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CORPORATION

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**TOWER
ENGINEERING
PROFESSIONALS**

Structural Analysis Report

Structure : 150 ft Monopole
ATC Site Name : E H F R - Prestige Park, CT
ATC Asset Number : 302473
Engineering Number : 13685975_C3_02
Proposed Carrier : VERIZON WIRELESS
Carrier Site Name : EAST HARTFORD VII CT
Carrier Site Number : 467589
Site Location : 310 Prestige Park Rd.
East Hartford, CT 06108-1206
41.788300,-72.600600
County : Hartford
Date : June 14, 2021
Max Usage : 99%
Result : Pass

Prepared By:
Siddharth Yadav
TEP

Reviewed By:



COA: PEC.0001553



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Introduction

The purpose of this report is to summarize results of a structural analysis performed on the 150 ft monopole to reflect the change in loading by VERIZON WIRELESS.

Supporting Documents

Tower Drawings	ITT Meyer designed per AT&T Specification #AT-8935 (Type B), dated April 13, 1984 Mapping by Smith Cullum, dated May 30, 2002
Foundation Drawing	Southern New England Telephone Job #38904, dated April 20, 1983
Geotechnical Report	GeoTechnologies Project #1-02-1122-EA, dated September 6, 2002
Modifications	SpectraSite Site#CT-0009, dated March 19, 2003 ATC Project #51574133, dated January 17, 2013 ATC Project #63706335, dated October 19, 2015 ATC Project #OAA696438_C6_05, dated July 11, 2017 ATC Project #OAA745293_C6_06, dated April 1, 2019
Mount Analysis	Maser Consulting Connecticut Job #21777631A, dated June 14, 2021

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:	115.01 mph (3-Second Gust)**
Basic Wind Speed w/ Ice:	48.73 mph (3-Second Gust) w/ 1.27" radial ice concurrent**
Code:	ANSI/TIA-222-H / 2015 IBC / 2018 Connecticut State Building Code
Exposure Category:	B
Risk Category:	II
Topographic Factor Procedure:	Method 1
Topographic Category:	1
Crest Height (H):	0 ft
Spectral Response:	$S_s = 0.19, S_1 = 0.05$
Site Class:	D - Stiff Soil

**Wind load and Ice thickness have been reduced by applicable existing structure load modification factors in accordance with TIA-222-H, Annex S.

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 American Tower via email at Engineering@americantower.com. Please include the American Tower site name, site number, and engineering number in the subject line for any questions.



Existing and Reserved Equipment

Elev. ¹ (ft)	Qty	Equipment	Mount Type	Lines	Carrier
156.0	3	Raycap DC6-48-60-18-8F (23.5" Height)	Platform with Handrails	(2) 0.39" (10mm) Fiber Trunk (6) 0.78" (19.7mm) 8 AWG 6 (1) 3/8" (0.38"-9.5mm) RET Control Cable (6) 7/8" Coax	AT&T MOBILITY
	6	Powerwave Allgon 7020.00 Dual Band RET			
	3	Kaelus DBCT108F1V92-1			
	6	Powerwave Allgon LGP21401			
	6	Kathrein Scala 80010965			
	3	CCI OPA-65R-LCUU-H6			
	3	Ericsson RRUS-32 B30 (77 lbs)			
	3	Ericsson RRUS 4449 B5, B12			
	3	Ericsson RRUS 4478 B14			
	3	Ericsson Radio 8843 - B2 + B66A			
138.0	3	RFS IBC1900BB-1	T-Arms	(1) 5/8" Hybriflex (3) 1 1/4" Hybriflex Cable	SPRINT NEXTEL
	2	RFS APXV9ERR18-C-A20			
	3	RFS APXVTM14-C-I20			
	3	Alcatel-Lucent TD-RRH8x20-25 w/ Solar Shield			
	3	Alcatel-Lucent 800 MHz RRH w/ Notch Filter			
	3	Alcatel-Lucent 4X40W RRH			
	3	RFS IBC1900HG-2A			
	1	RFS APXVSP18-C-A20			
128.0	3	RFS APXVAALL24 43-U-NA20	Platform with Handrails	(1) 1 1/4" (1.25"-31.8mm) Fiber (3) 1 5/8" Hybriflex	T-MOBILE
	3	Ericsson AIR32 B66Aa/B2a			
	3	Ericsson Air6449 B41			
	3	Ericsson Radio 4460 B25+B66			
	3	Ericsson Radio 4480 B71+B85A			
119.0	1	Generic 12" x 12" Junction Box			
118.0	3	NextNet BTS-2500	Side Arm	(1) 2" conduit (3) 1/2" Coax (6) 5/16" (0.31"-7.9mm) Coax	CLEARWIRE CORPORATION
	1	DragonWave A-ANT-23G-1-C			
	3	Argus LLPX310R			
	2	DragonWave A-ANT-23G-2-C			
	3	DragonWave Horizon Compact			
97.0	3	Samsung B5/B13 RRH-BR04C	Sector Frames	(2) 1 1/4" Hybriflex Cable	VERIZON WIRELESS
	3	Samsung Outdoor CBRS 20W RRH –Clip-on Antenna			
	3	Samsung Outdoor CBRS 20W RRH			
	3	Samsung B2/B66A RRH-BR049			
	6	Andrew SBNHH-1D65B			
	2	RFS DB-T1-6Z-8AB-OZ			
34.0	1	Generic GPS	Stand-Off	(1) 1/2" Coax	SPRINT NEXTEL
32.0	1	Generic GPS	Stand-Off	(1) 1/2" Coax	AT&T MOBILITY
				(6) 7/8" Coax	

Equipment to be Removed

Elev. ¹ (ft)	Qty	Equipment	Mount Type	Lines	Carrier
97.0	6	Andrew SBNHH-1D65B	-	-	VERIZON WIRELESS



Proposed Equipment

Elev. ¹ (ft)	Qty	Equipment	Mount Type	Lines	Carrier
97.0	3	Samsung MT6407-77A	Sector Frames	-	VERIZON WIRELESS

¹ Contracted elevations are shown for appurtenances within contracted installation tolerances. Appurtenances outside of contract limits are shown at installed elevations.

Structure Usages

Structural Component	Controlling Usage	Pass/Fail
Anchor Bolts	76%	Pass
Shaft	96%	Pass
Base Plate	51%	Pass
Reinforcement	99%	Pass
Flange	97%	Pass

Foundations

Reaction Component	Analysis Reactions	% of Usage
Moment (Kips-Ft)	3071.3	97%
Axial (Kips)	50.4	23%
Shear (Kips)	28.9	21%

The structure base reactions resulting from this analysis were found to be acceptable through analysis based on geotechnical and foundation information, therefore no modification or reinforcement of the foundation will be required.

Deflection and Sway*

Antenna Elevation (ft)	Antenna	Carrier	Deflection (ft)	Sway (Rotation) (°)
118.0	DragonWave A-ANT-23G-1-C	CLEARWIRE CORPORATION	1.745	1.669
	DragonWave A-ANT-23G-2-C			
97.0	Samsung MT6407-77A	VERIZON WIRELESS	1.185	1.407

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



Standard Conditions

All engineering services performed by A.T. Engineering Service, PLLC are prepared on the basis that the information used is current and correct. This information may consist of, but is not limited to the following:

- Information supplied by the client regarding antenna, mounts and feed line loading
- Information from drawings, design and analysis documents, and field notes in the possession of A.T. Engineering Service, PLLC

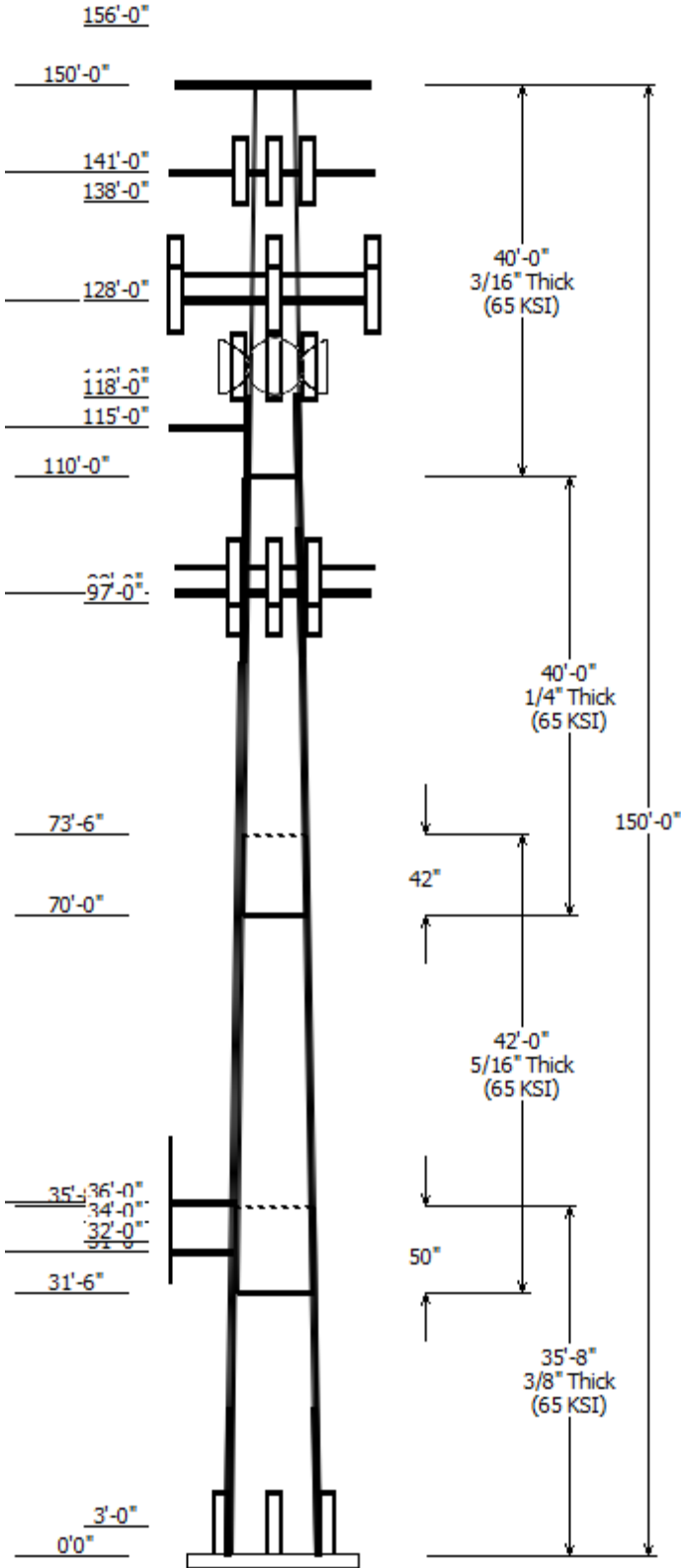
It is the responsibility of the client to ensure that the information provided to A.T. Engineering Service, PLLC and used in the performance of our engineering services is correct and complete.

All assets of American Tower Corporation, its affiliates and subsidiaries (collectively "American Tower") are inspected at regular intervals. Based upon these inspections and in the absence of information to the contrary, American Tower assumes that all structures were constructed in accordance with the drawings and specifications.

Unless explicitly agreed by both the client and A.T. Engineering Service, PLLC, all services will be performed in accordance with the current revision of ANSI/TIA-222.

All services are performed, results obtained, and recommendations made in accordance with generally accepted engineering principles and practices. A.T. Engineering Service, PLLC is not responsible for the conclusions, opinions and recommendations made by others based on the information supplied herein.

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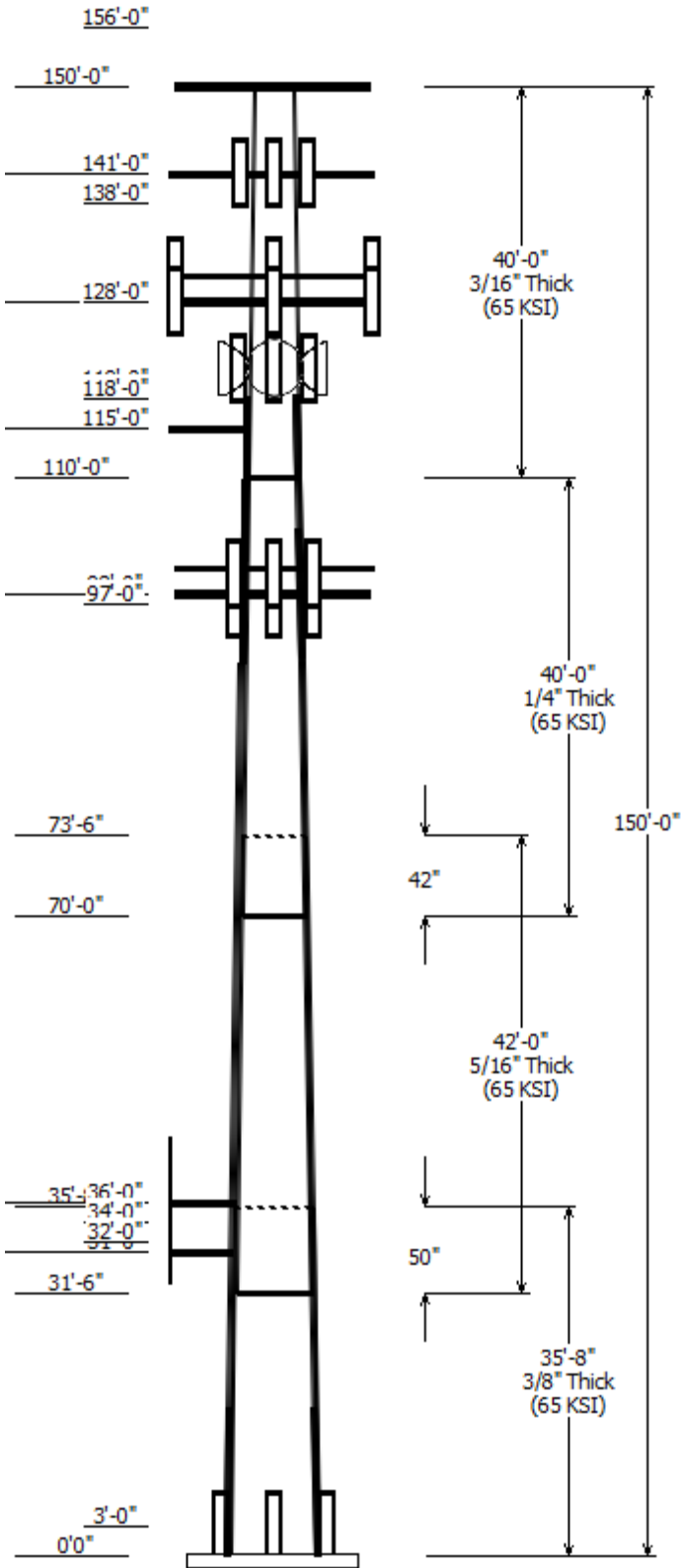


Job Information	
Client : VERIZON WIRELESS	Code: ANSI/TIA-222-H
Pole : 302473	
Location : E H F R - Prestige Park, CT	
Description : 150' ITT Meyer Type "B" Monopole	Risk Category : II
Shape : 12 Sides	Exposure : B
Height : 150.00 (ft)	Topo Method : Method 1
Base Elev (ft): 0.00	Topographic Category : 1
Taper: 0.15670@in/ft)	

Sections Properties							
Shaft Section	Length (ft)	Diameter (in)		Thick (in)	Joint Type	Overlap Length (in)	Steel Grade
		Across Flats Top	Across Flats Bottom				
1	35.667	31.79	37.38	0.375		0.000	12 Sides 65
2	42.000	26.48	33.06	0.313	Slip Joint	50.000	12 Sides 65
3	40.000	21.26	27.53	0.250	Slip Joint	42.000	12 Sides 65
4	40.000	15.00	21.26	0.188	Butt Joint	0.000	12 Sides 65

Discrete Appurtenance			
Attach Elev (ft)	Force Elev (ft)	Qty	Description
156.000	156.000	6	Kathrein Scala 80010965
156.000	156.000	3	CCI OPA-65R-LCUU-H6
156.000	156.000	3	Ericsson RRUS-32 B30 (77 lbs)
156.000	156.000	3	Ericsson RRUS 4449 B5, B12
156.000	156.000	3	Ericsson RRUS 4478 B14
156.000	156.000	3	Ericsson Radio 8843 - B2 + B66
156.000	156.000	3	Raycap DC6-48-60-18-8F (23.5"
156.000	156.000	6	Powerwave Allgon LGP21401
156.000	156.000	3	Kaelus DBCT108F1V92-1
156.000	156.000	6	Powerwave Allgon 7020.00
150.000	150.000	1	Flat Platform w/ Handrails
150.000	150.000	2	Generic Mount Reinforcement
141.000	141.000	3	Round T-Arm
138.000	142.000	2	RFS APXV9ERR18-C-A20
138.000	142.000	3	RFS APXVTM14-C-I20
138.000	142.000	1	RFS APXVSP18-C-A20
138.000	142.000	3	Alcatel-Lucent TD-RRH8x20-25
138.000	142.000	3	Alcatel-Lucent 800 MHz RRH
138.000	142.000	3	Alcatel-Lucent 4X40W RRH
138.000	142.000	3	RFS IBC1900BB-1
138.000	142.000	3	RFS IBC1900HG-2A
128.000	128.000	1	Round Platform w/ Handrails
128.000	128.000	3	RFS APXVAALL24 43-U-NA20
128.000	129.000	3	Ericsson AIR32 B66Aa/B2a
128.000	128.000	3	Ericsson Air6449 B41
128.000	128.000	3	Ericsson Radio 4480 B71+B85A
128.000	128.000	3	Ericsson Radio 4460 B25+B66
119.000	119.000	1	Generic 12" x 12" Junction Box
118.000	120.000	2	DragonWave A-ANT-23G-2-C
118.000	120.000	3	Argus LLPX310R
118.000	120.000	3	NextNet BTS-2500
118.000	120.000	1	DragonWave A-ANT-23G-1-C
118.000	120.000	3	DragonWave Horizon Compact
115.000	115.000	1	Side Arm
98.000	98.000	3	Generic Flat Light Sector Fram
97.000	100.000	6	Andrew SBNHH-1D65B
97.000	100.000	6	Andrew SBNHH-1D65B
97.000	100.000	2	RFS DB-T1-6Z-8AB-0Z
97.000	97.000	3	Samsung MT6407-77A
97.000	97.000	3	Samsung B5/B13 RRH-BR04C
97.000	97.000	3	Samsung B2/B66A RRH-BR049
97.000	97.000	3	Samsung Outdoor CBRS 20W
97.000	97.000	3	Samsung Outdoor CBRS 20W
36.000	36.000	1	Stand-off

34.000	37.000	1	Generic GPS
32.000	32.000	1	Generic GPS
31.000	31.000	1	Stand-off
3.000	3.000	3	Powerwave Allgon 7770.00



Linear Appurtenance			
Elev (ft)		Description	Exposed To Wind
From	To		
110.0	120.0	Flat Plate 5 x 1.25	Yes
110.0	120.0	Flat Plate 5 x 1.25	Yes
110.0	120.0	Flat Plate 5 x 1.25	Yes
110.0	120.0	Reinforcing Plate	Yes
110.0	120.0	Reinforcing Plate	Yes
110.0	120.0	Reinforcing Plate	Yes
100.0	110.0	Reinforcing Plate	Yes
100.0	110.0	Reinforcing Plate	Yes
100.0	110.0	Reinforcing Plate	Yes
100.0	110.0	Reinforcing Plate	Yes
90.000	110.0	Flat Plate 4 x 1.25	Yes
90.000	110.0	Flat Plate 4 x 1.25	Yes
90.000	110.0	Flat Plate 4 x 1.25	Yes
90.000	110.0	Flat Plate 4 x 1.25	Yes
0.000	118.0	1/2" Coax	No
0.000	118.0	5/16" (0.31"-	No
0.000	119.0	2" conduit	No
0.000	3.000	7/8" Coax	No
0.000	22.500	#20 w/ Angle	Yes
0.000	22.500	#20 w/ Angle	Yes
0.000	22.500	#20 w/ Angle	Yes
0.000	22.500	#20 w/ Angle	Yes
0.000	32.000	1/2" Coax	No
0.000	34.000	1/2" Coax	Yes
0.000	97.000	1 1/4" Hybriflex	Yes
0.000	106.0	#20 w/ Angle	Yes
0.000	106.0	#20 w/ Angle	Yes
0.000	106.0	#20 w/ Angle	Yes
0.000	106.0	#20 w/ Angle	Yes
0.000	128.0	1 1/4" (1.25"-	No
0.000	128.0	1 5/8" Hybriflex	No
0.000	128.0	1 5/8" Hybriflex	No
0.000	138.0	1 1/4" Hybriflex	No
0.000	142.0	5/8" Hybriflex	No
0.000	156.0	0.39" (10mm)	No
0.000	156.0	0.78" (19.7mm) 8	No
0.000	156.0	3/8" (0.38"-	No
0.000	156.0	7/8" Coax	No

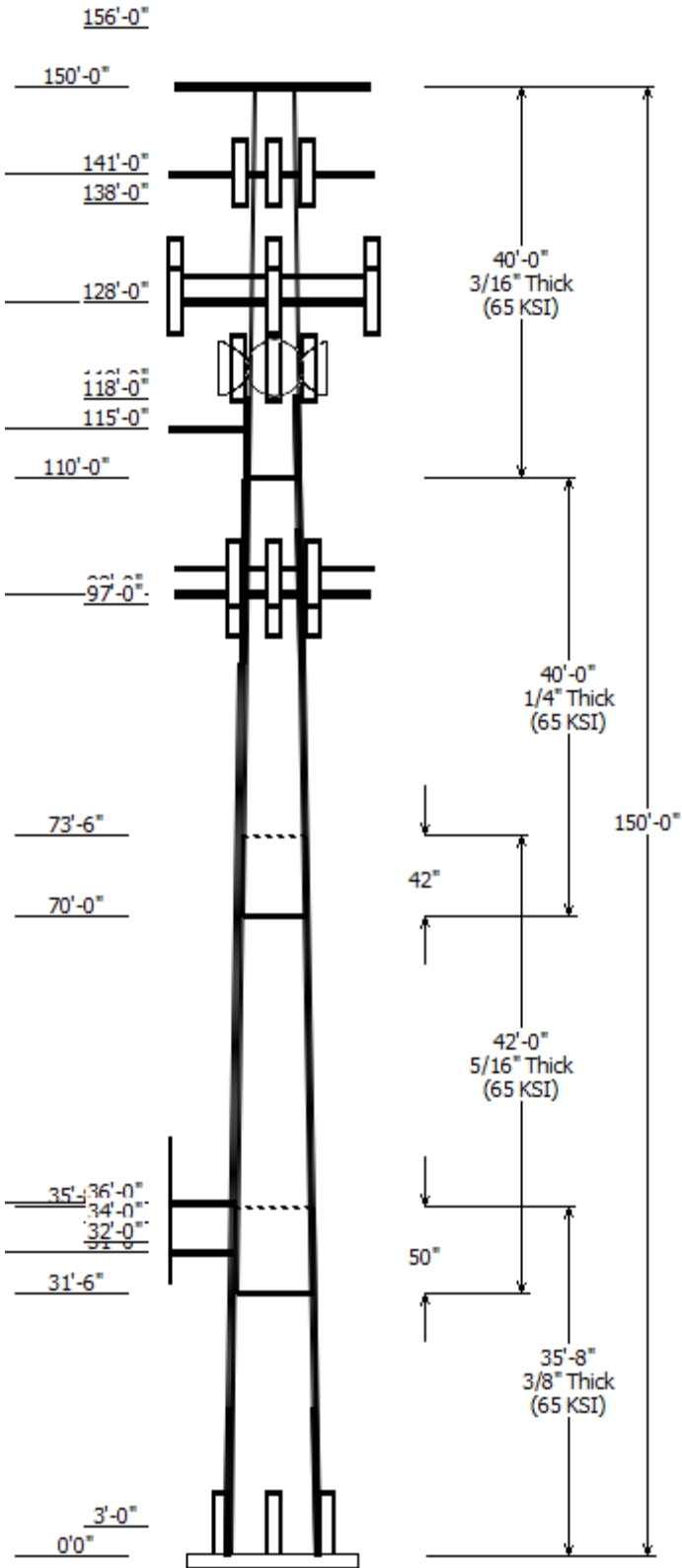
Load Cases	
1.2D + 1.0W	115 mph with No Ice
0.9D + 1.0W	115 mph with No Ice (Reduced DL)
1.2D + 1.0Di + 1.0Wi	49 mph with 1.27 in Radial Ice
1.2D + 1.0Ev + 1.0Eh	Seismic
0.9D - 1.0Ev + 1.0Eh	Seismic (Reduced DL)
1.0D + 1.0W	Serviceability 60 mph

Reactions			
Load Case	Moment (kip-ft)	Shear (kip)	Axial (kip)
1.2D + 1.0W	3071.26	28.96	50.42
0.9D + 1.0W	3007.61	28.95	37.81
1.2D + 1.0Di + 1.0Wi	769.13	6.38	72.27

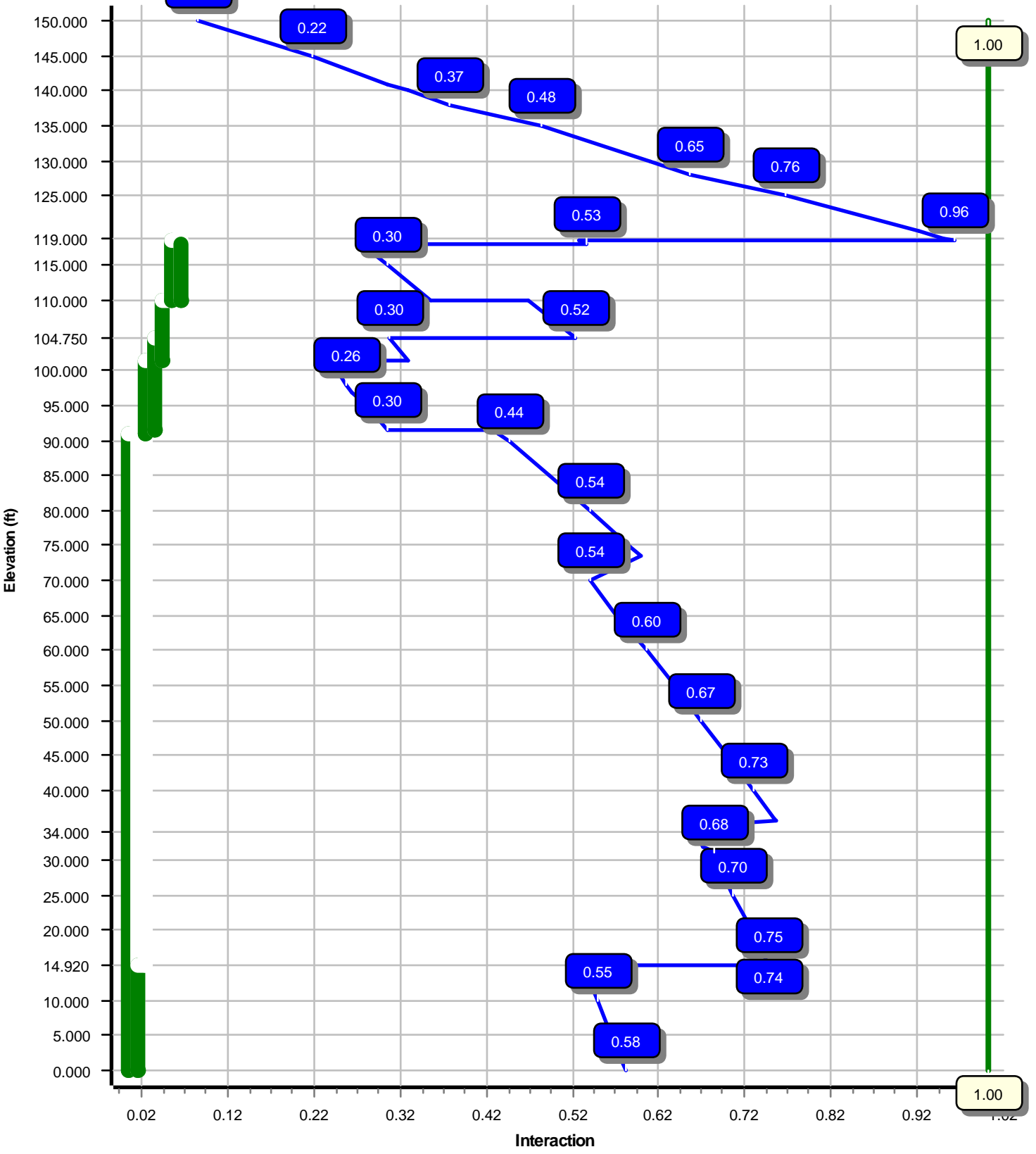
1.2D + 1.0Ev + 1.0Eh	164.25	1.26	50.86
0.9D - 1.0Ev + 1.0Eh	159.83	1.26	35.27
1.0D + 1.0W	739.44	7.05	42.05

Dish Deflections

Load Case	Attach Elev (ft)	Deflection (in)	Rotation (deg)
1.0D + 1.0W	118.00	21.598	1.711
1.0D + 1.0W	118.00	21.598	1.711



Load Case : 1.2D + 1.0W
Max Ratio 96.13% at 118.5 ft



Site Number: 302473

Code: ANSI/TIA-222-H

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Site Name: E H F R - Prestige Park, CT

Engineering Number:13685975_C3_02

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Customer: VERIZON WIRELESS

Analysis Parameters

Location :	Hartford County, CT	Height (ft) :	150
Code :	ANSI/TIA-222-H	Base Diameter (in) :	37.38
Shape :	12 Sides	Top Diameter (in) :	15.00
Pole Type :	Taper	Taper (in/ft) :	0.157
Pole Manufacturer :	ITT Meyer	Rotation (deg) :	0.00
Kd (non-service) :	0.95	Ke :	1.00

Ice & Wind Parameters

Exposure Category:	B	Design Wind Speed Without Ice:	115 mph
Risk Category:	II	Design Wind Speed With Ice:	49 mph
Topographic Factor Procedure:	Method 1	Operational Wind Speed:	60 mph
Topographic Category:	1	Design Ice Thickness:	1.27 in
Crest Height:	0 ft	HMSL:	72.00 ft

Seismic Parameters

Analysis Method:	Equivalent Lateral Force Method		
Site Class:	D - Stiff Soil		
Period Based on Rayleigh Method (sec):	3.12		
T _L (sec):	6	p:	1
S _s :	0.188	S ₁ :	0.055
F _a :	1.600	F _v :	2.400
S _{ds} :	0.201	S _{d1} :	0.088
		C _s :	0.030
		C _s Max:	0.030
		C _s Min:	0.030

Load Cases

1.2D + 1.0W	115 mph with No Ice
0.9D + 1.0W	115 mph with No Ice (Reduced DL)
1.2D + 1.0Di + 1.0Wi	49 mph with 1.27 in Radial Ice
1.2D + 1.0Ev + 1.0Eh	Seismic
0.9D - 1.0Ev + 1.0Eh	Seismic (Reduced DL)
1.0D + 1.0W	Serviceability 60 mph

Site Number: 302473

Code: ANSI/TIA-222-H

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Site Name: E H F R - Prestige Park, CT

Engineering Number:13685975_C3_02

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Customer: VERIZON WIRELESS

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 (in ²)	Ix (in ⁴)	W/t Ratio	D/t Ratio	Dia (in)	Elev (ft)	Area (in ²)	Ix (in ⁴)	W/t Ratio	D/t Ratio	Taper (in/ft)
1-12	35.667	0.3750	65		0.00	5,014	37.38	0.00	44.68	7810.1	24.03	99.68	31.79	35.67	37.93	4778.9	20.04	84.78	0.156700
2-12	42.000	0.3125	65	Slip	50.00	4,237	33.06	31.50	32.96	4514.2	25.68	105.82	26.48	73.50	26.34	2303.3	20.03	84.76	0.156700
3-12	40.000	0.2500	65	Slip	42.00	2,646	27.53	70.00	21.97	2087.4	26.83	110.14	21.26	110.00	16.92	954.0	20.12	85.07	0.156700
4-12	40.000	0.1875	65	Butt	0.00	1,475	21.26	110.00	12.73	721.9	27.71	113.43	15.00	150.00	8.94	250.5	18.76	80.00	0.156700
Shaft Weight						13,372													

Discrete Appurtenance Properties

Attach Elev (ft)	Description	Qty	Ka	Vert Ecc (ft)	Weight (lb)	No Ice EPAa (sf)	Orientation Factor	Weight (lb)	Ice EPAa (sf)	Orientation Factor
156.00	Powerwave Allgon 7020.00 Dual	6	0.75	0.000	2.20	0.339	0.50	10.89	0.687	0.50
156.00	Kaelus DBCT108F1V92-1	3	0.75	0.000	13.90	0.633	0.50	35.30	1.097	0.50
156.00	Powerwave Allgon LGP21401	6	0.75	0.000	14.10	1.104	0.50	35.32	1.711	0.50
156.00	Raycap DC6-48-60-18-8F (23.5"	3	0.75	0.000	20.00	1.260	0.50	64.77	1.820	0.50
156.00	Ericsson Radio 8843 - B2 + B66A	3	0.75	0.000	71.90	1.650	0.50	124.29	2.370	0.50
156.00	Ericsson RRUS 4478 B14	3	0.75	0.000	59.90	1.842	0.50	106.92	2.605	0.50
156.00	Ericsson RRUS 4449 B5, B12	3	0.75	0.000	71.00	1.969	0.50	125.80	2.762	0.50
156.00	Ericsson RRUS-32 B30 (77 lbs)	3	0.75	0.000	77.00	3.314	0.50	159.70	4.406	0.50
156.00	CCI OPA-65R-LCUU-H6	3	0.75	0.000	73.00	9.658	0.66	246.06	12.015	0.66
156.00	Kathrein Scala 80010965	6	0.75	0.000	97.60	13.814	0.62	324.30	16.408	0.62
150.00	Generic Mount Reinforcement	2	1.00	0.000	200.00	7.500	1.00	364.56	13.867	1.00
150.00	Flat Platform w/ Handrails	1	1.00	0.000	2,000.00	42.400	1.00	3,208.44	60.233	1.00
141.00	Round T-Arm	3	0.75	0.000	250.00	9.700	0.67	426.85	16.676	0.67
138.00	RFS IBC1900HG-2A	3	0.80	4.000	22.00	0.966	0.50	44.77	1.524	0.50
138.00	RFS IBC1900BB-1	3	0.80	4.000	22.00	0.966	0.50	44.77	1.524	0.50
138.00	Alcatel-Lucent 4X40W RRH	3	0.80	4.000	59.50	2.322	0.50	127.46	3.234	0.50
138.00	Alcatel-Lucent 800 MHz RRH w/	3	0.80	4.000	61.80	2.495	0.50	138.09	3.373	0.50
138.00	Alcatel-Lucent TD-RRH8x20-25	3	0.80	4.000	70.00	4.046	0.50	149.74	5.166	0.50
138.00	RFS APXVTM14-C-I20	3	0.80	4.000	52.90	6.342	0.66	169.07	8.180	0.66
138.00	RFS APXV9ERR18-C-A20	2	0.80	4.000	62.00	8.024	0.78	214.81	10.378	0.78
138.00	RFS APXVSP18-C-A20	1	0.80	4.000	57.00	8.024	0.69	202.54	10.378	0.69
128.00	Ericsson Radio 4460 B25+B66	3	0.75	0.000	109.00	2.564	0.50	183.01	3.446	0.50
128.00	Ericsson Radio 4480 B71+B85A	3	0.75	0.000	84.00	2.852	0.50	147.26	3.787	0.50
128.00	Ericsson Air6449 B41	3	0.75	0.000	104.00	5.682	0.63	218.12	7.011	0.63
128.00	Ericsson AIR32 B66Aa/B2a	3	0.75	1.000	132.20	6.510	0.71	265.85	8.344	0.71
128.00	RFS APXVAALL24 43-U-NA20	3	0.75	0.000	122.80	20.243	0.63	448.95	23.349	0.63
128.00	Round Platform w/ Handrails	1	1.00	0.000	2,000.00	27.200	1.00	3,085.03	47.668	1.00
119.00	Generic 12" x 12" Junction Box	1	0.80	0.000	10.00	1.200	0.50	44.66	1.804	0.50
118.00	DragonWave Horizon Compact	3	0.80	2.000	10.60	0.721	0.50	29.27	1.194	0.50
118.00	DragonWave A-ANT-23G-1-C	1	0.80	2.000	15.00	1.610	1.00	44.34	2.239	1.00
118.00	NextNet BTS-2500	3	0.80	2.000	35.00	1.817	0.50	73.51	2.578	0.50
118.00	Argus LLPX310R	3	0.80	2.000	28.60	4.292	0.63	103.44	5.665	0.63
118.00	DragonWave A-ANT-23G-2-C	2	0.80	2.000	12.30	4.688	0.50	93.41	5.746	0.50
115.00	Side Arm	1	1.00	0.000	560.00	8.500	1.00	947.44	14.381	1.00
98.00	Generic Flat Light Sector Frame	3	0.75	0.000	400.00	17.900	0.67	645.53	30.210	0.67
97.00	Samsung Outdoor CBRS 20W	3	0.80	0.000	18.60	0.857	0.50	38.15	1.368	0.50
97.00	Samsung Outdoor CBRS 20W	3	0.80	0.000	4.40	0.892	0.50	19.06	1.412	0.50
97.00	Samsung B2/B66A RRH-BR049	3	0.80	0.000	84.40	1.875	0.50	136.37	2.610	0.50
97.00	Samsung B5/B13 RRH-BR04C	3	0.80	0.000	70.30	1.875	0.50	116.90	2.610	0.50
97.00	Samsung MT6407-77A	3	0.80	0.000	81.60	4.709	0.61	164.63	5.946	0.61
97.00	RFS DB-T1-6Z-8AB-0Z	2	0.80	3.000	44.00	4.800	0.50	146.52	5.958	0.50
97.00	Andrew SBNHH-1D65B	6	0.80	3.000	50.70	8.173	0.69	193.63	10.478	0.69
97.00	Andrew SBNHH-1D65B	6	0.80	3.000	50.70	8.173	0.69	193.63	10.478	0.69
36.00	Stand-off	1	1.00	0.000	50.00	2.000	1.00	75.71	3.028	1.00
34.00	Generic GPS	1	1.00	3.000	10.00	0.900	1.00	31.42	1.368	1.00
32.00	Generic GPS	1	1.00	0.000	10.00	0.900	1.00	31.34	1.366	1.00
31.00	Stand-off	1	1.00	0.000	50.00	2.000	1.00	75.30	3.012	1.00

Site Number: 302473

Code: ANSI/TIA-222-H

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Site Name: E H F R - Prestige Park, CT

Engineering Number:13685975_C3_02

6/14/2021 9:24:20 AM

Customer: VERIZON WIRELESS

3.00	Powerwave Allgon 7770.00	3	0.75	0.000	35.00	5.508	0.65	100.00	6.055	0.65
Totals	Num Loadings:48	135			13,426.60			27,892.32		

Linear Appurtenance Properties Load Case Azimuth (deg) : 0

Elev From (ft)	Elev To (ft)	Qty	Description	Coax Dia (in)	Coax Wt (lb/ft)	Flat	Max Coax / Row	Dist Between Rows (in)	Dist Between Cols (in)	Azimuth (deg)	Dist From Face (in)	Exposed To Wind	Carrier
0.00	156.00	2	0.39" (10mm) Fiber	0.39	0.06	N	0	0.00	0.00	0	0.00	N	AT&T MOBILITY
0.00	156.00	6	0.78" (19.7mm) 8 AWG	0.78	0.59	N	0	0.00	0.00	0	0.00	N	AT&T MOBILITY
0.00	156.00	1	3/8" (0.38"- 9.5mm)	0.38	0.23	N	0	0.00	0.00	0	0.00	N	AT&T MOBILITY
0.00	156.00	6	7/8" Coax	1.09	0.33	N	0	0.00	0.00	0	0.00	N	AT&T MOBILITY
0.00	142.00	1	5/8" Hybriflex	0.84	0.70	N	0	0.00	0.00	0	0.00	N	SPRINT NEXTEL
0.00	138.00	3	1 1/4" Hybriflex Cable	1.54	1.00	N	0	0.00	0.00	0	0.00	N	SPRINT NEXTEL
0.00	128.00	1	1 1/4" (1.25"- 31.8mm)	1.25	1.05	N	0	0.00	0.00	0	0.00	N	T-MOBILE
0.00	128.00	2	1 5/8" Hybriflex	1.98	1.30	N	0	0.00	0.00	0	0.00	N	T-MOBILE
0.00	128.00	1	1 5/8" Hybriflex	1.98	1.30	N	0	0.00	0.00	0	0.00	N	T-MOBILE
110.00	120.00	1	Flat Plate 5 x 1.25	1.25	0.00	Y	1	0.00	0.00	90	0.00	Y	
110.00	120.00	1	Flat Plate 5 x 1.25	1.25	0.00	Y	1	0.00	0.00	330	0.00	Y	
110.00	120.00	1	Flat Plate 5 x 1.25	1.25	0.00	Y	1	0.00	0.00	210	0.00	Y	
110.00	120.00	1	Reinforcing Plate 3 x 1	1.00	0.00	Y	1	0.00	0.00	120	0.00	Y	
110.00	120.00	1	Reinforcing Plate 3 x 1	1.00	0.00	Y	1	0.00	0.00	240	0.00	Y	
110.00	120.00	1	Reinforcing Plate 3 x 1	1.00	0.00	Y	1	0.00	0.00	0	0.00	Y	
0.00	119.00	1	2" conduit	2.38	3.65	N	0	0.00	0.00	0	0.00	N	CLEARWIRE
0.00	118.00	3	1/2" Coax	0.63	0.15	N	0	0.00	0.00	0	0.00	N	CLEARWIRE
0.00	118.00	6	5/16" (0.31"-7.9mm)	0.31	0.05	N	0	0.00	0.00	0	0.00	N	CLEARWIRE
90.00	110.00	1	Flat Plate 4 x 1.25	1.25	0.00	Y	1	0.00	0.00	150	0.00	Y	
90.00	110.00	1	Flat Plate 4 x 1.25	1.25	0.00	Y	1	0.00	0.00	60	0.00	Y	
90.00	110.00	1	Flat Plate 4 x 1.25	1.25	0.00	Y	1	0.00	0.00	240	0.00	Y	
90.00	110.00	1	Flat Plate 4 x 1.25	1.25	0.00	Y	1	0.00	0.00	330	0.00	Y	
100.00	110.00	1	Reinforcing Plate 3 x 1	1.00	0.00	Y	1	0.00	0.00	30	0.00	Y	
100.00	110.00	1	Reinforcing Plate 3 x 1	1.00	0.00	Y	1	0.00	0.00	120	0.00	Y	
100.00	110.00	1	Reinforcing Plate 3 x 1	1.00	0.00	Y	1	0.00	0.00	210	0.00	Y	
100.00	110.00	1	Reinforcing Plate 3 x 1	1.00	0.00	Y	1	0.00	0.00	300	0.00	Y	
0.00	106.00	1	#20 w/ Angle Brackets	4.00	4.68	N	1	0.00	0.00	0	0.00	Y	
0.00	106.00	1	#20 w/ Angle Brackets	4.00	4.68	N	1	0.00	0.00	90	0.00	Y	
0.00	106.00	1	#20 w/ Angle Brackets	4.00	4.68	N	1	0.00	0.00	180	0.00	Y	
0.00	106.00	1	#20 w/ Angle Brackets	4.00	4.68	N	1	0.00	0.00	270	0.00	Y	
0.00	97.00	2	1 1/4" Hybriflex Cable	1.54	1.00	N	2	1.00	1.00	10	1.00	Y	VERIZON WIRELESS
0.00	34.00	1	1/2" Coax	0.63	0.15	N	1	0.00	0.00	190	0.00	Y	SPRINT NEXTEL
0.00	32.00	1	1/2" Coax	0.63	0.15	N	0	0.00	0.00	0	0.00	N	AT&T MOBILITY
0.00	22.50	1	#20 w/ Angle Brackets	4.00	4.68	N	1	0.00	0.00	135	0.00	Y	
0.00	22.50	1	#20 w/ Angle Brackets	4.00	4.68	N	1	0.00	0.00	315	0.00	Y	
0.00	22.50	1	#20 w/ Angle Brackets	4.00	4.68	N	1	0.00	0.00	45	0.00	Y	
0.00	22.50	1	#20 w/ Angle Brackets	4.00	4.68	N	1	0.00	0.00	225	0.00	Y	
0.00	3.00	6	7/8" Coax	1.09	0.33	N	0	0.00	0.00	0	0.00	N	AT&T MOBILITY

Site Number: 302473

Code: ANSI/TIA-222-H

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Site Name: E H F R - Prestige Park, CT

Engineering Number:13685975_C3_02

6/14/2021 9:24:20 AM

Customer: VERIZON WIRELESS

Additional Steel

Elev From (ft)	Elev To (ft)	Qty	Description	Fy (ksi)	Offset (in)	— Intermediate Connections—			Connectors	Continuation?
						Description	Spacing (in)	Len (in)		
0.00	91.06	4	SOL #20 All Thread	80	2.19	6" Angle Bracket	30.0	3.31	5/8" A36 U-Bolt	No
0.00	14.92	4	SOL #20 All Thread	80	2.19	6" Angle Bracket	37.0	3.31	5/8" A36 U-Bolt	No
91.06	101.5	4	SOL #20 All Thread	80	2.19	6" Angle Bracket	30.0	3.31	5/8" A36 U-Bolt	Yes
91.58	104.7	4	PL PL 4 x 1.25	53	0.00	AJAX M20 Class	24.0	3.00	AJAX M20 Class	No
101.5	110.0	4	PL PL 3" x 1"	49	0.00	AJAX M20 Class	24.0	3.00	AJAX M20 Class	No
110.0	118.5	3	PL PL 3" x 1"	49	0.00	AJAX M20 Class	24.0	3.00	AJAX M20 Class	No
110.0	118.0	3	PL PL 5" x 1.25"	58	0.00	AJAX M20 Class	24.0	3.00	AJAX M20 Class	No

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	F'y (ksi)	S (in ³)	Z (in ³)	Weight (lb)	Additional Reinforcing		
												Area (in ²)	Ix (in ⁴)	Weight (lb)
0.00		0.3750	37.380	44.684	7,810.1	24.03	99.68	78.5	403.6	0.0	0.0	39.28	9,917	0.0
3.00		0.3750	36.910	44.116	7,516.2	23.69	98.43	78.9	393.4	0.0	453.2	39.28	9,704	400.8
5.00		0.3750	36.597	43.737	7,324.4	23.47	97.59	79.1	386.6	0.0	298.9	39.28	9,563	267.2
10.00		0.3750	35.813	42.791	6,859.3	22.91	95.50	79.7	370.0	0.0	736.1	39.28	9,215	668.0
14.92	Reinf. Top	0.3750	35.042	41.860	6,421.3	22.36	93.45	80.3	354.0	0.0	708.6	39.28	8,879	657.3
15.00		0.3750	35.030	41.845	6,414.3	22.35	93.41	80.3	353.7	0.0	11.4	19.64	4,436	5.3
20.00		0.3750	34.246	40.899	5,989.0	21.79	91.32	80.9	337.8	0.0	703.9	19.64	4,269	334.0
25.00		0.3750	33.463	39.953	5,583.0	21.23	89.23	81.6	322.3	0.0	687.8	19.64	4,105	334.0
30.00		0.3750	32.679	39.007	5,195.7	20.67	87.14	81.9	307.1	0.0	671.7	19.64	3,943	334.0
31.00		0.3750	32.522	38.818	5,120.4	20.56	86.73	81.9	304.2	0.0	132.4	19.64	3,912	66.8
31.50	Bot - Section 2	0.3750	32.444	38.723	5,083.1	20.50	86.52	81.9	302.7	0.0	66.0	19.64	3,896	33.4
32.00		0.3750	32.366	38.629	5,045.9	20.45	86.31	81.9	301.2	0.0	121.8	19.64	4,007	33.4
34.00		0.3750	32.052	38.250	4,899.1	20.22	85.47	81.9	295.3	0.0	484.3	19.64	3,943	133.6
35.00		0.3750	31.896	38.061	4,826.7	20.11	85.05	81.9	292.3	0.0	240.4	19.64	3,911	66.8
35.67	Top - Section 1	0.3125	32.416	32.304	4,249.6	25.12	103.73	77.3	253.3	0.0	159.6	19.64	3,890	44.5
36.00		0.3125	32.364	32.252	4,228.9	25.07	103.56	77.4	252.4	0.0	36.6	19.64	3,880	22.3
40.00		0.3125	31.737	31.621	3,985.6	24.53	101.56	78.0	242.6	0.0	434.7	19.64	3,754	267.2
45.00		0.3125	30.954	30.833	3,694.9	23.86	99.05	78.7	230.6	0.0	531.3	19.64	3,600	334.0
50.00		0.3125	30.170	30.044	3,418.6	23.19	96.54	79.4	218.9	0.0	517.9	19.64	3,449	334.0
55.00		0.3125	29.387	29.256	3,156.5	22.52	94.04	80.2	207.5	0.0	504.5	19.64	3,302	334.0
60.00		0.3125	28.603	28.467	2,908.1	21.85	91.53	80.9	196.4	0.0	491.0	19.64	3,158	334.0
65.00		0.3125	27.820	27.679	2,673.1	21.17	89.02	81.6	185.6	0.0	477.6	19.64	3,016	334.0
70.00	Bot - Section 3	0.3125	27.036	26.891	2,451.2	20.50	86.52	81.9	175.1	0.0	464.2	19.64	2,879	334.0
73.50	Top - Section 2	0.2500	26.988	21.524	1,964.0	26.25	107.95	76.1	140.6	0.0	575.9	19.64	2,870	233.8
75.00		0.2500	26.753	21.335	1,912.7	25.99	107.01	76.4	138.1	0.0	109.4	19.64	2,830	100.2
80.00		0.2500	25.969	20.704	1,748.0	25.15	103.88	77.3	130.0	0.0	357.6	19.64	2,696	334.0
85.00		0.2500	25.186	20.073	1,593.1	24.31	100.74	78.2	122.2	0.0	346.9	19.64	2,566	334.0
90.00		0.2500	24.402	19.442	1,447.6	23.47	97.61	79.1	114.6	0.0	336.2	19.64	2,439	334.0
91.06	Reinf. Top Reinf	0.2500	24.236	19.308	1,417.8	23.30	96.94	79.3	113.0	0.0	70.1	19.64	2,439	334.0
91.58	Reinf Bottom	0.2500	24.154	19.243	1,403.5	23.21	96.62	79.4	112.3	0.0	33.9	19.64	2,400	34.6
95.00		0.2500	23.619	18.812	1,311.2	22.63	94.47	80.0	107.2	0.0	221.4	39.64	3,847	461.2
97.00		0.2500	23.305	18.559	1,259.2	22.30	93.22	80.4	104.4	0.0	127.2	39.64	3,758	269.7
98.00		0.2500	23.148	18.433	1,233.7	22.13	92.59	80.6	103.0	0.0	62.9	39.64	3,714	134.8
100.0		0.2500	22.835	18.181	1,183.7	21.79	91.34	80.9	100.1	0.0	124.6	39.64	3,628	269.7
101.5	Reinf. Top Reinf	0.2500	22.600	17.992	1,147.1	21.54	90.40	81.2	98.1	0.0	92.3	39.64	3,599	235.7
104.7	Reinf. Top	0.2500	22.091	17.582	1,070.5	21.00	88.36	81.8	93.6	0.0	196.7	32.00	2,147	353.9
105.0		0.2500	22.052	17.550	1,064.7	20.96	88.21	81.9	93.3	0.0	14.9	12.00	802.1	10.2
110.0	Top - Section 3	0.2500	21.268	16.919	954.0	20.12	85.07	81.9	86.7	0.0	293.2	12.00	748.8	204.2
110.0	Bot - Section 4	0.1875	21.268	12.727	721.9	27.71	113.43	74.5	65.6	0.0		27.75	1,770	
115.0		0.1875	20.485	12.254	644.4	26.59	109.25	75.7	60.8	0.0	212.5	27.75	1,650	472.6
118.0	Reinf. Top	0.1875	20.014	11.970	600.6	25.92	106.74	76.4	58.0	0.0	123.6	27.75	1,581	283.6
118.5	Reinf. Top	0.1875	19.936	11.923	593.5	25.81	106.33	76.6	57.5	0.0	20.3	9.000	496.9	15.3
119.0		0.1875	19.858	11.876	586.5	25.70	105.91	76.7	57.1	0.0	20.2			
120.0		0.1875	19.701	11.781	572.6	25.47	105.07	76.9	56.1	0.0	40.3			
125.0		0.1875	18.918	11.308	506.4	24.35	100.89	78.2	51.7	0.0	196.4			
128.0		0.1875	18.447	11.024	469.2	23.68	98.39	78.9	49.1	0.0	114.0			
130.0		0.1875	18.134	10.835	445.4	23.24	96.71	79.4	47.5	0.0	74.4			
135.0		0.1875	17.351	10.362	389.6	22.12	92.54	80.6	43.4	0.0	180.3			
138.0		0.1875	16.880	10.078	358.5	21.44	90.03	81.3	41.0	0.0	104.3			
140.0		0.1875	16.567	9.889	338.6	21.00	88.36	81.8	39.5	0.0	67.9			
141.0		0.1875	16.410	9.795	329.0	20.77	87.52	81.9	38.7	0.0	33.5			
145.0		0.1875	15.784	9.416	292.3	19.88	84.18	81.9	35.8	0.0	130.7			
150.0		0.1875	15.000	8.943	250.5	18.76	80.00	81.9	32.3	0.0	156.2			
											13,372.1			10,088.

Load Case: 1.2D + 1.0W	115 mph with No Ice	28 Iterations
Gust Response Factor :1.10 Dead Load Factor :1.20 Wind Load Factor :1.00		

Applied Segment Forces Summary

Seg Elev	Description	Shaft Forces		Discrete Forces			Linear Forces		Sum of Forces				
		Wind FX	Dead Load	Wind FX	Torsion MY	Moment MZ	Dead Load	Wind FX	Dead Load	Wind FX	Dead Load	Torsion MY	Moment MZ
(ft)		(lb)	(lb)	(lb)	(lb-ft)	(lb-ft)	(lb)	(lb)	(lb)	(lb)	(lb)	(lb-ft)	(lb)
0.00		142.5	0.0					0.0	0.0	142.5	0.0	0.0	0.0
3.00	Appurtenance(s)	236.5	543.9	199.0	0.0	0.0	126.0	59.3	699.3	494.8	1,369.2	0.0	0.0
5.00		325.5	358.7					39.5	461.4	365.0	820.2	0.0	0.0
10.00		454.4	883.3					98.8	1,153.6	553.3	2,036.9	0.0	0.0
14.92	Reinf. Top	226.5	850.3					97.2	1,135.1	323.7	1,985.4	0.0	0.0
15.00		225.1	13.7					1.6	12.0	226.7	25.7	0.0	0.0
20.00		438.0	844.7					98.8	752.8	536.8	1,597.4	0.0	0.0
25.00		428.0	825.4					98.8	696.6	526.8	1,522.0	0.0	0.0
30.00		253.4	806.1					98.8	640.4	352.2	1,446.5	0.0	0.0
31.00	Appurtenance(s)	63.0	158.9	49.9	0.0	0.0	60.0	19.9	128.1	132.8	347.0	0.0	0.0
31.50	Bot - Section 2	42.5	79.2					10.0	64.0	52.5	143.2	0.0	0.0
32.00	Appurtenance(s)	107.9	146.2	22.7	0.0	0.0	12.0	10.1	64.0	140.6	222.2	0.0	0.0
34.00	Appurtenance(s)	129.8	581.2	23.6	0.0	70.9	12.0	40.7	255.8	194.1	849.0	0.0	0.0
35.00		72.5	288.5					20.6	127.7	93.0	416.2	0.0	0.0
35.67	Top - Section 1	43.6	191.5					13.8	85.2	57.4	276.7	0.0	0.0
36.00	Appurtenance(s)	190.1	43.9	52.1	0.0	0.0	60.0	6.9	42.6	249.1	146.5	0.0	0.0
40.00		397.2	521.6					84.7	510.9	481.8	1,032.5	0.0	0.0
45.00		444.6	637.5					109.3	638.6	553.9	1,276.2	0.0	0.0
50.00		446.7	621.4					112.8	638.6	559.4	1,260.1	0.0	0.0
55.00		447.1	605.4					116.1	638.6	563.1	1,244.0	0.0	0.0
60.00		446.1	589.3					119.1	638.6	565.3	1,227.9	0.0	0.0
65.00		444.0	573.2					122.0	638.6	566.0	1,211.8	0.0	0.0
70.00	Bot - Section 3	378.0	557.1					124.7	638.6	502.7	1,195.7	0.0	0.0
73.50	Top - Section 2	223.5	691.1					88.8	447.0	312.3	1,138.2	0.0	0.0
75.00		288.1	131.3					38.4	191.6	326.5	322.8	0.0	0.0
80.00		439.8	429.1					129.7	638.6	569.5	1,067.8	0.0	0.0
85.00		434.0	416.3					132.1	638.6	566.1	1,054.9	0.0	0.0
90.00		260.8	403.4					134.3	638.6	395.1	1,042.0	0.0	0.0
91.06	Reinf. Top Reinf	67.4	84.1					28.8	451.3	96.2	535.4	0.0	0.0
91.58	Reinf Bottom	166.6	40.7					14.1	66.1	180.7	106.8	0.0	0.0
95.00		228.3	265.7					93.6	716.1	321.9	981.8	0.0	0.0
97.00	Appurtenance(s)	125.4	152.6	2,488.8	0.0	6,066.7	1,769.2	55.2	418.8	2,669.3	2,340.5	0.0	0.0
98.00	Appurtenance(s)	124.4	75.5	935.8	0.0	0.0	1,440.0	27.7	207.0	1,087.9	1,722.5	0.0	0.0
100.00		144.4	149.5					55.6	414.0	200.1	563.5	0.0	0.0
101.50	Reinf. Top Reinf	193.9	110.8					41.9	350.5	235.9	461.3	0.0	0.0
104.75	Reinf. Top	142.4	236.0					91.5	571.4	233.9	807.5	0.0	0.0
105.00		209.8	17.9					7.1	23.5	216.9	41.5	0.0	0.0
110.00	Top - Section 3	354.0	351.9					142.4	381.0	496.4	732.9	0.0	0.0
115.00	Appurtenance(s)	245.0	255.0	308.6	0.0	0.0	672.0	0.0	680.7	553.6	1,607.7	0.0	0.0
118.00	Reinf. Top	105.7	148.4	535.5	0.0	1,071.0	314.6	0.0	408.4	641.2	871.4	0.0	0.0
118.50	Reinf. Top	29.9	24.4					0.0	29.3	29.9	53.7	0.0	0.0
119.00	Appurtenance(s)	44.7	24.3	17.6	0.0	0.0	12.0	0.0	10.9	62.3	47.2	0.0	0.0
120.00		176.0	48.3					0.0	17.4	176.0	65.7	0.0	0.0
125.00		231.9	235.7					0.0	87.1	231.9	322.8	0.0	0.0
128.00	Appurtenance(s)	141.9	136.8	3,011.7	0.0	390.1	4,387.2	0.0	52.3	3,153.6	4,576.3	0.0	0.0
130.00		193.6	89.3					0.0	23.0	193.6	112.2	0.0	0.0
135.00		217.6	216.4					0.0	57.4	217.6	273.8	0.0	0.0
138.00	Appurtenance(s)	132.7	125.2	1,443.6	0.0	5,774.5	1,254.7	0.0	34.5	1,576.4	1,414.4	0.0	0.0

Site Number: 302473

Code: ANSI/TIA-222-H

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Site Name: E H F R - Prestige Park, CT

Engineering Number:13685975_C3_02

6/14/2021 9:24:28 AM

Customer: VERIZON WIRELESS

Load Case: 1.2D + 1.0W

115 mph with No Ice

28 Iterations

Gust Response Factor :1.10

Dead Load Factor :1.20

Wind Load Factor :1.00

140.00		78.5	81.5					0.0	15.8	78.5	97.3	0.0	0.0
141.00	Appurtenance(s)	127.9	40.2	562.6	0.0	0.0	900.0	0.0	7.9	690.6	948.1	0.0	0.0
145.00		224.9	156.9					0.0	29.0	224.9	185.9	0.0	0.0
150.00	Appurtenance(s)	122.9	187.4	2,248.0	0.0	0.0	2,880.0	0.0	35.2	2,370.9	3,102.6	0.0	0.0
									Totals:	26,343.0	48,250.7	0.00	0.00

Site Number: 302473

Code: ANSI/TIA-222-H

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Site Name: E H F R - Prestige Park, CT

Engineering Number:13685975_C3_02

6/14/2021 9:24:28 AM

Customer: VERIZON WIRELESS

Load Case: 1.2D + 1.0W

115 mph with No Ice

28 Iterations

Gust Response Factor :1.10
 Dead Load Factor :1.20
 Wind Load 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	-50.42	-28.96	0.00	-3,071.26	0.00	3,071.26	3,157.17	784.20	2,737.77	2,376.61	0.00	0.00	0.579
3.00	-49.00	-28.57	0.00	-2,984.37	0.00	2,984.37	3,131.60	774.23	2,668.68	2,327.12	0.05	-0.15	0.569
5.00	-48.09	-28.35	0.00	-2,927.22	0.00	2,927.22	3,114.35	767.59	2,623.11	2,294.24	0.13	-0.24	0.563
10.00	-45.94	-27.97	0.00	-2,785.49	0.00	2,785.49	3,070.50	750.99	2,510.89	2,212.51	0.51	-0.48	0.546
14.92	-43.90	-27.72	0.00	-2,647.87	0.00	2,647.87	3,026.34	734.65	2,402.87	2,132.75	1.14	-0.72	0.530
14.92	-43.90	-27.72	0.00	-2,647.87	0.00	2,647.87	3,026.34	734.65	2,402.87	2,132.75	1.14	-0.72	0.745
15.00	-43.80	-27.62	0.00	-2,645.65	0.00	2,645.65	3,025.61	734.39	2,401.13	2,131.46	1.15	-0.72	0.745
20.00	-42.05	-27.31	0.00	-2,507.54	0.00	2,507.54	2,979.68	717.78	2,293.82	2,051.14	2.09	-1.06	0.725
25.00	-40.38	-26.99	0.00	-2,370.98	0.00	2,370.98	2,932.71	701.18	2,188.97	1,971.59	3.39	-1.40	0.704
30.00	-38.85	-26.74	0.00	-2,236.04	0.00	2,236.04	2,875.21	684.57	2,086.57	1,886.65	5.03	-1.74	0.684
31.00	-38.48	-26.63	0.00	-2,209.30	0.00	2,209.30	2,861.26	681.25	2,066.38	1,868.29	5.41	-1.81	0.681
31.50	-38.33	-26.59	0.00	-2,195.99	0.00	2,195.99	2,854.29	679.59	2,056.33	1,859.14	5.60	-1.84	0.679
32.00	-38.07	-26.50	0.00	-2,182.69	0.00	2,182.69	2,847.32	677.93	2,046.29	1,850.02	5.79	-1.88	0.668
34.00	-37.18	-26.35	0.00	-2,129.62	0.00	2,129.62	2,819.42	671.29	2,006.41	1,813.74	6.61	-2.01	0.661
35.00	-36.74	-26.27	0.00	-2,103.27	0.00	2,103.27	2,805.48	667.97	1,986.62	1,795.73	7.04	-2.08	0.657
35.67	-36.45	-26.23	0.00	-2,085.76	0.00	2,085.76	2,248.07	566.94	1,717.07	1,468.70	7.33	-2.13	0.754
36.00	-36.24	-26.07	0.00	-2,077.01	0.00	2,077.01	2,245.83	566.02	1,711.49	1,464.83	7.48	-2.15	0.752
40.00	-35.09	-25.74	0.00	-1,972.73	0.00	1,972.73	2,218.59	554.95	1,645.23	1,418.49	9.40	-2.43	0.728
45.00	-33.69	-25.34	0.00	-1,844.01	0.00	1,844.01	2,183.60	541.11	1,564.24	1,360.97	12.14	-2.78	0.698
50.00	-32.31	-24.91	0.00	-1,717.32	0.00	1,717.32	2,147.58	527.27	1,485.29	1,303.95	15.24	-3.13	0.667
55.00	-30.95	-24.46	0.00	-1,592.77	0.00	1,592.77	2,110.52	513.44	1,408.39	1,247.47	18.70	-3.47	0.635
60.00	-29.62	-23.99	0.00	-1,470.47	0.00	1,470.47	2,072.42	499.60	1,333.53	1,191.58	22.52	-3.81	0.602
65.00	-28.32	-23.50	0.00	-1,350.52	0.00	1,350.52	2,033.27	485.77	1,260.72	1,136.35	26.69	-4.14	0.569
70.00	-27.06	-23.04	0.00	-1,233.00	0.00	1,233.00	1,982.10	471.93	1,189.95	1,075.84	31.20	-4.47	0.537
73.50	-25.89	-22.71	0.00	-1,152.36	0.00	1,152.36	1,473.96	377.74	952.81	802.32	34.55	-4.69	0.596
75.00	-25.51	-22.45	0.00	-1,118.29	0.00	1,118.29	1,466.28	374.42	936.13	791.05	36.04	-4.78	0.583
80.00	-24.37	-21.93	0.00	-1,006.03	0.00	1,006.03	1,440.00	363.35	881.62	753.69	41.21	-5.10	0.537
85.00	-23.27	-21.39	0.00	-896.41	0.00	896.41	1,412.68	352.28	828.74	716.65	46.71	-5.40	0.491
90.00	-22.20	-20.96	0.00	-789.48	0.00	789.48	1,384.32	341.21	777.50	679.98	52.52	-5.69	0.444
91.06	-21.66	-20.83	0.00	-767.21	0.00	767.21	1,378.16	338.86	766.82	672.24	53.79	-5.75	0.431
91.06	-21.66	-20.83	0.00	-767.21	0.00	767.21	1,378.16	338.86	766.82	672.24	53.79	-5.75	0.434
91.58	-21.54	-20.68	0.00	-756.44	0.00	756.44	1,375.14	337.72	761.64	668.47	54.42	-5.78	0.429
95.00	-20.55	-20.30	0.00	-685.73	0.00	685.73	1,354.92	330.14	727.89	643.72	58.62	-5.97	0.279
97.00	-18.48	-17.42	0.00	-639.06	0.00	639.06	1,342.86	325.72	708.50	629.35	61.13	-6.04	0.262
98.00	-16.87	-16.17	0.00	-621.64	0.00	621.64	1,336.78	323.50	698.91	622.19	62.40	-6.08	0.256
100.00	-16.32	-15.93	0.00	-589.30	0.00	589.30	1,324.47	319.08	679.91	607.94	64.96	-6.15	0.245
101.50	-15.86	-15.67	0.00	-565.40	0.00	565.40	1,315.14	315.75	665.84	597.30	66.89	-6.20	0.235
101.50	-15.86	-15.67	0.00	-565.40	0.00	565.40	1,315.14	315.75	665.84	597.30	66.89	-6.20	0.327
104.75	-15.07	-15.36	0.00	-514.49	0.00	514.49	1,294.59	308.56	635.85	574.43	71.14	-6.30	0.305
104.75	-15.07	-15.36	0.00	-514.49	0.00	514.49	1,294.59	308.56	635.85	574.43	71.14	-6.30	0.521
105.00	-15.00	-15.19	0.00	-510.65	0.00	510.65	1,292.99	308.01	633.57	572.68	71.47	-6.31	0.518
110.00	-14.24	-14.70	0.00	-434.69	0.00	434.69	1,247.14	296.94	588.87	532.29	78.27	-6.67	0.467
110.00	-14.24	-14.70	0.00	-434.69	0.00	434.69	853.24	223.37	444.19	366.34	78.27	-6.67	0.000

Site Number: 302473

Code: ANSI/TIA-222-H

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Site Name: E H F R - Prestige Park, CT

Engineering Number:13685975_C3_02

6/14/2021 9:24:29 AM

Customer: VERIZON WIRELESS

Load Case: 1.2D + 1.0W

115 mph with No Ice

28 Iterations

Gust Response Factor :1.10

Dead Load Factor :1.20

Wind Load Factor :1.00

115.00	-12.65	-14.01	0.00	-361.18	0.00	361.18	835.00	215.06	411.80	345.06	85.42	-7.01	0.303
118.00	-11.85	-13.28	0.00	-318.08	0.00	318.08	823.55	210.08	392.95	332.38	89.85	-7.13	0.272
118.00	-11.85	-13.28	0.00	-318.08	0.00	318.08	823.55	210.08	392.95	332.38	89.85	-7.13	0.534
118.50	-11.80	-13.25	0.00	-311.44	0.00	311.44	821.61	209.25	389.85	330.27	90.60	-7.15	0.525
118.50	-11.80	-13.25	0.00	-311.44	0.00	311.44	821.61	209.25	389.85	330.27	90.60	-7.15	0.961
119.00	-11.73	-13.20	0.00	-304.82	0.00	304.82	819.65	208.42	386.76	328.17	91.35	-7.19	0.947
120.00	-11.60	-13.10	0.00	-291.61	0.00	291.61	815.71	206.76	380.63	323.96	92.87	-7.34	0.918
125.00	-11.20	-12.93	0.00	-226.10	0.00	226.10	795.39	198.46	350.69	303.09	100.89	-7.98	0.764
128.00	-7.07	-9.19	0.00	-186.93	0.00	186.93	782.69	193.48	333.31	290.69	106.00	-8.33	0.654
130.00	-6.94	-9.02	0.00	-168.56	0.00	168.56	774.02	190.16	321.97	282.49	109.52	-8.54	0.608
135.00	-6.65	-8.81	0.00	-123.44	0.00	123.44	751.62	181.86	294.48	262.21	118.69	-9.01	0.482
138.00	-5.48	-7.04	0.00	-91.25	0.00	91.25	737.68	176.87	278.58	250.22	124.41	-9.25	0.374
140.00	-5.38	-6.96	0.00	-77.16	0.00	77.16	728.18	173.55	268.22	242.31	128.30	-9.39	0.327
141.00	-4.55	-6.13	0.00	-70.20	0.00	70.20	721.95	171.89	263.11	237.92	130.26	-9.45	0.303
145.00	-4.38	-5.90	0.00	-45.67	0.00	45.67	694.06	165.25	243.18	219.79	138.23	-9.65	0.215
150.00	0.00	-5.07	0.00	-16.19	0.00	16.19	659.19	156.95	219.37	198.13	148.38	-9.80	0.083

Load Case: 0.9D + 1.0W	115 mph with No Ice (Reduced DL)	28 Iterations
Gust Response Factor :1.10		
Dead Load Factor :0.90		
Wind Load Factor :1.00		

Applied Segment Forces Summary

Seg Elev (ft)	Description	Shaft Forces		Discrete Forces			Linear Forces		Sum of Forces				
		Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Torsion MY (lb-ft)	Moment MZ (lb)
0.00		142.5	0.0					0.0	0.0	142.5	0.0	0.0	0.0
3.00	Appurtenance(s)	236.5	407.9	199.0	0.0	0.0	94.5	59.3	524.4	494.8	1,026.9	0.0	0.0
5.00		325.5	269.1					39.5	346.1	365.0	615.1	0.0	0.0
10.00		454.4	662.5					98.8	865.2	553.3	1,527.7	0.0	0.0
14.92	Reinf. Top	226.5	637.7					97.2	851.3	323.7	1,489.1	0.0	0.0
15.00		225.1	10.3					1.6	9.0	226.7	19.3	0.0	0.0
20.00		438.0	633.5					98.8	564.6	536.8	1,198.1	0.0	0.0
25.00		428.0	619.0					98.8	522.4	526.8	1,141.5	0.0	0.0
30.00		253.4	604.5					98.8	480.3	352.2	1,084.9	0.0	0.0
31.00	Appurtenance(s)	63.0	119.2	49.9	0.0	0.0	45.0	19.9	96.1	132.8	260.2	0.0	0.0
31.50	Bot - Section 2	42.5	59.4					10.0	48.0	52.5	107.4	0.0	0.0
32.00	Appurtenance(s)	107.9	109.6	22.7	0.0	0.0	9.0	10.1	48.0	140.6	166.7	0.0	0.0
34.00	Appurtenance(s)	129.8	435.9	23.6	0.0	70.9	9.0	40.7	191.9	194.1	636.7	0.0	0.0
35.00		72.5	216.3					20.6	95.8	93.0	312.1	0.0	0.0
35.67	Top - Section 1	43.6	143.6					13.8	63.9	57.4	207.5	0.0	0.0
36.00	Appurtenance(s)	190.1	32.9	52.1	0.0	0.0	45.0	6.9	31.9	249.1	109.9	0.0	0.0
40.00		397.2	391.2					84.7	383.2	481.8	774.4	0.0	0.0
45.00		444.6	478.2					109.3	479.0	553.9	957.1	0.0	0.0
50.00		446.7	466.1					112.8	479.0	559.4	945.1	0.0	0.0
55.00		447.1	454.0					116.1	479.0	563.1	933.0	0.0	0.0
60.00		446.1	441.9					119.1	479.0	565.3	920.9	0.0	0.0
65.00		444.0	429.9					122.0	479.0	566.0	908.8	0.0	0.0
70.00	Bot - Section 3	378.0	417.8					124.7	479.0	502.7	896.8	0.0	0.0
73.50	Top - Section 2	223.5	518.3					88.8	335.3	312.3	853.6	0.0	0.0
75.00		288.1	98.4					38.4	143.7	326.5	242.1	0.0	0.0
80.00		439.8	321.9					129.7	479.0	569.5	800.8	0.0	0.0
85.00		434.0	312.2					132.1	479.0	566.1	791.2	0.0	0.0
90.00		260.8	302.5					134.3	479.0	395.1	781.5	0.0	0.0
91.06	Reinf. Top Reinf	67.4	63.0					28.8	338.5	96.2	401.5	0.0	0.0
91.58	Reinf Bottom	166.6	30.5					14.1	49.6	180.7	80.1	0.0	0.0
95.00		228.3	199.3					93.6	537.0	321.9	736.3	0.0	0.0
97.00	Appurtenance(s)	125.4	114.4	2,488.8	0.0	6,066.7	1,326.9	55.2	314.1	2,669.3	1,755.4	0.0	0.0
98.00	Appurtenance(s)	124.4	56.6	935.8	0.0	0.0	1,080.0	27.7	155.2	1,087.9	1,291.9	0.0	0.0
100.00		144.4	112.1					55.6	310.5	200.1	422.6	0.0	0.0
101.50	Reinf. Top Reinf	193.9	83.1					41.9	262.9	235.9	346.0	0.0	0.0
104.75	Reinf. Top	142.4	177.0					91.5	428.6	233.9	605.6	0.0	0.0
105.00		209.8	13.4					7.1	17.7	216.9	31.1	0.0	0.0
110.00	Top - Section 3	354.0	263.9					142.4	285.8	496.4	549.7	0.0	0.0
115.00	Appurtenance(s)	245.0	191.3	308.6	0.0	0.0	504.0	0.0	510.5	553.6	1,205.8	0.0	0.0
118.00	Reinf. Top	105.7	111.3	535.5	0.0	1,071.0	236.0	0.0	306.3	641.2	653.6	0.0	0.0
118.50	Reinf. Top	29.9	18.3					0.0	22.0	29.9	40.3	0.0	0.0
119.00	Appurtenance(s)	44.7	18.2	17.6	0.0	0.0	9.0	0.0	8.2	62.3	35.4	0.0	0.0
120.00		176.0	36.2					0.0	13.1	176.0	49.3	0.0	0.0
125.00		231.9	176.8					0.0	65.3	231.9	242.1	0.0	0.0
128.00	Appurtenance(s)	141.9	102.6	3,011.7	0.0	390.1	3,290.4	0.0	39.2	3,153.6	3,432.2	0.0	0.0
130.00		193.6	66.9					0.0	17.2	193.6	84.2	0.0	0.0
135.00		217.6	162.3					0.0	43.1	217.6	205.4	0.0	0.0
138.00	Appurtenance(s)	132.7	93.9	1,443.6	0.0	5,774.5	941.0	0.0	25.8	1,576.4	1,060.8	0.0	0.0

Site Number: 302473

Code: ANSI/TIA-222-H

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Site Name: E H F R - Prestige Park, CT

Engineering Number:13685975_C3_02

6/14/2021 9:24:35 AM

Customer: VERIZON WIRELESS

Load Case: 0.9D + 1.0W

115 mph with No Ice (Reduced DL)

28 Iterations

Gust Response Factor :1.10

Dead Load Factor :0.90

Wind Load Factor :1.00

140.00		78.5	61.2					0.0	11.8	78.5	73.0	0.0	0.0
141.00	Appurtenance(s)	127.9	30.1	562.6	0.0	0.0	675.0	0.0	5.9	690.6	711.1	0.0	0.0
145.00		224.9	117.7					0.0	21.8	224.9	139.4	0.0	0.0
150.00	Appurtenance(s)	122.9	140.6	2,248.0	0.0	0.0	2,160.0	0.0	26.4	2,370.9	2,327.0	0.0	0.0
									Totals:	26,343.0	36,188.0	0.00	0.00

Site Number: 302473

Code: ANSI/TIA-222-H

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Site Name: E H F R - Prestige Park, CT

Engineering Number:13685975_C3_02

6/14/2021 9:24:35 AM

Customer: VERIZON WIRELESS

Load Case: 0.9D + 1.0W

115 mph with No Ice (Reduced DL)

28 Iterations

Gust Response Factor :1.10

Dead Load Factor :0.90

Wind Load 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	-37.81	-28.95	0.00	-3,007.61	0.00	3,007.61	3,157.17	784.20	2,737.77	2,376.61	0.00	0.00	0.565
3.00	-36.72	-28.53	0.00	-2,920.76	0.00	2,920.76	3,131.60	774.23	2,668.68	2,327.12	0.05	-0.14	0.555
5.00	-36.03	-28.26	0.00	-2,863.71	0.00	2,863.71	3,114.35	767.59	2,623.11	2,294.24	0.13	-0.24	0.549
10.00	-34.39	-27.84	0.00	-2,722.39	0.00	2,722.39	3,070.50	750.99	2,510.89	2,212.51	0.50	-0.47	0.532
14.92	-32.85	-27.57	0.00	-2,585.41	0.00	2,585.41	3,026.34	734.65	2,402.87	2,132.75	1.11	-0.70	0.516
14.92	-32.85	-27.57	0.00	-2,585.41	0.00	2,585.41	3,026.34	734.65	2,402.87	2,132.75	1.11	-0.70	0.726
15.00	-32.75	-27.44	0.00	-2,583.20	0.00	2,583.20	3,025.61	734.39	2,401.13	2,131.46	1.13	-0.71	0.725
20.00	-31.41	-27.07	0.00	-2,446.01	0.00	2,446.01	2,979.68	717.78	2,293.82	2,051.14	2.05	-1.04	0.705
25.00	-30.12	-26.69	0.00	-2,310.68	0.00	2,310.68	2,932.71	701.18	2,188.97	1,971.59	3.31	-1.37	0.684
30.00	-28.96	-26.41	0.00	-2,177.24	0.00	2,177.24	2,875.21	684.57	2,086.57	1,886.65	4.92	-1.70	0.664
31.00	-28.68	-26.29	0.00	-2,150.83	0.00	2,150.83	2,861.26	681.25	2,066.38	1,868.29	5.28	-1.76	0.661
31.50	-28.56	-26.25	0.00	-2,137.68	0.00	2,137.68	2,854.29	679.59	2,056.33	1,859.14	5.47	-1.80	0.659
32.00	-28.36	-26.15	0.00	-2,124.56	0.00	2,124.56	2,847.32	677.93	2,046.29	1,850.02	5.66	-1.83	0.648
34.00	-27.68	-25.98	0.00	-2,072.19	0.00	2,072.19	2,819.42	671.29	2,006.41	1,813.74	6.46	-1.96	0.641
35.00	-27.35	-25.90	0.00	-2,046.21	0.00	2,046.21	2,805.48	667.97	1,986.62	1,795.73	6.87	-2.03	0.637
35.67	-27.13	-25.85	0.00	-2,028.94	0.00	2,028.94	2,248.07	566.94	1,717.07	1,468.70	7.16	-2.07	0.731
36.00	-26.96	-25.67	0.00	-2,020.33	0.00	2,020.33	2,245.83	566.02	1,711.49	1,464.83	7.31	-2.10	0.729
40.00	-26.07	-25.30	0.00	-1,917.64	0.00	1,917.64	2,218.59	554.95	1,645.23	1,418.49	9.18	-2.37	0.705
45.00	-24.99	-24.85	0.00	-1,791.13	0.00	1,791.13	2,183.60	541.11	1,564.24	1,360.97	11.85	-2.71	0.676
50.00	-23.93	-24.39	0.00	-1,666.86	0.00	1,666.86	2,147.58	527.27	1,485.29	1,303.95	14.87	-3.05	0.645
55.00	-22.90	-23.91	0.00	-1,544.92	0.00	1,544.92	2,110.52	513.44	1,408.39	1,247.47	18.25	-3.38	0.614
60.00	-21.88	-23.41	0.00	-1,425.39	0.00	1,425.39	2,072.42	499.60	1,333.53	1,191.58	21.96	-3.71	0.582
65.00	-20.89	-22.90	0.00	-1,308.35	0.00	1,308.35	2,033.27	485.77	1,260.72	1,136.35	26.02	-4.03	0.549
70.00	-19.93	-22.42	0.00	-1,193.86	0.00	1,193.86	1,982.10	471.93	1,189.95	1,075.84	30.41	-4.34	0.518
73.50	-19.04	-22.10	0.00	-1,115.38	0.00	1,115.38	1,473.96	377.74	952.81	802.32	33.67	-4.56	0.575
75.00	-18.75	-21.82	0.00	-1,082.23	0.00	1,082.23	1,466.28	374.42	936.13	791.05	35.12	-4.65	0.562
80.00	-17.89	-21.28	0.00	-973.15	0.00	973.15	1,440.00	363.35	881.62	753.69	40.15	-4.96	0.518
85.00	-17.05	-20.73	0.00	-866.76	0.00	866.76	1,412.68	352.28	828.74	716.65	45.50	-5.25	0.473
90.00	-16.25	-20.31	0.00	-763.12	0.00	763.12	1,384.32	341.21	777.50	679.98	51.14	-5.53	0.427
91.06	-15.84	-20.19	0.00	-741.54	0.00	741.54	1,378.16	338.86	766.82	672.24	52.38	-5.59	0.415
91.06	-15.84	-20.19	0.00	-741.54	0.00	741.54	1,378.16	338.86	766.82	672.24	52.38	-5.59	0.418
91.58	-15.74	-20.03	0.00	-731.09	0.00	731.09	1,375.14	337.72	761.64	668.47	52.99	-5.62	0.413
95.00	-15.00	-19.67	0.00	-662.60	0.00	662.60	1,354.92	330.14	727.89	643.72	57.07	-5.80	0.269
97.00	-13.51	-16.84	0.00	-617.20	0.00	617.20	1,342.86	325.72	708.50	629.35	59.51	-5.87	0.252
98.00	-12.32	-15.64	0.00	-600.36	0.00	600.36	1,336.78	323.50	698.91	622.19	60.74	-5.90	0.246
100.00	-11.91	-15.41	0.00	-569.08	0.00	569.08	1,324.47	319.08	679.91	607.94	63.23	-5.97	0.235
101.50	-11.57	-15.15	0.00	-545.96	0.00	545.96	1,315.14	315.75	665.84	597.30	65.11	-6.02	0.226
101.50	-11.57	-15.15	0.00	-545.96	0.00	545.96	1,315.14	315.75	665.84	597.30	65.11	-6.02	0.315
104.75	-10.97	-14.87	0.00	-496.71	0.00	496.71	1,294.59	308.56	635.85	574.43	69.23	-6.12	0.293
104.75	-10.97	-14.87	0.00	-496.71	0.00	496.71	1,294.59	308.56	635.85	574.43	69.23	-6.12	0.501
105.00	-10.92	-14.69	0.00	-492.99	0.00	492.99	1,292.99	308.01	633.57	572.68	69.55	-6.13	0.498
110.00	-10.35	-14.19	0.00	-419.57	0.00	419.57	1,247.14	296.94	588.87	532.29	76.15	-6.48	0.449
110.00	-10.35	-14.19	0.00	-419.57	0.00	419.57	853.24	223.37	444.19	366.34	76.15	-6.48	0.000

Site Number: 302473

Code: ANSI/TIA-222-H

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Site Name: E H F R - Prestige Park, CT

Engineering Number:13685975_C3_02

6/14/2021 9:24:36 AM

Customer: VERIZON WIRELESS

Load Case: 0.9D + 1.0W

115 mph with No Ice (Reduced DL)

28 Iterations

Gust Response Factor :1.10

Dead Load Factor :0.90

Wind Load Factor :1.00

115.00	-9.16	-13.54	0.00	-348.61	0.00	348.61	835.00	215.06	411.80	345.06	83.10	-6.80	0.291
118.00	-8.57	-12.83	0.00	-306.93	0.00	306.93	823.55	210.08	392.95	332.38	87.40	-6.92	0.261
118.00	-8.57	-12.83	0.00	-306.93	0.00	306.93	823.55	210.08	392.95	332.38	87.40	-6.92	0.513
118.50	-8.53	-12.80	0.00	-300.51	0.00	300.51	821.61	209.25	389.85	330.27	88.13	-6.94	0.505
118.50	-8.53	-12.80	0.00	-300.51	0.00	300.51	821.61	209.25	389.85	330.27	88.13	-6.94	0.924
119.00	-8.48	-12.75	0.00	-294.11	0.00	294.11	819.65	208.42	386.76	328.17	88.85	-6.98	0.910
120.00	-8.37	-12.63	0.00	-281.36	0.00	281.36	815.71	206.76	380.63	323.96	90.33	-7.12	0.882
125.00	-8.06	-12.43	0.00	-218.22	0.00	218.22	795.39	198.46	350.69	303.09	98.10	-7.74	0.734
128.00	-5.05	-8.86	0.00	-180.54	0.00	180.54	782.69	193.48	333.31	290.69	103.06	-8.08	0.630
130.00	-4.94	-8.69	0.00	-162.82	0.00	162.82	774.02	190.16	321.97	282.49	106.48	-8.29	0.585
135.00	-4.72	-8.47	0.00	-119.39	0.00	119.39	751.62	181.86	294.48	262.21	115.38	-8.74	0.464
138.00	-3.90	-6.76	0.00	-88.21	0.00	88.21	737.68	176.87	278.58	250.22	120.92	-8.97	0.359
140.00	-3.83	-6.68	0.00	-74.69	0.00	74.69	728.18	173.55	268.22	242.31	124.69	-9.10	0.315
141.00	-3.22	-5.89	0.00	-68.02	0.00	68.02	721.95	171.89	263.11	237.92	126.60	-9.16	0.292
145.00	-3.10	-5.65	0.00	-44.46	0.00	44.46	694.06	165.25	243.18	219.79	134.32	-9.35	0.208
150.00	0.00	-5.07	0.00	-16.19	0.00	16.19	659.19	156.95	219.37	198.13	144.17	-9.50	0.083

Site Number: 302473

Code: ANSI/TIA-222-H

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Site Name: E H F R - Prestige Park, CT

Engineering Number:13685975_C3_02

6/14/2021 9:24:36 AM

Customer: VERIZON WIRELESS

Load Case: 1.2D + 1.0Di + 1.0Wi	49 mph with 1.27 in Radial Ice	27 Iterations
Gust Response Factor :1.10	Ice Dead Load Factor :1.00	
Dead Load Factor :1.20		Ice Importance Factor :1.00
Wind Load Factor :1.00		

Applied Segment Forces Summary

Seg Elev (ft)	Description	Shaft Forces		Discrete Forces			Linear Forces		Sum of Forces				
		Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Torsion MY (lb-ft)	Moment MZ (lb)
0.00		27.0	0.0					0.0	0.0	27.0	0.0	0.0	0.0
3.00	Appurtenance(s)	45.0	681.5	39.3	0.0	0.0	321.0	0.0	775.3	84.3	1,777.8	0.0	0.0
5.00		62.6	459.4					0.0	517.8	62.6	977.2	0.0	0.0
10.00		87.9	1,146.1					0.0	1,304.7	87.9	2,450.8	0.0	0.0
14.92	Reinf. Top	44.0	1,117.1					0.0	1,292.5	44.0	2,409.6	0.0	0.0
15.00		44.1	18.1					0.0	14.7	44.1	32.7	0.0	0.0
20.00		86.2	1,119.3					0.0	918.9	86.2	2,038.2	0.0	0.0
25.00		84.9	1,101.0					0.0	832.9	84.9	1,933.9	0.0	0.0
30.00		50.5	1,081.1					0.0	744.5	50.5	1,825.6	0.0	0.0
31.00	Appurtenance(s)	12.6	214.2	13.5	0.0	0.0	80.3	0.0	149.1	26.1	443.7	0.0	0.0
31.50	Bot - Section 2	8.5	106.8					0.0	74.6	8.5	181.4	0.0	0.0
32.00	Appurtenance(s)	21.6	174.3	6.2	0.0	0.0	29.1	0.0	74.6	27.8	278.1	0.0	0.0
34.00	Appurtenance(s)	26.1	693.3	6.4	0.0	19.3	29.2	0.0	298.3	32.5	1,020.8	0.0	0.0
35.00		14.6	344.5					0.0	148.1	14.6	492.6	0.0	0.0
35.67	Top - Section 1	8.8	228.9					0.0	98.8	8.8	327.6	0.0	0.0
36.00	Appurtenance(s)	38.3	62.6	14.2	0.0	0.0	80.7	0.0	49.4	52.5	192.7	0.0	0.0
40.00		80.4	742.8					0.0	593.2	80.4	1,336.0	0.0	0.0
45.00		90.7	910.6					0.0	742.8	90.7	1,653.4	0.0	0.0
50.00		91.9	891.0					0.0	744.1	91.9	1,635.1	0.0	0.0
55.00		92.9	870.9					0.0	745.3	92.9	1,616.2	0.0	0.0
60.00		93.6	850.5					0.0	746.4	93.6	1,596.9	0.0	0.0
65.00		94.1	829.8					0.0	747.4	94.1	1,577.2	0.0	0.0
70.00	Bot - Section 3	80.7	808.8					0.0	748.4	80.7	1,557.2	0.0	0.0
73.50	Top - Section 2	48.0	868.2					0.0	524.4	48.0	1,392.6	0.0	0.0
75.00		62.2	206.8					0.0	224.9	62.2	431.6	0.0	0.0
80.00		95.7	675.0					0.0	750.1	95.7	1,425.0	0.0	0.0
85.00		95.5	656.6					10.8	750.9	106.3	1,407.5	0.0	0.0
90.00		57.8	638.1					17.7	751.6	75.5	1,389.7	0.0	0.0
91.06	Reinf. Top Reinf	15.0	133.8					4.4	482.6	19.5	616.4	0.0	0.0
91.58	Reinf Bottom	37.4	64.9					2.2	81.3	39.7	146.2	0.0	0.0
95.00		51.5	422.4					15.9	817.0	67.4	1,239.5	0.0	0.0
97.00	Appurtenance(s)	28.4	243.4	578.1	0.0	1,393.5	4,339.7	10.2	478.0	616.7	5,061.0	0.0	0.0
98.00	Appurtenance(s)	28.4	120.7	283.6	0.0	0.0	2,047.0	5.3	230.1	317.2	2,397.8	0.0	0.0
100.00		33.1	238.8					11.0	460.4	44.1	699.2	0.0	0.0
101.50	Reinf. Top Reinf	44.7	177.2					8.6	394.4	53.4	571.6	0.0	0.0
104.75	Reinf. Top	32.9	377.3					19.7	666.7	52.6	1,044.0	0.0	0.0
105.00		49.1	28.8					1.6	30.9	50.7	59.7	0.0	0.0
110.00	Top - Section 3	86.4	562.6					6.6	462.2	93.0	1,024.7	0.0	0.0
115.00	Appurtenance(s)	63.1	459.4	93.7	0.0	0.0	992.2	0.0	729.5	156.8	2,181.1	0.0	0.0
118.00	Reinf. Top	27.3	268.8	128.5	0.0	257.0	800.7	0.0	437.8	155.8	1,507.4	0.0	0.0
118.50	Reinf. Top	7.7	44.4					0.0	34.2	7.7	78.6	0.0	0.0
119.00	Appurtenance(s)	11.6	44.3	4.7	0.0	0.0	40.7	0.0	15.8	16.3	100.8	0.0	0.0
120.00		45.7	88.0					0.0	27.3	45.7	115.2	0.0	0.0
125.00		60.3	427.2					0.0	87.1	60.3	514.3	0.0	0.0
128.00	Appurtenance(s)	37.1	249.4	754.0	0.0	89.8	6,840.1	0.0	52.3	791.1	7,141.7	0.0	0.0
130.00		50.9	163.3					0.0	23.0	50.9	186.3	0.0	0.0
135.00		57.3	394.6					0.0	57.4	57.3	452.0	0.0	0.0
138.00	Appurtenance(s)	35.1	229.8	342.1	0.0	1,368.5	2,589.4	0.0	34.5	377.3	2,853.6	0.0	0.0

Site Number: 302473

Code: ANSI/TIA-222-H

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Site Name: E H F R - Prestige Park, CT

Engineering Number:13685975_C3_02

6/14/2021 9:24:42 AM

Customer: VERIZON WIRELESS

Load Case: 1.2D + 1.0Di + 1.0Wi

49 mph with 1.27 in Radial Ice

27 Iterations

Gust Response Factor :1.10

Ice Dead Load Factor :1.00

Dead Load Factor :1.20

Ice Importance Factor :1.00

Wind Load Factor :1.00

140.00		20.8	150.2					0.0	15.8	20.8	166.0	0.0	0.0
141.00	Appurtenance(s)	34.1	74.3	173.7	0.0	0.0	1,340.6	0.0	7.9	207.8	1,422.7	0.0	0.0
145.00		60.3	288.6					0.0	29.0	60.3	317.7	0.0	0.0
150.00	Appurtenance(s)	33.1	345.1	618.5	0.0	0.0	3,912.0	0.0	35.2	651.6	4,292.4	0.0	0.0
									Totals:	5,768.05	67,591.2	0.00	0.00

Site Number: 302473

Code: ANSI/TIA-222-H

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Site Name: E H F R - Prestige Park, CT

Engineering Number:13685975_C3_02

6/14/2021 9:24:42 AM

Customer: VERIZON WIRELESS

Load Case: 1.2D + 1.0Di + 1.0Wi

49 mph with 1.27 in Radial Ice

27 Iterations

Gust Response Factor :1.10

Ice Dead Load Factor :1.00

Dead Load Factor :1.20

Ice Importance Factor :1.00

Wind Load 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	-72.27	-6.38	0.00	-769.13	0.00	769.13	3,157.17	784.20	2,737.77	2,376.61	0.00	0.00	0.155
3.00	-70.49	-6.33	0.00	-750.01	0.00	750.01	3,131.60	774.23	2,668.68	2,327.12	0.01	-0.04	0.153
5.00	-69.51	-6.32	0.00	-737.35	0.00	737.35	3,114.35	767.59	2,623.11	2,294.24	0.03	-0.06	0.151
10.00	-67.05	-6.30	0.00	-705.77	0.00	705.77	3,070.50	750.99	2,510.89	2,212.51	0.13	-0.12	0.148
14.92	-64.64	-6.28	0.00	-674.80	0.00	674.80	3,026.34	734.65	2,402.87	2,132.75	0.29	-0.18	0.144
14.92	-64.64	-6.28	0.00	-674.80	0.00	674.80	3,026.34	734.65	2,402.87	2,132.75	0.29	-0.18	0.202
15.00	-64.60	-6.28	0.00	-674.30	0.00	674.30	3,025.61	734.39	2,401.13	2,131.46	0.29	-0.18	0.202
20.00	-62.55	-6.29	0.00	-642.88	0.00	642.88	2,979.68	717.78	2,293.82	2,051.14	0.53	-0.27	0.197
25.00	-60.61	-6.28	0.00	-611.45	0.00	611.45	2,932.71	701.18	2,188.97	1,971.59	0.86	-0.36	0.193
30.00	-58.78	-6.27	0.00	-580.04	0.00	580.04	2,875.21	684.57	2,086.57	1,886.65	1.28	-0.44	0.188
31.00	-58.33	-6.26	0.00	-573.77	0.00	573.77	2,861.26	681.25	2,066.38	1,868.29	1.37	-0.46	0.188
31.50	-58.15	-6.26	0.00	-570.64	0.00	570.64	2,854.29	679.59	2,056.33	1,859.14	1.42	-0.47	0.187
32.00	-57.87	-6.25	0.00	-567.52	0.00	567.52	2,847.32	677.93	2,046.29	1,850.02	1.47	-0.48	0.185
34.00	-56.85	-6.23	0.00	-555.00	0.00	555.00	2,819.42	671.29	2,006.41	1,813.74	1.68	-0.52	0.183
35.00	-56.35	-6.23	0.00	-548.77	0.00	548.77	2,805.48	667.97	1,986.62	1,795.73	1.79	-0.53	0.182
35.67	-56.02	-6.23	0.00	-544.62	0.00	544.62	2,248.07	566.94	1,717.07	1,468.70	1.86	-0.54	0.209
36.00	-55.83	-6.21	0.00	-542.54	0.00	542.54	2,245.83	566.02	1,711.49	1,464.83	1.90	-0.55	0.209
40.00	-54.48	-6.20	0.00	-517.70	0.00	517.70	2,218.59	554.95	1,645.23	1,418.49	2.40	-0.63	0.203
45.00	-52.82	-6.17	0.00	-486.72	0.00	486.72	2,183.60	541.11	1,564.24	1,360.97	3.10	-0.72	0.196
50.00	-51.18	-6.14	0.00	-455.87	0.00	455.87	2,147.58	527.27	1,485.29	1,303.95	3.90	-0.81	0.189
55.00	-49.55	-6.10	0.00	-425.18	0.00	425.18	2,110.52	513.44	1,408.39	1,247.47	4.80	-0.90	0.181
60.00	-47.95	-6.06	0.00	-394.68	0.00	394.68	2,072.42	499.60	1,333.53	1,191.58	5.79	-0.99	0.173
65.00	-46.36	-6.00	0.00	-364.41	0.00	364.41	2,033.27	485.77	1,260.72	1,136.35	6.87	-1.08	0.164
70.00	-44.80	-5.95	0.00	-334.39	0.00	334.39	1,982.10	471.93	1,189.95	1,075.84	8.05	-1.17	0.156
73.50	-43.41	-5.91	0.00	-313.56	0.00	313.56	1,473.96	377.74	952.81	802.32	8.93	-1.23	0.174
75.00	-42.97	-5.88	0.00	-304.70	0.00	304.70	1,466.28	374.42	936.13	791.05	9.32	-1.25	0.171
80.00	-41.54	-5.81	0.00	-275.32	0.00	275.32	1,440.00	363.35	881.62	753.69	10.68	-1.34	0.159
85.00	-40.13	-5.73	0.00	-246.26	0.00	246.26	1,412.68	352.28	828.74	716.65	12.13	-1.42	0.146
90.00	-38.73	-5.65	0.00	-217.63	0.00	217.63	1,384.32	341.21	777.50	679.98	13.66	-1.50	0.133
91.06	-38.12	-5.62	0.00	-211.62	0.00	211.62	1,378.16	338.86	766.82	672.24	14.00	-1.52	0.130
91.06	-38.12	-5.62	0.00	-211.62	0.00	211.62	1,378.16	338.86	766.82	672.24	14.00	-1.52	0.131
91.58	-37.97	-5.60	0.00	-208.72	0.00	208.72	1,375.14	337.72	761.64	668.47	14.16	-1.53	0.129
95.00	-36.73	-5.52	0.00	-189.57	0.00	189.57	1,354.92	330.14	727.89	643.72	15.28	-1.58	0.084
97.00	-31.68	-4.77	0.00	-177.14	0.00	177.14	1,342.86	325.72	708.50	629.35	15.94	-1.60	0.078
98.00	-29.30	-4.39	0.00	-172.37	0.00	172.37	1,336.78	323.50	698.91	622.19	16.28	-1.61	0.076
100.00	-28.60	-4.34	0.00	-163.58	0.00	163.58	1,324.47	319.08	679.91	607.94	16.96	-1.63	0.073
101.50	-28.03	-4.28	0.00	-157.08	0.00	157.08	1,315.14	315.75	665.84	597.30	17.47	-1.64	0.070
101.50	-28.03	-4.28	0.00	-157.08	0.00	157.08	1,315.14	315.75	665.84	597.30	17.47	-1.64	0.097
104.75	-26.98	-4.20	0.00	-143.17	0.00	143.17	1,294.59	308.56	635.85	574.43	18.60	-1.67	0.090
104.75	-26.98	-4.20	0.00	-143.17	0.00	143.17	1,294.59	308.56	635.85	574.43	18.60	-1.67	0.155
105.00	-26.92	-4.18	0.00	-142.12	0.00	142.12	1,292.99	308.01	633.57	572.68	18.69	-1.67	0.154
110.00	-25.89	-4.10	0.00	-121.23	0.00	121.23	1,247.14	296.94	588.87	532.29	20.50	-1.78	0.140
110.00	-25.89	-4.10	0.00	-121.23	0.00	121.23	853.24	223.37	444.19	366.34	20.50	-1.78	0.000

Site Number: 302473

Code: ANSI/TIA-222-H

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Site Name: E H F R - Prestige Park, CT

Engineering Number:13685975_C3_02

6/14/2021 9:24:43 AM

Customer: VERIZON WIRELESS

Load Case: 1.2D + 1.0Di + 1.0Wi				49 mph with 1.27 in Radial Ice				27 Iterations					
Gust Response Factor :1.10				Ice Dead Load Factor :1.00				Ice Importance Factor :1.00					
Dead Load Factor :1.20													
Wind Load Factor :1.00													
115.00	-23.71	-3.90	0.00	-100.75	0.00	100.75	835.00	215.06	411.80	345.06	22.41	-1.87	0.091
118.00	-22.21	-3.70	0.00	-88.81	0.00	88.81	823.55	210.08	392.95	332.38	23.59	-1.90	0.082
118.00	-22.21	-3.70	0.00	-88.81	0.00	88.81	823.55	210.08	392.95	332.38	23.59	-1.90	0.161
118.50	-22.13	-3.69	0.00	-86.96	0.00	86.96	821.61	209.25	389.85	330.27	23.79	-1.91	0.159
118.50	-22.13	-3.69	0.00	-86.96	0.00	86.96	821.61	209.25	389.85	330.27	23.79	-1.91	0.291
119.00	-22.03	-3.68	0.00	-85.11	0.00	85.11	819.65	208.42	386.76	328.17	23.99	-1.92	0.287
120.00	-21.91	-3.68	0.00	-81.43	0.00	81.43	815.71	206.76	380.63	323.96	24.40	-1.96	0.279
125.00	-21.39	-3.65	0.00	-63.05	0.00	63.05	795.39	198.46	350.69	303.09	26.55	-2.14	0.235
128.00	-14.28	-2.60	0.00	-52.01	0.00	52.01	782.69	193.48	333.31	290.69	27.93	-2.24	0.197
130.00	-14.09	-2.57	0.00	-46.81	0.00	46.81	774.02	190.16	321.97	282.49	28.88	-2.30	0.184
135.00	-13.64	-2.52	0.00	-33.96	0.00	33.96	751.62	181.86	294.48	262.21	31.35	-2.43	0.148
138.00	-10.80	-2.03	0.00	-25.04	0.00	25.04	737.68	176.87	278.58	250.22	32.90	-2.49	0.115
140.00	-10.63	-2.00	0.00	-20.99	0.00	20.99	728.18	173.55	268.22	242.31	33.95	-2.53	0.101
141.00	-9.22	-1.74	0.00	-18.98	0.00	18.98	721.95	171.89	263.11	237.92	34.48	-2.55	0.093
145.00	-8.90	-1.67	0.00	-12.03	0.00	12.03	694.06	165.25	243.18	219.79	36.64	-2.60	0.068
150.00	0.00	-1.26	0.00	-3.67	0.00	3.67	659.19	156.95	219.37	198.13	39.38	-2.64	0.019

Load Case: 1.0D + 1.0W	Serviceability 60 mph	26 Iterations
Gust Response Factor :1.10		
Dead Load Factor :1.00		
Wind Load Factor :1.00		

Applied Segment Forces Summary

Seg Elev (ft)	Description	Shaft Forces		Discrete Forces			Linear Forces		Sum of Forces				
		Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Torsion MY (lb-ft)	Moment MZ (lb)
0.00		34.7	0.0					0.0	0.0	34.7	0.0	0.0	0.0
3.00	Appurtenance(s)	57.6	453.2	48.5	0.0	0.0	105.0	14.4	582.7	120.5	1,141.0	0.0	0.0
5.00		79.3	298.9					9.6	384.5	88.9	683.5	0.0	0.0
10.00		110.7	736.1					24.1	961.3	134.7	1,697.4	0.0	0.0
14.92	Reinf. Top	55.2	708.6					23.7	945.9	78.8	1,654.5	0.0	0.0
15.00		54.8	11.4					0.4	10.0	55.2	21.4	0.0	0.0
20.00		106.6	703.9					24.1	627.3	130.7	1,331.2	0.0	0.0
25.00		104.2	687.8					24.1	580.5	128.3	1,268.3	0.0	0.0
30.00		61.7	671.7					24.1	533.7	85.8	1,205.4	0.0	0.0
31.00	Appurtenance(s)	15.3	132.4	12.2	0.0	0.0	50.0	4.8	106.7	32.3	289.2	0.0	0.0
31.50	Bot - Section 2	10.4	66.0					2.4	53.4	12.8	119.3	0.0	0.0
32.00	Appurtenance(s)	26.3	121.8	5.5	0.0	0.0	10.0	2.4	53.4	34.2	185.2	0.0	0.0
34.00	Appurtenance(s)	31.6	484.3	5.8	0.0	17.3	10.0	9.9	213.2	47.3	707.5	0.0	0.0
35.00		17.6	240.4					5.0	106.4	22.7	346.8	0.0	0.0
35.67	Top - Section 1	10.6	159.6					3.4	71.0	14.0	230.6	0.0	0.0
36.00	Appurtenance(s)	46.3	36.6	12.7	0.0	0.0	50.0	1.7	35.5	60.7	122.1	0.0	0.0
40.00		96.7	434.7					20.6	425.8	117.3	860.4	0.0	0.0
45.00		108.3	531.3					26.6	532.2	134.9	1,063.5	0.0	0.0
50.00		108.8	517.9					27.5	532.2	136.2	1,050.1	0.0	0.0
55.00		108.9	504.5					28.3	532.2	137.1	1,036.7	0.0	0.0
60.00		108.6	491.0					29.0	532.2	137.6	1,023.2	0.0	0.0
65.00		108.1	477.6					29.7	532.2	137.8	1,009.8	0.0	0.0
70.00	Bot - Section 3	92.0	464.2					30.4	532.2	122.4	996.4	0.0	0.0
73.50	Top - Section 2	54.4	575.9					21.6	372.5	76.1	948.5	0.0	0.0
75.00		70.2	109.4					9.4	159.7	79.5	269.0	0.0	0.0
80.00		107.1	357.6					31.6	532.2	138.7	889.8	0.0	0.0
85.00		105.7	346.9					32.2	532.2	137.8	879.1	0.0	0.0
90.00		63.5	336.2					32.7	532.2	96.2	868.4	0.0	0.0
91.06	Reinf. Top Reinf	16.4	70.1					7.0	376.1	23.4	446.2	0.0	0.0
91.58	Reinf Bottom	40.6	33.9					3.4	55.1	44.0	89.0	0.0	0.0
95.00		55.6	221.4					22.8	596.7	78.4	818.2	0.0	0.0
97.00	Appurtenance(s)	30.5	127.2	606.0	0.0	1,477.3	1,474.3	13.4	349.0	650.0	1,950.4	0.0	0.0
98.00	Appurtenance(s)	30.3	62.9	227.9	0.0	0.0	1,200.0	6.7	172.5	264.9	1,435.4	0.0	0.0
100.00		35.2	124.6					13.6	345.0	48.7	469.5	0.0	0.0
101.50	Reinf. Top Reinf	47.2	92.3					10.2	292.1	57.4	384.4	0.0	0.0
104.75	Reinf. Top	34.7	196.7					22.3	476.2	56.9	672.9	0.0	0.0
105.00		51.1	14.9					1.7	19.6	52.8	34.6	0.0	0.0
110.00	Top - Section 3	86.2	293.2					34.7	317.5	120.9	610.8	0.0	0.0
115.00	Appurtenance(s)	59.7	212.5	75.1	0.0	0.0	560.0	0.0	567.2	134.8	1,339.8	0.0	0.0
118.00	Reinf. Top	25.7	123.6	130.4	0.0	260.8	262.2	0.0	340.3	156.1	726.2	0.0	0.0
118.50	Reinf. Top	7.3	20.3					0.0	24.4	7.3	44.7	0.0	0.0
119.00	Appurtenance(s)	10.9	20.2	4.3	0.0	0.0	10.0	0.0	9.1	15.2	39.3	0.0	0.0
120.00		42.9	40.3					0.0	14.5	42.9	54.8	0.0	0.0
125.00		56.5	196.4					0.0	72.6	56.5	269.0	0.0	0.0
128.00	Appurtenance(s)	34.6	114.0	733.4	0.0	95.0	3,656.0	0.0	43.6	767.9	3,813.5	0.0	0.0
130.00		47.2	74.4					0.0	19.1	47.2	93.5	0.0	0.0
135.00		53.0	180.3					0.0	47.8	53.0	228.2	0.0	0.0
138.00	Appurtenance(s)	32.3	104.3	351.5	0.0	1,406.1	1,045.6	0.0	28.7	383.9	1,178.6	0.0	0.0

Site Number: 302473

Code: ANSI/TIA-222-H

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Site Name: E H F R - Prestige Park, CT

Engineering Number:13685975_C3_02

6/14/2021 9:24:49 AM

Customer: VERIZON WIRELESS

Load Case: 1.0D + 1.0W

Serviceability 60 mph

26 Iterations

Gust Response Factor :1.10

Dead Load Factor :1.00

Wind Load Factor :1.00

140.00		19.1	67.9					0.0	13.1	19.1	81.1	0.0	0.0
141.00	Appurtenance(s)	31.1	33.5	137.0	0.0	0.0	750.0	0.0	6.6	168.2	790.1	0.0	0.0
145.00		54.8	130.7					0.0	24.2	54.8	154.9	0.0	0.0
150.00	Appurtenance(s)	29.9	156.2	547.4	0.0	0.0	2,400.0	0.0	29.3	577.3	2,585.5	0.0	0.0
									Totals:	6,414.71	40,208.9	0.00	0.00

Site Number: 302473

Code: ANSI/TIA-222-H

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Site Name: E H F R - Prestige Park, CT

Engineering Number:13685975_C3_02

6/14/2021 9:24:49 AM

Customer: VERIZON WIRELESS

Load Case: 1.0D + 1.0W

Serviceability 60 mph

26 Iterations

Gust Response Factor :1.10

Dead Load Factor :1.00

Wind Load 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	-42.05	-7.05	0.00	-739.44	0.00	739.44	3,157.17	784.20	2,737.77	2,376.61	0.00	0.00	0.144
3.00	-40.91	-6.95	0.00	-718.30	0.00	718.30	3,131.60	774.23	2,668.68	2,327.12	0.01	-0.04	0.142
5.00	-40.22	-6.89	0.00	-704.40	0.00	704.40	3,114.35	767.59	2,623.11	2,294.24	0.03	-0.06	0.140
10.00	-38.51	-6.79	0.00	-669.96	0.00	669.96	3,070.50	750.99	2,510.89	2,212.51	0.12	-0.12	0.136
14.92	-36.86	-6.72	0.00	-636.56	0.00	636.56	3,026.34	734.65	2,402.87	2,132.75	0.27	-0.17	0.132
14.92	-36.86	-6.72	0.00	-636.56	0.00	636.56	3,026.34	734.65	2,402.87	2,132.75	0.27	-0.17	0.185
15.00	-36.83	-6.70	0.00	-636.02	0.00	636.02	3,025.61	734.39	2,401.13	2,131.46	0.28	-0.17	0.185
20.00	-35.49	-6.61	0.00	-602.54	0.00	602.54	2,979.68	717.78	2,293.82	2,051.14	0.50	-0.26	0.180
25.00	-34.21	-6.52	0.00	-569.48	0.00	569.48	2,932.71	701.18	2,188.97	1,971.59	0.81	-0.34	0.174
30.00	-33.00	-6.46	0.00	-536.86	0.00	536.86	2,875.21	684.57	2,086.57	1,886.65	1.21	-0.42	0.169
31.00	-32.71	-6.43	0.00	-530.40	0.00	530.40	2,861.26	681.25	2,066.38	1,868.29	1.30	-0.43	0.169
31.50	-32.59	-6.42	0.00	-527.19	0.00	527.19	2,854.29	679.59	2,056.33	1,859.14	1.35	-0.44	0.168
32.00	-32.40	-6.40	0.00	-523.97	0.00	523.97	2,847.32	677.93	2,046.29	1,850.02	1.39	-0.45	0.165
34.00	-31.70	-6.36	0.00	-511.16	0.00	511.16	2,819.42	671.29	2,006.41	1,813.74	1.59	-0.48	0.164
35.00	-31.35	-6.34	0.00	-504.80	0.00	504.80	2,805.48	667.97	1,986.62	1,795.73	1.69	-0.50	0.163
35.67	-31.12	-6.33	0.00	-500.57	0.00	500.57	2,248.07	566.94	1,717.07	1,468.70	1.76	-0.51	0.187
36.00	-30.99	-6.29	0.00	-498.46	0.00	498.46	2,245.83	566.02	1,711.49	1,464.83	1.80	-0.52	0.186
40.00	-30.12	-6.20	0.00	-473.32	0.00	473.32	2,218.59	554.95	1,645.23	1,418.49	2.26	-0.58	0.180
45.00	-29.05	-6.10	0.00	-442.31	0.00	442.31	2,183.60	541.11	1,564.24	1,360.97	2.92	-0.67	0.173
50.00	-27.99	-5.99	0.00	-411.82	0.00	411.82	2,147.58	527.27	1,485.29	1,303.95	3.66	-0.75	0.165
55.00	-26.95	-5.88	0.00	-381.87	0.00	381.87	2,110.52	513.44	1,408.39	1,247.47	4.50	-0.83	0.157
60.00	-25.92	-5.76	0.00	-352.49	0.00	352.49	2,072.42	499.60	1,333.53	1,191.58	5.41	-0.92	0.149
65.00	-24.91	-5.64	0.00	-323.70	0.00	323.70	2,033.27	485.77	1,260.72	1,136.35	6.41	-0.99	0.141
70.00	-23.91	-5.53	0.00	-295.50	0.00	295.50	1,982.10	471.93	1,189.95	1,075.84	7.50	-1.07	0.133
73.50	-22.96	-5.45	0.00	-276.16	0.00	276.16	1,473.96	377.74	952.81	802.32	8.30	-1.13	0.148
75.00	-22.68	-5.38	0.00	-268.00	0.00	268.00	1,466.28	374.42	936.13	791.05	8.66	-1.15	0.145
80.00	-21.79	-5.25	0.00	-241.09	0.00	241.09	1,440.00	363.35	881.62	753.69	9.90	-1.22	0.134
85.00	-20.91	-5.12	0.00	-214.83	0.00	214.83	1,412.68	352.28	828.74	716.65	11.23	-1.30	0.123
90.00	-20.04	-5.02	0.00	-189.22	0.00	189.22	1,384.32	341.21	777.50	679.98	12.62	-1.37	0.111
91.06	-19.59	-4.99	0.00	-183.89	0.00	183.89	1,378.16	338.86	766.82	672.24	12.93	-1.38	0.108
91.06	-19.59	-4.99	0.00	-183.89	0.00	183.89	1,378.16	338.86	766.82	672.24	12.93	-1.38	0.109
91.58	-19.50	-4.95	0.00	-181.31	0.00	181.31	1,375.14	337.72	761.64	668.47	13.08	-1.39	0.107
95.00	-18.68	-4.86	0.00	-164.37	0.00	164.37	1,354.92	330.14	727.89	643.72	14.09	-1.43	0.070
97.00	-16.75	-4.17	0.00	-153.17	0.00	153.17	1,342.86	325.72	708.50	629.35	14.69	-1.45	0.065
98.00	-15.32	-3.87	0.00	-149.00	0.00	149.00	1,336.78	323.50	698.91	622.19	15.00	-1.46	0.063
100.00	-14.85	-3.81	0.00	-141.26	0.00	141.26	1,324.47	319.08	679.91	607.94	15.61	-1.47	0.061
101.50	-14.47	-3.75	0.00	-135.54	0.00	135.54	1,315.14	315.75	665.84	597.30	16.08	-1.49	0.058
101.50	-14.47	-3.75	0.00	-135.54	0.00	135.54	1,315.14	315.75	665.84	597.30	16.08	-1.49	0.081
104.75	-13.80	-3.68	0.00	-123.35	0.00	123.35	1,294.59	308.56	635.85	574.43	17.10	-1.51	0.075
104.75	-13.80	-3.68	0.00	-123.35	0.00	123.35	1,294.59	308.56	635.85	574.43	17.10	-1.51	0.129
105.00	-13.76	-3.64	0.00	-122.43	0.00	122.43	1,292.99	308.01	633.57	572.68	17.18	-1.51	0.128
110.00	-13.15	-3.52	0.00	-104.24	0.00	104.24	1,247.14	296.94	588.87	532.29	18.81	-1.60	0.116
110.00	-13.15	-3.52	0.00	-104.24	0.00	104.24	853.24	223.37	444.19	366.34	18.81	-1.60	0.000

Site Number: 302473

Code: ANSI/TIA-222-H

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Site Name: E H F R - Prestige Park, CT

Engineering Number:13685975_C3_02

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Customer: VERIZON WIRELESS

Load Case: 1.0D + 1.0W				Serviceability 60 mph							26 Iterations		
Gust Response Factor :1.10													
Dead Load Factor :1.00													
Wind Load Factor :1.00													
115.00	-11.81	-3.36	0.00	-86.65	0.00	86.65	835.00	215.06	411.80	345.06	20.53	-1.68	0.075
118.00	-11.09	-3.18	0.00	-76.32	0.00	76.32	823.55	210.08	392.95	332.38	21.60	-1.71	0.068
118.00	-11.09	-3.18	0.00	-76.32	0.00	76.32	823.55	210.08	392.95	332.38	21.60	-1.71	0.133
118.50	-11.04	-3.18	0.00	-74.73	0.00	74.73	821.61	209.25	389.85	330.27	21.78	-1.72	0.131
118.50	-11.04	-3.18	0.00	-74.73	0.00	74.73	821.61	209.25	389.85	330.27	21.78	-1.72	0.240
119.00	-11.00	-3.16	0.00	-73.14	0.00	73.14	819.65	208.42	386.76	328.17	21.96	-1.73	0.237
120.00	-10.94	-3.14	0.00	-69.98	0.00	69.98	815.71	206.76	380.63	323.96	22.32	-1.76	0.230
125.00	-10.67	-3.09	0.00	-54.29	0.00	54.29	795.39	198.46	350.69	303.09	24.25	-1.91	0.193
128.00	-6.88	-2.20	0.00	-44.91	0.00	44.91	782.69	193.48	333.31	290.69	25.48	-2.00	0.163
130.00	-6.79	-2.16	0.00	-40.51	0.00	40.51	774.02	190.16	321.97	282.49	26.33	-2.05	0.152
135.00	-6.56	-2.11	0.00	-29.68	0.00	29.68	751.62	181.86	294.48	262.21	28.54	-2.16	0.122
138.00	-5.39	-1.69	0.00	-21.94	0.00	21.94	737.68	176.87	278.58	250.22	29.92	-2.22	0.095
140.00	-5.31	-1.67	0.00	-18.57	0.00	18.57	728.18	173.55	268.22	242.31	30.85	-2.25	0.084
141.00	-4.53	-1.47	0.00	-16.90	0.00	16.90	721.95	171.89	263.11	237.92	31.33	-2.27	0.077
145.00	-4.37	-1.41	0.00	-11.01	0.00	11.01	694.06	165.25	243.18	219.79	33.25	-2.32	0.056
150.00	0.00	-1.23	0.00	-3.94	0.00	3.94	659.19	156.95	219.37	198.13	35.70	-2.35	0.020

Site Number: 302473

Code: ANSI/TIA-222-H

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Site Name: E H F R - Prestige Park, CT

Engineering Number: 13685975_C3_02

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Customer: VERIZON WIRELESS

Equivalent Lateral Forces Method Analysis

Spectral Response Acceleration for Short Period (S_s):	0.19
Spectral Response Acceleration at 1.0 Second Period (S_{d1}):	0.05
Long-Period Transition Period (T_L):	6
Importance Factor (I_E):	1.00
Site Coefficient F_a :	1.60
Site Coefficient F_v :	2.40
Response Modification Coefficient (R):	1.50
Design Spectral Response Acceleration at Short Period (S_{ds}):	0.20
Design Spectral Response Acceleration at 1.0 Second Period (S_{d1}):	0.09
Seismic Response Coefficient (C_s):	0.03
Upper Limit C_s	0.03
Lower Limit C_s	0.03
Period based on Rayleigh Method (sec):	3.12
Redundancy Factor (p):	1.00
Seismic Force Distribution Exponent (k):	2.00
Total Unfactored Dead Load:	42.05 k
Seismic Base Shear (E):	1.26 k

Load Case 1.2D + 1.0Ev + 1.0Eh

Seismic

Segment	Height Above Base (ft)	Weight (lb)	W_z (lb-ft)	C_{vx}	Horizontal Force (lb)	Vertical Force (lb)
51	147.50	186	4,036	0.011	14	230
50	143.00	155	3,168	0.009	11	192
49	140.50	40	791	0.002	3	50
48	139.00	81	1,567	0.004	6	101
47	136.50	133	2,479	0.007	9	165
46	132.50	228	4,006	0.011	14	283
45	129.00	94	1,556	0.004	5	116
44	126.50	158	2,521	0.007	9	195
43	122.50	269	4,037	0.011	14	334
42	119.50	55	782	0.002	3	68
41	118.75	29	414	0.001	1	36
40	118.25	45	625	0.002	2	55
39	116.50	464	6,297	0.018	22	575
38	112.50	780	9,869	0.027	35	967
37	107.50	611	7,058	0.020	25	757
36	104.88	35	380	0.001	1	43
35	103.13	673	7,156	0.020	25	834
34	100.75	384	3,902	0.011	14	477
33	99.00	470	4,602	0.013	16	582
32	97.50	235	2,238	0.006	8	292
31	96.00	476	4,388	0.012	15	590
30	93.29	818	7,120	0.020	25	1,015
29	91.32	89	742	0.002	3	110
28	90.53	446	3,657	0.010	13	553
27	87.50	868	6,648	0.019	23	1,077

Site Number: 302473

Code: ANSI/TIA-222-H

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Site Name: E H F R - Prestige Park, CT

Engineering Number:13685975_C3_02

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Customer: VERIZON WIRELESS

26	82.50	879	5,983	0.017	21	1,090
25	77.50	890	5,344	0.015	19	1,103
24	74.25	269	1,483	0.004	5	334
23	71.75	948	4,883	0.014	17	1,176
22	67.50	996	4,540	0.013	16	1,236
21	62.50	1,010	3,945	0.011	14	1,252
20	57.50	1,023	3,383	0.009	12	1,269
19	52.50	1,037	2,857	0.008	10	1,286
18	47.50	1,050	2,369	0.007	8	1,302
17	42.50	1,063	1,921	0.005	7	1,319
16	38.00	860	1,242	0.003	4	1,067
15	35.83	72	93	0.000	0	89
14	35.33	231	288	0.001	1	286
13	34.50	347	413	0.001	1	430
12	33.00	697	760	0.002	3	865
11	31.75	175	177	0.000	1	217
10	31.25	119	117	0.000	0	148
9	30.50	239	222	0.001	1	297
8	27.50	1,205	912	0.003	3	1,495
7	22.50	1,268	642	0.002	2	1,573
6	17.50	1,331	408	0.001	1	1,651
5	14.96	21	5	0.000	0	27
4	12.46	1,655	257	0.001	1	2,052
3	7.50	1,697	95	0.000	0	2,105
2	4.00	683	11	0.000	0	848
1	1.50	1,036	2	0.000	0	1,285
Powerwave Allgon 702	150.00	13	297	0.001	1	16
Kaelus DBCT108F1V92-	150.00	42	938	0.003	3	52
Powerwave Allgon LGP	150.00	85	1,904	0.005	7	105
Raycap DC6-48-60-18-	150.00	60	1,350	0.004	5	74
Ericsson Radio 8843	150.00	216	4,853	0.014	17	267
Ericsson RRUS 4478 B	150.00	180	4,043	0.011	14	223
Ericsson RRUS 4449 B	150.00	213	4,793	0.013	17	264
Ericsson RRUS-32 B30	150.00	231	5,198	0.014	18	286
CCI OPA-65R-LCUU-H6	150.00	219	4,928	0.014	17	272
Kathrein Scala 80010	150.00	586	13,176	0.037	46	726
Generic Mount Reinfo	150.00	400	9,000	0.025	32	496
Flat Platform w/ Han	150.00	2,000	45,000	0.125	158	2,480
Round T-Arm	141.00	750	14,911	0.041	52	930
RFS IBC1900HG-2A	138.00	66	1,257	0.003	4	82
RFS IBC1900BB-1	138.00	66	1,257	0.003	4	82
Alcatel-Lucent 4X40W	138.00	178	3,399	0.009	12	221
Alcatel-Lucent 800 M	138.00	185	3,531	0.010	12	230
Alcatel-Lucent TD-RR	138.00	210	3,999	0.011	14	260
RFS APXVTM14-C-I20	138.00	159	3,022	0.008	11	197
RFS APXV9ERR18-C-A20	138.00	124	2,361	0.007	8	154
RFS APXVSP18-C-A20	138.00	57	1,086	0.003	4	71
Ericsson Radio 4460	128.00	327	5,358	0.015	19	406
Ericsson Radio 4480	128.00	252	4,129	0.011	14	313
Ericsson Air6449 B41	128.00	312	5,112	0.014	18	387
Ericsson AIR32 B66Aa	128.00	397	6,498	0.018	23	492
RFS APXVAALL24 43-U-	128.00	368	6,036	0.017	21	457
Round Platform w/ Ha	128.00	2,000	32,768	0.091	115	2,480
Generic 12" x 12" Ju	119.00	10	142	0.000	0	12
DragonWave Horizon C	118.00	32	443	0.001	2	39
DragonWave A-ANT-23G	118.00	15	209	0.001	1	19
NextNet BTS-2500	118.00	105	1,462	0.004	5	130
Argus LLPX310R	118.00	86	1,195	0.003	4	106
DragonWave A-ANT-23G	118.00	25	343	0.001	1	31
Side Arm	115.00	560	7,406	0.021	26	694
Generic Flat Light S	98.00	1,200	11,525	0.032	40	1,488
Samsung Outdoor CBRS	97.00	56	525	0.001	2	69
Samsung Outdoor CBRS	97.00	13	124	0.000	0	16
Samsung B2/B66A RRH-	97.00	253	2,382	0.007	8	314

Site Number: 302473

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Site Name: E H F R - Prestige Park, CT

Engineering Number:13685975_C3_02

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Customer: VERIZON WIRELESS

Samsung B5/B13 RRH-B	97.00	211	1,984	0.006	7	262
Samsung MT6407-77A	97.00	245	2,303	0.006	8	304
RFS DB-T1-6Z-8AB-0Z	97.00	88	828	0.002	3	109
Andrew SBNHH-1D65B	97.00	304	2,862	0.008	10	377
Andrew SBNHH-1D65B	97.00	304	2,862	0.008	10	377
Stand-off	36.00	50	65	0.000	0	62
Generic GPS	34.00	10	12	0.000	0	12
Generic GPS	32.00	10	10	0.000	0	12
Stand-off	31.00	50	48	0.000	0	62
Powerwave Allgon 777	3.00	105	1	0.000	0	130
		42,052	359,325	1.000	1,262	52,149

Load Case 0.9D - 1.0Ev + 1.0Eh

Seismic (Reduced DL)

Segment	Height Above Base (ft)	Weight (lb)	W _z (lb-ft)	C _{vx}	Horizontal Force (lb)	Vertical Force (lb)
51	147.50	186	4,036	0.011	14	160
50	143.00	155	3,168	0.009	11	133
49	140.50	40	791	0.002	3	34
48	139.00	81	1,567	0.004	6	70
47	136.50	133	2,479	0.007	9	114
46	132.50	228	4,006	0.011	14	196
45	129.00	94	1,556	0.004	5	80
44	126.50	158	2,521	0.007	9	135
43	122.50	269	4,037	0.011	14	231
42	119.50	55	782	0.002	3	47
41	118.75	29	414	0.001	1	25
40	118.25	45	625	0.002	2	38
39	116.50	464	6,297	0.018	22	399
38	112.50	780	9,869	0.027	35	671
37	107.50	611	7,058	0.020	25	525
36	104.88	35	380	0.001	1	30
35	103.13	673	7,156	0.020	25	579
34	100.75	384	3,902	0.011	14	331
33	99.00	470	4,602	0.013	16	404
32	97.50	235	2,238	0.006	8	202
31	96.00	476	4,388	0.012	15	409
30	93.29	818	7,120	0.020	25	704
29	91.32	89	742	0.002	3	77
28	90.53	446	3,657	0.010	13	384
27	87.50	868	6,648	0.019	23	747
26	82.50	879	5,983	0.017	21	756
25	77.50	890	5,344	0.015	19	765
24	74.25	269	1,483	0.004	5	231
23	71.75	948	4,883	0.014	17	816
22	67.50	996	4,540	0.013	16	857
21	62.50	1,010	3,945	0.011	14	868
20	57.50	1,023	3,383	0.009	12	880
19	52.50	1,037	2,857	0.008	10	891
18	47.50	1,050	2,369	0.007	8	903
17	42.50	1,063	1,921	0.005	7	914
16	38.00	860	1,242	0.003	4	740
15	35.83	72	93	0.000	0	62
14	35.33	231	288	0.001	1	198
13	34.50	347	413	0.001	1	298
12	33.00	697	760	0.002	3	600
11	31.75	175	177	0.000	1	151
10	31.25	119	117	0.000	0	103
9	30.50	239	222	0.001	1	206
8	27.50	1,205	912	0.003	3	1,037
7	22.50	1,268	642	0.002	2	1,091

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Site Name: E H F R - Prestige Park, CT

Engineering Number:13685975_C3_02

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Customer: VERIZON WIRELESS

6	17.50	1,331	408	0.001	1	1,145
5	14.96	21	5	0.000	0	18
4	12.46	1,655	257	0.001	1	1,423
3	7.50	1,697	95	0.000	0	1,460
2	4.00	683	11	0.000	0	588
1	1.50	1,036	2	0.000	0	891
Powerwave Allgon 702	150.00	13	297	0.001	1	11
Kaelus DBCT108F1V92-	150.00	42	938	0.003	3	36
Powerwave Allgon LGP	150.00	85	1,904	0.005	7	73
Raycap DC6-48-60-18-	150.00	60	1,350	0.004	5	52
Ericsson Radio 8843	150.00	216	4,853	0.014	17	185
Ericsson RRUS 4478 B	150.00	180	4,043	0.011	14	155
Ericsson RRUS 4449 B	150.00	213	4,793	0.013	17	183
Ericsson RRUS-32 B30	150.00	231	5,198	0.014	18	199
CCI OPA-65R-LCUU-H6	150.00	219	4,928	0.014	17	188
Kathrein Scala 80010	150.00	586	13,176	0.037	46	504
Generic Mount Reinfo	150.00	400	9,000	0.025	32	344
Flat Platform w/ Han	150.00	2,000	45,000	0.125	158	1,720
Round T-Arm	141.00	750	14,911	0.041	52	645
RFS IBC1900HG-2A	138.00	66	1,257	0.003	4	57
RFS IBC1900BB-1	138.00	66	1,257	0.003	4	57
Alcatel-Lucent 4X40W	138.00	178	3,399	0.009	12	153
Alcatel-Lucent 800 M	138.00	185	3,531	0.010	12	159
Alcatel-Lucent TD-RR	138.00	210	3,999	0.011	14	181
RFS APXVTM14-C-I20	138.00	159	3,022	0.008	11	136
RFS APXV9ERR18-C-A20	138.00	124	2,361	0.007	8	107
RFS APXVSP18-C-A20	138.00	57	1,086	0.003	4	49
Ericsson Radio 4460	128.00	327	5,358	0.015	19	281
Ericsson Radio 4480	128.00	252	4,129	0.011	14	217
Ericsson Air6449 B41	128.00	312	5,112	0.014	18	268
Ericsson AIR32 B66Aa	128.00	397	6,498	0.018	23	341
RFS APXVAALL24 43-U-	128.00	368	6,036	0.017	21	317
Round Platform w/ Ha	128.00	2,000	32,768	0.091	115	1,720
Generic 12" x 12" Ju	119.00	10	142	0.000	0	9
DragonWave Horizon C	118.00	32	443	0.001	2	27
DragonWave A-ANT-23G	118.00	15	209	0.001	1	13
NextNet BTS-2500	118.00	105	1,462	0.004	5	90
Argus LLPX310R	118.00	86	1,195	0.003	4	74
DragonWave A-ANT-23G	118.00	25	343	0.001	1	21
Side Arm	115.00	560	7,406	0.021	26	482
Generic Flat Light S	98.00	1,200	11,525	0.032	40	1,032
Samsung Outdoor CBRS	97.00	56	525	0.001	2	48
Samsung Outdoor CBRS	97.00	13	124	0.000	0	11
Samsung B2/B66A RRH-	97.00	253	2,382	0.007	8	218
Samsung B5/B13 RRH-B	97.00	211	1,984	0.006	7	181
Samsung MT6407-77A	97.00	245	2,303	0.006	8	211
RFS DB-T1-6Z-8AB-0Z	97.00	88	828	0.002	3	76
Andrew SBNHH-1D65B	97.00	304	2,862	0.008	10	262
Andrew SBNHH-1D65B	97.00	304	2,862	0.008	10	262
Stand-off	36.00	50	65	0.000	0	43
Generic GPS	34.00	10	12	0.000	0	9
Generic GPS	32.00	10	10	0.000	0	9
Stand-off	31.00	50	48	0.000	0	43
Powerwave Allgon 777	3.00	105	1	0.000	0	90
		42,052	359,325	1.000	1,262	36,161

Site Number: 302473

Code: ANSI/TIA-222-H

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Site Name: E H F R - Prestige Park, CT

Engineering Number:13685975_C3_02

6/14/2021 9:24:50 AM

Customer: VERIZON WIRELESS

Load Case 1.2D + 1.0Ev + 1.0Eh

Seismic

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	-50.86	-1.26	0.00	-164.25	0.00	164.25	3,157.17	784.20	2,737.77	2,376.61	0.00	0.00	0.039
3.00	-49.89	-1.27	0.00	-160.45	0.00	160.45	3,131.60	774.23	2,668.68	2,327.12	0.00	-0.01	0.039
5.00	-47.78	-1.28	0.00	-157.91	0.00	157.91	3,114.35	767.59	2,623.11	2,294.24	0.01	-0.01	0.038
10.00	-45.73	-1.29	0.00	-151.53	0.00	151.53	3,070.50	750.99	2,510.89	2,212.51	0.03	-0.03	0.037
14.92	-45.70	-1.29	0.00	-145.21	0.00	145.21	3,026.34	734.65	2,402.87	2,132.75	0.06	-0.04	0.036
14.92	-45.70	-1.29	0.00	-145.21	0.00	145.21	3,026.34	734.65	2,402.87	2,132.75	0.06	-0.04	0.051
15.00	-44.05	-1.30	0.00	-145.10	0.00	145.10	3,025.61	734.39	2,401.13	2,131.46	0.06	-0.04	0.050
20.00	-42.48	-1.31	0.00	-138.63	0.00	138.63	2,979.68	717.78	2,293.82	2,051.14	0.11	-0.06	0.049
25.00	-40.98	-1.31	0.00	-132.10	0.00	132.10	2,932.71	701.18	2,188.97	1,971.59	0.18	-0.08	0.048
30.00	-40.69	-1.32	0.00	-125.53	0.00	125.53	2,875.21	684.57	2,086.57	1,886.65	0.27	-0.10	0.047
31.00	-40.48	-1.32	0.00	-124.21	0.00	124.21	2,861.26	681.25	2,066.38	1,868.29	0.29	-0.10	0.047
31.50	-40.26	-1.32	0.00	-123.55	0.00	123.55	2,854.29	679.59	2,056.33	1,859.14	0.31	-0.10	0.047
32.00	-39.38	-1.32	0.00	-122.89	0.00	122.89	2,847.32	677.93	2,046.29	1,850.02	0.32	-0.10	0.046
34.00	-38.94	-1.32	0.00	-120.25	0.00	120.25	2,819.42	671.29	2,006.41	1,813.74	0.36	-0.11	0.046
35.00	-38.65	-1.32	0.00	-118.92	0.00	118.92	2,805.48	667.97	1,986.62	1,795.73	0.38	-0.11	0.046
35.67	-38.56	-1.32	0.00	-118.04	0.00	118.04	2,248.07	566.94	1,717.07	1,468.70	0.40	-0.12	0.053
36.00	-37.43	-1.32	0.00	-117.60	0.00	117.60	2,245.83	566.02	1,711.49	1,464.83	0.41	-0.12	0.052
40.00	-36.12	-1.33	0.00	-112.31	0.00	112.31	2,218.59	554.95	1,645.23	1,418.49	0.52	-0.13	0.051
45.00	-34.81	-1.33	0.00	-105.68	0.00	105.68	2,183.60	541.11	1,564.24	1,360.97	0.67	-0.15	0.049
50.00	-33.53	-1.32	0.00	-99.05	0.00	99.05	2,147.58	527.27	1,485.29	1,303.95	0.84	-0.17	0.047
55.00	-32.26	-1.32	0.00	-92.44	0.00	92.44	2,110.52	513.44	1,408.39	1,247.47	1.03	-0.19	0.045
60.00	-31.00	-1.31	0.00	-85.84	0.00	85.84	2,072.42	499.60	1,333.53	1,191.58	1.25	-0.21	0.043
65.00	-29.77	-1.30	0.00	-79.29	0.00	79.29	2,033.27	485.77	1,260.72	1,136.35	1.48	-0.23	0.041
70.00	-28.59	-1.29	0.00	-72.79	0.00	72.79	1,982.10	471.93	1,189.95	1,075.84	1.74	-0.25	0.039
73.50	-28.26	-1.28	0.00	-68.29	0.00	68.29	1,473.96	377.74	952.81	802.32	1.93	-0.27	0.045
75.00	-27.15	-1.27	0.00	-66.36	0.00	66.36	1,466.28	374.42	936.13	791.05	2.01	-0.27	0.043
80.00	-26.06	-1.25	0.00	-60.03	0.00	60.03	1,440.00	363.35	881.62	753.69	2.31	-0.29	0.041
85.00	-24.99	-1.23	0.00	-53.79	0.00	53.79	1,412.68	352.28	828.74	716.65	2.62	-0.31	0.038
90.00	-24.43	-1.22	0.00	-47.66	0.00	47.66	1,384.32	341.21	777.50	679.98	2.95	-0.33	0.035
91.06	-24.32	-1.21	0.00	-46.37	0.00	46.37	1,378.16	338.86	766.82	672.24	3.03	-0.33	0.034
91.06	-24.32	-1.21	0.00	-46.37	0.00	46.37	1,378.16	338.86	766.82	672.24	3.03	-0.33	0.034
91.58	-23.31	-1.19	0.00	-45.74	0.00	45.74	1,375.14	337.72	761.64	668.47	3.06	-0.33	0.034
95.00	-22.72	-1.17	0.00	-41.69	0.00	41.69	1,354.92	330.14	727.89	643.72	3.30	-0.34	0.022
97.00	-20.60	-1.10	0.00	-39.35	0.00	39.35	1,342.86	325.72	708.50	629.35	3.45	-0.35	0.021
98.00	-18.53	-1.03	0.00	-38.25	0.00	38.25	1,336.78	323.50	698.91	622.19	3.52	-0.35	0.020
100.00	-18.05	-1.02	0.00	-36.18	0.00	36.18	1,324.47	319.08	679.91	607.94	3.67	-0.35	0.019
101.50	-17.22	-0.99	0.00	-34.66	0.00	34.66	1,315.14	315.75	665.84	597.30	3.78	-0.36	0.018
101.50	-17.22	-0.99	0.00	-34.66	0.00	34.66	1,315.14	315.75	665.84	597.30	3.78	-0.36	0.024
104.75	-17.17	-0.99	0.00	-31.44	0.00	31.44	1,294.59	308.56	635.85	574.43	4.03	-0.36	0.023
104.75	-17.17	-0.99	0.00	-31.44	0.00	31.44	1,294.59	308.56	635.85	574.43	4.03	-0.36	0.039
105.00	-16.42	-0.96	0.00	-31.20	0.00	31.20	1,292.99	308.01	633.57	572.68	4.04	-0.36	0.039
110.00	-15.45	-0.93	0.00	-26.39	0.00	26.39	1,247.14	296.94	588.87	532.29	4.44	-0.39	0.035
110.00	-15.45	-0.93	0.00	-26.39	0.00	26.39	853.24	223.37	444.19	366.34	4.44	-0.39	0.000
115.00	-14.18	-0.87	0.00	-21.75	0.00	21.75	835.00	215.06	411.80	345.06	4.85	-0.41	0.023
118.00	-13.80	-0.86	0.00	-19.14	0.00	19.14	823.55	210.08	392.95	332.38	5.11	-0.41	0.021
118.00	-13.80	-0.86	0.00	-19.14	0.00	19.14	823.55	210.08	392.95	332.38	5.11	-0.41	0.041
118.50	-13.76	-0.86	0.00	-18.71	0.00	18.71	821.61	209.25	389.85	330.27	5.15	-0.41	0.040

Site Number: 302473

Code: ANSI/TIA-222-H

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Site Name: E H F R - Prestige Park, CT

Engineering Number:13685975_C3_02

6/14/2021 9:24:50 AM

Customer: VERIZON WIRELESS

118.50	-13.76	-0.86	0.00	-18.71	0.00	18.71	821.61	209.25	389.85	330.27	5.15	-0.41	0.073
119.00	-13.68	-0.85	0.00	-18.28	0.00	18.28	819.65	208.42	386.76	328.17	5.20	-0.42	0.072
120.00	-13.35	-0.84	0.00	-17.43	0.00	17.43	815.71	206.76	380.63	323.96	5.28	-0.43	0.070
125.00	-13.15	-0.84	0.00	-13.22	0.00	13.22	795.39	198.46	350.69	303.09	5.75	-0.46	0.060
128.00	-8.50	-0.59	0.00	-10.70	0.00	10.70	782.69	193.48	333.31	290.69	6.05	-0.48	0.048
130.00	-8.22	-0.57	0.00	-9.53	0.00	9.53	774.02	190.16	321.97	282.49	6.26	-0.50	0.044
135.00	-8.06	-0.57	0.00	-6.67	0.00	6.67	751.62	181.86	294.48	262.21	6.79	-0.52	0.036
138.00	-6.66	-0.48	0.00	-4.97	0.00	4.97	737.68	176.87	278.58	250.22	7.12	-0.53	0.029
140.00	-6.61	-0.48	0.00	-4.02	0.00	4.02	728.18	173.55	268.22	242.31	7.35	-0.54	0.026
141.00	-5.49	-0.40	0.00	-3.54	0.00	3.54	721.95	171.89	263.11	237.92	7.46	-0.55	0.022
145.00	-5.26	-0.39	0.00	-1.93	0.00	1.93	694.06	165.25	243.18	219.79	7.92	-0.55	0.016
150.00	0.00	-0.34	0.00	0.00	0.00	0.00	659.19	156.95	219.37	198.13	8.51	-0.56	0.000

Load Case 0.9D - 1.0Ev + 1.0Eh

Seismic (Reduced DL)

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	-35.27	-1.26	0.00	-159.83	0.00	159.83	3,157.17	784.20	2,737.77	2,376.61	0.00	0.00	0.036
3.00	-34.59	-1.27	0.00	-156.04	0.00	156.04	3,131.60	774.23	2,668.68	2,327.12	0.00	-0.01	0.035
5.00	-33.13	-1.27	0.00	-153.50	0.00	153.50	3,114.35	767.59	2,623.11	2,294.24	0.01	-0.01	0.035
10.00	-31.71	-1.28	0.00	-147.15	0.00	147.15	3,070.50	750.99	2,510.89	2,212.51	0.03	-0.03	0.034
14.92	-31.69	-1.28	0.00	-140.86	0.00	140.86	3,026.34	734.65	2,402.87	2,132.75	0.06	-0.04	0.033
14.92	-31.69	-1.28	0.00	-140.86	0.00	140.86	3,026.34	734.65	2,402.87	2,132.75	0.06	-0.04	0.046
15.00	-30.55	-1.28	0.00	-140.76	0.00	140.76	3,025.61	734.39	2,401.13	2,131.46	0.06	-0.04	0.046
20.00	-29.45	-1.29	0.00	-134.35	0.00	134.35	2,979.68	717.78	2,293.82	2,051.14	0.11	-0.06	0.045
25.00	-28.42	-1.29	0.00	-127.90	0.00	127.90	2,932.71	701.18	2,188.97	1,971.59	0.18	-0.07	0.044
30.00	-28.21	-1.30	0.00	-121.43	0.00	121.43	2,875.21	684.57	2,086.57	1,886.65	0.27	-0.09	0.043
31.00	-28.07	-1.30	0.00	-120.13	0.00	120.13	2,861.26	681.25	2,066.38	1,868.29	0.29	-0.10	0.043
31.50	-27.92	-1.30	0.00	-119.48	0.00	119.48	2,854.29	679.59	2,056.33	1,859.14	0.30	-0.10	0.043
32.00	-27.31	-1.30	0.00	-118.83	0.00	118.83	2,847.32	677.93	2,046.29	1,850.02	0.31	-0.10	0.042
34.00	-27.00	-1.30	0.00	-116.24	0.00	116.24	2,819.42	671.29	2,006.41	1,813.74	0.35	-0.11	0.042
35.00	-26.80	-1.30	0.00	-114.94	0.00	114.94	2,805.48	667.97	1,986.62	1,795.73	0.37	-0.11	0.042
35.67	-26.74	-1.30	0.00	-114.07	0.00	114.07	2,248.07	566.94	1,717.07	1,468.70	0.39	-0.11	0.048
36.00	-25.96	-1.30	0.00	-113.64	0.00	113.64	2,245.83	566.02	1,711.49	1,464.83	0.40	-0.12	0.048
40.00	-25.04	-1.30	0.00	-108.46	0.00	108.46	2,218.59	554.95	1,645.23	1,418.49	0.50	-0.13	0.046
45.00	-24.14	-1.29	0.00	-101.98	0.00	101.98	2,183.60	541.11	1,564.24	1,360.97	0.65	-0.15	0.045
50.00	-23.25	-1.29	0.00	-95.52	0.00	95.52	2,147.58	527.27	1,485.29	1,303.95	0.81	-0.17	0.043
55.00	-22.37	-1.28	0.00	-89.08	0.00	89.08	2,110.52	513.44	1,408.39	1,247.47	1.00	-0.19	0.041
60.00	-21.50	-1.27	0.00	-82.67	0.00	82.67	2,072.42	499.60	1,333.53	1,191.58	1.21	-0.21	0.039
65.00	-20.64	-1.26	0.00	-76.32	0.00	76.32	2,033.27	485.77	1,260.72	1,136.35	1.44	-0.23	0.037
70.00	-19.82	-1.24	0.00	-70.03	0.00	70.03	1,982.10	471.93	1,189.95	1,075.84	1.68	-0.24	0.036
73.50	-19.59	-1.24	0.00	-65.67	0.00	65.67	1,473.96	377.74	952.81	802.32	1.87	-0.26	0.040
75.00	-18.83	-1.22	0.00	-63.81	0.00	63.81	1,466.28	374.42	936.13	791.05	1.95	-0.26	0.039
80.00	-18.07	-1.20	0.00	-57.70	0.00	57.70	1,440.00	363.35	881.62	753.69	2.23	-0.28	0.037
85.00	-17.32	-1.18	0.00	-51.69	0.00	51.69	1,412.68	352.28	828.74	716.65	2.54	-0.30	0.034
90.00	-16.94	-1.17	0.00	-45.78	0.00	45.78	1,384.32	341.21	777.50	679.98	2.86	-0.31	0.031
91.06	-16.86	-1.17	0.00	-44.54	0.00	44.54	1,378.16	338.86	766.82	672.24	2.93	-0.32	0.030
91.06	-16.86	-1.17	0.00	-44.54	0.00	44.54	1,378.16	338.86	766.82	672.24	2.93	-0.32	0.031
91.58	-16.16	-1.14	0.00	-43.94	0.00	43.94	1,375.14	337.72	761.64	668.47	2.96	-0.32	0.030
95.00	-15.75	-1.12	0.00	-40.04	0.00	40.04	1,354.92	330.14	727.89	643.72	3.20	-0.33	0.020
97.00	-14.28	-1.06	0.00	-37.79	0.00	37.79	1,342.86	325.72	708.50	629.35	3.33	-0.33	0.018
98.00	-12.85	-1.00	0.00	-36.73	0.00	36.73	1,336.78	323.50	698.91	622.19	3.40	-0.34	0.018
100.00	-12.52	-0.98	0.00	-34.74	0.00	34.74	1,324.47	319.08	679.91	607.94	3.55	-0.34	0.017
101.50	-11.94	-0.95	0.00	-33.27	0.00	33.27	1,315.14	315.75	665.84	597.30	3.65	-0.34	0.016
101.50	-11.94	-0.95	0.00	-33.27	0.00	33.27	1,315.14	315.75	665.84	597.30	3.65	-0.34	0.022
104.75	-11.91	-0.95	0.00	-30.17	0.00	30.17	1,294.59	308.56	635.85	574.43	3.89	-0.35	0.021
104.75	-11.91	-0.95	0.00	-30.17	0.00	30.17	1,294.59	308.56	635.85	574.43	3.89	-0.35	0.035
105.00	-11.38	-0.93	0.00	-29.93	0.00	29.93	1,292.99	308.01	633.57	572.68	3.91	-0.35	0.035
110.00	-10.71	-0.89	0.00	-25.30	0.00	25.30	1,247.14	296.94	588.87	532.29	4.29	-0.37	0.032
110.00	-10.71	-0.89	0.00	-25.30	0.00	25.30	853.24	223.37	444.19	366.34	4.29	-0.37	0.000
115.00	-9.83	-0.84	0.00	-20.85	0.00	20.85	835.00	215.06	411.80	345.06	4.69	-0.39	0.021
118.00	-9.57	-0.82	0.00	-18.33	0.00	18.33	823.55	210.08	392.95	332.38	4.94	-0.40	0.019
118.00	-9.57	-0.82	0.00	-18.33	0.00	18.33	823.55	210.08	392.95	332.38	4.94	-0.40	0.037
118.50	-9.54	-0.82	0.00	-17.92	0.00	17.92	821.61	209.25	389.85	330.27	4.98	-0.40	0.036

Site Number: 302473

Code: ANSI/TIA-222-H

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Site Name: E H F R - Prestige Park, CT

Engineering Number:13685975_C3_02

6/14/2021 9:24:50 AM

Customer: VERIZON WIRELESS

118.50	-9.54	-0.82	0.00	-17.92	0.00	17.92	821.61	209.25	389.85	330.27	4.98	-0.40	0.066
119.00	-9.49	-0.82	0.00	-17.50	0.00	17.50	819.65	208.42	386.76	328.17	5.02	-0.40	0.065
120.00	-9.25	-0.81	0.00	-16.68	0.00	16.68	815.71	206.76	380.63	323.96	5.11	-0.41	0.063
125.00	-9.12	-0.80	0.00	-12.65	0.00	12.65	795.39	198.46	350.69	303.09	5.56	-0.45	0.053
128.00	-5.90	-0.56	0.00	-10.24	0.00	10.24	782.69	193.48	333.31	290.69	5.84	-0.47	0.043
130.00	-5.70	-0.55	0.00	-9.12	0.00	9.12	774.02	190.16	321.97	282.49	6.04	-0.48	0.040
135.00	-5.59	-0.54	0.00	-6.38	0.00	6.38	751.62	181.86	294.48	262.21	6.55	-0.50	0.032
138.00	-4.62	-0.46	0.00	-4.75	0.00	4.75	737.68	176.87	278.58	250.22	6.87	-0.51	0.025
140.00	-4.58	-0.45	0.00	-3.84	0.00	3.84	728.18	173.55	268.22	242.31	7.09	-0.52	0.022
141.00	-3.81	-0.38	0.00	-3.38	0.00	3.38	721.95	171.89	263.11	237.92	7.20	-0.52	0.020
145.00	-3.65	-0.37	0.00	-1.85	0.00	1.85	694.06	165.25	243.18	219.79	7.65	-0.53	0.014
150.00	0.00	-0.34	0.00	0.00	0.00	0.00	659.19	156.95	219.37	198.13	8.21	-0.54	0.000

Site Number: 302473

Code: ANSI/TIA-222-H

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Site Name: E H F R - Prestige Park, CT

Engineering Number:13685975_C3_02

6/14/2021 9:24:50 AM

Customer: VERIZON WIRELESS

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 + 1.0W	28.96	0.00	50.42	0.00	0.00	3071.26	118.50	0.96
0.9D + 1.0W	28.95	0.00	37.81	0.00	0.00	3007.61	118.50	0.92
1.2D + 1.0Di + 1.0Wi	6.38	0.00	72.27	0.00	0.00	769.13	118.50	0.29
1.2D + 1.0Ev + 1.0Eh	1.26	0.00	50.86	0.00	0.00	164.25	118.50	0.07
0.9D - 1.0Ev + 1.0Eh	1.26	0.00	35.27	0.00	0.00	159.83	118.50	0.07
1.0D + 1.0W	7.05	0.00	42.05	0.00	0.00	739.44	118.50	0.24

Site Number: 302473

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Site Name: E H F R - Prestige Park, CT

Engineering Number:13685975_C3_02

6/14/2021 9:24:50 AM

Customer: VERIZON WIRELESS

Additional Steel Summary

			Intermediate Connectors				Max Member		
Elev From (ft)	Elev To (ft)	Member	VQ/I (lb/in)	Shear Applied (kips)	Shear phiVn (kips)	Ratio	Pu (kip)	phiPn (kip)	Ratio
0.00	91.06	(4) SOL-#20 All Thread Bar	417.2	12.5	16.8	0.745	308.7	330.5	0.934
0.00	14.92	(4) SOL-#20 All Thread Bar	189.0	7.0	16.8	0.416	232.2	319.1	0.728
91.06	101.50	(4) SOL-#20 All Thread Bar	417.8	12.5	16.8	0.746	187.4	330.5	0.567
91.58	104.75	(4) PL-PL 4 x 1.25	275.1	6.6	38.3	0.172	119.5	220.3	0.542
101.50	110.00	(4) PL-PL 3" x 1"	288.4	6.9	38.3	0.181	115.6	116.3	0.993
110.00	118.50	(3) PL-PL 3" x 1"	381.7	9.2	38.3	0.239	111.0	116.3	0.954
110.00	118.00	(3) PL-PL 5" x 1.25"	414.6	10.0	38.3	0.260	136.7	295.3	0.463

			Upper Termination Connectors					Lower Termination Connectors				
Elev From (ft)	Elev To (ft)	Member	MQ/I (kips)	phiVn (kips)	Num Reqd	Num Actual	Ratio	MQ/I (kips)	phiVn (kips)	Num Reqd	Num Actual	Ratio
0.00	91.06	(4) SOL-#20 All Thread Bar	0.0	12.0	0	0	0.000	0.0	12.0	0	0	0.000
0.00	14.92	(4) SOL-#20 All Thread Bar	216.6	12.0	19	24	0.752	0.0	12.0	0	0	0.000
91.06	101.50	(4) SOL-#20 All Thread Bar	104.8	12.0	9	12	0.727	0.0	12.0	0	0	0.000
91.58	104.75	(4) PL-PL 4 x 1.25	110.5	38.3	3	6	0.481	105.8	38.3	3	6	0.461
101.50	110.00	(4) PL-PL 3" x 1"	102.3	38.3	3	6	0.446	70.8	38.3	2	6	0.308
110.00	118.50	(3) PL-PL 3" x 1"	0.0	38.3	0	6	0.000	0.0	38.3	0	6	0.000
110.00	118.00	(3) PL-PL 5" x 1.25"	116.3	38.3	4	8	0.380	147.3	38.3	4	8	0.481

Base Plate & Anchor Rod Analysis

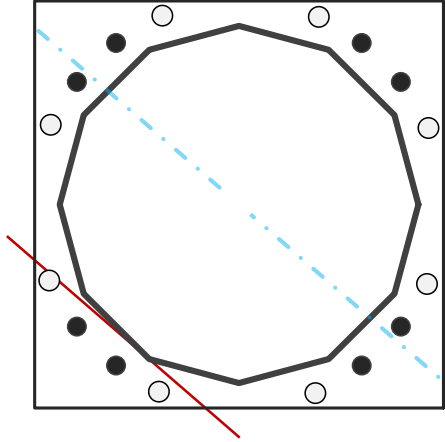
Pole Dimensions		
Number of Sides	12	-
Diameter	37.38	in
Thickness	3/8	in
Orientation Offset		°

Base Reactions		
Moment, Mu	3,071.3	k-ft
Axial, Pu	50.4	k
Shear, Vu	29.0	k
Neutral Axis	139	°

Report Capacities		
Component	Capacity	Result
Base Plate	51%	Pass
Anchor Rods	76%	Pass
Dwyidag	62%	Pass

Base Plate		
Shape	Square	-
Width	44.25	in
Thickness	2 1/2	in
Grade	A633 Gr. E	
Yield Strength, Fy	60	ksi
Tensile Strength, Fu	80	ksi
Clip	0	in
Orientation Offset		°
Anchor Rod Detail	c	$\eta=0.55$
Clear Distance	N/A	in
Applied Moment, Mu	1089.7	k
Bending Stress, ϕMn	2136.7	k

Dwyidag Reinforcement		
Quantity	8	-
Bar Size	#20	in
Diameter, ϕ	2.5	in
Bracket Type	Angle	-
Circle	44.26	in
Orientation Offset	22	°
Applied Force, Pu	227.4	k
Dwyidag Bar, ϕPn	368.2	k



Original Anchor Rods		
Arrangement	Cluster	-
Quantity	8	-
Diameter, ϕ	2 1/4	in
Bolt Circle	44	in
Grade	A615-75	
Yield Strength, Fy	75	ksi
Tensile Strength, Fu	100	ksi
Spacing	6.0	in
Orientation Offset		°
Applied Force, Pu	183.8	k
Anchor Rods, ϕPn	243.6	k

Calculations for Monopole Base Plate & Anchor Rod Analysis

Reaction Distribution

Reaction	Shear Vu	Moment Mu	Factor
-	k	k-ft	-
Base Forces	29.0	1332.3	0.43
Anchor Rod Forces	29.0	1332.3	0.43
Additional Bolt (Grp1) Forces	0.0	0.0	0.00
Additional Bolt (Grp2) Forces	0.0	0.0	0.00
Dywidag Forces	0.0	1738.9	0.57
Stiffener Forces	0.0	0.0	0.00

Geometric Properties

Section	Gross Area	Net Area	Individual Inertia	Threads per Inch	Moment of Inertia
-	in ²	in ²	in ⁴	#	in ⁴
Pole	43.0992	3.5916	0.1692		7379.37
Bolt	3.9761	3.2477	0.8393	4.5	6294.24
Bolt1	0.0000	0.0000	0.0000	0	0.00
Bolt2	0.0000	0.0000	0.0000	0	0.00
Dywidag	4.9087	4.9087	1.9175		9631.30
Stiffener	0.0000	0.0000	0.0000		0.00

Base Plate		
Shape	Square	-
Width, W	44.25	in
Thickness, t	2.5	in
Yield Strength, Fy	60	ksi
Tensile Strength, Fu	80	ksi
Base Plate Chord	23.681	in
Detail Type	c	-
Detail Factor	0.55	-
Clear Distance	N/A	-

Anchor Rods		
Anchor Rod Quantity, N	8	-
Rod Diameter, d	2.25	in
Bolt Circle, BC	44	in
Yield Strength, Fy	75	ksi
Tensile Strength, Fu	100	ksi
Applied Axial, Pu	183.8	k
Applied Shear, Vu	0.4	k
Compressive Capacity, φPn	243.6	k
Tensile Capacity, φRnt	0.755	OK
Interaction Capacity	0.758	OK

External Base Plate		
Chord Length AA	25.074	in
Additional AA	0.250	in
Section Modulus, Z	39.569	in ³
Applied Moment, Mu	1089.7	k-ft
Bending Capacity, φMn	2136.7	k-ft
Capacity, Mu/φMn	0.510	OK
Chord Length AB	23.751	in
Additional AB	0.250	in
Section Modulus, Z	37.501	in ³
Applied Moment, Mu	848.8	k-ft
Bending Capacity, φMn	2025.1	k-ft
Capacity, Mu/φMn	0.419	OK
Bend Line Length	0.000	in
Additional Bend Line	0.000	in
Section Modulus, Z	0.000	in ³
Applied Moment, Mu	0.0	k-ft
Bending Capacity, φMn	0.0	k-ft
Capacity, Mu/φMn		

Internal Base Plate		
Arc Length	0.000	in
Section Modulus, Z	0.000	in ³
Moment Arm	0.000	in
Applied Moment, Mu	0.0	k-ft
Bending Capacity, φMn	0.0	k-ft
Capacity, Mu/φMn		

Dywidag Reinforcement		
Dywidag Quantity, N	8	-
Dywidag Diameter, d	2.5	in
Bolt Circle, BC	44.26	in
Yield Strength, Fy	80	ksi
Tensile Strength, Fu	100	ksi
Applied Axial, Pu	227.4	k
Compressive Capacity, φPn	368.2	k
Capacity, Pu/φPn	0.618	OK

Flange Plate Analysis

Flange Plate	Plate Type	Flange	@ 110 ft
	Pole Diameter	21.2543	in
	Pole Thickness	0.1875	in
	Plate Diameter	28.5	in
	Plate Thickness	1	in
	Plate Fy	60	ksi
	Weld Length	3/16	in
	f _s Resistance	196.36	k-in
	Applied	99.31	k-in

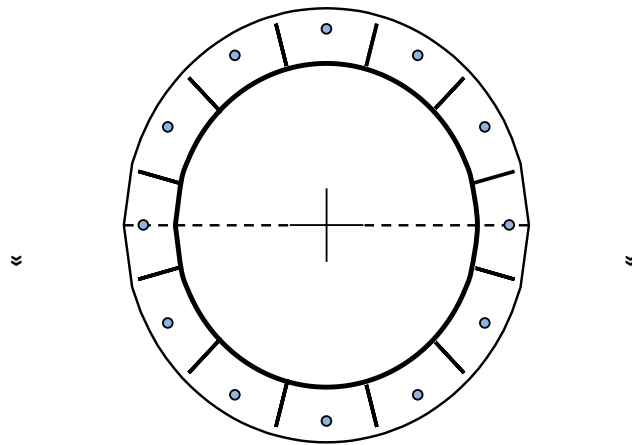
Code Rev. H

Date	6/14/2021
Engineer	Siddharth.Yadav
Site #	302473
Carrier	Verizon Wireless

Moment 434.7 k-ft
 Axial 14.2 k

Stiffeners	#	12	Show
	Thickness	1/2	in
	Length	3 7/8	in
	Height	5	in
	Chamfer	1	in
	Offset Angle	0	°
	Fy	36	ksi

Bolts	#	12	
	Bolt Circle	25.75	in
	(R)adial / (S)quare	R	
	Diameter	1	in
	Hole Diameter	1 1/8	in
	Type	A490	
	Fy	130	ksi
	Fu	150	ksi
f _s Resistance	68.15	k	
Applied	66.30	k	



Reinforcement	#		
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Plate Stress Ratio:
51% Pass

Bolt Stress Ratio:
97% Pass

Extra Bolts	#		
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Site Name: E H F R - Prestige Park, CT
Site Number: 302473
Tower Type: MP
Design Loads (Factored) - Analysis per TIA-222-H Standards

Monolithic Mat & Pier Foundation Analysis

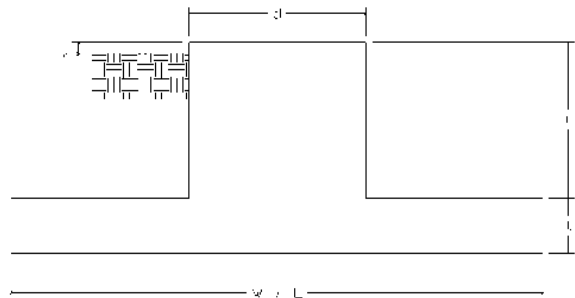
Foundation Analysis Parameters		
Design / Analysis / Mapping:	Analysis	-
Compression/Leg:	50.4	k
Uplift/Leg:	0.0	k
Total Shear:	29.0	k
Moment:	3,071.3	k-ft
Tower + Appurtenance Weight:	50.4	k
Depth to Base of Foundation (l + t - h):	8	ft
Diameter of Pier (d):	4.333333	ft
Length of Pier (l):	5.5	ft
Height of Pier above Ground (h):	0.5	ft
Width of Pad (W):	18	ft
Length of Pad (L):	18	ft
Thickness of Pad (t):	3	ft
Tower Leg Center to Center:	0	ft
Number of Tower Legs:	1	-
Tower Center from Mat Center:	0	ft
Depth Below Ground Surface to Water Table:	12	ft
Unit Weight of Concrete:	150	pcf
Unit Weight of Soil Above Water Table:	120	pcf
Unit Weight of Water:	62.4	pcf
Unit Weight of Soil Below Water Table:	57.6	pcf
Friction Angle of Uplift:	15	°
Coefficient of Shear Friction:	0.40	-
Ultimate Compressive Bearing Pressure:	10,675	psf
Ultimate Passive Pressure on Pad Face:	1,465	psf
$f_{\text{Soil and Concrete Weight}}$:	0.9	-
f_{Soil} :	0.75	-

Foundation Steel Parameters		
Shear/Leg (Compression):	29.0	k
Shear/Leg (Uplift):	29.0	k
Concrete Strength (f'_c):	4,000	psi
Pad Tension Steel Depth:	32.38	in
Dead Load Factor:	0.9	-
f_{Shear} :	0.75	-
$f_{\text{Flexure / Tension}}$:	0.9	-
$f_{\text{Compression}}$:	0.65	-
b:	0.85	-
Bottom Pad Rebar Size #:	10	-
# of Bottom Pad Rebar:	36	-
Pad Bottom Steel Area:	45.72	in ²
Pad Steel F_y :	60,000	psi
Top Pad Rebar Size #:	5	-
# of Top Pad Rebar:	36	-
Pad Top Steel Area:	11.16	in ²
Pier Rebar Size #:	11	-
Pier Steel Area (Single Bar):	1.56	in ²
# of Pier Rebar:	52	-
Pier Steel F_y :	60,000	psi
Pier Cage Diameter:	43.6	in
Rebar Strain Limit:	0.008	-
Steel Elastic Modulus:	29,000	ksi
Tie Rebar Size #:	4	-
Tie Steel Area (Single Bar):	0.20	in ²
Tie Spacing:	12	in
Tie Steel F_y :	60,000	psi
Clear Cover:	3	in

Overturning Moment Usage		
Design OTM:	3317.4	k-ft
OTM Resistance:	3415.5	k-ft
Design OTM / OTM Resistance:	97%	Pass

Soil Bearing Pressure Usage		
Net Bearing Pressure:	1871	psf
Factored Nominal Bearing Pressure:	8006	psf
Factored Nominal (Net) Bearing Pressure:	23%	Pass
Load Direction Controlling Design Bearing Pressure:	Diagonal to Pad Edge	

Sliding Factor of Safety		
Ultimate Friction Resistance:	154.2	k
Ultimate Passive Pressure Resistance:	59.3	k
Total Factored Sliding Resistance:	160.2	k
Sliding Design / Sliding Resistance:	18%	Pass



Pad Strength Capacity			
Factored One Way Shear (V_u):	139.2	k	
One Way Shear Capacity (fV_c):	663.4	k	ACI 318-14 25.5.5.1
V_u / fV_c :	21%	Pass	
Load Direction Controlling Shear Capacity:	Parallel to Pad Edge		
Lower Steel Pad Factored Moment (M_u):	615.9	k-ft	
Lower Steel Pad Moment Capacity (fM_n):	6334.2	k-ft	ACI 318-14 22.3.1.1
M_u / fM_n :	10%	Pass	
Load Direction Controlling Flexural Capacity:	Parallel to Pad Edge		
Upper Steel Pad Factored Moment (M_u):	441.3	k-ft	
Upper Steel Pad Moment Capacity (fM_n):	1606.4	k-ft	
M_u / fM_n :	27%	Pass	
Lower Pad Flexural Reinforcement Ratio:	0.0065		OK - ACI 318-14 7.6.1.1 & 8.6.1.1
Upper Pad Flexural Reinforcement Ratio:	0.0016		OK - ACI 318-14 7.6.1.1 & 8.6.1.1
Lower Pad Reinforcement Spacing:	6.0	in	OK - ACI 318-14 7.7.2.3, 8.7.2.2, & 24.4.3.3
Upper Pad Reinforcement Spacing:	6.0	in	OK - ACI 318-14 7.7.2.3, 8.7.2.2, & 24.4.3.3
Ultimate Punching Shear Stress, v_u :	62.29	psi	ACI 318-14 R8.4.4.2.3
Nominal Punching Shear Capacity ($f_c v_c$):	189.7	psi	ACI 318-14 22.6.5.2
$v_u / f_c v_c$:	33%	Pass	
Pier Moment Pad Flexure Transfer Ratio, γ_f :	0.60		TIA-222-H 9.4.2
Moment Transfer Effective Flexural Width, B_{eff} :	13.33	ft	TIA-222-H 9.4.2
Moment Transfer Through Pad Flexure:	23259.89	k-in	TIA-222-H 9.4.2
Moment Transfer Flexural Capacity ($fM_{sc,f}$):	58461.36	k-in	
$g_f M_{sc} / fM_{sc,f}$:	0%	Pass	

Pier Strength Capacity			
Factored Moment in Pier (M_u):	3230.5	k-ft	
Pier Moment Capacity (fM_n):	7786.5	k-ft	
M_u / fM_n :	41%	Pass	
Factored Shear in Pier (V_u):	29.0	k	
Pier Shear Capacity (fV_n):	266.3	k	ACI 318-14 22.5.1.1
V_u / fV_c :	11%	Pass	
Pier Shear Reinforcement Ratio:	0.0009		OK - No Ties Necessary for Shear - ACI11.5.6.1
Factored Tension in Pier (T_u):	0.0	k	
Pier Tension Capacity (fT_n):	4380.5	k	
T_u / fT_n :	0%	Pass	
Factored Compression in Pier (P_u):	50.4	k	
Pier Compression Capacity (fP_n):	3660.0	k	ACI 318-14 22.4.2.1
P_u / fP_n :	1%	Pass	
Minimum Depth to Develop Vertical Rebar:	54	in	ACI 318-14 25.4.2.3
Minimum Hook Development Length:	27	in	ACI 318-14 25.4.3.1
Minimum Mat Thickness / Edge Distance from Pier:	30.0	in	
Minimum Foundation Depth:	7.27	ft	
$M_u / f_B M_n + T_u / f_T T_n$:	41%	Pass	