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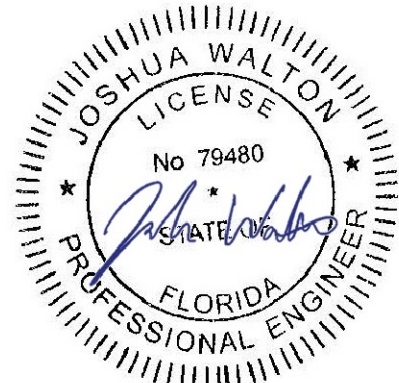
Structural Analysis Report

Structure : 330 ft Guyed Tower
ATC Site Name : Five Points, FL
ATC Asset Number : 2543
Engineering Number : 13686745_C3_02
Proposed Carrier : VERIZON WIRELESS
Carrier Site Name : ATC FIVE POINTS
Carrier Site Number : 131297
Site Location : Hwy 441 & I-10
Lake City, FL 32055-4662
30.238200,-82.636800
County : Columbia
Date : June 1, 2021
Max Usage : 78%
Result : Pass

Prepared By:
Hussam Al Tahan
Structural Engineer II

Hussam Al Tahan

Reviewed By:



This item has been electronically signed and sealed by
Joshua Walton, PE, CWI on the date shown using a digital signature.
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signature must be verified on any electronic copies.

COA: 9053



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Introduction

The purpose of this report is to summarize results of a structural analysis performed on the 330 ft guyed tower to reflect the change in loading by VERIZON WIRELESS.

Supporting Documents

Tower Drawings	FWT/PJF Job #15446, dated November 5, 1997
Foundation Drawing	FWT/PJF Job #15446, dated November 5, 1997
Geotechnical Report	FTE Project #97-2996, dated September 10, 1997

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:	129 mph (3-Second Gust)
Basic Wind Speed w/ Ice:	30 mph (3-Second Gust) w/ 1/4" radial ice concurrent
Code:	ANSI/TIA-222-H / 2018 IBC / 7th Ed. (2020) Florida Building Code
Exposure Category:	C
Risk Category:	III
Topographic Factor Procedure:	Method 1
Topographic Category:	1
Spectral Response:	$S_s = 0.09$, $S_1 = 0.05$
Site Class:	D - Stiff Soil

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
336.0	2	Andrew DB810KE-SY	Side Arm	(2) 1 5/8" Coax	NEXTERA ENERGY INC
320.0	1	Andrew DB810KE-SY	Side Arm	(1) 7/8" Coax	
318.0	1	Decibel DB420-A		(1) 1 1/4" Coax	
312.0	1	RFS AO8410M-24T0	Side Arm	(2) 1 5/8" Coax	HARRIS CORPORATION
310.0	1	RFS 455-7			
295.0	3	Ericsson Radio 4460 B25+B66	Sector Frame	(2) 1.99" (50.7mm) Hybrid	T-MOBILE
	3	Ericsson Radio 4480 B71+B85A			
	3	Commscope FFV-65C-R3-V1			
279.0	1	Generic 10' Omni	Side Arm	(1) 7/8" Coax	L3HARRIS TECHNOLOGIES, INC.
278.0	1	RFS PAD6-65AC w/ Radome	Leg	(1) EW52	
275.0	1	Generic 20' Omni	Side Arm	(1) 1 5/8" Coax	M/A COM PRIVATE RADIO SYSTEMS INC
262.0	1	TX RX Systems 421-86A-10-18-12-N	Side Arm	(2) 1 5/8" Coax	L3HARRIS TECHNOLOGIES, INC.
	2	Generic 44" x 14" Panel		(1) 1/2" Coax	
258.0	2	JMA Wireless MX06FRO860-02	Sector Frame	(2) 1 5/8" Hybriflex (10) 1 5/8" Coax	VERIZON WIRELESS
	4	JMA Wireless MX06FIT865-02			
	2	Raycap RCMD-6627-PF-48			
	3	Ericsson Radio 4449 - B13&B5			
	3	Ericsson 8843 Rev 2			
240.0	1	RFS PAD6-65AC w/ Radome	Leg	(1) EW52	L3HARRIS TECHNOLOGIES, INC.
	1	Andrew Microwaves PL8-57W	Leg	(1) EW52	NEXTERA ENERGY INC
215.0	1	Andrew Microwaves P2F-52		(1) EW52	
186.0	1	RFS PAD6-65AC	Leg	(1) EW52	L3HARRIS TECHNOLOGIES, INC.
173.0	1	Generic 6' Grid Dish	Leg	(1) 1 5/8" Coax	T-MOBILE
155.0	1	RFS PAD6-65AC w/ Radome	Leg	(1) EW52	L3HARRIS TECHNOLOGIES, INC.

Equipment to be Removed

Elev. ¹ (ft)	Qty	Equipment	Mount Type	Lines	Carrier
250.0	3	CSS X7CAP-865	-	-	VERIZON WIRELESS
210.0	1	Andrew PAR6-59	-	(1) EW52	
145.0	1	Andrew VHLPX4-6W	-	(1) EW52	

Proposed Equipment

Elev. ¹ (ft)	Qty	Equipment	Mount Type	Lines	Carrier
258.0	3	Commscope TD-850B-LTE78-43	Sector Frame	-	VERIZON WIRELESS
	3	Ericsson AIR 6449 B77			

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
Legs	68%	Pass
Diagonals	78%	Pass
Horizontals	59%	Pass
Guys	55%	Pass

Foundations

Reaction Component	Original Design Reactions	Factored Design Reactions*	Analysis Reactions	% of Design
Base Axial (kips)	344.0	464.4	249.8	54%
A1 Uplift (kips)	163.0	220.1	109.3	50%
A1 Shear (kips)	173.0	233.6	114.4	49%
* The design reactions are factored by 1.35 per ANSI/TIA-222-H, Sec. 15.6.2				

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

Deflection, Twist and Sway*

Antenna Elevation (ft)	Antenna	Carrier	Deflection (ft)	Twist (°)	Sway (Rotation) (°)
278.0	RFS PAD6-65AC w/ Radome	L3HARRIS TECHNOLOGIES, INC.	0.175	0.023	0.029
258.0	Commscope TD-850B-LTE78-43	VERIZON WIRELESS	0.176	0.022	0.034
	Ericsson AIR 6449 B77				
240.0	RFS PAD6-65AC w/ Radome	L3HARRIS TECHNOLOGIES, INC.	0.164	0.019	0.086
	Andrew Microwaves PL8-57W	NEXTERA ENERGY INC			
215.0	Andrew Microwaves P2F-52			0.140	0.016
186.0	RFS PAD6-65AC	L3HARRIS TECHNOLOGIES, INC.	0.109	0.012	0.056
173.0	Generic 6' Grid Dish	T-MOBILE	0.097	0.011	0.062
155.0	RFS PAD6-65AC w/ Radome	L3HARRIS TECHNOLOGIES, INC.	0.087		0.034

*Deflection, Twist 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 ATC Tower Services LLC 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:

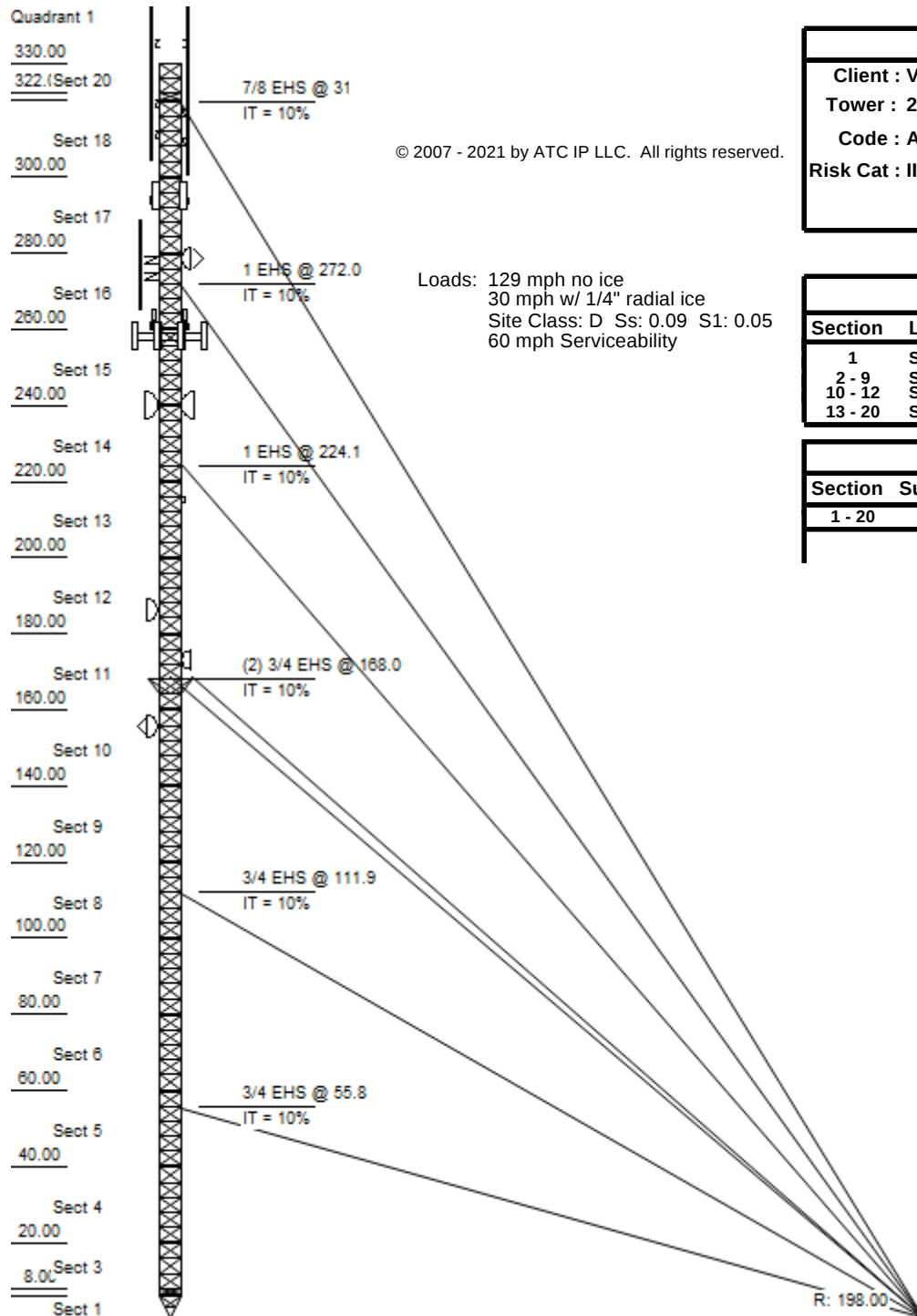
- Information supplied by the client regarding antenna, mounts and feed line loading
- Information from drawings, design and analysis documents, and field notes in the possession of ATC Tower Services LLC

It is the responsibility of the client to ensure that the information provided to ATC Tower Services LLC 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 ATC Tower Services LLC, 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. ATC Tower Services LLC is not responsible for the conclusions, opinions and recommendations made by others based on the information supplied herein.



Job Information

Client : VERIZON WIRELESS

Tower : 2543

Location : Five Points, FL

Base Width : 4.00 ft

Code : ANSI/TIA-222-H

Topo Method: Method 1

Risk Cat : III

Topo: 1

Tower Ht : 330.00 ft

Exposure : C

Shape : Triangle

Sections Properties

Section	Leg Members		Diagonal Members	Horizontal Members
1	SOL 50 ksi	2 1/2" SOLID	PL 36 ksi PL 2 x 0.5"	SAE 36 ksi 2X2X0.1875
2 - 9	SOL 50 ksi	2 1/2" SOLID	SOL 36 ksi 3/4" SOLID	SAE 36 ksi 2X2X0.1875
10 - 12	SOL 50 ksi	2 3/4" SOLID	PL 36 ksi PL 2 x 0.5"	SAE 36 ksi 2.5X2.5X0.25
13 - 20	SOL 50 ksi	2 1/4" SOLID	SOL 36 ksi 3/4" SOLID	SAE 36 ksi 2X2X0.1875

Redundant Secondary Bracing

Section	Sub Diag 1	Sub Horiz 1	Sub Diag 2	Sub Horiz 2	Sub Diag 3	Sub Horiz 3
1 - 20	-	-	-	-	-	-

Discrete Appurtenance

Elev (ft)	Type	Qty	Description
336.00	Whip	2	Andrew DB810KE-SY
323.00	Straight Arm	2	Round Side Arm
321.00	Straight Arm	1	Round Side Arm
320.00	Whip	1	Andrew DB810KE-SY
318.00	Whip	1	Decibel DB420-A
312.00	Whip	1	RFS AO8410M-24T0
310.00	Whip	1	RFS 455-7
309.00	Straight Arm	1	Round Side Arm
295.00	Other	3	Sector Frame C10857001C
295.00	Panel	3	Commscope FFVV-65C-R3-V1
295.00	Panel	3	Ericsson Radio 4480 B71+B85A
295.00	Panel	3	Ericsson Radio 4460 B25+B66
279.00	Straight Arm	1	Round Side Arm
279.00	Whip	1	Generic 10' Omni
278.00	Dish	1	RFS PAD6-65AC w/ Radome
275.00	Straight Arm	1	Generic Flat Side Arm
275.00	Mounting Frame	1	Generic Round Sector Frame
275.00	Whip	1	Generic 20' Omni
262.00	Panel	2	Generic 44" x 14" Panel
262.00	Panel	1	TX RX Systems 421-86A-10-18-12
258.00	Mounting Frame	3	Flat Light Sector Frames
258.00	Panel	2	JMA Wireless MX06FRO860-02
258.00	Panel	4	JMA Wireless MX06FIT865-02
258.00	Panel	2	Raycap RCMDC-6627-PF-48
258.00	Panel	3	Ericsson AIR 6449 B77
258.00	Panel	3	Commscope TD-850B-LTE78-43
258.00	Panel	3	Ericsson Radio 4449 - B13&B5
258.00	Panel	3	Ericsson 8843 Rev 2
240.00	Dish	1	RFS PAD6-65AC w/ Radome
240.00	Dish	1	Andrew Microwaves PL8-57W
215.00	Dish	1	Andrew Microwaves P2F-52
186.00	Dish	1	RFS PAD6-65AC
173.00	Dish	1	Generic 6' Grid Dish
168.00	Other	1	Torque Arms
155.00	Dish	1	RFS PAD6-65AC w/ Radome
89.00	Straight Arm	1	Round Side Arm

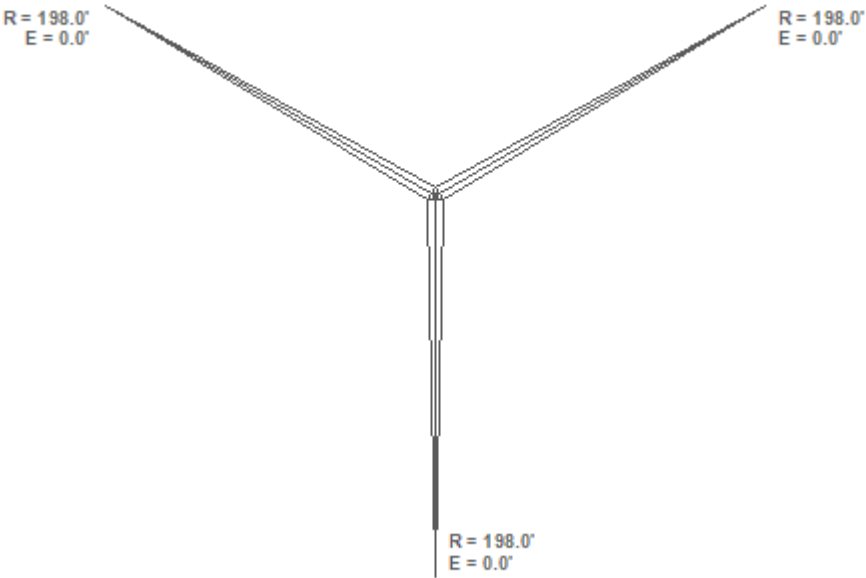
Linear Appurtenance

Elev (ft)	From	To	Qty	Description
	0.00	336.00	2	1 5/8" Coax

Job Information		
Client : VERIZON WIRELESS		
Tower : 2543	Location : Five Points, FL	Base Width : 4.00 ft
Code : ANSI/TIA-222-H	Topo Method: Method 1	
Risk Cat : III	Topo: 1	Tower Ht : 330.00 ft
	Exposure : C	Shape : Triangle

0.00	330.00	1	Climbing Ladder
0.00	320.00	1	7/8" Coax
0.00	318.00	1	1 1/4" Coax
0.00	312.00	1	1 5/8" Coax
0.00	310.00	1	1 5/8" Coax
0.00	295.00	2	1.99" (50.7mm) Hybri
0.00	279.00	1	7/8" Coax
0.00	278.00	1	EW52
0.00	275.00	1	1 5/8" Coax
0.00	262.00	1	1/2" Coax
0.00	262.00	2	1 5/8" Coax
0.00	258.00	2	1 5/8" Hybriflex
0.00	258.00	10	1 5/8" Coax
0.00	240.00	1	EW52
0.00	240.00	1	EW52
0.00	215.00	1	EW52
0.00	186.00	1	EW52
0.00	173.00	1	1 5/8" Coax
0.00	155.00	1	EW52

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Job Information		
Client : VERIZON WIRELESS		
Tower : 2543	Location : Five Points, FL	Base Width : 4.00 ft
Code : ANSI/TIA-222-H	Topo Method: Method 1	
Risk Cat : III	Topo: 1	Tower Ht : 330.00 ft
	Exposure : C	Shape : Triangle

Guy Anchor Design Loads				
Radius (ft)	Drop (ft)	Azimuth (°)	Uplift (kip)	Shear (kip)
198.00	0.00	0	59.35	60.85
198.00	0.00	240	109.26	114.40
198.00	0.00	120	91.68	95.06

Global Base Foundation Design Loads	
Vertical (kip)	Horizontal (kip)
249.83	2.34

Site Number: 2543	Code: ANSI/TIA-222-H	© 2007 - 2021 by ATC IP LLC. All rights reserved.
Site Name: Five Points, FL	Engineering Number: 13686745_C3_02	6/1/2021 8:12:44 PM
Customer: VERIZON WIRELESS		

Analysis Parameters

Location:	Columbia County, FL	Height (ft):	330
Code:	ANSI/TIA-222-H	Base Elevation (ft):	0.00
Shape:	Triangle	Bottom Face Width (ft):	4.00
Tower Manufacturer:	FWT Inc	Top Face Width (ft):	4.00
Tower Type:	Guyed		
Kd:	0.85		
Ke:	0.99		

Ice & Wind Parameters

Exposure Category:	C	Design Windspeed Without Ice:	129 mph
Risk Category:	III	Design Windspeed With Ice:	30 mph
Topographic Factor Procedure:	Method 1	Operational Windspeed:	60 mph
Topographic Category:	1	Design Ice Thickness:	0.25 in
Crest Height:	0 ft	HMSL:	148.00 ft

Seismic Parameters

Analysis Method:	Equivalent Lateral Force Method		
Site Class:	D - Stiff Soil		
Period Based on Rayleigh Method (sec):	0.73		
T_L (sec):	8	p:	1.3
S_S :	0.087	S_1 :	0.051
F_a :	1.600	F_v :	2.400
S_{ds} :	0.093	S_{d1} :	0.082
		C_S :	0.039
		C_S , Max:	0.047
		C_S , Min:	0.030

Load Cases

1.2D + 1.0W Normal	129 mph Normal with No Ice
1.2D + 1.0W 60 deg	129 mph 60 degree with No Ice
1.2D + 1.0W 90 deg	129 mph 90 degree with No Ice
1.2D + 1.0Di + 1.0Wi Normal	30 mph Normal with 0.25 in Radial Ice
1.2D + 1.0Di + 1.0Wi 60 deg	30 mph 60 deg with 0.25 in Radial Ice
1.2D + 1.0Di + 1.0Wi 90 deg	30 mph 90 deg with 0.25 in Radial Ice
1.2D + 1.0Ev + 1.0Eh Normal	Seismic Normal
1.2D + 1.0Ev + 1.0Eh 60 deg	Seismic 60 deg
1.2D + 1.0Ev + 1.0Eh 90 deg	Seismic 90 deg
1.0D + 1.0W Service Normal	Serviceability - 60 mph Wind Normal
1.0D + 1.0W Service 60 deg	Serviceability - 60 mph Wind 60 deg
1.0D + 1.0W Service 90 deg	Serviceability - 60 mph Wind 90 deg

Site Number: 2543

Code:

ANSI/TIA-222-H

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Site Name: Five Points, FL

Engineering Number: 13686745_C3_02

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Customer: VERIZON WIRELESS

Tower LoadingDiscrete Appurtenance Properties 1.2D + 1.0W

Elevation (ft)	Description	Qty	Wt. (lb)	EPA (sf)	Length (ft)	Width (in)	Depth (in)	K _a	Orient. Factor	Vert. Ecc.(ft)	M _u (lb-ft)	Q _z (psf)	F _a (WL) (lb)	P _a (DL) (lb)
336.0	Andrew DB810KE-SY	2	35	5.0	16.8	3.0	3.0	1.00	1.00	0.0	0.0	58.83	504	84
323.0	Round Side Arm	2	150	5.2	0.0	0.0	0.0	0.90	0.90	0.0	0.0	58.35	418	360
321.0	Round Side Arm	1	150	5.2	0.0	0.0	0.0	1.00	1.00	0.0	0.0	58.27	258	180
320.0	Andrew DB810KE-SY	1	35	5.0	16.8	3.0	3.0	1.00	1.00	0.0	0.0	58.23	249	42
318.0	Decibel DB420-A	1	34	4.4	19.3	0.0	0.0	1.00	1.00	0.0	0.0	58.16	220	41
312.0	RFS AO8410M-24T0	1	26	4.3	15.5	2.8	2.8	1.00	1.00	0.0	0.0	57.92	214	31
310.0	RFS 455-7	1	24	5.5	19.5	2.8	2.8	1.00	1.00	0.0	0.0	57.84	268	29
309.0	Round Side Arm	1	150	5.2	0.0	0.0	0.0	1.00	1.00	0.0	0.0	57.80	255	180
295.0	Ericsson Radio 4460	3	109	2.6	1.6	15.7	12.1	0.80	0.50	0.0	0.0	57.24	150	392
295.0	Ericsson Radio 4480	3	84	2.9	1.8	15.7	7.5	0.80	0.50	0.0	0.0	57.24	167	302
295.0	Sector Frame	3	462	14.4	0.0	0.0	0.0	0.75	0.75	0.0	0.0	57.24	1182	1663
295.0	Commscope FFVV-	3	125	21.1	8.0	25.2	9.3	0.80	0.63	0.0	0.0	57.24	1553	449
279.0	Generic 10' Omni	1	25	3.0	10.0	3.0	3.0	1.00	1.00	1.0	144.4	56.62	144	30
279.0	Round Side Arm	1	150	5.2	0.0	0.0	0.0	1.00	1.00	0.0	0.0	56.58	250	180
278.0	RFS PAD6-65AC w/	1	225	29.4	6.6	79.0	0.0	1.00	1.00	0.0	0.0	56.53	1412	270
275.0	Generic 20' Omni	1	55	6.0	20.0	3.0	3.0	1.00	1.00	0.0	0.0	56.40	288	66
275.0	Generic Flat Side	1	188	6.3	0.0	0.0	0.0	1.00	1.00	0.0	0.0	56.40	302	225
275.0	Generic Round	1	300	14.4	0.0	0.0	0.0	1.00	1.00	0.0	0.0	56.40	690	360
262.0	TX RX Systems 421-	1	15	2.2	1.6	14.0	1.7	0.90	1.00	1.0	94.8	55.88	95	18
262.0	Generic 44" x 14"	2	30	5.3	3.7	14.0	7.0	0.90	0.74	1.0	332.5	55.88	333	72
258.0	Ericsson 8843 Rev 2	3	75	1.6	1.3	13.2	11.1	0.80	0.50	0.0	0.0	55.65	94	270
258.0	Ericsson Radio 4449	3	70	1.6	1.3	13.2	9.3	0.80	0.50	0.0	0.0	55.65	94	252
258.0	Commscope TD-	3	53	2.0	1.3	15.3	6.4	0.80	0.50	0.0	0.0	55.65	111	191
258.0	Ericsson AIR 6449	3	82	4.0	2.5	15.9	8.1	0.80	0.65	0.0	0.0	55.65	297	294
258.0	Raycap RCMDC-	2	32	4.1	2.5	16.5	12.6	0.80	0.79	0.0	0.0	55.65	243	77
258.0	JMA Wireless	4	50	11.4	8.0	11.9	10.7	0.80	0.76	0.0	0.0	55.65	1308	240
258.0	JMA Wireless	2	51	14.0	8.0	15.4	10.7	0.80	0.79	0.0	0.0	55.65	837	122
258.0	Flat Light Sector	3	400	17.9	0.0	0.0	0.0	0.75	0.75	0.0	0.0	55.65	1429	1440
240.0	RFS PAD6-65AC w/	1	225	29.4	6.6	79.0	0.0	1.00	1.00	0.0	0.0	54.81	1369	270
240.0	Andrew Microwaves	1	340	83.6	8.0	96.0	0.0	1.00	1.00	0.0	0.0	54.81	3897	408
215.0	Andrew Microwaves	1	14	5.2	2.0	24.0	0.0	1.00	1.00	0.0	0.0	53.56	238	17
186.0	RFS PAD6-65AC	1	185	56.6	6.6	79.0	0.0	1.00	1.00	0.0	0.0	51.95	2501	222
173.0	Generic 6' Grid Dish	1	198	16.8	6.0	72.0	0.0	1.00	1.00	-3.0	2182.2	50.97	727	238
168.0	Torque Arms	1	500	15.0	0.0	0.0	0.0	1.00	1.00	0.0	0.0	50.84	648	600
155.0	RFS PAD6-65AC w/	1	225	29.4	6.6	79.0	0.0	1.00	1.00	0.0	0.0	49.99	1249	270
89.00	Round Side Arm	1	150	5.2	0.0	0.0	0.0	1.00	1.00	0.0	0.0	44.48	197	180
Totals		62	8387	654.4									24191	10065

Discrete Appurtenance Properties 1.2D + 1.0Di + 1.0Wi

Elevation (ft)	Description	Qty	Ice Wt (lb)	Ice EPA (sf)	Length (ft)	Width (in)	Depth (in)	K _a	Orient. Factor	Vert. Ecc.(ft)	M _u (lb-ft)	Q _z (psf)	F _a (WL) (lb)	P _a (DL) (lb)
336.0	Andrew DB810KE-SY	2	61	6.3	16.8	3.0	3.0	1.00	1.00	0.0	0.0	3.18	34	137
323.0	Round Side Arm	2	165	5.8	0.0	0.0	0.0	0.90	0.90	0.0	0.0	3.16	25	390
321.0	Round Side Arm	1	165	5.8	0.0	0.0	0.0	1.00	1.00	0.0	0.0	3.15	15	195
320.0	Andrew DB810KE-SY	1	61	6.3	16.8	3.0	3.0	1.00	1.00	0.0	0.0	3.15	17	68
318.0	Decibel DB420-A	1	62	6.6	19.3	0.0	0.0	1.00	1.00	0.0	0.0	3.15	18	69
312.0	RFS AO8410M-24T0	1	54	5.5	15.5	2.8	2.8	1.00	1.00	0.0	0.0	3.13	15	59
310.0	RFS 455-7	1	59	6.9	19.5	2.8	2.8	1.00	1.00	0.0	0.0	3.13	18	64
309.0	Round Side Arm	1	165	5.8	0.0	0.0	0.0	1.00	1.00	0.0	0.0	3.13	15	195
295.0	Ericsson Radio 4460	3	127	2.8	1.6	15.7	12.1	0.80	0.50	0.0	0.0	3.10	9	447
295.0	Ericsson Radio 4480	3	99	3.1	1.8	15.7	7.5	0.80	0.50	0.0	0.0	3.10	10	349

Site Number: 2543

Code:

ANSI/TIA-222-H

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Site Name: Five Points, FL

Engineering Number: 13686745_C3_02

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Customer: VERIZON WIRELESS

Tower Loading

295.0	Sector Frame	3	528	16.5	0.0	0.0	0.0	0.75	0.75	0.0	0.0	3.10	73	1861
295.0	Commscope FFVV-	3	209	21.9	8.0	25.2	9.3	0.80	0.63	0.0	0.0	3.10	87	703
279.0	Generic 10' Omni	1	40	3.7	10.0	3.0	3.0	1.00	1.00	1.0	9.7	3.06	10	45
279.0	Round Side Arm	1	165	5.8	0.0	0.0	0.0	1.00	1.00	0.0	0.0	3.06	15	195
278.0	RFS PAD6-65AC w/	1	398	29.9	6.6	79.0	0.0	1.00	1.00	0.0	0.0	3.06	78	443
275.0	Generic 20' Omni	1	86	7.4	20.0	3.0	3.0	1.00	1.00	0.0	0.0	3.05	19	97
275.0	Generic Flat Side	1	215	6.9	0.0	0.0	0.0	1.00	1.00	0.0	0.0	3.05	18	252
275.0	Generic Round	1	375	17.8	0.0	0.0	0.0	1.00	1.00	0.0	0.0	3.05	46	435
262.0	TX RX Systems 421-	1	25	2.4	1.6	14.0	1.7	0.90	1.00	1.0	5.6	3.02	6	28
262.0	Generic 44" x 14"	2	55	5.6	3.7	14.0	7.0	0.90	0.74	1.0	19.2	3.02	19	122
258.0	Ericsson 8843 Rev 2	3	88	1.8	1.3	13.2	11.1	0.80	0.50	0.0	0.0	3.01	6	308
258.0	Ericsson Radio 4449	3	81	1.8	1.3	13.2	9.3	0.80	0.50	0.0	0.0	3.01	6	286
258.0	Commscope TD-	3	64	2.2	1.3	15.3	6.4	0.80	0.50	0.0	0.0	3.01	7	223
258.0	Ericsson AIR 6449	3	102	4.3	2.5	15.9	8.1	0.80	0.65	0.0	0.0	3.01	17	356
258.0	Raycap RCMD-	2	58	4.3	2.5	16.5	12.6	0.80	0.79	0.0	0.0	3.01	14	128
258.0	JMA Wireless	4	105	12.0	8.0	11.9	10.7	0.80	0.76	0.0	0.0	3.01	75	460
258.0	JMA Wireless	2	115	14.8	8.0	15.4	10.7	0.80	0.79	0.0	0.0	3.01	48	250
258.0	Flat Light Sector	3	461	20.9	0.0	0.0	0.0	0.75	0.75	0.0	0.0	3.01	90	1622
240.0	RFS PAD6-65AC w/	1	396	29.9	6.6	79.0	0.0	1.00	1.00	0.0	0.0	2.96	75	441
240.0	Andrew Microwaves	1	507	84.9	8.0	96.0	0.0	1.00	1.00	0.0	0.0	2.96	214	575
215.0	Andrew Microwaves	1	25	5.5	2.0	24.0	0.0	1.00	1.00	0.0	0.0	2.90	14	28
186.0	RFS PAD6-65AC	1	297	57.6	6.6	79.0	0.0	1.00	1.00	0.0	0.0	2.81	138	334
173.0	Generic 6' Grid Dish	1	299	38.2	6.0	72.0	0.0	1.00	1.00	-3.0	268.4	2.76	89	339
168.0	Torque Arms	1	568	17.0	0.0	0.0	0.0	1.00	1.00	0.0	0.0	2.75	40	668
155.0	RFS PAD6-65AC w/	1	388	29.9	6.6	79.0	0.0	1.00	1.00	0.0	0.0	2.70	69	433
89.00	Round Side Arm	1	163	5.7	0.0	0.0	0.0	1.00	1.00	0.0	0.0	2.41	12	193
Totals		62	11120	726.8									1458	12798

Discrete Appurtenance Properties 1.0D + 1.0W Service

Elevation (ft)	Description	Qty	Wt. (lb)	EPA (sf)	Length (ft)	Width (in)	Depth (in)	K _a	Orient. Factor	Vert. Ecc.(ft)	M _u (lb-ft)	Q _z (psf)	F _a (WL) (lb)	P _a (DL) (lb)
336.0	Andrew DB810KE-SY	2	35	5.0	16.8	3.0	3.0	1.00	1.00	0.0	0.0	12.73	109	70
323.0	Round Side Arm	2	150	5.2	0.0	0.0	0.0	0.90	0.90	0.0	0.0	12.62	90	300
321.0	Round Side Arm	1	150	5.2	0.0	0.0	0.0	1.00	1.00	0.0	0.0	12.61	56	150
320.0	Andrew DB810KE-SY	1	35	5.0	16.8	3.0	3.0	1.00	1.00	0.0	0.0	12.60	54	35
318.0	Decibel DB420-A	1	34	4.4	19.3	0.0	0.0	1.00	1.00	0.0	0.0	12.58	48	34
312.0	RFS AO8410M-24T0	1	26	4.3	15.5	2.8	2.8	1.00	1.00	0.0	0.0	12.53	46	26
310.0	RFS 455-7	1	24	5.5	19.5	2.8	2.8	1.00	1.00	0.0	0.0	12.51	58	24
309.0	Round Side Arm	1	150	5.2	0.0	0.0	0.0	1.00	1.00	0.0	0.0	12.51	55	150
295.0	Ericsson Radio 4460	3	109	2.6	1.6	15.7	12.1	0.80	0.50	0.0	0.0	12.38	32	327
295.0	Ericsson Radio 4480	3	84	2.9	1.8	15.7	7.5	0.80	0.50	0.0	0.0	12.38	36	252
295.0	Sector Frame	3	462	14.4	0.0	0.0	0.0	0.75	0.75	0.0	0.0	12.38	256	1386
295.0	Commscope FFVV-	3	125	21.1	8.0	25.2	9.3	0.80	0.63	0.0	0.0	12.38	336	374
279.0	Generic 10' Omni	1	25	3.0	10.0	3.0	3.0	1.00	1.00	1.0	31.2	12.25	31	25
279.0	Round Side Arm	1	150	5.2	0.0	0.0	0.0	1.00	1.00	0.0	0.0	12.24	54	150
278.0	RFS PAD6-65AC w/	1	225	29.4	6.6	79.0	0.0	1.00	1.00	0.0	0.0	12.23	306	225
275.0	Generic 20' Omni	1	55	6.0	20.0	3.0	3.0	1.00	1.00	0.0	0.0	12.20	62	55
275.0	Generic Flat Side	1	188	6.3	0.0	0.0	0.0	1.00	1.00	0.0	0.0	12.20	65	188
275.0	Generic Round	1	300	14.4	0.0	0.0	0.0	1.00	1.00	0.0	0.0	12.20	149	300
262.0	TX RX Systems 421-	1	15	2.2	1.6	14.0	1.7	0.90	1.00	1.0	20.5	12.09	21	15
262.0	Generic 44" x 14"	2	30	5.3	3.7	14.0	7.0	0.90	0.74	1.0	71.9	12.09	72	60
258.0	Ericsson 8843 Rev 2	3	75	1.6	1.3	13.2	11.1	0.80	0.50	0.0	0.0	12.04	20	225
258.0	Ericsson Radio 4449	3	70	1.6	1.3	13.2	9.3	0.80	0.50	0.0	0.0	12.04	20	210
258.0	Commscope TD-	3	53	2.0	1.3	15.3	6.4	0.80	0.50	0.0	0.0	12.04	24	159
258.0	Ericsson AIR 6449	3	82	4.0	2.5	15.9	8.1	0.80	0.65	0.0	0.0	12.04	64	245

Site Number: 2543

Code:

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Site Name: Five Points, FL

Engineering Number: 13686745_C3_02

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Customer: VERIZON WIRELESS

Tower Loading

258.0 Raycap RCMD-	2	32	4.1	2.5	16.5	12.6	0.80	0.79	0.0	0.0	12.04	52	64
258.0 JMA Wireless	4	50	11.4	8.0	11.9	10.7	0.80	0.76	0.0	0.0	12.04	283	200
258.0 JMA Wireless	2	51	14.0	8.0	15.4	10.7	0.80	0.79	0.0	0.0	12.04	181	102
258.0 Flat Light Sector	3	400	17.9	0.0	0.0	0.0	0.75	0.75	0.0	0.0	12.04	309	1200
240.0 RFS PAD6-65AC w/	1	225	29.4	6.6	79.0	0.0	1.00	1.00	0.0	0.0	11.86	296	225
240.0 Andrew Microwaves	1	340	83.6	8.0	96.0	0.0	1.00	1.00	0.0	0.0	11.86	843	340
215.0 Andrew Microwaves	1	14	5.2	2.0	24.0	0.0	1.00	1.00	0.0	0.0	11.59	51	14
186.0 RFS PAD6-65AC	1	185	56.6	6.6	79.0	0.0	1.00	1.00	0.0	0.0	11.24	541	185
173.0 Generic 6' Grid Dish	1	198	16.8	6.0	72.0	0.0	1.00	1.00	-3.0	472.1	11.03	157	198
168.0 Torque Arms	1	500	15.0	0.0	0.0	0.0	1.00	1.00	0.0	0.0	11.00	140	500
155.0 RFS PAD6-65AC w/	1	225	29.4	6.6	79.0	0.0	1.00	1.00	0.0	0.0	10.81	270	225
89.00 Round Side Arm	1	150	5.2	0.0	0.0	0.0	1.00	1.00	0.0	0.0	9.62	43	150
Totals	62	8387	654.4									5233	8387

Site Number: 2543

Code:

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Site Name: Five Points, FL

Engineering Number: 13686745_C3_02

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Customer: VERIZON WIRELESS

Tower LoadingLinear Appurtenance Properties

Elev From (ft)	Elev To (ft)	Description	Qty	Width (in)	Weight (lb/ft)	Pct In Block	Spread On Faces	Bundling Arrangement	Cluster Dia (in)	Out Of Zone	Spacing (in)	Orientation Factor	Ka Override
0.00	336.0	1 5/8" Coax	2	1.98	0.82	100	1	Individual	0.00	N	1.00	1.00	0.00
0.00	330.0	Climbing Ladder	1	2.00	6.90	100	None	Individual	0.00	N	1.00	1.00	0.00
0.00	320.0	7/8" Coax	1	1.09	0.33	100	1	Individual	0.00	N	1.00	1.00	0.00
0.00	318.0	1 1/4" Coax	1	1.55	0.63	100	1	Individual	0.00	N	1.00	1.00	0.00
0.00	312.0	1 5/8" Coax	1	1.98	0.82	100	None	Individual	0.00	N	1.00	1.00	0.00
0.00	310.0	1 5/8" Coax	1	1.98	0.82	100	None	Individual	0.00	N	1.00	1.00	0.00
0.00	295.0	1.99" (50.7mm)	2	1.99	1.90	100	None	Individual	0.00	N	1.00	1.00	0.00
0.00	279.0	7/8" Coax	1	1.09	0.33	100	None	Individual	0.00	N	1.00	1.00	0.00
0.00	278.0	EW52	1	2.25	0.59	100	None	Individual	0.00	N	1.00	1.00	0.00
0.00	275.0	1 5/8" Coax	1	1.98	0.82	100	2	Individual	0.00	N	1.00	1.00	0.00
0.00	262.0	1 5/8" Coax	2	1.98	0.82	100	None	Individual	0.00	N	1.00	1.00	0.00
0.00	262.0	1/2" Coax	1	0.63	0.15	100	None	Individual	0.00	N	1.00	1.00	0.00
0.00	258.0	1 5/8" Coax	10	1.98	0.82	50	3	Block	0.00	N	1.00	1.00	0.00
0.00	258.0	1 5/8" Hybriflex	2	1.98	1.30	100	3	Individual	0.00	N	1.00	1.00	0.00
0.00	240.0	EW52	1	2.25	0.59	100	None	Individual	0.00	N	1.00	1.00	0.00
0.00	240.0	EW52	1	2.25	0.59	100	1	Individual	0.00	N	1.00	1.00	0.00
0.00	215.0	EW52	1	2.25	0.59	100	1	Individual	0.00	N	1.00	1.00	0.00
0.00	186.0	EW52	1	2.25	0.59	100	None	Individual	0.00	N	1.00	1.00	0.00
0.00	173.0	1 5/8" Coax	1	1.98	0.82	100	None	Individual	0.00	N	1.00	1.00	0.00
0.00	155.0	EW52	1	2.25	0.59	100	None	Individual	0.00	N	1.00	1.00	0.00

Site Number: 2543

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Site Name: Five Points, FL

Engineering Number: 13686745_C3_02

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Customer: VERIZON WIRELESS

Section ForcesLoadCase 1.2D + 1.0W Normal

129 mph Normal with No Ice

Gust Response Factor (Gh): 0.85

Wind Importance Factor (Iw) : 1.00

Section	Elev. (ft)	Q _z (psf)	A _f (sf)	A _r (sf)	Ice A _r (sf)	e	C _f	D _f	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt. (lb)	Ice Wt. (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
20	326.00	58.46	1.271	4.345	0.000	0.168	2.71	1.00	1.00	0.0	3.77	10.21	0.00	662	0	508	142	650
19	321.00	58.27	1.271	1.272	0.000	0.304	2.29	1.00	1.00	0.0	2.05	4.68	0.00	235	0	232	35	267
18	310.00	57.84	4.177	10.874	0.000	0.180	2.67	1.00	1.00	0.0	10.46	27.87	0.00	1755	0	1370	627	1997
17	290.00	57.04	3.813	10.874	0.000	0.175	2.68	1.00	1.00	0.0	10.08	27.03	0.00	1823	0	1310	904	2215
16	270.00	56.19	4.177	10.874	0.000	0.180	2.67	1.00	1.00	0.0	10.46	27.87	0.00	1905	0	1331	1235	2566
15	250.00	55.28	3.813	10.874	0.000	0.175	2.68	1.00	1.00	0.0	10.08	27.03	0.00	2164	0	1270	2574	3844
14	230.00	54.32	4.177	10.874	0.000	0.180	2.67	1.00	1.00	0.0	10.46	27.87	0.00	2238	0	1287	2897	4184
13	210.00	53.29	3.813	10.874	0.000	0.175	2.68	1.00	1.00	0.0	10.08	27.03	0.00	2229	0	1224	2934	4158
12	190.00	52.18	13.643	9.167	0.000	0.270	2.38	1.00	1.00	0.0	19.05	45.34	0.00	3243	0	2011	2938	4949
11	170.00	50.97	13.643	9.167	0.000	0.270	2.38	1.00	1.00	0.0	19.05	45.34	0.00	3266	0	1964	3019	4984
10	150.00	49.65	13.643	9.167	0.000	0.270	2.38	1.00	1.00	0.0	19.05	45.34	0.00	3283	0	1913	3061	4975
9	130.00	48.17	3.792	11.695	0.000	0.184	2.65	1.00	1.00	0.0	10.55	27.97	0.00	2509	0	1145	2998	4143
8	110.00	46.51	4.160	11.695	0.000	0.188	2.64	1.00	1.00	0.0	10.93	28.80	0.00	2529	0	1139	2894	4033
7	90.00	44.58	3.792	11.695	0.000	0.184	2.65	1.00	1.00	0.0	10.55	27.97	0.00	2509	0	1060	2775	3835
6	70.00	42.29	3.792	11.695	0.000	0.184	2.65	1.00	1.00	0.0	10.55	27.97	0.00	2509	0	1005	2632	3637
5	50.00	39.39	4.160	11.695	0.000	0.188	2.64	1.00	1.00	0.0	10.93	28.80	0.00	2529	0	965	2452	3416
4	30.00	35.38	3.792	11.695	0.000	0.184	2.65	1.00	1.00	0.0	10.55	27.97	0.00	2509	0	841	2202	3043
3	14.00	30.61	1.896	7.021	0.000	0.177	2.68	1.00	1.00	0.0	5.95	15.92	0.00	1484	0	414	1143	1557
2	7.00	30.61	1.264	1.353	0.000	0.311	2.27	1.00	1.00	0.0	2.09	4.75	0.00	317	0	124	191	314
1	3.00	30.61	2.288	2.679	0.000	0.375	2.12	1.00	1.00	0.0	3.96	8.39	0.00	782	0	218	572	724
** = Section Force Exceeds Solidity Ratio Criteria														40480	0			59491

LoadCase 1.2D + 1.0W 60 deg

129 mph 60 degree with No Ice

Gust Response Factor (Gh): 0.85

Wind Importance Factor (Iw) : 1.00

Section	Elev. (ft)	Q _z (psf)	A _f (sf)	A _r (sf)	Ice A _r (sf)	e	C _f	D _f	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt. (lb)	Ice Wt. (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
20	326.00	58.46	1.271	4.345	0.000	0.168	2.71	0.80	1.00	0.0	3.52	9.53	0.00	662	0	473	142	616
19	321.00	58.27	1.271	1.272	0.000	0.304	2.29	0.80	1.00	0.0	1.79	4.10	0.00	235	0	203	35	239
18	310.00	57.84	4.177	10.874	0.000	0.180	2.67	0.80	1.00	0.0	9.62	25.64	0.00	1755	0	1261	627	1887
17	290.00	57.04	3.813	10.874	0.000	0.175	2.68	0.80	1.00	0.0	9.32	24.99	0.00	1823	0	1211	904	2116
16	270.00	56.19	4.177	10.874	0.000	0.180	2.67	0.80	1.00	0.0	9.62	25.64	0.00	1905	0	1224	1235	2459
15	250.00	55.28	3.813	10.874	0.000	0.175	2.68	0.80	1.00	0.0	9.32	24.99	0.00	2164	0	1174	2574	3748
14	230.00	54.32	4.177	10.874	0.000	0.180	2.67	0.80	1.00	0.0	9.62	25.64	0.00	2238	0	1184	2897	4081
13	210.00	53.29	3.813	10.874	0.000	0.175	2.68	0.80	1.00	0.0	9.32	24.99	0.00	2229	0	1132	2934	4066
12	190.00	52.18	13.643	9.167	0.000	0.270	2.38	0.80	1.00	0.0	16.32	38.85	0.00	3243	0	1723	2938	4661
11	170.00	50.97	13.643	9.167	0.000	0.270	2.38	0.80	1.00	0.0	16.32	38.85	0.00	3266	0	1683	3019	4702
10	150.00	49.65	13.643	9.167	0.000	0.270	2.38	0.80	1.00	0.0	16.32	38.85	0.00	3283	0	1639	3061	4701
9	130.00	48.17	3.792	11.695	0.000	0.184	2.65	0.80	1.00	0.0	9.80	25.96	0.00	2509	0	1063	2998	4061
8	110.00	46.51	4.160	11.695	0.000	0.188	2.64	0.80	1.00	0.0	10.10	26.61	0.00	2529	0	1052	2894	3946
7	90.00	44.58	3.792	11.695	0.000	0.184	2.65	0.80	1.00	0.0	9.80	25.96	0.00	2509	0	984	2775	3759
6	70.00	42.29	3.792	11.695	0.000	0.184	2.65	0.80	1.00	0.0	9.80	25.96	0.00	2509	0	933	2632	3565
5	50.00	39.39	4.160	11.695	0.000	0.188	2.64	0.80	1.00	0.0	10.10	26.61	0.00	2529	0	891	2452	3343
4	30.00	35.38	3.792	11.695	0.000	0.184	2.65	0.80	1.00	0.0	9.80	25.96	0.00	2509	0	781	2202	2982
3	14.00	30.61	1.896	7.021	0.000	0.177	2.68	0.80	1.00	0.0	5.57	14.90	0.00	1484	0	388	1143	1531
2	7.00	30.61	1.264	1.353	0.000	0.311	2.27	0.80	1.00	0.0	1.84	4.18	0.00	317	0	109	191	299
1	3.00	30.61	2.288	2.679	0.000	0.375	2.12	0.80	1.00	0.0	3.51	7.42	0.00	782	0	193	572	724
** = Section Force Exceeds Solidity Ratio Criteria														40480	0			57486

Site Number: 2543

Code:

ANSI/TIA-222-H

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Site Name: Five Points, FL

Engineering Number: 13686745_C3_02

6/1/2021 8:12:44 PM

Customer: VERIZON WIRELESS

Section ForcesLoadCase 1.2D + 1.0W 90 deg

129 mph 90 degree with No Ice

Gust Response Factor (Gh): 0.85

Wind Importance Factor (Iw) : 1.00

Section	Elev.	Q _z	A _f	A _r	Ice A _r	e	C _f	D _f	D _r	T _{iz}	A _e	EPA _a	EPA _{ai}	Wt.	Ice Wt.	F _{st}	F _a	Force
(ft)	(psf)	(sf)	(sf)	(sf)						(in)	(sf)	(sf)	(sf)	(lb)	(lb)	(lb)	(lb)	(lb)
20	326.00	58.46	1.271	4.345	0.000	0.168	2.71	0.85	1.00	0.0	3.58	9.70	0.00	662	0	482	142	624
19	321.00	58.27	1.271	1.272	0.000	0.304	2.29	0.85	1.00	0.0	1.86	4.25	0.00	235	0	210	35	246
18	310.00	57.84	4.177	10.874	0.000	0.180	2.67	0.85	1.00	0.0	9.83	26.20	0.00	1755	0	1288	627	1915
17	290.00	57.04	3.813	10.874	0.000	0.175	2.68	0.85	1.00	0.0	9.51	25.50	0.00	1823	0	1236	904	2141
16	270.00	56.19	4.177	10.874	0.000	0.180	2.67	0.85	1.00	0.0	9.83	26.20	0.00	1905	0	1251	1235	2486
15	250.00	55.28	3.813	10.874	0.000	0.175	2.68	0.85	1.00	0.0	9.51	25.50	0.00	2164	0	1198	2574	3772
14	230.00	54.32	4.177	10.874	0.000	0.180	2.67	0.85	1.00	0.0	9.83	26.20	0.00	2238	0	1210	2897	4107
13	210.00	53.29	3.813	10.874	0.000	0.175	2.68	0.85	1.00	0.0	9.51	25.50	0.00	2229	0	1155	2934	4089
12	190.00	52.18	13.643	9.167	0.000	0.270	2.38	0.85	1.00	0.0	17.01	40.47	0.00	3243	0	1795	2938	4733
11	170.00	50.97	13.643	9.167	0.000	0.270	2.38	0.85	1.00	0.0	17.01	40.47	0.00	3266	0	1753	3019	4773
10	150.00	49.65	13.643	9.167	0.000	0.270	2.38	0.85	1.00	0.0	17.01	40.47	0.00	3283	0	1708	3061	4769
9	130.00	48.17	3.792	11.695	0.000	0.184	2.65	0.85	1.00	0.0	9.99	26.46	0.00	2509	0	1084	2998	4082
8	110.00	46.51	4.160	11.695	0.000	0.188	2.64	0.85	1.00	0.0	10.31	27.16	0.00	2529	0	1074	2894	3968
7	90.00	44.58	3.792	11.695	0.000	0.184	2.65	0.85	1.00	0.0	9.99	26.46	0.00	2509	0	1003	2775	3778
6	70.00	42.29	3.792	11.695	0.000	0.184	2.65	0.85	1.00	0.0	9.99	26.46	0.00	2509	0	951	2632	3583
5	50.00	39.39	4.160	11.695	0.000	0.188	2.64	0.85	1.00	0.0	10.31	27.16	0.00	2529	0	909	2452	3361
4	30.00	35.38	3.792	11.695	0.000	0.184	2.65	0.85	1.00	0.0	9.99	26.46	0.00	2509	0	796	2202	2998
3	14.00	30.61	1.896	7.021	0.000	0.177	2.68	0.85	1.00	0.0	5.66	15.16	0.00	1484	0	394	1143	1538
2	7.00	30.61	1.264	1.353	0.000	0.311	2.27	0.85	1.00	0.0	1.91	4.32	0.00	317	0	112	191	303
1	3.00	30.61	2.288	2.679	0.000	0.375	2.12	0.85	1.00	0.0	3.62	7.66	0.00	782	0	199	572	724
** = Section Force Exceeds Solidity Ratio Criteria														40480	0			57987

LoadCase 1.2D + 1.0Di + 1.0Wi Normal

30 mph Normal with 0.25 in Radial Ice

Gust Response Factor (Gh): 0.85

Ice Dead Load Factor 1.00

Ice Importance Factor :1.15

Wind Importance Factor (Iw) : 1.00

Section	Elev.	Q _z	A _f	A _r	Ice A _r	e	C _f	D _f	D _r	T _{iz}	A _e	EPA _a	EPA _{ai}	Wt.	Ice Wt.	F _{st}	F _a	Force
(ft)	(psf)	(sf)	(sf)	(sf)						(in)	(sf)	(sf)	(sf)	(lb)	(lb)	(lb)	(lb)	(lb)
20	326.00	3.16	1.271	7.134	2.788	0.247	2.45	1.00	1.00	0.4	5.47	13.37	2.79	777	115	36	13	49
19	321.00	3.15	1.271	2.520	1.247	0.446	1.98	1.00	1.00	0.4	2.94	5.83	1.25	291	55	16	2	18
18	310.00	3.13	4.177	18.060	7.186	0.262	2.40	1.00	1.00	0.4	14.86	35.72	7.19	2091	336	95	59	154
17	290.00	3.08	3.813	18.012	7.138	0.257	2.42	1.00	1.00	0.4	14.45	34.92	7.14	2222	399	92	84	176
16	270.00	3.04	4.177	17.962	7.087	0.261	2.41	1.00	1.00	0.4	14.80	35.61	7.09	2349	443	92	115	207
15	250.00	2.99	3.813	17.907	7.033	0.256	2.42	1.00	1.00	0.4	14.38	34.81	7.03	2886	722	88	208	297
14	230.00	2.94	4.177	17.849	6.974	0.259	2.41	1.00	1.00	0.3	14.73	35.49	6.97	3007	769	89	233	322
13	210.00	2.88	3.813	17.786	6.911	0.254	2.42	1.00	1.00	0.3	14.31	34.68	6.91	3020	791	85	237	322
12	190.00	2.82	13.643	16.009	6.842	0.346	2.18	1.00	1.00	0.3	23.48	51.21	6.84	3992	749	123	215	338
11	170.00	2.76	13.643	15.933	6.767	0.345	2.18	1.00	1.00	0.3	23.43	51.15	6.77	4033	767	120	221	341
10	150.00	2.69	13.643	15.849	6.683	0.344	2.19	1.00	1.00	0.3	23.37	51.07	6.68	4062	779	117	224	341
9	130.00	2.61	3.792	18.282	6.588	0.259	2.41	1.00	1.00	0.3	14.60	35.21	6.59	3329	820	78	241	319
8	110.00	2.52	4.160	18.173	6.478	0.262	2.40	1.00	1.00	0.3	14.92	35.85	6.48	3320	791	77	231	308
7	90.00	2.41	3.792	18.044	6.350	0.256	2.42	1.00	1.00	0.3	14.45	34.96	6.35	3295	786	72	222	294
6	70.00	2.29	3.792	17.887	6.192	0.254	2.42	1.00	1.00	0.3	14.35	34.79	6.19	3273	764	68	210	278
5	50.00	2.13	4.160	17.682	5.987	0.256	2.42	1.00	1.00	0.3	14.61	35.33	5.99	3252	723	64	194	258
4	30.00	1.91	3.792	17.384	5.689	0.249	2.44	1.00	1.00	0.3	14.03	34.25	5.69	3202	694	56	174	230
3	14.00	1.66	1.896	10.082	3.060	0.235	2.48	1.00	1.00	0.3	7.80	19.38	3.06	1860	376	27	90	118
2	7.00	1.66	1.264	2.204	0.851	0.408	2.05	1.00	1.00	0.2	2.69	5.51	0.85	392	75	8	12	20
1	3.00	1.66	2.288	3.713	1.034	0.445	1.98	1.00	1.00	0.2	4.73	9.37	1.03	928	145	13	34	40
** = Section Force Exceeds Solidity Ratio Criteria														51581	11101			4428

Site Number: 2543

Code:

ANSI/TIA-222-H

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Site Name: Five Points, FL

Engineering Number: 13686745_C3_02

6/1/2021 8:12:44 PM

Customer: VERIZON WIRELESS

Section ForcesLoadCase 1.2D + 1.0Di + 1.0Wi 60 deg

30 mph 60 deg with 0.25 in Radial Ice

Gust Response Factor (Gh): 0.85

Ice Dead Load Factor 1.00

Ice Importance Factor :1.15

Wind Importance Factor (Iw) : 1.00

Section Elev. (ft)	Q _z (psf)	A _f (sf)	A _r (sf)	Ice A _r (sf)	e	C _f	D _f	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt. (lb)	Ice Wt. (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
20 326.00	3.16	1.271	7.134	2.788	0.247	2.45	0.80	1.00	0.4	5.21	12.75	2.79	777	115	34	13	47
19 321.00	3.15	1.271	2.520	1.247	0.446	1.98	0.80	1.00	0.4	2.69	5.32	1.25	291	55	14	2	17
18 310.00	3.13	4.177	18.060	7.186	0.262	2.40	0.80	1.00	0.4	14.03	33.71	7.19	2091	336	90	59	148
17 290.00	3.08	3.813	18.012	7.138	0.257	2.42	0.80	1.00	0.4	13.69	33.08	7.14	2222	399	87	84	171
16 270.00	3.04	4.177	17.962	7.087	0.261	2.41	0.80	1.00	0.4	13.97	33.60	7.09	2349	443	87	115	201
15 250.00	2.99	3.813	17.907	7.033	0.256	2.42	0.80	1.00	0.4	13.62	32.97	7.03	2886	722	84	208	292
14 230.00	2.94	4.177	17.849	6.974	0.259	2.41	0.80	1.00	0.3	13.89	33.48	6.97	3007	769	84	233	316
13 210.00	2.88	3.813	17.786	6.911	0.254	2.42	0.80	1.00	0.3	13.54	32.83	6.91	3020	791	80	237	318
12 190.00	2.82	13.643	16.009	6.842	0.346	2.18	0.80	1.00	0.3	20.75	45.26	6.84	3992	749	109	215	323
11 170.00	2.76	13.643	15.933	6.767	0.345	2.18	0.80	1.00	0.3	20.70	45.19	6.77	4033	767	106	221	327
10 150.00	2.69	13.643	15.849	6.683	0.344	2.19	0.80	1.00	0.3	20.64	45.11	6.68	4062	779	103	224	327
9 130.00	2.61	3.792	18.282	6.588	0.259	2.41	0.80	1.00	0.3	13.85	33.38	6.59	3329	820	74	241	315
8 110.00	2.52	4.160	18.173	6.478	0.262	2.40	0.80	1.00	0.3	14.09	33.85	6.48	3320	791	72	231	304
7 90.00	2.41	3.792	18.044	6.350	0.256	2.42	0.80	1.00	0.3	13.69	33.12	6.35	3295	786	68	222	290
6 70.00	2.29	3.792	17.887	6.192	0.254	2.42	0.80	1.00	0.3	13.59	32.95	6.19	3273	764	64	210	274
5 50.00	2.13	4.160	17.682	5.987	0.256	2.42	0.80	1.00	0.3	13.78	33.32	5.99	3252	723	60	194	254
4 30.00	1.91	3.792	17.384	5.689	0.249	2.44	0.80	1.00	0.3	13.27	32.40	5.69	3202	694	53	174	227
3 14.00	1.66	1.896	10.082	3.060	0.235	2.48	0.80	1.00	0.3	7.42	18.44	3.06	1860	376	26	90	116
2 7.00	1.66	1.264	2.204	0.851	0.408	2.05	0.80	1.00	0.2	2.44	4.99	0.85	392	75	7	12	19
1 3.00	1.66	2.288	3.713	1.034	0.445	1.98	0.80	1.00	0.2	4.27	8.46	1.03	928	145	12	34	40
													51581	11101			
																4329	**

** = Section Force Exceeds Solidity Ratio Criteria

LoadCase 1.2D + 1.0Di + 1.0Wi 90 deg

30 mph 90 deg with 0.25 in Radial Ice

Gust Response Factor (Gh): 0.85

Ice Dead Load Factor 1.00

Ice Importance Factor :1.15

Wind Importance Factor (Iw) : 1.00

Section Elev. (ft)	Q _z (psf)	A _f (sf)	A _r (sf)	Ice A _r (sf)	e	C _f	D _f	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt. (lb)	Ice Wt. (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
20 326.00	3.16	1.271	7.134	2.788	0.247	2.45	0.85	1.00	0.4	5.28	12.90	2.79	777	115	35	13	48
19 321.00	3.15	1.271	2.520	1.247	0.446	1.98	0.85	1.00	0.4	2.75	5.45	1.25	291	55	15	2	17
18 310.00	3.13	4.177	18.060	7.186	0.262	2.40	0.85	1.00	0.4	14.24	34.21	7.19	2091	336	91	59	150
17 290.00	3.08	3.813	18.012	7.138	0.257	2.42	0.85	1.00	0.4	13.88	33.54	7.14	2222	399	88	84	172
16 270.00	3.04	4.177	17.962	7.087	0.261	2.41	0.85	1.00	0.4	14.18	34.10	7.09	2349	443	88	115	203
15 250.00	2.99	3.813	17.907	7.033	0.256	2.42	0.85	1.00	0.4	13.81	33.43	7.03	2886	722	85	208	293
14 230.00	2.94	4.177	17.849	6.974	0.259	2.41	0.85	1.00	0.3	14.10	33.98	6.97	3007	769	85	233	318
13 210.00	2.88	3.813	17.786	6.911	0.254	2.42	0.85	1.00	0.3	13.73	33.29	6.91	3020	791	82	237	319
12 190.00	2.82	13.643	16.009	6.842	0.346	2.18	0.85	1.00	0.3	21.43	46.75	6.84	3992	749	112	215	327
11 170.00	2.76	13.643	15.933	6.767	0.345	2.18	0.85	1.00	0.3	21.38	46.68	6.77	4033	767	109	221	331
10 150.00	2.69	13.643	15.849	6.683	0.344	2.19	0.85	1.00	0.3	21.33	46.60	6.68	4062	779	106	224	331
9 130.00	2.61	3.792	18.282	6.588	0.259	2.41	0.85	1.00	0.3	14.04	33.84	6.59	3329	820	75	241	316
8 110.00	2.52	4.160	18.173	6.478	0.262	2.40	0.85	1.00	0.3	14.30	34.35	6.48	3320	791	73	231	305
7 90.00	2.41	3.792	18.044	6.350	0.256	2.42	0.85	1.00	0.3	13.88	33.58	6.35	3295	786	69	222	291
6 70.00	2.29	3.792	17.887	6.192	0.254	2.42	0.85	1.00	0.3	13.78	33.41	6.19	3273	764	65	210	275
5 50.00	2.13	4.160	17.682	5.987	0.256	2.42	0.85	1.00	0.3	13.98	33.82	5.99	3252	723	61	194	255
4 30.00	1.91	3.792	17.384	5.689	0.249	2.44	0.85	1.00	0.3	13.46	32.87	5.69	3202	694	53	174	227
3 14.00	1.66	1.896	10.082	3.060	0.235	2.48	0.85	1.00	0.3	7.52	18.68	3.06	1860	376	26	90	117
2 7.00	1.66	1.264	2.204	0.851	0.408	2.05	0.85	1.00	0.2	2.50	5.12	0.85	392	75	7	12	19
1 3.00	1.66	2.288	3.713	1.034	0.445	1.98	0.85	1.00	0.2	4.38	8.69	1.03	928	145	12	34	40
													51581	11101			
																4353	**

** = Section Force Exceeds Solidity Ratio Criteria

Site Number: 2543

Code:

ANSI/TIA-222-H

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Site Name: Five Points, FL

Engineering Number: 13686745_C3_02

6/1/2021 8:12:44 PM

Customer: VERIZON WIRELESS

Section ForcesLoadCase 1.0D + 1.0W Service Normal

Serviceability - 60 mph Wind Normal

Gust Response Factor (Gh): 0.85

Wind Importance Factor (Iw) : 1.00

Section	Elev.	Q_z	A_f	A_r	Ice A_r	e	C_f	D_f	D_r	T_{iz}	A_e	EPA_a	EPA_{ai}	Wt.	Ice Wt.	F_{st}	F_a	Force
	(ft)	(psf)	(sf)	(sf)	(sf)					(in)	(sf)	(sf)	(sf)	(lb)	(lb)	(lb)	(lb)	(lb)
20	326.00	12.65	1.271	4.345	0.000	0.168	2.71	1.00	1.00	0.0	3.77	10.21	0.00	552	0	110	31	141
19	321.00	12.61	1.271	1.272	0.000	0.304	2.29	1.00	1.00	0.0	2.05	4.68	0.00	196	0	50	8	58
18	310.00	12.51	4.177	10.874	0.000	0.180	2.67	1.00	1.00	0.0	10.46	27.87	0.00	1463	0	296	136	432
17	290.00	12.34	3.813	10.874	0.000	0.175	2.68	1.00	1.00	0.0	10.08	27.03	0.00	1519	0	283	196	479
16	270.00	12.15	4.177	10.874	0.000	0.180	2.67	1.00	1.00	0.0	10.46	27.87	0.00	1588	0	288	267	555
15	250.00	11.96	3.813	10.874	0.000	0.175	2.68	1.00	1.00	0.0	10.08	27.03	0.00	1803	0	275	557	832
14	230.00	11.75	4.177	10.874	0.000	0.180	2.67	1.00	1.00	0.0	10.46	27.87	0.00	1865	0	278	627	905
13	210.00	11.53	3.813	10.874	0.000	0.175	2.68	1.00	1.00	0.0	10.08	27.03	0.00	1857	0	265	635	900
12	190.00	11.29	13.643	9.167	0.000	0.270	2.38	1.00	1.00	0.0	19.05	45.34	0.00	2702	0	435	636	1071
11	170.00	11.03	13.643	9.167	0.000	0.270	2.38	1.00	1.00	0.0	19.05	45.34	0.00	2721	0	425	653	1078
10	150.00	10.74	13.643	9.167	0.000	0.270	2.38	1.00	1.00	0.0	19.05	45.34	0.00	2736	0	414	662	1076
9	130.00	10.42	3.792	11.695	0.000	0.184	2.65	1.00	1.00	0.0	10.55	27.97	0.00	2091	0	248	649	896
8	110.00	10.06	4.160	11.695	0.000	0.188	2.64	1.00	1.00	0.0	10.93	28.80	0.00	2107	0	246	626	872
7	90.00	9.65	3.792	11.695	0.000	0.184	2.65	1.00	1.00	0.0	10.55	27.97	0.00	2091	0	229	600	830
6	70.00	9.15	3.792	11.695	0.000	0.184	2.65	1.00	1.00	0.0	10.55	27.97	0.00	2091	0	217	569	787
5	50.00	8.52	4.160	11.695	0.000	0.188	2.64	1.00	1.00	0.0	10.93	28.80	0.00	2107	0	209	530	739
4	30.00	7.65	3.792	11.695	0.000	0.184	2.65	1.00	1.00	0.0	10.55	27.97	0.00	2091	0	182	476	658
3	14.00	6.62	1.896	7.021	0.000	0.177	2.68	1.00	1.00	0.0	5.95	15.92	0.00	1237	0	90	247	337
2	7.00	6.62	1.264	1.353	0.000	0.311	2.27	1.00	1.00	0.0	2.09	4.75	0.00	264	0	27	41	68
1	3.00	6.62	2.288	2.679	0.000	0.375	2.12	1.00	1.00	0.0	3.96	8.39	0.00	652	0	47	124	157
														33733	0			
																	12870	**

** = Section Force Exceeds Solidity Ratio Criteria

LoadCase 1.0D + 1.0W Service 60 deg

Serviceability - 60 mph Wind 60 deg

Gust Response Factor (Gh): 0.85

Wind Importance Factor (Iw) : 1.00

Section	Elev.	Q_z	A_f	A_r	Ice A_r	e	C_f	D_f	D_r	T_{iz}	A_e	EPA_a	EPA_{ai}	Wt.	Ice Wt.	F_{st}	F_a	Force
	(ft)	(psf)	(sf)	(sf)	(sf)					(in)	(sf)	(sf)	(sf)	(lb)	(lb)	(lb)	(lb)	(lb)
20	326.00	12.65	1.271	4.345	0.000	0.168	2.71	0.80	1.00	0.0	3.52	9.53	0.00	552	0	102	31	133
19	321.00	12.61	1.271	1.272	0.000	0.304	2.29	0.80	1.00	0.0	1.79	4.10	0.00	196	0	44	8	52
18	310.00	12.51	4.177	10.874	0.000	0.180	2.67	0.80	1.00	0.0	9.62	25.64	0.00	1463	0	273	136	408
17	290.00	12.34	3.813	10.874	0.000	0.175	2.68	0.80	1.00	0.0	9.32	24.99	0.00	1519	0	262	196	458
16	270.00	12.15	4.177	10.874	0.000	0.180	2.67	0.80	1.00	0.0	9.62	25.64	0.00	1588	0	265	267	532
15	250.00	11.96	3.813	10.874	0.000	0.175	2.68	0.80	1.00	0.0	9.32	24.99	0.00	1803	0	254	557	811
14	230.00	11.75	4.177	10.874	0.000	0.180	2.67	0.80	1.00	0.0	9.62	25.64	0.00	1865	0	256	627	883
13	210.00	11.53	3.813	10.874	0.000	0.175	2.68	0.80	1.00	0.0	9.32	24.99	0.00	1857	0	245	635	880
12	190.00	11.29	13.643	9.167	0.000	0.270	2.38	0.80	1.00	0.0	16.32	38.85	0.00	2702	0	373	636	1008
11	170.00	11.03	13.643	9.167	0.000	0.270	2.38	0.80	1.00	0.0	16.32	38.85	0.00	2721	0	364	653	1017
10	150.00	10.74	13.643	9.167	0.000	0.270	2.38	0.80	1.00	0.0	16.32	38.85	0.00	2736	0	355	662	1017
9	130.00	10.42	3.792	11.695	0.000	0.184	2.65	0.80	1.00	0.0	9.80	25.96	0.00	2091	0	230	649	879
8	110.00	10.06	4.160	11.695	0.000	0.188	2.64	0.80	1.00	0.0	10.10	26.61	0.00	2107	0	228	626	854
7	90.00	9.65	3.792	11.695	0.000	0.184	2.65	0.80	1.00	0.0	9.80	25.96	0.00	2091	0	213	600	813
6	70.00	9.15	3.792	11.695	0.000	0.184	2.65	0.80	1.00	0.0	9.80	25.96	0.00	2091	0	202	569	771
5	50.00	8.52	4.160	11.695	0.000	0.188	2.64	0.80	1.00	0.0	10.10	26.61	0.00	2107	0	193	530	723
4	30.00	7.65	3.792	11.695	0.000	0.184	2.65	0.80	1.00	0.0	9.80	25.96	0.00	2091	0	169	476	645
3	14.00	6.62	1.896	7.021	0.000	0.177	2.68	0.80	1.00	0.0	5.57	14.90	0.00	1237	0	84	247	331
2	7.00	6.62	1.264	1.353	0.000	0.311	2.27	0.80	1.00	0.0	1.84	4.18	0.00	264	0	24	41	65
1	3.00	6.62	2.288	2.679	0.000	0.375	2.12	0.80	1.00	0.0	3.51	7.42	0.00	652	0	42	124	157
																	124	**

Site Number: 2543

Code:

ANSI/TIA-222-H

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Site Name: Five Points, FL

Engineering Number: 13686745_C3_02

6/1/2021 8:12:44 PM

Customer: VERIZON WIRELESS

Section Forces

** = Section Force Exceeds Solidity Ratio Criteria

33733

0

12436

LoadCase 1.0D + 1.0W Service 90 deg

Serviceability - 60 mph Wind 90 deg

Gust Response Factor (Gh): 0.85

Wind Importance Factor (Iw) : 1.00

Section Elev. (ft)	Q _z (psf)	A _f (sf)	A _r (sf)	Ice A _r (sf)	e	C _f	D _f	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt. (lb)	Ice Wt. (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
20 326.00	12.65	1.271	4.345	0.000	0.168	2.71	0.85	1.00	0.0	3.58	9.70	0.00	552	0	104	31	135
19 321.00	12.61	1.271	1.272	0.000	0.304	2.29	0.85	1.00	0.0	1.86	4.25	0.00	196	0	46	8	53
18 310.00	12.51	4.177	10.874	0.000	0.180	2.67	0.85	1.00	0.0	9.83	26.20	0.00	1463	0	279	136	414
17 290.00	12.34	3.813	10.874	0.000	0.175	2.68	0.85	1.00	0.0	9.51	25.50	0.00	1519	0	267	196	463
16 270.00	12.15	4.177	10.874	0.000	0.180	2.67	0.85	1.00	0.0	9.83	26.20	0.00	1588	0	271	267	538
15 250.00	11.96	3.813	10.874	0.000	0.175	2.68	0.85	1.00	0.0	9.51	25.50	0.00	1803	0	259	557	816
14 230.00	11.75	4.177	10.874	0.000	0.180	2.67	0.85	1.00	0.0	9.83	26.20	0.00	1865	0	262	627	888
13 210.00	11.53	3.813	10.874	0.000	0.175	2.68	0.85	1.00	0.0	9.51	25.50	0.00	1857	0	250	635	885
12 190.00	11.29	13.643	9.167	0.000	0.270	2.38	0.85	1.00	0.0	17.01	40.47	0.00	2702	0	388	636	1024
11 170.00	11.03	13.643	9.167	0.000	0.270	2.38	0.85	1.00	0.0	17.01	40.47	0.00	2721	0	379	653	1032
10 150.00	10.74	13.643	9.167	0.000	0.270	2.38	0.85	1.00	0.0	17.01	40.47	0.00	2736	0	369	662	1032
9 130.00	10.42	3.792	11.695	0.000	0.184	2.65	0.85	1.00	0.0	9.99	26.46	0.00	2091	0	234	649	883
8 110.00	10.06	4.160	11.695	0.000	0.188	2.64	0.85	1.00	0.0	10.31	27.16	0.00	2107	0	232	626	858
7 90.00	9.65	3.792	11.695	0.000	0.184	2.65	0.85	1.00	0.0	9.99	26.46	0.00	2091	0	217	600	817
6 70.00	9.15	3.792	11.695	0.000	0.184	2.65	0.85	1.00	0.0	9.99	26.46	0.00	2091	0	206	569	775
5 50.00	8.52	4.160	11.695	0.000	0.188	2.64	0.85	1.00	0.0	10.31	27.16	0.00	2107	0	197	530	727
4 30.00	7.65	3.792	11.695	0.000	0.184	2.65	0.85	1.00	0.0	9.99	26.46	0.00	2091	0	172	476	648
3 14.00	6.62	1.896	7.021	0.000	0.177	2.68	0.85	1.00	0.0	5.66	15.16	0.00	1237	0	85	247	333
2 7.00	6.62	1.264	1.353	0.000	0.311	2.27	0.85	1.00	0.0	1.91	4.32	0.00	264	0	24	41	66
1 3.00	6.62	2.288	2.679	0.000	0.375	2.12	0.85	1.00	0.0	3.62	7.66	0.00	652	0	43	124	157
													33733	0			

** = Section Force Exceeds Solidity Ratio Criteria

33733

0

12545

Site Number: 2543

Code:

ANSI/TIA-222-H

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Site Name: Five Points, FL

Engineering Number: 13686745_C3_02

6/1/2021 8:12:44 PM

Customer: VERIZON WIRELESS

Equivalent Lateral Force Method

Spectral Response Acceleration for Short Period (S_s):	0.09
Spectral Response Acceleration at 1.0 Second Period (S_1):	0.05
Long-Period Transition Period (T_L - Seconds):	8
Importance Factor (I_e):	1.25
Site Coefficient F_a :	1.60
Site Coefficient F_v :	2.40
Response Modification Coefficient (R):	3.00
Design Spectral Response Acceleration at Short Period (S_{ds}):	0.09
Design Spectral Response Acceleration at 1.0 Second Period (S_{d1}):	0.08
Seismic Response Coefficient (C_s):	0.04
Upper Limit C_s :	0.05
Lower Limit C_s :	0.03
Period based on Rayleigh Method (sec):	0.73
Redundancy Factor (p):	1.30
Seismic Force Distribution Exponent (k):	1.11
Total Unfactored Dead Load:	42.12 k
Seismic Base Shear (E):	2.12 k

LoadCase 1.2D + 1.0Ev + 1.0Eh

Seismic

Section	Height Above Base (ft)	Weight (lb)	W_z (lb-ft)	C_{vx}	Horizontal Force (lb)	Vertical Force (lb)
20	326.00	552	350,084	0.025	54	673
19	321.00	196	122,292	0.009	19	239
18	310.00	1,463	877,050	0.064	135	1,783
17	290.00	1,519	845,557	0.062	130	1,851
16	270.00	1,588	815,981	0.059	126	1,935
15	250.00	1,803	850,557	0.062	131	2,197
14	230.00	1,865	801,643	0.058	123	2,273
13	210.00	1,857	721,278	0.052	111	2,263
12	190.00	2,702	938,721	0.068	145	3,293
11	170.00	2,721	835,041	0.061	129	3,316
10	150.00	2,736	730,166	0.053	112	3,334
9	130.00	2,091	475,636	0.035	73	2,547
8	110.00	2,107	397,955	0.029	61	2,568
7	90.00	2,091	315,654	0.023	49	2,547
6	70.00	2,091	238,516	0.017	37	2,547
5	50.00	2,107	165,211	0.012	25	2,568
4	30.00	2,091	92,732	0.007	14	2,547
3	14.00	1,237	23,459	0.002	4	1,507
2	7.00	264	2,313	0.000	0	322
1	3.00	652	2,218	0.000	0	794
Andrew DB810KE-SY	330.00	70	44,999	0.003	7	85
Round Side Arm	323.00	300	188,296	0.014	29	366
Round Side Arm	321.00	150	93,498	0.007	14	183
Andrew DB810KE-SY	320.00	35	21,741	0.002	3	43
Decibel DB420-A	318.00	34	20,972	0.002	3	41

Site Number: 2543
 Site Name: Five Points, FL
 Customer: VERIZON WIRELESS

Code: ANSI/TIA-222-H
 Engineering Number: 13686745_C3_02

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Equivalent Lateral Force Method

RFS AO8410M-24T0	312.00	26	15,701	0.001	2	32
RFS 455-7	310.00	24	14,389	0.001	2	29
Round Side Arm	309.00	150	89,610	0.007	14	183
Ericsson Radio 4460 B25+B66	295.00	327	185,507	0.013	29	398
Ericsson Radio 4480 B71+B85A	295.00	252	142,959	0.010	22	307
Sector Frame C10857001C	295.00	1,386	786,276	0.057	121	1,689
Commscope FFVV-65C-R3-V1	295.00	374	212,056	0.015	33	455
Generic 10' Omni	279.00	25	13,328	0.001	2	30
Round Side Arm	279.00	150	79,965	0.006	12	183
RFS PAD6-65AC w/ Radome	278.00	225	119,468	0.009	18	274
Generic 20' Omni	275.00	55	28,852	0.002	4	67
Generic Flat Side Arm	275.00	188	98,360	0.007	15	228
Generic Round Sector Frame	275.00	300	157,376	0.011	24	366
TX RX Systems 421-86A-10-18-12-N	262.00	15	7,455	0.001	1	18
Generic 44" x 14" Panel	262.00	60	29,821	0.002	5	73
Ericsson 8843 Rev 2	258.00	225	109,926	0.008	17	274
Ericsson Radio 4449 - B13&B5	258.00	210	102,597	0.007	16	256
Commscope TD-850B-LTE78-43	258.00	159	77,681	0.006	12	194
Ericsson AIR 6449 B77	258.00	245	119,599	0.009	18	298
Raycap RCMDC-6627-PF-48	258.00	64	31,268	0.002	5	78
JMA Wireless MX06FIT865-02	258.00	200	97,712	0.007	15	244
JMA Wireless MX06FRO860-02	258.00	102	49,833	0.004	8	124
Flat Light Sector Frames	258.00	1,200	586,271	0.043	90	1,462
RFS PAD6-65AC w/ Radome	240.00	225	101,410	0.007	16	274
Andrew Microwaves PL8-57W	240.00	340	153,241	0.011	24	414
Andrew Microwaves P2F-52	215.00	14	5,582	0.000	1	17
RFS PAD6-65AC	186.00	185	62,754	0.005	10	225
Generic 6' Grid Dish	173.00	198	61,951	0.005	10	241
Torque Arms	168.00	500	151,410	0.011	23	609
RFS PAD6-65AC w/ Radome	155.00	225	62,283	0.005	10	274
Round Side Arm	89.00	150	22,368	0.002	3	183
		42,120	13,748,576	1.000	2,117	51,326

Site Number: 2543

Code:

ANSI/TIA-222-H

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Site Name: Five Points, FL

Engineering Number: 13686745_C3_02

6/1/2021 8:12:45 PM

Customer: VERIZON WIRELESS

Force/Stress Summary

Section: 1		Base		Bot Elev (ft): 0.00				Height (ft): 6.000								
		Pu		Len	Bracing %			F'y	Phic	Pn	Num	Num	Shear	Bear	Use	
Max Compression Member		(kip)	Load Case	(ft)	X	Y	Z	KL/R	(ksi)	(kip)	Bolts	Holes	(kip)	(kip)	%	Controls
LEG	SOL - 2 1/2" SOLID	-92.45	1.2D + 1.0W Normal	3.21	100	100	100	61.7	50.0	167.24	0	0	0.00	0.00	55	Member X
HORIZ		0.00		0.000	0	0	0	0.0	0.0	0.00	0	0	0.00	0.00	0	
DIAG	PL - PL 2 x 0.5"	-4.02	1.2D + 1.0W Normal	4.282	50	50	50	160.2	36.0	11.15	0	0	0.00	0.00		Member Y
		Pu		Fy	Fu	Phit	Pn	Num	Num	Shear		Bear	Blk	Shear	Use	
Max Tension Member		(kip)	Load Case	(ksi)	(ksi)	(kip)	Bolts	Holes		phiRnv	(kip)	phiRn	phiT	Pn	%	Controls
LEG		0.00		0	0	0.00	0	0		0.00		0.00			0	
HORIZ	SAE - 2X2X0.1875	13.88	1.2D + 1.0W Normal	36	58	23.17	0	0		0.00		0.00		0.00	59	Member
DIAG		0.00		0	0	0.00	0	0		0.00		0.00		0.00	0	
		Pu		phiRnt			Use	Num								
Max Splice Forces		(kip)	Load Case	(kip)			%	Bolts	Bolt Type							
Top Tension		0.00		0.00			0	0								
Top Compression		84.82	1.2D + 1.0W Normal	0.00			0									
Bot Tension		0.00		0.00			0									
Bot Compression		0.00		0.00			0									

Section: 2		1		Bot Elev (ft): 6.00				Height (ft): 2.000								
		Pu		Len	Bracing %			F'y	Phic	Pn	Num	Num	Shear	Bear	Use	
Max Compression Member		(kip)	Load Case	(ft)	X	Y	Z	KL/R	(ksi)	(kip)	Bolts	Holes	(kip)	(kip)	%	Controls
LEG	SOL - 2 1/2" SOLID	-86.84	1.2D + 1.0W Normal	1.75	100	100	100	33.6	50.0	203.44	0	0	0.00	0.00	42	Member X
HORIZ		0.00		0.000	0	0	0	0.0	0.0	0.00	0	0	0.00	0.00	0	
DIAG	SOL - 3/4" SOLID	-0.19	1.2D + 1.0W Normal	4.366	50	50	50	125.7	36.0	6.23	0	0	0.00	0.00		Member X
		Pu		Fy	Fu	Phit	Pn	Num	Num	Shear		Bear	Blk	Shear	Use	
Max Tension Member		(kip)	Load Case	(ksi)	(ksi)	(kip)	Bolts	Holes		phiRnv	(kip)	phiRn	phiT	Pn	%	Controls
LEG		0.00		0	0	0.00	0	0		0.00		0.00			0	
HORIZ	SAE - 2X2X0.1875	6.91	1.2D + 1.0W Normal	36	58	23.17	0	0		0.00		0.00		0.00	29	Member
DIAG	SOL - 3/4" SOLID	1.59	1.2D + 1.0W Normal	36	58	14.31	0	0		0.00		0.00		0.00	11	Member
		Pu		phiRnt			Use	Num								
Max Splice Forces		(kip)	Load Case	(kip)			%	Bolts	Bolt Type							
Top Tension		0.00		0.00			0	0								
Top Compression		86.61	1.2D + 1.0W Normal	0.00			0									
Bot Tension		0.00		0.00			0									
Bot Compression		0.00		0.00			0									

Site Number: 2543

Code:

ANSI/TIA-222-H

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Site Name: Five Points, FL

Engineering Number: 13686745_C3_02

6/1/2021 8:12:45 PM

Customer: VERIZON WIRELESS

Force/Stress Summary

Section: 3		1	Bot Elev (ft): 8.00				Height (ft): 12.000									
		Pu			Len	Bracing %			F'y	Phic	Pn	Num	Num	Shear	Bear	Use
Max Compression Member		(kip)	Load Case		(ft)	X	Y	Z	KL/R	(ksi)	(kip)	Bolts	Holes	phiRnv	phiRn	%
LEG	SOL - 2 1/2" SOLID	-86.41	1.2D + 1.0W 90 deg		3.92	100	100	100	75.2	50.0	146.12	0	0	0.00	0.00	59
HORIZ		0.00			0.000	0	0	0	0.0	0.0	0.00	0	0	0.00	0.00	0
DIAG	SOL - 3/4" SOLID	-3.71	1.2D + 1.0W Normal		5.598	50	50	50	161.2	36.0	3.84	0	0	0.00	0.00	Member X

Max Tension Member		Pu			Fy	Fu	Phit	Pn	Num	Num	Shear	Bear	Blk	Shear	Use	Controls
		(kip)	Load Case		(ksi)	(ksi)	(kip)	Bolts	Holes		phiRnv	phiRn	phiRn	phiRn	%	
LEG		0.00			0	0	0.00	0	0		0.00	0.00			0	
HORIZ	SAE - 2X2X0.1875	4.00	1.2D + 1.0W Normal		36	58	23.17	0	0		0.00	0.00		0.00	17	Member
DIAG		0.00			0	0	0.00	0	0		0.00	0.00		0.00	0	

Max Splice Forces		Pu			phiRnt	Use	Num		
		(kip)	Load Case		(kip)	%	Bolts	Bolt Type	
Top Tension		0.00			0.00	0	0		
Top Compression		90.72	1.2D + 1.0W 90 deg		0.00	0			
Bot Tension		0.00			0.00	0			
Bot Compression		0.00			0.00	0			

Section: 4		1	Bot Elev (ft): 20.00				Height (ft): 20.000									
		Pu			Len	Bracing %			F'y	Phic	Pn	Num	Num	Shear	Bear	Use
Max Compression Member		(kip)	Load Case		(ft)	X	Y	Z	KL/R	(ksi)	(kip)	Bolts	Holes	phiRnv	phiRn	%
LEG	SOL - 2 1/2" SOLID	-87.13	1.2D + 1.0W 90 deg		3.90	100	100	100	74.9	50.0	146.64	0	0	0.00	0.00	59
HORIZ		0.00			0.000	0	0	0	0.0	0.0	0.00	0	0	0.00	0.00	0
DIAG	SOL - 3/4" SOLID	-2.65	1.2D + 1.0W Normal		5.587	50	50	50	160.9	36.0	3.86	0	0	0.00	0.00	Member X

Max Tension Member		Pu			Fy	Fu	Phit	Pn	Num	Num	Shear	Bear	Blk	Shear	Use	Controls
		(kip)	Load Case		(ksi)	(ksi)	(kip)	Bolts	Holes		phiRnv	phiRn	phiRn	phiRn	%	
LEG		0.00			0	0	0.00	0	0		0.00	0.00			0	
HORIZ	SAE - 2X2X0.1875	3.95	1.2D + 1.0W Normal		36	58	23.17	0	0		0.00	0.00		0.00	17	Member
DIAG		0.00			0	0	0.00	0	0		0.00	0.00		0.00	0	

Max Splice Forces		Pu			phiRnt	Use	Num		
		(kip)	Load Case		(kip)	%	Bolts	Bolt Type	
Top Tension		0.00			0.00	0	0		
Top Compression		86.98	1.2D + 1.0W Normal		0.00	0			
Bot Tension		0.00			0.00	0			
Bot Compression		0.00			0.00	0			

Site Number: 2543

Code:

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Site Name: Five Points, FL

Engineering Number: 13686745_C3_02

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Customer: VERIZON WIRELESS

Force/Stress Summary

Section: 5		1	Bot Elev (ft): 40.00				Height (ft): 20.000								
		Pu			Len	Bracing %		F'y	Phic	Pn	Num	Num	Shear	Bear	Use
Max Compression Member		(kip)	Load Case	(ft)	X	Y	Z	KL/R	(ksi)	(kip)	Bolts	Holes	phiRnv	phiRn	% Controls
LEG	SOL - 2 1/2" SOLID	-88.54	1.2D + 1.0W Normal	3.90	100	100	100	74.9	50.0	146.64	0	0	0.00	0.00	60 Member X
HORIZ	SAE - 2X2X0.1875	-2.87	1.2D + 1.0W 90 deg	4.000	100	100	100	121.1	36.0	13.87	0	0	0.00	0.00	20 Member Z
DIAG	SOL - 3/4" SOLID	-2.76	1.2D + 1.0W Normal	5.587	50	50	50	160.9	36.0	3.86	0	0	0.00	0.00	Member X

Max Tension Member		Pu			Fy	Fu	Phit	Pn	Num	Num	Shear	Bear	Blk	Shear	Use
		(kip)	Load Case	(ksi)	(ksi)	(kip)	Bolts	Holes	(kip)	(kip)	phiRnv	phiRn	phi	phi	% Controls
LEG		0.00		0	0	0.00	0	0	0.00	0.00					0
HORIZ	SAE - 2X2X0.1875	3.84	1.2D + 1.0W Normal	36	58	23.17	0	0	0.00	0.00			0.00		16 Member
DIAG	SOL - 3/4" SOLID	4.43	1.2D + 1.0W 90 deg	36	58	14.31	0	0	0.00	0.00			0.00		30 Member

Max Splice Forces		Pu			phiRnt	Use	Num		
		(kip)	Load Case	(kip)	%	Bolts	Bolt Type		
Top Tension		0.00			0.00	0	0		
Top Compression		82.58	1.2D + 1.0W Normal		0.00	0			
Bot Tension		0.00			0.00	0			
Bot Compression		0.00			0.00	0			

Section: 6		1	Bot Elev (ft): 60.00				Height (ft): 20.000								
		Pu			Len	Bracing %		F'y	Phic	Pn	Num	Num	Shear	Bear	Use
Max Compression Member		(kip)	Load Case	(ft)	X	Y	Z	KL/R	(ksi)	(kip)	Bolts	Holes	phiRnv	phiRn	% Controls
LEG	SOL - 2 1/2" SOLID	-82.28	1.2D + 1.0W Normal	3.90	100	100	100	74.9	50.0	146.64	0	0	0.00	0.00	56 Member X
HORIZ	SAE - 2X2X0.1875	-1.29	1.2D + 1.0W 90 deg	4.000	100	100	100	121.1	36.0	13.87	0	0	0.00	0.00	9 Member Z
DIAG	SOL - 3/4" SOLID	-2.55	1.2D + 1.0W Normal	5.587	50	50	50	160.9	36.0	3.86	0	0	0.00	0.00	Member X

Max Tension Member		Pu			Fy	Fu	Phit	Pn	Num	Num	Shear	Bear	Blk	Shear	Use
		(kip)	Load Case	(ksi)	(ksi)	(kip)	Bolts	Holes	(kip)	(kip)	phiRnv	phiRn	phi	phi	% Controls
LEG		0.00		0	0	0.00	0	0	0.00	0.00					0
HORIZ	SAE - 2X2X0.1875	3.56	1.2D + 1.0W Normal	36	58	23.17	0	0	0.00	0.00			0.00		15 Member
DIAG	SOL - 3/4" SOLID	3.35	1.2D + 1.0W 90 deg	36	58	14.31	0	0	0.00	0.00			0.00		23 Member

Max Splice Forces		Pu			phiRnt	Use	Num		
		(kip)	Load Case	(kip)	%	Bolts	Bolt Type		
Top Tension		0.00			0.00	0	0		
Top Compression		81.62	1.2D + 1.0W 90 deg		0.00	0			
Bot Tension		0.00			0.00	0			
Bot Compression		0.00			0.00	0			

Site Number: 2543

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Site Name: Five Points, FL

Engineering Number: 13686745_C3_02

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Customer: VERIZON WIRELESS

Force/Stress Summary

Section: 7		1	Bot Elev (ft): 80.00				Height (ft): 20.000								
		Pu			Len	Bracing %		F'y	Phic	Pn Num	Num	Shear	Bear	Use	
Max Compression Member		(kip)	Load Case	(ft)	X	Y	Z	KL/R	(ksi)	(kip)	Bolts	Holes	(kip)	(kip)	% Controls
LEG	SOL - 2 1/2" SOLID	-81.39	1.2D + 1.0W Normal	3.90	100	100	100	74.9	50.0	146.64	0	0	0.00	0.00	55 Member X
HORIZ	SAE - 2X2X0.1875	-1.17	1.2D + 1.0W 90 deg	4.000	100	100	100	121.1	36.0	13.87	0	0	0.00	0.00	8 Member Z
DIAG	SOL - 3/4" SOLID	-2.09	1.2D + 1.0W Normal	5.587	50	50	50	160.9	36.0	3.86	0	0	0.00	0.00	Member X

Max Tension Member		Pu			Fy	Fu	Phit	Pn Num	Num	Shear	Bear	Blk Shear	Use	
		(kip)	Load Case	(ksi)	(ksi)	(kip)	Bolts	Holes	(kip)	(kip)	(kip)	(kip)	%	Controls
LEG		0.00		0	0	0.00	0	0	0.00	0.00			0	
HORIZ	SAE - 2X2X0.1875	3.56	1.2D + 1.0W Normal	36	58	23.17	0	0	0.00	0.00		0.00	15	Member
DIAG	SOL - 3/4" SOLID	3.06	1.2D + 1.0W 90 deg	36	58	14.31	0	0	0.00	0.00		0.00	21	Member

Max Splice Forces		Pu			phiRnt	Use	Num		
		(kip)	Load Case	(kip)	%	Bolts	Bolt Type		
Top Tension		0.00			0.00	0	0		
Top Compression		81.34	1.2D + 1.0W Normal		0.00	0			
Bot Tension		0.00			0.00	0			
Bot Compression		0.00			0.00	0			

Section: 8		1	Bot Elev (ft): 100.0				Height (ft): 20.000								
		Pu			Len	Bracing %		F'y	Phic	Pn Num	Num	Shear	Bear	Use	
Max Compression Member		(kip)	Load Case	(ft)	X	Y	Z	KL/R	(ksi)	(kip)	Bolts	Holes	(kip)	(kip)	% Controls
LEG	SOL - 2 1/2" SOLID	-100.15	1.2D + 1.0W Normal	3.90	100	100	100	74.9	50.0	146.64	0	0	0.00	0.00	68 Member X
HORIZ	SAE - 2X2X0.1875	-3.48	1.2D + 1.0W 90 deg	4.000	100	100	100	121.1	36.0	13.87	0	0	0.00	0.00	25 Member Z
DIAG	SOL - 3/4" SOLID	-2.32	1.2D + 1.0W Normal	5.587	50	50	50	160.9	36.0	3.86	0	0	0.00	0.00	Member X

Max Tension Member		Pu			Fy	Fu	Phit	Pn Num	Num	Shear	Bear	Blk Shear	Use	
		(kip)	Load Case	(ksi)	(ksi)	(kip)	Bolts	Holes	(kip)	(kip)	(kip)	(kip)	%	Controls
LEG		0.00		0	0	0.00	0	0	0.00	0.00			0	
HORIZ	SAE - 2X2X0.1875	3.25	1.2D + 1.0W Normal	36	58	23.17	0	0	0.00	0.00		0.00	14	Member
DIAG	SOL - 3/4" SOLID	5.02	1.2D + 1.0W 90 deg	36	58	14.31	0	0	0.00	0.00		0.00	35	Member

Max Splice Forces		Pu			phiRnt	Use	Num		
		(kip)	Load Case	(kip)	%	Bolts	Bolt Type		
Top Tension		0.00			0.00	0	0		
Top Compression		88.98	1.2D + 1.0W Normal		0.00	0			
Bot Tension		0.00			0.00	0			
Bot Compression		0.00			0.00	0			

Site Number: 2543

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Site Name: Five Points, FL

Engineering Number: 13686745_C3_02

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Customer: VERIZON WIRELESS

Force/Stress Summary

Section: 9		1	Bot Elev (ft): 120.0				Height (ft): 20.000								
		Pu			Len	Bracing %			F'y	Phic Pn	Num	Num	Shear phiRnv	Bear phiRn	Use
Max Compression Member		(kip)	Load Case	(ft)	X	Y	Z	KL/R	(ksi)	(kip)	Bolts	Holes	(kip)	(kip)	% Controls
LEG	SOL - 2 1/2" SOLID	-83.64	1.2D + 1.0W Normal	3.90	100	100	100	74.9	50.0	146.64	0	0	0.00	0.00	57 Member X
HORIZ		0.00		0.000	0	0	0	0.0	0.0	0.00	0	0	0.00	0.00	0
DIAG	SOL - 3/4" SOLID	-3.62	1.2D + 1.0W Normal	5.587	50	50	50	160.9	36.0	3.86	0	0	0.00	0.00	Member X

		Pu			Fy	Fu	Phit Pn	Num	Num	Shear phiRnv	Bear phiRn	Blk Shear phit Pn	Use	Controls
Max Tension Member		(kip)	Load Case	(ksi)	(ksi)	(kip)	Bolts	Holes	(kip)	(kip)	(kip)	(kip)	%	
LEG		0.00		0	0	0.00	0	0	0.00	0.00			0	
HORIZ	SAE - 2X2X0.1875	3.21	1.2D + 1.0W Normal	36	58	23.17	0	0	0.00	0.00		0.00	13	Member
DIAG		0.00		0	0	0.00	0	0	0.00	0.00		0.00	0	

Max Splice Forces		Pu			phiRnt	Use	Num		
		(kip)	Load Case	(kip)	%	Bolts	Bolt Type		
Top Tension		0.00			0.00	0	0		
Top Compression		79.51	1.2D + 1.0W Normal		0.00	0			
Bot Tension		0.00			0.00	0			
Bot Compression		0.00			0.00	0			

Section: 10		2	Bot Elev (ft): 140.0				Height (ft): 20.000								
		Pu			Len	Bracing %			F'y	Phic Pn	Num	Num	Shear phiRnv	Bear phiRn	Use
Max Compression Member		(kip)	Load Case	(ft)	X	Y	Z	KL/R	(ksi)	(kip)	Bolts	Holes	(kip)	(kip)	% Controls
LEG	SOL - 2 3/4" SOLID	-97.07	1.2D + 1.0W Normal	3.90	100	100	100	68.1	50.0	190.47	0	0	0.00	0.00	50 Member X
HORIZ	SAE - 2.5X2.5X0.25	-1.89	1.2D + 1.0W 90 deg	4.000	100	100	100	108.9	36.0	26.87	0	0	0.00	0.00	7 Member Z
DIAG	PL - PL 2 x 0.5"	-3.21	1.2D + 1.0W Normal	5.587	50	50	50	209.0	36.0	6.55	0	0	0.00	0.00	Member Y

		Pu			Fy	Fu	Phit Pn	Num	Num	Shear phiRnv	Bear phiRn	Blk Shear phit Pn	Use	Controls
Max Tension Member		(kip)	Load Case	(ksi)	(ksi)	(kip)	Bolts	Holes	(kip)	(kip)	(kip)	(kip)	%	
LEG		0.00		0	0	0.00	0	0	0.00	0.00			0	
HORIZ	SAE - 2.5X2.5X0.25	5.41	1.2D + 1.0W Normal	36	58	38.56	0	0	0.00	0.00		0.00	14	Member
DIAG	PL - PL 2 x 0.5"	5.20	1.2D + 1.0W 90 deg	36	58	32.40	0	0	0.00	0.00		0.00	16	Member

Max Splice Forces		Pu			phiRnt	Use	Num		
		(kip)	Load Case	(kip)	%	Bolts	Bolt Type		
Top Tension		0.00			0.00	0	0		
Top Compression		97.06	1.2D + 1.0W Normal		0.00	0			
Bot Tension		0.00			0.00	0			
Bot Compression		0.00			0.00	0			

Site Number: 2543

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Site Name: Five Points, FL

Engineering Number: 13686745_C3_02

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Customer: VERIZON WIRELESS

Force/Stress Summary

Section: 11 2		Bot Elev (ft): 160.0						Height (ft): 20.000									
		Pu			Len	Bracing %			F'y	Phi	Pn Num		Shear	Bear			
Max Compression Member		(kip)	Load Case		(ft)	X	Y	Z	KL/R	(ksi)	(kip)	Bolts	Holes	(kip)	(kip)	Use	
LEG	SOL - 2 3/4" SOLID	-114.42	1.2D + 1.0W Normal		3.90	100	100	100	68.1	50.0	190.47	0	0	0.00	0.00	60 Member X	
HORIZ	SAE - 2.5X2.5X0.25	-10.31	1.2D + 1.0W 90 deg		4.000	100	100	100	108.9	36.0	26.87	0	0	0.00	0.00	38 Member Z	
DIAG	PL - PL 2 x 0.5"	-3.17	1.2D + 1.0W Normal		5.587	50	50	50	209.0	36.0	6.55	0	0	0.00	0.00	Member Y	

		Pu			Fy	Fu	Phit	Pn Num	Num	Shear phiRnv	Bear phiRn	Blk Shear	Use		
Max Tension Member		(kip)	Load Case		(ksi)	(ksi)	(kip)	Bolts	Holes	(kip)	(kip)	phiRn	%	Controls	
LEG	SOL - 2 3/4" SOLID	2.93	1.2D + 1.0W 60 deg		50	65	267.28	0	0	0.00	0.00			1	Member
HORIZ	SAE - 2.5X2.5X0.25	12.50	1.2D + 1.0W 60 deg		36	58	38.56	0	0	0.00	0.00	0.00		32	Member
DIAG	PL - PL 2 x 0.5"	10.90	1.2D + 1.0W 90 deg		36	58	32.40	0	0	0.00	0.00	0.00		33	Member

Max Splice Forces		Pu			phiRnt	Use	Num		
		(kip)	Load Case		(kip)	%	Bolts	Bolt Type	
Top Tension		0.00			0.00	0	0		
Top Compression		75.47	1.2D + 1.0W Normal		0.00	0			
Bot Tension		0.00			0.00	0			
Bot Compression		0.00			0.00	0			

Section: 12 2		Bot Elev (ft): 180.0						Height (ft): 20.000									
		Pu		Len	Bracing %			F'y	Phic	Pn Num	Num	Shear phiRnv	Bear phiRn	Use			
Max Compression Member		(kip)	Load Case	(ft)	X	Y	Z	KL/R	(ksi)	(kip)	Bolts	Holes	(kip)	(kip)	% Controls		
LEG	SOL - 2 3/4" SOLID	-74.98	1.2D + 1.0W Normal	3.90	100	100	100	68.1	50.0	190.47	0	0	0.00	0.00	39 Member X		
HORIZ	SAE - 2.5X2.5X0.25	-2.66	1.2D + 1.0W 90 deg	4.000	100	100	100	108.9	36.0	26.87	0	0	0.00	0.00	9 Member Z		
DIAG	PL - PL 2 x 0.5"	-2.60	1.2D + 1.0W Normal	5.587	50	50	50	209.0	36.0	6.55	0	0	0.00	0.00	Member Y		

		Pu			Fy	Fu	Phit	Pn Num	Num	Shear phiRnv	Bear phiRn	Blk Shear	Use		
Max Tension Member		(kip)	Load Case		(ksi)	(ksi)	(kip)	Bolts	Holes	(kip)	(kip)	phiRn	%	Controls	
LEG		0.00			0	0	0.00	0	0	0.00	0.00			0	
HORIZ	SAE - 2.5X2.5X0.25	3.98	1.2D + 1.0W Normal		36	58	38.56	0	0	0.00	0.00	0.00		10	Member
DIAG	PL - PL 2 x 0.5"	7.58	1.2D + 1.0W 90 deg		36	58	32.40	0	0	0.00	0.00	0.00		23	Member

Max Splice Forces		Pu			phiRnt	Use	Num		
		(kip)	Load Case		(kip)	%	Bolts	Bolt Type	
Top Tension		0.00			0.00	0	0		
Top Compression		55.45	1.2D + 1.0W Normal		0.00	0			
Bot Tension		0.00			0.00	0			
Bot Compression		0.00			0.00	0			

Site Number: 2543

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Site Name: Five Points, FL

Engineering Number: 13686745_C3_02

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Customer: VERIZON WIRELESS

Force/Stress Summary

Section: 13		3	Bot Elev (ft): 200.0					Height (ft): 20.000								
		Pu			Len	Bracing %			F'y	Phic	Pn Num	Num	Shear	Bear	Use	
Max Compression Member		(kip)	Load Case	(ft)	X	Y	Z	KL/R	(ksi)	(kip)	Bolts	Holes	(kip)	(kip)	%	Controls
LEG	SOL - 2 1/4" SOLID	-53.12	1.2D + 1.0W Normal	3.90	100	100	100	83.2	50.0	107.86	0	0	0.00	0.00	49	Member X
HORIZ		0.00		0.000	0	0	0	0.0	0.0	0.00	0	0	0.00	0.00	0	
DIAG	SOL - 3/4" SOLID	-2.34	1.2D + 1.0W Normal	5.587	50	50	50	160.9	36.0	3.86	0	0	0.00	0.00		Member X

Max Tension Member		Pu			Fy	Fu	Phit	Pn Num	Num	Shear	Bear	Blk Shear	Use		Controls
		(kip)	Load Case	(ksi)	(ksi)	(kip)	Bolts	Holes	(kip)	(kip)	(kip)	phit Pn	%		
LEG		0.00		0	0	0.00	0	0	0.00	0.00			0		
HORIZ	SAE - 2X2X0.1875	3.05	1.2D + 1.0W Normal	36	58	23.17	0	0	0.00	0.00		0.00	13	Member	
DIAG		0.00		0	0	0.00	0	0	0.00	0.00		0.00	0		

Max Splice Forces		Pu			phiRnt	Use	Num		
		(kip)	Load Case	(kip)	%	Bolts	Bolt Type		
Top Tension		0.00			0.00	0	0		
Top Compression		53.44	1.2D + 1.0W Normal		0.00	0			
Bot Tension		0.00			0.00	0			
Bot Compression		0.00			0.00	0			

Section: 14		3	Bot Elev (ft): 220.0					Height (ft): 20.000								
		Pu			Len	Bracing %			F'y	Phic	Pn Num	Num	Shear	Bear	Use	
Max Compression Member		(kip)	Load Case	(ft)	X	Y	Z	KL/R	(ksi)	(kip)	Bolts	Holes	(kip)	(kip)	%	Controls
LEG	SOL - 2 1/4" SOLID	-61.68	1.2D + 1.0W 90 deg	3.90	100	100	100	83.2	50.0	107.86	0	0	0.00	0.00	57	Member X
HORIZ	SAE - 2X2X0.1875	-7.87	1.2D + 1.0W 90 deg	4.000	100	100	100	121.1	36.0	13.87	0	0	0.00	0.00	56	Member Z
DIAG	SOL - 3/4" SOLID	-0.65	1.2D + 1.0W Normal	5.587	50	50	50	160.9	36.0	3.86	0	0	0.00	0.00		Member X

Max Tension Member		Pu			Fy	Fu	Phit	Pn Num	Num	Shear	Bear	Blk Shear	Use		Controls
		(kip)	Load Case	(ksi)	(ksi)	(kip)	Bolts	Holes	(kip)	(kip)	(kip)	phit Pn	%		
LEG	SOL - 2 1/4" SOLID	1.78	1.2D + 1.0W Normal	50	65	178.92	0	0	0.00	0.00			0	Member	
HORIZ	SAE - 2X2X0.1875	2.77	1.2D + 1.0W Normal	36	58	23.17	0	0	0.00	0.00		0.00	11	Member	
DIAG	SOL - 3/4" SOLID	11.21	1.2D + 1.0W 90 deg	36	58	14.31	0	0	0.00	0.00		0.00	78	Member	

Max Splice Forces		Pu			phiRnt	Use	Num		
		(kip)	Load Case	(kip)	%	Bolts	Bolt Type		
Top Tension		1.78	1.2D + 1.0W Normal		0.00	0	0		
Top Compression		61.66	1.2D + 1.0W 90 deg		0.00	0			
Bot Tension		0.00			0.00	0			
Bot Compression		0.00			0.00	0			

Site Number: 2543

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Site Name: Five Points, FL

Engineering Number: 13686745_C3_02

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Customer: VERIZON WIRELESS

Force/Stress Summary

Section: 15			3	Bot Elev (ft): 240.0					Height (ft): 20.000										
			Pu				Len	Bracing %			F'y	Phic	Pn Num	Num	Shear	Bear	Use		
Max Compression Member			(kip)	Load Case			(ft)	X	Y	Z	KL/R	(ksi)	(kip)	Bolts	Holes	phiRnv	phiRn	%	Controls
LEG	SOL	- 2 1/4" SOLID	-68.04	1.2D + 1.0W	60 deg		3.90	100	100	100	83.2	50.0	107.86	0	0	0.00	0.00	63	Member X
HORIZ	SAE	- 2X2X0.1875	-0.01	1.2D + 1.0W	60 deg		4.000	100	100	100	121.1	36.0	13.87	0	0	0.00	0.00	0	Member Z
DIAG	SOL	- 3/4" SOLID	-2.57	1.2D + 1.0W	Normal		5.587	50	50	50	160.9	36.0	3.86	0	0	0.00	0.00		Member X
			Pu				Fy	Fu	Phit	Pn Num	Num	Num	Shear	Bear	Blk Shear	Use			
Max Tension Member			(kip)	Load Case			(ksi)	(ksi)	(kip)	Bolts	Holes		phiRnv	phiRn	phit Pn	(kip)	%	Controls	
LEG	SOL	- 2 1/4" SOLID	15.10	1.2D + 1.0W	Normal		50	65	178.92	0	0	0	0.00		0.00			8	Member
HORIZ	SAE	- 2X2X0.1875	3.30	1.2D + 1.0W	Normal		36	58	23.17	0	0	0	0.00		0.00	0.00		14	Member
DIAG	SOL	- 3/4" SOLID	0.51	1.2D + 1.0W	Normal		36	58	14.31	0	0	0	0.00		0.00	0.00		3	Member
			Pu				phiRnt			Use	Num								
Max Splice Forces			(kip)	Load Case			(kip)			%	Bolts	Bolt Type							
Top Tension			15.09	1.2D + 1.0W	Normal		0.00			0	0								
Top Compression			70.12	1.2D + 1.0W	60 deg		0.00			0									
Bot Tension			1.78	1.2D + 1.0W	Normal		0.00			0									
Bot Compression			0.00				0.00			0									

Section: 16			3	Bot Elev (ft): 260.0					Height (ft): 20.000										
			Pu				Len	Bracing %			F'y	Phic	Pn Num	Num	Shear	Bear	Use		
Max Compression Member			(kip)	Load Case			(ft)	X	Y	Z	KL/R	(ksi)	(kip)	Bolts	Holes	phiRnv	phiRn	%	Controls
LEG	SOL	- 2 1/4" SOLID	-66.90	1.2D + 1.0W	90 deg		3.90	100	100	100	83.2	50.0	107.86	0	0	0.00	0.00	62	Member X
HORIZ	SAE	- 2X2X0.1875	-4.08	1.2D + 1.0W	90 deg		4.000	100	100	100	121.1	36.0	13.87	0	0	0.00	0.00	29	Member Z
DIAG	SOL	- 3/4" SOLID	-2.10	1.2D + 1.0W	Normal		5.587	50	50	50	160.9	36.0	3.86	0	0	0.00	0.00		Member X
			Pu				Fy	Fu	Phit	Pn Num	Num	Num	Shear	Bear	Blk Shear	Use			
Max Tension Member			(kip)	Load Case			(ksi)	(ksi)	(kip)	Bolts	Holes		phiRnv	phiRn	phit Pn	(kip)	%	Controls	
LEG	SOL	- 2 1/4" SOLID	15.20	1.2D + 1.0W	Normal		50	65	178.92	0	0	0	0.00		0.00			8	Member
HORIZ	SAE	- 2X2X0.1875	2.94	1.2D + 1.0W	Normal		36	58	23.17	0	0	0	0.00		0.00	0.00		12	Member
DIAG	SOL	- 3/4" SOLID	5.86	1.2D + 1.0W	90 deg		36	58	14.31	0	0	0	0.00		0.00	0.00		40	Member
			Pu				phiRnt			Use	Num								
Max Splice Forces			(kip)	Load Case			(kip)			%	Bolts	Bolt Type							
Top Tension			10.37	1.2D + 1.0W	Normal		0.00			0	0								
Top Compression			34.80	1.2D + 1.0W	90 deg		0.00			0									
Bot Tension			15.09	1.2D + 1.0W	Normal		0.00			0									
Bot Compression			0.00				0.00			0									

Site Number: 2543

Code:

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Site Name: Five Points, FL

Engineering Number: 13686745_C3_02

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Customer: VERIZON WIRELESS

Force/Stress Summary

Section: 17			3	Bot Elev (ft): 280.0				Height (ft): 20.000											
				Pu	Len				Bracing %			F'y	Phic	Pn Num	Num	Shear	Bear	Use	
Max Compression Member				(kip)	Load Case	(ft)	X	Y	Z	KL/R	(ksi)	(kip)	Bolts	Holes	(kip)	(kip)	%	Controls	
LEG	SOL - 2 1/4" SOLID			-41.94	1.2D + 1.0W 60 deg	3.90	100	100	100	83.2	50.0	107.86	0	0	0.00	0.00	38	Member X	
HORIZ	SAE - 2X2X0.1875			-0.60	1.2D + 1.0W 60 deg	4.000	100	100	100	121.1	36.0	13.87	0	0	0.00	0.00	4	Member Z	
DIAG	SOL - 3/4" SOLID			-1.28	1.2D + 1.0W Normal	5.587	50	50	50	160.9	36.0	3.86	0	0	0.00	0.00		Member X	
				Pu	Fy				Fu	Phit	Pn Num	Num	Shear	Bear	Blk Shear	Use		Controls	
Max Tension Member				(kip)	Load Case	(ksi)	(ksi)	(kip)	Bolts	Holes	(kip)	(kip)	(kip)	(kip)	(kip)	%			
LEG	SOL - 2 1/4" SOLID			18.05	1.2D + 1.0W Normal	50	65	178.92	0	0	0.00	0.00				10	Member		
HORIZ	SAE - 2X2X0.1875			2.32	1.2D + 1.0W Normal	36	58	23.17	0	0	0.00	0.00		0.00		10	Member		
DIAG	SOL - 3/4" SOLID			0.72	1.2D + 1.0W Normal	36	58	14.31	0	0	0.00	0.00		0.00		5	Member		
				Pu	phiRnt				Use	Num									
Max Splice Forces				(kip)	Load Case	(kip)		%	Bolts	Bolt Type									
Top Tension				16.52	1.2D + 1.0W Normal		0.00	0	0										
Top Compression				40.62	1.2D + 1.0W 60 deg		0.00	0											
Bot Tension				10.37	1.2D + 1.0W Normal		0.00	0											
Bot Compression				0.00			0.00	0											

Section: 18			3	Bot Elev (ft): 300.0				Height (ft): 20.000											
				Pu	Len				Bracing %			F'y	Phic	Pn Num	Num	Shear	Bear	Use	
Max Compression Member				(kip)	Load Case	(ft)	X	Y	Z	KL/R	(ksi)	(kip)	Bolts	Holes	(kip)	(kip)	%	Controls	
LEG	SOL - 2 1/4" SOLID			-37.81	1.2D + 1.0W 60 deg	3.90	100	100	100	83.2	50.0	107.86	0	0	0.00	0.00	35	Member X	
HORIZ	SAE - 2X2X0.1875			-0.31	1.2D + 1.0W 60 deg	4.000	100	100	100	121.1	36.0	13.87	0	0	0.00	0.00	2	Member Z	
DIAG	SOL - 3/4" SOLID			-1.13	1.2D + 1.0W Normal	5.587	50	50	50	160.9	36.0	3.86	0	0	0.00	0.00		Member X	
				Pu	Fy				Fu	Phit	Pn Num	Num	Shear	Bear	Blk Shear	Use		Controls	
Max Tension Member				(kip)	Load Case	(ksi)	(ksi)	(kip)	Bolts	Holes	(kip)	(kip)	(kip)	(kip)	(kip)	%			
LEG	SOL - 2 1/4" SOLID			16.61	1.2D + 1.0W Normal	50	65	178.92	0	0	0.00	0.00				9	Member		
HORIZ	SAE - 2X2X0.1875			1.53	1.2D + 1.0W Normal	36	58	23.17	0	0	0.00	0.00		0.00		6	Member		
DIAG	SOL - 3/4" SOLID			1.98	1.2D + 1.0W 90 deg	36	58	14.31	0	0	0.00	0.00		0.00		13	Member		
				Pu	phiRnt				Use	Num									
Max Splice Forces				(kip)	Load Case	(kip)		%	Bolts	Bolt Type									
Top Tension				2.71	1.2D + 1.0W 60 deg		0.00	0	0										
Top Compression				4.02	1.2D + 1.0W Normal		0.00	0											
Bot Tension				16.52	1.2D + 1.0W Normal		0.00	0											
Bot Compression				0.00			0.00	0											

Site Number: 2543

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Site Name: Five Points, FL

Engineering Number: 13686745_C3_02

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Customer: VERIZON WIRELESS

Force/Stress Summary

Section: 19			3	Bot Elev (ft): 320.0					Height (ft): 2.000								
			Pu			Len	Bracing %			F'y	Phic	Pn Num	Num	Shear	Bear	Use	
Max Compression Member			(kip)	Load Case	(ft)	X	Y	Z	KL/R	(ksi)	(kip)	Bolts	Holes	phiRnv	phiRn	%	Controls
LEG	SOL - 2 1/4" SOLID	-3.92	1.2D + 1.0W Normal	0.25	100	100	100	5.3	50.0	178.55	0	0	0.00	0.00	2	Member X	
HORIZ	SAE - 2X2X0.1875	-0.12	1.2D + 1.0W Normal	4.000	100	100	100	121.1	36.0	13.87	0	0	0.00	0.00	0	Member Z	
DIAG	SOL - 3/4" SOLID	-0.61	1.2D + 1.0W Normal	4.366	50	50	50	125.7	36.0	6.23	0	0	0.00	0.00		Member X	
			Pu			Fy	Fu	Phit	Pn Num	Num	Shear	Bear	Blk Shear	Use			
Max Tension Member			(kip)	Load Case	(ksi)	(ksi)	(kip)	Bolts	Holes	(kip)	(kip)	phiRn	phit Pn	(kip)	%	Controls	
LEG	SOL - 2 1/4" SOLID	2.80	1.2D + 1.0W 60 deg	50	65	178.92	0	0	0.00	0.00					1	Member	
HORIZ	SAE - 2X2X0.1875	0.53	1.2D + 1.0W Normal	36	58	23.17	0	0	0.00	0.00			0.00		2	Member	
DIAG	SOL - 3/4" SOLID	0.79	1.2D + 1.0W 90 deg	36	58	14.31	0	0	0.00	0.00			0.00		5	Member	
			Pu			phiRnt		Use	Num								
Max Splice Forces			(kip)	Load Case	(kip)		%	Bolts	Bolt Type								
Top Tension			1.88	1.2D + 1.0W 60 deg			0.00	0	0								
Top Compression			2.77	1.2D + 1.0W Normal			0.00	0									
Bot Tension			2.71	1.2D + 1.0W 60 deg			0.00	0									
Bot Compression			0.00				0.00	0									

Section: 20			3	Bot Elev (ft): 322.0					Height (ft): 8.000								
			Pu			Len	Bracing %			F'y	Phic	Pn Num	Num	Shear	Bear	Use	
Max Compression Member			(kip)	Load Case	(ft)	X	Y	Z	KL/R	(ksi)	(kip)	Bolts	Holes	phiRnv	phiRn	%	Controls
LEG	SOL - 2 1/4" SOLID	-1.92	1.2D + 1.0W Normal	3.88	100	100	100	82.7	50.0	108.56	0	0	0.00	0.00	1	Member X	
HORIZ	SAE - 2X2X0.1875	-0.16	1.2D + 1.0W 60 deg	4.000	100	100	100	121.1	36.0	13.87	0	0	0.00	0.00	1	Member Z	
DIAG	SOL - 3/4" SOLID	-0.50	1.2D + 1.0W Normal	5.569	50	50	50	160.4	36.0	3.88	0	0	0.00	0.00		Member X	
			Pu			Fy	Fu	Phit	Pn Num	Num	Shear	Bear	Blk Shear	Use			
Max Tension Member			(kip)	Load Case	(ksi)	(ksi)	(kip)	Bolts	Holes	(kip)	(kip)	phiRn	phit Pn	(kip)	%	Controls	
LEG	SOL - 2 1/4" SOLID	0.64	1.2D + 1.0W Normal	50	65	178.92	0	0	0.00	0.00					0	Member	
HORIZ	SAE - 2X2X0.1875	0.04	1.2D + 1.0W Normal	36	58	23.17	0	0	0.00	0.00			0.00		0	Member	
DIAG	SOL - 3/4" SOLID	0.43	1.2D + 1.0W 60 deg	36	58	14.31	0	0	0.00	0.00			0.00		3	Member	
			Pu			phiRnt		Use	Num								
Max Splice Forces			(kip)	Load Case	(kip)		%	Bolts	Bolt Type								
Top Tension			0.00				0.00	0	0								
Top Compression			0.13	1.2D + 1.0Di + 1.0Wi			0.00	0									
Bot Tension			1.88	1.2D + 1.0W 60 deg			0.00	0									
Bot Compression			0.00				0.00	0									

Site Number: 2543
 Site Name: Five Points, FL
 Customer: VERIZON WIRELESS

Code: ANSI/TIA-222-H
 Engineering Number: 13686745_C3_02

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Detailed Reactions

Load Case	Radius (ft)	Elevation (ft)	Azimuth (deg)	Node	FX (kip)	FY (kip)	FZ (kip)	(-) = Uplift (+) = Down
1.2D + 1.0W Normal	0.00	00.00		1	0.00	249.83	-1.88	
	198.00	00.00	0	A1	0.00	-6.33	4.65	
	198.00	00.00	240	A1a	-80.61	-91.68	-50.38	
	198.00	00.00	120	A1b	80.61	-91.68	-50.38	
1.2D + 1.0W 60 deg	0.00	00.00		1	-2.03	219.69	-1.17	
	198.00	00.00	0	A1	-2.92	-25.86	25.81	
	198.00	00.00	240	A1a	-99.07	-109.26	-57.20	
	198.00	00.00	120	A1b	20.90	-25.85	-15.44	
1.2D + 1.0W 90 deg	0.00	00.00		1	-2.01	237.45	-0.29	
	198.00	00.00	0	A1	-3.80	-59.35	60.73	
	198.00	00.00	240	A1a	-98.08	-107.80	-54.58	
	198.00	00.00	120	A1b	7.40	-10.86	-5.88	
1.2D + 1.0Di + 1.0Wi Normal	0.00	00.00		1	0.00	174.50	-0.20	
	198.00	00.00	0	A1	0.00	-28.89	33.59	
	198.00	00.00	240	A1a	-34.55	-34.82	-20.26	
	198.00	00.00	120	A1b	34.55	-34.82	-20.26	
1.2D + 1.0Di + 1.0Wi 60 deg	0.00	00.00		1	-0.17	174.00	-0.10	
	198.00	00.00	0	A1	-0.27	-30.76	35.59	
	198.00	00.00	240	A1a	-36.36	-36.64	-21.00	
	198.00	00.00	120	A1b	30.69	-30.76	-18.03	
1.2D + 1.0Di + 1.0Wi 90 deg	0.00	00.00		1	-0.20	174.25	0.00	
	198.00	00.00	0	A1	-0.33	-32.79	37.82	
	198.00	00.00	240	A1a	-36.00	-36.15	-20.63	
	198.00	00.00	120	A1b	29.48	-29.40	-17.18	
1.2D + 1.0Ev + 1.0Eh Normal M1	0.00	00.00		1	0.00	145.55	0.01	
	198.00	00.00	0	A1	0.00	-26.87	30.48	
	198.00	00.00	240	A1a	-28.18	-29.25	-16.28	
	198.00	00.00	120	A1b	28.18	-29.25	-16.28	
1.2D + 1.0Ev + 1.0Eh 60 deg M1	0.00	00.00		1	0.01	145.54	0.00	
	198.00	00.00	0	A1	0.00	-27.67	31.18	
	198.00	00.00	240	A1a	-28.77	-30.01	-16.61	
	198.00	00.00	120	A1b	27.00	-27.67	-15.59	
1.2D + 1.0Ev + 1.0Eh 90 deg M1	0.00	00.00		1	0.01	145.54	0.00	
	198.00	00.00	0	A1	0.00	-28.45	31.85	
	198.00	00.00	240	A1a	-28.61	-29.80	-16.52	
	198.00	00.00	120	A1b	26.57	-27.10	-15.34	
1.0D + 1.0W Service Normal	0.00	00.00		1	0.00	139.47	-0.65	
	198.00	00.00	0	A1	0.00	-17.24	19.98	
	198.00	00.00	240	A1a	-33.76	-35.54	-20.22	
	198.00	00.00	120	A1b	33.76	-35.54	-20.22	
1.0D + 1.0W Service 60 deg	0.00	00.00		1	-0.54	140.03	-0.31	
	198.00	00.00	0	A1	-0.62	-23.75	26.60	
	198.00	00.00	240	A1a	-39.49	-41.68	-22.80	
	198.00	00.00	120	A1b	22.73	-23.75	-13.84	
1.0D + 1.0W Service 90 deg	0.00	00.00		1	-0.63	139.70	0.01	
	198.00	00.00	0	A1	-0.77	-29.58	32.89	
	198.00	00.00	240	A1a	-38.18	-39.98	-21.69	
	198.00	00.00	120	A1b	18.78	-19.15	-11.19	

Site Number: 2543

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Site Name: Five Points, FL

Engineering Number:

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Customer: VERIZON WIRELESS

Site Number: 2543

Code: ANSI/TIA-222-H

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Site Name: Five Points, FL

Engineering Number: 13686745_C3_02

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Customer: VERIZON WIRELESS

Guy Anchor Design Loads

Radius (ft)	Drop (ft)	Azimuth (°)	Uplift (kip)	Shear (kip)
198.00	0.00	0	59.35	60.85
198.00	0.00	240	109.26	114.40
198.00	0.00	120	91.68	95.06

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Site Name: Five Points, FL

Engineering Number: 13686745_C3_02

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Customer: VERIZON WIRELESS

Detailed Cable Forces

Load Case	Elevation (ft)	Cable	Anchor Node	Tower Node	Allow Tension (kip)	Applied Tension (kip)	Use %
1.2D + 1.0W Normal	55.85	3/4 EHS	A1	21	34.98	1.30	4
		3/4 EHS	A1a	21b	34.98	11.39	33
		3/4 EHS	A1b	21a	34.98	11.39	33
	111.95	3/4 EHS	A1	41	34.98	0.42	1
		3/4 EHS	A1a	41b	34.98	13.95	40
		3/4 EHS	A1b	41a	34.98	13.95	40
	168.05	3/4 EHS	A1	T3	34.98	0.57	2
		3/4 EHS	A1	T3b	34.98	0.57	2
		3/4 EHS	A1a	T3a	34.98	16.16	46
		3/4 EHS	A1a	T3b	34.98	15.92	46
		3/4 EHS	A1b	T3	34.98	15.92	46
	224.15	3/4 EHS	A1b	T3a	34.98	16.16	46
		1 EHS	A1	81	62.70	1.51	2
		1 EHS	A1a	81b	62.70	28.68	46
		1 EHS	A1b	81a	62.70	28.68	46
	271.95	1 EHS	A1	97	62.70	2.55	4
		1 EHS	A1a	97b	62.70	28.54	46
		1 EHS	A1b	97a	62.70	28.54	46
	319.75	7/8 EHS	A1	113	47.82	3.51	7
		7/8 EHS	A1a	113b	47.82	22.49	47
		7/8 EHS	A1b	113a	47.82	22.49	47
1.2D + 1.0W 60 deg	55.85	3/4 EHS	A1	21	34.98	4.09	12
		3/4 EHS	A1a	21b	34.98	14.23	41
		3/4 EHS	A1b	21a	34.98	4.10	12
	111.95	3/4 EHS	A1	41	34.98	3.98	11
		3/4 EHS	A1a	41b	34.98	17.04	49
		3/4 EHS	A1b	41a	34.98	3.98	11
	168.05	3/4 EHS	A1	T3	34.98	4.39	13
		3/4 EHS	A1	T3b	34.98	4.29	12
		3/4 EHS	A1a	T3a	34.98	18.95	54
		3/4 EHS	A1a	T3b	34.98	18.96	54
		3/4 EHS	A1b	T3	34.98	4.39	13
	224.15	3/4 EHS	A1b	T3a	34.98	4.29	12
		1 EHS	A1	81	62.70	6.90	11
		1 EHS	A1a	81b	62.70	34.47	55
		1 EHS	A1b	81a	62.70	6.89	11
	271.95	1 EHS	A1	97	62.70	7.96	13
		1 EHS	A1a	97b	62.70	34.29	55
		1 EHS	A1b	97a	62.70	7.95	13
	319.75	7/8 EHS	A1	113	47.82	8.26	17
		7/8 EHS	A1a	113b	47.82	25.87	54
		7/8 EHS	A1b	113a	47.82	8.27	17
1.2D + 1.0W 90 deg	55.85	3/4 EHS	A1	21	34.98	7.61	22
		3/4 EHS	A1a	21b	34.98	13.41	38
		3/4 EHS	A1b	21a	34.98	1.70	5
	111.95	3/4 EHS	A1	41	34.98	8.91	25
		3/4 EHS	A1a	41b	34.98	16.52	47
		3/4 EHS	A1b	41a	34.98	1.26	4
	168.05	3/4 EHS	A1	T3	34.98	10.34	30
		3/4 EHS	A1	T3b	34.98	10.37	30

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Customer: VERIZON WIRELESS

		3/4 EHS	A1a	T3a	34.98	18.61	53
		3/4 EHS	A1a	T3b	34.98	18.99	54
		3/4 EHS	A1b	T3	34.98	1.61	5
		3/4 EHS	A1b	T3a	34.98	1.51	4
	224.15	1 EHS	A1	81	62.70	17.94	29
		1 EHS	A1a	81b	62.70	34.13	54
		1 EHS	A1b	81a	62.70	2.75	4
	271.95	1 EHS	A1	97	62.70	18.27	29
		1 EHS	A1a	97b	62.70	33.78	54
		1 EHS	A1b	97a	62.70	3.72	6
	319.75	7/8 EHS	A1	113	47.82	15.71	33
		7/8 EHS	A1a	113b	47.82	25.71	54
		7/8 EHS	A1b	113a	47.82	4.54	9
1.2D + 1.0Di + 1.0Wi Normal	55.85	3/4 EHS	A1	21	34.98	6.74	19
		3/4 EHS	A1a	21b	34.98	7.53	22
		3/4 EHS	A1b	21a	34.98	7.53	22
	111.95	3/4 EHS	A1	41	34.98	6.00	17
		3/4 EHS	A1a	41b	34.98	7.00	20
		3/4 EHS	A1b	41a	34.98	7.00	20
	168.05	3/4 EHS	A1	T3	34.98	5.42	16
		3/4 EHS	A1	T3b	34.98	5.42	16
		3/4 EHS	A1a	T3a	34.98	6.52	19
		3/4 EHS	A1a	T3b	34.98	6.53	19
		3/4 EHS	A1b	T3	34.98	6.53	19
		3/4 EHS	A1b	T3a	34.98	6.52	19
	224.15	1 EHS	A1	81	62.70	9.06	14
		1 EHS	A1a	81b	62.70	10.91	17
		1 EHS	A1b	81a	62.70	10.91	17
	271.95	1 EHS	A1	97	62.70	8.92	14
		1 EHS	A1a	97b	62.70	10.66	17
		1 EHS	A1b	97a	62.70	10.66	17
	319.75	7/8 EHS	A1	113	47.82	6.80	14
		7/8 EHS	A1a	113b	47.82	8.15	17
		7/8 EHS	A1b	113a	47.82	8.15	17
1.2D + 1.0Di + 1.0Wi 60 deg	55.85	3/4 EHS	A1	21	34.98	6.99	20
		3/4 EHS	A1a	21b	34.98	7.77	22
		3/4 EHS	A1b	21a	34.98	6.99	20
	111.95	3/4 EHS	A1	41	34.98	6.31	18
		3/4 EHS	A1a	41b	34.98	7.30	21
		3/4 EHS	A1b	41a	34.98	6.31	18
	168.05	3/4 EHS	A1	T3	34.98	5.77	16
		3/4 EHS	A1	T3b	34.98	5.76	16
		3/4 EHS	A1a	T3a	34.98	6.84	20
		3/4 EHS	A1a	T3b	34.98	6.84	20
		3/4 EHS	A1b	T3	34.98	5.77	16
		3/4 EHS	A1b	T3a	34.98	5.76	16
	224.15	1 EHS	A1	81	62.70	9.63	15
		1 EHS	A1a	81b	62.70	11.50	18
		1 EHS	A1b	81a	62.70	9.63	15
	271.95	1 EHS	A1	97	62.70	9.46	15
		1 EHS	A1a	97b	62.70	11.22	18
		1 EHS	A1b	97a	62.70	9.46	15
	319.75	7/8 EHS	A1	113	47.82	7.23	15
		7/8 EHS	A1a	113b	47.82	8.55	18
		7/8 EHS	A1b	113a	47.82	7.23	15
1.2D + 1.0Di + 1.0Wi 90 deg	55.85	3/4 EHS	A1	21	34.98	7.25	21

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Customer: VERIZON WIRELESS

		3/4 EHS	A1a	21b	34.98	7.71	22
		3/4 EHS	A1b	21a	34.98	6.80	19
	111.95	3/4 EHS	A1	41	34.98	6.65	19
		3/4 EHS	A1a	41b	34.98	7.23	21
		3/4 EHS	A1b	41a	34.98	6.08	17
	168.05	3/4 EHS	A1	T3	34.98	6.16	18
		3/4 EHS	A1	T3b	34.98	6.13	18
		3/4 EHS	A1a	T3a	34.98	6.76	19
		3/4 EHS	A1a	T3b	34.98	6.77	19
		3/4 EHS	A1b	T3	34.98	5.51	16
		3/4 EHS	A1b	T3a	34.98	5.51	16
	224.15	1 EHS	A1	81	62.70	10.26	16
		1 EHS	A1a	81b	62.70	11.34	18
		1 EHS	A1b	81a	62.70	9.21	15
	271.95	1 EHS	A1	97	62.70	10.06	16
		1 EHS	A1a	97b	62.70	11.06	18
		1 EHS	A1b	97a	62.70	9.07	14
	319.75	7/8 EHS	A1	113	47.82	7.70	16
		7/8 EHS	A1a	113b	47.82	8.44	18
		7/8 EHS	A1b	113a	47.82	6.91	14
1.2D + 1.0Ev + 1.0Eh Normal M1	55.85	3/4 EHS	A1	21	34.98	5.62	16
		3/4 EHS	A1a	21b	34.98	5.70	16
		3/4 EHS	A1b	21a	34.98	5.70	16
	111.95	3/4 EHS	A1	41	34.98	5.22	15
		3/4 EHS	A1a	41b	34.98	5.40	15
		3/4 EHS	A1b	41a	34.98	5.40	15
	168.05	3/4 EHS	A1	T3	34.98	4.86	14
		3/4 EHS	A1	T3b	34.98	4.86	14
		3/4 EHS	A1a	T3a	34.98	5.17	15
		3/4 EHS	A1a	T3b	34.98	5.17	15
		3/4 EHS	A1b	T3	34.98	5.17	15
		3/4 EHS	A1b	T3a	34.98	5.17	15
	224.15	1 EHS	A1	81	62.70	8.60	14
		1 EHS	A1a	81b	62.70	9.35	15
		1 EHS	A1b	81a	62.70	9.35	15
	271.95	1 EHS	A1	97	62.70	8.46	13
		1 EHS	A1a	97b	62.70	9.33	15
		1 EHS	A1b	97a	62.70	9.33	15
	319.75	7/8 EHS	A1	113	47.82	6.26	13
		7/8 EHS	A1a	113b	47.82	6.96	15
		7/8 EHS	A1b	113a	47.82	6.96	15
1.2D + 1.0Ev + 1.0Eh 60 deg M1	55.85	3/4 EHS	A1	21	34.98	5.64	16
		3/4 EHS	A1a	21b	34.98	5.72	16
		3/4 EHS	A1b	21a	34.98	5.64	16
	111.95	3/4 EHS	A1	41	34.98	5.28	15
		3/4 EHS	A1a	41b	34.98	5.46	16
		3/4 EHS	A1b	41a	34.98	5.28	15
	168.05	3/4 EHS	A1	T3	34.98	4.96	14
		3/4 EHS	A1	T3b	34.98	4.97	14
		3/4 EHS	A1a	T3a	34.98	5.27	15
		3/4 EHS	A1a	T3b	34.98	5.27	15
		3/4 EHS	A1b	T3	34.98	4.96	14
		3/4 EHS	A1b	T3a	34.98	4.97	14
	224.15	1 EHS	A1	81	62.70	8.85	14
		1 EHS	A1a	81b	62.70	9.59	15
		1 EHS	A1b	81a	62.70	8.85	14
	271.95	1 EHS	A1	97	62.70	8.75	14
		1 EHS	A1a	97b	62.70	9.61	15

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Customer: VERIZON WIRELESS

		1 EHS	A1b	97a	62.70	8.75	14
	319.75	7/8 EHS	A1	113	47.82	6.50	14
		7/8 EHS	A1a	113b	47.82	7.18	15
		7/8 EHS	A1b	113a	47.82	6.50	14
1.2D + 1.0Ev + 1.0Eh 90 deg M1	55.85	3/4 EHS	A1	21	34.98	5.67	16
		3/4 EHS	A1a	21b	34.98	5.72	16
		3/4 EHS	A1b	21a	34.98	5.62	16
	111.95	3/4 EHS	A1	41	34.98	5.34	15
		3/4 EHS	A1a	41b	34.98	5.44	16
		3/4 EHS	A1b	41a	34.98	5.23	15
	168.05	3/4 EHS	A1	T3	34.98	5.06	14
		3/4 EHS	A1	T3b	34.98	5.07	15
		3/4 EHS	A1a	T3a	34.98	5.24	15
		3/4 EHS	A1a	T3b	34.98	5.24	15
		3/4 EHS	A1b	T3	34.98	4.89	14
		3/4 EHS	A1b	T3a	34.98	4.90	14
	224.15	1 EHS	A1	81	62.70	9.10	15
		1 EHS	A1a	81b	62.70	9.53	15
		1 EHS	A1b	81a	62.70	8.67	14
	271.95	1 EHS	A1	97	62.70	9.04	14
		1 EHS	A1a	97b	62.70	9.54	15
		1 EHS	A1b	97a	62.70	8.54	14
	319.75	7/8 EHS	A1	113	47.82	6.73	14
		7/8 EHS	A1a	113b	47.82	7.12	15
		7/8 EHS	A1b	113a	47.82	6.34	13
1.0D + 1.0W Service Normal	55.85	3/4 EHS	A1	21	34.98	4.31	12
		3/4 EHS	A1a	21b	34.98	6.51	19
		3/4 EHS	A1b	21a	34.98	6.51	19
	111.95	3/4 EHS	A1	41	34.98	3.58	10
		3/4 EHS	A1a	41b	34.98	6.47	19
		3/4 EHS	A1b	41a	34.98	6.47	19
	168.05	3/4 EHS	A1	T3	34.98	3.05	9
		3/4 EHS	A1	T3b	34.98	3.05	9
		3/4 EHS	A1a	T3a	34.98	6.37	18
		3/4 EHS	A1a	T3b	34.98	6.38	18
		3/4 EHS	A1b	T3	34.98	6.38	18
		3/4 EHS	A1b	T3a	34.98	6.37	18
	224.15	1 EHS	A1	81	62.70	5.45	9
		1 EHS	A1a	81b	62.70	11.28	18
		1 EHS	A1b	81a	62.70	11.28	18
	271.95	1 EHS	A1	97	62.70	5.55	9
		1 EHS	A1a	97b	62.70	11.12	18
		1 EHS	A1b	97a	62.70	11.12	18
	319.75	7/8 EHS	A1	113	47.82	4.38	9
		7/8 EHS	A1a	113b	47.82	8.40	18
		7/8 EHS	A1b	113a	47.82	8.40	18
1.0D + 1.0W Service 60 deg	55.85	3/4 EHS	A1	21	34.98	5.01	14
		3/4 EHS	A1a	21b	34.98	7.17	20
		3/4 EHS	A1b	21a	34.98	5.01	14
	111.95	3/4 EHS	A1	41	34.98	4.51	13
		3/4 EHS	A1a	41b	34.98	7.34	21
		3/4 EHS	A1b	41a	34.98	4.51	13
	168.05	3/4 EHS	A1	T3	34.98	4.21	12
		3/4 EHS	A1	T3b	34.98	4.18	12
		3/4 EHS	A1a	T3a	34.98	7.37	21
		3/4 EHS	A1a	T3b	34.98	7.38	21

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		3/4 EHS	A1b	T3	34.98	4.21	12
		3/4 EHS	A1b	T3a	34.98	4.18	12
	224.15	1 EHS	A1	81	62.70	7.41	12
		1 EHS	A1a	81b	62.70	13.29	21
		1 EHS	A1b	81a	62.70	7.41	12
	271.95	1 EHS	A1	97	62.70	7.51	12
		1 EHS	A1a	97b	62.70	13.12	21
		1 EHS	A1b	97a	62.70	7.51	12
	319.75	7/8 EHS	A1	113	47.82	5.99	13
		7/8 EHS	A1a	113b	47.82	9.80	20
		7/8 EHS	A1b	113a	47.82	5.99	13
1.0D + 1.0W Service 90 deg	55.85	3/4 EHS	A1	21	34.98	5.75	16
		3/4 EHS	A1a	21b	34.98	7.00	20
		3/4 EHS	A1b	21a	34.98	4.50	13
	111.95	3/4 EHS	A1	41	34.98	5.46	16
		3/4 EHS	A1a	41b	34.98	7.12	20
		3/4 EHS	A1b	41a	34.98	3.84	11
	168.05	3/4 EHS	A1	T3	34.98	5.30	15
		3/4 EHS	A1	T3b	34.98	5.25	15
		3/4 EHS	A1a	T3a	34.98	7.09	20
		3/4 EHS	A1a	T3b	34.98	7.12	20
		3/4 EHS	A1b	T3	34.98	3.37	10
		3/4 EHS	A1b	T3a	34.98	3.38	10
	224.15	1 EHS	A1	81	62.70	9.30	15
		1 EHS	A1a	81b	62.70	12.74	20
		1 EHS	A1b	81a	62.70	6.00	10
	271.95	1 EHS	A1	97	62.70	9.30	15
		1 EHS	A1a	97b	62.70	12.56	20
		1 EHS	A1b	97a	62.70	6.11	10
	319.75	7/8 EHS	A1	113	47.82	7.22	15
		7/8 EHS	A1a	113b	47.82	9.40	20
		7/8 EHS	A1b	113a	47.82	4.89	10

Maximum Cable Forces Summary

Load Case	Elevation (ft)	Cable	Anchor Node	Tower Node	Allow Tension (kip)	Applied Tension (kip)	Use %
1.2D + 1.0W 60 deg	55.84	3/4 EHS	A1a	21b	34.98	14.23	41
1.2D + 1.0W 60 deg	111.94	3/4 EHS	A1a	41b	34.98	17.04	49
1.2D + 1.0W 60 deg	168.05	3/4 EHS	A1a	T3a	34.98	18.95	54
1.2D + 1.0W 60 deg	224.14	1 EHS	A1a	81b	62.70	34.47	55
1.2D + 1.0W 60 deg	271.95	1 EHS	A1a	97b	62.70	34.29	55
1.2D + 1.0W 60 deg	319.75	7/8 EHS	A1a	113b	47.82	25.87	54

Maximum Torque Arm Stress Summary

Load Case	Elevation (ft)	Member	Type	Compression %	Tension %
1.2D + 1.0W Normal	56.00	PL 3 x 0.375	Horiz		25
1.2D + 1.0W Normal	112.00	PL 3 x 0.375	Horiz		25
1.2D + 1.0W Normal	168.00	3X3X0.375	Horiz		25
1.2D + 1.0W 90 deg	168.00	3X3X0.375	Kicker	47	
1.2D + 1.0W Normal	224.00	PL 3 x 0.375	Horiz		34
1.2D + 1.0W Normal	272.00	PL 3 x 0.375	Horiz		30
1.2D + 1.0W Normal	319.75	PL 3 x 0.375	Horiz		19

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Customer: VERIZON WIRELESS

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Deflections and Rotations

Load Case	Elevation (ft)	Deflection (ft)	Twist (deg)	Sway (deg)	Resultant (deg)
129 mph Normal with No Ice	88.05	0.449	0.0006	0.2563	0.2563
129 mph Normal with No Ice	155.85	0.820	0.0021	0.3908	0.3908
129 mph Normal with No Ice	168.05	0.900	0.0013	0.4990	0.4990
129 mph Normal with No Ice	171.95	0.939	0.0054	0.5668	0.5668
129 mph Normal with No Ice	184.15	1.069	0.0022	0.5725	0.5725
129 mph Normal with No Ice	215.85	1.380	0.0002	0.5508	0.5508
129 mph Normal with No Ice	240.00	1.639	0.0052	0.7710	0.7710
129 mph Normal with No Ice	259.75	1.784	0.0027	0.2309	0.2309
129 mph Normal with No Ice	260.25	1.786	0.0028	0.2261	0.2261
129 mph Normal with No Ice	275.85	1.848	0.0014	0.2123	0.2123
129 mph Normal with No Ice	279.75	1.862	0.0014	0.2497	0.2497
129 mph Normal with No Ice	295.85	1.899	0.0027	0.0787	0.0787
129 mph Normal with No Ice	308.05	1.901	0.0016	0.0289	0.0290
129 mph Normal with No Ice	311.95	1.898	0.0012	0.0432	0.0432
129 mph Normal with No Ice	319.75	1.890	0.0001	0.0420	0.0420
129 mph Normal with No Ice	320.00	1.890	0.0001	0.0447	0.0447
129 mph Normal with No Ice	320.25	1.890	0.0000	0.0370	0.0370
129 mph Normal with No Ice	322.00	1.889	0.0001	0.0495	0.0495
129 mph Normal with No Ice	330.00	1.883	0.0003	0.0289	0.0289
129 mph 60 degree with No Ice	88.05	0.326	-0.0005	0.1544	0.1544
129 mph 60 degree with No Ice	155.85	0.529	-0.0019	0.2446	0.2446
129 mph 60 degree with No Ice	168.05	0.576	-0.0163	0.2993	0.2993
129 mph 60 degree with No Ice	171.95	0.601	-0.0122	0.4247	0.4248
129 mph 60 degree with No Ice	184.15	0.683	-0.0025	0.3493	0.3494
129 mph 60 degree with No Ice	215.85	0.883	-0.0016	0.3672	0.3672
129 mph 60 degree with No Ice	240.00	1.068	-0.0032	0.5619	0.5619
129 mph 60 degree with No Ice	259.75	1.162	0.0016	0.0857	0.0858
129 mph 60 degree with No Ice	260.25	1.162	0.0017	0.0746	0.0747
129 mph 60 degree with No Ice	275.85	1.193	0.0001	0.1130	0.1130
129 mph 60 degree with No Ice	279.75	1.201	0.0002	0.1580	0.1580
129 mph 60 degree with No Ice	295.85	1.215	0.0014	0.0064	0.0065
129 mph 60 degree with No Ice	308.05	1.204	0.0006	0.0887	0.0887
129 mph 60 degree with No Ice	311.95	1.197	0.0002	0.1026	0.1027
129 mph 60 degree with No Ice	319.75	1.182	-0.0007	0.0967	0.0967
129 mph 60 degree with No Ice	320.00	1.181	-0.0007	0.0942	0.0942
129 mph 60 degree with No Ice	320.25	1.181	-0.0008	0.0952	0.0952
129 mph 60 degree with No Ice	322.00	1.178	-0.0007	0.1160	0.1160
129 mph 60 degree with No Ice	330.00	1.164	-0.0005	0.0890	0.0890
129 mph 90 degree with No Ice	88.05	0.383	-0.1103	0.2197	0.2460
129 mph 90 degree with No Ice	155.85	0.705	0.0038	0.3570	0.3570
129 mph 90 degree with No Ice	168.05	0.776	0.0485	0.4338	0.4351
129 mph 90 degree with No Ice	171.95	0.813	0.0539	0.5911	0.5933
129 mph 90 degree with No Ice	184.15	0.925	0.0026	0.5033	0.5033
129 mph 90 degree with No Ice	215.85	1.200	-0.0003	0.4894	0.4894
129 mph 90 degree with No Ice	240.00	1.436	0.0829	0.6895	0.6944
129 mph 90 degree with No Ice	259.75	1.561	0.0926	0.1586	0.1831
129 mph 90 degree with No Ice	260.25	1.562	0.0959	0.1410	0.1705
129 mph 90 degree with No Ice	275.85	1.612	0.2371	0.1796	0.2947
129 mph 90 degree with No Ice	279.75	1.623	0.2419	0.1955	0.3097
129 mph 90 degree with No Ice	295.85	1.651	0.2437	0.0554	0.2494
129 mph 90 degree with No Ice	308.05	1.648	0.2420	0.0665	0.2507
129 mph 90 degree with No Ice	311.95	1.644	0.2414	0.0809	0.2545
129 mph 90 degree with No Ice	319.75	1.633	0.2398	0.0850	0.2544
129 mph 90 degree with No Ice	320.00	1.632	0.2398	0.0845	0.2542
129 mph 90 degree with No Ice	320.25	1.632	0.2397	0.0816	0.2532

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129 mph 90 degree with No Ice	322.00	1.630	0.2398	0.0923	0.2567
129 mph 90 degree with No Ice	330.00	1.621	0.2400	0.0669	0.2486
30 mph Normal with 0.25 in Radial Ice	88.05	0.020	0.0001	0.0065	0.0065
30 mph Normal with 0.25 in Radial Ice	155.85	0.026	0.0000	0.0072	0.0072
30 mph Normal with 0.25 in Radial Ice	168.05	0.028	0.0007	0.0113	0.0113
30 mph Normal with 0.25 in Radial Ice	171.95	0.029	0.0002	0.0091	0.0091
30 mph Normal with 0.25 in Radial Ice	184.15	0.032	0.0000	0.0144	0.0144
30 mph Normal with 0.25 in Radial Ice	215.85	0.039	0.0001	0.0115	0.0115
30 mph Normal with 0.25 in Radial Ice	240.00	0.044	0.0001	0.0179	0.0179
30 mph Normal with 0.25 in Radial Ice	259.75	0.044	0.0002	0.0126	0.0126
30 mph Normal with 0.25 in Radial Ice	260.25	0.044	0.0002	0.0125	0.0125
30 mph Normal with 0.25 in Radial Ice	275.85	0.041	0.0001	0.0161	0.0161
30 mph Normal with 0.25 in Radial Ice	279.75	0.040	0.0001	0.0119	0.0119
30 mph Normal with 0.25 in Radial Ice	295.85	0.034	0.0002	0.0228	0.0228
30 mph Normal with 0.25 in Radial Ice	308.05	0.029	0.0001	0.0297	0.0297
30 mph Normal with 0.25 in Radial Ice	311.95	0.026	0.0001	0.0318	0.0318
30 mph Normal with 0.25 in Radial Ice	319.75	0.022	0.0000	0.0417	0.0417
30 mph Normal with 0.25 in Radial Ice	320.00	0.022	0.0000	0.0426	0.0426
30 mph Normal with 0.25 in Radial Ice	320.25	0.022	0.0000	0.0402	0.0402
30 mph Normal with 0.25 in Radial Ice	322.00	0.021	0.0000	0.0327	0.0327
30 mph Normal with 0.25 in Radial Ice	330.00	0.017	0.0000	0.0299	0.0299
30 mph 60 deg with 0.25 in Radial Ice	88.05	0.020	0.0001	0.0070	0.0070
30 mph 60 deg with 0.25 in Radial Ice	155.85	0.027	0.0000	0.0090	0.0090
30 mph 60 deg with 0.25 in Radial Ice	168.05	0.029	-0.0007	0.0111	0.0111
30 mph 60 deg with 0.25 in Radial Ice	171.95	0.030	-0.0002	0.0187	0.0187
30 mph 60 deg with 0.25 in Radial Ice	184.15	0.033	0.0000	0.0156	0.0156
30 mph 60 deg with 0.25 in Radial Ice	215.85	0.041	0.0001	0.0141	0.0141
30 mph 60 deg with 0.25 in Radial Ice	240.00	0.047	0.0001	0.0215	0.0215
30 mph 60 deg with 0.25 in Radial Ice	259.75	0.049	0.0002	0.0090	0.0090
30 mph 60 deg with 0.25 in Radial Ice	260.25	0.049	0.0002	0.0097	0.0097
30 mph 60 deg with 0.25 in Radial Ice	275.85	0.047	0.0001	0.0101	0.0101
30 mph 60 deg with 0.25 in Radial Ice	279.75	0.046	0.0001	0.0073	0.0073
30 mph 60 deg with 0.25 in Radial Ice	295.85	0.042	0.0002	0.0172	0.0172
30 mph 60 deg with 0.25 in Radial Ice	308.05	0.038	0.0001	0.0239	0.0239
30 mph 60 deg with 0.25 in Radial Ice	311.95	0.036	0.0001	0.0254	0.0254
30 mph 60 deg with 0.25 in Radial Ice	319.75	0.032	0.0000	0.0326	0.0326
30 mph 60 deg with 0.25 in Radial Ice	320.00	0.032	0.0000	0.0333	0.0333
30 mph 60 deg with 0.25 in Radial Ice	320.25	0.032	0.0000	0.0313	0.0313
30 mph 60 deg with 0.25 in Radial Ice	322.00	0.032	0.0000	0.0286	0.0286
30 mph 60 deg with 0.25 in Radial Ice	330.00	0.028	0.0000	0.0243	0.0243
30 mph 90 deg with 0.25 in Radial Ice	88.05	0.020	0.0057	0.0067	0.0087
30 mph 90 deg with 0.25 in Radial Ice	155.85	0.026	0.0036	0.0084	0.0091
30 mph 90 deg with 0.25 in Radial Ice	168.05	0.028	0.0038	0.0099	0.0106
30 mph 90 deg with 0.25 in Radial Ice	171.95	0.029	0.0036	0.0202	0.0204
30 mph 90 deg with 0.25 in Radial Ice	184.15	0.032	0.0038	0.0149	0.0154
30 mph 90 deg with 0.25 in Radial Ice	215.85	0.040	0.0053	0.0128	0.0138
30 mph 90 deg with 0.25 in Radial Ice	240.00	0.045	0.0066	0.0190	0.0200
30 mph 90 deg with 0.25 in Radial Ice	259.75	0.046	0.0074	0.0125	0.0144
30 mph 90 deg with 0.25 in Radial Ice	260.25	0.046	0.0074	0.0131	0.0149
30 mph 90 deg with 0.25 in Radial Ice	275.85	0.043	0.0078	0.0140	0.0159
30 mph 90 deg with 0.25 in Radial Ice	279.75	0.042	0.0079	0.0111	0.0136
30 mph 90 deg with 0.25 in Radial Ice	295.85	0.037	0.0082	0.0206	0.0221
30 mph 90 deg with 0.25 in Radial Ice	308.05	0.032	0.0084	0.0274	0.0286
30 mph 90 deg with 0.25 in Radial Ice	311.95	0.031	0.0084	0.0292	0.0304
30 mph 90 deg with 0.25 in Radial Ice	319.75	0.027	0.0084	0.0388	0.0397
30 mph 90 deg with 0.25 in Radial Ice	320.00	0.027	0.0085	0.0397	0.0406
30 mph 90 deg with 0.25 in Radial Ice	320.25	0.027	0.0085	0.0374	0.0383
30 mph 90 deg with 0.25 in Radial Ice	322.00	0.026	0.0085	0.0313	0.0325
30 mph 90 deg with 0.25 in Radial Ice	330.00	0.022	0.0085	0.0276	0.0289
Seismic Normal M1	88.05	0.003	0.0000	0.0031	0.0031
Seismic Normal M1	155.85	0.009	0.0000	0.0075	0.0075
Seismic Normal M1	168.05	0.010	0.0002	0.0089	0.0089

Site Number: 2543

Code:

ANSI/TIA-222-H

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Site Name: Five Points, FL

Engineering Number: 13686745_C3_02

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Customer: VERIZON WIRELESS

Seismic Normal M1	171.95	0.011	0.0001	0.0103	0.0103
Seismic Normal M1	184.15	0.013	0.0000	0.0115	0.0115
Seismic Normal M1	215.85	0.020	0.0000	0.0133	0.0133
Seismic Normal M1	240.00	0.026	0.0000	0.0211	0.0211
Seismic Normal M1	259.75	0.031	0.0001	0.0104	0.0104
Seismic Normal M1	260.25	0.031	0.0001	0.0099	0.0099
Seismic Normal M1	275.85	0.033	0.0000	0.0111	0.0111
Seismic Normal M1	279.75	0.034	0.0000	0.0150	0.0150
Seismic Normal M1	295.85	0.037	0.0001	0.0064	0.0064
Seismic Normal M1	308.05	0.037	0.0001	0.0028	0.0028
Seismic Normal M1	311.95	0.038	0.0000	0.0029	0.0029
Seismic Normal M1	319.75	0.038	0.0000	0.0146	0.0146
Seismic Normal M1	320.00	0.038	0.0000	0.0159	0.0159
Seismic Normal M1	320.25	0.038	0.0000	0.0130	0.0130
Seismic Normal M1	322.00	0.038	0.0000	0.0049	0.0049
Seismic Normal M1	330.00	0.038	0.0000	0.0032	0.0032
Seismic 60 deg M1	88.05	0.003	0.0000	0.0033	0.0033
Seismic 60 deg M1	155.85	0.009	0.0000	0.0077	0.0077
Seismic 60 deg M1	168.05	0.010	0.0002	0.0088	0.0088
Seismic 60 deg M1	171.95	0.011	0.0001	0.0101	0.0101
Seismic 60 deg M1	184.15	0.013	0.0000	0.0109	0.0109
Seismic 60 deg M1	215.85	0.019	0.0000	0.0130	0.0130
Seismic 60 deg M1	240.00	0.025	0.0000	0.0205	0.0205
Seismic 60 deg M1	259.75	0.030	0.0001	0.0096	0.0096
Seismic 60 deg M1	260.25	0.030	0.0001	0.0092	0.0092
Seismic 60 deg M1	275.85	0.032	0.0000	0.0111	0.0111
Seismic 60 deg M1	279.75	0.033	0.0000	0.0141	0.0141
Seismic 60 deg M1	295.85	0.035	0.0001	0.0058	0.0058
Seismic 60 deg M1	308.05	0.036	0.0001	0.0019	0.0019
Seismic 60 deg M1	311.95	0.036	0.0000	0.0026	0.0026
Seismic 60 deg M1	319.75	0.036	0.0000	0.0157	0.0157
Seismic 60 deg M1	320.00	0.036	0.0000	0.0171	0.0171
Seismic 60 deg M1	320.25	0.036	0.0000	0.0139	0.0139
Seismic 60 deg M1	322.00	0.036	0.0000	0.0038	0.0038
Seismic 60 deg M1	330.00	0.036	0.0000	0.0023	0.0023
Seismic 90 deg M1	88.05	0.003	0.0000	0.0032	0.0032
Seismic 90 deg M1	155.85	0.009	0.0000	0.0076	0.0076
Seismic 90 deg M1	168.05	0.010	-0.0003	0.0088	0.0088
Seismic 90 deg M1	171.95	0.011	-0.0001	0.0101	0.0101
Seismic 90 deg M1	184.15	0.013	0.0000	0.0111	0.0111
Seismic 90 deg M1	215.85	0.019	0.0000	0.0130	0.0130
Seismic 90 deg M1	240.00	0.025	0.0000	0.0203	0.0203
Seismic 90 deg M1	259.75	0.030	0.0001	0.0097	0.0097
Seismic 90 deg M1	260.25	0.030	0.0001	0.0094	0.0094
Seismic 90 deg M1	275.85	0.032	0.0000	0.0110	0.0110
Seismic 90 deg M1	279.75	0.033	0.0000	0.0139	0.0139
Seismic 90 deg M1	295.85	0.035	0.0001	0.0058	0.0058
Seismic 90 deg M1	308.05	0.036	0.0001	0.0021	0.0021
Seismic 90 deg M1	311.95	0.036	0.0000	0.0026	0.0026
Seismic 90 deg M1	319.75	0.036	0.0000	0.0153	0.0153
Seismic 90 deg M1	320.00	0.036	0.0000	0.0167	0.0167
Seismic 90 deg M1	320.25	0.036	0.0000	0.0136	0.0136
Seismic 90 deg M1	322.00	0.036	0.0000	0.0042	0.0042
Seismic 90 deg M1	330.00	0.037	0.0000	0.0025	0.0025
Serviceability - 60 mph Wind Normal	88.05	0.059	0.0002	0.0206	0.0206
Serviceability - 60 mph Wind Normal	155.85	0.083	0.0001	0.0259	0.0259
Serviceability - 60 mph Wind Normal	168.05	0.089	0.0020	0.0371	0.0371
Serviceability - 60 mph Wind Normal	171.95	0.091	0.0006	0.0395	0.0395
Serviceability - 60 mph Wind Normal	184.15	0.102	0.0000	0.0466	0.0466
Serviceability - 60 mph Wind Normal	215.85	0.127	0.0002	0.0396	0.0396
Serviceability - 60 mph Wind Normal	240.00	0.144	0.0005	0.0640	0.0640
Serviceability - 60 mph Wind Normal	259.75	0.146	0.0006	0.0336	0.0336

Site Number: 2543	Code: ANSI/TIA-222-H	© 2007 - 2021 by ATC IP LLC. All rights reserved.
Site Name: Five Points, FL	Engineering Number: 13686745_C3_02	6/1/2021 8:12:45 PM
Customer: VERIZON WIRELESS		

Serviceability - 60 mph Wind Normal	260.25	0.146	0.0006	0.0342	0.0342
Serviceability - 60 mph Wind Normal	275.85	0.138	0.0003	0.0373	0.0373
Serviceability - 60 mph Wind Normal	279.75	0.135	0.0003	0.0286	0.0286
Serviceability - 60 mph Wind Normal	295.85	0.121	0.0005	0.0623	0.0623
Serviceability - 60 mph Wind Normal	308.05	0.105	0.0003	0.0842	0.0842
Serviceability - 60 mph Wind Normal	311.95	0.099	0.0002	0.0878	0.0878
Serviceability - 60 mph Wind Normal	319.75	0.087	0.0000	0.0908	0.0908
Serviceability - 60 mph Wind Normal	320.00	0.086	0.0000	0.0906	0.0906
Serviceability - 60 mph Wind Normal	320.25	0.086	0.0000	0.0900	0.0900
Serviceability - 60 mph Wind Normal	322.00	0.083	0.0000	0.0892	0.0892
Serviceability - 60 mph Wind Normal	330.00	0.071	0.0000	0.0841	0.0841
Serviceability - 60 mph Wind 60 deg	88.05	0.058	0.0001	0.0221	0.0221
Serviceability - 60 mph Wind 60 deg	155.85	0.087	-0.0001	0.0339	0.0339
Serviceability - 60 mph Wind 60 deg	168.05	0.093	-0.0020	0.0419	0.0419
Serviceability - 60 mph Wind 60 deg	171.95	0.097	-0.0006	0.0611	0.0611
Serviceability - 60 mph Wind 60 deg	184.15	0.109	0.0000	0.0558	0.0558
Serviceability - 60 mph Wind 60 deg	215.85	0.140	0.0001	0.0550	0.0550
Serviceability - 60 mph Wind 60 deg	240.00	0.164	0.0004	0.0863	0.0863
Serviceability - 60 mph Wind 60 deg	259.75	0.176	0.0005	0.0095	0.0095
Serviceability - 60 mph Wind 60 deg	260.25	0.176	0.0006	0.0130	0.0130
Serviceability - 60 mph Wind 60 deg	275.85	0.175	0.0002	0.0049	0.0049
Serviceability - 60 mph Wind 60 deg	279.75	0.175	0.0003	0.0056	0.0056
Serviceability - 60 mph Wind 60 deg	295.85	0.170	0.0005	0.0275	0.0275
Serviceability - 60 mph Wind 60 deg	308.05	0.162	0.0003	0.0475	0.0475
Serviceability - 60 mph Wind 60 deg	311.95	0.158	0.0002	0.0507	0.0507
Serviceability - 60 mph Wind 60 deg	319.75	0.151	0.0000	0.0536	0.0536
Serviceability - 60 mph Wind 60 deg	320.00	0.151	0.0000	0.0536	0.0536
Serviceability - 60 mph Wind 60 deg	320.25	0.151	0.0000	0.0527	0.0527
Serviceability - 60 mph Wind 60 deg	322.00	0.149	0.0000	0.0550	0.0550
Serviceability - 60 mph Wind 60 deg	330.00	0.142	0.0001	0.0477	0.0477
Serviceability - 60 mph Wind 90 deg	88.05	0.058	0.0170	0.0207	0.0266
Serviceability - 60 mph Wind 90 deg	155.85	0.083	0.0112	0.0305	0.0325
Serviceability - 60 mph Wind 90 deg	168.05	0.089	0.0119	0.0375	0.0394
Serviceability - 60 mph Wind 90 deg	171.95	0.093	0.0113	0.0623	0.0631
Serviceability - 60 mph Wind 90 deg	184.15	0.104	0.0119	0.0522	0.0535
Serviceability - 60 mph Wind 90 deg	215.85	0.133	0.0159	0.0487	0.0512
Serviceability - 60 mph Wind 90 deg	240.00	0.154	0.0195	0.0753	0.0776
Serviceability - 60 mph Wind 90 deg	259.75	0.162	0.0216	0.0266	0.0336
Serviceability - 60 mph Wind 90 deg	260.25	0.162	0.0217	0.0295	0.0360
Serviceability - 60 mph Wind 90 deg	275.85	0.158	0.0227	0.0240	0.0327
Serviceability - 60 mph Wind 90 deg	279.75	0.157	0.0229	0.0198	0.0302
Serviceability - 60 mph Wind 90 deg	295.85	0.149	0.0239	0.0457	0.0516
Serviceability - 60 mph Wind 90 deg	308.05	0.137	0.0242	0.0660	0.0701
Serviceability - 60 mph Wind 90 deg	311.95	0.133	0.0243	0.0693	0.0733
Serviceability - 60 mph Wind 90 deg	319.75	0.125	0.0243	0.0732	0.0771
Serviceability - 60 mph Wind 90 deg	320.00	0.124	0.0243	0.0732	0.0772
Serviceability - 60 mph Wind 90 deg	320.25	0.124	0.0244	0.0723	0.0763
Serviceability - 60 mph Wind 90 deg	322.00	0.122	0.0244	0.0721	0.0761
Serviceability - 60 mph Wind 90 deg	330.00	0.114	0.0244	0.0659	0.0702

Maximum Reactions Summary

Anchor Group	UpLift	Shear
Base	249.83	2.34
A1	109.26	114.40