



AMERICAN TOWER®
CORPORATION

Structural Analysis Report

Structure : 149 ft Monopole
ATC Site Name : Kent Pcs CT, CT
ATC Site Number : 413783
Engineering Number : OAA686761_C3_01
Proposed Carrier : T-Mobile
Carrier Site Name : ROB2
Carrier Site Number : CTNH542A
Site Location : S Kent Rd
Kent, CT 06757-1709
41.721903,-73.474964
County : Litchfield
Date : October 21, 2016
Max Usage : 70%
Result : Pass

Reviewed by:
William Garrett, PE
Chief Engineer

Prepared By:
Annika A. Venning, E.I.
Structural Engineer I

Reviewed By:



Oct 21 2016 7:39 PM

cosign

COA: PEC.0001553



Table of Contents

Introduction	1
Supporting Documents	1
Analysis	1
Conclusion.....	1
Existing and Reserved Equipment.....	2
Equipment to be Removed.....	2
Proposed Equipment	2
Structure Usages	3
Foundations	3
Deflection, Twist, and Sway.....	3
Standard Conditions	4
Calculations	Attached



Introduction

The purpose of this report is to summarize results of a structural analysis performed on the 149 ft monopole to reflect the change in loading by T-Mobile.

Supporting Documents

Tower Drawings	EEl Project #15320, dated March 18, 2008
Foundation Drawing	EEl Project #15320, dated March 14, 2008
Geotechnical Report	Dr. Clarence Welti Report #15320, dated January 22, 2007

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:	90 mph (3-Second Gust, Vasd) / 115 mph (3-Second Gust, Vult)
Basic Wind Speed w/ Ice:	40 mph (3-Second Gust) w/ 1" radial ice concurrent
Code:	ANSI/TIA-222-G / 2012 IBC / 2016 Connecticut State Building Code
Structure Class:	II
Exposure Category:	C
Topographic Category:	1
Crest Height:	0 ft
Spectral Response:	$S_s = 0.19, S_1 = 0.06$
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

Elevation ¹ (ft)		Qty	Antenna	Mount Type	Lines	Carrier
Mount	RAD					
149.0	159.0	2	RFS Celwave PD220	Low Profile Platform	(3) 7/8" Coax	Other
	152.0	1	3' Yagi			
		3	Antel LPA-185080/12CF			
		3	Antel BXA-70063/6CF			
		6	Antel LPA-80080/6CF			
		1	VZW Unused Reserve: 20,741 sq in			
140.0	141.0	6	Ericsson RRUS-11	Low Profile Platform	(18) 1 5/8" Coax (2) 0.78" 8 AWG 6 (1) 0.39" Fiber Trunk	AT&T Mobility
		2	KMW AM-X-CD-14-65-00T-RET			
		6	Powerwave 7770.00			
		2	Kathrein 800 10764 K			
		2	KMW AM-X-CD-16-65-00T-RET			
	140.0	9	Powerwave TT08-19DB111-001			
	139.0	1	Andrew ABT-DFDM-ADB			
		1	Raycap DC6-48-60-18			
122.0	124.0	2	Decibel DB222	Stand Offs	(3) 7/8" Coax	Other
	123.0	1	3' Yagi			

Equipment to be Removed

Elevation ¹ (ft)		Qty	Antenna	Mount Type	Lines	Carrier
Mount	RAD					
No loading considered as to be removed						

Proposed Equipment

Elevation ¹ (ft)		Qty	Antenna	Mount Type	Lines	Carrier
Mount	RAD					
110.0	110.0	1	Symmetricom 58532A	T-Arms	(2) 1 5/8" Fiber (1) 1/2" Coax	T-Mobile
		3	Ericsson RRUS 11 B12			
		3	Ericsson RRUS 11 B2			
		3	Ericsson RRUS 11 B4			
		3	RFS APX16DWV-16DWVS-E-A20			
		3	Commscope LNX-6515DS-A1M (50.3 lb)			

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

Install proposed coax inside the pole shaft.



Structure Usages

Structural Component	Controlling Usage	Pass/Fail
Anchor Bolts	45%	Pass
Shaft	70%	Pass
Base Plate	51%	Pass

Foundations

Reaction Component	Original Design Reactions	Analysis Reactions	% of Design
Moment (Kips-Ft)	4,897.9	3,801.9	78%
Shear (Kips)	39.5	32.6	83%

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

Deflection and Sway*

Antenna Elevation (ft)	Antenna	Carrier	Deflection (ft)	Sway (Rotation) (°)
110.0	Symmetricon 58532A	T-Mobile	1.022	1.078
	Ericsson RRUS 11 B12			
	Ericsson RRUS 11 B4			
	Ericsson RRUS 11 B2			
	RFS APX16DWV-16DWVS-E-A20			
	Commscope LNX-6515DS-A1M (50.3 lb)			

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



Standard Conditions

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

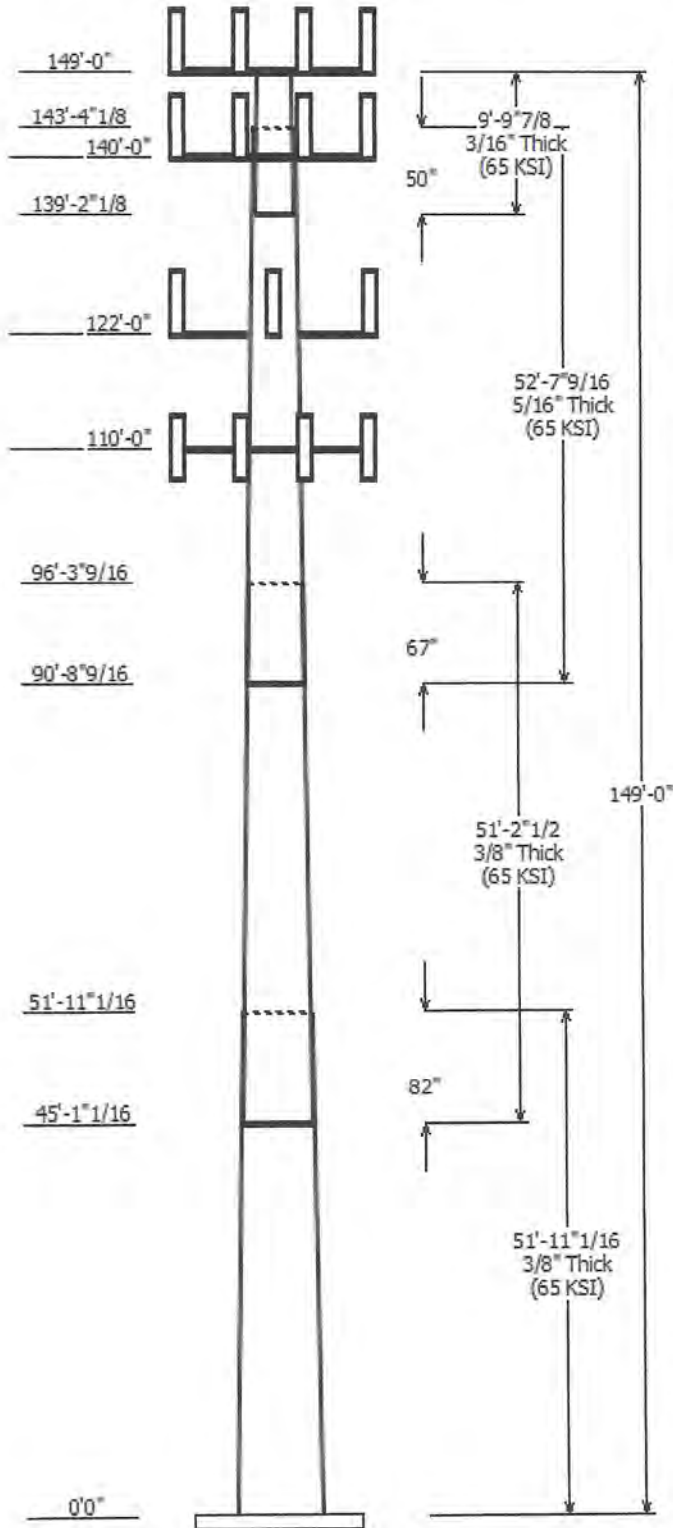
- Information supplied by the client regarding the structure itself, antenna, mounts and feed line loading on the structure and its components, or other relevant information.
- Information from drawings in the possession of American Tower Corporation, or generated by field inspections or measurements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

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

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

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

© 2007 - 2016 by ATC IP LLC. All rights reserved.



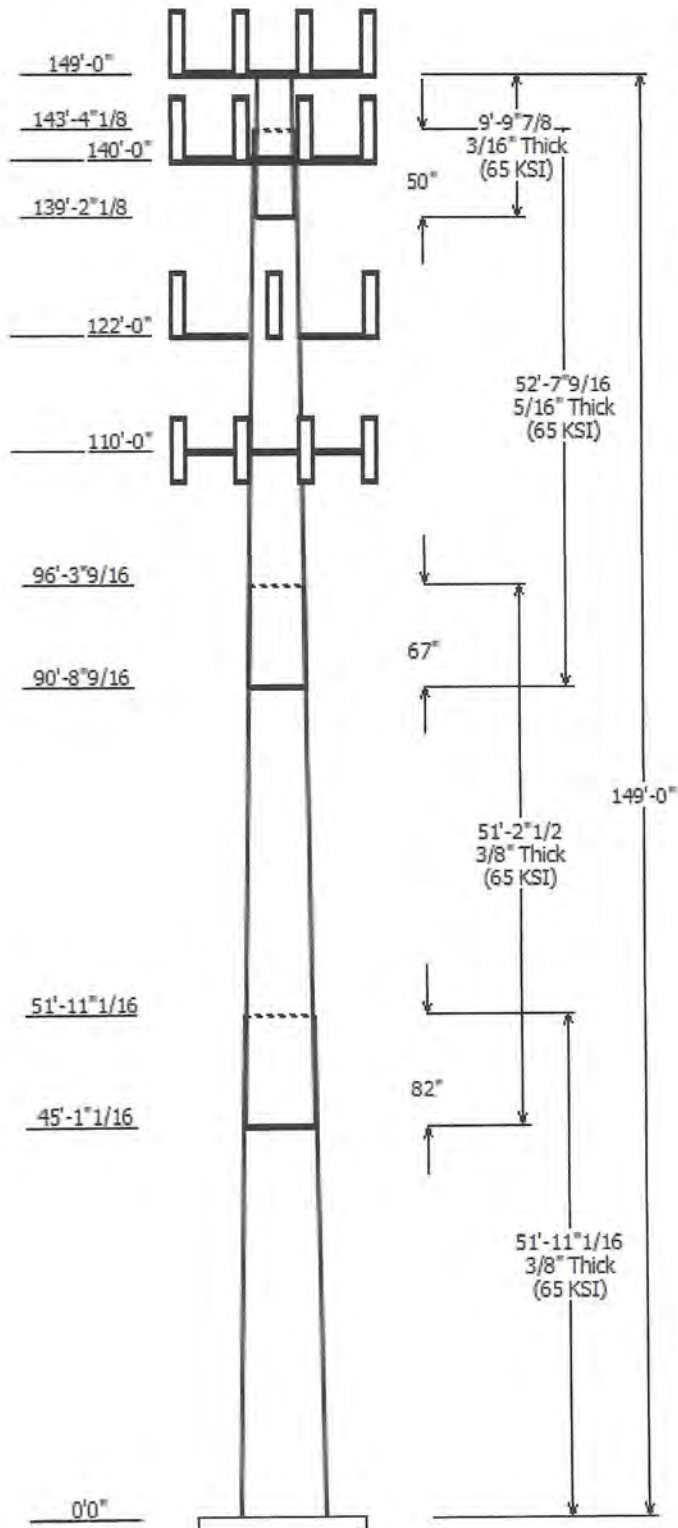
Job Information	
Pole :	413783
Code:	ANSI/TIA-222-G
Description :	ATC413783
Client :	T- Mobile
Struct Class :	II
Location :	Kent Pcs CT, CT
Shape :	18 Sides
Exposure :	C
Height :	149.00 (ft)
Topo :	1
Base Elev (ft):	0.00
Taper:	0.241124(in/ft)

Sections Properties							
Section	Length (ft)	Diameter (in)		Thick Joint (in)	Type	Overlap Length (in)	Steel Grade (ksi)
		Across Flats Top	Across Flats Bottom				
1	51.920	47.98	60.50	0.375		0.000	0.241100 65
2	51.210	38.03	50.37	0.375	Slip Joint	82.000	0.241100 65
3	52.630	27.31	40.00	0.313	Slip Joint	67.000	0.241100 65
4	9.823	26.32	28.69	0.188	Slip Joint	50.000	0.241100 65

Discrete Appurtenance			
Attach Elev (ft)	Force Elev (ft)	Qty	Description
149.000	152.000	1	VZW Unused Reserve: 20,741
149.000	159.000	2	RFS Celwave PD220
149.000	152.000	3	Amphenol Antel LPA-
149.000	152.000	1	3' Yagi
149.000	152.000	6	Antel LPA-80080/6CF
149.000	152.000	3	Antel BXA-70063/6CF
149.000	149.000	1	Flat Low Profile Platform
140.000	140.000	1	Round Low Profile Platform
140.000	141.000	2	Kathrein Scala 800 10764 K
140.000	141.000	2	KMW AM-X-CD-16-65-00T-RET
140.000	141.000	6	Powerwave Aligon 7770.00
140.000	141.000	2	KMW AM-X-CD-14-65-00T-RET
140.000	141.000	6	Ericsson RRUS-11
140.000	140.000	9	Powerwave Aligon TT08-
140.000	139.000	1	Andrew ABT-DFDM-ADB
140.000	139.000	1	Raycap DC6-48-60-18
122.000	122.000	2	Stand Off
122.000	123.000	1	3' Yagi
122.000	124.000	2	Decibel DB222
110.000	110.000	3	Flat T-Arm
110.000	110.000	3	Commscope LNX-6515DS-A1M
110.000	110.000	3	RFS APX16DWV-16DWVS-E-A20
110.000	110.000	3	Ericsson RRUS 11 B2
110.000	110.000	3	Ericsson RRUS 11 B4
110.000	110.000	3	Ericsson RRUS 11 B12
110.000	110.000	1	Symmetricon 58532A

Linear Appurtenance			
Elev (ft)		Description	Exposed To Wind
From	To		
0.000	110.0	1 5/8" Fiber	No
0.000	110.0	1/2" Coax	No
0.000	122.0	7/8" Coax	No
0.000	140.0	0.39" Fiber Trunk	No
0.000	140.0	0.78" 8 AWG 6	No
0.000	140.0	1 5/8" Coax	No
0.000	149.0	1 5/8" Coax	No
0.000	149.0	7/8" Coax	No

Load Cases

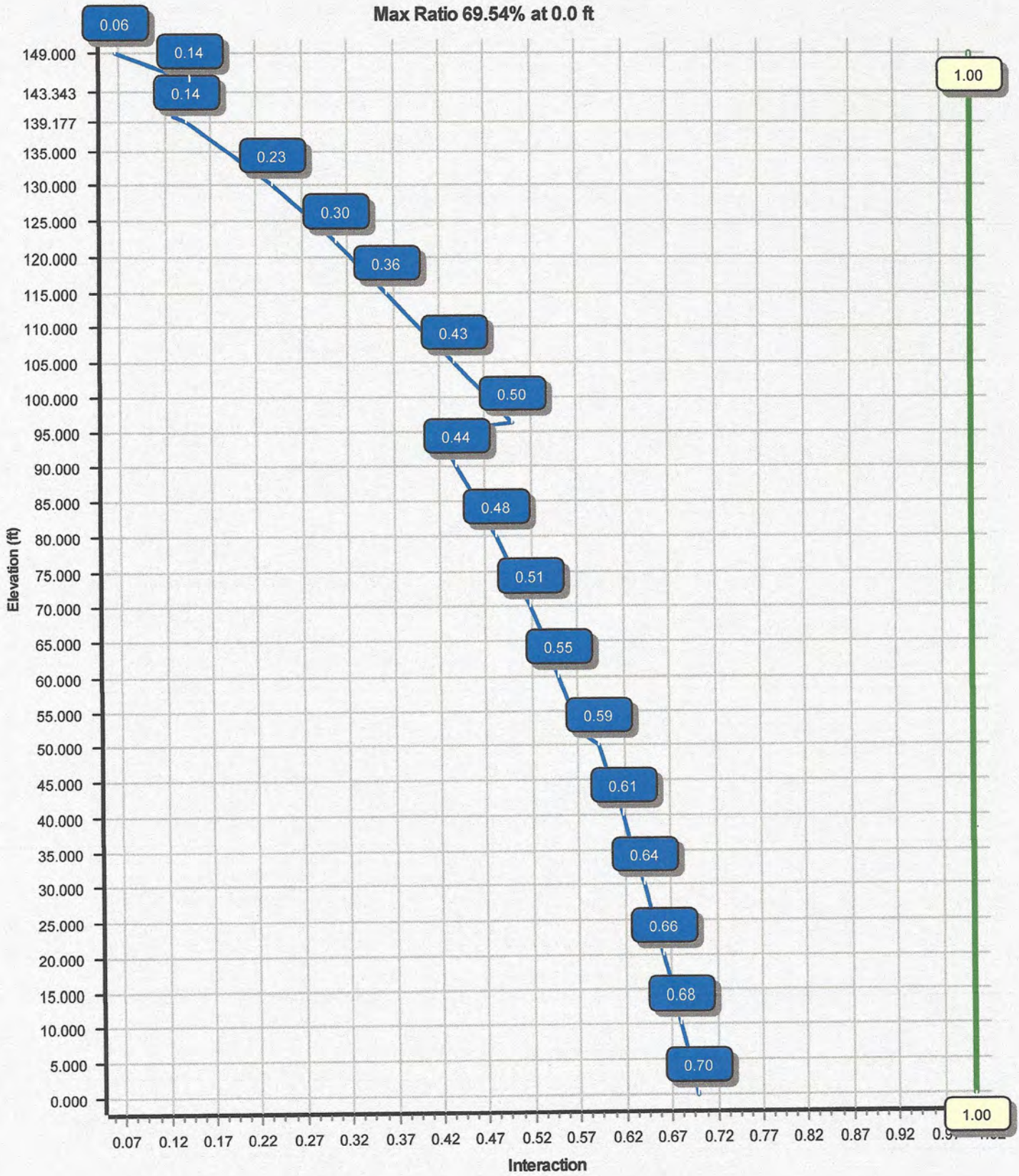


1.2D + 1.6W	90 mph with No Ice
0.9D + 1.6W	90 mph with No Ice (Reduced DL)
1.2D + 1.0Di + 1.0Wi	40 mph with 1.00 in Radial Ice
(1.2 + 0.2Sds) * DL + E	Seismic Equivalent Lateral Forces Method
(1.2 + 0.2Sds) * DL + E	Seismic Equivalent Modal Analysis Method
(0.9 - 0.2Sds) * DL + E	Seismic (Reduced DL) Equivalent Lateral
(0.9 - 0.2Sds) * DL + E	Seismic (Reduced DL) Equivalent Modal
1.0D + 1.0W	Serviceability 60 mph

Reactions			
Load Case	Moment (kip-ft)	Shear (kip)	Axial (kip)
1.2D + 1.6W	3801.88	32.61	48.21
0.9D + 1.6W	3769.03	32.59	36.15
1.2D + 1.0Di + 1.0Wi	889.22	7.46	81.44
(1.2 + 0.2Sds) * DL + E ELFM	201.52	1.67	48.16
(1.2 + 0.2Sds) * DL + E EMAM	373.94	2.99	48.16
(0.9 - 0.2Sds) * DL + E ELFM	199.47	1.67	33.38
(0.9 - 0.2Sds) * DL + E EMAM	369.85	2.99	33.38
1.0D + 1.0W	1050.95	9.05	40.21

Dish Deflections			
Load Case	Attach Elev (ft)	Deflection (in)	Rotation (deg)
	0.00	0.000	0.000

Load Case : 1.2D + 1.6W
Max Ratio 69.54% at 0.0 ft



Site Number: 413783

Code: ANSI/TIA-222-G

© 2007 - 2016 by ATC IP LLC. All rights reserved.

Site Name: Kent Pcs CT, CT

Engineering Number: OAA686761_C3_01

10/21/2016 5:36:40 PM

Customer: T-Mobile

Analysis Parameters

Location:	LITCHFIELD County, CT	Height (ft):	149
Code:	ANSI/TIA-222-G	Base Diameter (in):	60.50
Shape:	18 Sides	Top Diameter (in):	26.32
Pole Type:	Taper	Taper (in/ft) :	0.241
Pole Manufacturer:			

Ice & Wind Parameters

Structure Class:	II	Design Wind Speed Without Ice:	90 mph
Exposure Category:	C	Design Wind Speed With Ice:	40 mph
Topographic Category:	1	Operational Wind Speed:	60 mph
Crest Height:	0.0 ft	Design Ice Thickness:	1.00 in

Seismic Parameters

Analysis Method:	Equivalent Modal Analysis & Equivalent Lateral Force Methods		
Site Class:	D - Stiff Soil		
Period Based on Rayleigh Method (sec):	2.01		
T _L (sec):	6	p:	1.3
S _s :	0.189	S _r :	0.060
F _a :	1.600	F _v :	2.400
S _{ds} :	0.202	S _{d1} :	0.096
		C _s :	0.032
		C _s Max:	0.032
		C _s Min:	0.030

Load Cases

1.2D + 1.6W	90 mph with No Ice
0.9D + 1.6W	90 mph with No Ice (Reduced DL)
1.2D + 1.0Di + 1.0Wi	40 mph with 1.00 in Radial Ice
(1.2 + 0.2S _{ds}) * DL + E ELFM	Seismic Equivalent Lateral Forces Method
(1.2 + 0.2S _{ds}) * DL + E EMAM	Seismic Equivalent Modal Analysis Method
(0.9 - 0.2S _{ds}) * DL + E ELFM	Seismic (Reduced DL) Equivalent Lateral Forces Method
(0.9 - 0.2S _{ds}) * DL + E EMAM	Seismic (Reduced DL) Equivalent Modal Analysis Method
1.0D + 1.0W	Serviceability 60 mph

Site Number: 413783

Code: ANSI/TIA-222-G

© 2007 - 2016 by ATC IP LLC. All rights reserved.

Site Name: Kent Pcs CT, CT

Engineering Number: OAA686761_C3_01

10/21/2016 5:36:40 PM

Customer: T-Mobile

Shaft Section Properties

Sect Info	Length (ft)	Thick (in)	Fy (ksi)	Slip		Weight (lb)	Bottom						Top						
				Joint Type	Joint Len (in)		Dia (in)	Elev (ft)	Area (in ²)	Ix (in ⁴)	W/t Ratio	D/t Ratio	Dia (in)	Elev (ft)	Area (in ²)	Ix (in ⁴)	W/t Ratio	D/t Ratio	Taper (in/ft)
1-18	51.920	0.3750	65		0.00	11,327	60.50	0.00	71.56	32684.4	27.04	161.33	47.98	51.92	56.66	16223.9	21.15	127.95	0.241124
2-18	51.210	0.3750	65	Slip	82.00	9,090	50.37	45.09	59.51	18800.8	22.28	134.34	38.03	96.30	44.82	8029.0	16.47	101.41	0.241124
3-18	52.630	0.3125	65	Slip	67.00	5,923	40.00	90.71	39.37	7834.6	21.16	128.01	27.31	143.34	26.78	2466.2	14.00	87.40	0.241124
4-18	9.823	0.1875	65	Slip	50.00	543	28.69	139.18	16.96	1741.2	25.57	153.02	26.32	149.00	15.55	1342.2	23.34	140.39	0.241124
Shaft Weight						26,883													

Discrete Appurtenance Properties

Attach Elev (ft)	Description	Qty	No Ice			Ice			Distance From Face (ft)	Vert Ecc (ft)
			Weight (lb)	EPAa (sf)	Orientation Factor	Weight (lb)	EPAa (sf)	Orientation Factor		
149.00	3' Yagi	1	10.00	2.980	1.00	293.26	12.530	1.00	0.000	3.000
149.00	Amphenol Antel LPA-	3	10.50	4.570	0.89	133.52	7.660	0.89	0.000	3.000
149.00	Antel BXA-70063/6CF	3	17.00	7.570	0.75	205.56	11.248	0.75	0.000	3.000
149.00	Antel LPA-80080/6CF	6	21.00	8.630	0.75	297.37	5.949	0.75	0.000	3.000
149.00	Flat Low Profile Platform	1	1500.00	26.100	1.00	2,363.88	51.557	1.00	0.000	0.000
149.00	RFS Celwave PD220	2	25.00	5.500	1.00	395.97	18.573	1.00	0.000	10.000
149.00	VZW Unused Reserve:	1	2291.50	144.15	1.00	4,420.08	278.051	1.00	0.000	3.000
140.00	Andrew ABT-DFDM-ADB	1	1.10	0.050	0.50	4.05	0.305	0.50	0.000	-1.000
140.00	Ericsson RRUS-11	6	55.00	3.790	0.67	174.09	5.492	0.67	0.000	1.000
140.00	Kathrein Scala 800 10764 K	2	40.80	5.870	0.79	209.60	8.702	0.79	0.000	1.000
140.00	KMW AM-X-CD-14-65-00T-	2	36.40	4.990	0.78	184.04	7.466	0.78	0.000	1.000
140.00	KMW AM-X-CD-16-65-00T-	2	48.50	8.020	0.79	263.32	11.718	0.79	0.000	1.000
140.00	Powerwave Allgon 7770.00	6	35.00	5.510	0.77	227.33	6.940	0.77	0.000	1.000
140.00	Powerwave Allgon TT08-	9	22.00	0.920	0.50	57.23	1.899	0.50	0.000	0.000
140.00	Raycap DC6-48-60-18	1	30.00	3.810	0.67	142.42	5.546	0.67	0.000	-1.000
140.00	Round Low Profile Platform	1	1500.00	21.700	1.00	2,359.42	47.167	1.00	0.000	0.000
122.00	3' Yagi	1	10.00	2.980	1.00	19.11	5.695	1.00	0.000	1.000
122.00	Decibel DB222	2	16.00	2.250	1.00	30.58	4.300	1.00	0.000	2.000
122.00	Stand Off	2	75.00	2.500	0.90	143.32	4.778	0.90	0.000	0.000
110.00	Commscope LNX-6515DS-	3	50.30	11.450	0.84	408.42	13.601	0.84	0.000	0.000
110.00	Ericsson RRUS 11 B12	3	50.70	2.790	0.67	169.80	3.689	0.67	0.000	0.000
110.00	Ericsson RRUS 11 B2	3	50.70	2.790	0.67	169.80	3.689	0.67	0.000	0.000
110.00	Ericsson RRUS 11 B4	3	50.70	2.790	0.67	169.80	3.689	0.67	0.000	0.000
110.00	Flat T-Arm	3	250.00	12.900	0.67	520.09	23.468	0.67	0.000	0.000
110.00	RFS APX16DWV-16DWVS-E-	3	40.70	6.590	0.66	230.94	8.062	0.66	0.000	0.000
110.00	Symmetricom 58532A	1	0.40	0.220	0.50	20.41	0.500	0.50	0.000	0.000
Totals		71	8252.20			22,807.87			Number of Loadings : 26	

Linear Appurtenance Properties

Elev From (ft)	Elev To (ft)	Qty	Description	Coax Diameter (in)	Coax Weight (lb/ft)	Projected Width (in)	Exposed To Wind	Carrier	
0.00	149.00	18	1 5/8" Coax	1.98	0.82	N	0.00	N	Verizon
0.00	149.00	3	7/8" Coax	1.09	0.33	N	0.00	N	Other
0.00	140.00	1	0.39" Fiber Trunk	0.39	0.06	N	0.00	N	AT&T Mobility
0.00	140.00	2	0.78" 8 AWG 6	0.78	0.59	N	0.00	N	AT&T Mobility
0.00	140.00	18	1 5/8" Coax	1.98	0.82	N	0.00	N	AT&T Mobility
0.00	122.00	3	7/8" Coax	1.09	0.33	N	0.00	N	Other
0.00	110.00	2	1 5/8" Fiber	1.63	1.61	N	0.00	N	T-Mobile
0.00	110.00	1	1/2" Coax	0.63	0.15	N	0.00	N	T-Mobile

Site Number: 413783

Code: ANSI/TIA-222-G

© 2007 - 2016 by ATC IP LLC. All rights reserved.

Site Name: Kent Pcs CT, CT

Engineering Number: OAA686761_C3_01

10/21/2016 5:36:40 PM

Customer: T-Mobile

Site Number: 413783

Code: ANSI/TIA-222-G

© 2007 - 2016 by ATC IP LLC. All rights reserved.

Site Name: Kent Pcs CT, CT

Engineering Number: OAA686761_C3_01

10/21/2016 5:36:40 PM

Customer: T-Mobile

Segment Properties (Max Len : 5.ft)

Seg Top Elev (ft)	Description	Thick (in)	Flat Dia (in)	Area (in ²)	Ix (in ⁴)	W/t Ratio	D/t Ratio	F'y (ksi)	S (in ³)	Z (in ³)	Weight (lb)
0.00		0.3750	60.500	71.561	32,684.4	27.04	161.33	69.6	1064.	0.0	0.0
5.00		0.3750	59.294	70.126	30,757.4	26.47	158.12	70.3	1021.	0.0	1,205.3
10.00		0.3750	58.089	68.691	28,907.7	25.90	154.90	70.9	980.2	0.0	1,180.9
15.00		0.3750	56.883	67.256	27,133.7	25.34	151.69	71.6	939.5	0.0	1,156.5
20.00		0.3750	55.678	65.821	25,433.7	24.77	148.47	72.3	899.7	0.0	1,132.1
25.00		0.3750	54.472	64.387	23,806.3	24.20	145.26	72.9	860.8	0.0	1,107.7
30.00		0.3750	53.266	62.952	22,249.9	23.64	142.04	73.6	822.7	0.0	1,083.3
35.00		0.3750	52.061	61.517	20,762.8	23.07	138.83	74.3	785.5	0.0	1,058.8
40.00		0.3750	50.855	60.082	19,343.5	22.50	135.61	74.9	749.2	0.0	1,034.4
45.00		0.3750	49.649	58.647	17,990.4	21.93	132.40	75.6	713.7	0.0	1,010.0
45.09	Bot - Section 2	0.3750	49.629	58.622	17,967.5	21.92	132.34	75.6	713.1	0.0	17.3
50.00		0.3750	48.444	57.212	16,701.9	21.37	129.18	76.3	679.1	0.0	1,951.5
51.92	Top - Section 1	0.3750	48.731	57.553	17,002.9	21.50	129.95	76.1	687.2	0.0	749.8
55.00		0.3750	47.988	56.670	16,231.4	21.15	127.97	76.5	666.2	0.0	598.6
60.00		0.3750	46.783	55.235	15,029.4	20.59	124.75	77.2	632.8	0.0	952.0
65.00		0.3750	45.577	53.800	13,888.2	20.02	121.54	77.9	600.2	0.0	927.5
70.00		0.3750	44.371	52.365	12,806.3	19.45	118.32	78.5	568.5	0.0	903.1
75.00		0.3750	43.166	50.930	11,782.1	18.89	115.11	79.2	537.6	0.0	878.7
80.00		0.3750	41.960	49.495	10,814.0	18.32	111.89	79.9	507.6	0.0	854.3
85.00		0.3750	40.754	48.060	9,900.5	17.75	108.68	80.5	478.5	0.0	829.9
90.00		0.3750	39.549	46.625	9,039.9	17.19	105.46	81.2	450.2	0.0	805.5
90.71	Bot - Section 3	0.3750	39.377	46.420	8,921.3	17.10	105.00	81.3	446.2	0.0	112.9
95.00		0.3750	38.343	45.190	8,230.7	16.62	102.25	81.9	422.8	0.0	1,234.9
96.30	Top - Section 2	0.3125	38.656	38.030	7,064.1	20.40	123.70	77.4	359.9	0.0	367.1
100.0		0.3125	37.763	37.144	6,581.9	19.90	120.84	78.0	343.3	0.0	473.7
105.0		0.3125	36.557	35.949	5,966.5	19.22	116.98	78.8	321.5	0.0	621.8
110.0		0.3125	35.351	34.753	5,390.7	18.54	113.12	79.6	300.3	0.0	601.5
115.0		0.3125	34.146	33.557	4,853.2	17.86	109.27	80.4	279.9	0.0	581.1
120.0		0.3125	32.940	32.361	4,352.6	17.18	105.41	81.2	260.3	0.0	560.8
122.0		0.3125	32.458	31.883	4,162.4	16.90	103.87	81.5	252.6	0.0	218.6
125.0		0.3125	31.734	31.166	3,887.7	16.50	101.55	82.0	241.3	0.0	321.8
130.0		0.3125	30.529	29.970	3,457.2	15.82	97.69	82.6	223.0	0.0	520.1
135.0		0.3125	29.323	28.774	3,059.6	15.13	93.83	82.6	205.5	0.0	499.7
139.1	Bot - Section 4	0.3125	28.316	27.775	2,751.9	14.57	90.61	82.6	191.4	0.0	401.8
140.0		0.3125	28.118	27.578	2,693.8	14.45	89.98	82.6	188.7	0.0	124.9
143.3	Top - Section 3	0.1875	27.686	16.365	1,563.5	24.63	147.66	72.4	111.2	0.0	498.1
145.0		0.1875	27.287	16.127	1,496.3	24.25	145.53	72.9	108.0	0.0	91.6
149.0		0.1875	26.322	15.553	1,342.2	23.34	140.39	73.9	100.4	0.0	215.6
											26,883.2

Site Number: 413783

Code: ANSI/TIA-222-G

© 2007 - 2016 by ATC IP LLC. All rights reserved.

Site Name: Kent Pcs CT, CT

Engineering Number: OAA686761_C3_01

10/21/2016 5:36:40 PM

Customer: T-Mobile

Load Case: 1.2D + 1.6W

90 mph with No Ice

22 Iterations

Gust Response Factor :1.10

Wind Importance Factor :1.00

Dead Load Factor :1.20

Wind Load Factor :1.60

Applied Segment Forces Summary

Seg Elev (ft)	Description	Shaft Forces		Discrete Forces			Linear Forces		Sum of Forces				
		Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Torsion MY (lb-ft)	Moment MZ (lb)
0.00		242.7	0.0					0.0	0.0	242.7	0.0	0.0	0.0
5.00		480.6	1,446.4					0.0	216.7	480.6	1,663.1	0.0	0.0
10.00		470.8	1,417.1					0.0	216.7	470.8	1,633.8	0.0	0.0
15.00		468.2	1,387.8					0.0	216.7	468.2	1,604.5	0.0	0.0
20.00		478.0	1,358.5					0.0	216.7	478.0	1,575.2	0.0	0.0
25.00		490.4	1,329.2					0.0	216.7	490.4	1,545.9	0.0	0.0
30.00		498.5	1,299.9					0.0	216.7	498.5	1,516.6	0.0	0.0
35.00		503.4	1,270.6					0.0	216.7	503.4	1,487.3	0.0	0.0
40.00		505.8	1,241.3					0.0	216.7	505.8	1,458.0	0.0	0.0
45.00		257.6	1,212.0					0.0	216.7	257.6	1,428.7	0.0	0.0
45.09	Bot - Section 2	256.8	20.7					0.0	3.8	256.8	24.5	0.0	0.0
50.00		350.9	2,341.9					0.0	212.9	350.9	2,554.8	0.0	0.0
51.92	Top - Section 1	256.0	899.8					0.0	83.2	256.0	983.0	0.0	0.0
55.00		412.0	718.3					0.0	133.5	412.0	851.7	0.0	0.0
60.00		506.9	1,142.4					0.0	216.7	506.9	1,359.0	0.0	0.0
65.00		502.2	1,113.1					0.0	216.7	502.2	1,329.7	0.0	0.0
70.00		496.6	1,083.8					0.0	216.7	496.6	1,300.4	0.0	0.0
75.00		490.2	1,054.5					0.0	216.7	490.2	1,271.1	0.0	0.0
80.00		483.0	1,025.2					0.0	216.7	483.0	1,241.8	0.0	0.0
85.00		475.2	995.9					0.0	216.7	475.2	1,212.5	0.0	0.0
90.00		268.8	966.6					0.0	216.7	268.8	1,183.2	0.0	0.0
90.71	Bot - Section 3	234.3	135.5					0.0	30.9	234.3	166.4	0.0	0.0
95.00		261.3	1,481.8					0.0	185.8	261.3	1,667.6	0.0	0.0
96.30	Top - Section 2	230.2	440.5					0.0	56.2	230.2	496.6	0.0	0.0
100.00		395.5	568.4					0.0	160.5	395.5	728.9	0.0	0.0
105.00		445.6	746.2					0.0	216.7	445.6	962.8	0.0	0.0
110.00	Appertunance(s)	435.2	721.7	3,129.5	0.0	0.0	1,775.6	0.0	216.7	3,564.7	2,714.0	0.0	0.0
115.00		424.3	697.3					0.0	196.4	424.3	893.8	0.0	0.0
120.00		291.5	672.9					0.0	196.4	291.5	869.4	0.0	0.0
122.00	Appertunance(s)	203.6	262.3	549.1	0.0	549.8	230.4	0.0	78.6	752.7	571.3	0.0	0.0
125.00		319.2	386.2					0.0	114.3	319.2	500.5	0.0	0.0
130.00		389.3	624.1					0.0	190.5	389.3	814.6	0.0	0.0
135.00		346.8	599.7					0.0	190.5	346.8	790.2	0.0	0.0
139.18	Bot - Section 4	185.7	482.2					0.0	159.1	185.7	641.3	0.0	0.0
140.00	Appertunance(s)	152.4	149.9	3,932.6	0.0	2,560.6	3,024.6	0.0	31.4	4,085.0	3,205.8	0.0	0.0
143.34	Top - Section 3	181.3	597.7					0.0	63.2	181.3	660.9	0.0	0.0
145.00		199.7	109.9					0.0	31.3	199.7	141.2	0.0	0.0
149.00	Appertunance(s)	140.3	258.7	11,438.4	0.0	34,303.7	4,872.0	0.0	75.6	11,578.7	5,206.3	0.0	0.0
Totals:										32,780.3	48,256.3	0.00	0.00

Site Number: 413783

Code: ANSI/TIA-222-G

© 2007 - 2016 by ATC IP LLC. All rights reserved.

Site Name: Kent Pcs CT, CT

Engineering Number: OAA686761_C3_01

10/21/2016 5:36:42 PM

Customer: T-Mobile

Load Case: 1.2D + 1.6W

90 mph with No Ice

22 Iterations

Gust Response Factor :1.10

Wind Importance Factor 1.00

Dead Load Factor :1.20

Wind Load Factor :1.60

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-48.21	-32.61	0.00	-3,801.88	0.00	3,801.88	4,482.64	2,241.32	11,092.4	5,554.46	0.00	0.00	0.695
5.00	-46.45	-32.26	0.00	-3,638.85	0.00	3,638.85	4,434.84	2,217.42	10,752.7	5,384.36	0.09	-0.16	0.687
10.00	-44.73	-31.91	0.00	-3,477.57	0.00	3,477.57	4,385.31	2,192.65	10,413.7	5,214.59	0.35	-0.33	0.677
15.00	-43.04	-31.56	0.00	-3,318.03	0.00	3,318.03	4,334.06	2,167.03	10,075.6	5,045.30	0.78	-0.49	0.668
20.00	-41.37	-31.19	0.00	-3,160.26	0.00	3,160.26	4,281.09	2,140.54	9,738.73	4,876.60	1.39	-0.66	0.658
25.00	-39.74	-30.80	0.00	-3,004.34	0.00	3,004.34	4,226.40	2,113.20	9,403.31	4,708.64	2.17	-0.84	0.648
30.00	-38.14	-30.39	0.00	-2,850.37	0.00	2,850.37	4,169.98	2,084.99	9,069.60	4,541.54	3.14	-1.01	0.637
35.00	-36.57	-29.97	0.00	-2,698.42	0.00	2,698.42	4,111.84	2,055.92	8,737.86	4,375.42	4.30	-1.19	0.626
40.00	-35.03	-29.54	0.00	-2,548.56	0.00	2,548.56	4,051.98	2,025.99	8,408.36	4,210.43	5.64	-1.37	0.614
45.00	-33.56	-29.30	0.00	-2,400.85	0.00	2,400.85	3,990.40	1,995.20	8,081.34	4,046.68	7.17	-1.55	0.602
45.09	-33.50	-29.10	0.00	-2,398.31	0.00	2,398.31	3,989.32	1,994.66	8,075.70	4,043.85	7.20	-1.55	0.602
50.00	-30.89	-28.75	0.00	-2,255.32	0.00	2,255.32	3,927.10	1,963.55	7,757.08	3,884.30	8.89	-1.73	0.589
51.92	-29.87	-28.51	0.00	-2,200.13	0.00	2,200.13	3,942.33	1,971.16	7,834.02	3,922.83	9.60	-1.81	0.569
55.00	-28.96	-28.14	0.00	-2,112.33	0.00	2,112.33	3,902.73	1,951.36	7,635.30	3,823.33	10.81	-1.92	0.560
60.00	-27.53	-27.68	0.00	-1,971.61	0.00	1,971.61	3,837.05	1,918.52	7,315.25	3,663.06	12.92	-2.10	0.546
65.00	-26.14	-27.21	0.00	-1,833.23	0.00	1,833.23	3,769.65	1,884.82	6,998.55	3,504.48	15.22	-2.28	0.530
70.00	-24.77	-26.73	0.00	-1,697.21	0.00	1,697.21	3,700.53	1,850.26	6,685.47	3,347.71	17.71	-2.46	0.514
75.00	-23.44	-26.26	0.00	-1,563.54	0.00	1,563.54	3,629.69	1,814.84	6,376.27	3,192.88	20.38	-2.64	0.496
80.00	-22.14	-25.79	0.00	-1,432.23	0.00	1,432.23	3,557.12	1,778.56	6,071.21	3,040.12	23.25	-2.83	0.478
85.00	-20.88	-25.32	0.00	-1,303.28	0.00	1,303.28	3,482.83	1,741.42	5,770.54	2,889.56	26.30	-3.01	0.457
90.00	-19.67	-25.02	0.00	-1,176.69	0.00	1,176.69	3,406.82	1,703.41	5,474.52	2,741.33	29.55	-3.18	0.435
90.71	-19.47	-24.81	0.00	-1,158.84	0.00	1,158.84	3,395.84	1,697.92	5,432.68	2,720.38	30.02	-3.21	0.432
95.00	-17.78	-24.48	0.00	-1,052.49	0.00	1,052.49	3,329.09	1,664.55	5,183.41	2,595.56	32.98	-3.36	0.411
96.30	-17.26	-24.25	0.00	-1,020.75	0.00	1,020.75	2,649.38	1,324.69	4,172.95	2,089.58	33.89	-3.41	0.495
100.00	-16.49	-23.86	0.00	-930.94	0.00	930.94	2,607.49	1,303.74	4,010.55	2,008.26	36.59	-3.54	0.470
105.00	-15.49	-23.40	0.00	-811.66	0.00	811.66	2,549.43	1,274.72	3,793.98	1,899.81	40.39	-3.72	0.434
110.00	-12.95	-19.70	0.00	-694.65	0.00	694.65	2,489.65	1,244.83	3,580.72	1,793.02	44.39	-3.90	0.393
115.00	-12.04	-19.25	0.00	-596.13	0.00	596.13	2,428.15	1,214.08	3,371.05	1,688.03	48.56	-4.07	0.358
120.00	-11.15	-18.92	0.00	-499.87	0.00	499.87	2,364.93	1,182.47	3,165.21	1,584.96	52.91	-4.23	0.320
122.00	-10.62	-18.14	0.00	-461.48	0.00	461.48	2,339.16	1,169.58	3,084.00	1,544.29	54.70	-4.30	0.304
125.00	-10.11	-17.81	0.00	-407.05	0.00	407.05	2,299.99	1,149.99	2,963.46	1,483.93	57.43	-4.39	0.279
130.00	-9.29	-17.37	0.00	-318.03	0.00	318.03	2,226.60	1,113.30	2,757.75	1,380.92	62.09	-4.52	0.235
135.00	-8.50	-16.98	0.00	-231.16	0.00	231.16	2,137.76	1,068.88	2,540.99	1,272.38	66.88	-4.63	0.186
139.18	-7.86	-16.75	0.00	-160.24	0.00	160.24	2,063.55	1,031.78	2,366.73	1,185.12	70.97	-4.71	0.139
140.00	-5.00	-12.42	0.00	-143.89	0.00	143.89	2,048.92	1,024.46	2,333.10	1,168.29	71.78	-4.72	0.126
143.34	-4.35	-12.18	0.00	-102.38	0.00	102.38	1,066.86	533.43	1,206.73	604.26	75.10	-4.76	0.174
145.00	-4.22	-11.97	0.00	-82.20	0.00	82.20	1,057.77	528.89	1,178.96	590.35	76.75	-4.78	0.144
149.00	0.00	-11.58	0.00	-34.30	0.00	34.30	1,035.06	517.53	1,112.30	556.98	80.78	-4.83	0.062

Site Number: 413783

Code: ANSI/TIA-222-G

© 2007 - 2016 by ATC IP LLC. All rights reserved.

Site Name: Kent Pcs CT, CT

Engineering Number: OAA686761_C3_01

10/21/2016 5:36:42 PM

Customer: T- Mobile

Load Case: 0.9D + 1.6W

90 mph with No Ice (Reduced DL)

22 Iterations

Gust Response Factor :1.10

Wind Importance Factor 1.00

Dead Load Factor :0.90

Wind Load Factor :1.60

Applied Segment Forces Summary

Seg Elev (ft)	Description	Shaft Forces		Discrete Forces			Linear Forces			Sum of Forces			
		Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Torsion MY (lb-ft)	Moment MZ (lb)
0.00		242.7	0.0					0.0	0.0	242.7	0.0	0.0	0.0
5.00		480.6	1,084.8					0.0	162.5	480.6	1,247.3	0.0	0.0
10.00		470.8	1,062.8					0.0	162.5	470.8	1,225.3	0.0	0.0
15.00		468.2	1,040.8					0.0	162.5	468.2	1,203.3	0.0	0.0
20.00		478.0	1,018.9					0.0	162.5	478.0	1,181.4	0.0	0.0
25.00		490.4	996.9					0.0	162.5	490.4	1,159.4	0.0	0.0
30.00		498.5	974.9					0.0	162.5	498.5	1,137.4	0.0	0.0
35.00		503.4	953.0					0.0	162.5	503.4	1,115.5	0.0	0.0
40.00		505.8	931.0					0.0	162.5	505.8	1,093.5	0.0	0.0
45.00		257.6	909.0					0.0	162.5	257.6	1,071.5	0.0	0.0
45.09	Bot - Section 2	256.8	15.6					0.0	2.8	256.8	18.4	0.0	0.0
50.00		350.9	1,756.4					0.0	159.7	350.9	1,916.1	0.0	0.0
51.92	Top - Section 1	256.0	674.8					0.0	62.4	256.0	737.2	0.0	0.0
55.00		412.0	538.7					0.0	100.1	412.0	638.8	0.0	0.0
60.00		506.9	856.8					0.0	162.5	506.9	1,019.3	0.0	0.0
65.00		502.2	834.8					0.0	162.5	502.2	997.3	0.0	0.0
70.00		496.6	812.8					0.0	162.5	496.6	975.3	0.0	0.0
75.00		490.2	790.8					0.0	162.5	490.2	953.3	0.0	0.0
80.00		483.0	768.9					0.0	162.5	483.0	931.4	0.0	0.0
85.00		475.2	746.9					0.0	162.5	475.2	909.4	0.0	0.0
90.00		268.8	724.9					0.0	162.5	268.8	887.4	0.0	0.0
90.71	Bot - Section 3	234.3	101.6					0.0	23.2	234.3	124.8	0.0	0.0
95.00		261.3	1,111.4					0.0	139.3	261.3	1,250.7	0.0	0.0
96.30	Top - Section 2	230.2	330.3					0.0	42.1	230.2	372.5	0.0	0.0
100.00		395.5	426.3					0.0	120.4	395.5	546.7	0.0	0.0
105.00		445.6	559.6					0.0	162.5	445.6	722.1	0.0	0.0
110.00	Appertunance(s)	435.2	541.3	3,129.5	0.0	0.0	1,331.7	0.0	162.5	3,564.7	2,035.5	0.0	0.0
115.00		424.3	523.0					0.0	147.3	424.3	670.3	0.0	0.0
120.00		291.5	504.7					0.0	147.3	291.5	652.0	0.0	0.0
122.00	Appertunance(s)	203.6	196.7	549.1	0.0	549.8	172.8	0.0	58.9	752.7	428.5	0.0	0.0
125.00		319.2	289.6					0.0	85.7	319.2	375.4	0.0	0.0
130.00		389.3	468.1					0.0	142.9	389.3	610.9	0.0	0.0
135.00		346.8	449.8					0.0	142.9	346.8	592.6	0.0	0.0
139.18	Bot - Section 4	185.7	361.7					0.0	119.3	185.7	481.0	0.0	0.0
140.00	Appertunance(s)	152.4	112.4	3,932.6	0.0	2,560.6	2,268.4	0.0	23.5	4,085.0	2,404.4	0.0	0.0
143.34	Top - Section 3	181.3	448.3					0.0	47.4	181.3	495.7	0.0	0.0
145.00		199.7	82.4					0.0	23.5	199.7	105.9	0.0	0.0
149.00	Appertunance(s)	140.3	194.0	11,438.4	0.0	34,303.7	3,654.0	0.0	56.7	11,578.7	3,904.7	0.0	0.0
Totals:										32,780.3	36,192.2	0.00	0.00

Site Number: 413783

Code: ANSI/TIA-222-G

© 2007 - 2016 by ATC IP LLC. All rights reserved.

Site Name: Kent Pcs CT, CT

Engineering Number: OAA686761_C3_01

10/21/2016 5:36:43 PM

Customer: T-Mobile

Load Case: 0.9D + 1.6W

90 mph with No Ice (Reduced DL)

22 Iterations

Gust Response Factor :1.10

Wind Importance Factor 1.00

Dead Load Factor :0.90

Wind Load Factor :1.60

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-36.15	-32.59	0.00	-3,769.03	0.00	3,769.03	4,482.64	2,241.32	11,092.4	5,554.46	0.00	0.00	0.687
5.00	-34.81	-32.21	0.00	-3,606.09	0.00	3,606.09	4,434.84	2,217.42	10,752.7	5,384.36	0.09	-0.16	0.678
10.00	-33.49	-31.83	0.00	-3,445.07	0.00	3,445.07	4,385.31	2,192.65	10,413.7	5,214.59	0.34	-0.32	0.669
15.00	-32.20	-31.44	0.00	-3,285.94	0.00	3,285.94	4,334.06	2,167.03	10,075.6	5,045.30	0.77	-0.49	0.659
20.00	-30.93	-31.04	0.00	-3,128.73	0.00	3,128.73	4,281.09	2,140.54	9,738.73	4,876.60	1.37	-0.66	0.649
25.00	-29.69	-30.63	0.00	-2,973.51	0.00	2,973.51	4,226.40	2,113.20	9,403.31	4,708.64	2.15	-0.83	0.639
30.00	-28.47	-30.20	0.00	-2,820.38	0.00	2,820.38	4,169.98	2,084.99	9,069.60	4,541.54	3.11	-1.00	0.628
35.00	-27.27	-29.76	0.00	-2,669.39	0.00	2,669.39	4,111.84	2,055.92	8,737.86	4,375.42	4.26	-1.18	0.617
40.00	-26.10	-29.31	0.00	-2,520.60	0.00	2,520.60	4,051.98	2,025.99	8,408.36	4,210.43	5.59	-1.35	0.605
45.00	-24.99	-29.06	0.00	-2,374.06	0.00	2,374.06	3,990.40	1,995.20	8,081.34	4,046.68	7.10	-1.53	0.593
45.09	-24.93	-28.85	0.00	-2,371.54	0.00	2,371.54	3,989.32	1,994.66	8,075.70	4,043.85	7.13	-1.54	0.593
50.00	-22.96	-28.49	0.00	-2,229.80	0.00	2,229.80	3,927.10	1,963.55	7,757.08	3,884.30	8.81	-1.72	0.580
51.92	-22.19	-28.25	0.00	-2,175.10	0.00	2,175.10	3,942.33	1,971.16	7,834.02	3,922.83	9.51	-1.79	0.560
55.00	-21.49	-27.87	0.00	-2,088.09	0.00	2,088.09	3,902.73	1,951.36	7,635.30	3,823.33	10.70	-1.90	0.552
60.00	-20.40	-27.39	0.00	-1,948.72	0.00	1,948.72	3,837.05	1,918.52	7,315.25	3,663.06	12.79	-2.08	0.538
65.00	-19.34	-26.92	0.00	-1,811.75	0.00	1,811.75	3,769.65	1,884.82	6,998.55	3,504.48	15.07	-2.26	0.522
70.00	-18.31	-26.44	0.00	-1,677.18	0.00	1,677.18	3,700.53	1,850.26	6,685.47	3,347.71	17.53	-2.44	0.506
75.00	-17.29	-25.96	0.00	-1,545.00	0.00	1,545.00	3,629.69	1,814.84	6,376.27	3,192.88	20.18	-2.62	0.489
80.00	-16.31	-25.48	0.00	-1,415.21	0.00	1,415.21	3,557.12	1,778.56	6,071.21	3,040.12	23.01	-2.79	0.470
85.00	-15.35	-25.01	0.00	-1,287.79	0.00	1,287.79	3,482.83	1,741.42	5,770.54	2,889.56	26.03	-2.97	0.450
90.00	-14.43	-24.72	0.00	-1,162.75	0.00	1,162.75	3,406.82	1,703.41	5,474.52	2,741.33	29.24	-3.15	0.429
90.71	-14.28	-24.50	0.00	-1,145.11	0.00	1,145.11	3,395.84	1,697.92	5,432.68	2,720.38	29.71	-3.17	0.425
95.00	-13.01	-24.19	0.00	-1,040.09	0.00	1,040.09	3,329.09	1,664.55	5,183.41	2,595.56	32.63	-3.32	0.405
96.30	-12.61	-23.96	0.00	-1,008.72	0.00	1,008.72	2,649.38	1,324.69	4,172.95	2,089.58	33.54	-3.37	0.488
100.00	-12.03	-23.56	0.00	-919.99	0.00	919.99	2,607.49	1,303.74	4,010.55	2,008.26	36.21	-3.50	0.463
105.00	-11.26	-23.11	0.00	-802.17	0.00	802.17	2,549.43	1,274.72	3,793.98	1,899.81	39.97	-3.68	0.427
110.00	-9.40	-19.45	0.00	-686.62	0.00	686.62	2,489.65	1,244.83	3,580.72	1,793.02	43.92	-3.86	0.387
115.00	-8.71	-19.00	0.00	-589.39	0.00	589.39	2,428.15	1,214.08	3,371.05	1,688.03	48.05	-4.03	0.353
120.00	-8.05	-18.68	0.00	-494.37	0.00	494.37	2,364.93	1,182.47	3,165.21	1,584.96	52.35	-4.19	0.316
122.00	-7.65	-17.91	0.00	-456.46	0.00	456.46	2,339.16	1,169.58	3,084.00	1,544.29	54.12	-4.25	0.299
125.00	-7.27	-17.58	0.00	-402.74	0.00	402.74	2,299.99	1,149.99	2,963.46	1,483.93	56.82	-4.34	0.275
130.00	-6.65	-17.16	0.00	-314.85	0.00	314.85	2,226.60	1,113.30	2,757.75	1,380.92	61.43	-4.47	0.231
135.00	-6.06	-16.77	0.00	-229.08	0.00	229.08	2,137.76	1,068.88	2,540.99	1,272.38	66.17	-4.58	0.183
139.18	-5.58	-16.55	0.00	-159.02	0.00	159.02	2,063.55	1,031.78	2,366.73	1,185.12	70.21	-4.66	0.137
140.00	-3.51	-12.29	0.00	-142.83	0.00	142.83	2,048.92	1,024.46	2,333.10	1,168.29	71.01	-4.67	0.124
143.34	-3.03	-12.07	0.00	-101.75	0.00	101.75	1,066.86	533.43	1,206.73	604.26	74.29	-4.71	0.172
145.00	-2.93	-11.86	0.00	-81.75	0.00	81.75	1,057.77	528.89	1,178.96	590.35	75.93	-4.73	0.142
149.00	0.00	-11.58	0.00	-34.30	0.00	34.30	1,035.06	517.53	1,112.30	556.98	79.91	-4.77	0.062

Site Number: 413783

Code: ANSI/TIA-222-G

© 2007 - 2016 by ATC IP LLC. All rights reserved.

Site Name: Kent Pcs CT, CT

Engineering Number: OAA686761_C3_01

10/21/2016 5:36:43 PM

Customer: T-Mobile

Load Case: 1.2D + 1.0Di + 1.0Wi 40 mph with 1.00 in Radial Ice 21 Iterations

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

Dead Load Factor :1.20 Ice Importance Factor :1.00

Wind Load Factor :1.00

Applied Segment Forces Summary

Seg Elev (ft)	Description	Shaft Forces		Discrete Forces			Linear Forces			Sum of Forces			
		Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Torsion MY (lb-ft)	Moment MZ (lb)
0.00		58.1	0.0					0.0	0.0	58.1	0.0	0.0	0.0
5.00		115.5	2,035.3					0.0	216.7	115.5	2,251.9	0.0	0.0
10.00		113.7	2,063.2					0.0	216.7	113.7	2,279.9	0.0	0.0
15.00		113.5	2,055.1					0.0	216.7	113.5	2,271.8	0.0	0.0
20.00		116.3	2,035.2					0.0	216.7	116.3	2,251.8	0.0	0.0
25.00		119.6	2,009.1					0.0	216.7	119.6	2,225.8	0.0	0.0
30.00		121.9	1,979.3					0.0	216.7	121.9	2,195.9	0.0	0.0
35.00		123.5	1,946.7					0.0	216.7	123.5	2,163.4	0.0	0.0
40.00		124.4	1,912.2					0.0	216.7	124.4	2,128.9	0.0	0.0
45.00		63.4	1,876.2					0.0	216.7	63.4	2,092.9	0.0	0.0
45.09	Bot - Section 2	63.3	32.3					0.0	3.8	63.3	36.1	0.0	0.0
50.00		86.6	2,996.4					0.0	212.9	86.6	3,209.3	0.0	0.0
51.92	Top - Section 1	63.3	1,155.0					0.0	83.2	63.3	1,238.2	0.0	0.0
55.00		102.1	1,123.8					0.0	133.5	102.1	1,257.3	0.0	0.0
60.00		125.8	1,789.8					0.0	216.7	125.8	2,006.4	0.0	0.0
65.00		125.0	1,750.0					0.0	216.7	125.0	1,966.7	0.0	0.0
70.00		124.0	1,709.6					0.0	216.7	124.0	1,926.3	0.0	0.0
75.00		122.8	1,668.7					0.0	216.7	122.8	1,885.3	0.0	0.0
80.00		121.4	1,627.2					0.0	216.7	121.4	1,843.9	0.0	0.0
85.00		119.8	1,585.3					0.0	216.7	119.8	1,802.0	0.0	0.0
90.00		67.9	1,543.0					0.0	216.7	67.9	1,759.7	0.0	0.0
90.71	Bot - Section 3	59.3	217.7					0.0	30.9	59.3	248.6	0.0	0.0
95.00		66.2	1,972.2					0.0	185.8	66.2	2,158.0	0.0	0.0
96.30	Top - Section 2	58.5	588.1					0.0	56.2	58.5	644.3	0.0	0.0
100.00		100.7	982.1					0.0	160.5	100.7	1,142.5	0.0	0.0
105.00		113.9	1,290.3					0.0	216.7	113.9	1,506.9	0.0	0.0
110.00	Appertunance(s)	111.7	1,251.6	542.0	0.0	0.0	5,130.9	0.0	216.7	653.7	6,599.2	0.0	0.0
115.00		109.3	1,212.7					0.0	196.4	109.3	1,409.1	0.0	0.0
120.00		75.4	1,173.5					0.0	196.4	75.4	1,369.9	0.0	0.0
122.00	Appertunance(s)	52.9	460.4	129.5	0.0	129.7	597.3	0.0	78.6	182.4	1,136.3	0.0	0.0
125.00		83.1	677.8					0.0	114.3	83.1	792.1	0.0	0.0
130.00		101.9	1,094.4					0.0	190.5	101.9	1,284.9	0.0	0.0
135.00		91.2	1,054.6					0.0	190.5	91.2	1,245.1	0.0	0.0
139.18	Bot - Section 4	49.0	851.5					0.0	159.1	49.0	1,010.6	0.0	0.0
140.00	Appertunance(s)	40.4	223.2	788.8	0.0	438.8	6,570.1	0.0	31.4	829.2	6,824.7	0.0	0.0
143.34	Top - Section 3	48.1	888.2					0.0	63.2	48.1	951.4	0.0	0.0
145.00		53.2	252.2					0.0	31.3	53.2	283.5	0.0	0.0
149.00	Appertunance(s)	37.4	591.8	2,588.1	0.0	8,406.2	13,372.8	0.0	75.6	2,625.6	14,040.2	0.0	0.0
Totals:										7,492.68	81,440.8	0.00	0.00

Site Number: 413783

Code: ANSI/TIA-222-G

© 2007 - 2016 by ATC IP LLC. All rights reserved.

Site Name: Kent Pcs CT, CT

Engineering Number: OAA686761_C3_01

10/21/2016 5:36:44 PM

Customer: T-Mobile

Load Case: 1.2D + 1.0Di + 1.0Wi

40 mph with 1.00 in Radial Ice

21 Iterations

Gust Response Factor :1.10

Ice Dead Load Factor :1.00

Wind Importance Factor :1.00

Dead Load Factor :1.20

Ice Importance Factor :1.00

Wind Load Factor :1.00

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-81.44	-7.46	0.00	-889.22	0.00	889.22	4,482.64	2,241.32	11,092.4	5,554.46	0.00	0.00	0.178
5.00	-79.18	-7.40	0.00	-851.92	0.00	851.92	4,434.84	2,217.42	10,752.7	5,384.36	0.02	-0.04	0.176
10.00	-76.90	-7.33	0.00	-814.93	0.00	814.93	4,385.31	2,192.65	10,413.7	5,214.59	0.08	-0.08	0.174
15.00	-74.62	-7.27	0.00	-778.26	0.00	778.26	4,334.06	2,167.03	10,075.6	5,045.30	0.18	-0.12	0.171
20.00	-72.36	-7.20	0.00	-741.92	0.00	741.92	4,281.09	2,140.54	9,738.73	4,876.60	0.32	-0.16	0.169
25.00	-70.13	-7.12	0.00	-705.93	0.00	705.93	4,226.40	2,113.20	9,403.31	4,708.64	0.51	-0.20	0.167
30.00	-67.93	-7.04	0.00	-670.33	0.00	670.33	4,169.98	2,084.99	9,069.60	4,541.54	0.74	-0.24	0.164
35.00	-65.76	-6.95	0.00	-635.14	0.00	635.14	4,111.84	2,055.92	8,737.86	4,375.42	1.01	-0.28	0.161
40.00	-63.63	-6.87	0.00	-600.36	0.00	600.36	4,051.98	2,025.99	8,408.36	4,210.43	1.32	-0.32	0.158
45.00	-61.54	-6.81	0.00	-566.03	0.00	566.03	3,990.40	1,995.20	8,081.34	4,046.68	1.68	-0.36	0.155
45.09	-61.50	-6.77	0.00	-565.44	0.00	565.44	3,989.32	1,994.66	8,075.70	4,043.85	1.69	-0.36	0.155
50.00	-58.29	-6.70	0.00	-532.16	0.00	532.16	3,927.10	1,963.55	7,757.08	3,884.30	2.09	-0.41	0.152
51.92	-57.05	-6.65	0.00	-519.30	0.00	519.30	3,942.33	1,971.16	7,834.02	3,922.83	2.25	-0.42	0.147
55.00	-55.79	-6.57	0.00	-498.84	0.00	498.84	3,902.73	1,951.36	7,635.30	3,823.33	2.54	-0.45	0.145
60.00	-53.78	-6.47	0.00	-466.00	0.00	466.00	3,837.05	1,918.52	7,315.25	3,663.06	3.03	-0.49	0.141
65.00	-51.80	-6.36	0.00	-433.67	0.00	433.67	3,769.65	1,884.82	6,998.55	3,504.48	3.57	-0.54	0.138
70.00	-49.88	-6.26	0.00	-401.86	0.00	401.86	3,700.53	1,850.26	6,685.47	3,347.71	4.16	-0.58	0.134
75.00	-47.99	-6.15	0.00	-370.58	0.00	370.58	3,629.69	1,814.84	6,376.27	3,192.88	4.79	-0.62	0.129
80.00	-46.14	-6.04	0.00	-339.84	0.00	339.84	3,557.12	1,778.56	6,071.21	3,040.12	5.47	-0.67	0.125
85.00	-44.34	-5.93	0.00	-309.63	0.00	309.63	3,482.83	1,741.42	5,770.54	2,889.56	6.19	-0.71	0.120
90.00	-42.57	-5.86	0.00	-279.96	0.00	279.96	3,406.82	1,703.41	5,474.52	2,741.33	6.95	-0.75	0.115
90.71	-42.32	-5.81	0.00	-275.78	0.00	275.78	3,395.84	1,697.92	5,432.68	2,720.38	7.06	-0.76	0.114
95.00	-40.16	-5.74	0.00	-250.86	0.00	250.86	3,329.09	1,664.55	5,183.41	2,595.56	7.76	-0.79	0.109
96.30	-39.52	-5.68	0.00	-243.42	0.00	243.42	2,649.38	1,324.69	4,172.95	2,089.58	7.98	-0.80	0.131
100.00	-38.37	-5.59	0.00	-222.38	0.00	222.38	2,607.49	1,303.74	4,010.55	2,008.26	8.61	-0.83	0.125
105.00	-36.87	-5.48	0.00	-194.43	0.00	194.43	2,549.43	1,274.72	3,793.98	1,899.81	9.51	-0.88	0.117
110.00	-30.27	-4.75	0.00	-167.02	0.00	167.02	2,489.65	1,244.83	3,580.72	1,793.02	10.46	-0.92	0.105
115.00	-28.86	-4.63	0.00	-143.28	0.00	143.28	2,428.15	1,214.08	3,371.05	1,688.03	11.44	-0.96	0.097
120.00	-27.49	-4.55	0.00	-120.11	0.00	120.11	2,364.93	1,182.47	3,165.21	1,584.96	12.48	-1.00	0.087
122.00	-26.36	-4.35	0.00	-110.88	0.00	110.88	2,339.16	1,169.58	3,084.00	1,544.29	12.90	-1.02	0.083
125.00	-25.57	-4.27	0.00	-97.82	0.00	97.82	2,299.99	1,149.99	2,963.46	1,483.93	13.54	-1.04	0.077
130.00	-24.28	-4.16	0.00	-76.47	0.00	76.47	2,226.60	1,113.30	2,757.75	1,380.92	14.65	-1.07	0.066
135.00	-23.04	-4.05	0.00	-55.69	0.00	55.69	2,137.76	1,068.88	2,540.99	1,272.38	15.79	-1.10	0.055
139.18	-22.03	-3.99	0.00	-38.77	0.00	38.77	2,063.55	1,031.78	2,366.73	1,185.12	16.76	-1.12	0.043
140.00	-15.22	-3.03	0.00	-35.05	0.00	35.05	2,048.92	1,024.46	2,333.10	1,168.29	16.95	-1.12	0.037
143.34	-14.27	-2.96	0.00	-24.93	0.00	24.93	1,066.86	533.43	1,206.73	604.26	17.74	-1.13	0.055
145.00	-13.99	-2.90	0.00	-20.02	0.00	20.02	1,057.77	528.89	1,178.96	590.35	18.13	-1.13	0.047
149.00	0.00	-2.63	0.00	-8.41	0.00	8.41	1,035.06	517.53	1,112.30	556.98	19.09	-1.15	0.015

Site Number: 413783

Code: ANSI/TIA-222-G

© 2007 - 2016 by ATC IP LLC. All rights reserved.

Site Name: Kent Pcs CT, CT

Engineering Number: OAA686761_C3_01

10/21/2016 5:36:44 PM

Customer: T-Mobile

Load Case: 1.0D + 1.0W

Serviceability 60 mph

21 Iterations

Gust Response Factor :1.10

Wind Importance Factor 1.00

Dead Load Factor :1.00

Wind Load Factor :1.00

Applied Segment Forces Summary

Seg Elev (ft)	Description	Shaft Forces		Discrete Forces			Linear Forces			Sum of Forces			
		Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Torsion MY (lb-ft)	Moment MZ (lb)
0.00		67.4	0.0					0.0	0.0	67.4	0.0	0.0	0.0
5.00		133.5	1,205.3					0.0	180.6	133.5	1,385.9	0.0	0.0
10.00		130.8	1,180.9					0.0	180.6	130.8	1,361.5	0.0	0.0
15.00		130.1	1,156.5					0.0	180.6	130.1	1,337.0	0.0	0.0
20.00		132.8	1,132.1					0.0	180.6	132.8	1,312.6	0.0	0.0
25.00		136.2	1,107.7					0.0	180.6	136.2	1,288.2	0.0	0.0
30.00		138.5	1,083.3					0.0	180.6	138.5	1,263.8	0.0	0.0
35.00		139.8	1,058.8					0.0	180.6	139.8	1,239.4	0.0	0.0
40.00		140.5	1,034.4					0.0	180.6	140.5	1,215.0	0.0	0.0
45.00		71.6	1,010.0					0.0	180.6	71.6	1,190.6	0.0	0.0
45.09	Bot - Section 2	71.3	17.3					0.0	3.1	71.3	20.4	0.0	0.0
50.00		97.5	1,951.5					0.0	177.4	97.5	2,129.0	0.0	0.0
51.92	Top - Section 1	71.1	749.8					0.0	69.3	71.1	819.1	0.0	0.0
55.00		114.4	598.6					0.0	111.2	114.4	709.8	0.0	0.0
60.00		140.8	952.0					0.0	180.6	140.8	1,132.5	0.0	0.0
65.00		139.5	927.5					0.0	180.6	139.5	1,108.1	0.0	0.0
70.00		137.9	903.1					0.0	180.6	137.9	1,083.7	0.0	0.0
75.00		136.2	878.7					0.0	180.6	136.2	1,059.3	0.0	0.0
80.00		134.2	854.3					0.0	180.6	134.2	1,034.9	0.0	0.0
85.00		132.0	829.9					0.0	180.6	132.0	1,010.4	0.0	0.0
90.00		74.7	805.5					0.0	180.6	74.7	986.0	0.0	0.0
90.71	Bot - Section 3	65.1	112.9					0.0	25.8	65.1	138.7	0.0	0.0
95.00		72.6	1,234.9					0.0	154.8	72.6	1,389.7	0.0	0.0
96.30	Top - Section 2	64.0	367.1					0.0	46.8	64.0	413.9	0.0	0.0
100.00		109.9	473.7					0.0	133.7	109.9	607.4	0.0	0.0
105.00		123.8	621.8					0.0	180.6	123.8	802.3	0.0	0.0
110.00	Appertunance(s)	120.9	601.5	869.3	0.0	0.0	1,479.7	0.0	180.6	990.2	2,261.7	0.0	0.0
115.00		117.9	581.1					0.0	163.7	117.9	744.8	0.0	0.0
120.00		81.0	560.8					0.0	163.7	81.0	724.5	0.0	0.0
122.00	Appertunance(s)	56.6	218.6	152.5	0.0	152.7	192.0	0.0	65.5	209.1	476.1	0.0	0.0
125.00		88.7	321.8					0.0	95.2	88.7	417.1	0.0	0.0
130.00		108.1	520.1					0.0	158.8	108.1	678.8	0.0	0.0
135.00		96.3	499.7					0.0	158.8	96.3	658.5	0.0	0.0
139.18	Bot - Section 4	51.6	401.8					0.0	132.6	51.6	534.5	0.0	0.0
140.00	Appertunance(s)	42.3	124.9	1,092.4	0.0	711.3	2,520.5	0.0	26.1	1,134.7	2,671.5	0.0	0.0
143.34	Top - Section 3	50.4	498.1					0.0	52.7	50.4	550.8	0.0	0.0
145.00		55.5	91.6					0.0	26.1	55.5	117.7	0.0	0.0
149.00	Appertunance(s)	39.0	215.6	3,177.3	0.0	9,528.8	4,060.0	0.0	63.0	3,216.3	4,338.6	0.0	0.0
Totals:										9,105.64	40,213.6	0.00	0.00

Site Number: 413783

Code: ANSI/TIA-222-G

© 2007 - 2016 by ATC IP LLC. All rights reserved.

Site Name: Kent Pcs CT, CT

Engineering Number: OAA686761_C3_01

10/21/2016 5:36:45 PM

Customer: T-Mobile

Load Case: 1.0D + 1.0W

Serviceability 60 mph

21 Iterations

Gust Response Factor :1.10

Wind Importance Factor :1.00

Dead Load Factor :1.00

Wind Load Factor :1.00

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-40.21	-9.05	0.00	-1,050.95	0.00	1,050.95	4,482.64	2,241.32	11,092.4	5,554.46	0.00	0.00	0.198
5.00	-38.82	-8.95	0.00	-1,005.69	0.00	1,005.69	4,434.84	2,217.42	10,752.7	5,384.36	0.02	-0.04	0.196
10.00	-37.45	-8.85	0.00	-960.94	0.00	960.94	4,385.31	2,192.65	10,413.7	5,214.59	0.10	-0.09	0.193
15.00	-36.10	-8.74	0.00	-916.70	0.00	916.70	4,334.06	2,167.03	10,075.6	5,045.30	0.21	-0.14	0.190
20.00	-34.79	-8.64	0.00	-872.98	0.00	872.98	4,281.09	2,140.54	9,738.73	4,876.60	0.38	-0.18	0.187
25.00	-33.49	-8.52	0.00	-829.80	0.00	829.80	4,226.40	2,113.20	9,403.31	4,708.64	0.60	-0.23	0.184
30.00	-32.22	-8.41	0.00	-787.18	0.00	787.18	4,169.98	2,084.99	9,069.60	4,541.54	0.87	-0.28	0.181
35.00	-30.97	-8.29	0.00	-745.14	0.00	745.14	4,111.84	2,055.92	8,737.86	4,375.42	1.19	-0.33	0.178
40.00	-29.75	-8.17	0.00	-703.71	0.00	703.71	4,051.98	2,025.99	8,408.36	4,210.43	1.56	-0.38	0.174
45.00	-28.56	-8.10	0.00	-662.88	0.00	662.88	3,990.40	1,995.20	8,081.34	4,046.68	1.98	-0.43	0.171
45.09	-28.54	-8.04	0.00	-662.18	0.00	662.18	3,989.32	1,994.66	8,075.70	4,043.85	1.99	-0.43	0.171
50.00	-26.40	-7.94	0.00	-622.68	0.00	622.68	3,927.10	1,963.55	7,757.08	3,884.30	2.46	-0.48	0.167
51.92	-25.58	-7.87	0.00	-607.44	0.00	607.44	3,942.33	1,971.16	7,834.02	3,922.83	2.65	-0.50	0.161
55.00	-24.87	-7.77	0.00	-583.18	0.00	583.18	3,902.73	1,951.36	7,635.30	3,823.33	2.99	-0.53	0.159
60.00	-23.73	-7.64	0.00	-544.33	0.00	544.33	3,837.05	1,918.52	7,315.25	3,663.06	3.57	-0.58	0.155
65.00	-22.62	-7.51	0.00	-506.13	0.00	506.13	3,769.65	1,884.82	6,998.55	3,504.48	4.20	-0.63	0.150
70.00	-21.53	-7.38	0.00	-468.58	0.00	468.58	3,700.53	1,850.26	6,685.47	3,347.71	4.89	-0.68	0.146
75.00	-20.46	-7.25	0.00	-431.70	0.00	431.70	3,629.69	1,814.84	6,376.27	3,192.88	5.63	-0.73	0.141
80.00	-19.42	-7.11	0.00	-395.47	0.00	395.47	3,557.12	1,778.56	6,071.21	3,040.12	6.42	-0.78	0.136
85.00	-18.41	-6.98	0.00	-359.90	0.00	359.90	3,482.83	1,741.42	5,770.54	2,889.56	7.27	-0.83	0.130
90.00	-17.42	-6.90	0.00	-324.97	0.00	324.97	3,406.82	1,703.41	5,474.52	2,741.33	8.16	-0.88	0.124
90.71	-17.28	-6.84	0.00	-320.05	0.00	320.05	3,395.84	1,697.92	5,432.68	2,720.38	8.30	-0.89	0.123
95.00	-15.89	-6.76	0.00	-290.71	0.00	290.71	3,329.09	1,664.55	5,183.41	2,595.56	9.11	-0.93	0.117
96.30	-15.47	-6.69	0.00	-281.95	0.00	281.95	2,649.38	1,324.69	4,172.95	2,089.58	9.36	-0.94	0.141
100.00	-14.86	-6.58	0.00	-257.17	0.00	257.17	2,607.49	1,303.74	4,010.55	2,008.26	10.11	-0.98	0.134
105.00	-14.06	-6.46	0.00	-224.24	0.00	224.24	2,549.43	1,274.72	3,793.98	1,899.81	11.16	-1.03	0.124
110.00	-11.81	-5.44	0.00	-191.95	0.00	191.95	2,489.65	1,244.83	3,580.72	1,793.02	12.26	-1.08	0.112
115.00	-11.06	-5.31	0.00	-164.76	0.00	164.76	2,428.15	1,214.08	3,371.05	1,688.03	13.42	-1.13	0.102
120.00	-10.34	-5.22	0.00	-138.19	0.00	138.19	2,364.93	1,182.47	3,165.21	1,584.96	14.62	-1.17	0.092
122.00	-9.86	-5.01	0.00	-127.59	0.00	127.59	2,339.16	1,169.58	3,084.00	1,544.29	15.11	-1.19	0.087
125.00	-9.45	-4.92	0.00	-112.57	0.00	112.57	2,299.99	1,149.99	2,963.46	1,483.93	15.87	-1.21	0.080
130.00	-8.77	-4.80	0.00	-87.98	0.00	87.98	2,226.60	1,113.30	2,757.75	1,380.92	17.16	-1.25	0.068
135.00	-8.11	-4.69	0.00	-63.99	0.00	63.99	2,137.76	1,068.88	2,540.99	1,272.38	18.48	-1.28	0.054
139.18	-7.58	-4.63	0.00	-44.39	0.00	44.39	2,063.55	1,031.78	2,366.73	1,185.12	19.61	-1.30	0.041
140.00	-4.93	-3.44	0.00	-39.87	0.00	39.87	2,048.92	1,024.46	2,333.10	1,168.29	19.84	-1.30	0.037
143.34	-4.38	-3.37	0.00	-28.38	0.00	28.38	1,066.86	533.43	1,206.73	604.26	20.75	-1.32	0.051
145.00	-4.26	-3.32	0.00	-22.79	0.00	22.79	1,057.77	528.89	1,178.96	590.35	21.21	-1.32	0.043
149.00	0.00	-3.22	0.00	-9.53	0.00	9.53	1,035.06	517.53	1,112.30	556.98	22.33	-1.33	0.017

Site Number: 413783

Code: ANSI/TIA-222-G

© 2007 - 2016 by ATC IP LLC. All rights reserved.

Site Name: Kent Pcs CT, CT

Engineering Number: OAA686761_C3_01

10/21/2016 5:36:45 PM

Customer: T-Mobile

Equivalent Lateral Forces Method Analysis

(Based on ASCE7-10 Chapters 11, 12, 15)

Spectral Response Acceleration for Short Period (S_{ps}):	0.19
Spectral Response Acceleration at 1.0 Second Period (S_{p1}):	0.06
Long-Period Transition Period (T_L):	6
Importance Factor (I_E):	1.00
Site Coefficient F_a :	1.60
Site Coefficient F_v :	2.40
Response Modification Coefficient (R):	1.50
Design Spectral Response Acceleration at Short Period (S_{ds}):	0.20
Design Spectral Response Acceleration at 1.0 Second Period (S_{d1}):	0.10
Seismic Response Coefficient (C_s):	0.03
Upper Limit C_s	0.03
Lower Limit C_s	0.03
Period based on Rayleigh Method (sec):	2.01
Redundancy Factor (ρ):	1.30
Seismic Force Distribution Exponent (k):	1.76
Total Unfactored Dead Load:	40.21 k
Seismic Base Shear (E):	1.66 k

Load Case (1.2 + 0.2Sds) * DL + E ELFM

Seismic Equivalent Lateral Forces Method

Segment	Height Above Base (ft)	Weight (lb)	W_z (lb-ft)	C_{vx}	Horizontal Force (lb)	Vertical Force (lb)
37	147.00	279	1,780	0.017	28	346
36	144.17	118	727	0.007	11	146
35	141.67	551	3,298	0.031	51	683
34	139.59	151	881	0.008	14	187
33	137.09	534	3,021	0.028	47	663
32	132.50	658	3,506	0.033	54	817
31	127.50	679	3,378	0.031	52	842
30	123.50	417	1,963	0.018	30	517
29	121.00	284	1,290	0.012	20	352
28	117.50	724	3,124	0.029	48	899
27	112.50	745	2,975	0.028	46	924
26	107.50	782	2,884	0.027	45	970
25	102.50	802	2,722	0.025	42	995
24	98.15	607	1,909	0.018	30	753
23	95.65	414	1,243	0.012	19	513
22	92.86	1,390	3,963	0.037	61	1,724
21	90.36	139	377	0.004	6	172
20	87.50	986	2,534	0.024	39	1,223
19	82.50	1,010	2,341	0.022	36	1,253
18	77.50	1,035	2,149	0.020	33	1,284
17	72.50	1,059	1,956	0.018	30	1,314
16	67.50	1,084	1,765	0.016	27	1,344
15	62.50	1,108	1,577	0.015	24	1,374

Site Number: 413783

Code: ANSITIA-222-G

© 2007 - 2016 by ATC IP LLC. All rights reserved.

Site Name: Kent Pcs CT, CT

Engineering Number: OAA686761_C3_01

10/21/2016 5:36:45 PM

Customer: T-Mobile

14	57.50	1,133	1,392	0.013	22	1,405
13	53.46	710	768	0.007	12	880
12	50.96	819	815	0.008	13	1,016
11	47.54	2,129	1,874	0.017	29	2,641
10	45.04	20	16	0.000	0	25
9	42.50	1,191	861	0.008	13	1,477
8	37.50	1,215	705	0.007	11	1,507
7	32.50	1,239	560	0.005	9	1,537
6	27.50	1,264	426	0.004	7	1,568
5	22.50	1,288	305	0.003	5	1,598
4	17.50	1,313	200	0.002	3	1,628
3	12.50	1,337	113	0.001	2	1,658
2	7.50	1,361	47	0.000	1	1,689
1	2.50	1,386	7	0.000	0	1,719
3' Yagi	149.00	10	65	0.001	1	12
Amphenol Antel LPA-1	149.00	32	206	0.002	3	39
RFS Celwave PD220	149.00	50	327	0.003	5	62
Antel BXA-70063/6CF_	149.00	51	334	0.003	5	63
Antel LPA-80080/6CF	149.00	126	824	0.008	13	156
Flat Low Profile Pla	149.00	1,500	9,814	0.091	152	1,860
VZW Unused Reserve:	149.00	2,292	14,993	0.140	232	2,842
Andrew ABT-DFDM-ADB	140.00	1	6	0.000	0	1
Powerwave Allgon TT0	140.00	198	1,161	0.011	18	246
Ericsson RRUS-11	140.00	330	1,935	0.018	30	409
Raycap DC6-48-60-18	140.00	30	176	0.002	3	37
KMW AM-X-CD-14-65-00	140.00	73	427	0.004	7	90
Powerwave Allgon 777	140.00	210	1,232	0.011	19	260
Kathrein Scala 800 1	140.00	82	479	0.004	7	101
KMW AM-X-CD-16-65-00	140.00	97	569	0.005	9	120
Round Low Profile PI	140.00	1,500	8,797	0.082	136	1,860
Decibel DB222	122.00	32	147	0.001	2	40
Stand Off	122.00	150	691	0.006	11	186
3' Yagi	122.00	10	46	0.000	1	12
Symmetricom 58532A	110.00	0	2	0.000	0	0
Ericsson RRUS 11 B12	110.00	152	584	0.005	9	189
Ericsson RRUS 11 B4	110.00	152	584	0.005	9	189
Ericsson RRUS 11 B2	110.00	152	584	0.005	9	189
RFS APX16DWV-16DWVS-	110.00	122	469	0.004	7	151
Commscope LNX-6515DS	110.00	151	579	0.005	9	187
Flat T-Arm	110.00	750	2,880	0.027	45	930
		40,214	107,365	1.000	1,663	49,878

Load Case (0.9 - 0.2Sds) * DL + E ELFM

Seismic (Reduced DL) Equivalent Lateral Forces Method

Segment	Height Above Base (ft)	Weight (lb)	W _z (lb-ft)	C _{vx}	Horizontal Force (lb)	Vertical Force (lb)
37	147.00	279	1,780	0.017	28	240
36	144.17	118	727	0.007	11	101
35	141.67	551	3,298	0.031	51	473
34	139.59	151	881	0.008	14	130
33	137.09	534	3,021	0.028	47	459
32	132.50	658	3,506	0.033	54	566
31	127.50	679	3,378	0.031	52	584
30	123.50	417	1,963	0.018	30	359
29	121.00	284	1,290	0.012	20	244
28	117.50	724	3,124	0.029	48	623
27	112.50	745	2,975	0.028	46	640
26	107.50	782	2,884	0.027	45	672
25	102.50	802	2,722	0.025	42	690
24	98.15	607	1,909	0.018	30	522

Site Number: 413783

Code: ANSI/TIA-222-G

© 2007 - 2016 by ATC IP LLC. All rights reserved.

Site Name: Kent Pcs CT, CT

Engineering Number:OAA686761_C3_01

10/21/2016 5:36:45 PM

Customer: T-Mobile

23	95.65	414	1,243	0.012	19	356
22	92.86	1,390	3,963	0.037	61	1,195
21	90.36	139	377	0.004	6	119
20	87.50	986	2,534	0.024	39	848
19	82.50	1,010	2,341	0.022	36	869
18	77.50	1,035	2,149	0.020	33	890
17	72.50	1,059	1,956	0.018	30	911
16	67.50	1,084	1,765	0.016	27	932
15	62.50	1,108	1,577	0.015	24	953
14	57.50	1,133	1,392	0.013	22	974
13	53.46	710	768	0.007	12	610
12	50.96	819	815	0.008	13	704
11	47.54	2,129	1,874	0.017	29	1,830
10	45.04	20	16	0.000	0	18
9	42.50	1,191	861	0.008	13	1,024
8	37.50	1,215	705	0.007	11	1,044
7	32.50	1,239	560	0.005	9	1,065
6	27.50	1,264	426	0.004	7	1,086
5	22.50	1,288	305	0.003	5	1,107
4	17.50	1,313	200	0.002	3	1,128
3	12.50	1,337	113	0.001	2	1,149
2	7.50	1,361	47	0.000	1	1,170
1	2.50	1,386	7	0.000	0	1,191
3' Yagi	149.00	10	65	0.001	1	9
Amphenol Antel LPA-1	149.00	32	206	0.002	3	27
RFS Celwave PD220	149.00	50	327	0.003	5	43
Antel BXA-70063/6CF_	149.00	51	334	0.003	5	44
Antel LPA-80080/6CF	149.00	126	824	0.008	13	108
Flat Low Profile Pla	149.00	1,500	9,814	0.091	152	1,290
VZW Unused Reserve:	149.00	2,292	14,993	0.140	232	1,970
Andrew ABT-DFDM-ADB	140.00	1	6	0.000	0	1
Powerwave Allgon TT0	140.00	198	1,161	0.011	18	170
Ericsson RRUS-11	140.00	330	1,935	0.018	30	284
Raycap DC6-48-60-18	140.00	30	176	0.002	3	26
KMW AM-X-CD-14-65-00	140.00	73	427	0.004	7	63
Powerwave Allgon 777	140.00	210	1,232	0.011	19	181
Kathrein Scala 800 1	140.00	82	479	0.004	7	70
KMW AM-X-CD-16-65-00	140.00	97	569	0.005	9	83
Round Low Profile PI	140.00	1,500	8,797	0.082	136	1,290
Decibel DB222	122.00	32	147	0.001	2	28
Stand Off	122.00	150	691	0.006	11	129
3' Yagi	122.00	10	46	0.000	1	9
Symmetricom 58532A	110.00	0	2	0.000	0	0
Ericsson RRUS 11 B12	110.00	152	584	0.005	9	131
Ericsson RRUS 11 B4	110.00	152	584	0.005	9	131
Ericsson RRUS 11 B2	110.00	152	584	0.005	9	131
RFS APX16DWV-16DWVS-	110.00	122	469	0.004	7	105
Commscope LNX-6515DS	110.00	151	579	0.005	9	130
Flat T-Arm	110.00	750	2,880	0.027	45	645
		40,214	107,365	1.000	1,663	34,571

Site Number: 413783

Code: ANSI/TIA-222-G

© 2007 - 2016 by ATC IP LLC. All rights reserved.

Site Name: Kent Pcs CT, CT

Engineering Number: OAA686761_C3_01

10/21/2016 5:36:45 PM

Customer: T-Mobile

Load Case (1.2 + 0.2Sds) * DL + E ELMF

Seismic Equivalent Lateral Forces Method

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-48.16	-1.67	0.00	-201.52	0.00	201.52	4,482.64	2,241.32	11,092.4	5,554.46	0.00	0.00	0.047
5.00	-46.47	-1.67	0.00	-193.19	0.00	193.19	4,434.84	2,217.42	10,752.7	5,384.36	0.00	-0.01	0.046
10.00	-44.81	-1.68	0.00	-184.83	0.00	184.83	4,385.31	2,192.65	10,413.7	5,214.59	0.02	-0.02	0.046
15.00	-43.18	-1.68	0.00	-176.44	0.00	176.44	4,334.06	2,167.03	10,075.6	5,045.30	0.04	-0.03	0.045
20.00	-41.58	-1.68	0.00	-168.04	0.00	168.04	4,281.09	2,140.54	9,738.73	4,876.60	0.07	-0.04	0.044
25.00	-40.02	-1.68	0.00	-159.64	0.00	159.64	4,226.40	2,113.20	9,403.31	4,708.64	0.12	-0.04	0.043
30.00	-38.48	-1.68	0.00	-151.24	0.00	151.24	4,169.98	2,084.99	9,069.60	4,541.54	0.17	-0.05	0.043
35.00	-36.97	-1.67	0.00	-142.86	0.00	142.86	4,111.84	2,055.92	8,737.86	4,375.42	0.23	-0.06	0.042
40.00	-35.50	-1.66	0.00	-134.51	0.00	134.51	4,051.98	2,025.99	8,408.36	4,210.43	0.30	-0.07	0.041
45.00	-35.47	-1.66	0.00	-126.20	0.00	126.20	3,990.40	1,995.20	8,081.34	4,046.68	0.38	-0.08	0.040
45.09	-32.83	-1.63	0.00	-126.06	0.00	126.06	3,989.32	1,994.66	8,075.70	4,043.85	0.38	-0.08	0.039
50.00	-31.81	-1.62	0.00	-118.03	0.00	118.03	3,927.10	1,963.55	7,757.08	3,884.30	0.47	-0.09	0.038
51.92	-30.93	-1.61	0.00	-114.92	0.00	114.92	3,942.33	1,971.16	7,834.02	3,922.83	0.51	-0.10	0.037
55.00	-29.53	-1.59	0.00	-109.95	0.00	109.95	3,902.73	1,951.36	7,635.30	3,823.33	0.57	-0.10	0.036
60.00	-28.15	-1.57	0.00	-101.99	0.00	101.99	3,837.05	1,918.52	7,315.25	3,663.06	0.69	-0.11	0.035
65.00	-26.81	-1.54	0.00	-94.14	0.00	94.14	3,769.65	1,884.82	6,998.55	3,504.48	0.81	-0.12	0.034
70.00	-25.49	-1.52	0.00	-86.42	0.00	86.42	3,700.53	1,850.26	6,685.47	3,347.71	0.94	-0.13	0.033
75.00	-24.21	-1.48	0.00	-78.85	0.00	78.85	3,629.69	1,814.84	6,376.27	3,192.88	1.08	-0.14	0.031
80.00	-22.96	-1.45	0.00	-71.43	0.00	71.43	3,557.12	1,778.56	6,071.21	3,040.12	1.23	-0.15	0.030
85.00	-21.73	-1.41	0.00	-64.20	0.00	64.20	3,482.83	1,741.42	5,770.54	2,889.56	1.39	-0.16	0.028
90.00	-21.56	-1.40	0.00	-57.16	0.00	57.16	3,406.82	1,703.41	5,474.52	2,741.33	1.56	-0.17	0.027
90.71	-19.84	-1.34	0.00	-56.16	0.00	56.16	3,395.84	1,697.92	5,432.68	2,720.38	1.58	-0.17	0.026
95.00	-19.33	-1.32	0.00	-50.42	0.00	50.42	3,329.09	1,664.55	5,183.41	2,595.56	1.73	-0.17	0.025
96.30	-18.57	-1.29	0.00	-48.71	0.00	48.71	2,649.38	1,324.69	4,172.95	2,089.58	1.78	-0.18	0.030
100.00	-17.58	-1.25	0.00	-43.94	0.00	43.94	2,607.49	1,303.74	4,010.55	2,008.26	1.92	-0.18	0.029
105.00	-16.61	-1.20	0.00	-37.71	0.00	37.71	2,549.43	1,274.72	3,793.98	1,899.81	2.12	-0.19	0.026
110.00	-13.85	-1.06	0.00	-31.71	0.00	31.71	2,489.65	1,244.83	3,580.72	1,793.02	2.32	-0.20	0.023
115.00	-12.95	-1.01	0.00	-26.42	0.00	26.42	2,428.15	1,214.08	3,371.05	1,688.03	2.54	-0.21	0.021
120.00	-12.60	-0.99	0.00	-21.37	0.00	21.37	2,364.93	1,182.47	3,165.21	1,584.96	2.76	-0.21	0.019
122.00	-11.84	-0.94	0.00	-19.39	0.00	19.39	2,339.16	1,169.58	3,084.00	1,544.29	2.85	-0.22	0.018
125.00	-11.00	-0.89	0.00	-16.57	0.00	16.57	2,299.99	1,149.99	2,963.46	1,483.93	2.98	-0.22	0.016
130.00	-10.18	-0.83	0.00	-12.13	0.00	12.13	2,226.60	1,113.30	2,757.75	1,380.92	3.22	-0.23	0.013
135.00	-9.52	-0.78	0.00	-7.97	0.00	7.97	2,137.76	1,068.88	2,540.99	1,272.38	3.46	-0.23	0.011
139.18	-9.33	-0.77	0.00	-4.70	0.00	4.70	2,063.55	1,031.78	2,366.73	1,185.12	3.66	-0.23	0.008
140.00	-5.53	-0.47	0.00	-4.07	0.00	4.07	2,048.92	1,024.46	2,333.10	1,168.29	3.70	-0.23	0.006
143.34	-5.38	-0.46	0.00	-2.49	0.00	2.49	1,066.86	533.43	1,206.73	604.26	3.86	-0.23	0.009
145.00	-5.03	-0.43	0.00	-1.73	0.00	1.73	1,057.77	528.89	1,178.96	590.35	3.94	-0.23	0.008
149.00	0.00	-0.41	0.00	0.00	0.00	0.00	1,035.06	517.53	1,112.30	556.98	4.14	-0.23	0.000

Site Number: 413783

Code: ANSI/TIA-222-G

© 2007 - 2016 by ATC IP LLC. All rights reserved.

Site Name: Kent Pcs CT, CT

Engineering Number: OAA686761_C3_01

10/21/2016 5:36:45 PM

Customer: T-Mobile

Load Case (0.9 - 0.2Sds) * DL + E ELFM

Seismic (Reduced DL) Equivalent Lateral Forces Method

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-33.38	-1.67	0.00	-199.47	0.00	199.47	4,482.64	2,241.32	11,092.4	5,554.46	0.00	0.00	0.043
5.00	-32.21	-1.67	0.00	-191.15	0.00	191.15	4,434.84	2,217.42	10,752.7	5,384.36	0.00	-0.01	0.043
10.00	-31.06	-1.67	0.00	-182.80	0.00	182.80	4,385.31	2,192.65	10,413.7	5,214.59	0.02	-0.02	0.042
15.00	-29.93	-1.67	0.00	-174.44	0.00	174.44	4,334.06	2,167.03	10,075.6	5,045.30	0.04	-0.03	0.041
20.00	-28.82	-1.67	0.00	-166.08	0.00	166.08	4,281.09	2,140.54	9,738.73	4,876.60	0.07	-0.03	0.041
25.00	-27.74	-1.67	0.00	-157.72	0.00	157.72	4,226.40	2,113.20	9,403.31	4,708.64	0.11	-0.04	0.040
30.00	-26.67	-1.66	0.00	-149.37	0.00	149.37	4,169.98	2,084.99	9,069.60	4,541.54	0.17	-0.05	0.039
35.00	-25.63	-1.66	0.00	-141.05	0.00	141.05	4,111.84	2,055.92	8,737.86	4,375.42	0.23	-0.06	0.038
40.00	-24.60	-1.65	0.00	-132.77	0.00	132.77	4,051.98	2,025.99	8,408.36	4,210.43	0.30	-0.07	0.038
45.00	-24.58	-1.65	0.00	-124.55	0.00	124.55	3,990.40	1,995.20	8,081.34	4,046.68	0.38	-0.08	0.037
45.09	-22.75	-1.62	0.00	-124.40	0.00	124.40	3,989.32	1,994.66	8,075.70	4,043.85	0.38	-0.08	0.036
50.00	-22.05	-1.61	0.00	-116.45	0.00	116.45	3,927.10	1,963.55	7,757.08	3,884.30	0.47	-0.09	0.036
51.92	-21.44	-1.60	0.00	-113.37	0.00	113.37	3,942.33	1,971.16	7,834.02	3,922.83	0.50	-0.09	0.034
55.00	-20.47	-1.57	0.00	-108.46	0.00	108.46	3,902.73	1,951.36	7,635.30	3,823.33	0.57	-0.10	0.034
60.00	-19.51	-1.55	0.00	-100.58	0.00	100.58	3,837.05	1,918.52	7,315.25	3,663.06	0.68	-0.11	0.033
65.00	-18.58	-1.53	0.00	-92.82	0.00	92.82	3,769.65	1,884.82	6,998.55	3,504.48	0.80	-0.12	0.031
70.00	-17.67	-1.50	0.00	-85.19	0.00	85.19	3,700.53	1,850.26	6,685.47	3,347.71	0.93	-0.13	0.030
75.00	-16.78	-1.46	0.00	-77.71	0.00	77.71	3,629.69	1,814.84	6,376.27	3,192.88	1.07	-0.14	0.029
80.00	-15.91	-1.43	0.00	-70.39	0.00	70.39	3,557.12	1,778.56	6,071.21	3,040.12	1.21	-0.15	0.028
85.00	-15.06	-1.39	0.00	-63.26	0.00	63.26	3,482.83	1,741.42	5,770.54	2,889.56	1.37	-0.15	0.026
90.00	-14.94	-1.38	0.00	-56.32	0.00	56.32	3,406.82	1,703.41	5,474.52	2,741.33	1.54	-0.16	0.025
90.71	-13.75	-1.32	0.00	-55.33	0.00	55.33	3,395.84	1,697.92	5,432.68	2,720.38	1.56	-0.16	0.024
95.00	-13.39	-1.30	0.00	-49.67	0.00	49.67	3,329.09	1,664.55	5,183.41	2,595.56	1.71	-0.17	0.023
96.30	-12.87	-1.27	0.00	-47.98	0.00	47.98	2,649.38	1,324.69	4,172.95	2,089.58	1.76	-0.17	0.028
100.00	-12.18	-1.23	0.00	-43.28	0.00	43.28	2,607.49	1,303.74	4,010.55	2,008.26	1.90	-0.18	0.026
105.00	-11.51	-1.18	0.00	-37.14	0.00	37.14	2,549.43	1,274.72	3,793.98	1,899.81	2.09	-0.19	0.024
110.00	-9.60	-1.04	0.00	-31.23	0.00	31.23	2,489.65	1,244.83	3,580.72	1,793.02	2.29	-0.20	0.021
115.00	-8.97	-0.99	0.00	-26.01	0.00	26.01	2,428.15	1,214.08	3,371.05	1,688.03	2.50	-0.20	0.019
120.00	-8.73	-0.97	0.00	-21.04	0.00	21.04	2,364.93	1,182.47	3,165.21	1,584.96	2.72	-0.21	0.017
122.00	-8.21	-0.93	0.00	-19.10	0.00	19.10	2,339.16	1,169.58	3,084.00	1,544.29	2.81	-0.21	0.016
125.00	-7.62	-0.87	0.00	-16.31	0.00	16.31	2,299.99	1,149.99	2,963.46	1,483.93	2.95	-0.22	0.014
130.00	-7.06	-0.82	0.00	-11.94	0.00	11.94	2,226.60	1,113.30	2,757.75	1,380.92	3.18	-0.22	0.012
135.00	-6.60	-0.77	0.00	-7.85	0.00	7.85	2,137.76	1,068.88	2,540.99	1,272.38	3.41	-0.23	0.009
139.18	-6.47	-0.76	0.00	-4.63	0.00	4.63	2,063.55	1,031.78	2,366.73	1,185.12	3.61	-0.23	0.007
140.00	-3.83	-0.47	0.00	-4.01	0.00	4.01	2,048.92	1,024.46	2,333.10	1,168.29	3.65	-0.23	0.005
143.34	-3.73	-0.45	0.00	-2.45	0.00	2.45	1,066.86	533.43	1,206.73	604.26	3.81	-0.23	0.008
145.00	-3.49	-0.43	0.00	-1.70	0.00	1.70	1,057.77	528.89	1,178.96	590.35	3.89	-0.23	0.006
149.00	0.00	-0.41	0.00	0.00	0.00	0.00	1,035.06	517.53	1,112.30	556.98	4.09	-0.23	0.000

Site Number: 413783

Code: ANSI/TIA-222-G

© 2007 - 2016 by ATC IP LLC. All rights reserved.

Site Name: Kent Pcs CT, CT

Engineering Number: OAA686761_C3_01

10/21/2016 5:36:45 PM

Customer: T-Mobile

Equivalent Modal Forces Analysis

(Based on ASCE7-10 Chapters 11, 12 & 15 and ANSI/TIA-G, section 2.7)

Spectral Response Acceleration for Short Period (S_s):	0.19
Spectral Response Acceleration at 1.0 Second Period (S_1):	0.06
Importance Factor (I_E):	1.00
Site Coefficient F_a :	1.60
Site Coefficient F_v :	2.40
Response Modification Coefficient (R):	1.50
Design Spectral Response Acceleration at Short Period (S_{ds}):	0.20
Design Spectral Response Acceleration at 1.0 Second Period (S_{d1}):	0.10
Period Based on Rayleigh Method (sec):	2.01
Redundancy Factor (ρ):	1.30

Load Case (1.2 + 0.2S_{ds}) * DL + E EMAM

Seismic Equivalent Modal Analysis Method

Segment	Height Above Base (ft)	Weight (lb)	a	b	c	Saz	Horizontal Force (lb)	Vertical Force (lb)
37	147.00	279	1.840	1.725	1.047	0.351	85	346
36	144.17	118	1.769	1.403	0.926	0.306	31	146
35	141.67	551	1.709	1.155	0.828	0.268	128	683
34	139.59	151	1.659	0.972	0.753	0.239	31	187
33	137.09	534	1.600	0.778	0.670	0.205	95	663
32	132.50	658	1.495	0.488	0.536	0.150	85	817
31	127.50	679	1.384	0.254	0.415	0.097	57	842
30	123.50	417	1.298	0.118	0.335	0.062	22	517
29	121.00	284	1.246	0.053	0.291	0.042	10	352
28	117.50	724	1.175	-0.017	0.237	0.018	11	899
27	112.50	745	1.077	-0.082	0.173	-0.009	-6	924
26	107.50	782	0.984	-0.114	0.123	-0.028	-19	970
25	102.50	802	0.894	-0.122	0.085	-0.038	-27	995
24	98.15	607	0.820	-0.115	0.060	-0.041	-22	753
23	95.65	414	0.779	-0.108	0.048	-0.040	-14	513
22	92.86	1,390	0.734	-0.097	0.037	-0.037	-44	1,724
21	90.36	139	0.695	-0.085	0.029	-0.032	-4	172
20	87.50	986	0.652	-0.071	0.021	-0.025	-21	1,223
19	82.50	1,010	0.579	-0.045	0.012	-0.010	-9	1,253
18	77.50	1,035	0.511	-0.020	0.008	0.007	6	1,284
17	72.50	1,059	0.447	0.002	0.006	0.022	20	1,314
16	67.50	1,084	0.388	0.022	0.007	0.035	33	1,344
15	62.50	1,108	0.333	0.037	0.010	0.044	42	1,374
14	57.50	1,133	0.281	0.049	0.014	0.050	49	1,405
13	53.46	710	0.243	0.056	0.018	0.052	32	880
12	50.96	819	0.221	0.060	0.021	0.053	37	1,016
11	47.54	2,129	0.192	0.064	0.024	0.053	98	2,641
10	45.04	20	0.173	0.066	0.027	0.053	1	25
9	42.50	1,191	0.154	0.068	0.030	0.053	54	1,477
8	37.50	1,215	0.120	0.070	0.034	0.051	54	1,507
7	32.50	1,239	0.090	0.071	0.038	0.050	54	1,537
6	27.50	1,264	0.064	0.072	0.041	0.049	53	1,568
5	22.50	1,288	0.043	0.071	0.042	0.047	53	1,598
4	17.50	1,313	0.026	0.067	0.040	0.045	51	1,628

Site Number: 413783

Code: ANSI/TIA-222-G

© 2007 - 2016 by ATC IP LLC. All rights reserved.

Site Name: Kent Pcs CT, CT

Engineering Number: OAA686761_C3_01

10/21/2016 5:36:45 PM

Customer: T-Mobile

3	12.50	1,337	0.013	0.059	0.034	0.040	46	1,658
2	7.50	1,361	0.005	0.044	0.025	0.031	37	1,689
1	2.50	1,386	0.001	0.018	0.010	0.014	17	1,719
3' Yagi	149.00	10	1.890	1.980	1.140	0.385	3	12
Amphenol Antel LPA-1	149.00	32	1.890	1.980	1.140	0.385	10	39
RFS Celwave PD220	149.00	50	1.890	1.980	1.140	0.385	17	62
Antel BXA-70063/6CF_	149.00	51	1.890	1.980	1.140	0.385	17	63
Antel LPA-80080/6CF	149.00	126	1.890	1.980	1.140	0.385	42	156
Flat Low Profile Pla	149.00	1,500	1.890	1.980	1.140	0.385	500	1,860
VZW Unused Reserve:	149.00	2,292	1.890	1.980	1.140	0.385	764	2,842
Andrew ABT-DFDM-ADB	140.00	1	1.669	1.007	0.767	0.244	0	1
Powerwave Allgon TT0	140.00	198	1.669	1.007	0.767	0.244	42	246
Ericsson RRUS-11	140.00	330	1.669	1.007	0.767	0.244	70	409
Raycap DC6-48-60-18	140.00	30	1.669	1.007	0.767	0.244	6	37
KMW AM-X-CD-14-65-00	140.00	73	1.669	1.007	0.767	0.244	15	90
Powerwave Allgon 777	140.00	210	1.669	1.007	0.767	0.244	44	260
Kathrein Scala 800 1	140.00	82	1.669	1.007	0.767	0.244	17	101
KMW AM-X-CD-16-65-00	140.00	97	1.669	1.007	0.767	0.244	21	120
Round Low Profile PI	140.00	1,500	1.669	1.007	0.767	0.244	318	1,860
Decibel DB222	122.00	32	1.267	0.077	0.308	0.050	1	40
Stand Off	122.00	150	1.267	0.077	0.308	0.050	6	186
3' Yagi	122.00	10	1.267	0.077	0.308	0.050	0	12
Symmetricom 58532A	110.00	0	1.030	-0.101	0.147	-0.019	0	0
Ericsson RRUS 11 B12	110.00	152	1.030	-0.101	0.147	-0.019	-3	189
Ericsson RRUS 11 B4	110.00	152	1.030	-0.101	0.147	-0.019	-3	189
Ericsson RRUS 11 B2	110.00	152	1.030	-0.101	0.147	-0.019	-3	189
RFS APX16DWV-	110.00	122	1.030	-0.101	0.147	-0.019	-2	151
Commscope LNX-	110.00	151	1.030	-0.101	0.147	-0.019	-3	187
Flat T-Arm	110.00	750	1.030	-0.101	0.147	-0.019	-13	930
		40,214	64.955	29.411	23.890	7.130	2,999	49,878

Load Case (0.9 - 0.2Sds) * DL + E EMAM

Seismic (Reduced DL) Equivalent Modal Analysis Method

Segment	Height Above Base (ft)	Weight (lb)	a	b	c	Saz	Horizontal Force (lb)	Vertical Force (lb)
37	147.00	279	1.840	1.725	1.047	0.351	85	240
36	144.17	118	1.769	1.403	0.926	0.306	31	101
35	141.67	551	1.709	1.155	0.828	0.268	128	473
34	139.59	151	1.659	0.972	0.753	0.239	31	130
33	137.09	534	1.600	0.778	0.670	0.205	95	459
32	132.50	658	1.495	0.488	0.536	0.150	85	566
31	127.50	679	1.384	0.254	0.415	0.097	57	584
30	123.50	417	1.298	0.118	0.335	0.062	22	359
29	121.00	284	1.246	0.053	0.291	0.042	10	244
28	117.50	724	1.175	-0.017	0.237	0.018	11	623
27	112.50	745	1.077	-0.082	0.173	-0.009	-6	640
26	107.50	782	0.984	-0.114	0.123	-0.028	-19	672
25	102.50	802	0.894	-0.122	0.085	-0.038	-27	690
24	98.15	607	0.820	-0.115	0.060	-0.041	-22	522
23	95.65	414	0.779	-0.108	0.048	-0.040	-14	356
22	92.86	1,390	0.734	-0.097	0.037	-0.037	-44	1,195
21	90.36	139	0.695	-0.085	0.029	-0.032	-4	119
20	87.50	986	0.652	-0.071	0.021	-0.025	-21	848
19	82.50	1,010	0.579	-0.045	0.012	-0.010	-9	869
18	77.50	1,035	0.511	-0.020	0.008	0.007	6	890
17	72.50	1,059	0.447	0.002	0.006	0.022	20	911
16	67.50	1,084	0.388	0.022	0.007	0.035	33	932
15	62.50	1,108	0.333	0.037	0.010	0.044	42	953
14	57.50	1,133	0.281	0.049	0.014	0.050	49	974

Site Number: 413783

Code: ANSI/TIA-222-G

© 2007 - 2016 by ATC IP LLC. All rights reserved.

Site Name: Kent Pcs CT, CT

Engineering Number: OAA686761_C3_01

10/21/2016 5:36:45 PM

Customer: T-Mobile

13	53.46	710	0.243	0.056	0.018	0.052	32	610
12	50.96	819	0.221	0.060	0.021	0.053	37	704
11	47.54	2,129	0.192	0.064	0.024	0.053	98	1,830
10	45.04	20	0.173	0.066	0.027	0.053	1	18
9	42.50	1,191	0.154	0.068	0.030	0.053	54	1,024
8	37.50	1,215	0.120	0.070	0.034	0.051	54	1,044
7	32.50	1,239	0.090	0.071	0.038	0.050	54	1,065
6	27.50	1,264	0.064	0.072	0.041	0.049	53	1,086
5	22.50	1,288	0.043	0.071	0.042	0.047	53	1,107
4	17.50	1,313	0.026	0.067	0.040	0.045	51	1,128
3	12.50	1,337	0.013	0.059	0.034	0.040	46	1,149
2	7.50	1,361	0.005	0.044	0.025	0.031	37	1,170
1	2.50	1,386	0.001	0.018	0.010	0.014	17	1,191
3' Yagi	149.00	10	1.890	1.980	1.140	0.385	3	9
Amphenol Antel LPA-1	149.00	32	1.890	1.980	1.140	0.385	10	27
RFS Celwave PD220	149.00	50	1.890	1.980	1.140	0.385	17	43
Antel BXA-70063/6CF_	149.00	51	1.890	1.980	1.140	0.385	17	44
Antel LPA-80080/6CF	149.00	126	1.890	1.980	1.140	0.385	42	108
Flat Low Profile Pla	149.00	1,500	1.890	1.980	1.140	0.385	500	1,290
VZW Unused Reserve:	149.00	2,292	1.890	1.980	1.140	0.385	764	1,970
Andrew ABT-DFDM-ADB	140.00	1	1.669	1.007	0.767	0.244	0	1
Powerwave Allgon TT0	140.00	198	1.669	1.007	0.767	0.244	42	170
Ericsson RRUS-11	140.00	330	1.669	1.007	0.767	0.244	70	284
Raycap DC6-48-60-18	140.00	30	1.669	1.007	0.767	0.244	6	26
KMW AM-X-CD-14-65-00	140.00	73	1.669	1.007	0.767	0.244	15	63
Powerwave Allgon 777	140.00	210	1.669	1.007	0.767	0.244	44	181
Kathrein Scala 800 1	140.00	82	1.669	1.007	0.767	0.244	17	70
KMW AM-X-CD-16-65-00	140.00	97	1.669	1.007	0.767	0.244	21	83
Round Low Profile PI	140.00	1,500	1.669	1.007	0.767	0.244	318	1,290
Decibel DB222	122.00	32	1.267	0.077	0.308	0.050	1	28
Stand Off	122.00	150	1.267	0.077	0.308	0.050	6	129
3' Yagi	122.00	10	1.267	0.077	0.308	0.050	0	9
Symmetricom 58532A	110.00	0	1.030	-0.101	0.147	-0.019	0	0
Ericsson RRUS 11 B12	110.00	152	1.030	-0.101	0.147	-0.019	-3	131
Ericsson RRUS 11 B4	110.00	152	1.030	-0.101	0.147	-0.019	-3	131
Ericsson RRUS 11 B2	110.00	152	1.030	-0.101	0.147	-0.019	-3	131
RFS APX16DWV-	110.00	122	1.030	-0.101	0.147	-0.019	-2	105
Commscope LNX-	110.00	151	1.030	-0.101	0.147	-0.019	-3	130
Flat T-Arm	110.00	750	1.030	-0.101	0.147	-0.019	-13	645
		40,214	64.955	29.411	23.890	7.130	2,999	34,571

Site Number: 413783

Code: ANSI/TIA-222-G

© 2007 - 2016 by ATC IP LLC. All rights reserved.

Site Name: Kent Pcs CT, CT

Engineering Number: OAA686761_C3_01

10/21/2016 5:36:45 PM

Customer: T-Mobile

Load Case (1.2 + 0.2Sds) * DL + E EMAM

Seismic Equivalent Modal Analysis Method

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-48.16	-2.99	0.00	-373.94	0.00	373.94	4,482.64	2,241.32	11,092.4	5,554.46	0.00	0.00	0.078
5.00	-46.47	-2.96	0.00	-359.00	0.00	359.00	4,434.84	2,217.42	10,752.7	5,384.36	0.01	-0.02	0.077
10.00	-44.81	-2.93	0.00	-344.19	0.00	344.19	4,385.31	2,192.65	10,413.7	5,214.59	0.03	-0.03	0.076
15.00	-43.18	-2.89	0.00	-329.54	0.00	329.54	4,334.06	2,167.03	10,075.6	5,045.30	0.08	-0.05	0.075
20.00	-41.58	-2.85	0.00	-315.09	0.00	315.09	4,281.09	2,140.54	9,738.73	4,876.60	0.14	-0.07	0.074
25.00	-40.01	-2.81	0.00	-300.85	0.00	300.85	4,226.40	2,113.20	9,403.31	4,708.64	0.21	-0.08	0.073
30.00	-38.48	-2.76	0.00	-286.82	0.00	286.82	4,169.98	2,084.99	9,069.60	4,541.54	0.31	-0.10	0.072
35.00	-36.97	-2.72	0.00	-273.02	0.00	273.02	4,111.84	2,055.92	8,737.86	4,375.42	0.43	-0.12	0.071
40.00	-35.49	-2.67	0.00	-259.44	0.00	259.44	4,051.98	2,025.99	8,408.36	4,210.43	0.56	-0.14	0.070
45.00	-35.47	-2.67	0.00	-246.09	0.00	246.09	3,990.40	1,995.20	8,081.34	4,046.68	0.71	-0.16	0.070
45.09	-32.82	-2.57	0.00	-245.86	0.00	245.86	3,989.32	1,994.66	8,075.70	4,043.85	0.72	-0.16	0.069
50.00	-31.81	-2.54	0.00	-233.21	0.00	233.21	3,927.10	1,963.55	7,757.08	3,884.30	0.89	-0.17	0.068
51.92	-30.93	-2.51	0.00	-228.33	0.00	228.33	3,942.33	1,971.16	7,834.02	3,922.83	0.96	-0.18	0.066
55.00	-29.52	-2.47	0.00	-220.59	0.00	220.59	3,902.73	1,951.36	7,635.30	3,823.33	1.08	-0.19	0.065
60.00	-28.15	-2.43	0.00	-208.25	0.00	208.25	3,837.05	1,918.52	7,315.25	3,663.06	1.29	-0.21	0.064
65.00	-26.80	-2.40	0.00	-196.11	0.00	196.11	3,769.65	1,884.82	6,998.55	3,504.48	1.52	-0.23	0.063
70.00	-25.49	-2.38	0.00	-184.11	0.00	184.11	3,700.53	1,850.26	6,685.47	3,347.71	1.78	-0.25	0.062
75.00	-24.20	-2.38	0.00	-172.19	0.00	172.19	3,629.69	1,814.84	6,376.27	3,192.88	2.05	-0.27	0.061
80.00	-22.95	-2.39	0.00	-160.30	0.00	160.30	3,557.12	1,778.56	6,071.21	3,040.12	2.35	-0.29	0.059
85.00	-21.73	-2.41	0.00	-148.35	0.00	148.35	3,482.83	1,741.42	5,770.54	2,889.56	2.66	-0.31	0.058
90.00	-21.55	-2.42	0.00	-136.28	0.00	136.28	3,406.82	1,703.41	5,474.52	2,741.33	3.00	-0.33	0.056
90.71	-19.83	-2.46	0.00	-134.55	0.00	134.55	3,395.84	1,697.92	5,432.68	2,720.38	3.05	-0.33	0.055
95.00	-19.31	-2.47	0.00	-124.02	0.00	124.02	3,329.09	1,664.55	5,183.41	2,595.56	3.36	-0.35	0.054
96.30	-18.56	-2.49	0.00	-120.81	0.00	120.81	2,649.38	1,324.69	4,172.95	2,089.58	3.45	-0.36	0.065
100.00	-17.56	-2.52	0.00	-111.58	0.00	111.58	2,607.49	1,303.74	4,010.55	2,008.26	3.74	-0.37	0.062
105.00	-16.59	-2.54	0.00	-98.98	0.00	98.98	2,549.43	1,274.72	3,793.98	1,899.81	4.14	-0.40	0.059
110.00	-13.83	-2.56	0.00	-86.28	0.00	86.28	2,489.65	1,244.83	3,580.72	1,793.02	4.57	-0.42	0.054
115.00	-12.93	-2.54	0.00	-73.51	0.00	73.51	2,428.15	1,214.08	3,371.05	1,688.03	5.02	-0.44	0.049
120.00	-12.58	-2.53	0.00	-60.80	0.00	60.80	2,364.93	1,182.47	3,165.21	1,584.96	5.49	-0.46	0.044
122.00	-11.83	-2.50	0.00	-55.73	0.00	55.73	2,339.16	1,169.58	3,084.00	1,544.29	5.68	-0.47	0.041
125.00	-10.98	-2.44	0.00	-48.24	0.00	48.24	2,299.99	1,149.99	2,963.46	1,483.93	5.98	-0.48	0.037
130.00	-10.17	-2.35	0.00	-36.07	0.00	36.07	2,226.60	1,113.30	2,757.75	1,380.92	6.49	-0.49	0.031
135.00	-9.50	-2.25	0.00	-24.34	0.00	24.34	2,137.76	1,068.88	2,540.99	1,272.38	7.01	-0.51	0.024
139.18	-9.32	-2.21	0.00	-14.96	0.00	14.96	2,063.55	1,031.78	2,366.73	1,185.12	7.46	-0.51	0.017
140.00	-5.51	-1.52	0.00	-13.13	0.00	13.13	2,048.92	1,024.46	2,333.10	1,168.29	7.55	-0.51	0.014
143.34	-5.37	-1.49	0.00	-8.06	0.00	8.06	1,066.86	533.43	1,206.73	604.26	7.91	-0.52	0.018
145.00	-5.02	-1.40	0.00	-5.59	0.00	5.59	1,057.77	528.89	1,178.96	590.35	8.09	-0.52	0.014
149.00	0.00	-1.35	0.00	0.00	0.00	0.00	1,035.06	517.53	1,112.30	556.98	8.52	-0.52	0.000

Site Number: 413783

Code: ANSI/TIA-222-G

© 2007 - 2016 by ATC IP LLC. All rights reserved.

Site Name: Kent Pcs CT, CT

Engineering Number: OAA686761_C3_01

10/21/2016 5:36:45 PM

Customer: T-Mobile

Load Case (0.9 - 0.2Sds) * DL + E EMAM

Seismic (Reduced DL) Equivalent Modal Analysis Method

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-33.38	-2.99	0.00	-369.85	0.00	369.85	4,482.64	2,241.32	11,092.4	5,554.46	0.00	0.00	0.074
5.00	-32.21	-2.96	0.00	-354.92	0.00	354.92	4,434.84	2,217.42	10,752.7	5,384.36	0.01	-0.02	0.073
10.00	-31.06	-2.92	0.00	-340.13	0.00	340.13	4,385.31	2,192.65	10,413.7	5,214.59	0.03	-0.03	0.072
15.00	-29.93	-2.88	0.00	-325.54	0.00	325.54	4,334.06	2,167.03	10,075.6	5,045.30	0.08	-0.05	0.071
20.00	-28.82	-2.83	0.00	-311.15	0.00	311.15	4,281.09	2,140.54	9,738.73	4,876.60	0.14	-0.06	0.071
25.00	-27.73	-2.79	0.00	-296.99	0.00	296.99	4,226.40	2,113.20	9,403.31	4,708.64	0.21	-0.08	0.070
30.00	-26.67	-2.74	0.00	-283.07	0.00	283.07	4,169.98	2,084.99	9,069.60	4,541.54	0.31	-0.10	0.069
35.00	-25.62	-2.69	0.00	-269.38	0.00	269.38	4,111.84	2,055.92	8,737.86	4,375.42	0.42	-0.12	0.068
40.00	-24.60	-2.64	0.00	-255.93	0.00	255.93	4,051.98	2,025.99	8,408.36	4,210.43	0.55	-0.13	0.067
45.00	-24.58	-2.64	0.00	-242.73	0.00	242.73	3,990.40	1,995.20	8,081.34	4,046.68	0.70	-0.15	0.066
45.09	-22.75	-2.55	0.00	-242.50	0.00	242.50	3,989.32	1,994.66	8,075.70	4,043.85	0.71	-0.15	0.066
50.00	-22.04	-2.51	0.00	-229.99	0.00	229.99	3,927.10	1,963.55	7,757.08	3,884.30	0.87	-0.17	0.065
51.92	-21.43	-2.48	0.00	-225.17	0.00	225.17	3,942.33	1,971.16	7,834.02	3,922.83	0.95	-0.18	0.063
55.00	-20.46	-2.43	0.00	-217.53	0.00	217.53	3,902.73	1,951.36	7,635.30	3,823.33	1.07	-0.19	0.062
60.00	-19.51	-2.39	0.00	-205.36	0.00	205.36	3,837.05	1,918.52	7,315.25	3,663.06	1.28	-0.21	0.061
65.00	-18.57	-2.36	0.00	-193.39	0.00	193.39	3,769.65	1,884.82	6,998.55	3,504.48	1.51	-0.23	0.060
70.00	-17.66	-2.35	0.00	-181.57	0.00	181.57	3,700.53	1,850.26	6,685.47	3,347.71	1.76	-0.25	0.059
75.00	-16.77	-2.34	0.00	-169.84	0.00	169.84	3,629.69	1,814.84	6,376.27	3,192.88	2.03	-0.27	0.058
80.00	-15.90	-2.35	0.00	-158.13	0.00	158.13	3,557.12	1,778.56	6,071.21	3,040.12	2.32	-0.29	0.056
85.00	-15.05	-2.37	0.00	-146.37	0.00	146.37	3,482.83	1,741.42	5,770.54	2,889.56	2.63	-0.31	0.055
90.00	-14.93	-2.38	0.00	-134.49	0.00	134.49	3,406.82	1,703.41	5,474.52	2,741.33	2.96	-0.33	0.053
90.71	-13.74	-2.42	0.00	-132.80	0.00	132.80	3,395.84	1,697.92	5,432.68	2,720.38	3.01	-0.33	0.053
95.00	-13.38	-2.44	0.00	-122.42	0.00	122.42	3,329.09	1,664.55	5,183.41	2,595.56	3.31	-0.35	0.051
96.30	-12.86	-2.46	0.00	-119.26	0.00	119.26	2,649.38	1,324.69	4,172.95	2,089.58	3.41	-0.35	0.062
100.00	-12.17	-2.48	0.00	-110.17	0.00	110.17	2,607.49	1,303.74	4,010.55	2,008.26	3.69	-0.37	0.060
105.00	-11.50	-2.50	0.00	-97.75	0.00	97.75	2,549.43	1,274.72	3,793.98	1,899.81	4.09	-0.39	0.056
110.00	-9.58	-2.52	0.00	-85.24	0.00	85.24	2,489.65	1,244.83	3,580.72	1,793.02	4.51	-0.41	0.051
115.00	-8.96	-2.51	0.00	-72.63	0.00	72.63	2,428.15	1,214.08	3,371.05	1,688.03	4.95	-0.43	0.047
120.00	-8.71	-2.50	0.00	-60.08	0.00	60.08	2,364.93	1,182.47	3,165.21	1,584.96	5.42	-0.45	0.042
122.00	-8.19	-2.47	0.00	-55.08	0.00	55.08	2,339.16	1,169.58	3,084.00	1,544.29	5.61	-0.46	0.039
125.00	-7.61	-2.41	0.00	-47.69	0.00	47.69	2,299.99	1,149.99	2,963.46	1,483.93	5.90	-0.47	0.035
130.00	-7.04	-2.32	0.00	-35.66	0.00	35.66	2,226.60	1,113.30	2,757.75	1,380.92	6.40	-0.49	0.029
135.00	-6.58	-2.22	0.00	-24.07	0.00	24.07	2,137.76	1,068.88	2,540.99	1,272.38	6.92	-0.50	0.022
139.18	-6.45	-2.19	0.00	-14.80	0.00	14.80	2,063.55	1,031.78	2,366.73	1,185.12	7.36	-0.51	0.016
140.00	-3.82	-1.50	0.00	-13.00	0.00	13.00	2,048.92	1,024.46	2,333.10	1,168.29	7.45	-0.51	0.013
143.34	-3.72	-1.47	0.00	-7.97	0.00	7.97	1,066.86	533.43	1,206.73	604.26	7.80	-0.51	0.017
145.00	-3.48	-1.38	0.00	-5.54	0.00	5.54	1,057.77	528.89	1,178.96	590.35	7.98	-0.51	0.013
149.00	0.00	-1.35	0.00	0.00	0.00	0.00	1,035.06	517.53	1,112.30	556.98	8.41	-0.51	0.000

Site Number: 413783

Code: ANSI/TIA-222-G

© 2007 - 2016 by ATC IP LLC. All rights reserved.

Site Name: Kent Pcs CT, CT

Engineering Number: OAA686761_C3_01

10/21/2016 5:36:45 PM

Customer: T-Mobile

Analysis Summary

Load Case	Reactions						Max Usage	
	Shear FX (kips)	Shear FZ (kips)	Axial FY (kips)	Moment MX (ft-kips)	Moment MY (ft-kips)	Moment MZ (ft-kips)	Elev (ft)	Interaction Ratio
1.2D + 1.6W	32.61	0.00	48.21	0.00	0.00	3801.88	0.00	0.70
0.9D + 1.6W	32.59	0.00	36.15	0.00	0.00	3769.03	0.00	0.69
1.2D + 1.0Di + 1.0Wi	7.46	0.00	81.44	0.00	0.00	889.22	0.00	0.18
(1.2 + 0.2Sds) * DL + E ELFM	1.67	0.00	48.16	0.00	0.00	201.52	0.00	0.05
(1.2 + 0.2Sds) * DL + E EMAM	2.99	0.00	48.16	0.00	0.00	373.94	0.00	0.08
(0.9 - 0.2Sds) * DL + E ELFM	1.67	0.00	33.38	0.00	0.00	199.47	0.00	0.04
(0.9 - 0.2Sds) * DL + E EMAM	2.99	0.00	33.38	0.00	0.00	369.85	0.00	0.07
1.0D + 1.0W	9.05	0.00	40.21	0.00	0.00	1050.95	0.00	0.20

Site Number: 413783

Code: ANSI/TIA-222-G

© 2007 - 2016 by ATC IP LLC. All rights reserved.

Site Name: Kent Pcs CT, CT

Engineering Number: OAA686761_C3_01

10/21/2016 5:36:45 PM

Customer: T-Mobile

Base Summary

Reactions

Original Design			Analysis			Moment Design %
Moment (kip-ft)	Axial (kip)	Shear (kip)	Moment (kip-ft)	Axial (kip)	Shear (kip)	
4,897.90	42.70	39.50	3,801.88	81.44	32.61	77.62

Base Plate

Yield (ksi)	Thick (in)	Width (in)	Style	Poly Sides	Clip Len (in)	Effective Len (in)	Mu (kip-in)	Phi Mn (kip-in)	Ratio
50.0	3.250	75.000	Round	0	0.00	8.001	482.77	950.72	0.51

Anchor Bolts

Bolt Circle	Num Bolts	Bolt Type	Bolt Dia (in)	Yield (ksi)	Ultimate (ksi)	Arrange	Cluster Dist (in)	Start Angle (deg)	Compression			Tension		
									Force (kip)	Allow (kip)	Ratio	Force (kip)	Allow (kip)	Ratio
69.00	24	2.25" 18J	2.25	75.00	100.00	Radial	0.00	0.0	113.59	260.00	0.45	106.81	260.00	0.42