56%	Pass
Shaft	57%	Pass
Base Plate	53%	Pass

Foundations

Reaction Component	Original Design Reactions	Factored Design Reactions*	Analysis Reactions	% of Design
Moment (Kips-Ft)	7,835.6	10,578.1	6,634.8	63%
Shear (Kips)	72.9	98.4	66.6	68%

* The design reactions are factored by 1.35 per ANSI/TIA-222-G, Sec. 15.5.1

The structure base reactions resulting from this analysis are acceptable when compared to those shown on the original structure drawings, therefore no modification or reinforcement of the foundation will be required.

Deflection and Sway*

Antenna Elevation (ft)	Deflection (ft)	Sway (Rotation) (°)
140.0	0.631	0.481

*Deflection and Sway was evaluated considering a design wind speed of 60 mph (3-Second Gust) per ANSI/TIA-222-G



Standard Conditions

All engineering services are performed on the basis that the information used is current and correct. This information may consist of, but is not necessary limited, to:

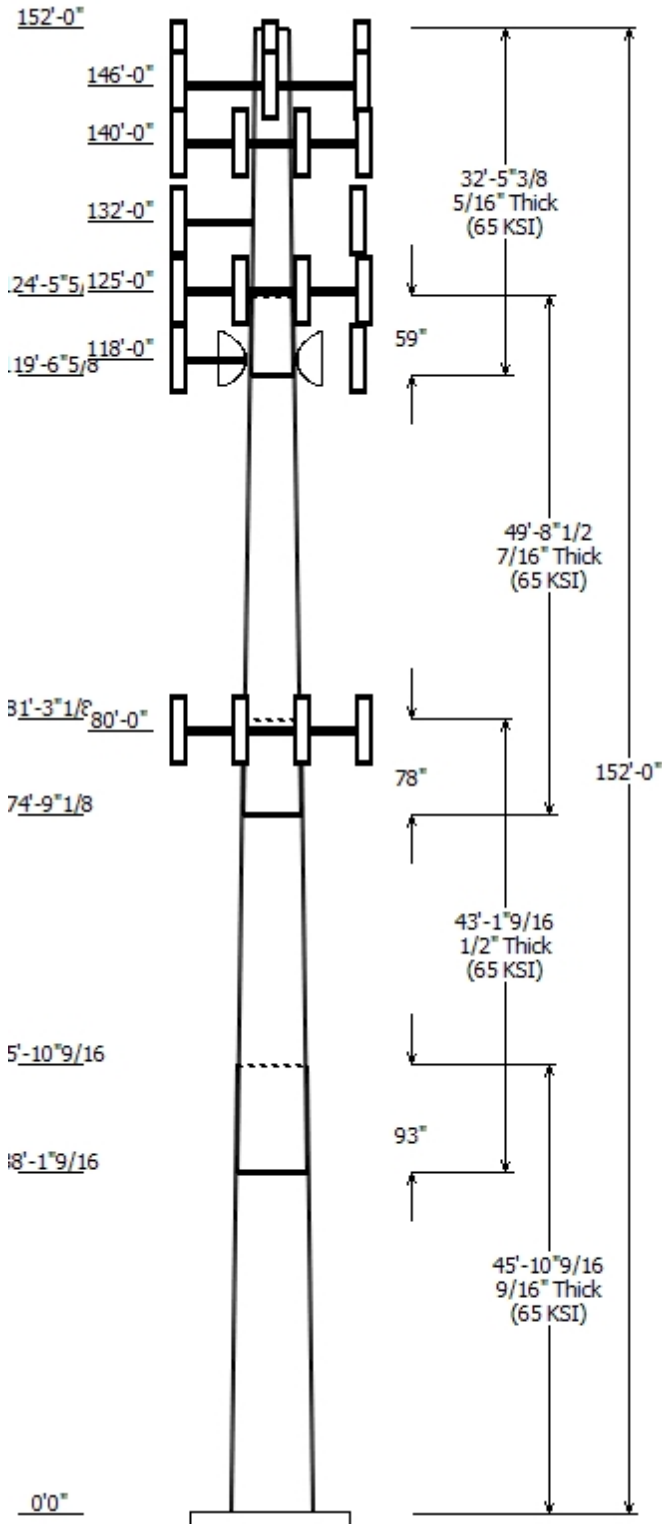
- Information supplied by the client regarding the structure itself, antenna, mounts and feed line loading on the structure and its components, or other relevant information.
- Information from drawings in the possession of American Tower Corporation, or generated by field inspections or measurements of the structure.

It is the responsibility of the client to ensure that the information provided to ATC Tower Services, Inc. and used in the performance of our engineering services is correct and complete. In the absence of information to the contrary, we assume that all structures were constructed in accordance with the drawings and specifications and that their capacity has not significantly changed from the "as new" condition.

Unless explicitly agreed by both the client and American Tower Corporation, all services will be performed in accordance with the current revision of ANSI/TIA -222. The design basic wind speed will be determined based on the minimum basic wind speed as prescribed in ANSI/TIA-222. Although every effort is taken to ensure that the loading considered is adequate to meet the requirements of all applicable regulatory entities, we can provide no assurance to meet any other local and state codes or requirements. If wind and ice loads or other relevant parameters are to be different from the minimum values recommended by the codes, the client shall specify the exact requirement.

All services are performed, results obtained, and recommendations made in accordance with generally accepted engineering principles and practices. ATC Tower Services, Inc. is not responsible for the conclusions, opinions and recommendations made by others based on the information we supply.

Job Information	
Pole :	302653
Description :	152 ft EEI Monopole
Client :	Metro PCS
Location :	Coppola, FL
Shape :	18 Sides
Height :	152.00 (ft)
Code :	ANSI/TIA-222 Rev G
Struct Class :	II
Exposure :	C
Topo :	1
Base Elev (ft):	0.00
Taper:	0.29684(in/ft)



Sections Properties								
Shaft Section	Length (ft)	Diameter (in)		Thick (in)	Joint Type	Overlap		Steel Grade (ksi)
		Across Flats Top	Across Flats Bottom			Length (in)	Taper (in/ft)	
1	45.880	54.38	68.00	0.563		0.000	0.296843	65
2	43.130	44.87	57.68	0.500	Slip Joint	93.000	0.296843	65
3	49.710	32.92	47.68	0.438	Slip Joint	78.000	0.296843	65
4	32.447	25.38	35.01	0.313	Slip Joint	59.000	0.296843	65

Discrete Appurtenance				
Attach Elev (ft)	Force Elev (ft)	Qty	Description	
146.000	148.000	3	CSS X7-665-4	
146.000	146.000	6	Scala AP17-1900/090D/DT6	
146.000	146.000	1	Flat Low Profile Platform	
140.000	140.000	1	Nokia ASU9338TYP01	
140.000	140.000	3	Nokia FRIG w/o S.S.	
140.000	140.000	1	Nokia FRIE	
140.000	140.000	2	Nokia FXFB	
140.000	140.000	9	CellMax CMA-BDHH/6520/E0-8	
140.000	140.000	1	Flat Low Profile Platform	
132.000	132.000	1	Vivotek IP8331	
132.000	132.000	2	Transtector -48VDC-OD	
132.000	132.000	1	Belfort Instrument 6500	
132.000	132.000	1	Hoffman A1212CHFL	
132.000	132.000	1	36" x 16" Panel	
132.000	132.000	1	Stand-Off	
125.000	125.000	1	Flat Low Profile Platform	
125.000	125.000	9	RFS ACU-A20-N	
125.000	125.000	6	RFS IBC1900HG-1	
125.000	125.000	3	Ericsson RRUS A2 Module	
125.000	125.000	9	Ericsson RRUS-11 1900 MHz	
125.000	125.000	3	Ericsson RRUS-11 800 MHz	
125.000	125.000	2	EMS RR65-18-00VDPL2/-R	
125.000	125.000	3	RFS APXVERR18-C	
125.000	125.000	3	Ericsson 800 MHz SMR Filter	
125.000	125.000	1	EMS RR90-17-00DP	
118.000	118.000	1	Stand-Off	
118.000	118.000	3	Powerwave P65-18-XXW2-R	
118.000	118.000	3	Motorola Vx DAP I/V	
118.000	118.000	2	Andrew VHLP2-18-1WH	
118.000	118.000	2	DragonWave Horizon Compact	
80.000	80.000	3	72" x 12" Panel	
80.000	80.000	9	48" x 12" Panel	
80.000	80.000	1	Flat Platform w/ Handrails	

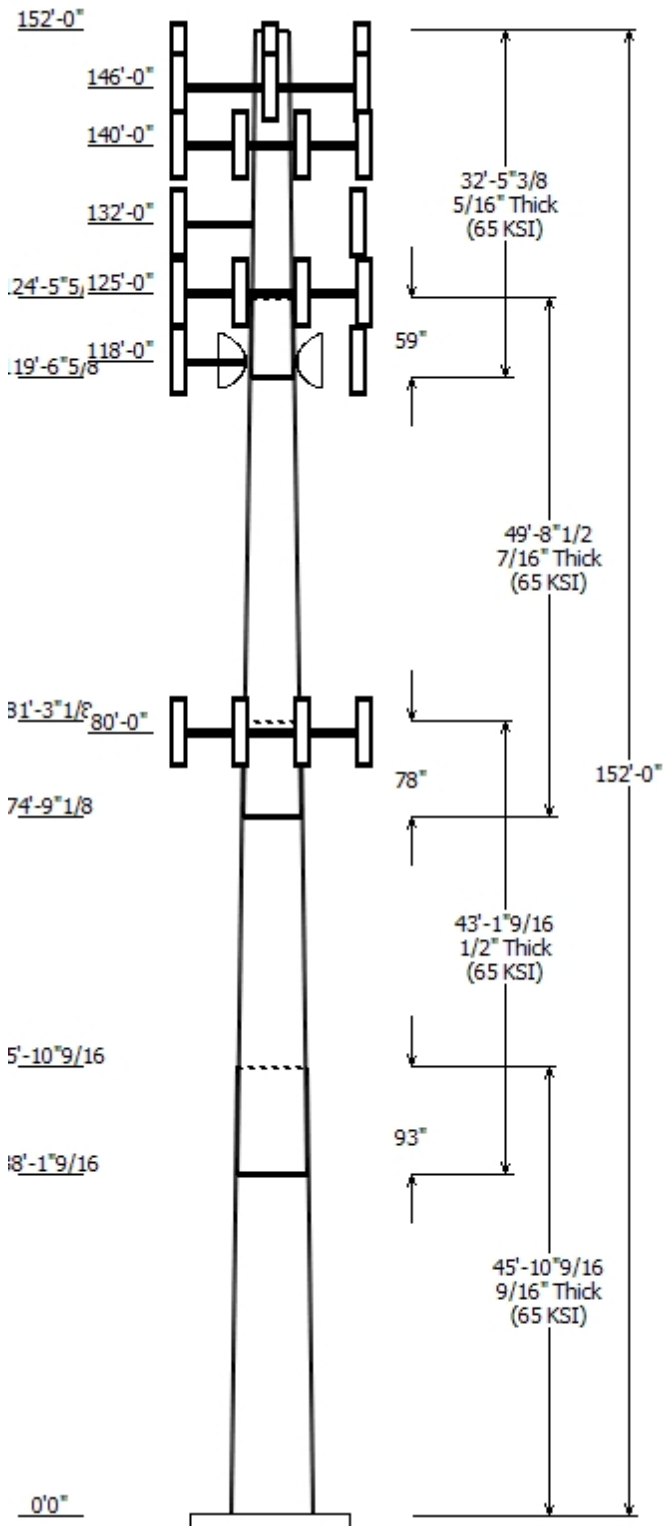
Linear Appurtenance			
Elev (ft)		Description	Exposed To Wind
From	To		
5.000	80.000	1 5/8" Coax	No
5.000	118.0	1/2" Coax	No
5.000	118.0	5/16" Coax	No
5.000	125.0	1 1/4" Hybriflex	No

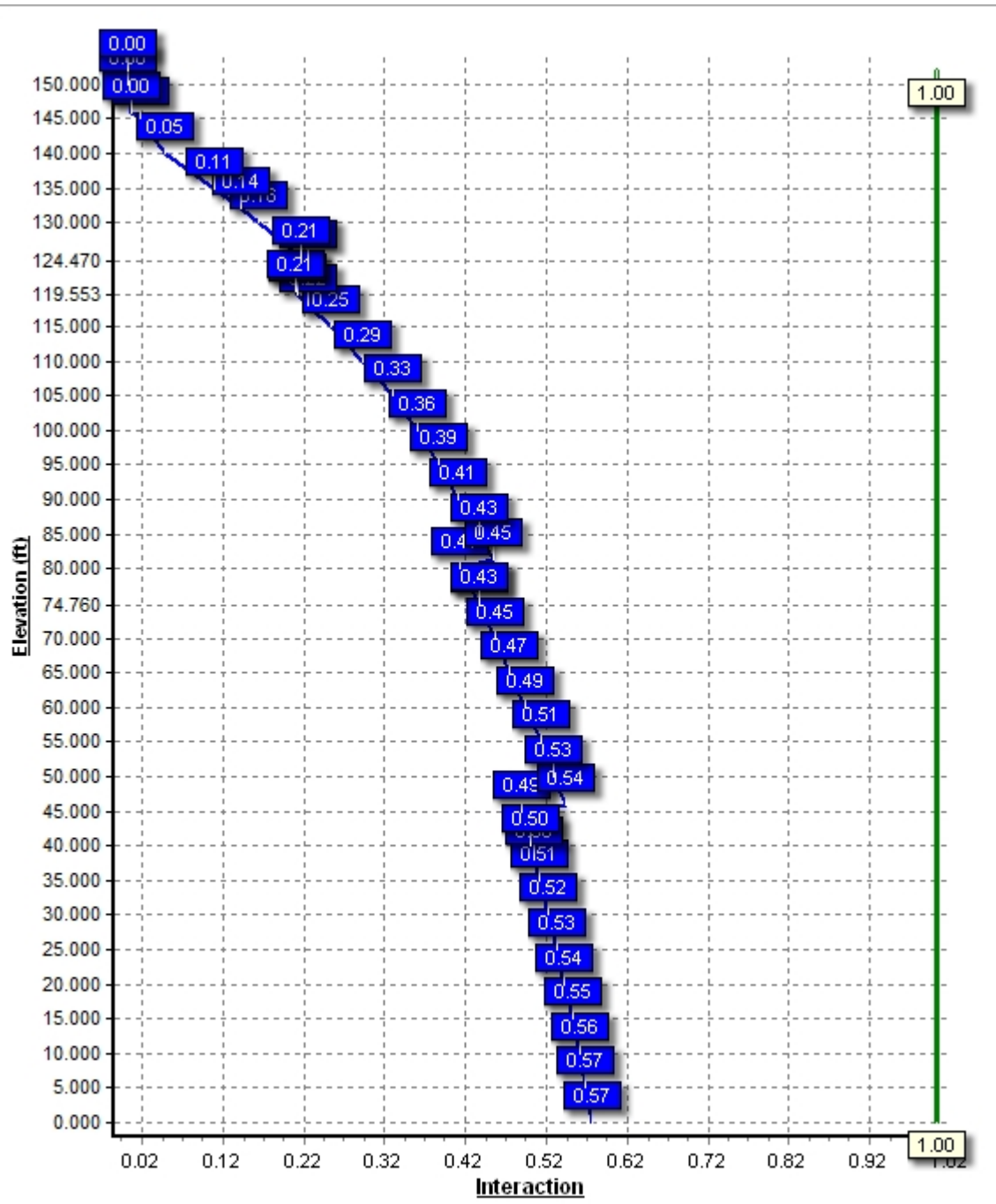
5.000	125.0	1 5/8" Coax	No
5.000	132.0	1" Conduit	No
5.000	140.0	1 5/8" Coax	No
5.000	140.0	1.58" Hybrid	No
5.000	146.0	1 5/8" Coax	No

Load Cases	
1.2D + 1.6W	132.00 mph with No Ice
0.9D + 1.6W	132.00 mph with No Ice (Reduced DL)
1.0D + 1.0W	60.00 mph Serviceability

Reactions			
Load Case	Moment (kip-ft)	Shear (kip)	Axial (kip)
1.2D + 1.6W	6634.77	66.56	66.30
0.9D + 1.6W	6604.90	66.54	49.71
1.0D + 1.0W	854.66	8.59	55.32

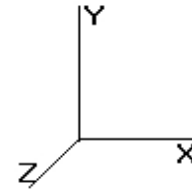
Dish Deflections			
Load Case	Attach Elev (ft)	Deflection (in)	Rotation (deg)
1.0D + 1.0W	118.00	5.435	0.438





Pole : 302653
 Location : Coppola, FL
 Height : 152.0 (ft)
 Base Dia : 68.00 (in)
 Top Dia : 25.38 (in)
 Shape : 18 Sides
 Taper : 0.296843 (in/ft)

Code: ANSI/TIA-222 Rev G
 Struct Class : II
 Exposure Category : C
 Topographic Category : 1
 Base Elev : 0.000 (ft)



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Shaft Section Properties

Sect Info	Length (ft)	Thick (in)	Fy (ksi)	Joint Type	Slip Joint Len (in)	Weight (lb)	Bottom						Top						
							Dia (in)	Elev (ft)	Area (sqin)	Ix (in^4)	W/t Ratio	D/t Ratio	Dia (in)	Elev (ft)	Area (sqin)	Ix (in^4)	W/t Ratio	D/t Ratio	Taper (in/ft)
1-18	45.880	0.5625	65		0.00	16,898	68.00	0.00	120.40	69178.5	19.91	120.89	54.38	45.88	96.08	35160.7	15.64	96.68	0.296843
2-18	43.130	0.5000	65	Slip	93.00	11,827	57.68	38.13	90.74	37486.8	18.93	115.36	44.87	81.26	70.43	17524.0	14.42	89.76	0.296843
3-18	49.710	0.4375	65	Slip	78.00	9,364	47.68	74.76	65.60	18501.4	17.81	108.99	32.92	124.47	45.11	6016.6	11.86	75.26	0.296843
4-18	32.447	0.3125	65	Slip	59.00	3,272	35.01	119.55	34.42	5235.3	18.34	112.04	25.38	152.00	24.86	1973.9	12.91	81.22	0.296843
Shaft Weight						41,362													

Discrete Appurtenance Properties

Attach Elev (ft)	Description	Qty	Weight (lb)	No Ice CaAa (sf)	CaAa Factor	Weight (lb)	Ice CaAa (sf)	CaAa Factor	Distance From Face (ft)	Vert Ecc (ft)
146.00	CSS X7-665-4	3	27.40	8.410	0.81	0.00	0.000	0.81	0.000	2.000
146.00	Flat Low Profile Platform	1	1500.00	26.100	1.00	0.00	0.000	1.00	0.000	0.000
146.00	Scala AP17-1900/090D/DT6	6	11.70	4.120	0.75	0.00	0.000	0.75	0.000	0.000
140.00	CellMax CMA-BDHH/6520/E0-8	9	62.00	9.050	0.70	0.00	0.000	0.70	0.000	0.000
140.00	Flat Low Profile Platform	1	1500.00	26.100	1.00	0.00	0.000	1.00	0.000	0.000
140.00	Nokia ASU9338TYP01	1	14.90	2.540	1.00	0.00	0.000	1.00	0.000	0.000
140.00	Nokia FRIE	1	55.10	4.130	1.00	0.00	0.000	1.00	0.000	0.000
140.00	Nokia FRIG w/o S.S.	3	54.00	2.290	0.67	0.00	0.000	0.67	0.000	0.000
140.00	Nokia FXFB	2	55.10	4.170	0.84	0.00	0.000	0.84	0.000	0.000
132.00	36" x 16" Panel	1	30.00	5.600	1.00	0.00	0.000	1.00	0.000	0.000
132.00	Belfort Instrument 6500	1	19.30	2.060	1.00	0.00	0.000	1.00	0.000	0.000
132.00	Hoffman A1212CHFL	1	30.00	1.200	1.00	0.00	0.000	1.00	0.000	0.000
132.00	Stand-Off	1	150.00	6.300	1.00	0.00	0.000	1.00	0.000	0.000
132.00	Transtector -48VDC-OD	2	5.00	0.400	1.00	0.00	0.000	1.00	0.000	0.000
132.00	Vivotek IP8331	1	1.40	0.090	1.00	0.00	0.000	1.00	0.000	0.000
125.00	EMS RR65-18-00VDPL2/-R	2	13.50	4.360	0.73	0.00	0.000	0.73	0.000	0.000
125.00	EMS RR90-17-00DP	1	13.50	4.360	0.73	0.00	0.000	0.73	0.000	0.000
125.00	Ericsson 800 MHz SMR Filter	3	10.00	0.490	0.50	0.00	0.000	0.50	0.000	0.000
125.00	Ericsson RRUS A2 Module	3	21.20	1.600	0.50	0.00	0.000	0.50	0.000	0.000
125.00	Ericsson RRUS-11 1900 MHz	9	44.00	2.520	0.67	0.00	0.000	0.67	0.000	0.000
125.00	Ericsson RRUS-11 800 MHz	3	54.00	2.520	0.67	0.00	0.000	0.67	0.000	0.000
125.00	Flat Low Profile Platform	1	1500.00	26.100	1.00	0.00	0.000	1.00	0.000	0.000
125.00	RFS ACU-A20-N	9	1.00	0.140	0.50	0.00	0.000	0.50	0.000	0.000
125.00	RFS APXVERR18-C	3	50.00	8.020	0.83	0.00	0.000	0.83	0.000	0.000
125.00	RFS IBC1900HG-1	6	22.00	1.180	0.50	0.00	0.000	0.50	0.000	0.000
118.00	Andrew VHLP2-18-1WH	2	31.00	4.690	1.00	0.00	0.000	1.00	0.000	0.000
118.00	DragonWave Horizon	2	10.60	0.430	0.50	0.00	0.000	0.50	0.000	0.000
118.00	Motorola Vx DAP I/V	3	45.00	3.030	0.67	0.00	0.000	0.67	0.000	0.000
118.00	Powerwave P65-18-XXW2-R	3	20.00	5.430	0.66	0.00	0.000	0.66	0.000	0.000
118.00	Stand-Off	1	560.00	8.500	1.00	0.00	0.000	1.00	0.000	0.000
80.00	48" x 12" Panel	9	30.00	5.070	0.78	0.00	0.000	0.78	0.000	0.000
80.00	72" x 12" Panel	3	45.00	8.130	0.79	0.00	0.000	0.79	0.000	0.000
80.00	Flat Platform w/ Handrails	1	2000.00	42.400	1.00	0.00	0.000	1.00	0.000	0.000
Totals		98	10019.60			0.00			Number of Loadings :	33

Linear Appurtenance Properties

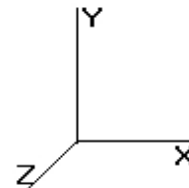
Elev From (ft)	Elev To (ft)	Description	Exposed Width (in)	Exposed To Wind
5.00	146.00	(12) 1 5/8" Coax	0.00	N

Pole : 302653
Location : Coppola, FL
Height : 152.0 (ft)
Base Dia : 68.00 (in)
Top Dia : 25.38 (in)
Shape : 18 Sides
Taper : 0.296843 (in/ft)

Code: ANSI/TIA-222 Rev G
Struct Class : II
Exposure Category : C
Topographic Category : 1
Base Elev : 0.000 (ft)

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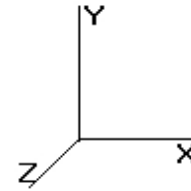


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5.00	140.00	(6) 1 5/8" Coax	0.00	N
5.00	140.00	(1) 1.58" Hybrid	0.00	N
5.00	132.00	(1) 1" Conduit	0.00	N
5.00	125.00	(3) 1 1/4" Hybriflex	0.00	N
5.00	125.00	(3) 1 5/8" Coax	0.00	N
5.00	118.00	(2) 1/2" Coax	0.00	N
5.00	118.00	(6) 5/16" Coax	0.00	N
5.00	80.00	(12) 1 5/8" Coax	0.00	N

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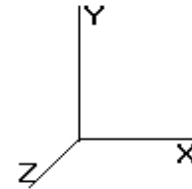
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Segment Properties (Max Len : 5 ft)

Seg Top Elev (ft)	Description	Thick (in)	Flat Dia (in)	Area (in^2)	Ix (in^4)	W/t Ratio	D/t Ratio	Fy (ksi)	S (in3)	Weight (lb)
0.00		0.5625	68.000	120.397	69,178.5	19.91	120.89	78.0	2003.	0.0
5.00		0.5625	66.516	117.747	64,710.7	19.44	118.25	78.5	1916.	2,025.9
10.00		0.5625	65.032	115.097	60,439.5	18.97	115.61	79.1	1830.	1,980.8
15.00		0.5625	63.547	112.448	56,360.6	18.51	112.97	79.6	1746.	1,935.7
20.00		0.5625	62.063	109.798	52,469.4	18.04	110.33	80.2	1665.	1,890.6
25.00		0.5625	60.579	107.148	48,761.5	17.58	107.70	80.7	1585.	1,845.5
30.00		0.5625	59.095	104.498	45,232.6	17.11	105.06	81.3	1507.	1,800.5
35.00		0.5625	57.611	101.848	41,878.2	16.65	102.42	81.8	1431.	1,755.4
38.13	Bot - Section 2	0.5625	56.681	100.190	39,865.2	16.36	100.77	82.2	1385.	1,075.9
40.00		0.5625	56.126	99.199	38,693.9	16.18	99.78	82.4	1357.	1,209.0
45.00		0.5625	54.642	96.549	35,675.2	15.72	97.14	82.6	1285.	3,174.1
45.88	Top - Section 1	0.5000	55.381	87.093	33,141.9	18.12	110.76	80.1	1178.	549.8
50.00		0.5000	54.158	85.152	30,975.2	17.69	108.32	80.6	1126.	1,207.4
55.00		0.5000	52.674	82.797	28,475.3	17.16	105.35	81.2	1064.	1,428.7
60.00		0.5000	51.189	80.441	26,113.6	16.64	102.38	81.8	1004.	1,388.7
65.00		0.5000	49.705	78.086	23,886.2	16.12	99.41	82.4	946.5	1,348.6
70.00		0.5000	48.221	75.730	21,789.3	15.59	96.44	82.6	890.0	1,308.5
74.76	Bot - Section 3	0.5000	46.808	73.488	19,910.5	15.10	93.62	82.6	837.8	1,208.5
75.00		0.5000	46.737	73.375	19,818.8	15.07	93.47	82.6	835.2	113.5
80.00		0.5000	45.253	71.020	17,970.8	14.55	90.51	82.6	782.2	2,325.3
81.26	Top - Section 2	0.4375	45.754	62.925	16,326.0	17.03	104.58	81.4	702.8	574.1
85.00		0.4375	44.643	61.383	15,155.2	16.58	102.04	81.9	668.6	791.0
90.00		0.4375	43.159	59.322	13,679.4	15.98	98.65	82.6	624.3	1,026.8
95.00		0.4375	41.675	57.261	12,302.6	15.39	95.26	82.6	581.4	991.8
100.0		0.4375	40.191	55.200	11,021.5	14.79	91.86	82.6	540.1	956.7
105.0		0.4375	38.706	53.139	9,832.5	14.19	88.47	82.6	500.3	921.6
110.0		0.4375	37.222	51.078	8,732.3	13.59	85.08	82.6	462.1	886.6
115.0		0.4375	35.738	49.017	7,717.3	12.99	81.69	82.6	425.3	851.5
118.0		0.4375	34.848	47.781	7,147.9	12.63	79.65	82.6	404.0	494.1
119.5	Bot - Section 4	0.4375	34.386	47.141	6,864.4	12.45	78.60	82.6	393.2	250.9
120.0		0.4375	34.254	46.957	6,784.3	12.39	78.29	82.6	390.1	123.7
124.4	Top - Section 3	0.3125	33.552	32.968	4,602.1	17.52	107.37	80.8	270.2	1,211.7
125.0		0.3125	33.395	32.812	4,537.1	17.43	106.86	80.9	267.6	59.3
130.0		0.3125	31.910	31.340	3,953.4	16.59	102.11	81.9	244.0	545.7
132.0		0.3125	31.317	30.751	3,734.7	16.26	100.21	82.3	234.9	211.3
135.0		0.3125	30.426	29.868	3,422.1	15.76	97.36	82.6	221.5	309.4
140.0		0.3125	28.942	28.396	2,940.6	14.92	92.61	82.6	200.1	495.6
145.0		0.3125	27.458	26.924	2,506.6	14.08	87.86	82.6	179.8	470.6
146.0		0.3125	27.161	26.629	2,425.2	13.91	86.92	82.6	175.9	91.1
150.0		0.3125	25.974	25.452	2,117.5	13.24	83.12	82.6	160.6	354.4
152.0		0.3125	25.380	24.863	1,973.9	12.91	81.22	82.6	153.2	171.2
										41,361.6

Pole : 302653
 Location : Coppola, FL
 Height : 152.0 (ft)
 Base Dia : 68.00 (in)
 Top Dia : 25.38 (in)
 Shape : 18 Sides
 Taper : 0.296843 (in/ft)

Code: ANSI/TIA-222 Rev G
 Struct Class : II
 Exposure Category : C
 Topographic Category : 1
 Base Elev : 0.000 (ft)



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Load Case: 1.2D + 1.6W 132.00 mph with No Ice 20 Iterations

Gust Response Factor : 1.10 Wind Importance Factor : 1.00

Dead Load Factor : 1.20

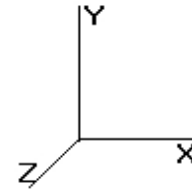
Wind Load Factor : 1.60

Shaft Segment Forces (Factored)

Seg Top Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		1.00	0.85	36.019	39.62	700.26	0.650	0.000	0.00	0.000	0.00	0.0	0.0	0.0
5.00		1.00	0.85	36.019	39.62	684.97	0.650	0.000	5.00	28.456	18.50	1,172.6	0.0	2,431.1
10.00		1.00	0.85	36.019	39.62	669.69	0.650	0.000	5.00	27.828	18.09	1,146.7	0.0	2,377.0
15.00		1.00	0.85	36.019	39.62	654.40	0.650	0.000	5.00	27.201	17.68	1,120.8	0.0	2,322.9
20.00		1.00	0.90	38.218	42.03	658.34	0.650	0.000	5.00	26.573	17.27	1,161.8	0.0	2,268.8
25.00		1.00	0.94	40.056	44.06	657.86	0.650	0.000	5.00	25.945	16.86	1,188.9	0.0	2,214.7
30.00		1.00	0.98	41.623	45.78	654.18	0.650	0.000	5.00	25.317	16.46	1,205.5	0.0	2,160.6
35.00		1.00	1.01	42.996	47.29	648.18	0.650	0.000	5.00	24.689	16.05	1,214.4	0.0	2,106.5
38.13	Bot - Section 2	1.00	1.03	43.778	48.15	643.51	0.650	0.000	3.13	15.136	9.84	758.0	0.0	1,291.1
40.00		1.00	1.04	44.222	48.64	640.42	0.650	0.000	1.87	9.083	5.90	459.5	0.0	1,450.8
45.00		1.00	1.07	45.332	49.86	631.27	0.650	0.000	5.00	23.856	15.51	1,237.2	0.0	3,808.9
45.88	Top - Section 1	1.00	1.07	45.517	50.06	629.53	0.650	0.000	0.88	4.134	2.69	215.2	0.0	659.8
50.00		1.00	1.09	46.349	50.98	632.65	0.650	0.000	4.12	19.094	12.41	1,012.4	0.0	1,448.9
55.00		1.00	1.11	47.288	52.01	621.52	0.650	0.000	5.00	22.600	14.69	1,222.6	0.0	1,714.5
60.00		1.00	1.13	48.163	52.97	609.56	0.650	0.000	5.00	21.972	14.28	1,210.6	0.0	1,666.4
65.00		1.00	1.15	48.981	53.87	596.90	0.650	0.000	5.00	21.344	13.87	1,196.0	0.0	1,618.3
70.00		1.00	1.17	49.751	54.72	583.61	0.650	0.000	5.00	20.716	13.47	1,179.1	0.0	1,570.2
74.76	Bot - Section 3	1.00	1.19	50.445	55.49	570.44	0.650	0.000	4.76	19.138	12.44	1,104.4	0.0	1,450.2
75.00		1.00	1.19	50.479	55.52	569.77	0.650	0.000	0.24	0.968	0.63	55.9	0.0	136.2
80.00	Appertunance(s)	1.00	1.20	51.170	56.28	555.43	0.650	0.000	5.00	19.830	12.89	1,160.8	0.0	2,790.4
81.26	Top - Section 2	1.00	1.21	51.338	56.47	551.75	0.650	0.000	1.26	4.898	3.18	287.7	0.0	689.0
85.00		1.00	1.22	51.827	57.01	551.46	0.650	0.000	3.74	14.304	9.30	848.1	0.0	949.2
90.00		1.00	1.23	52.454	57.70	536.35	0.650	0.000	5.00	18.574	12.07	1,114.6	0.0	1,232.2
95.00		1.00	1.25	53.055	58.36	520.86	0.650	0.000	5.00	17.946	11.67	1,089.3	0.0	1,190.1
100.00		1.00	1.26	53.631	58.99	505.03	0.650	0.000	5.00	17.318	11.26	1,062.5	0.0	1,148.0
105.00		1.00	1.27	54.185	59.60	488.88	0.650	0.000	5.00	16.690	10.85	1,034.6	0.0	1,106.0
110.00		1.00	1.29	54.718	60.19	472.44	0.650	0.000	5.00	16.063	10.44	1,005.5	0.0	1,063.9
115.00		1.00	1.30	55.232	60.75	455.73	0.650	0.000	5.00	15.435	10.03	975.2	0.0	1,021.8
118.00	Appertunance(s)	1.00	1.31	55.533	61.08	445.58	0.650	0.000	3.00	8.959	5.82	569.2	0.0	592.9
119.50	Bot - Section 4	1.00	1.31	55.686	61.25	440.29	0.650	0.000	1.55	4.550	2.96	289.9	0.0	301.0
120.00		1.00	1.31	55.729	61.30	438.77	0.650	0.000	0.45	1.321	0.86	84.2	0.0	148.5
124.40	Top - Section 3	1.00	1.32	56.160	61.77	423.40	0.650	0.000	4.47	12.942	8.41	831.5	0.0	1,454.0
125.00	Appertunance(s)	1.00	1.32	56.210	61.83	429.60	0.650	0.000	0.53	1.501	0.98	96.5	0.0	71.2
130.00		1.00	1.33	56.676	62.34	412.21	0.650	0.000	5.00	13.815	8.98	895.7	0.0	654.9
132.00	Appertunance(s)	1.00	1.34	56.859	62.54	405.19	0.650	0.000	2.00	5.350	3.48	348.0	0.0	253.5
135.00		1.00	1.34	57.129	62.84	394.60	0.650	0.000	3.00	7.837	5.09	512.2	0.0	371.3
140.00	Appertunance(s)	1.00	1.35	57.568	63.32	376.79	0.650	0.000	5.00	12.559	8.16	827.1	0.0	594.8
145.00		1.00	1.36	57.994	63.79	358.79	0.650	0.000	5.00	11.931	7.76	791.6	0.0	564.7
146.00	Appertunance(s)	1.00	1.37	58.078	63.88	355.17	0.650	0.000	1.00	2.311	1.50	153.5	0.0	109.3
150.00		1.00	1.37	58.410	64.25	340.61	0.650	0.000	4.00	8.992	5.85	600.9	0.0	425.3
152.00		1.00	1.38	58.573	64.43	333.29	0.650	0.000	2.00	4.345	2.82	291.2	0.0	205.5
Totals:									152.00			32,731.4	0.0	49,634.0

Pole : 302653
 Location : Coppola, FL
 Height : 152.0 (ft)
 Base Dia : 68.00 (in)
 Top Dia : 25.38 (in)
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 Taper : 0.296843 (in/ft)

Code: ANSI/TIA-222 Rev G
 Struct Class : II
 Exposure Category : C
 Topographic Category : 1
 Base Elev : 0.000 (ft)



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Load Case: 1.2D + 1.6W 132.00 mph with No Ice 20 Iterations

Gust Response Factor : 1.10 Wind Importance Factor : 1.00

Dead Load Factor : 1.20

Wind Load Factor : 1.60

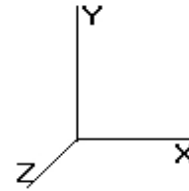
Discrete Appurtenance Segment Forces (Factored)

Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	CaAa Factor	Ka	Total CaAa (sf)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)	Dead Load (lb)
80.00	48" x 12" Panel	9	51.170	56.287	0.58	0.75	26.69	0.000	0.000	2,403.98	0.00	0.00	324.00
80.00	72" x 12" Panel	3	51.170	56.287	0.59	0.75	14.45	0.000	0.000	1,301.44	0.00	0.00	162.00
80.00	Flat Platform w/ Han	1	51.170	56.287	1.00	1.00	42.40	0.000	0.000	3,818.47	0.00	0.00	2,400.00
118.0	Andrew VHLP2-18-	2	55.533	61.086	0.80	0.80	7.50	0.000	0.000	733.42	0.00	0.00	74.40
118.0	DragonWave Horizon	2	55.533	61.086	0.40	0.80	0.34	0.000	0.000	33.62	0.00	0.00	25.44
118.0	Motorola Vx DAP I/V	3	55.533	61.086	0.54	0.80	4.87	0.000	0.000	476.20	0.00	0.00	162.00
118.0	Powerwave P65-18-	3	55.533	61.086	0.53	0.80	8.60	0.000	0.000	840.65	0.00	0.00	72.00
118.0	Stand-Off	1	55.533	61.086	1.00	1.00	8.50	0.000	0.000	830.77	0.00	0.00	672.00
125.0	EMS RR65-18-	2	56.210	61.831	0.58	0.80	5.09	0.000	0.000	503.80	0.00	0.00	32.40
125.0	EMS RR90-17-00DP	1	56.210	61.831	0.58	0.80	2.55	0.000	0.000	251.90	0.00	0.00	16.20
125.0	Ericsson 800 MHz	3	56.210	61.831	0.40	0.80	0.59	0.000	0.000	58.17	0.00	0.00	36.00
125.0	Ericsson RRUS A2	3	56.210	61.831	0.40	0.80	1.92	0.000	0.000	189.95	0.00	0.00	76.32
125.0	Ericsson RRUS-11 190	9	56.210	61.831	0.54	0.80	12.16	0.000	0.000	1,202.64	0.00	0.00	475.20
125.0	Ericsson RRUS-11 800	3	56.210	61.831	0.54	0.80	4.05	0.000	0.000	400.88	0.00	0.00	194.40
125.0	Flat Low Profile Pla	1	56.210	61.831	1.00	1.00	26.10	0.000	0.000	2,582.08	0.00	0.00	1,800.00
125.0	RFS ACU-A20-N	9	56.210	61.831	0.40	0.80	0.50	0.000	0.000	49.86	0.00	0.00	10.80
125.0	RFS APXVERR18-C	3	56.210	61.831	0.66	0.80	15.98	0.000	0.000	1,580.49	0.00	0.00	180.00
125.0	RFS IBC1900HG-1	6	56.210	61.831	0.40	0.80	2.83	0.000	0.000	280.17	0.00	0.00	158.40
132.0	36" x 16" Panel	1	56.859	62.545	1.00	1.00	5.60	0.000	0.000	560.40	0.00	0.00	36.00
132.0	Belfort Instrument 6	1	56.859	62.545	1.00	1.00	2.06	0.000	0.000	206.15	0.00	0.00	23.16
132.0	Hoffman A1212CHFL	1	56.859	62.545	1.00	1.00	1.20	0.000	0.000	120.09	0.00	0.00	36.00
132.0	Stand-Off	1	56.859	62.545	1.00	1.00	6.30	0.000	0.000	630.45	0.00	0.00	180.00
132.0	Transtector -48VDC-O	2	56.859	62.545	1.00	1.00	0.80	0.000	0.000	80.06	0.00	0.00	12.00
132.0	Vivotek IP8331	1	56.859	62.545	1.00	1.00	0.09	0.000	0.000	9.01	0.00	0.00	1.68
140.0	CellMax CMA-	9	57.568	63.324	0.56	0.80	45.61	0.000	0.000	4,621.36	0.00	0.00	669.60
140.0	Flat Low Profile Pla	1	57.568	63.324	1.00	1.00	26.10	0.000	0.000	2,644.43	0.00	0.00	1,800.00
140.0	Nokia ASU9338TYP01	1	57.568	63.324	0.80	0.80	2.03	0.000	0.000	205.88	0.00	0.00	17.88
140.0	Nokia FRIE	1	57.568	63.324	0.80	0.80	3.30	0.000	0.000	334.76	0.00	0.00	66.12
140.0	Nokia FRIG w/o S.S.	3	57.568	63.324	0.54	0.80	3.68	0.000	0.000	373.09	0.00	0.00	194.40
140.0	Nokia FXFB	2	57.568	63.324	0.67	0.80	5.60	0.000	0.000	567.84	0.00	0.00	132.24
146.0	CSS X7-665-4	3	58.245	64.070	0.65	0.80	16.35	0.000	2.000	1,675.96	0.00	3,351.92	98.64
146.0	Flat Low Profile Pla	1	58.078	63.886	1.00	1.00	26.10	0.000	0.000	2,667.89	0.00	0.00	1,800.00
146.0	Scala AP17-1900/090D	6	58.078	63.886	0.60	0.80	14.83	0.000	0.000	1,516.10	0.00	0.00	84.24
										33,751.96			12,023.52

Pole : 302653
 Location : Coppola, FL
 Height : 152.0 (ft)
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 Base Elev : 0.000 (ft)

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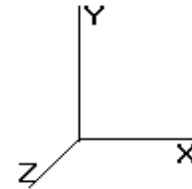
Load Case: 1.2D + 1.6W 132.00 mph with No Ice 20 Iterations
 Gust Response Factor : 1.10 Wind Importance Factor : 1.00
 Dead Load Factor : 1.20
 Wind Load Factor : 1.60

Applied Segment Forces Summary

Seg Elev (ft)	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00	0.00	0.00	0.00	0.00
5.00	1,172.57	2,431.05	0.00	0.00
10.00	1,146.69	2,580.46	0.00	0.00
15.00	1,120.81	2,526.36	0.00	0.00
20.00	1,161.77	2,472.26	0.00	0.00
25.00	1,188.88	2,418.16	0.00	0.00
30.00	1,205.50	2,364.06	0.00	0.00
35.00	1,214.37	2,309.96	0.00	0.00
38.13	758.02	1,418.50	0.00	0.00
40.00	459.53	1,526.90	0.00	0.00
45.00	1,237.16	4,012.42	0.00	0.00
45.88	215.25	695.61	0.00	0.00
50.00	1,012.44	1,616.55	0.00	0.00
55.00	1,222.61	1,917.98	0.00	0.00
60.00	1,210.61	1,869.89	0.00	0.00
65.00	1,195.99	1,821.80	0.00	0.00
70.00	1,179.06	1,773.72	0.00	0.00
74.76	1,104.45	1,643.90	0.00	0.00
75.00	55.88	145.97	0.00	0.00
80.00	8,684.72	5,879.90	0.00	0.00
81.26	287.67	725.36	0.00	0.00
85.00	848.09	1,057.26	0.00	0.00
90.00	1,114.61	1,376.68	0.00	0.00
95.00	1,089.25	1,334.60	0.00	0.00
100.0	1,062.55	1,292.52	0.00	0.00
105.0	1,034.59	1,250.44	0.00	0.00
110.0	1,005.47	1,208.36	0.00	0.00
115.0	975.24	1,166.29	0.00	0.00
118.0	3,483.84	1,685.42	0.00	0.00
119.5	289.86	344.86	0.00	0.00
120.0	84.21	161.06	0.00	0.00
124.4	831.48	1,580.13	0.00	0.00
125.0	7,196.48	3,065.85	0.00	0.00
130.0	895.74	763.18	0.00	0.00
132.0	1,954.16	585.70	0.00	0.00
135.0	512.18	430.22	0.00	0.00
140.0	9,574.47	3,573.23	0.00	0.00
145.0	791.58	623.76	0.00	0.00
146.0	6,013.49	2,104.02	0.00	3,351.92
150.0	600.88	425.33	0.00	0.00
152.0	291.18	205.45	0.00	0.00
Totals:	66,483.34	66,385.19	0.00	3,351.92

Pole : 302653
 Location : Coppola, FL
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Load Case: 1.2D + 1.6W 132.00 mph with No Ice 20 Iterations

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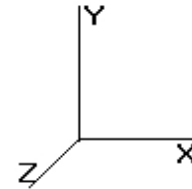
Wind Load Factor : 1.60

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-66.30	-66.56	0.00	-6,634.77	0.00	6,634.77	8,450.60	4,225.30	23,405.6	11,720.2	0.00	0.00	0.574
5.00	-63.72	-65.54	0.00	-6,301.96	0.00	6,301.96	8,322.60	4,161.30	22,539.5	11,286.5	0.07	-0.13	0.566
10.00	-60.99	-64.53	0.00	-5,974.29	0.00	5,974.29	8,192.00	4,096.00	21,682.3	10,857.2	0.29	-0.27	0.558
15.00	-58.32	-63.53	0.00	-5,651.66	0.00	5,651.66	8,058.78	4,029.39	20,834.4	10,432.7	0.64	-0.40	0.549
20.00	-55.71	-62.48	0.00	-5,334.02	0.00	5,334.02	7,922.95	3,961.47	19,996.3	10,013.0	1.14	-0.54	0.540
25.00	-53.15	-61.40	0.00	-5,021.61	0.00	5,021.61	7,784.51	3,892.26	19,168.5	9,598.50	1.79	-0.68	0.530
30.00	-50.65	-60.29	0.00	-4,714.61	0.00	4,714.61	7,643.46	3,821.73	18,351.4	9,189.35	2.58	-0.83	0.520
35.00	-48.24	-59.14	0.00	-4,413.17	0.00	4,413.17	7,499.81	3,749.90	17,545.5	8,785.82	3.52	-0.97	0.509
38.13	-46.76	-58.42	0.00	-4,228.07	0.00	4,228.07	7,408.55	3,704.27	17,047.0	8,536.19	4.19	-1.06	0.502
40.00	-45.14	-58.01	0.00	-4,118.83	0.00	4,118.83	7,353.54	3,676.77	16,751.4	8,388.17	4.62	-1.12	0.497
45.00	-41.07	-56.75	0.00	-3,828.80	0.00	3,828.80	7,173.10	3,586.55	15,899.5	7,961.58	5.87	-1.26	0.487
45.88	-40.30	-56.57	0.00	-3,778.86	0.00	3,778.86	6,277.62	3,138.81	14,138.9	7,079.96	6.10	-1.29	0.540
50.00	-38.58	-55.61	0.00	-3,545.80	0.00	3,545.80	6,176.61	3,088.30	13,598.5	6,809.39	7.27	-1.41	0.527
55.00	-36.54	-54.44	0.00	-3,267.73	0.00	3,267.73	6,051.63	3,025.82	12,951.4	6,485.37	8.83	-1.57	0.510
60.00	-34.56	-53.27	0.00	-2,995.53	0.00	2,995.53	5,924.04	2,962.02	12,314.3	6,166.32	10.56	-1.72	0.492
65.00	-32.64	-52.11	0.00	-2,729.17	0.00	2,729.17	5,793.85	2,896.92	11,687.6	5,852.49	12.45	-1.88	0.472
70.00	-30.77	-50.95	0.00	-2,468.63	0.00	2,468.63	5,626.40	2,813.20	11,004.0	5,510.19	14.51	-2.04	0.454
74.76	-29.10	-49.82	0.00	-2,226.12	0.00	2,226.12	5,459.81	2,729.90	10,358.7	5,187.08	16.61	-2.18	0.435
75.00	-28.89	-49.80	0.00	-2,214.16	0.00	2,214.16	5,451.41	2,725.70	10,326.7	5,171.04	16.72	-2.19	0.434
80.00	-23.29	-40.93	0.00	-1,965.14	0.00	1,965.14	5,276.41	2,638.21	9,670.96	4,842.67	19.10	-2.34	0.410
81.26	-22.53	-40.64	0.00	-1,913.57	0.00	1,913.57	4,608.21	2,304.10	8,565.44	4,289.08	19.72	-2.38	0.451
85.00	-21.41	-39.80	0.00	-1,761.57	0.00	1,761.57	4,524.38	2,262.19	8,201.63	4,106.91	21.63	-2.49	0.434
90.00	-19.98	-38.68	0.00	-1,562.57	0.00	1,562.57	4,407.34	2,203.67	7,718.59	3,865.03	24.32	-2.65	0.409
95.00	-18.60	-37.58	0.00	-1,369.17	0.00	1,369.17	4,254.23	2,127.11	7,188.97	3,599.83	27.17	-2.80	0.385
100.00	-17.27	-36.49	0.00	-1,181.28	0.00	1,181.28	4,101.11	2,050.55	6,678.18	3,344.05	30.18	-2.95	0.358
105.00	-16.00	-35.43	0.00	-998.81	0.00	998.81	3,947.99	1,973.99	6,186.21	3,097.70	33.34	-3.09	0.327
110.00	-14.77	-34.40	0.00	-821.64	0.00	821.64	3,794.87	1,897.44	5,713.06	2,860.78	36.65	-3.22	0.291
115.00	-13.61	-33.38	0.00	-649.66	0.00	649.66	3,641.75	1,820.88	5,258.73	2,633.28	40.08	-3.34	0.251
118.00	-12.10	-29.81	0.00	-549.53	0.00	549.53	3,549.88	1,774.94	4,995.17	2,501.30	42.20	-3.40	0.223
119.55	-11.77	-29.51	0.00	-503.22	0.00	503.22	3,502.31	1,751.16	4,861.37	2,434.30	43.31	-3.44	0.210
120.00	-11.59	-29.42	0.00	-490.04	0.00	490.04	3,488.64	1,744.32	4,823.23	2,415.20	43.64	-3.45	0.207
124.47	-10.04	-28.50	0.00	-358.53	0.00	358.53	2,397.23	1,198.62	3,269.18	1,637.02	46.90	-3.52	0.224
125.00	-7.40	-21.14	0.00	-343.43	0.00	343.43	2,388.97	1,194.49	3,242.35	1,623.58	47.29	-3.53	0.215
130.00	-6.68	-20.20	0.00	-237.74	0.00	237.74	2,309.57	1,154.79	2,992.64	1,498.54	51.04	-3.62	0.162
132.00	-6.21	-18.22	0.00	-197.33	0.00	197.33	2,277.08	1,138.54	2,894.56	1,449.43	52.57	-3.66	0.139
135.00	-5.80	-17.68	0.00	-142.68	0.00	142.68	2,219.04	1,109.52	2,738.95	1,371.51	54.88	-3.69	0.107
140.00	-2.85	-7.90	0.00	-54.25	0.00	54.25	2,109.67	1,054.84	2,474.30	1,238.99	58.77	-3.74	0.045
145.00	-2.28	-7.07	0.00	-14.75	0.00	14.75	2,000.30	1,000.15	2,223.09	1,113.20	62.69	-3.75	0.014
146.00	-0.57	-0.93	0.00	-4.33	0.00	4.33	1,978.43	989.21	2,174.46	1,088.85	63.48	-3.75	0.004
150.00	-0.19	-0.30	0.00	-0.61	0.00	0.61	1,890.93	945.47	1,985.33	994.14	66.62	-3.75	0.001
152.00	0.00	-0.29	0.00	0.00	0.00	0.00	1,847.18	923.59	1,893.98	948.40	68.19	-3.76	0.000

Pole : 302653
 Location : Coppola, FL
 Height : 152.0 (ft)
 Base Dia : 68.00 (in)
 Top Dia : 25.38 (in)
 Shape : 18 Sides
 Taper : 0.296843 (in/ft)

Code: ANSI/TIA-222 Rev G
 Struct Class : II
 Exposure Category : C
 Topographic Category : 1
 Base Elev : 0.000 (ft)



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Load Case: 0.9D + 1.6W 132.00 mph with No Ice (Reduced DL) 20 Iterations

Gust Response Factor : 1.10 Wind Importance Factor : 1.00

Dead Load Factor : 0.90

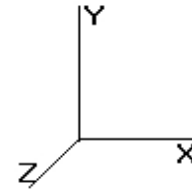
Wind Load Factor : 1.60

Shaft Segment Forces (Factored)

Seg Top Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		1.00	0.85	36.019	39.62	700.26	0.650	0.000	0.00	0.000	0.00	0.0	0.0	0.0
5.00		1.00	0.85	36.019	39.62	684.97	0.650	0.000	5.00	28.456	18.50	1,172.6	0.0	1,823.3
10.00		1.00	0.85	36.019	39.62	669.69	0.650	0.000	5.00	27.828	18.09	1,146.7	0.0	1,782.7
15.00		1.00	0.85	36.019	39.62	654.40	0.650	0.000	5.00	27.201	17.68	1,120.8	0.0	1,742.1
20.00		1.00	0.90	38.218	42.03	658.34	0.650	0.000	5.00	26.573	17.27	1,161.8	0.0	1,701.6
25.00		1.00	0.94	40.056	44.06	657.86	0.650	0.000	5.00	25.945	16.86	1,188.9	0.0	1,661.0
30.00		1.00	0.98	41.623	45.78	654.18	0.650	0.000	5.00	25.317	16.46	1,205.5	0.0	1,620.4
35.00		1.00	1.01	42.996	47.29	648.18	0.650	0.000	5.00	24.689	16.05	1,214.4	0.0	1,579.8
38.13	Bot - Section 2	1.00	1.03	43.778	48.15	643.51	0.650	0.000	3.13	15.136	9.84	758.0	0.0	968.3
40.00		1.00	1.04	44.222	48.64	640.42	0.650	0.000	1.87	9.083	5.90	459.5	0.0	1,088.1
45.00		1.00	1.07	45.332	49.86	631.27	0.650	0.000	5.00	23.856	15.51	1,237.2	0.0	2,856.7
45.88	Top - Section 1	1.00	1.07	45.517	50.06	629.53	0.650	0.000	0.88	4.134	2.69	215.2	0.0	494.8
50.00		1.00	1.09	46.349	50.98	632.65	0.650	0.000	4.12	19.094	12.41	1,012.4	0.0	1,086.6
55.00		1.00	1.11	47.288	52.01	621.52	0.650	0.000	5.00	22.600	14.69	1,222.6	0.0	1,285.9
60.00		1.00	1.13	48.163	52.97	609.56	0.650	0.000	5.00	21.972	14.28	1,210.6	0.0	1,249.8
65.00		1.00	1.15	48.981	53.87	596.90	0.650	0.000	5.00	21.344	13.87	1,196.0	0.0	1,213.7
70.00		1.00	1.17	49.751	54.72	583.61	0.650	0.000	5.00	20.716	13.47	1,179.1	0.0	1,177.7
74.76	Bot - Section 3	1.00	1.19	50.445	55.49	570.44	0.650	0.000	4.76	19.138	12.44	1,104.4	0.0	1,087.6
75.00		1.00	1.19	50.479	55.52	569.77	0.650	0.000	0.24	0.968	0.63	55.9	0.0	102.2
80.00	Appertunance(s)	1.00	1.20	51.170	56.28	555.43	0.650	0.000	5.00	19.830	12.89	1,160.8	0.0	2,092.8
81.26	Top - Section 2	1.00	1.21	51.338	56.47	551.75	0.650	0.000	1.26	4.898	3.18	287.7	0.0	516.7
85.00		1.00	1.22	51.827	57.01	551.46	0.650	0.000	3.74	14.304	9.30	848.1	0.0	711.9
90.00		1.00	1.23	52.454	57.70	536.35	0.650	0.000	5.00	18.574	12.07	1,114.6	0.0	924.2
95.00		1.00	1.25	53.055	58.36	520.86	0.650	0.000	5.00	17.946	11.67	1,089.3	0.0	892.6
100.00		1.00	1.26	53.631	58.99	505.03	0.650	0.000	5.00	17.318	11.26	1,062.5	0.0	861.0
105.00		1.00	1.27	54.185	59.60	488.88	0.650	0.000	5.00	16.690	10.85	1,034.6	0.0	829.5
110.00		1.00	1.29	54.718	60.19	472.44	0.650	0.000	5.00	16.063	10.44	1,005.5	0.0	797.9
115.00		1.00	1.30	55.232	60.75	455.73	0.650	0.000	5.00	15.435	10.03	975.2	0.0	766.4
118.00	Appertunance(s)	1.00	1.31	55.533	61.08	445.58	0.650	0.000	3.00	8.959	5.82	569.2	0.0	444.7
119.50	Bot - Section 4	1.00	1.31	55.686	61.25	440.29	0.650	0.000	1.55	4.550	2.96	289.9	0.0	225.8
120.00		1.00	1.31	55.729	61.30	438.77	0.650	0.000	0.45	1.321	0.86	84.2	0.0	111.3
124.40	Top - Section 3	1.00	1.32	56.160	61.77	423.40	0.650	0.000	4.47	12.942	8.41	831.5	0.0	1,090.5
125.00	Appertunance(s)	1.00	1.32	56.210	61.83	429.60	0.650	0.000	0.53	1.501	0.98	96.5	0.0	53.4
130.00		1.00	1.33	56.676	62.34	412.21	0.650	0.000	5.00	13.815	8.98	895.7	0.0	491.2
132.00	Appertunance(s)	1.00	1.34	56.859	62.54	405.19	0.650	0.000	2.00	5.350	3.48	348.0	0.0	190.2
135.00		1.00	1.34	57.129	62.84	394.60	0.650	0.000	3.00	7.837	5.09	512.2	0.0	278.5
140.00	Appertunance(s)	1.00	1.35	57.568	63.32	376.79	0.650	0.000	5.00	12.559	8.16	827.1	0.0	446.1
145.00		1.00	1.36	57.994	63.79	358.79	0.650	0.000	5.00	11.931	7.76	791.6	0.0	423.5
146.00	Appertunance(s)	1.00	1.37	58.078	63.88	355.17	0.650	0.000	1.00	2.311	1.50	153.5	0.0	82.0
150.00		1.00	1.37	58.410	64.25	340.61	0.650	0.000	4.00	8.992	5.85	600.9	0.0	319.0
152.00		1.00	1.38	58.573	64.43	333.29	0.650	0.000	2.00	4.345	2.82	291.2	0.0	154.1
Totals:									152.00			32,731.4	0.0	37,225.5

Pole : 302653
 Location : Coppola, FL
 Height : 152.0 (ft)
 Base Dia : 68.00 (in)
 Top Dia : 25.38 (in)
 Shape : 18 Sides
 Taper : 0.296843 (in/ft)

Code: ANSI/TIA-222 Rev G
 Struct Class : II
 Exposure Category : C
 Topographic Category : 1
 Base Elev : 0.000 (ft)



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Load Case: 0.9D + 1.6W 132.00 mph with No Ice (Reduced DL) 20 Iterations

Gust Response Factor : 1.10 Wind Importance Factor : 1.00

Dead Load Factor : 0.90

Wind Load Factor : 1.60

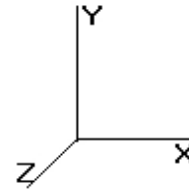
Discrete Appurtenance Segment Forces (Factored)

Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	CaAa Factor	Ka	Total CaAa (sf)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)	Dead Load (lb)
80.00	48" x 12" Panel	9	51.170	56.287	0.58	0.75	26.69	0.000	0.000	2,403.98	0.00	0.00	243.00
80.00	72" x 12" Panel	3	51.170	56.287	0.59	0.75	14.45	0.000	0.000	1,301.44	0.00	0.00	121.50
80.00	Flat Platform w/ Han	1	51.170	56.287	1.00	1.00	42.40	0.000	0.000	3,818.47	0.00	0.00	1,800.00
118.0	Andrew VHLP2-18-	2	55.533	61.086	0.80	0.80	7.50	0.000	0.000	733.42	0.00	0.00	55.80
118.0	DragonWave Horizon	2	55.533	61.086	0.40	0.80	0.34	0.000	0.000	33.62	0.00	0.00	19.08
118.0	Motorola Vx DAP I/V	3	55.533	61.086	0.54	0.80	4.87	0.000	0.000	476.20	0.00	0.00	121.50
118.0	Powerwave P65-18-	3	55.533	61.086	0.53	0.80	8.60	0.000	0.000	840.65	0.00	0.00	54.00
118.0	Stand-Off	1	55.533	61.086	1.00	1.00	8.50	0.000	0.000	830.77	0.00	0.00	504.00
125.0	EMS RR65-18-	2	56.210	61.831	0.58	0.80	5.09	0.000	0.000	503.80	0.00	0.00	24.30
125.0	EMS RR90-17-00DP	1	56.210	61.831	0.58	0.80	2.55	0.000	0.000	251.90	0.00	0.00	12.15
125.0	Ericsson 800 MHz	3	56.210	61.831	0.40	0.80	0.59	0.000	0.000	58.17	0.00	0.00	27.00
125.0	Ericsson RRUS A2	3	56.210	61.831	0.40	0.80	1.92	0.000	0.000	189.95	0.00	0.00	57.24
125.0	Ericsson RRUS-11 190	9	56.210	61.831	0.54	0.80	12.16	0.000	0.000	1,202.64	0.00	0.00	356.40
125.0	Ericsson RRUS-11 800	3	56.210	61.831	0.54	0.80	4.05	0.000	0.000	400.88	0.00	0.00	145.80
125.0	Flat Low Profile Pla	1	56.210	61.831	1.00	1.00	26.10	0.000	0.000	2,582.08	0.00	0.00	1,350.00
125.0	RFS ACU-A20-N	9	56.210	61.831	0.40	0.80	0.50	0.000	0.000	49.86	0.00	0.00	8.10
125.0	RFS APXVERR18-C	3	56.210	61.831	0.66	0.80	15.98	0.000	0.000	1,580.49	0.00	0.00	135.00
125.0	RFS IBC1900HG-1	6	56.210	61.831	0.40	0.80	2.83	0.000	0.000	280.17	0.00	0.00	118.80
132.0	36" x 16" Panel	1	56.859	62.545	1.00	1.00	5.60	0.000	0.000	560.40	0.00	0.00	27.00
132.0	Belfort Instrument 6	1	56.859	62.545	1.00	1.00	2.06	0.000	0.000	206.15	0.00	0.00	17.37
132.0	Hoffman A1212CHFL	1	56.859	62.545	1.00	1.00	1.20	0.000	0.000	120.09	0.00	0.00	27.00
132.0	Stand-Off	1	56.859	62.545	1.00	1.00	6.30	0.000	0.000	630.45	0.00	0.00	135.00
132.0	Transtector -48VDC-O	2	56.859	62.545	1.00	1.00	0.80	0.000	0.000	80.06	0.00	0.00	9.00
132.0	Vivotek IP8331	1	56.859	62.545	1.00	1.00	0.09	0.000	0.000	9.01	0.00	0.00	1.26
140.0	CellMax CMA-	9	57.568	63.324	0.56	0.80	45.61	0.000	0.000	4,621.36	0.00	0.00	502.20
140.0	Flat Low Profile Pla	1	57.568	63.324	1.00	1.00	26.10	0.000	0.000	2,644.43	0.00	0.00	1,350.00
140.0	Nokia ASU9338TYP01	1	57.568	63.324	0.80	0.80	2.03	0.000	0.000	205.88	0.00	0.00	13.41
140.0	Nokia FRIE	1	57.568	63.324	0.80	0.80	3.30	0.000	0.000	334.76	0.00	0.00	49.59
140.0	Nokia FRIG w/o S.S.	3	57.568	63.324	0.54	0.80	3.68	0.000	0.000	373.09	0.00	0.00	145.80
140.0	Nokia FXFB	2	57.568	63.324	0.67	0.80	5.60	0.000	0.000	567.84	0.00	0.00	99.18
146.0	CSS X7-665-4	3	58.245	64.070	0.65	0.80	16.35	0.000	2.000	1,675.96	0.00	3,351.92	73.98
146.0	Flat Low Profile Pla	1	58.078	63.886	1.00	1.00	26.10	0.000	0.000	2,667.89	0.00	0.00	1,350.00
146.0	Scala AP17-1900/090D	6	58.078	63.886	0.60	0.80	14.83	0.000	0.000	1,516.10	0.00	0.00	63.18
										33,751.96			9,017.64

Pole : 302653
 Location : Coppola, FL
 Height : 152.0 (ft)
 Base Dia : 68.00 (in)
 Top Dia : 25.38 (in)
 Shape : 18 Sides
 Taper : 0.296843 (in/ft)

Code: ANSI/TIA-222 Rev G
 Struct Class : II
 Exposure Category : C
 Topographic Category : 1
 Base Elev : 0.000 (ft)

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Load Case: 0.9D + 1.6W 132.00 mph with No Ice (Reduced DL) 20 Iterations

Gust Response Factor : 1.10 Wind Importance Factor : 1.00

Dead Load Factor : 0.90

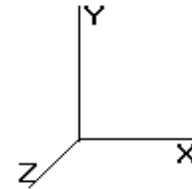
Wind Load Factor : 1.60

Applied Segment Forces Summary

Seg Elev (ft)	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00	0.00	0.00	0.00	0.00
5.00	1,172.57	1,823.29	0.00	0.00
10.00	1,146.69	1,935.35	0.00	0.00
15.00	1,120.81	1,894.77	0.00	0.00
20.00	1,161.77	1,854.20	0.00	0.00
25.00	1,188.88	1,813.62	0.00	0.00
30.00	1,205.50	1,773.05	0.00	0.00
35.00	1,214.37	1,732.47	0.00	0.00
38.13	758.02	1,063.88	0.00	0.00
40.00	459.53	1,145.17	0.00	0.00
45.00	1,237.16	3,009.31	0.00	0.00
45.88	215.25	521.71	0.00	0.00
50.00	1,012.44	1,212.42	0.00	0.00
55.00	1,222.61	1,438.49	0.00	0.00
60.00	1,210.61	1,402.42	0.00	0.00
65.00	1,195.99	1,366.35	0.00	0.00
70.00	1,179.06	1,330.29	0.00	0.00
74.76	1,104.45	1,232.92	0.00	0.00
75.00	55.88	109.48	0.00	0.00
80.00	8,684.72	4,409.92	0.00	0.00
81.26	287.67	544.02	0.00	0.00
85.00	848.09	792.95	0.00	0.00
90.00	1,114.61	1,032.51	0.00	0.00
95.00	1,089.25	1,000.95	0.00	0.00
100.0	1,062.55	969.39	0.00	0.00
105.0	1,034.59	937.83	0.00	0.00
110.0	1,005.47	906.27	0.00	0.00
115.0	975.24	874.72	0.00	0.00
118.0	3,483.84	1,264.06	0.00	0.00
119.5	289.86	258.64	0.00	0.00
120.0	84.21	120.80	0.00	0.00
124.4	831.48	1,185.09	0.00	0.00
125.0	7,196.48	2,299.39	0.00	0.00
130.0	895.74	572.39	0.00	0.00
132.0	1,954.16	439.27	0.00	0.00
135.0	512.18	322.67	0.00	0.00
140.0	9,574.47	2,679.92	0.00	0.00
145.0	791.58	467.82	0.00	0.00
146.0	6,013.49	1,578.02	0.00	3,351.92
150.0	600.88	319.00	0.00	0.00
152.0	291.18	154.09	0.00	0.00
Totals:	66,483.34	49,788.89	0.00	3,351.92

Pole : 302653
 Location : Coppola, FL
 Height : 152.0 (ft)
 Base Dia : 68.00 (in)
 Top Dia : 25.38 (in)
 Shape : 18 Sides
 Taper : 0.296843 (in/ft)

Code: ANSI/TIA-222 Rev G
 Struct Class : II
 Exposure Category : C
 Topographic Category : 1
 Base Elev : 0.000 (ft)



Load Case: 0.9D + 1.6W 132.00 mph with No Ice (Reduced DL) 20 Iterations

Gust Response Factor : 1.10 Wind Importance Factor : 1.00

Dead Load Factor : 0.90

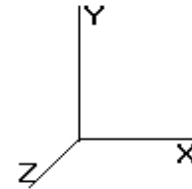
Wind Load Factor : 1.60

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-49.71	-66.54	0.00	-6,604.90	0.00	6,604.90	8,450.60	4,225.30	23,405.6	11,720.2	0.00	0.00	0.570
5.00	-47.73	-65.48	0.00	-6,272.20	0.00	6,272.20	8,322.60	4,161.30	22,539.5	11,286.5	0.07	-0.13	0.562
10.00	-45.65	-64.43	0.00	-5,944.81	0.00	5,944.81	8,192.00	4,096.00	21,682.3	10,857.2	0.28	-0.27	0.553
15.00	-43.61	-63.41	0.00	-5,622.64	0.00	5,622.64	8,058.78	4,029.39	20,834.4	10,432.7	0.64	-0.40	0.545
20.00	-41.62	-62.33	0.00	-5,305.62	0.00	5,305.62	7,922.95	3,961.47	19,996.3	10,013.0	1.13	-0.54	0.535
25.00	-39.67	-61.22	0.00	-4,993.97	0.00	4,993.97	7,784.51	3,892.26	19,168.5	9,598.50	1.78	-0.68	0.526
30.00	-37.76	-60.08	0.00	-4,687.88	0.00	4,687.88	7,643.46	3,821.73	18,351.4	9,189.35	2.57	-0.82	0.515
35.00	-35.93	-58.92	0.00	-4,387.47	0.00	4,387.47	7,499.81	3,749.90	17,545.5	8,785.82	3.50	-0.96	0.504
38.13	-34.80	-58.18	0.00	-4,203.06	0.00	4,203.06	7,408.55	3,704.27	17,047.0	8,536.19	4.17	-1.06	0.497
40.00	-33.56	-57.76	0.00	-4,094.26	0.00	4,094.26	7,353.54	3,676.77	16,751.4	8,388.17	4.59	-1.11	0.493
45.00	-30.50	-56.51	0.00	-3,805.45	0.00	3,805.45	7,173.10	3,586.55	15,899.5	7,961.58	5.84	-1.26	0.482
45.88	-29.91	-56.32	0.00	-3,755.73	0.00	3,755.73	6,277.62	3,138.81	14,138.9	7,079.96	6.07	-1.28	0.536
50.00	-28.58	-55.35	0.00	-3,523.69	0.00	3,523.69	6,176.61	3,088.30	13,598.5	6,809.39	7.23	-1.40	0.522
55.00	-27.03	-54.16	0.00	-3,246.95	0.00	3,246.95	6,051.63	3,025.82	12,951.4	6,485.37	8.79	-1.56	0.505
60.00	-25.52	-52.98	0.00	-2,976.13	0.00	2,976.13	5,924.04	2,962.02	12,314.3	6,166.32	10.51	-1.71	0.487
65.00	-24.05	-51.81	0.00	-2,711.22	0.00	2,711.22	5,793.85	2,896.92	11,687.6	5,852.49	12.39	-1.87	0.468
70.00	-22.63	-50.64	0.00	-2,452.18	0.00	2,452.18	5,626.40	2,813.20	11,004.0	5,510.19	14.43	-2.02	0.449
74.76	-21.38	-49.52	0.00	-2,211.12	0.00	2,211.12	5,459.81	2,729.90	10,358.7	5,187.08	16.52	-2.17	0.431
75.00	-21.20	-49.49	0.00	-2,199.23	0.00	2,199.23	5,451.41	2,725.70	10,326.7	5,171.04	16.63	-2.18	0.430
80.00	-17.07	-40.67	0.00	-1,951.77	0.00	1,951.77	5,276.41	2,638.21	9,670.96	4,842.67	18.99	-2.33	0.407
81.26	-16.48	-40.38	0.00	-1,900.52	0.00	1,900.52	4,608.21	2,304.10	8,565.44	4,289.08	19.61	-2.36	0.447
85.00	-15.64	-39.54	0.00	-1,749.50	0.00	1,749.50	4,524.38	2,262.19	8,201.63	4,106.91	21.51	-2.47	0.430
90.00	-14.55	-38.42	0.00	-1,551.81	0.00	1,551.81	4,407.34	2,203.67	7,718.59	3,865.03	24.18	-2.63	0.405
95.00	-13.51	-37.32	0.00	-1,359.73	0.00	1,359.73	4,254.23	2,127.11	7,188.97	3,599.83	27.02	-2.78	0.381
100.00	-12.50	-36.24	0.00	-1,173.15	0.00	1,173.15	4,101.11	2,050.55	6,678.18	3,344.05	30.01	-2.93	0.354
105.00	-11.53	-35.18	0.00	-991.96	0.00	991.96	3,947.99	1,973.99	6,186.21	3,097.70	33.15	-3.07	0.323
110.00	-10.61	-34.15	0.00	-816.04	0.00	816.04	3,794.87	1,897.44	5,713.06	2,860.78	36.44	-3.20	0.288
115.00	-9.74	-33.15	0.00	-645.28	0.00	645.28	3,641.75	1,820.88	5,258.73	2,633.28	39.85	-3.32	0.248
118.00	-8.66	-29.60	0.00	-545.84	0.00	545.84	3,549.88	1,774.94	4,995.17	2,501.30	41.96	-3.38	0.221
119.55	-8.40	-29.30	0.00	-499.86	0.00	499.86	3,502.31	1,751.16	4,861.37	2,434.30	43.06	-3.41	0.208
120.00	-8.27	-29.21	0.00	-486.78	0.00	486.78	3,488.64	1,744.32	4,823.23	2,415.20	43.38	-3.42	0.204
124.47	-7.11	-28.32	0.00	-356.19	0.00	356.19	2,397.23	1,198.62	3,269.18	1,637.02	46.63	-3.50	0.221
125.00	-5.24	-21.00	0.00	-341.18	0.00	341.18	2,388.97	1,194.49	3,242.35	1,623.58	47.01	-3.51	0.213
130.00	-4.70	-20.07	0.00	-236.18	0.00	236.18	2,309.57	1,154.79	2,992.64	1,498.54	50.74	-3.60	0.160
132.00	-4.38	-18.10	0.00	-196.03	0.00	196.03	2,277.08	1,138.54	2,894.56	1,449.43	52.26	-3.63	0.137
135.00	-4.07	-17.57	0.00	-141.73	0.00	141.73	2,219.04	1,109.52	2,738.95	1,371.51	54.55	-3.67	0.105
140.00	-2.01	-7.84	0.00	-53.88	0.00	53.88	2,109.67	1,054.84	2,474.30	1,238.99	58.42	-3.71	0.044
145.00	-1.60	-7.02	0.00	-14.66	0.00	14.66	2,000.30	1,000.15	2,223.09	1,113.20	62.32	-3.73	0.014
146.00	-0.41	-0.92	0.00	-4.28	0.00	4.28	1,978.43	989.21	2,174.46	1,088.85	63.10	-3.73	0.004
150.00	-0.13	-0.30	0.00	-0.60	0.00	0.60	1,890.93	945.47	1,985.33	994.14	66.22	-3.73	0.001
152.00	0.00	-0.29	0.00	0.00	0.00	0.00	1,847.18	923.59	1,893.98	948.40	67.79	-3.73	0.000

Pole : 302653
 Location : Coppola, FL
 Height : 152.0 (ft)
 Base Dia : 68.00 (in)
 Top Dia : 25.38 (in)
 Shape : 18 Sides
 Taper : 0.296843 (in/ft)

Code: ANSI/TIA-222 Rev G
 Struct Class : II
 Exposure Category : C
 Topographic Category : 1
 Base Elev : 0.000 (ft)



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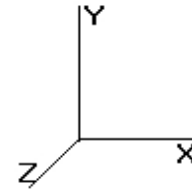
Load Case: 1.0D + 1.0W	60.00 mph Serviceability	19 Iterations
Gust Response Factor : 1.10		Wind Importance Factor : 1.00
Dead Load Factor : 1.00		
Wind Load Factor : 1.00		

Shaft Segment Forces (Factored)

Seg Top Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		1.00	0.85	7.442	8.186	318.30	0.650	0.000	0.00	0.000	0.00	0.0	0.0	0.0
5.00		1.00	0.85	7.442	8.186	311.35	0.650	0.000	5.00	28.456	18.50	151.4	0.0	2,025.9
10.00		1.00	0.85	7.442	8.186	304.40	0.650	0.000	5.00	27.828	18.09	148.1	0.0	1,980.8
15.00		1.00	0.85	7.442	8.186	297.45	0.650	0.000	5.00	27.201	17.68	144.7	0.0	1,935.7
20.00		1.00	0.90	7.896	8.686	299.24	0.650	0.000	5.00	26.573	17.27	150.0	0.0	1,890.6
25.00		1.00	0.94	8.276	9.104	299.03	0.650	0.000	5.00	25.945	16.86	153.5	0.0	1,845.5
30.00		1.00	0.98	8.600	9.460	297.35	0.650	0.000	5.00	25.317	16.46	155.7	0.0	1,800.5
35.00		1.00	1.01	8.883	9.772	294.63	0.650	0.000	5.00	24.689	16.05	156.8	0.0	1,755.4
38.13	Bot - Section 2	1.00	1.03	9.045	9.950	292.50	0.650	0.000	3.13	15.136	9.84	97.9	0.0	1,075.9
40.00		1.00	1.04	9.137	10.05	291.10	0.650	0.000	1.87	9.083	5.90	59.3	0.0	1,209.0
45.00		1.00	1.07	9.366	10.30	286.94	0.650	0.000	5.00	23.856	15.51	159.8	0.0	3,174.1
45.88	Top - Section 1	1.00	1.07	9.404	10.34	286.15	0.650	0.000	0.88	4.134	2.69	27.8	0.0	549.8
50.00		1.00	1.09	9.576	10.53	287.57	0.650	0.000	4.12	19.094	12.41	130.7	0.0	1,207.4
55.00		1.00	1.11	9.770	10.74	282.51	0.650	0.000	5.00	22.600	14.69	157.9	0.0	1,428.7
60.00		1.00	1.13	9.951	10.94	277.07	0.650	0.000	5.00	21.972	14.28	156.3	0.0	1,388.7
65.00		1.00	1.15	10.120	11.13	271.31	0.650	0.000	5.00	21.344	13.87	154.4	0.0	1,348.6
70.00		1.00	1.17	10.279	11.30	265.27	0.650	0.000	5.00	20.716	13.47	152.3	0.0	1,308.5
74.76	Bot - Section 3	1.00	1.19	10.423	11.46	259.29	0.650	0.000	4.76	19.138	12.44	142.6	0.0	1,208.5
75.00		1.00	1.19	10.430	11.47	258.98	0.650	0.000	0.24	0.968	0.63	7.2	0.0	113.5
80.00	Appertunance(s)	1.00	1.20	10.572	11.62	252.47	0.650	0.000	5.00	19.830	12.89	149.9	0.0	2,325.3
81.26	Top - Section 2	1.00	1.21	10.607	11.66	250.79	0.650	0.000	1.26	4.898	3.18	37.1	0.0	574.1
85.00		1.00	1.22	10.708	11.77	250.66	0.650	0.000	3.74	14.304	9.30	109.5	0.0	791.0
90.00		1.00	1.23	10.838	11.92	243.79	0.650	0.000	5.00	18.574	12.07	143.9	0.0	1,026.8
95.00		1.00	1.25	10.962	12.05	236.75	0.650	0.000	5.00	17.946	11.67	140.7	0.0	991.8
100.0		1.00	1.26	11.081	12.18	229.56	0.650	0.000	5.00	17.318	11.26	137.2	0.0	956.7
105.0		1.00	1.27	11.195	12.31	222.22	0.650	0.000	5.00	16.690	10.85	133.6	0.0	921.6
110.0		1.00	1.29	11.305	12.43	214.74	0.650	0.000	5.00	16.063	10.44	129.8	0.0	886.6
115.0		1.00	1.30	11.412	12.55	207.15	0.650	0.000	5.00	15.435	10.03	125.9	0.0	851.5
118.0	Appertunance(s)	1.00	1.31	11.474	12.62	202.53	0.650	0.000	3.00	8.959	5.82	73.5	0.0	494.1
119.5	Bot - Section 4	1.00	1.31	11.505	12.65	200.13	0.650	0.000	1.55	4.550	2.96	37.4	0.0	250.9
120.0		1.00	1.31	11.514	12.66	199.44	0.650	0.000	0.45	1.321	0.86	10.9	0.0	123.7
124.4	Top - Section 3	1.00	1.32	11.603	12.76	192.45	0.650	0.000	4.47	12.942	8.41	107.4	0.0	1,211.7
125.0	Appertunance(s)	1.00	1.32	11.614	12.77	195.27	0.650	0.000	0.53	1.501	0.98	12.5	0.0	59.3
130.0		1.00	1.33	11.710	12.88	187.36	0.650	0.000	5.00	13.815	8.98	115.7	0.0	545.7
132.0	Appertunance(s)	1.00	1.34	11.748	12.92	184.17	0.650	0.000	2.00	5.350	3.48	44.9	0.0	211.3
135.0		1.00	1.34	11.803	12.98	179.36	0.650	0.000	3.00	7.837	5.09	66.1	0.0	309.4
140.0	Appertunance(s)	1.00	1.35	11.894	13.08	171.27	0.650	0.000	5.00	12.559	8.16	106.8	0.0	495.6
145.0		1.00	1.36	11.982	13.18	163.08	0.650	0.000	5.00	11.931	7.76	102.2	0.0	470.6
146.0	Appertunance(s)	1.00	1.37	12.000	13.20	161.44	0.650	0.000	1.00	2.311	1.50	19.8	0.0	91.1
150.0		1.00	1.37	12.068	13.27	154.82	0.650	0.000	4.00	8.992	5.85	77.6	0.0	354.4
152.0		1.00	1.38	12.102	13.31	151.49	0.650	0.000	2.00	4.345	2.82	37.6	0.0	171.2
Totals:									152.00			4,226.7	0.0	41,361.6

Pole : 302653
 Location : Coppola, FL
 Height : 152.0 (ft)
 Base Dia : 68.00 (in)
 Top Dia : 25.38 (in)
 Shape : 18 Sides
 Taper : 0.296843 (in/ft)

Code: ANSI/TIA-222 Rev G
 Struct Class : II
 Exposure Category : C
 Topographic Category : 1
 Base Elev : 0.000 (ft)



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Load Case: 1.0D + 1.0W	60.00 mph Serviceability	19 Iterations
Gust Response Factor : 1.10		Wind Importance Factor : 1.00
Dead Load Factor : 1.00		
Wind Load Factor : 1.00		

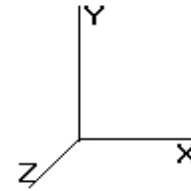
Discrete Appurtenance Segment Forces (Factored)

Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	CaAa Factor	Ka	Total CaAa (sf)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)	Dead Load (lb)
80.00	48" x 12" Panel	9	10.572	11.629	0.58	0.75	26.69	0.000	0.000	310.43	0.00	0.00	270.00
80.00	72" x 12" Panel	3	10.572	11.629	0.59	0.75	14.45	0.000	0.000	168.06	0.00	0.00	135.00
80.00	Flat Platform w/ Han	1	10.572	11.629	1.00	1.00	42.40	0.000	0.000	493.09	0.00	0.00	2,000.00
118.0	Andrew VHLP2-18-	2	11.474	12.621	0.80	0.80	7.50	0.000	0.000	94.71	0.00	0.00	62.00
118.0	DragonWave Horizon	2	11.474	12.621	0.40	0.80	0.34	0.000	0.000	4.34	0.00	0.00	21.20
118.0	Motorola Vx DAP I/V	3	11.474	12.621	0.54	0.80	4.87	0.000	0.000	61.49	0.00	0.00	135.00
118.0	Powerwave P65-18-	3	11.474	12.621	0.53	0.80	8.60	0.000	0.000	108.55	0.00	0.00	60.00
118.0	Stand-Off	1	11.474	12.621	1.00	1.00	8.50	0.000	0.000	107.28	0.00	0.00	560.00
125.0	EMS RR65-18-	2	11.614	12.775	0.58	0.80	5.09	0.000	0.000	65.06	0.00	0.00	27.00
125.0	EMS RR90-17-00DP	1	11.614	12.775	0.58	0.80	2.55	0.000	0.000	32.53	0.00	0.00	13.50
125.0	Ericsson 800 MHz	3	11.614	12.775	0.40	0.80	0.59	0.000	0.000	7.51	0.00	0.00	30.00
125.0	Ericsson RRUS A2	3	11.614	12.775	0.40	0.80	1.92	0.000	0.000	24.53	0.00	0.00	63.60
125.0	Ericsson RRUS-11 190	9	11.614	12.775	0.54	0.80	12.16	0.000	0.000	155.30	0.00	0.00	396.00
125.0	Ericsson RRUS-11 800	3	11.614	12.775	0.54	0.80	4.05	0.000	0.000	51.77	0.00	0.00	162.00
125.0	Flat Low Profile Pla	1	11.614	12.775	1.00	1.00	26.10	0.000	0.000	333.43	0.00	0.00	1,500.00
125.0	RFS ACU-A20-N	9	11.614	12.775	0.40	0.80	0.50	0.000	0.000	6.44	0.00	0.00	9.00
125.0	RFS APXVERR18-C	3	11.614	12.775	0.66	0.80	15.98	0.000	0.000	204.09	0.00	0.00	150.00
125.0	RFS IBC1900HG-1	6	11.614	12.775	0.40	0.80	2.83	0.000	0.000	36.18	0.00	0.00	132.00
132.0	36" x 16" Panel	1	11.748	12.922	1.00	1.00	5.60	0.000	0.000	72.37	0.00	0.00	30.00
132.0	Belfort Instrument 6	1	11.748	12.922	1.00	1.00	2.06	0.000	0.000	26.62	0.00	0.00	19.30
132.0	Hoffman A1212CHFL	1	11.748	12.922	1.00	1.00	1.20	0.000	0.000	15.51	0.00	0.00	30.00
132.0	Stand-Off	1	11.748	12.922	1.00	1.00	6.30	0.000	0.000	81.41	0.00	0.00	150.00
132.0	Transtector -48VDC-O	2	11.748	12.922	1.00	1.00	0.80	0.000	0.000	10.34	0.00	0.00	10.00
132.0	Vivotek IP8331	1	11.748	12.922	1.00	1.00	0.09	0.000	0.000	1.16	0.00	0.00	1.40
140.0	CellMax CMA-	9	11.894	13.084	0.56	0.80	45.61	0.000	0.000	596.77	0.00	0.00	558.00
140.0	Flat Low Profile Pla	1	11.894	13.084	1.00	1.00	26.10	0.000	0.000	341.48	0.00	0.00	1,500.00
140.0	Nokia ASU9338TYP01	1	11.894	13.084	0.80	0.80	2.03	0.000	0.000	26.59	0.00	0.00	14.90
140.0	Nokia FRIE	1	11.894	13.084	0.80	0.80	3.30	0.000	0.000	43.23	0.00	0.00	55.10
140.0	Nokia FRIG w/o S.S.	3	11.894	13.084	0.54	0.80	3.68	0.000	0.000	48.18	0.00	0.00	162.00
140.0	Nokia FXFB	2	11.894	13.084	0.67	0.80	5.60	0.000	0.000	73.33	0.00	0.00	110.20
146.0	CSS X7-665-4	3	12.034	13.238	0.65	0.80	16.35	0.000	2.000	216.42	0.00	432.84	82.20
146.0	Flat Low Profile Pla	1	12.000	13.200	1.00	1.00	26.10	0.000	0.000	344.51	0.00	0.00	1,500.00
146.0	Scala AP17-1900/090D	6	12.000	13.200	0.60	0.80	14.83	0.000	0.000	195.78	0.00	0.00	70.20
										4,358.47			10,019.60

Pole : 302653
 Location : Coppola, FL
 Height : 152.0 (ft)
 Base Dia : 68.00 (in)
 Top Dia : 25.38 (in)
 Shape : 18 Sides
 Taper : 0.296843 (in/ft)

Code: ANSI/TIA-222 Rev G
 Struct Class : II
 Exposure Category : C
 Topographic Category : 1
 Base Elev : 0.000 (ft)

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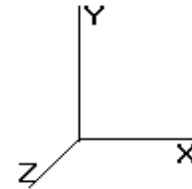
Load Case: 1.0D + 1.0W 60.00 mph Serviceability 19 Iterations
 Gust Response Factor : 1.10 Wind Importance Factor : 1.00
 Dead Load Factor : 1.00
 Wind Load Factor : 1.00

Applied Segment Forces Summary

Seg Elev (ft)	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00	0.00	0.00	0.00	0.00
5.00	151.42	2,025.88	0.00	0.00
10.00	148.07	2,150.38	0.00	0.00
15.00	144.73	2,105.30	0.00	0.00
20.00	150.02	2,060.22	0.00	0.00
25.00	153.52	2,015.13	0.00	0.00
30.00	155.67	1,970.05	0.00	0.00
35.00	156.81	1,924.97	0.00	0.00
38.13	97.89	1,182.09	0.00	0.00
40.00	59.34	1,272.42	0.00	0.00
45.00	159.76	3,343.68	0.00	0.00
45.88	27.80	579.68	0.00	0.00
50.00	130.74	1,347.13	0.00	0.00
55.00	157.88	1,598.32	0.00	0.00
60.00	156.33	1,558.24	0.00	0.00
65.00	154.44	1,518.17	0.00	0.00
70.00	152.25	1,478.10	0.00	0.00
74.76	142.62	1,369.91	0.00	0.00
75.00	7.22	121.64	0.00	0.00
80.00	1,121.48	4,899.91	0.00	0.00
81.26	37.15	604.47	0.00	0.00
85.00	109.52	881.05	0.00	0.00
90.00	143.93	1,147.23	0.00	0.00
95.00	140.66	1,112.16	0.00	0.00
100.0	137.21	1,077.10	0.00	0.00
105.0	133.60	1,042.04	0.00	0.00
110.0	129.84	1,006.97	0.00	0.00
115.0	125.94	971.91	0.00	0.00
118.0	449.88	1,404.51	0.00	0.00
119.5	37.43	287.38	0.00	0.00
120.0	10.87	134.22	0.00	0.00
124.4	107.37	1,316.77	0.00	0.00
125.0	929.30	2,554.88	0.00	0.00
130.0	115.67	635.99	0.00	0.00
132.0	252.35	488.08	0.00	0.00
135.0	66.14	358.52	0.00	0.00
140.0	1,236.37	2,977.69	0.00	0.00
145.0	102.22	519.80	0.00	0.00
146.0	776.54	1,753.35	0.00	432.84
150.0	77.59	354.44	0.00	0.00
152.0	37.60	171.21	0.00	0.00
Totals:	8,585.14	55,320.99	0.00	432.84

Pole : 302653
 Location : Coppola, FL
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Load Case: 1.0D + 1.0W

60.00 mph Serviceability

19 Iterations

Gust Response Factor : 1.10
 Dead Load Factor : 1.00
 Wind Load Factor : 1.00

Wind Importance Factor : 1.00

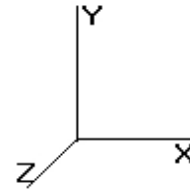
Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-55.32	-8.59	0.00	-854.66	0.00	854.66	8,450.60	4,225.30	23,405.6	11,720.2	0.00	0.00	0.079
5.00	-53.29	-8.46	0.00	-811.69	0.00	811.69	8,322.60	4,161.30	22,539.5	11,286.5	0.01	-0.02	0.078
10.00	-51.14	-8.32	0.00	-769.40	0.00	769.40	8,192.00	4,096.00	21,682.3	10,857.2	0.04	-0.03	0.077
15.00	-49.03	-8.19	0.00	-727.78	0.00	727.78	8,058.78	4,029.39	20,834.4	10,432.7	0.08	-0.05	0.076
20.00	-46.97	-8.06	0.00	-686.82	0.00	686.82	7,922.95	3,961.47	19,996.3	10,013.0	0.15	-0.07	0.075
25.00	-44.95	-7.91	0.00	-646.54	0.00	646.54	7,784.51	3,892.26	19,168.5	9,598.50	0.23	-0.09	0.073
30.00	-42.98	-7.77	0.00	-606.97	0.00	606.97	7,643.46	3,821.73	18,351.4	9,189.35	0.33	-0.11	0.072
35.00	-41.05	-7.62	0.00	-568.13	0.00	568.13	7,499.81	3,749.90	17,545.5	8,785.82	0.45	-0.12	0.070
38.13	-39.87	-7.52	0.00	-544.29	0.00	544.29	7,408.55	3,704.27	17,047.0	8,536.19	0.54	-0.14	0.069
40.00	-38.59	-7.47	0.00	-530.22	0.00	530.22	7,353.54	3,676.77	16,751.4	8,388.17	0.59	-0.14	0.068
45.00	-35.25	-7.31	0.00	-492.86	0.00	492.86	7,173.10	3,586.55	15,899.5	7,961.58	0.76	-0.16	0.067
45.88	-34.67	-7.29	0.00	-486.43	0.00	486.43	6,277.62	3,138.81	14,138.9	7,079.96	0.79	-0.17	0.074
50.00	-33.32	-7.16	0.00	-456.42	0.00	456.42	6,176.61	3,088.30	13,598.5	6,809.39	0.94	-0.18	0.072
55.00	-31.72	-7.01	0.00	-420.62	0.00	420.62	6,051.63	3,025.82	12,951.4	6,485.37	1.14	-0.20	0.070
60.00	-30.16	-6.86	0.00	-385.57	0.00	385.57	5,924.04	2,962.02	12,314.3	6,166.32	1.36	-0.22	0.068
65.00	-28.64	-6.71	0.00	-351.29	0.00	351.29	5,793.85	2,896.92	11,687.6	5,852.49	1.60	-0.24	0.065
70.00	-27.16	-6.56	0.00	-317.75	0.00	317.75	5,626.40	2,813.20	11,004.0	5,510.19	1.87	-0.26	0.062
74.76	-25.79	-6.41	0.00	-286.54	0.00	286.54	5,459.81	2,729.90	10,358.7	5,187.08	2.14	-0.28	0.060
75.00	-25.67	-6.41	0.00	-285.00	0.00	285.00	5,451.41	2,725.70	10,326.7	5,171.04	2.15	-0.28	0.060
80.00	-20.77	-5.27	0.00	-252.96	0.00	252.96	5,276.41	2,638.21	9,670.96	4,842.67	2.46	-0.30	0.056
81.26	-20.17	-5.23	0.00	-246.32	0.00	246.32	4,608.21	2,304.10	8,565.44	4,289.08	2.54	-0.31	0.062
85.00	-19.28	-5.12	0.00	-226.76	0.00	226.76	4,524.38	2,262.19	8,201.63	4,106.91	2.79	-0.32	0.059
90.00	-18.14	-4.98	0.00	-201.15	0.00	201.15	4,407.34	2,203.67	7,718.59	3,865.03	3.13	-0.34	0.056
95.00	-17.02	-4.84	0.00	-176.27	0.00	176.27	4,254.23	2,127.11	7,188.97	3,599.83	3.50	-0.36	0.053
100.00	-15.95	-4.70	0.00	-152.09	0.00	152.09	4,101.11	2,050.55	6,678.18	3,344.05	3.89	-0.38	0.049
105.00	-14.90	-4.56	0.00	-128.61	0.00	128.61	3,947.99	1,973.99	6,186.21	3,097.70	4.29	-0.40	0.045
110.00	-13.90	-4.43	0.00	-105.80	0.00	105.80	3,794.87	1,897.44	5,713.06	2,860.78	4.72	-0.41	0.041
115.00	-12.92	-4.30	0.00	-83.67	0.00	83.67	3,641.75	1,820.88	5,258.73	2,633.28	5.16	-0.43	0.035
118.00	-11.52	-3.84	0.00	-70.77	0.00	70.77	3,549.88	1,774.94	4,995.17	2,501.30	5.43	-0.44	0.032
119.55	-11.24	-3.80	0.00	-64.81	0.00	64.81	3,502.31	1,751.16	4,861.37	2,434.30	5.58	-0.44	0.030
120.00	-11.10	-3.79	0.00	-63.12	0.00	63.12	3,488.64	1,744.32	4,823.23	2,415.20	5.62	-0.44	0.029
124.47	-9.79	-3.67	0.00	-46.18	0.00	46.18	2,397.23	1,198.62	3,269.18	1,637.02	6.04	-0.45	0.032
125.00	-7.24	-2.72	0.00	-44.24	0.00	44.24	2,388.97	1,194.49	3,242.35	1,623.58	6.09	-0.45	0.030
130.00	-6.60	-2.60	0.00	-30.62	0.00	30.62	2,309.57	1,154.79	2,992.64	1,498.54	6.57	-0.47	0.023
132.00	-6.12	-2.35	0.00	-25.42	0.00	25.42	2,277.08	1,138.54	2,894.56	1,449.43	6.77	-0.47	0.020
135.00	-5.76	-2.28	0.00	-18.38	0.00	18.38	2,219.04	1,109.52	2,738.95	1,371.51	7.07	-0.48	0.016
140.00	-2.79	-1.02	0.00	-6.99	0.00	6.99	2,109.67	1,054.84	2,474.30	1,238.99	7.57	-0.48	0.007
145.00	-2.27	-0.91	0.00	-1.90	0.00	1.90	2,000.30	1,000.15	2,223.09	1,113.20	8.07	-0.48	0.003
146.00	-0.52	-0.12	0.00	-0.56	0.00	0.56	1,978.43	989.21	2,174.46	1,088.85	8.18	-0.48	0.001
150.00	-0.17	-0.04	0.00	-0.08	0.00	0.08	1,890.93	945.47	1,985.33	994.14	8.58	-0.48	0.000
152.00	0.00	-0.04	0.00	0.00	0.00	0.00	1,847.18	923.59	1,893.98	948.40	8.78	-0.48	0.000

Pole : 302653
 Location : Coppola, FL
 Height : 152.0 (ft)
 Base Dia : 68.00 (in)
 Top Dia : 25.38 (in)
 Shape : 18 Sides
 Taper : 0.296843 (in/ft)

Code: ANSI/TIA-222 Rev G
 Struct Class : II
 Exposure Category : C
 Topographic Category : 1
 Base Elev : 0.000 (ft)

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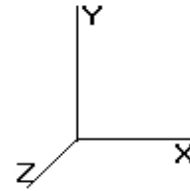
Analysis Summary

Load Case	Reactions						Max Usage	
	Shear FX (kips)	Shear FZ (kips)	Axial FY (kips)	Moment MX (ft-kips)	Moment MY (ft-kips)	Moment MZ (ft-kips)	Elev (ft)	Interaction Ratio
1.2D + 1.6W	66.56	0.00	66.30	0.00	0.00	6634.77	0.00	0.57
0.9D + 1.6W	66.54	0.00	49.71	0.00	0.00	6604.90	0.00	0.57
1.0D + 1.0W	8.59	0.00	55.32	0.00	0.00	854.66	0.00	0.08

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Base Summary

Reactions

Original Design			Analysis			Moment Design %
Moment (kip-ft)	Axial (kip)	Shear (kip)	Moment (kip-ft)	Axial (kip)	Shear (kip)	
7,835.60	53.50	72.91	6,634.77	66.30	66.56	84.67

Base Plate

Yield (ksi)	Thick (in)	Width (in)	Style	Poly Sides	Clip Len (in)	Effective Len (in)	Mu (kip-in)	Phi Mn (kip-in)	Ratio
60.0	2.750	83.000	Round	0	0.00	7.194	390.81	734.48	0.53

Anchor Bolts

Bolt Circle	Num Bolts	Bolt Type	Bolt Dia (in)	Yield (ksi)	Ultimate (ksi)	Arrange	Cluster Dist (in)	Start Angle (deg)	Compression			Tension		
									Force (kip)	Allow (kip)	Ratio	Force (kip)	Allow (kip)	Ratio
77.00	30	2.25" 18J	2.25	75.00	100.00	Radial	0.00	0.0	140.08	260.00	0.56	135.66	260.00	0.54