

Alex Murshteyn, Site Acquisition Consultant  
c/o T-Mobile Northeast LLC ("T-Mobile")  
Centerline Communications, LLC  
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Raynham, MA 02767  
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May 8, 2018

Melanie A. Bachman  
Acting Executive Director  
Connecticut Siting Council  
10 Franklin Square  
New Britain, CT 06051

**RE: Notice of Exempt Modification // Site Number: CTNH302A (ATC: 282660)**  
**151 Waterbury Road, Prospect, CT 06712**  
**N 41.522983 // W 72.997775**

Dear Ms. Bachman:

T-Mobile Northeast LLC ("T-Mobile") currently maintains 9 antennas at the 137-foot level of the existing 150-foot monopole tower at 151 Waterbury Road, Prospect, CT. The Council has allowed T-Mobile's shared use of the existing site since 2005, and at the present (replacement) tower since 2010. The tower and property are both owned by American Tower Corporation; property acquired via ATC Watertown LLC earlier this year. T-Mobile now intends to install 1 new microwave backhaul channel (5.0 GHz) with its existing antenna array. T-Mobile will also install 2 new CATs and 1 new fiber cable in order to connect the microwave dish.

Please accept this letter as notification pursuant to Regulations of Connecticut State Agencies § 16-50j-73, for construction that constitutes an exempt modification pursuant to R.C.S.A. § 16-50j-72(b)(2). In accordance with R.C.S.A. § 16-50j-73, a copy of this letter is being sent to Robert J. Chatfield, Mayor for the Town of Prospect, the Town's Land Use Office and Inspector, including for Zoning and Planning Commission, and the tower and property owner, American Tower Corporation.

The planned modifications to the facility fall squarely within those activities explicitly provided for in R.C.S.A. § 16-50j-72(b)(2).

Enclosed to accommodate this filing are construction drawings dated May 7, 2018 by A.T. Engineering Service, PLLC a structural analysis dated March 30, 2018 by A.T. Engineering Service, PLLC and an RF Emissions Analysis Report dated April 10, 2018 by EBI Consulting.

1. The proposed modifications will not result in an increase in the height of the existing structure.
2. The proposed modifications will not require the extension of the site boundary.
3. The proposed modifications will not increase noise levels at the facility by six decibels or more, or to levels that exceed state and local criteria.
4. The operation of the new antenna will not increase radio frequency emissions at the facility to a level at or above the Federal Communications Commission safety standard.
5. The proposed modifications will not cause a change or alteration in the physical or environmental characteristics of the site.
6. The existing structure and its foundation can support the proposed loading, as shown in the attached structural analysis by A.T. Engineering Service, PLLC, dated March 30, 2018.

For the foregoing reasons, T-Mobile respectfully submits that the proposed modifications to the above referenced telecommunications facility constitute an exempt modification under R.C.S.A. § 16-50j-72(b)(2).

Sincerely,



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Alex Murshteyn, Site Acquisition Consultant  
c/o T-Mobile Northeast LLC  
Centerline Communications, LLC  
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Raynham, MA 02767  
Mobile: (508) 821-0159  
[AMurshteyn@centerlinecommunications.com](mailto:AMurshteyn@centerlinecommunications.com)

**Attachments**

cc: Robert J. Chatfield, Mayor, Town of Prospect - as elected official - 1Z9Y45030338701122  
Land Use Inspector and Office, Town of Prospect - as P&Z officials - 1Z9Y45030330176732  
American Tower Corporation - as tower & property owner - 1Z9Y45030339945340



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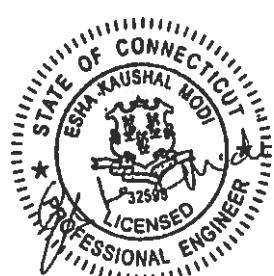
## Structural Analysis Report

Structure : 150 ft Monopole  
ATC Site Name : Prospect CT, CT  
ATC Site Number : 282660  
Engineering Number : OAA727017\_C3\_01  
Proposed Carrier : T-Mobile  
Carrier Site Name : CTNH302A  
Carrier Site Number : CTNH302A  
Site Location : 151 Waterbury Prospect road  
Prospect, CT 06712-1228  
41.523700,-72.995500  
County : New Haven  
Date : March 30, 2018  
Max Usage : 63%  
Result : Pass

Prepared By:  
Zackaryah Hughes  
Structural Engineer I

*Zackaryah Hughes*

Reviewed By:



Apr 2 2018 4:51 PM cosign

COA: PEC.0001553

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## Introduction

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

## Supporting Documents

Tower Drawings	ERI Project #25148/001, dated November 13, 2009
Foundation Drawing	ERI Project #25148/002, dated November 13, 2009
Geotechnical Report	FDH Project #09-10144E_G1, dated November 9, 2009

## 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:	97 mph (3-Second Gust, $V_{asd}$ ) / 125 mph (3-second Gust, $V_{ult}$ )
Basic Wind Speed w/ Ice:	50 mph (3-Second Gust) w/ 3/4" radial ice concurrent
Code:	ANSI/TIA-222-G / 2012 IBC / 2016 Connecticut State Building Code
Structure Class:	II
Exposure Category:	B
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](mailto:Engineering@americantower.com). Please include the American Tower site name, site number, and engineering number in the subject line for any questions.



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March 30, 2018

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### Existing and Reserved Equipment

Elevation <sup>1</sup> (ft)		Qty	Antenna	Mount Type	Lines	Carrier
Mount	RAD					
150.0	155.0	6	Powerwave TT08-19DB111-001	Platform w/ Handrails	(6) 0.78" 8 AWG 6 (6) 1 5/8" Coax (4) 0.39" Fiber Trunk (2) 3" conduit	AT&T Mobility
		3	Raycap DC6-48-60-0-8F			
		6	Ericsson RRUS A2			
		3	Ericsson RRUS 32 (50.8 lbs)			
		6	Ericsson RRUS 12			
		1	Ericsson RRUS E2 B29			
		6	Ericsson RRUS-11			
		3	Powerwave 7770.00			
		1	Quintel QS66512-2			
		3	CCI HPA-65R-BUU-H8			
137.0	137.0	2	CCI TPA-65R-LCUUUU-H8	Platform w/ Handrails	(12) 1 5/8" Coax (1) 1 1/4" Hybriflex (1) 1 5/8" Hybriflex	T-Mobile
		1	Commscope WCS-IMFQ-AMT			
		3	Ericsson KRY 112 144/1			
		3	Ericsson RRUS 11 B12			
		3	Ericsson AIR 21, 1.3 M, B2A B4P			
		3	Ericsson AIR32 B66Aa/B2a			
		3	Andrew LNX-6515DS-VTM			

### Equipment to be Removed

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

### Proposed Equipment

Elevation <sup>1</sup> (ft)		Qty	Antenna	Mount Type	Lines	Carrier
Mount	RAD					
137.0	137.0	1	Fastback Networks Intelligent Backhaul Radio 1300 Series	Platform w/ Handrails	(2) 0.27" Cat 5 (1) 0.33" Fiber	T-Mobile

<sup>1</sup>Mount 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.



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### Structure Usages

Structural Component	Controlling Usage	Pass/Fail
Anchor Bolts	12%	Pass
Shaft	45%	Pass
Base Plate	63%	Pass
Flanges	61%	Pass

### Foundations

Reaction Component	Original Design Reactions	Analysis Reactions	% of Design
Moment (Kips-Ft)	4,816.0	2,001.1	42%
Shear (Kips)	50.0	19.2	38%

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) (°)
137.0	Fastback Networks Intelligent Backhaul Radio 1300 Series	T-Mobile	0.501	0.408

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

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

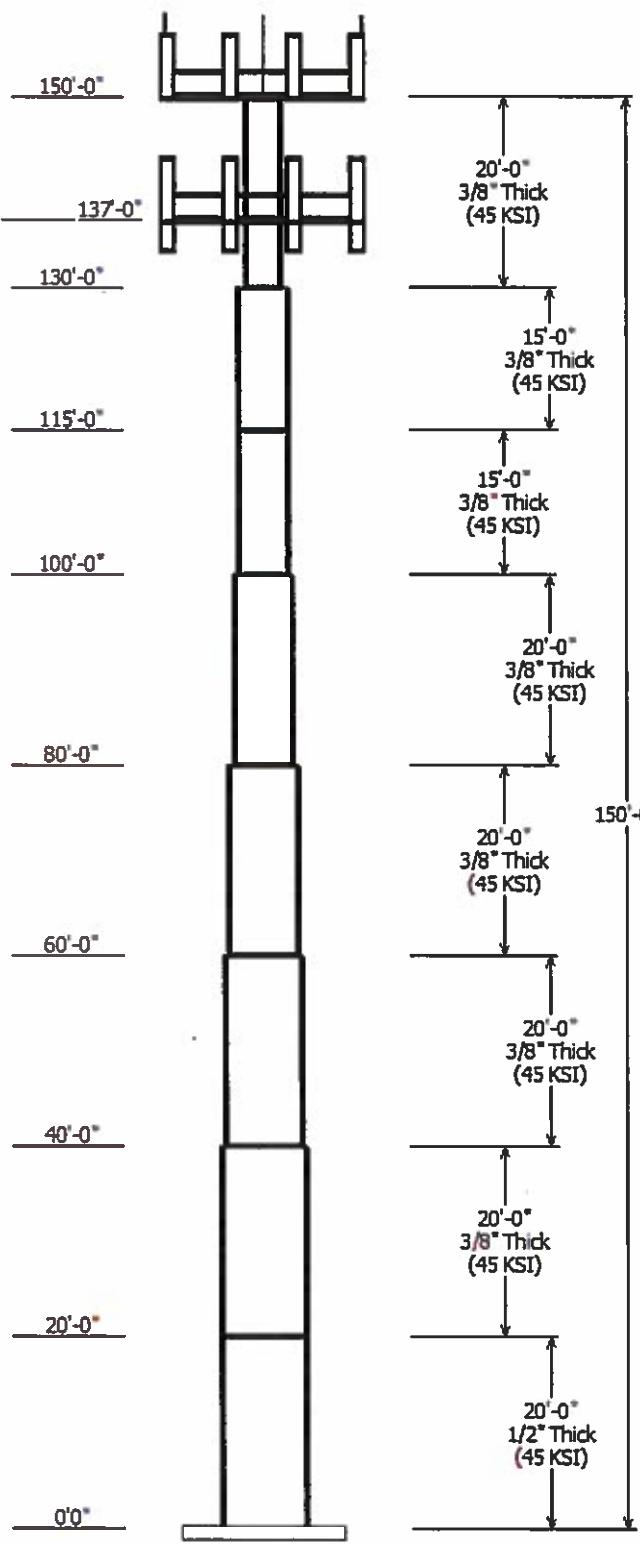
It is the responsibility of the client to ensure that the information provided to A.T. Engineering Service, PLLC and used in the performance of our engineering services is correct and complete.

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

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

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

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Job Information	
Pole : 282660	Code: ANSI/TIA-222-G
Location : PROSPECT CT, CT	
Description :	
Client : T-MOBILE	Struct Class : II
Shape : Round	Exposure : B
Height : 150.00 (ft)	Topo : 1
Base Elev (ft): 0.00	
Taper: 0.000000in/ft)	

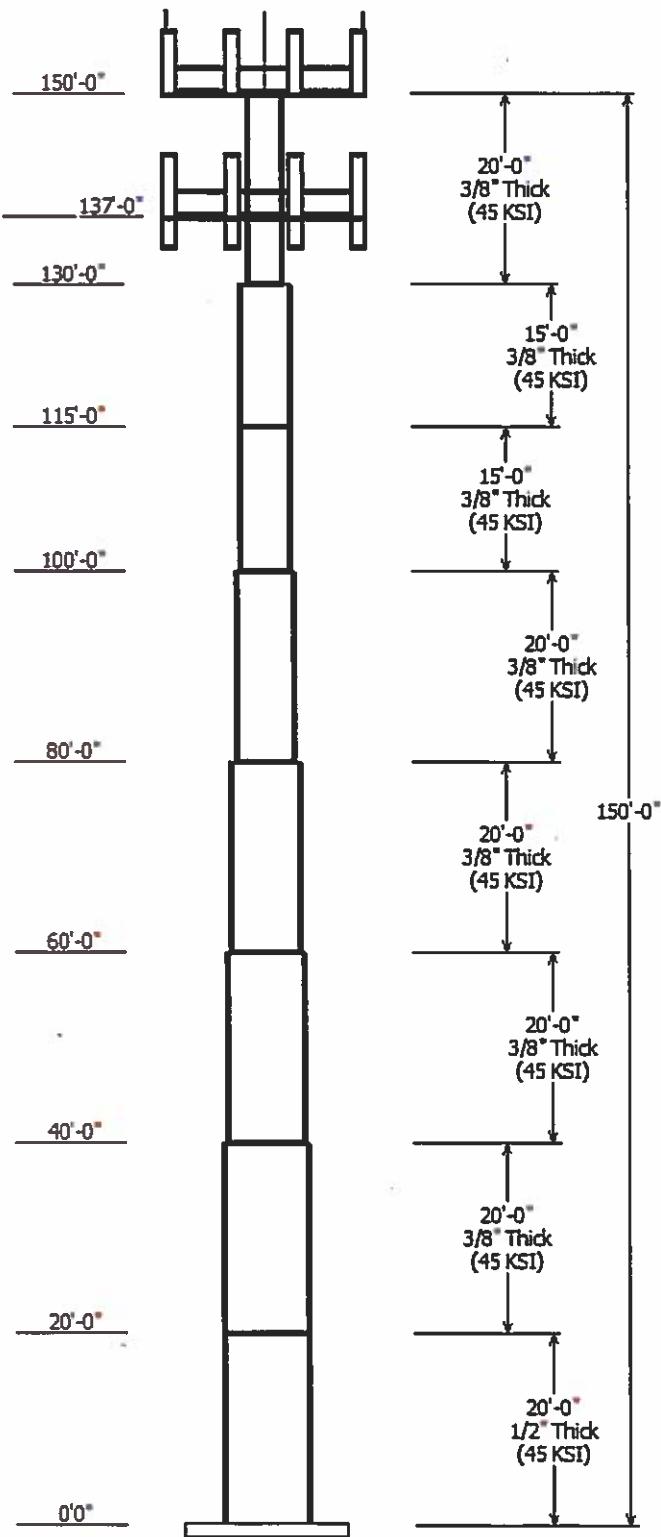
Sections Properties							
Shaft Section	Length (ft)	Diameter (in) Accross Flats	Overlap Length (in)	Steel Grade	Joint Type	Top	Bottom
1	20.000	60.00	60.00	0.500	Butt Joint	0.000	Round
2	20.000	60.00	60.00	0.375	Butt Joint	0.000	Round
3	20.000	54.00	54.00	0.375	Butt Joint	0.000	Round
4	20.000	48.00	48.00	0.375	Butt Joint	0.000	Round
5	20.000	42.00	42.00	0.375	Butt Joint	0.000	Round
6	15.000	36.00	36.00	0.375	Butt Joint	0.000	Round
7	15.000	36.00	36.00	0.375	Butt Joint	0.000	Round
8	20.000	24.00	24.00	0.375	Butt Joint	0.000	Round

Discrete Appurtenance			
Attach Elev (ft)	Force Elev (ft)	Qty	Description
150.000	150.000	1	Round Platform w/ Handrails
150.000	155.000	2	CCI TPA-65R-LCUUUU-H8
150.000	155.000	3	CCI HPA-65R-BUU-H8
150.000	155.000	1	Quintel QS66512-2
150.000	155.000	3	Powerwave Allgon 7770.00
150.000	155.000	6	Ericsson RRUS-11
150.000	155.000	1	Ericsson RRUS E2 B29
150.000	155.000	6	Ericsson RRUS 12
150.000	155.000	3	Ericsson RRUS 32 (50.8 lbs)
150.000	155.000	6	Ericsson RRUS A2
150.000	155.000	3	Raycap DC6-48-60-0-8F
150.000	152.000	1	Commscope WCS-IMFQ-AMT
150.000	155.000	6	Powerwave TT08-19DB111-001
137.000	137.000	1	Fastback Networks Intelligent
137.000	141.000	3	Andrew LNX-6515DS-VTM
137.000	141.000	3	Ericsson RRUS 11 B12
137.000	141.000	3	Ericsson KRY 112 144/1
137.000	141.000	3	Ericsson AIR32 B66Aa/B2a
137.000	137.000	1	Round Platform w/ Handrails
137.000	141.000	3	Ericsson AIR 21, 1.3 M, B2A B4

Linear Appurtenance			
Elev (ft) From	To	Description	Exposed To Wind
0.000	137.0	0.27" Cat 5	No
0.000	137.0	0.33" (8.7mm)	No
0.000	137.0	1 1/4" Hybriflex	No
0.000	137.0	1 5/8" Coax	No
0.000	137.0	1 5/8" Hybriflex	No
0.000	150.0	0.39" Fiber Trunk	No
0.000	150.0	0.78" 8 AWG 6	No
0.000	150.0	1 5/8" Coax	No
0.000	150.0	3" conduit	No

Load Cases	

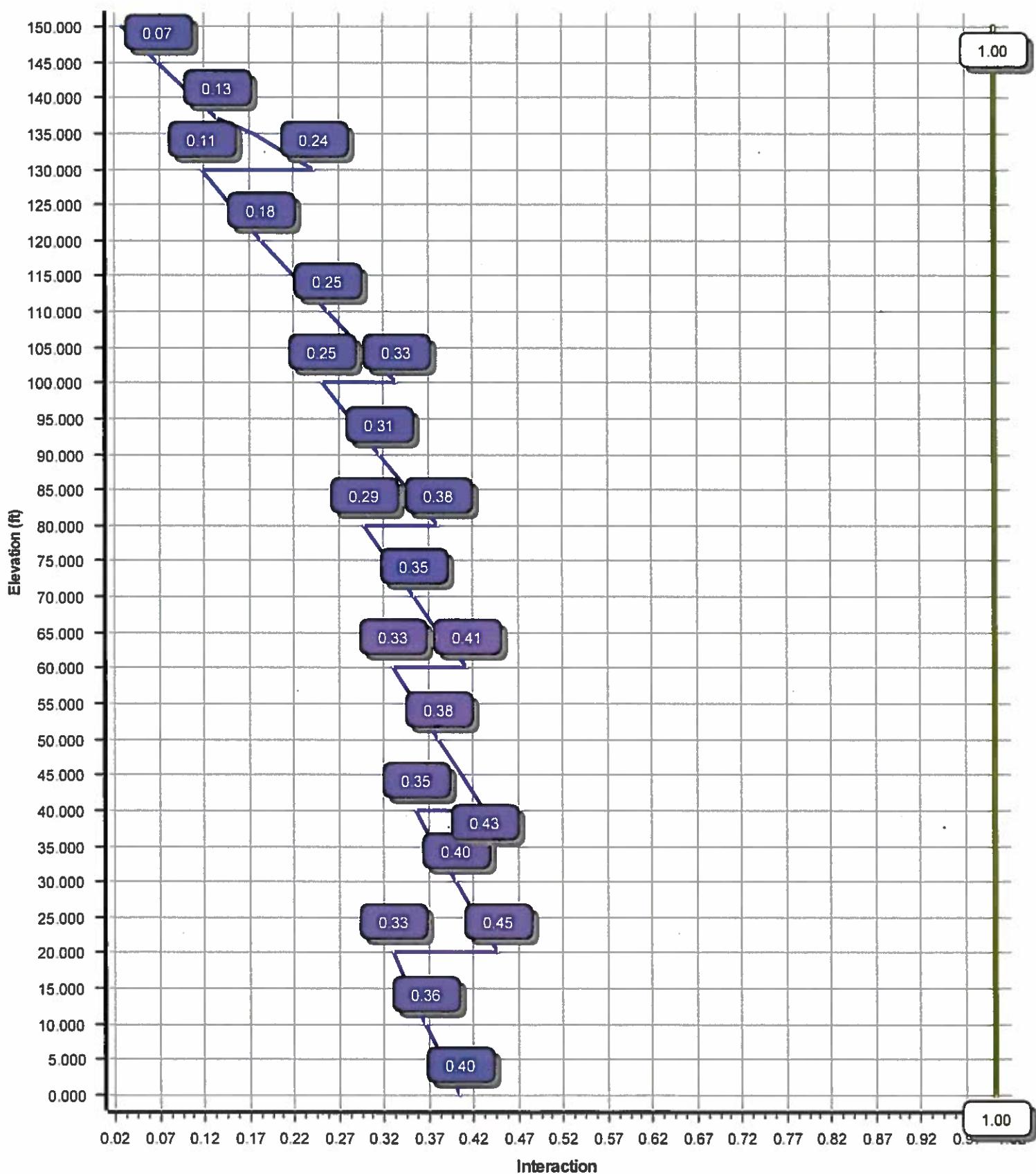
1.2D + 1.6W	97 mph with No Ice
0.9D + 1.6W	97 mph with No Ice (Reduced DL)
1.2D + 1.0DI + 1.0WI	50 mph with 0.75 in Radial Ice
(1.2 + 0.2Sds) * DL + E	Seismic Equivalent Lateral Forces Method
(1.2 + 0.2Sds) * DL + E	Seismic Equivalent Modal Analysis Method
(0.9 - 0.2Sds) * DL + E	Seismic (Reduced DL) 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	2001.08	19.23	50.53
0.9D + 1.6W	1988.92	19.22	37.89
1.2D + 1.0DI + 1.0WI	583.62	5.93	72.41
(1.2 + 0.2Sds) * DL + E ELF M	196.20	1.65	49.98
(1.2 + 0.2Sds) * DL + E EMAM	295.67	2.41	49.98
(0.9 - 0.2Sds) * DL + E ELF M	194.77	1.65	34.65
(0.9 - 0.2Sds) * DL + E EMAM	293.35	2.41	34.65
1.0D + 1.0W	476.55	4.60	42.11

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 44.56% at 20.0 ft



Site Number: 282660

Code: ANSI/TIA-222-G

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Site Name: PROSPECT CT, CT

Engineering Number: OAA727017\_C3\_01

3/30/2018 10:35:25 AM

Customer: T-MOBILE

### Analysis Parameters

Location :	NEW HAVEN County, CT	Height (ft) :	150
Code :	ANSI/TIA-222-G	Base Diameter (in) :	60.00
Shape :	Round	Top Diameter (in) :	24.00
Pole Type :	Stepped	Taper (in/ft) :	0.000
Pole Manufacturer :	ERI	Rotation (deg) :	0.00

### Ice & Wind Parameters

Structure Class:	II	Design Wind Speed Without Ice:	97 mph
Exposure Category:	B	Design Wind Speed With Ice:	50 mph
Topographic Category:	1	Operational Wind Speed:	60 mph
Crest Height:	0 ft	Design Ice Thickness:	0.75 in

### Seismic Parameters

Analysis Method: Equivalent Modal Analysis & Equivalent Lateral Force Methods

Site Class: D - Stiff Soil

Period Based on Rayleigh Method (sec): 1.74

T <sub>L</sub> (sec):	6	p:	1	C <sub>s</sub> :	0.039
S <sub>s</sub> :	0.188	S <sub>v</sub> :	0.064	C <sub>s</sub> Max:	0.039
F <sub>s</sub> :	1.600	F <sub>v</sub> :	2.400	C <sub>s</sub> Min:	0.030
S <sub>ds</sub> :	0.201	S <sub>d1</sub> :	0.102		

### Load Cases

1.2D + 1.6W	97 mph with No Ice
0.9D + 1.6W	97 mph with No Ice (Reduced DL)
1.2D + 1.0DL + 1.0WI	50 mph with 0.75 in Radial Ice
(1.2 + 0.2Sds) * DL + E ELF M	Seismic Equivalent Lateral Forces Method
(1.2 + 0.2Sds) * DL + E EMAM	Seismic Equivalent Modal Analysis Method
(0.9 - 0.2Sds) * DL + E ELF M	Seismic (Reduced DL) Equivalent Lateral Forces Method
(0.9 - 0.2Sds) * DL + E EMAM	Seismic (Reduced DL) Equivalent Modal Analysis Method
1.0D + 1.0W	Serviceability 60 mph

Site Number: 282660

Code: ANSI/TIA-222-G

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Site Name: PROSPECT CT, CT

Engineering Number: OAA727017\_C3\_01

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Customer: T-MOBILE

**Shaft Section Properties**

Sect Info	Length (ft)	Thick (in)	Fy (ksi)	Slip Joint		Weight (lb)	Bottom						Top						
				Type	Joint Len (in)		Dia (in)	Elev (ft)	Area (in <sup>2</sup> )	I <sub>x</sub> (in <sup>4</sup> )	W/t Ratio	D/t Ratio	Dia (in)	Elev (ft)	Area (in <sup>2</sup> )	I <sub>x</sub> (in <sup>4</sup> )	W/t Ratio	D/t Ratio	Taper (in/ft)
1-R	20.000	0.5000	45		0.00	6,361	60.00	0.00	93.46	41391.7	0.00	120.00	60.00	20.00	93.46	41391.7	0.00	120.00	0.000000
2-R	20.000	0.3750	45	Butt	0.00	4,780	60.00	20.00	70.24	31239.9	0.00	160.00	60.00	40.00	70.24	31239.9	0.00	160.00	0.000000
3-R	20.000	0.3750	45	Butt	0.00	4,299	54.00	40.00	63.18	22726.1	0.00	144.00	54.00	60.00	63.18	22726.1	0.00	144.00	0.000000
4-R	20.000	0.3750	45	Butt	0.00	3,818	48.00	60.00	56.11	15919.5	0.00	128.00	48.00	80.00	56.11	15919.5	0.00	128.00	0.000000
5-R	20.000	0.3750	45	Butt	0.00	3,337	42.00	80.00	49.04	10628.9	0.00	112.00	42.00	100.00	49.04	10628.9	0.00	112.00	0.000000
6-R	15.000	0.3750	45	Butt	0.00	2,142	36.00	100.00	41.97	6663.3	0.00	96.00	36.00	115.00	41.97	6663.3	0.00	96.00	0.000000
7-R	15.000	0.3750	45	Butt	0.00	2,142	36.00	115.00	41.97	6663.3	0.00	96.00	36.00	130.00	41.97	6663.3	0.00	96.00	0.000000
8-R	20.000	0.3750	45	Butt	0.00	1,894	24.00	130.00	27.83	1943.3	0.00	64.00	24.00	150.00	27.83	1943.3	0.00	64.00	0.000000
Shaft Weight					28,775														

**Discrete Appurtenance Properties**

Attach Elev (ft)	Description	Qty	Distance From Face (ft)	Vert Ecc (ft)	Weight (lb)	No Ice EPAa (sf)	Orientation Factor
150.00	CCI HPA-65R-BUU-H8	3	0.000	5.000	68.00	12.980	0.67
150.00	CCI TPA-65R-LCUUUU-H8	2	0.000	5.000	81.60	13.300	0.69
150.00	Commscope WCS-IMFQ-AMT	1	0.000	2.000	29.50	0.990	0.50
150.00	Ericsson RRUS 12	6	0.000	5.000	50.00	3.150	0.50
150.00	Ericsson RRUS 32 (50.8 lbs)	3	0.000	5.000	50.80	2.690	0.50
150.00	Ericsson RRUS A2	6	0.000	5.000	15.00	1.600	0.50
150.00	Ericsson RRUS E2 B29	1	0.000	5.000	60.00	3.150	0.50
150.00	Ericsson RRUS-11	6	0.000	5.000	55.00	3.790	0.50
150.00	Powerwave Allgon 7770.00	3	0.000	5.000	35.00	5.510	0.65
150.00	Powerwave TT08-19DB111-001	6	0.000	5.000	22.00	0.920	0.50
150.00	Quintel QS66512-2	1	0.000	5.000	111.00	8.130	0.74
150.00	Raycap DC6-48-60-0-8F	3	0.000	5.000	32.80	1.190	1.00
150.00	Round Platform w/ Handrails	1	0.000	0.000	2000.00	27.200	1.00
137.00	Andrew LNX-6515DS-VTM	3	0.000	4.000	51.30	11.430	0.70
137.00	Ericsson AIR 21, 1.3 M, B2A B4	3	0.000	4.000	83.00	6.050	0.71
137.00	Ericsson AIR32 B66Aa/B2a	3	0.000	4.000	132.20	6.510	0.71
137.00	Ericsson KRY 112 144/1	3	0.000	4.000	11.00	0.410	0.50
137.00	Ericsson RRUS 11 B12	3	0.000	4.000	50.70	2.790	0.50
137.00	Fastback Networks Intelligent	1	0.000	0.000	8.80	0.780	0.50
137.00	Round Platform w/ Handrails	1	0.000	0.000	2000.00	27.200	1.00
Totals	Num Loadings:20	59			6768.90		

**Linear Appurtenance Properties**

Elev From (ft)	Elev To (ft)	Qty	Description	Coax Diameter (in)	Coax Weight (lb/ft)	Projected Flat	Width (in)	Exposed To Wind	Carrier
0.00	150.00	4	0.39" Fiber Trunk	0.39	0.06	N	0.00	N	AT&T Mobility
0.00	150.00	8	0.78" 8 AWG 6	0.78	0.59	N	0.00	N	AT&T Mobility
0.00	150.00	6	1 5/8" Coax	1.98	0.82	N	0.00	N	AT&T Mobility
0.00	150.00	3	3" conduit	3.50	7.58	N	0.00	N	AT&T Mobility
0.00	137.00	2	0.27" Cat 5	0.27	0.03	N	0.00	N	T-Mobile
0.00	137.00	1	0.33" (8.7mm) Fiber	0.33	0.05	N	0.00	N	T-Mobile
0.00	137.00	1	1 1 1/4" Hybriflex	1.54	1.00	N	0.00	N	T-Mobile
0.00	137.00	12	1 5/8" Coax	1.98	0.82	N	0.00	N	T-Mobile
0.00	137.00	1	1 5/8" Hybriflex	1.98	1.30	N	0.00	N	T-Mobile

**Site Number:** 282660

**Code:** ANSI/TIA-222-G © 2007 - 2018 by ATC IP LLC. All rights reserved.

**Site Name:** PROSPECT CT, CT

**Engineering Number:** OAA727017\_C3\_01

**3/30/2018 10:35:25 AM**

**Customer:** T-MOBILE

Site Number: 282660

Code: ANSI/TIA-222-G

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Site Name: PROSPECT CT, CT

Engineering Number: OAA727017\_C3\_01

3/30/2018 10:35:25 AM

Customer: T-MOBILE

**Segment Properties** (Max Len : 5.ft)

Seg Top Elev (ft)	Description	Thick (in)	Flat Dia (in)	Area (in <sup>2</sup> )	I <sub>x</sub> (in <sup>4</sup> )	W/t Ratio	D/t Ratio	F' <sub>y</sub> (ksi)	S (in <sup>3</sup> )	Z (in <sup>3</sup> )	Weight (lb)
0.00		0.5000	60.000	93.462	41,391.7	0.00	120.00	39.2	1379.	1770.	0.0
5.00		0.5000	60.000	93.462	41,391.7	0.00	120.00	39.2	1379.	1770.	1,590.2
10.00		0.5000	60.000	93.462	41,391.7	0.00	120.00	39.2	1379.	1770.	1,590.2
15.00		0.5000	60.000	93.462	41,391.7	0.00	120.00	39.2	1379.	1770.	1,590.2
20.00	Top - Section 1	0.5000	60.000	93.462	41,391.7	0.00	120.00	39.2	1379.	1770.	1,590.2
20.00	Bot - Section 2	0.3750	60.000	70.244	31,239.9	0.00	160.00	36.9	1041.	1333.	
25.00		0.3750	60.000	70.244	31,239.9	0.00	160.00	36.9	1041.	1333.	1,195.1
30.00		0.3750	60.000	70.244	31,239.9	0.00	160.00	36.9	1041.	1333.	1,195.1
35.00		0.3750	60.000	70.244	31,239.9	0.00	160.00	36.9	1041.	1333.	1,195.1
40.00	Top - Section 2	0.3750	60.000	70.244	31,239.9	0.00	160.00	36.9	1041.	1333.	1,195.1
40.00	Bot - Section 3	0.3750	54.000	63.175	22,726.1	0.00	144.00	37.6	841.7	1078.	
45.00		0.3750	54.000	63.175	22,726.1	0.00	144.00	37.6	841.7	1078.	1,074.9
50.00		0.3750	54.000	63.175	22,726.1	0.00	144.00	37.6	841.7	1078.	1,074.9
55.00		0.3750	54.000	63.175	22,726.1	0.00	144.00	37.6	841.7	1078.	1,074.9
60.00	Top - Section 3	0.3750	54.000	63.175	22,726.1	0.00	144.00	37.6	841.7	1078.	1,074.9
60.00	Bot - Section 4	0.3750	48.000	56.107	15,919.5	0.00	128.00	38.6	663.3	850.6	
65.00		0.3750	48.000	56.107	15,919.5	0.00	128.00	38.6	663.3	850.6	954.6
70.00		0.3750	48.000	56.107	15,919.5	0.00	128.00	38.6	663.3	850.6	954.6
75.00		0.3750	48.000	56.107	15,919.5	0.00	128.00	38.6	663.3	850.6	954.6
80.00	Top - Section 4	0.3750	48.000	56.107	15,919.5	0.00	128.00	38.6	663.3	850.6	954.6
80.00	Bot - Section 5	0.3750	42.000	49.038	10,628.9	0.00	112.00	39.8	506.1	649.8	
85.00		0.3750	42.000	49.038	10,628.9	0.00	112.00	39.8	506.1	649.8	834.3
90.00		0.3750	42.000	49.038	10,628.9	0.00	112.00	39.8	506.1	649.8	834.3
95.00		0.3750	42.000	49.038	10,628.9	0.00	112.00	39.8	506.1	649.8	834.3
100.0	Top - Section 5	0.3750	42.000	49.038	10,628.9	0.00	112.00	39.8	506.1	649.8	834.3
100.0	Bot - Section 6	0.3750	36.000	41.970	6,663.3	0.00	96.00	41.4	370.2	475.9	
105.0		0.3750	36.000	41.970	6,663.3	0.00	96.00	41.4	370.2	475.9	714.1
110.0		0.3750	36.000	41.970	6,663.3	0.00	96.00	41.4	370.2	475.9	714.1
115.0	Top - Section 6	0.3750	36.000	41.970	6,663.3	0.00	96.00	41.4	370.2	475.9	714.1
115.0	Bot - Section 7	0.3750	36.000	41.970	6,663.3	0.00	96.00	41.4	370.2	475.9	
120.0		0.3750	36.000	41.970	6,663.3	0.00	96.00	41.4	370.2	475.9	714.1
125.0		0.3750	36.000	41.970	6,663.3	0.00	96.00	41.4	370.2	475.9	714.1
130.0	Top - Section 7	0.3750	36.000	41.970	6,663.3	0.00	96.00	41.4	370.2	475.9	714.1
130.0	Bot - Section 8	0.3750	24.000	27.833	1,943.3	0.00	64.00	45.0	161.9	209.3	
135.0		0.3750	24.000	27.833	1,943.3	0.00	64.00	45.0	161.9	209.3	473.5
137.0		0.3750	24.000	27.833	1,943.3	0.00	64.00	45.0	161.9	209.3	189.4
140.0		0.3750	24.000	27.833	1,943.3	0.00	64.00	45.0	161.9	209.3	284.1
145.0		0.3750	24.000	27.833	1,943.3	0.00	64.00	45.0	161.9	209.3	473.5
150.0		0.3750	24.000	27.833	1,943.3	0.00	64.00	45.0	161.9	209.3	473.5
											28,774.9

Site Number: 282660

Code: ANSI/TIA-222-G

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Site Name: PROSPECT CT, CT

Engineering Number: OAA727017\_C3\_01

3/30/2018 10:35:25 AM

Customer: T-MOBILE

Load Case: 1.2D + 1.6W

97 mph with No Ice

19 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)	
0.00		211.4	0.0				0.0	0.0	211.4	0.0	0.0	0.0	
5.00		422.9	1,908.2				0.0	269.2	422.9	2,177.4	0.0	0.0	
10.00		422.9	1,908.2				0.0	269.2	422.9	2,177.4	0.0	0.0	
15.00		422.9	1,908.2				0.0	269.2	422.9	2,177.4	0.0	0.0	
20.00	Top - Section 1	422.9	1,908.2				0.0	269.2	422.9	2,177.4	0.0	0.0	
25.00		422.9	1,434.1				0.0	269.2	422.9	1,703.4	0.0	0.0	
30.00		427.9	1,434.1				0.0	269.2	427.9	1,703.4	0.0	0.0	
35.00		442.1	1,434.1				0.0	269.2	442.1	1,703.4	0.0	0.0	
40.00	Top - Section 2	435.9	1,434.1				0.0	269.2	435.9	1,703.4	0.0	0.0	
45.00		427.6	1,289.8				0.0	269.2	427.6	1,559.1	0.0	0.0	
50.00		440.6	1,289.8				0.0	269.2	440.6	1,559.1	0.0	0.0	
55.00		452.8	1,289.8				0.0	269.2	452.8	1,559.1	0.0	0.0	
60.00	Top - Section 3	438.1	1,289.8				0.0	269.2	438.1	1,559.1	0.0	0.0	
65.00		422.2	1,145.5				0.0	269.2	422.2	1,414.7	0.0	0.0	
70.00		431.3	1,145.5				0.0	269.2	431.3	1,414.7	0.0	0.0	
75.00		439.9	1,145.5				0.0	269.2	439.9	1,414.7	0.0	0.0	
80.00	Top - Section 4	419.8	1,145.5				0.0	269.2	419.8	1,414.7	0.0	0.0	
85.00		398.9	1,001.2				0.0	269.2	398.9	1,270.4	0.0	0.0	
90.00		405.5	1,001.2				0.0	269.2	405.5	1,270.4	0.0	0.0	
95.00		411.8	1,001.2				0.0	269.2	411.8	1,270.4	0.0	0.0	
100.00	Top - Section 5	387.8	1,001.2				0.0	269.2	387.8	1,270.4	0.0	0.0	
105.00		363.2	856.9				0.0	269.2	363.2	1,126.1	0.0	0.0	
110.00		368.1	856.9				0.0	269.2	368.1	1,126.1	0.0	0.0	
115.00	Top - Section 6	372.8	856.9				0.0	269.2	372.8	1,126.1	0.0	0.0	
120.00		377.3	856.9				0.0	269.2	377.3	1,126.1	0.0	0.0	
125.00		381.8	856.9				0.0	269.2	381.8	1,126.1	0.0	0.0	
130.00	Top - Section 7	321.4	856.9				0.0	269.2	321.4	1,126.1	0.0	0.0	
135.00		181.5	568.2				0.0	269.2	181.5	837.5	0.0	0.0	
137.00	Appurtenance(s)	130.8	227.3	3,026.5	0.0	7,317.5	3,592.1	0.0	107.7	3,157.3	3,927.1	0.0	0.0
140.00		210.7	340.9				0.0	117.4	210.7	458.4	0.0	0.0	
145.00		265.5	568.2				0.0	195.7	265.5	764.0	0.0	0.0	
150.00	Appurtenance(s)	133.4	568.2	4,573.5	0.0	16,740.0	4,530.6	0.0	195.7	4,706.9	5,294.6	0.0	0.0
								Totals:		19,414.5	50,538.0	0.00	0.00

Site Number: 282660

Code: ANSI/TIA-222-G

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Site Name: PROSPECT CT, CT

Engineering Number: OAA727017\_C3\_01

3/30/2018 10:35:27 AM

Customer: T-MOBILE

**Load Case: 1.2D + 1.6W****97 mph with No Ice****19 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	-50.53	-19.23	0.00	-2,001.08	0.00	2,001.08	3,293.92	1,646.96	8,093.29	5,174.22	0.00	0.00	0.402
5.00	-48.33	-18.86	0.00	-1,904.92	0.00	1,904.92	3,293.92	1,646.96	8,093.29	5,174.22	0.04	-0.07	0.383
10.00	-46.13	-18.49	0.00	-1,810.61	0.00	1,810.61	3,293.92	1,646.96	8,093.29	5,174.22	0.14	-0.13	0.364
15.00	-43.94	-18.10	0.00	-1,718.17	0.00	1,718.17	3,293.92	1,646.96	8,093.29	5,174.22	0.31	-0.19	0.346
20.00	-41.74	-17.71	0.00	-1,627.66	0.00	1,627.66	3,293.92	1,646.96	8,093.29	5,174.22	0.54	-0.25	0.327
20.00	-41.74	-17.71	0.00	-1,627.66	0.00	1,627.66	2,330.87	1,165.43	5,751.12	3,807.50	0.54	-0.25	0.446
25.00	-40.02	-17.32	0.00	-1,539.09	0.00	1,539.09	2,330.87	1,165.43	5,751.12	3,807.50	0.83	-0.30	0.422
30.00	-38.30	-16.93	0.00	-1,452.47	0.00	1,452.47	2,330.87	1,165.43	5,751.12	3,807.50	1.19	-0.37	0.398
35.00	-36.58	-16.52	0.00	-1,367.82	0.00	1,367.82	2,330.87	1,165.43	5,751.12	3,807.50	1.61	-0.44	0.375
40.00	-34.87	-16.10	0.00	-1,285.23	0.00	1,285.23	2,330.87	1,165.43	5,751.12	3,807.50	2.10	-0.50	0.353
40.00	-34.87	-16.10	0.00	-1,285.23	0.00	1,285.23	2,139.71	1,069.86	4,744.89	3,103.93	2.10	-0.50	0.431
45.00	-33.30	-15.70	0.00	-1,204.72	0.00	1,204.72	2,139.71	1,069.86	4,744.89	3,103.93	2.65	-0.55	0.404
50.00	-31.72	-15.28	0.00	-1,126.23	0.00	1,126.23	2,139.71	1,069.86	4,744.89	3,103.93	3.27	-0.63	0.378
55.00	-30.15	-14.84	0.00	-1,049.83	0.00	1,049.83	2,139.71	1,069.86	4,744.89	3,103.93	3.96	-0.69	0.353
60.00	-28.58	-14.42	0.00	-975.61	0.00	975.61	2,139.71	1,069.86	4,744.89	3,103.93	4.72	-0.76	0.328
60.00	-28.58	-14.42	0.00	-975.61	0.00	975.61	1,948.48	974.24	3,834.02	2,471.99	4.72	-0.76	0.410
65.00	-27.16	-14.01	0.00	-903.52	0.00	903.52	1,948.48	974.24	3,834.02	2,471.99	5.55	-0.82	0.380
70.00	-25.73	-13.59	0.00	-833.48	0.00	833.48	1,948.48	974.24	3,834.02	2,471.99	6.45	-0.89	0.351
75.00	-24.31	-13.16	0.00	-765.54	0.00	765.54	1,948.48	974.24	3,834.02	2,471.99	7.42	-0.97	0.322
80.00	-22.89	-12.74	0.00	-699.76	0.00	699.76	1,948.48	974.24	3,834.02	2,471.99	8.47	-1.03	0.295
80.00	-22.89	-12.74	0.00	-699.76	0.00	699.76	1,757.14	878.57	3,018.53	1,911.67	8.47	-1.03	0.379
85.00	-21.61	-12.34	0.00	-636.08	0.00	636.08	1,757.14	878.57	3,018.53	1,911.67	9.58	-1.09	0.345
90.00	-20.33	-11.94	0.00	-574.38	0.00	574.38	1,757.14	878.57	3,018.53	1,911.67	10.77	-1.17	0.312
95.00	-19.06	-11.52	0.00	-514.70	0.00	514.70	1,757.14	878.57	3,018.53	1,911.67	12.03	-1.24	0.280
100.00	-17.78	-11.12	0.00	-457.09	0.00	457.09	1,757.14	878.57	3,018.53	1,911.67	13.37	-1.31	0.249
100.00	-17.78	-11.12	0.00	-457.09	0.00	457.09	1,565.64	782.82	2,298.42	1,422.98	13.37	-1.31	0.333
105.00	-16.65	-10.76	0.00	-401.47	0.00	401.47	1,565.64	782.82	2,298.42	1,422.98	14.77	-1.37	0.293
110.00	-15.52	-10.38	0.00	-347.69	0.00	347.69	1,565.64	782.82	2,298.42	1,422.98	16.25	-1.45	0.254
115.00	-14.40	-9.99	0.00	-295.79	0.00	295.79	1,565.64	782.82	2,298.42	1,422.98	17.80	-1.52	0.217
115.00	-14.40	-9.99	0.00	-295.79	0.00	295.79	1,565.64	782.82	2,298.42	1,422.98	17.80	-1.52	0.217
120.00	-13.27	-9.60	0.00	-245.82	0.00	245.82	1,565.64	782.82	2,298.42	1,422.98	19.42	-1.57	0.181
125.00	-12.15	-9.19	0.00	-197.83	0.00	197.83	1,565.64	782.82	2,298.42	1,422.98	21.09	-1.62	0.147
130.00	-11.03	-8.85	0.00	-151.86	0.00	151.86	1,565.64	782.82	2,298.42	1,422.98	22.81	-1.66	0.114
130.00	-11.03	-8.85	0.00	-151.86	0.00	151.86	1,127.22	563.61	1,091.62	660.47	22.81	-1.66	0.240
135.00	-10.19	-8.65	0.00	-107.62	0.00	107.62	1,127.22	563.61	1,091.62	660.47	24.56	-1.69	0.172
137.00	-6.36	-5.38	0.00	-83.01	0.00	83.01	1,127.22	563.61	1,091.62	660.47	25.28	-1.71	0.131
140.00	-5.90	-5.16	0.00	-66.88	0.00	66.88	1,127.22	563.61	1,091.62	660.47	26.37	-1.75	0.107
145.00	-5.14	-4.87	0.00	-41.09	0.00	41.09	1,127.22	563.61	1,091.62	660.47	28.22	-1.79	0.067
150.00	0.00	-4.71	0.00	-16.74	0.00	16.74	1,127.22	563.61	1,091.62	660.47	30.10	-1.81	0.025

Site Number: 282660

Code: ANSI/TIA-222-G

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Site Name: PROSPECT CT, CT

Engineering Number: OAA727017\_C3\_01

3/30/2018 10:35:28 AM

Customer: T-MOBILE

**Load Case: 0.9D + 1.6W****97 mph with No Ice (Reduced DL)****19 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)	Torsion MY (lb)
0.00		211.4	0.0				0.0	0.0	211.4	0.0	0.0
5.00		422.9	1,431.1				0.0	201.9	422.9	1,633.1	0.0
10.00		422.9	1,431.1				0.0	201.9	422.9	1,633.1	0.0
15.00		422.9	1,431.1				0.0	201.9	422.9	1,633.1	0.0
20.00	Top - Section 1	422.9	1,431.1				0.0	201.9	422.9	1,633.1	0.0
25.00		422.9	1,075.6				0.0	201.9	422.9	1,277.5	0.0
30.00		427.9	1,075.6				0.0	201.9	427.9	1,277.5	0.0
35.00		442.1	1,075.6				0.0	201.9	442.1	1,277.5	0.0
40.00	Top - Section 2	435.9	1,075.6				0.0	201.9	435.9	1,277.5	0.0
45.00		427.6	967.4				0.0	201.9	427.6	1,169.3	0.0
50.00		440.6	967.4				0.0	201.9	440.6	1,169.3	0.0
55.00		452.8	967.4				0.0	201.9	452.8	1,169.3	0.0
60.00	Top - Section 3	438.1	967.4				0.0	201.9	438.1	1,169.3	0.0
65.00		422.2	859.1				0.0	201.9	422.2	1,061.1	0.0
70.00		431.3	859.1				0.0	201.9	431.3	1,061.1	0.0
75.00		439.9	859.1				0.0	201.9	439.9	1,061.1	0.0
80.00	Top - Section 4	419.8	859.1				0.0	201.9	419.8	1,061.1	0.0
85.00		398.9	750.9				0.0	201.9	398.9	952.8	0.0
90.00		405.5	750.9				0.0	201.9	405.5	952.8	0.0
95.00		411.8	750.9				0.0	201.9	411.8	952.8	0.0
100.00	Top - Section 5	387.8	750.9				0.0	201.9	387.8	952.8	0.0
105.00		363.2	642.7				0.0	201.9	363.2	844.6	0.0
110.00		368.1	642.7				0.0	201.9	368.1	844.6	0.0
115.00	Top - Section 6	372.8	642.7				0.0	201.9	372.8	844.6	0.0
120.00		377.3	642.7				0.0	201.9	377.3	844.6	0.0
125.00		381.8	642.7				0.0	201.9	381.8	844.6	0.0
130.00	Top - Section 7	321.4	642.7				0.0	201.9	321.4	844.6	0.0
135.00		181.5	426.2				0.0	201.9	181.5	628.1	0.0
137.00	Appurtenance(s)	130.8	170.5	3,026.5	0.0	7,317.5	2,694.1	0.0	80.8	3,157.3	2,945.3
140.00		210.7	255.7					0.0	88.1	210.7	343.8
145.00		265.5	426.2					0.0	146.8	265.5	573.0
150.00	Appurtenance(s)	133.4	426.2	4,573.5	0.0	16,740.0	3,397.9	0.0	146.8	4,706.9	3,970.9
								<b>Totals:</b>			
								<b>19,414.5 37,903.5 0.00 0.00</b>			

Site Number: 282660

Code: ANSI/TIA-222-G

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Site Name: PROSPECT CT, CT

Engineering Number: OAA727017\_C3\_01

3/30/2018 10:35:30 AM

Customer: T-MOBILE

Load Case: 0.9D + 1.6W

97 mph with No Ice (Reduced DL)

19 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	-37.89	-19.22	0.00	-1,988.92	0.00	1,988.92	3,293.92	1,646.96	8,093.29	5,174.22	0.00	0.00	0.396
5.00	-36.24	-18.84	0.00	-1,892.79	0.00	1,892.79	3,293.92	1,646.96	8,093.29	5,174.22	0.04	-0.07	0.377
10.00	-34.59	-18.45	0.00	-1,798.58	0.00	1,798.58	3,293.92	1,646.96	8,093.29	5,174.22	0.14	-0.13	0.358
15.00	-32.94	-18.06	0.00	-1,706.31	0.00	1,706.31	3,293.92	1,646.96	8,093.29	5,174.22	0.31	-0.19	0.340
20.00	-31.29	-17.66	0.00	-1,616.01	0.00	1,616.01	3,293.92	1,646.96	8,093.29	5,174.22	0.54	-0.25	0.322
20.00	-31.29	-17.66	0.00	-1,616.01	0.00	1,616.01	2,330.87	1,165.43	5,751.12	3,807.50	0.54	-0.25	0.438
25.00	-29.99	-17.26	0.00	-1,527.71	0.00	1,527.71	2,330.87	1,165.43	5,751.12	3,807.50	0.83	-0.30	0.414
30.00	-28.70	-16.86	0.00	-1,441.39	0.00	1,441.39	2,330.87	1,165.43	5,751.12	3,807.50	1.18	-0.37	0.391
35.00	-27.41	-16.44	0.00	-1,357.08	0.00	1,357.08	2,330.87	1,165.43	5,751.12	3,807.50	1.60	-0.43	0.368
40.00	-26.12	-16.02	0.00	-1,274.88	0.00	1,274.88	2,330.87	1,165.43	5,751.12	3,807.50	2.09	-0.49	0.346
40.00	-26.12	-16.02	0.00	-1,274.88	0.00	1,274.88	2,139.71	1,069.86	4,744.89	3,103.93	2.09	-0.49	0.423
45.00	-24.93	-15.61	0.00	-1,194.78	0.00	1,194.78	2,139.71	1,069.86	4,744.89	3,103.93	2.63	-0.55	0.397
50.00	-23.75	-15.19	0.00	-1,116.73	0.00	1,116.73	2,139.71	1,069.86	4,744.89	3,103.93	3.25	-0.62	0.371
55.00	-22.57	-14.75	0.00	-1,040.79	0.00	1,040.79	2,139.71	1,069.86	4,744.89	3,103.93	3.94	-0.69	0.346
60.00	-21.39	-14.32	0.00	-967.06	0.00	967.06	2,139.71	1,069.86	4,744.89	3,103.93	4.69	-0.75	0.322
60.00	-21.39	-14.32	0.00	-967.06	0.00	967.06	1,948.48	974.24	3,834.02	2,471.99	4.69	-0.75	0.402
65.00	-20.32	-13.90	0.00	-895.48	0.00	895.48	1,948.48	974.24	3,834.02	2,471.99	5.51	-0.81	0.373
70.00	-19.25	-13.48	0.00	-825.97	0.00	825.97	1,948.48	974.24	3,834.02	2,471.99	6.40	-0.89	0.344
75.00	-18.18	-13.05	0.00	-758.56	0.00	758.56	1,948.48	974.24	3,834.02	2,471.99	7.37	-0.96	0.316
80.00	-17.11	-12.63	0.00	-693.33	0.00	693.33	1,948.48	974.24	3,834.02	2,471.99	8.41	-1.02	0.289
80.00	-17.11	-12.63	0.00	-693.33	0.00	693.33	1,757.14	878.57	3,018.53	1,911.67	8.41	-1.02	0.373
85.00	-16.15	-12.23	0.00	-630.20	0.00	630.20	1,757.14	878.57	3,018.53	1,911.67	9.51	-1.08	0.339
90.00	-15.19	-11.83	0.00	-569.05	0.00	569.05	1,757.14	878.57	3,018.53	1,911.67	10.68	-1.16	0.306
95.00	-14.23	-11.41	0.00	-509.92	0.00	509.92	1,757.14	878.57	3,018.53	1,911.67	11.94	-1.23	0.275
100.00	-13.28	-11.02	0.00	-452.87	0.00	452.87	1,757.14	878.57	3,018.53	1,911.67	13.27	-1.30	0.245
100.00	-13.28	-11.02	0.00	-452.87	0.00	452.87	1,565.64	782.82	2,298.42	1,422.98	13.27	-1.30	0.327
105.00	-12.43	-10.65	0.00	-397.79	0.00	397.79	1,565.64	782.82	2,298.42	1,422.98	14.66	-1.36	0.288
110.00	-11.58	-10.28	0.00	-344.54	0.00	344.54	1,565.64	782.82	2,298.42	1,422.98	16.12	-1.43	0.250
115.00	-10.73	-9.89	0.00	-293.17	0.00	293.17	1,565.64	782.82	2,298.42	1,422.98	17.66	-1.50	0.213
115.00	-10.73	-9.89	0.00	-293.17	0.00	293.17	1,565.64	782.82	2,298.42	1,422.98	17.66	-1.50	0.213
120.00	-9.89	-9.50	0.00	-243.70	0.00	243.70	1,565.64	782.82	2,298.42	1,422.98	19.27	-1.56	0.178
125.00	-9.05	-9.10	0.00	-196.19	0.00	196.19	1,565.64	782.82	2,298.42	1,422.98	20.93	-1.61	0.144
130.00	-8.21	-8.76	0.00	-150.68	0.00	150.68	1,565.64	782.82	2,298.42	1,422.98	22.63	-1.64	0.111
130.00	-8.21	-8.76	0.00	-150.68	0.00	150.68	1,127.22	563.61	1,091.62	660.47	22.63	-1.64	0.236
135.00	-7.58	-8.57	0.00	-106.86	0.00	106.86	1,127.22	563.61	1,091.62	660.47	24.37	-1.67	0.169
137.00	-4.73	-5.33	0.00	-82.41	0.00	82.41	1,127.22	563.61	1,091.62	660.47	25.08	-1.70	0.129
140.00	-4.39	-5.11	0.00	-66.43	0.00	66.43	1,127.22	563.61	1,091.62	660.47	26.15	-1.73	0.105
145.00	-3.82	-4.83	0.00	-40.88	0.00	40.88	1,127.22	563.61	1,091.62	660.47	27.99	-1.77	0.065
150.00	0.00	-4.71	0.00	-16.74	0.00	16.74	1,127.22	563.61	1,091.62	660.47	29.86	-1.79	0.025

Site Number: 282660

Code: ANSI/TIA-222-G

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Site Name: PROSPECT CT, CT

Engineering Number: OAA727017\_C3\_01

3/30/2018 10:35:30 AM

Customer: T-MOBILE

**Load Case: 1.2D + 1.0DI + 1.0WI****50 mph with 0.75 in Radial Ice****19 Iterations****Gust Response Factor :1.10****Ice Dead Load Factor :1.00****Wind Importance Factor 1.00****Dead Load Factor :1.20****Wind Load Factor :1.00****Ice Importance 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)	
0.00		72.9	0.0				0.0	0.0	72.9	0.0	0.0	0.0	
5.00		146.2	2,340.9				0.0	269.2	146.2	2,610.1	0.0	0.0	
10.00		146.7	2,392.2				0.0	269.2	146.7	2,661.5	0.0	0.0	
15.00		146.9	2,418.2				0.0	269.2	146.9	2,687.4	0.0	0.0	
20.00	Top - Section 1	147.1	2,436.0				0.0	269.2	147.1	2,705.2	0.0	0.0	
25.00		147.3	1,975.7				0.0	269.2	147.3	2,244.9	0.0	0.0	
30.00		149.2	1,987.0				0.0	269.2	149.2	2,256.2	0.0	0.0	
35.00		154.2	1,996.5				0.0	269.2	154.2	2,265.7	0.0	0.0	
40.00	Top - Section 2	152.6	2,004.8				0.0	269.2	152.6	2,274.0	0.0	0.0	
45.00		150.1	1,811.5				0.0	269.2	150.1	2,080.7	0.0	0.0	
50.00		154.8	1,817.5				0.0	269.2	154.8	2,086.7	0.0	0.0	
55.00		159.2	1,823.0				0.0	269.2	159.2	2,092.2	0.0	0.0	
60.00	Top - Section 3	154.6	1,828.0				0.0	269.2	154.6	2,097.2	0.0	0.0	
65.00		149.6	1,629.7				0.0	269.2	149.6	1,898.9	0.0	0.0	
70.00		152.9	1,633.6				0.0	269.2	152.9	1,902.8	0.0	0.0	
75.00		156.0	1,637.2				0.0	269.2	156.0	1,906.4	0.0	0.0	
80.00	Top - Section 4	149.6	1,640.6				0.0	269.2	149.6	1,909.8	0.0	0.0	
85.00		142.9	1,439.3				0.0	269.2	142.9	1,708.5	0.0	0.0	
90.00		145.3	1,441.9				0.0	269.2	145.3	1,711.2	0.0	0.0	
95.00		147.6	1,444.5				0.0	269.2	147.6	1,713.7	0.0	0.0	
100.00	Top - Section 5	139.9	1,446.9				0.0	269.2	139.9	1,716.1	0.0	0.0	
105.00		131.9	1,243.4				0.0	269.2	131.9	1,512.6	0.0	0.0	
110.00		133.7	1,245.3				0.0	269.2	133.7	1,514.5	0.0	0.0	
115.00	Top - Section 6	135.5	1,247.2				0.0	269.2	135.5	1,516.4	0.0	0.0	
120.00		137.2	1,248.9				0.0	269.2	137.2	1,518.2	0.0	0.0	
125.00		138.9	1,250.6				0.0	269.2	138.9	1,519.9	0.0	0.0	
130.00	Top - Section 7	119.0	1,252.3				0.0	269.2	119.0	1,521.5	0.0	0.0	
135.00		69.0	839.0				0.0	269.2	69.0	1,108.2	0.0	0.0	
137.00	Appurtenance(s)	49.7	335.9	730.6	0.0	1,422.8	6,634.4	0.0	107.7	780.3	7,078.0	0.0	0.0
140.00		80.1	504.2				0.0	117.4	80.1	621.6	0.0	0.0	
145.00		101.0	841.1				0.0	195.7	101.0	1,036.8	0.0	0.0	
150.00	Appurtenance(s)	50.7	842.1	1,047.8	0.0	3,310.5	9,901.1	0.0	195.7	1,098.5	10,938.9	0.0	0.0
								<b>Totals:</b>			<b>5,990.67</b>	<b>72,415.9</b>	
											<b>0.00</b>	<b>0.00</b>	

Site Number: 282660

Code: ANSI/TIA-222-G

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Site Name: PROSPECT CT, CT

Engineering Number: OAA727017\_C3\_01

3/30/2018 10:35:33 AM

Customer: T-MOBILE

**Load Case: 1.2D + 1.0Di + 1.0Wi****50 mph with 0.75 in Radial Ice****19 Iterations****Gust Response Factor :1.10****Ice Dead Load Factor :1.00****Wind Importance Factor :1.00****Dead Load Factor :1.20****Wind Load Factor :1.00****Ice Importance Factor :1.00****Calculated Forces**

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-72.41	-5.93	0.00	-583.62	0.00	583.62	3,293.92	1,646.96	8,093.29	5,174.22	0.00	0.00	0.135
5.00	-69.80	-5.81	0.00	-553.97	0.00	553.97	3,293.92	1,646.96	8,093.29	5,174.22	0.01	-0.02	0.128
10.00	-67.14	-5.68	0.00	-524.94	0.00	524.94	3,293.92	1,646.96	8,093.29	5,174.22	0.04	-0.04	0.122
15.00	-64.45	-5.55	0.00	-496.54	0.00	496.54	3,293.92	1,646.96	8,093.29	5,174.22	0.09	-0.06	0.116
20.00	-61.74	-5.42	0.00	-468.79	0.00	468.79	3,293.92	1,646.96	8,093.29	5,174.22	0.16	-0.07	0.109
20.00	-61.74	-5.42	0.00	-468.79	0.00	468.79	2,330.87	1,165.43	5,751.12	3,807.50	0.16	-0.07	0.150
25.00	-59.50	-5.29	0.00	-441.71	0.00	441.71	2,330.87	1,165.43	5,751.12	3,807.50	0.24	-0.09	0.142
30.00	-57.24	-5.15	0.00	-415.28	0.00	415.28	2,330.87	1,165.43	5,751.12	3,807.50	0.34	-0.11	0.134
35.00	-54.97	-5.01	0.00	-389.53	0.00	389.53	2,330.87	1,165.43	5,751.12	3,807.50	0.47	-0.13	0.126
40.00	-52.70	-4.87	0.00	-364.48	0.00	364.48	2,330.87	1,165.43	5,751.12	3,807.50	0.61	-0.14	0.118
40.00	-52.70	-4.87	0.00	-364.48	0.00	364.48	2,139.71	1,069.86	4,744.89	3,103.93	0.61	-0.14	0.142
45.00	-50.62	-4.73	0.00	-340.15	0.00	340.15	2,139.71	1,069.86	4,744.89	3,103.93	0.77	-0.16	0.133
50.00	-48.53	-4.58	0.00	-316.52	0.00	316.52	2,139.71	1,069.86	4,744.89	3,103.93	0.94	-0.18	0.125
55.00	-46.44	-4.43	0.00	-293.60	0.00	293.60	2,139.71	1,069.86	4,744.89	3,103.93	1.14	-0.20	0.116
60.00	-44.34	-4.28	0.00	-271.45	0.00	271.45	2,139.71	1,069.86	4,744.89	3,103.93	1.36	-0.22	0.108
60.00	-44.34	-4.28	0.00	-271.45	0.00	271.45	1,948.48	974.24	3,834.02	2,471.99	1.36	-0.22	0.133
65.00	-42.44	-4.14	0.00	-250.03	0.00	250.03	1,948.48	974.24	3,834.02	2,471.99	1.60	-0.23	0.123
70.00	-40.53	-3.99	0.00	-229.34	0.00	229.34	1,948.48	974.24	3,834.02	2,471.99	1.85	-0.25	0.114
75.00	-38.63	-3.84	0.00	-209.37	0.00	209.37	1,948.48	974.24	3,834.02	2,471.99	2.13	-0.27	0.105
80.00	-36.72	-3.69	0.00	-190.17	0.00	190.17	1,948.48	974.24	3,834.02	2,471.99	2.42	-0.29	0.096
80.00	-36.72	-3.69	0.00	-190.17	0.00	190.17	1,757.14	878.57	3,018.53	1,911.67	2.42	-0.29	0.120
85.00	-35.01	-3.55	0.00	-171.70	0.00	171.70	1,757.14	878.57	3,018.53	1,911.67	2.74	-0.31	0.110
90.00	-33.30	-3.41	0.00	-153.94	0.00	153.94	1,757.14	878.57	3,018.53	1,911.67	3.07	-0.33	0.099
95.00	-31.58	-3.26	0.00	-136.89	0.00	136.89	1,757.14	878.57	3,018.53	1,911.67	3.43	-0.35	0.090
100.00	-29.87	-3.12	0.00	-120.58	0.00	120.58	1,757.14	878.57	3,018.53	1,911.67	3.80	-0.37	0.080
100.00	-29.87	-3.12	0.00	-120.58	0.00	120.58	1,565.64	782.82	2,298.42	1,422.98	3.80	-0.37	0.104
105.00	-28.35	-2.99	0.00	-104.98	0.00	104.98	1,565.64	782.82	2,298.42	1,422.98	4.19	-0.38	0.092
110.00	-26.84	-2.85	0.00	-90.05	0.00	90.05	1,565.64	782.82	2,298.42	1,422.98	4.60	-0.40	0.080
115.00	-25.32	-2.71	0.00	-75.79	0.00	75.79	1,565.64	782.82	2,298.42	1,422.98	5.04	-0.42	0.069
115.00	-25.32	-2.71	0.00	-75.79	0.00	75.79	1,565.64	782.82	2,298.42	1,422.98	5.04	-0.42	0.069
120.00	-23.81	-2.57	0.00	-62.23	0.00	62.23	1,565.64	782.82	2,298.42	1,422.98	5.48	-0.43	0.059
125.00	-22.29	-2.42	0.00	-49.38	0.00	49.38	1,565.64	782.82	2,298.42	1,422.98	5.94	-0.45	0.049
130.00	-20.77	-2.30	0.00	-37.26	0.00	37.26	1,565.64	782.82	2,298.42	1,422.98	6.42	-0.46	0.039
130.00	-20.77	-2.30	0.00	-37.26	0.00	37.26	1,127.22	563.61	1,091.62	660.47	6.42	-0.46	0.075
135.00	-19.66	-2.22	0.00	-25.78	0.00	25.78	1,127.22	563.61	1,091.62	660.47	6.90	-0.46	0.056
137.00	-12.59	-1.38	0.00	-19.92	0.00	19.92	1,127.22	563.61	1,091.62	660.47	7.09	-0.47	0.041
140.00	-11.97	-1.30	0.00	-15.77	0.00	15.77	1,127.22	563.61	1,091.62	660.47	7.39	-0.48	0.034
145.00	-10.93	-1.19	0.00	-9.27	0.00	9.27	1,127.22	563.61	1,091.62	660.47	7.90	-0.49	0.024
150.00	0.00	-1.10	0.00	-3.31	0.00	3.31	1,127.22	563.61	1,091.62	660.47	8.41	-0.49	0.005

Site Number: 282660

Code: ANSI/TIA-222-G

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Site Name: PROSPECT CT, CT

Engineering Number: OAA727017\_C3\_01

3/30/2018 10:35:33 AM

Customer: T-MOBILE

**Load Case: 1.0D + 1.0W****Serviceability 60 mph****18 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)	Torsion MY (lb)
0.00		50.6	0.0				0.0	0.0	50.6	0.0	0.0
5.00		101.1	1,590.2				0.0	224.3	101.1	1,814.5	0.0
10.00		101.1	1,590.2				0.0	224.3	101.1	1,814.5	0.0
15.00		101.1	1,590.2				0.0	224.3	101.1	1,814.5	0.0
20.00	Top - Section 1	101.1	1,590.2				0.0	224.3	101.1	1,814.5	0.0
25.00		101.1	1,195.1				0.0	224.3	101.1	1,419.5	0.0
30.00		102.3	1,195.1				0.0	224.3	102.3	1,419.5	0.0
35.00		105.7	1,195.1				0.0	224.3	105.7	1,419.5	0.0
40.00	Top - Section 2	104.2	1,195.1				0.0	224.3	104.2	1,419.5	0.0
45.00		102.2	1,074.9				0.0	224.3	102.2	1,299.2	0.0
50.00		105.4	1,074.9				0.0	224.3	105.4	1,299.2	0.0
55.00		108.3	1,074.9				0.0	224.3	108.3	1,299.2	0.0
60.00	Top - Section 3	104.8	1,074.9				0.0	224.3	104.8	1,299.2	0.0
65.00		101.0	954.6				0.0	224.3	101.0	1,178.9	0.0
70.00		103.1	954.6				0.0	224.3	103.1	1,178.9	0.0
75.00		105.2	954.6				0.0	224.3	105.2	1,178.9	0.0
80.00	Top - Section 4	100.4	954.6				0.0	224.3	100.4	1,178.9	0.0
85.00		95.4	834.3				0.0	224.3	95.4	1,058.7	0.0
90.00		97.0	834.3				0.0	224.3	97.0	1,058.7	0.0
95.00		98.5	834.3				0.0	224.3	98.5	1,058.7	0.0
100.00	Top - Section 5	92.7	834.3				0.0	224.3	92.7	1,058.7	0.0
105.00		86.9	714.1				0.0	224.3	86.9	938.4	0.0
110.00		88.0	714.1				0.0	224.3	88.0	938.4	0.0
115.00	Top - Section 6	89.1	714.1				0.0	224.3	89.1	938.4	0.0
120.00		90.2	714.1				0.0	224.3	90.2	938.4	0.0
125.00		91.3	714.1				0.0	224.3	91.3	938.4	0.0
130.00	Top - Section 7	76.8	714.1				0.0	224.3	76.8	938.4	0.0
135.00		43.4	473.5				0.0	224.3	43.4	697.9	0.0
137.00	Appurtenance(s)	31.3	189.4	723.7	0.0	1,749.9	2,993.4	0.0	89.7	755.0	3,272.6
140.00		50.4	284.1				0.0	97.9	50.4	382.0	0.0
145.00		63.5	473.5				0.0	163.1	63.5	636.6	0.0
150.00	Appurtenance(s)	31.9	473.5	1,093.7	0.0	4,003.1	3,775.5	0.0	163.1	1,125.6	4,412.1
								Totals:			
								4,642.66 42,115.0 0.00 0.00			

Site Number: 282660

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Site Name: PROSPECT CT, CT

Engineering Number: OAA727017\_C3\_01

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Customer: T-MOBILE

Load Case: 1.0D + 1.0W

Serviceability 60 mph

18 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	-42.11	-4.60	0.00	-476.55	0.00	476.55	3,293.92	1,646.96	8,093.29	5,174.22	0.00	0.00	0.105
5.00	-40.30	-4.51	0.00	-453.56	0.00	453.56	3,293.92	1,646.96	8,093.29	5,174.22	0.01	-0.02	0.100
10.00	-38.48	-4.41	0.00	-431.03	0.00	431.03	3,293.92	1,646.96	8,093.29	5,174.22	0.03	-0.03	0.095
15.00	-36.67	-4.32	0.00	-408.96	0.00	408.96	3,293.92	1,646.96	8,093.29	5,174.22	0.07	-0.05	0.090
20.00	-34.85	-4.23	0.00	-387.35	0.00	387.35	3,293.92	1,646.96	8,093.29	5,174.22	0.13	-0.06	0.085
20.00	-34.85	-4.23	0.00	-387.35	0.00	387.35	2,330.87	1,165.43	5,751.12	3,807.50	0.13	-0.06	0.117
25.00	-33.43	-4.13	0.00	-366.22	0.00	366.22	2,330.87	1,165.43	5,751.12	3,807.50	0.20	-0.07	0.111
30.00	-32.01	-4.04	0.00	-345.55	0.00	345.55	2,330.87	1,165.43	5,751.12	3,807.50	0.28	-0.09	0.105
35.00	-30.59	-3.94	0.00	-325.37	0.00	325.37	2,330.87	1,165.43	5,751.12	3,807.50	0.38	-0.10	0.099
40.00	-29.17	-3.84	0.00	-305.69	0.00	305.69	2,330.87	1,165.43	5,751.12	3,807.50	0.50	-0.12	0.093
40.00	-29.17	-3.84	0.00	-305.69	0.00	305.69	2,139.71	1,069.86	4,744.89	3,103.93	0.50	-0.12	0.112
45.00	-27.87	-3.74	0.00	-286.50	0.00	286.50	2,139.71	1,069.86	4,744.89	3,103.93	0.63	-0.13	0.105
50.00	-26.57	-3.64	0.00	-267.81	0.00	267.81	2,139.71	1,069.86	4,744.89	3,103.93	0.78	-0.15	0.099
55.00	-25.27	-3.53	0.00	-249.61	0.00	249.61	2,139.71	1,069.86	4,744.89	3,103.93	0.94	-0.17	0.092
60.00	-23.97	-3.43	0.00	-231.94	0.00	231.94	2,139.71	1,069.86	4,744.89	3,103.93	1.12	-0.18	0.086
60.00	-23.97	-3.43	0.00	-231.94	0.00	231.94	1,948.48	974.24	3,834.02	2,471.99	1.12	-0.18	0.106
65.00	-22.79	-3.33	0.00	-214.79	0.00	214.79	1,948.48	974.24	3,834.02	2,471.99	1.32	-0.19	0.099
70.00	-21.61	-3.23	0.00	-198.13	0.00	198.13	1,948.48	974.24	3,834.02	2,471.99	1.53	-0.21	0.091
75.00	-20.43	-3.13	0.00	-181.97	0.00	181.97	1,948.48	974.24	3,834.02	2,471.99	1.77	-0.23	0.084
80.00	-19.25	-3.03	0.00	-166.33	0.00	166.33	1,948.48	974.24	3,834.02	2,471.99	2.01	-0.25	0.077
80.00	-19.25	-3.03	0.00	-166.33	0.00	166.33	1,757.14	878.57	3,018.53	1,911.67	2.01	-0.25	0.098
85.00	-18.19	-2.93	0.00	-151.19	0.00	151.19	1,757.14	878.57	3,018.53	1,911.67	2.28	-0.26	0.089
90.00	-17.14	-2.84	0.00	-136.52	0.00	136.52	1,757.14	878.57	3,018.53	1,911.67	2.56	-0.28	0.081
95.00	-16.08	-2.74	0.00	-122.34	0.00	122.34	1,757.14	878.57	3,018.53	1,911.67	2.86	-0.30	0.073
100.00	-15.02	-2.64	0.00	-108.65	0.00	108.65	1,757.14	878.57	3,018.53	1,911.67	3.18	-0.31	0.065
100.00	-15.02	-2.64	0.00	-108.65	0.00	108.65	1,565.64	782.82	2,298.42	1,422.98	3.18	-0.31	0.086
105.00	-14.08	-2.56	0.00	-95.43	0.00	95.43	1,565.64	782.82	2,298.42	1,422.98	3.51	-0.33	0.076
110.00	-13.14	-2.47	0.00	-82.66	0.00	82.66	1,565.64	782.82	2,298.42	1,422.98	3.87	-0.34	0.066
115.00	-12.20	-2.37	0.00	-70.33	0.00	70.33	1,565.64	782.82	2,298.42	1,422.98	4.23	-0.36	0.057
115.00	-12.20	-2.37	0.00	-70.33	0.00	70.33	1,565.64	782.82	2,298.42	1,422.98	4.23	-0.36	0.057
120.00	-11.26	-2.28	0.00	-58.46	0.00	58.46	1,565.64	782.82	2,298.42	1,422.98	4.62	-0.37	0.048
125.00	-10.32	-2.18	0.00	-47.06	0.00	47.06	1,565.64	782.82	2,298.42	1,422.98	5.02	-0.39	0.040
130.00	-9.39	-2.10	0.00	-36.13	0.00	36.13	1,565.64	782.82	2,298.42	1,422.98	5.43	-0.39	0.031
130.00	-9.39	-2.10	0.00	-36.13	0.00	36.13	1,127.22	563.61	1,091.62	660.47	5.43	-0.39	0.063
135.00	-8.69	-2.06	0.00	-25.62	0.00	25.62	1,127.22	563.61	1,091.62	660.47	5.84	-0.40	0.047
137.00	-5.42	-1.28	0.00	-19.76	0.00	19.76	1,127.22	563.61	1,091.62	660.47	6.01	-0.41	0.035
140.00	-5.04	-1.23	0.00	-15.92	0.00	15.92	1,127.22	563.61	1,091.62	660.47	6.27	-0.42	0.029
145.00	-4.40	-1.16	0.00	-9.80	0.00	9.80	1,127.22	563.61	1,091.62	660.47	6.71	-0.43	0.019
150.00	0.00	-1.13	0.00	-4.00	0.00	4.00	1,127.22	563.61	1,091.62	660.47	7.16	-0.43	0.006

Site Number: 282660

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Site Name: PROSPECT CT, CT

Engineering Number: OAA727017\_C3\_01

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Customer: T-MOBILE

**Equivalent Lateral Forces Method Analysis**

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

Spectral Response Acceleration for Short Period ( $S_{d_0}$ ):	0.19
Spectral Response Acceleration at 1.0 Second Period ( $S_{d_1}$ ):	0.06
Long-Period Transition Period ( $T_L$ ):	6
Importance Factor ( $I_E$ ):	1.00
Site Coefficient $F_s$ :	1.60
Site Coeffiecient $F_v$ :	2.40
Response Modification Coefficient (R):	1.50
Design Spectral Response Acceleration at Short Period ( $S_{d_0}$ ):	0.20
Design Spectral Response Acceleration at 1.0 Second Period ( $S_{d_1}$ ):	0.10
Seismic Response Coefficient ( $C_s$ ):	0.04
Upper Limit $C_s$	0.04
Lower Limit $C_s$	0.03
Period based on Rayleigh Method (sec):	1.74
Redundancy Factor (p):	1.00
Seismic Force Distribution Exponent (k):	1.62
Total Unfactored Dead Load:	42.11 k
Seismic Base Shear (E):	1.65 k

**Load Case (1.2 + 0.2Sds) \* DL + E ELF****Seismic Equivalent Lateral Forces Method**

Segment	Height Above Base (ft)	Weight (lb)	$W_z$ (lb-ft)	$C_{vx}$	Horizontal	Vertical
					Force (lb)	Force (lb)
31	147.50	637	2,077	0.036	60	790
30	142.50	637	1,964	0.034	57	790
29	138.50	382	1,125	0.020	33	474
28	136.00	279	798	0.014	23	346
27	132.50	698	1,914	0.034	55	865
26	127.50	938	2,418	0.042	70	1,164
25	122.50	938	2,266	0.040	66	1,164
24	117.50	938	2,118	0.037	61	1,164
23	112.50	938	1,974	0.035	57	1,164
22	107.50	938	1,834	0.032	53	1,164
21	102.50	938	1,698	0.030	49	1,164
20	97.50	1,059	1,766	0.031	51	1,313
19	92.50	1,059	1,622	0.028	47	1,313
18	87.50	1,059	1,482	0.026	43	1,313
17	82.50	1,059	1,347	0.024	39	1,313
16	77.50	1,179	1,356	0.024	39	1,462
15	72.50	1,179	1,217	0.021	35	1,462
14	67.50	1,179	1,084	0.019	31	1,462
13	62.50	1,179	957	0.017	28	1,462
12	57.50	1,299	921	0.016	27	1,611
11	52.50	1,299	795	0.014	23	1,611
10	47.50	1,299	676	0.012	20	1,611
9	42.50	1,299	565	0.010	16	1,611

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Site Name: PROSPECT CT, CT

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8	37.50	1,419	504	0.009	15	1,760
7	32.50	1,419	399	0.007	12	1,760
6	27.50	1,419	305	0.005	9	1,760
5	22.50	1,419	220	0.004	6	1,760
4	17.50	1,815	187	0.003	5	2,250
3	12.50	1,815	109	0.002	3	2,250
2	7.50	1,815	47	0.001	1	2,250
1	2.50	1,815	8	0.000	0	2,250
Powerwave TT08-19DB1	150.00	132	443	0.008	13	164
Commscope WCS-IMFQ-A	150.00	30	99	0.002	3	37
Raycap DC6-48-60-0-8	150.00	98	330	0.006	10	122
Ericsson RRUS A2	150.00	90	302	0.005	9	112
Ericsson RRUS 32 (50	150.00	152	511	0.009	15	189
Ericsson RRUS 12	150.00	300	1,006	0.018	29	372
Ericsson RRUS E2 B29	150.00	60	201	0.004	6	74
Ericsson RRUS-11	150.00	330	1,106	0.019	32	409
Powerwave Aligon 777	150.00	105	352	0.006	10	130
Quintel QS66512-2	150.00	111	372	0.007	11	138
CCI HPA-65R-BUU-H8	150.00	204	684	0.012	20	253
CCI TPA-65R-LCUUUU-H	150.00	163	547	0.010	16	202
Round Platform w/ Ha	150.00	2,000	6,705	0.117	194	2,480
Ericsson KRY 112 144	137.00	33	96	0.002	3	41
Fastback Networks In	137.00	9	25	0.000	1	11
Ericsson RRUS 11 B12	137.00	152	440	0.008	13	189
Ericsson AIR 21, 1.3	137.00	249	721	0.013	21	309
Ericsson AIR32 B66Aa	137.00	397	1,148	0.020	33	492
Andrew LNX-6515DS-VT	137.00	154	445	0.008	13	191
Round Platform w/ Ha	137.00	2,000	5,789	0.101	168	2,480
		42,115	57,076	1.000	1,652	52,227

Load Case (0.9 - 0.2Sds) \* DL + E ELFMSeismic (Reduced DL) Equivalent Lateral Forces Method

Segment	Height Above Base (ft)	Weight (lb)	W <sub>z</sub> (lb-ft)	C <sub>vx</sub>	Horizontal Force (lb)	Vertical Force (lb)
31	147.50	637	2,077	0.036	60	547
30	142.50	637	1,964	0.034	57	547
29	138.50	382	1,125	0.020	33	328
28	136.00	279	798	0.014	23	240
27	132.50	698	1,914	0.034	55	600
26	127.50	938	2,418	0.042	70	807
25	122.50	938	2,266	0.040	66	807
24	117.50	938	2,118	0.037	61	807
23	112.50	938	1,974	0.035	57	807
22	107.50	938	1,834	0.032	53	807
21	102.50	938	1,698	0.030	49	807
20	97.50	1,059	1,766	0.031	51	910
19	92.50	1,059	1,622	0.028	47	910
18	87.50	1,059	1,482	0.026	43	910
17	82.50	1,059	1,347	0.024	39	910
16	77.50	1,179	1,356	0.024	39	1,014
15	72.50	1,179	1,217	0.021	35	1,014
14	67.50	1,179	1,084	0.019	31	1,014
13	62.50	1,179	957	0.017	28	1,014
12	57.50	1,299	921	0.016	27	1,117
11	52.50	1,299	795	0.014	23	1,117
10	47.50	1,299	676	0.012	20	1,117
9	42.50	1,299	565	0.010	16	1,117
8	37.50	1,419	504	0.009	15	1,221
7	32.50	1,419	399	0.007	12	1,221
6	27.50	1,419	305	0.005	9	1,221

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Site Name: PROSPECT CT, CT

Engineering Number: OAA727017\_C3\_01

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Customer: T-MOBILE

5	22.50	1,419	220	0.004	6	1,221
4	17.50	1,815	187	0.003	5	1,560
3	12.50	1,815	109	0.002	3	1,560
2	7.50	1,815	47	0.001	1	1,560
1	2.50	1,815	8	0.000	0	1,560
Powerwave TT08-19DB1	150.00	132	443	0.008	13	114
Commscope WCS-IMFQ-A	150.00	30	99	0.002	3	25
Raycap DC6-48-60-0-8	150.00	98	330	0.006	10	85
Ericsson RRUS A2	150.00	90	302	0.005	9	77
Ericsson RRUS 32 (50	150.00	152	511	0.009	15	131
Ericsson RRUS 12	150.00	300	1,006	0.018	29	258
Ericsson RRUS E2 B29	150.00	60	201	0.004	6	52
Ericsson RRUS-11	150.00	330	1,106	0.019	32	284
Powerwave Allgon 777	150.00	105	352	0.006	10	90
Quintel QS66512-2	150.00	111	372	0.007	11	95
CCI HPA-65R-BUU-H8	150.00	204	684	0.012	20	175
CCI TPA-65R-LCUUUU-H	150.00	163	547	0.010	16	140
Round Platform w/ Ha	150.00	2,000	6,705	0.117	194	1,720
Ericsson KRY 112 144	137.00	33	96	0.002	3	28
Fastback Networks In	137.00	9	25	0.000	1	8
Ericsson RRUS 11 B12	137.00	152	440	0.008	13	131
Ericsson AIR 21, 1.3	137.00	249	721	0.013	21	214
Ericsson AIR32 B66Aa	137.00	397	1,148	0.020	33	341
Andrew LNX-6515DS-VT	137.00	154	445	0.008	13	132
Round Platform w/ Ha	137.00	2,000	5,789	0.101	168	1,720
		42,115	57,076	1.000	1,652	36,214

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Site Name: PROSPECT CT, CT

Engineering Number: OAA727017\_C3\_01

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Customer: T-MOBILE

**Load Case (1.2 + 0.2Sds) \* DL + E ELFM****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	-49.98	-1.65	0.00	-196.20	0.00	196.20	3,293.92	1,646.96	8,093.29	5,174.22	0.00	0.00	0.053
5.00	-47.73	-1.66	0.00	-187.93	0.00	187.93	3,293.92	1,646.96	8,093.29	5,174.22	0.00	-0.01	0.051
10.00	-45.48	-1.66	0.00	-179.63	0.00	179.63	3,293.92	1,646.96	8,093.29	5,174.22	0.01	-0.01	0.049
15.00	-43.23	-1.66	0.00	-171.34	0.00	171.34	3,293.92	1,646.96	8,093.29	5,174.22	0.03	-0.02	0.046
20.00	-41.47	-1.66	0.00	-163.04	0.00	163.04	3,293.92	1,646.96	8,093.29	5,174.22	0.05	-0.02	0.044
20.00	-41.47	-1.66	0.00	-163.04	0.00	163.04	2,330.87	1,165.43	5,751.12	3,807.50	0.05	-0.02	0.061
25.00	-39.70	-1.65	0.00	-154.77	0.00	154.77	2,330.87	1,165.43	5,751.12	3,807.50	0.08	-0.03	0.058
30.00	-37.94	-1.64	0.00	-146.52	0.00	146.52	2,330.87	1,165.43	5,751.12	3,807.50	0.12	-0.04	0.055
35.00	-36.18	-1.63	0.00	-138.31	0.00	138.31	2,330.87	1,165.43	5,751.12	3,807.50	0.16	-0.04	0.052
40.00	-34.57	-1.62	0.00	-130.16	0.00	130.16	2,330.87	1,165.43	5,751.12	3,807.50	0.21	-0.05	0.049
40.00	-34.57	-1.62	0.00	-130.16	0.00	130.16	2,139.71	1,069.86	4,744.89	3,103.93	0.21	-0.05	0.058
45.00	-32.96	-1.60	0.00	-122.08	0.00	122.08	2,139.71	1,069.86	4,744.89	3,103.93	0.26	-0.06	0.055
50.00	-31.35	-1.58	0.00	-114.09	0.00	114.09	2,139.71	1,069.86	4,744.89	3,103.93	0.33	-0.06	0.051
55.00	-29.74	-1.55	0.00	-106.20	0.00	106.20	2,139.71	1,069.86	4,744.89	3,103.93	0.40	-0.07	0.048
60.00	-28.28	-1.53	0.00	-98.44	0.00	98.44	2,139.71	1,069.86	4,744.89	3,103.93	0.47	-0.08	0.045
60.00	-28.28	-1.53	0.00	-98.44	0.00	98.44	1,948.48	974.24	3,834.02	2,471.99	0.47	-0.08	0.054
65.00	-26.81	-1.50	0.00	-90.81	0.00	90.81	1,948.48	974.24	3,834.02	2,471.99	0.55	-0.08	0.050
70.00	-25.35	-1.46	0.00	-83.33	0.00	83.33	1,948.48	974.24	3,834.02	2,471.99	0.64	-0.09	0.047
75.00	-23.89	-1.42	0.00	-76.02	0.00	76.02	1,948.48	974.24	3,834.02	2,471.99	0.74	-0.10	0.043
80.00	-22.58	-1.38	0.00	-68.91	0.00	68.91	1,948.48	974.24	3,834.02	2,471.99	0.85	-0.10	0.039
80.00	-22.58	-1.38	0.00	-68.91	0.00	68.91	1,757.14	878.57	3,018.53	1,911.67	0.85	-0.10	0.049
85.00	-21.26	-1.34	0.00	-61.99	0.00	61.99	1,757.14	878.57	3,018.53	1,911.67	0.96	-0.11	0.045
90.00	-19.95	-1.29	0.00	-55.28	0.00	55.28	1,757.14	878.57	3,018.53	1,911.67	1.08	-0.12	0.040
95.00	-18.64	-1.24	0.00	-48.81	0.00	48.81	1,757.14	878.57	3,018.53	1,911.67	1.20	-0.12	0.036
100.00	-17.47	-1.19	0.00	-42.59	0.00	42.59	1,757.14	878.57	3,018.53	1,911.67	1.34	-0.13	0.032
100.00	-17.47	-1.19	0.00	-42.59	0.00	42.59	1,565.64	782.82	2,298.42	1,422.98	1.34	-0.13	0.041
105.00	-16.31	-1.14	0.00	-36.63	0.00	36.63	1,565.64	782.82	2,298.42	1,422.98	1.48	-0.14	0.036
110.00	-15.15	-1.08	0.00	-30.94	0.00	30.94	1,565.64	782.82	2,298.42	1,422.98	1.62	-0.14	0.031
115.00	-13.98	-1.02	0.00	-25.54	0.00	25.54	1,565.64	782.82	2,298.42	1,422.98	1.78	-0.15	0.027
115.00	-13.98	-1.02	0.00	-25.54	0.00	25.54	1,565.64	782.82	2,298.42	1,422.98	1.78	-0.15	0.027
120.00	-12.82	-0.95	0.00	-20.45	0.00	20.45	1,565.64	782.82	2,298.42	1,422.98	1.93	-0.15	0.023
125.00	-11.66	-0.88	0.00	-15.70	0.00	15.70	1,565.64	782.82	2,298.42	1,422.98	2.10	-0.16	0.018
130.00	-10.79	-0.82	0.00	-11.31	0.00	11.31	1,565.64	782.82	2,298.42	1,422.98	2.26	-0.16	0.015
130.00	-10.79	-0.82	0.00	-11.31	0.00	11.31	1,127.22	563.61	1,091.62	660.47	2.26	-0.16	0.027
135.00	-10.44	-0.80	0.00	-7.21	0.00	7.21	1,127.22	563.61	1,091.62	660.47	2.43	-0.16	0.020
137.00	-6.26	-0.50	0.00	-5.62	0.00	5.62	1,127.22	563.61	1,091.62	660.47	2.50	-0.16	0.014
140.00	-5.47	-0.44	0.00	-4.11	0.00	4.11	1,127.22	563.61	1,091.62	660.47	2.60	-0.17	0.011
145.00	-4.68	-0.38	0.00	-1.90	0.00	1.90	1,127.22	563.61	1,091.62	660.47	2.78	-0.17	0.007
150.00	0.00	-0.37	0.00	0.00	0.00	0.00	1,127.22	563.61	1,091.62	660.47	2.96	-0.17	0.000

Site Number: 282660

Code: ANSI/TIA-222-G

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Site Name: PROSPECT CT, CT

Engineering Number: OAA727017\_C3\_01

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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	-34.65	-1.65	0.00	-194.77	0.00	194.77	3,293.92	1,646.96	8,093.29	5,174.22	0.00	0.00	0.048
5.00	-33.09	-1.66	0.00	-186.50	0.00	186.50	3,293.92	1,646.96	8,093.29	5,174.22	0.00	-0.01	0.046
10.00	-31.53	-1.66	0.00	-178.22	0.00	178.22	3,293.92	1,646.96	8,093.29	5,174.22	0.01	-0.01	0.044
15.00	-29.97	-1.65	0.00	-169.94	0.00	169.94	3,293.92	1,646.96	8,093.29	5,174.22	0.03	-0.02	0.042
20.00	-28.75	-1.65	0.00	-161.68	0.00	161.68	3,293.92	1,646.96	8,093.29	5,174.22	0.05	-0.02	0.040
20.00	-28.75	-1.65	0.00	-161.68	0.00	161.68	2,330.87	1,165.43	5,751.12	3,807.50	0.05	-0.02	0.055
25.00	-27.53	-1.64	0.00	-153.43	0.00	153.43	2,330.87	1,165.43	5,751.12	3,807.50	0.08	-0.03	0.052
30.00	-26.31	-1.63	0.00	-145.22	0.00	145.22	2,330.87	1,165.43	5,751.12	3,807.50	0.12	-0.04	0.049
35.00	-25.09	-1.62	0.00	-137.05	0.00	137.05	2,330.87	1,165.43	5,751.12	3,807.50	0.16	-0.04	0.047
40.00	-23.97	-1.61	0.00	-128.95	0.00	128.95	2,330.87	1,165.43	5,751.12	3,807.50	0.21	-0.05	0.044
40.00	-23.97	-1.61	0.00	-128.95	0.00	128.95	2,139.71	1,069.86	4,744.89	3,103.93	0.21	-0.05	0.053
45.00	-22.85	-1.59	0.00	-120.92	0.00	120.92	2,139.71	1,069.86	4,744.89	3,103.93	0.26	-0.05	0.050
50.00	-21.74	-1.57	0.00	-112.98	0.00	112.98	2,139.71	1,069.86	4,744.89	3,103.93	0.32	-0.06	0.047
55.00	-20.62	-1.54	0.00	-105.15	0.00	105.15	2,139.71	1,069.86	4,744.89	3,103.93	0.39	-0.07	0.044
60.00	-19.61	-1.51	0.00	-97.45	0.00	97.45	2,139.71	1,069.86	4,744.89	3,103.93	0.47	-0.08	0.041
60.00	-19.61	-1.51	0.00	-97.45	0.00	97.45	1,948.48	974.24	3,834.02	2,471.99	0.47	-0.08	0.049
65.00	-18.59	-1.48	0.00	-89.88	0.00	89.88	1,948.48	974.24	3,834.02	2,471.99	0.55	-0.08	0.046
70.00	-17.58	-1.45	0.00	-82.46	0.00	82.46	1,948.48	974.24	3,834.02	2,471.99	0.64	-0.09	0.042
75.00	-16.56	-1.41	0.00	-75.22	0.00	75.22	1,948.48	974.24	3,834.02	2,471.99	0.74	-0.10	0.039
80.00	-15.65	-1.37	0.00	-68.17	0.00	68.17	1,948.48	974.24	3,834.02	2,471.99	0.84	-0.10	0.036
80.00	-15.65	-1.37	0.00	-68.17	0.00	68.17	1,757.14	878.57	3,018.53	1,911.67	0.84	-0.10	0.045
85.00	-14.74	-1.33	0.00	-61.31	0.00	61.31	1,757.14	878.57	3,018.53	1,911.67	0.95	-0.11	0.040
90.00	-13.83	-1.28	0.00	-54.67	0.00	54.67	1,757.14	878.57	3,018.53	1,911.67	1.07	-0.12	0.036
95.00	-12.92	-1.23	0.00	-48.26	0.00	48.26	1,757.14	878.57	3,018.53	1,911.67	1.19	-0.12	0.033
100.00	-12.12	-1.18	0.00	-42.12	0.00	42.12	1,757.14	878.57	3,018.53	1,911.67	1.33	-0.13	0.029
100.00	-12.12	-1.18	0.00	-42.12	0.00	42.12	1,565.64	782.82	2,298.42	1,422.98	1.33	-0.13	0.037
105.00	-11.31	-1.13	0.00	-36.22	0.00	36.22	1,565.64	782.82	2,298.42	1,422.98	1.46	-0.13	0.033
110.00	-10.50	-1.07	0.00	-30.58	0.00	30.58	1,565.64	782.82	2,298.42	1,422.98	1.61	-0.14	0.028
115.00	-9.70	-1.01	0.00	-25.24	0.00	25.24	1,565.64	782.82	2,298.42	1,422.98	1.76	-0.15	0.024
115.00	-9.70	-1.01	0.00	-25.24	0.00	25.24	1,565.64	782.82	2,298.42	1,422.98	1.76	-0.15	0.024
120.00	-8.89	-0.94	0.00	-20.21	0.00	20.21	1,565.64	782.82	2,298.42	1,422.98	1.92	-0.15	0.020
125.00	-8.08	-0.87	0.00	-15.52	0.00	15.52	1,565.64	782.82	2,298.42	1,422.98	2.08	-0.16	0.016
130.00	-7.48	-0.81	0.00	-11.18	0.00	11.18	1,565.64	782.82	2,298.42	1,422.98	2.24	-0.16	0.013
130.00	-7.48	-0.81	0.00	-11.18	0.00	11.18	1,127.22	563.61	1,091.62	660.47	2.24	-0.16	0.024
135.00	-7.24	-0.79	0.00	-7.13	0.00	7.13	1,127.22	563.61	1,091.62	660.47	2.41	-0.16	0.017
137.00	-4.34	-0.50	0.00	-5.55	0.00	5.55	1,127.22	563.61	1,091.62	660.47	2.48	-0.16	0.012
140.00	-3.79	-0.44	0.00	-4.07	0.00	4.07	1,127.22	563.61	1,091.62	660.47	2.58	-0.16	0.010
145.00	-3.25	-0.38	0.00	-1.88	0.00	1.88	1,127.22	563.61	1,091.62	660.47	2.75	-0.17	0.006
150.00	0.00	-0.37	0.00	0.00	0.00	0.00	1,127.22	563.61	1,091.62	660.47	2.93	-0.17	0.000

Site Number: 282660

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Site Name: PROSPECT CT, CT

Engineering Number: OAA727017\_C3\_01

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Customer: T-MOBILE

**Equivalent Modal Forces Analysis**

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

Spectral Response Acceleration for Short Period ( $S_{ds}$ ):	0.19
Spectral Response Acceleration at 1.0 Second Period ( $S_{d1}$ ):	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
Desing Spectral Response Acceleration at 1.0 Second Period ( $S_{d1}$ ):	0.10
Period Based on Rayleigh Method (sec):	1.74
Redundancy Factor (p):	1.00

**Load Case (1.2 + 0.2Sds) \* 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)
31	147.50	637	1.828	1.667	1.025	0.347	147	790
30	142.50	637	1.706	1.144	0.823	0.271	115	790
29	138.50	382	1.611	0.814	0.686	0.217	55	474
28	136.00	279	1.554	0.642	0.609	0.187	35	346
27	132.50	698	1.475	0.441	0.513	0.147	68	865
26	127.50	938	1.366	0.222	0.397	0.098	61	1,164
25	122.50	938	1.261	0.069	0.302	0.057	36	1,164
24	117.50	938	1.160	-0.030	0.226	0.025	16	1,164
23	112.50	938	1.063	-0.088	0.165	0.001	1	1,164
22	107.50	938	0.971	-0.116	0.117	-0.014	-9	1,164
21	102.50	938	0.883	-0.121	0.081	-0.022	-14	1,164
20	97.50	1,059	0.799	-0.112	0.053	-0.023	-16	1,313
19	92.50	1,059	0.719	-0.092	0.034	-0.018	-12	1,313
18	87.50	1,059	0.643	-0.068	0.020	-0.008	-6	1,313
17	82.50	1,059	0.572	-0.043	0.012	0.004	3	1,313
16	77.50	1,179	0.505	-0.018	0.007	0.017	13	1,462
15	72.50	1,179	0.442	0.005	0.006	0.028	22	1,462
14	67.50	1,179	0.383	0.023	0.007	0.037	29	1,462
13	62.50	1,179	0.328	0.039	0.010	0.043	34	1,462
12	57.50	1,299	0.278	0.050	0.014	0.047	41	1,611
11	52.50	1,299	0.232	0.058	0.019	0.048	42	1,611
10	47.50	1,299	0.190	0.064	0.025	0.048	42	1,611
9	42.50	1,299	0.152	0.068	0.030	0.048	41	1,611
8	37.50	1,419	0.118	0.070	0.035	0.046	44	1,760
7	32.50	1,419	0.089	0.071	0.039	0.045	42	1,760
6	27.50	1,419	0.064	0.072	0.041	0.043	41	1,760
5	22.50	1,419	0.043	0.070	0.042	0.042	39	1,760
4	17.50	1,815	0.026	0.067	0.040	0.039	47	2,250
3	12.50	1,815	0.013	0.059	0.034	0.035	42	2,250
2	7.50	1,815	0.005	0.044	0.025	0.027	32	2,250
1	2.50	1,815	0.001	0.018	0.010	0.012	14	2,250
Powerwave TT08-	150.00	132	1.890	1.980	1.140	0.388	34	164
Commscope WCS-	150.00	30	1.890	1.980	1.140	0.388	8	37
Raycap DC6-48-60-0-8	150.00	98	1.890	1.980	1.140	0.388	25	122

Site Number: 282660

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Site Name: PROSPECT CT, CT

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Ericsson RRUS A2	150.00	90	1.890	1.980	1.140	0.388	23	112
Ericsson RRUS 32 (50	150.00	152	1.890	1.980	1.140	0.388	39	189
Ericsson RRUS 12	150.00	300	1.890	1.980	1.140	0.388	78	372
Ericsson RRUS E2 B29	150.00	60	1.890	1.980	1.140	0.388	16	74
Ericsson RRUS-11	150.00	330	1.890	1.980	1.140	0.388	85	409
Powerwave Aligon 777	150.00	105	1.890	1.980	1.140	0.388	27	130
Quintel QS65512-2	150.00	111	1.890	1.980	1.140	0.388	29	138
CCI HPA-65R-BUU-H8	150.00	204	1.890	1.980	1.140	0.388	53	253
CCI TPA-65R-LCUUUU-H	150.00	163	1.890	1.980	1.140	0.388	42	202
Round Platform w/ Ha	150.00	2,000	1.890	1.980	1.140	0.388	517	2,480
Ericsson KRY 112 144	137.00	33	1.577	0.708	0.639	0.199	4	41
Fastback Networks In	137.00	9	1.577	0.708	0.639	0.199	1	11
Ericsson RRUS 11 B12	137.00	152	1.577	0.708	0.639	0.199	20	189
Ericsson AIR 21, 1.3	137.00	249	1.577	0.708	0.639	0.199	33	309
Ericsson AIR32 B66Aa	137.00	397	1.577	0.708	0.639	0.199	53	492
Andrew LNX-6515DS-VT	137.00	154	1.577	0.708	0.639	0.199	20	191
Round Platform w/ Ha	137.00	2,000	1.577	0.708	0.639	0.199	265	2,480
		42,115	56,078	35,783	24,738	8,310	2,420	52,227

Load Case (0.9 - 0.2Sds) \* DL + E EMAMSeismic (Reduced DL) Equivalent Modal Analysis Method

Segment	Height Above Base (ft)	Weight (lb)	a	b	c	Saz	Horizontal Force (lb)	Vertical Force (lb)
31	147.50	637	1.828	1.667	1.025	0.347	147	547
30	142.50	637	1.706	1.144	0.823	0.271	115	547
29	138.50	382	1.611	0.814	0.686	0.217	55	328
28	136.00	279	1.554	0.642	0.609	0.187	35	240
27	132.50	698	1.475	0.441	0.513	0.147	68	600
26	127.50	938	1.366	0.222	0.397	0.098	61	807
25	122.50	938	1.261	0.069	0.302	0.057	36	807
24	117.50	938	1.160	-0.030	0.226	0.025	16	807
23	112.50	938	1.063	-0.088	0.165	0.001	1	807
22	107.50	938	0.971	-0.116	0.117	-0.014	-9	807
21	102.50	938	0.883	-0.121	0.081	-0.022	-14	807
20	97.50	1,059	0.799	-0.112	0.053	-0.023	-16	910
19	92.50	1,059	0.719	-0.092	0.034	-0.018	-12	910
18	87.50	1,059	0.643	-0.068	0.020	-0.008	-6	910
17	82.50	1,059	0.572	-0.043	0.012	0.004	3	910
16	77.50	1,179	0.505	-0.018	0.007	0.017	13	1,014
15	72.50	1,179	0.442	0.005	0.006	0.028	22	1,014
14	67.50	1,179	0.383	0.023	0.007	0.037	29	1,014
13	62.50	1,179	0.328	0.039	0.010	0.043	34	1,014
12	57.50	1,299	0.278	0.050	0.014	0.047	41	1,117
11	52.50	1,299	0.232	0.058	0.019	0.048	42	1,117
10	47.50	1,299	0.190	0.064	0.025	0.048	42	1,117
9	42.50	1,299	0.152	0.068	0.030	0.048	41	1,117
8	37.50	1,419	0.118	0.070	0.035	0.046	44	1,221
7	32.50	1,419	0.089	0.071	0.039	0.045	42	1,221
6	27.50	1,419	0.064	0.072	0.041	0.043	41	1,221
5	22.50	1,419	0.043	0.070	0.042	0.042	39	1,221
4	17.50	1,815	0.026	0.067	0.040	0.039	47	1,560
3	12.50	1,815	0.013	0.059	0.034	0.035	42	1,560
2	7.50	1,815	0.005	0.044	0.025	0.027	32	1,560
1	2.50	1,815	0.001	0.018	0.010	0.012	14	1,560
Powerwave TT08-	150.00	132	1.890	1.980	1.140	0.388	34	114
Commscope WCS-	150.00	30	1.890	1.980	1.140	0.388	8	25
Raycap DC6-48-60-0-8	150.00	98	1.890	1.980	1.140	0.388	25	85
Ericsson RRUS A2	150.00	90	1.890	1.980	1.140	0.388	23	77
Ericsson RRUS 32 (50	150.00	152	1.890	1.980	1.140	0.388	39	131

Site Number: 282660

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Site Name: PROSPECT CT, CT

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Customer: T-MOBILE

Ericsson RRUS 12	150.00	300	1.890	1.980	1.140	0.388	78	258
Ericsson RRUS E2 B29	150.00	60	1.890	1.980	1.140	0.388	16	52
Ericsson RRUS-11	150.00	330	1.890	1.980	1.140	0.388	85	284
Powerwave Allgon 777	150.00	105	1.890	1.980	1.140	0.388	27	90
Quintel QS66512-2	150.00	111	1.890	1.980	1.140	0.388	29	95
CCI HPA-65R-BUU-H8	150.00	204	1.890	1.980	1.140	0.388	53	175
CCI TPA-65R-LCUUUU-H	150.00	163	1.890	1.980	1.140	0.388	42	140
Round Platform w/ Ha	150.00	2,000	1.890	1.980	1.140	0.388	517	1,720
Ericsson KRY 112 144	137.00	33	1.577	0.708	0.639	0.199	4	28
Fastback Networks In	137.00	9	1.577	0.708	0.639	0.199	1	8
Ericsson RRUS 11 B12	137.00	152	1.577	0.708	0.639	0.199	20	131
Ericsson AIR 21, 1.3	137.00	249	1.577	0.708	0.639	0.199	33	214
Ericsson AIR32 B66Aa	137.00	397	1.577	0.708	0.639	0.199	53	341
Andrew LNX-6515DS-VT	137.00	154	1.577	0.708	0.639	0.199	20	132
Round Platform w/ Ha	137.00	2,000	1.577	0.708	0.639	0.199	265	1,720
		42,115	56.078	35.783	24.738	8.310	2,420	36,214

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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	-49.98	-2.41	0.00	-295.67	0.00	295.67	3,293.92	1,646.96	8,093.29	5,174.22	0.00	0.00	0.072
5.00	-47.73	-2.38	0.00	-283.62	0.00	283.62	3,293.92	1,646.96	8,093.29	5,174.22	0.01	-0.01	0.069
10.00	-45.48	-2.35	0.00	-271.70	0.00	271.70	3,293.92	1,646.96	8,093.29	5,174.22	0.02	-0.02	0.066
15.00	-43.23	-2.31	0.00	-259.95	0.00	259.95	3,293.92	1,646.96	8,093.29	5,174.22	0.05	-0.03	0.063
20.00	-41.46	-2.27	0.00	-248.40	0.00	248.40	3,293.92	1,646.96	8,093.29	5,174.22	0.08	-0.04	0.061
20.00	-41.46	-2.27	0.00	-248.40	0.00	248.40	2,330.87	1,165.43	5,751.12	3,807.50	0.08	-0.04	0.083
25.00	-39.70	-2.24	0.00	-237.03	0.00	237.03	2,330.87	1,165.43	5,751.12	3,807.50	0.12	-0.05	0.079
30.00	-37.94	-2.20	0.00	-225.84	0.00	225.84	2,330.87	1,165.43	5,751.12	3,807.50	0.18	-0.06	0.076
35.00	-36.18	-2.16	0.00	-214.83	0.00	214.83	2,330.87	1,165.43	5,751.12	3,807.50	0.24	-0.07	0.072
40.00	-34.57	-2.12	0.00	-204.02	0.00	204.02	2,330.87	1,165.43	5,751.12	3,807.50	0.32	-0.08	0.068
40.00	-34.57	-2.12	0.00	-204.02	0.00	204.02	2,139.71	1,069.86	4,744.89	3,103.93	0.32	-0.08	0.082
45.00	-32.96	-2.09	0.00	-193.40	0.00	193.40	2,139.71	1,069.86	4,744.89	3,103.93	0.40	-0.08	0.078
50.00	-31.35	-2.05	0.00	-182.97	0.00	182.97	2,139.71	1,069.86	4,744.89	3,103.93	0.50	-0.10	0.074
55.00	-29.74	-2.01	0.00	-172.73	0.00	172.73	2,139.71	1,069.86	4,744.89	3,103.93	0.60	-0.11	0.070
60.00	-28.27	-1.98	0.00	-162.68	0.00	162.68	2,139.71	1,069.86	4,744.89	3,103.93	0.72	-0.12	0.066
60.00	-28.27	-1.98	0.00	-162.68	0.00	162.68	1,948.48	974.24	3,834.02	2,471.99	0.72	-0.12	0.080
65.00	-26.81	-1.95	0.00	-152.79	0.00	152.79	1,948.48	974.24	3,834.02	2,471.99	0.85	-0.13	0.076
70.00	-25.35	-1.93	0.00	-143.04	0.00	143.04	1,948.48	974.24	3,834.02	2,471.99	0.99	-0.14	0.071
75.00	-23.89	-1.92	0.00	-133.38	0.00	133.38	1,948.48	974.24	3,834.02	2,471.99	1.15	-0.15	0.066
80.00	-22.57	-1.92	0.00	-123.78	0.00	123.78	1,948.48	974.24	3,834.02	2,471.99	1.31	-0.17	0.062
80.00	-22.57	-1.92	0.00	-123.78	0.00	123.78	1,757.14	878.57	3,018.53	1,911.67	1.31	-0.17	0.078
85.00	-21.26	-1.92	0.00	-114.19	0.00	114.19	1,757.14	878.57	3,018.53	1,911.67	1.49	-0.18	0.072
90.00	-19.95	-1.94	0.00	-104.58	0.00	104.58	1,757.14	878.57	3,018.53	1,911.67	1.69	-0.19	0.066
95.00	-18.63	-1.95	0.00	-94.89	0.00	94.89	1,757.14	878.57	3,018.53	1,911.67	1.89	-0.20	0.060
100.00	-17.47	-1.97	0.00	-85.13	0.00	85.13	1,757.14	878.57	3,018.53	1,911.67	2.11	-0.22	0.054
100.00	-17.47	-1.97	0.00	-85.13	0.00	85.13	1,565.64	782.82	2,298.42	1,422.98	2.11	-0.22	0.071
105.00	-16.31	-1.97	0.00	-75.30	0.00	75.30	1,565.64	782.82	2,298.42	1,422.98	2.34	-0.23	0.063
110.00	-15.14	-1.97	0.00	-65.43	0.00	65.43	1,565.64	782.82	2,298.42	1,422.98	2.59	-0.24	0.056
115.00	-13.98	-1.95	0.00	-55.57	0.00	55.57	1,565.64	782.82	2,298.42	1,422.98	2.85	-0.25	0.048
115.00	-13.98	-1.95	0.00	-55.57	0.00	55.57	1,565.64	782.82	2,298.42	1,422.98	2.85	-0.25	0.048
120.00	-12.81	-1.92	0.00	-45.79	0.00	45.79	1,565.64	782.82	2,298.42	1,422.98	3.12	-0.27	0.040
125.00	-11.65	-1.85	0.00	-36.22	0.00	36.22	1,565.64	782.82	2,298.42	1,422.98	3.41	-0.27	0.033
130.00	-10.78	-1.78	0.00	-26.96	0.00	26.96	1,565.64	782.82	2,298.42	1,422.98	3.70	-0.28	0.026
130.00	-10.78	-1.78	0.00	-26.96	0.00	26.96	1,127.22	563.61	1,091.62	660.47	3.70	-0.28	0.050
135.00	-10.44	-1.74	0.00	-18.07	0.00	18.07	1,127.22	563.61	1,091.62	660.47	3.99	-0.29	0.037
137.00	-6.25	-1.27	0.00	-14.58	0.00	14.58	1,127.22	563.61	1,091.62	660.47	4.11	-0.29	0.028
140.00	-5.47	-1.15	0.00	-10.77	0.00	10.77	1,127.22	563.61	1,091.62	660.47	4.30	-0.30	0.021
145.00	-4.68	-1.00	0.00	-5.01	0.00	5.01	1,127.22	563.61	1,091.62	660.47	4.61	-0.30	0.012
150.00	0.00	-0.98	0.00	0.00	0.00	0.00	1,127.22	563.61	1,091.62	660.47	4.93	-0.30	0.000

Site Number: 282660

Code: ANSI/TIA-222-G

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Site Name: PROSPECT CT, CT

Engineering Number: OAA727017\_C3\_01

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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)	Deflect Rotation (deg)	Ratio
0.00	-34.65	-2.41	0.00	-293.35	0.00	293.35	3,293.92	1,646.96	8,093.29	5,174.22	0.00	0.00	0.067
5.00	-33.09	-2.38	0.00	-281.31	0.00	281.31	3,293.92	1,646.96	8,093.29	5,174.22	0.01	-0.01	0.064
10.00	-31.53	-2.34	0.00	-269.40	0.00	269.40	3,293.92	1,646.96	8,093.29	5,174.22	0.02	-0.02	0.062
15.00	-29.97	-2.30	0.00	-257.68	0.00	257.68	3,293.92	1,646.96	8,093.29	5,174.22	0.05	-0.03	0.059
20.00	-28.75	-2.26	0.00	-246.18	0.00	246.18	3,293.92	1,646.96	8,093.29	5,174.22	0.08	-0.04	0.056
20.00	-28.75	-2.26	0.00	-246.18	0.00	246.18	2,330.87	1,165.43	5,751.12	3,807.50	0.08	-0.04	0.077
25.00	-27.53	-2.23	0.00	-234.86	0.00	234.86	2,330.87	1,165.43	5,751.12	3,807.50	0.12	-0.05	0.073
30.00	-26.31	-2.19	0.00	-223.72	0.00	223.72	2,330.87	1,165.43	5,751.12	3,807.50	0.18	-0.06	0.070
35.00	-25.09	-2.15	0.00	-212.78	0.00	212.78	2,330.87	1,165.43	5,751.12	3,807.50	0.24	-0.07	0.067
40.00	-23.97	-2.11	0.00	-202.04	0.00	202.04	2,330.87	1,165.43	5,751.12	3,807.50	0.31	-0.08	0.063
40.00	-23.97	-2.11	0.00	-202.04	0.00	202.04	2,139.71	1,069.86	4,744.89	3,103.93	0.31	-0.08	0.076
45.00	-22.85	-2.07	0.00	-191.49	0.00	191.49	2,139.71	1,069.86	4,744.89	3,103.93	0.40	-0.08	0.072
50.00	-21.74	-2.03	0.00	-181.14	0.00	181.14	2,139.71	1,069.86	4,744.89	3,103.93	0.49	-0.10	0.069
55.00	-20.62	-1.99	0.00	-170.99	0.00	170.99	2,139.71	1,069.86	4,744.89	3,103.93	0.60	-0.11	0.065
60.00	-19.60	-1.96	0.00	-161.03	0.00	161.03	2,139.71	1,069.86	4,744.89	3,103.93	0.72	-0.12	0.061
60.00	-19.60	-1.96	0.00	-161.03	0.00	161.03	1,948.48	974.24	3,834.02	2,471.99	0.72	-0.12	0.075
65.00	-18.59	-1.93	0.00	-151.24	0.00	151.24	1,948.48	974.24	3,834.02	2,471.99	0.84	-0.13	0.071
70.00	-17.58	-1.91	0.00	-141.58	0.00	141.58	1,948.48	974.24	3,834.02	2,471.99	0.98	-0.14	0.066
75.00	-16.56	-1.90	0.00	-132.02	0.00	132.02	1,948.48	974.24	3,834.02	2,471.99	1.14	-0.15	0.062
80.00	-15.65	-1.90	0.00	-122.53	0.00	122.53	1,948.48	974.24	3,834.02	2,471.99	1.30	-0.16	0.058
80.00	-15.65	-1.90	0.00	-122.53	0.00	122.53	1,757.14	878.57	3,018.53	1,911.67	1.30	-0.16	0.073
85.00	-14.74	-1.90	0.00	-113.05	0.00	113.05	1,757.14	878.57	3,018.53	1,911.67	1.48	-0.17	0.068
90.00	-13.83	-1.92	0.00	-103.54	0.00	103.54	1,757.14	878.57	3,018.53	1,911.67	1.67	-0.19	0.062
95.00	-12.92	-1.93	0.00	-93.96	0.00	93.96	1,757.14	878.57	3,018.53	1,911.67	1.87	-0.20	0.057
100.00	-12.11	-1.94	0.00	-84.30	0.00	84.30	1,757.14	878.57	3,018.53	1,911.67	2.09	-0.21	0.051
100.00	-12.11	-1.94	0.00	-84.30	0.00	84.30	1,565.64	782.82	2,298.42	1,422.98	2.09	-0.21	0.067
105.00	-11.30	-1.95	0.00	-74.58	0.00	74.58	1,565.64	782.82	2,298.42	1,422.98	2.32	-0.22	0.060
110.00	-10.50	-1.95	0.00	-64.81	0.00	64.81	1,565.64	782.82	2,298.42	1,422.98	2.57	-0.24	0.052
115.00	-9.69	-1.93	0.00	-55.05	0.00	55.05	1,565.64	782.82	2,298.42	1,422.98	2.82	-0.25	0.045
115.00	-9.69	-1.93	0.00	-55.05	0.00	55.05	1,565.64	782.82	2,298.42	1,422.98	2.82	-0.25	0.045
120.00	-8.88	-1.90	0.00	-45.38	0.00	45.38	1,565.64	782.82	2,298.42	1,422.98	3.09	-0.26	0.038
125.00	-8.08	-1.83	0.00	-35.90	0.00	35.90	1,565.64	782.82	2,298.42	1,422.98	3.37	-0.27	0.030
130.00	-7.48	-1.76	0.00	-26.73	0.00	26.73	1,565.64	782.82	2,298.42	1,422.98	3.66	-0.28	0.024
130.00	-7.48	-1.76	0.00	-26.73	0.00	26.73	1,127.22	563.61	1,091.62	660.47	3.66	-0.28	0.047
135.00	-7.24	-1.73	0.00	-17.92	0.00	17.92	1,127.22	563.61	1,091.62	660.47	3.96	-0.28	0.034
137.00	-4.34	-1.26	0.00	-14.47	0.00	14.47	1,127.22	563.61	1,091.62	660.47	4.08	-0.29	0.026
140.00	-3.79	-1.14	0.00	-10.69	0.00	10.69	1,127.22	563.61	1,091.62	660.47	4.26	-0.29	0.020
145.00	-3.24	-0.99	0.00	-4.97	0.00	4.97	1,127.22	563.61	1,091.62	660.47	4.57	-0.30	0.010
150.00	0.00	-0.98	0.00	0.00	0.00	0.00	1,127.22	563.61	1,091.62	660.47	4.88	-0.30	0.000

Site Number: 282660

Code: ANSI/TIA-222-G

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Site Name: PROSPECT CT, CT

Engineering Number: OAA727017\_C3\_01

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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	19.23	0.00	50.53	0.00	0.00	2001.08	20.00	0.45
0.9D + 1.6W	19.22	0.00	37.89	0.00	0.00	1988.92	20.00	0.44
1.2D + 1.0DI + 1.0WI	5.93	0.00	72.41	0.00	0.00	583.62	20.00	0.15
(1.2 + 0.2Sds) * DL + E ELFM	1.65	0.00	49.98	0.00	0.00	196.20	20.00	0.06
(1.2 + 0.2Sds) * DL + E EMAM	2.41	0.00	49.98	0.00	0.00	295.67	20.00	0.08
(0.9 - 0.2Sds) * DL + E ELFM	1.65	0.00	34.65	0.00	0.00	194.77	20.00	0.05
(0.9 - 0.2Sds) * DL + E EMAM	2.41	0.00	34.65	0.00	0.00	293.35	20.00	0.08
1.0D + 1.0W	4.60	0.00	42.11	0.00	0.00	476.55	20.00	0.12

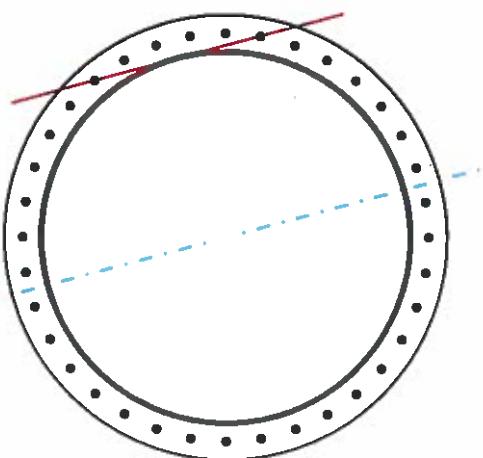
## Base Plate & Anchor Rod Analysis

Pole Dimensions		
Shape	Round	-
Diameter	60.00	in
Thickness	0.500	in
Orientation Offset	-	-

Base Reactions		
Moment, Mu	2001.1	k-ft
Axial, Pu	50.5	k
Shear, Vu	19.2	k
Neutral Axis	15	-

Report Capacities		
Component	Capacity	Result
Base Plate	63%	Pass
Anchor Rods	12%	Pass
Dwyidag	-	-

Base Plate		
Shape	Round	-
Diameter, Ø	72	in
Thickness	1 1/2	in
Grade	A572-50	-
Yield Strength, Fy	50	ksi
Tensile Strength, Fu	65	ksi
Clip	N/A	in
Orientation Offset	0	•
Anchor Rod Detail	d	$\eta=0.5$
Clear Distance	3	in
Applied Moment, Mu	391.2	k
Bending Stress, $\phi M_n$	617.7	k



Original Anchor Rods		
Arrangement	Radial	-
Quantity	36	-
Diameter, Ø	1 1/2	in
Bolt Circle	66	in
Grade	Other	-
Yield Strength, Fy	81	ksi
Tensile Strength, Fu	105	ksi
Spacing	5.8	in
Orientation Offset	0	•
Applied Force, Pu	41.7	k
Anchor Rods, $\phi P_n$	118.0	k

Base/Flange Plate	Plate Type	<b>Flange @ 20.0 ft</b>
	Pole Diameter	60 in
	Pole Thickness	0.375 in
	Plate Diameter	60 in
	Plate Thickness	1.5 in
	Plate Fy	50 ksi
	Weld Length	0.3125 in
	$\phi_s$ Resistance	134.19 k-in
	Applied	82.30 k-in
Stiffeners	#	

Code Rev. **G**

Date **3/30/2018**  
 Engineer **Zackaryah.Hughes**  
 Site # **282660**  
 Carrier **T-MOBILE**

Moment **1627.7 k-ft**  
 Axial **41.7 k**

Required Flange Thickness:

**1.17 in** OK

Bolts	#	<b>32</b>
	Bolt Circle (R)adial / (S)square	54 in
		R
	Diameter	1.5 in
	Hole Diameter	1.625 in
	Type	A325
	Fy	92 ksi
	Fu	120 ksi
	$\phi_s$ Resistance	126.47 k
Reinforcement ●	Applied	43.89 k
Extra Bolts O	#	<b>0</b>
	#	<b>0</b>

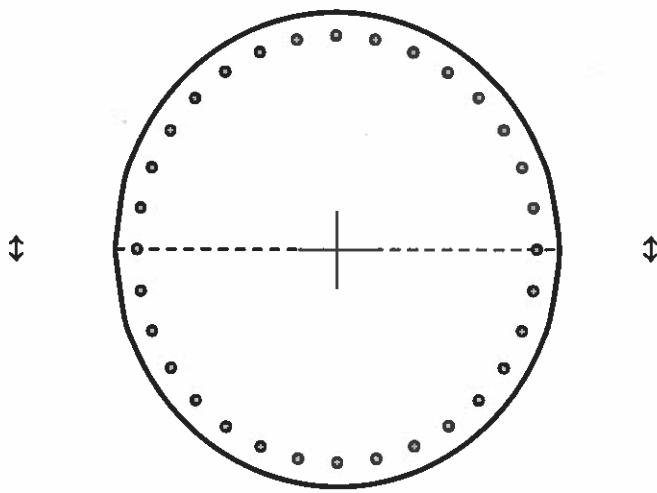


Plate Stress Ratio:

**0.61** (Pass)

Bolt Stress Ratio:

**0.35** (Pass)

Base/Flange Plate	Plate Type	<b>Flange @ 40.0 ft</b>	Code Rev.	<b>G</b>	Date	<b>3/30/2018</b>
	Pole Diameter	54 in	Engineer	Zackaryah.Hughes		
	Pole Thickness	0.375 in	Site #	282660		
	Plate Diameter	60 in	Carrier	T-MOBILE		
	Plate Thickness	1.5 in				
	Plate Fy	50 ksi				
	Weld Length	0.3125 in				
	$\phi_s$ Resistance	89.46 k-in	Required Flange Thickness:			
	Applied	13.64 k-in	0.59 in	OK		
Stiffeners	#					
Bolts	#					
	Bolt Circle	<b>48</b>				
	(R)adial / (S)square	57 in				
	Diameter	R				
	Hole Diameter	1 in				
	Type	1.125 in				
	Fy	A325				
	Fu	92 ksi				
	$\phi_s$ Resistance	120 ksi				
Reinforcement ●	Applied	54.52 k				
	#	21.82 k				
Extra Bolts ○	#	0				

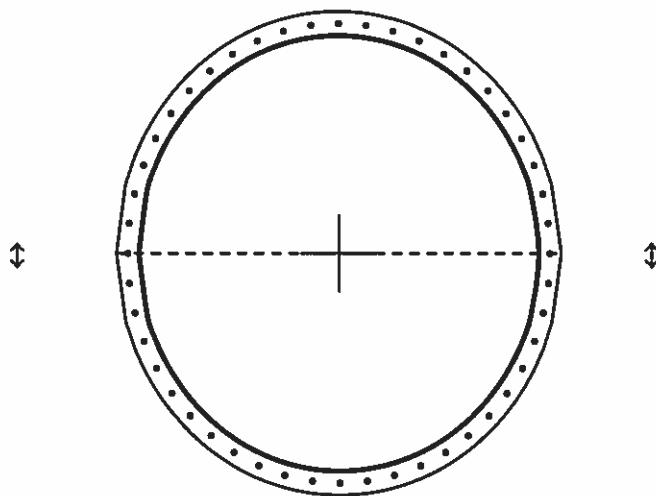


Plate Stress Ratio:

**0.15** (Pass)

Bolt Stress Ratio:

**0.40** (Pass)

Base/Flange Plate	Plate Type	<b>Flange @ 60.0 ft</b>	Code Rev.	<b>G</b>	Date	<b>3/30/2018</b>
	Pole Diameter	48 in			Engineer	<b>Zackaryah.Hughes</b>
	Pole Thickness	0.375 in	Moment	<b>975.6 k-ft</b>	Site #	<b>282660</b>
	Plate Diameter	54 in	Axial	<b>28.6 k</b>	Carrier	<b>T-MOBILE</b>
	Plate Thickness	1.5 in				
	Plate Fy	50 ksi				
	Weld Length	0.3125 in				
	$\phi_s$ Resistance	95.43 k-in	Required Flange Thickness:			
	Applied	13.90 k-in	0.57 in	OK		
Stiffeners	#					
Bolts	#					
	Bolt Circle	<b>40</b>				
	(R)adial / (S)square	51 in				
	Diameter	R				
	Hole Diameter	1 in				
	Type	1.125 in				
	Fy	A325				
	Fu	92 ksi				
	$\phi_s$ Resistance	120 ksi				
Reinforcement ●	Applied	54.52 k				
	#	22.24 k				
	0					
Extra Bolts O	#	0				

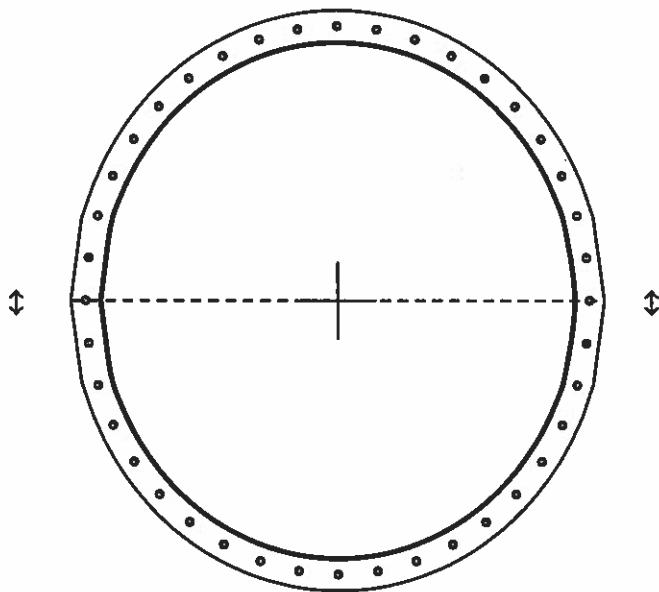


Plate Stress Ratio:

**0.15** (Pass)

Bolt Stress Ratio:

**0.41** (Pass)

Base/Flange Plate	Plate Type	<b>Flange @ 80.0 ft</b>	Code Rev.	<b>G</b>	Date	<b>3/30/2018</b>
	Pole Diameter	42 in			Engineer	Zackaryah.Hughes
	Pole Thickness	0.375 in			Site #	282660
	Plate Diameter	48 in	Moment	<b>699.8 k-ft</b>	Carrier	T-MOBILE
	Plate Thickness	1.5 in	Axial	<b>22.9 k</b>		
	Plate Fy	50 ksi				
	Weld Length	0.3125 in				
	$\phi_s$ Resistance	104.13 k-in	Required Flange Thickness:			
	Applied	14.13 k-in		<b>0.55 in</b>	OK	

Bolts	#	<b>32</b>
	Bolt Circle	45 in
	(R)adial / (S)quare	R
	Diameter	1 in
	Hole Diameter	1.125 in
	Type	A325
	Fy	92 ksi
	Fu	120 ksi
	$\phi_s$ Resistance	54.52 k
	Applied	22.61 k
	#	<b>0</b>
Reinforcement	#	<b>0</b>
Extra Bolts O	#	<b>0</b>

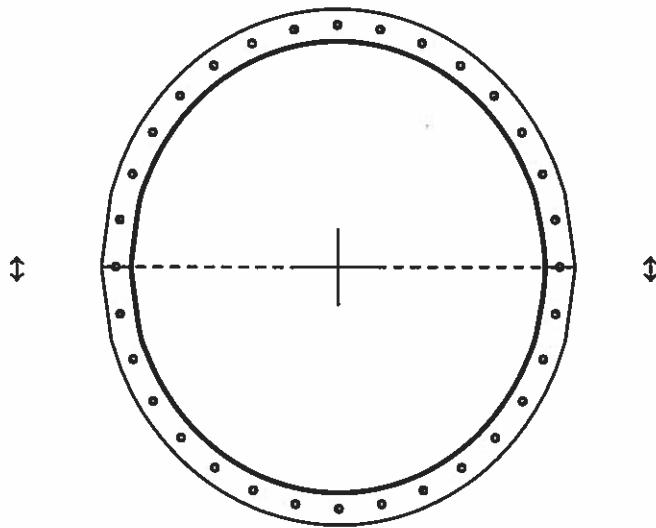


Plate Stress Ratio:

**0.14** (Pass)

Bolt Stress Ratio:

**0.41** (Pass)

Base/Flange Plate	Plate Type	<b>Flange @ 100.0 ft</b>	Code Rev.	<b>G</b>	Date	<b>3/30/2018</b>
	Pole Diameter	36 in	Engineer	Zackaryah.Hughes		
	Pole Thickness	0.375 in	Site #	282660		
	Plate Diameter	42 in	Carrier	T-MOBILE		
	Plate Thickness	1.5 in				
	Plate Fy	50 ksi				
	Weld Length	0.3125 in				
	$\phi_s$ Resistance	104.13 k-in				
	Applied	14.18 k-in				
Stiffeners	#		Required Flange Thickness:			
			0.55 in	OK		
Bolts	#					
	Bolt Circle	<b>24</b>				
	(R)adial / (S)square	39 in				
	Diameter	R				
	Hole Diameter	1 in				
	Type	1.125 in				
	Fy	A325				
	Fu	92 ksi				
	$\phi_s$ Resistance	120 ksi				
Reinforcement	#	<b>0</b>	Plate Stress Ratio:			
			0.14	(Pass)		
			Bolt Stress Ratio:			
			0.42	(Pass)		
	#	<b>0</b>				
Extra Bolts O	#	<b>0</b>				

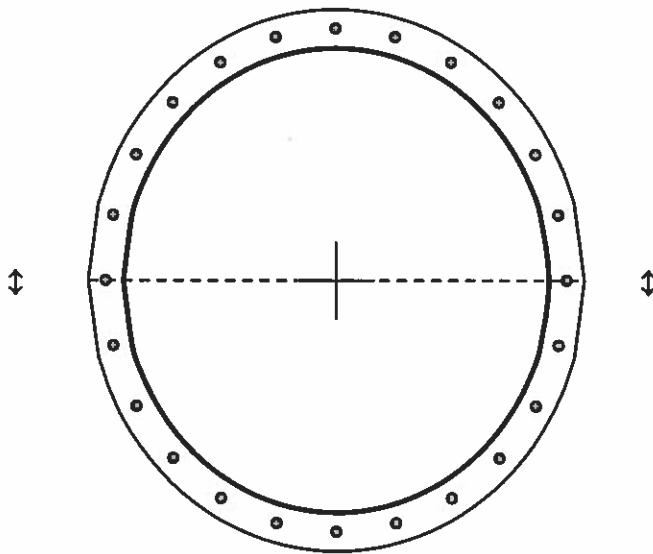


Plate Stress Ratio:

**0.14** (Pass)

Bolt Stress Ratio:

**0.42** (Pass)

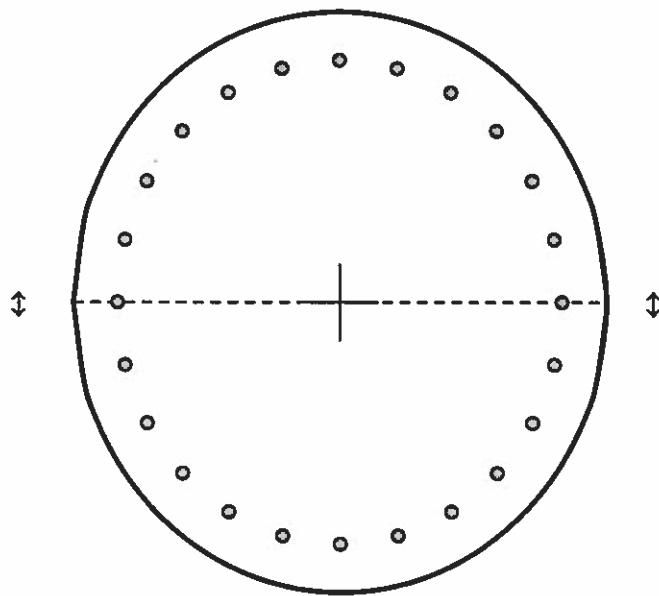
<b>Base/Flange Plate</b>	Plate Type	<b>Flange @ 115.0 ft</b>
	Pole Diameter	36 in
	Pole Thickness	0.375 in
	Plate Diameter	36 in
	Plate Thickness	1.5 in
	Plate Fy	50 ksi
	Weld Length	0.3125 in
	$\phi_s$ Resistance	99.40 k-in
	Applied	40.61 k-in
<b>Stiffeners</b>	#	

Code Rev. **G** Date **3/30/2018**  
 Engineer **Zackaryah.Hughes** Site # **282660**  
 Carrier **T-MOBILE**

Moment **295.8 k-ft**  
 Axial **14.4 k**

Required Flange Thickness:

**0.96 in** OK



<b>Bolts</b>	#	<b>24</b>
	Bolt Circle	30 in
	(R)adial / (S)quare	R
	Diameter	1 in
	Hole Diameter	1.125 in
	Type	A325
	Fy	92 ksi
	Fu	120 ksi
	$\phi_s$ Resistance	54.52 k
	Applied	19.11 k
<b>Reinforcement ●</b>	#	<b>0</b>

Plate Stress Ratio:

**0.41** (Pass)

Bolt Stress Ratio:

**0.35** (Pass)

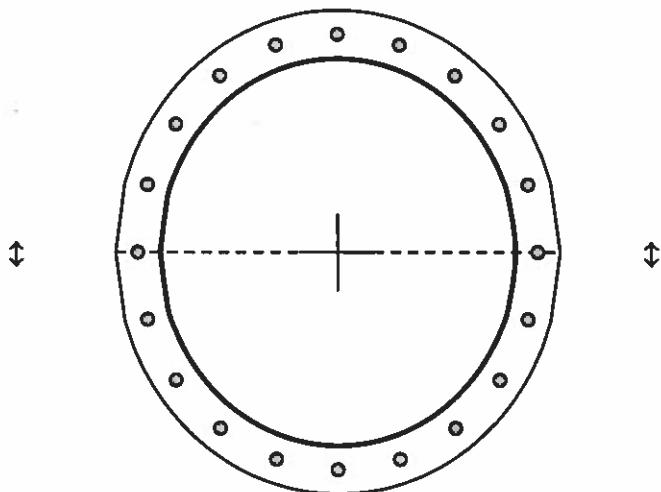
<b>Extra Bolts O</b>	#	<b>0</b>

<b>Base/Flange Plate</b>	Plate Type	<b>Flange @ 130.0 ft</b>	Code Rev.	<b>G</b>	Date	<b>3/30/2018</b>
	Pole Diameter	24 in			Engineer	<b>Zackaryah.Hughes</b>
	Pole Thickness	0.375 in			Site #	<b>282660</b>
	Plate Diameter	30 in			Carrier	<b>T-MOBILE</b>
	Plate Thickness	1.5 in				
	Plate Fy	50 ksi				
	Weld Length	0.3125 in				
	$\phi_s$ Resistance	95.43 k-in				
	Applied	8.09 k-in				
<b>Stiffeners</b>	#					

Required Flange Thickness:

**0.44 in** OK

<b>Bolts</b>	#	<b>20</b>	
	Bolt Circle	27 in	
	(R)adial / (S)square	R	
	Diameter	1 in	
	Hole Diameter	1.125 in	
	Type	A325	
	Fy	92 ksi	
	Fu	120 ksi	
	$\phi_s$ Resistance	54.52 k	
	Applied	12.94 k	



<b>Reinforcement ●</b>	#	<b>0</b>	
<b>Extra Bolts O</b>	#	<b>0</b>	

Plate Stress Ratio:

**0.08** (Pass)

Bolt Stress Ratio:

**0.24** (Pass)



## RADIO FREQUENCY EMISSIONS ANALYSIS REPORT EVALUATION OF HUMAN EXPOSURE POTENTIAL TO NON-IONIZING EMISSIONS

T-Mobile Existing Facility

Site ID: CTNH302A

Clr Channel Prospect  
151 Waterbury Prospect Road  
Prospect, CT 06712

**April 10, 2018**

**EBI Project Number: 6218002785**

Site Compliance Summary	
Compliance Status:	<b>COMPLIANT</b>
Site total MPE% of FCC general population allowable limit:	<b>10.723%</b>



April 10, 2018

T-Mobile USA  
Attn: Jason Overbey, RF Manager  
35 Griffin Road South  
Bloomfield, CT 06002

## Emissions Analysis for Site: **CTNH302A – Clr Channel Prospect**

EBI Consulting was directed to analyze the proposed T-Mobile facility located at **151 Waterbury Prospect Road, Prospect, CT**, for the purpose of determining whether the emissions from the Proposed T-Mobile Antenna Installation located on this property are within specified federal limits.

All information used in this report was analyzed as a percentage of current Maximum Permissible Exposure (% MPE) as listed in the FCC OET Bulletin 65 Edition 97-01 and ANSI/IEEE Std C95.1. The FCC regulates Maximum Permissible Exposure in units of microwatts per square centimeter ( $\mu\text{W}/\text{cm}^2$ ). The number of  $\mu\text{W}/\text{cm}^2$  calculated at each sample point is called the power density. The exposure limit for power density varies depending upon the frequencies being utilized. Wireless Carriers and Paging Services use different frequency bands each with different exposure limits, therefore it is necessary to report results and limits in terms of percent MPE rather than power density.

All results were compared to the FCC (Federal Communications Commission) radio frequency exposure rules, 47 CFR 1.1307(b)(1) – (b)(3), to determine compliance with the Maximum Permissible Exposure (MPE) limits for General Population/Uncontrolled environments as defined below.

General population/uncontrolled exposure limits apply to situations in which the general population may be exposed or in which persons who are exposed as a consequence of their employment may not be made fully aware of the potential for exposure or cannot exercise control over their exposure. Therefore, members of the general population would always be considered under this category when exposure is not employment related, for example, in the case of a telecommunications tower that exposes persons in a nearby residential area.

Public exposure to radio frequencies is regulated and enforced in units of microwatts per square centimeter ( $\mu\text{W}/\text{cm}^2$ ). The general population exposure limits for the 700 MHz Band is approximately 467  $\mu\text{W}/\text{cm}^2$ . The general population exposure limit for the 1900 MHz (PCS), 2100 MHz (AWS) and 5 GHz Microwave bands is 1000  $\mu\text{W}/\text{cm}^2$ . Because each carrier will be using different frequency bands, and each frequency band has different exposure limits, it is necessary to report percent of MPE rather than power density.



Occupational/controlled exposure limits apply to situations in which persons are exposed as a consequence of their employment and in which those persons who are exposed have been made fully aware of the potential for exposure and can exercise control over their exposure. Occupational/controlled exposure limits also apply where exposure is of a transient nature as a result of incidental passage through a location where exposure levels may be above general population/uncontrolled limits (see below), as long as the exposed person has been made fully aware of the potential for exposure and can exercise control over his or her exposure by leaving the area or by some other appropriate means.

Additional details can be found in FCC OET 65.

## CALCULATIONS

Calculations were done for the proposed T-Mobile Wireless antenna facility located at **151 Waterbury Prospect Road, Prospect, CT**, using the equipment information listed below. All calculations were performed per the specifications under FCC OET 65. Since T-Mobile is proposing highly focused directional panel antennas, which project most of the emitted energy out toward the horizon, all calculations were performed assuming a lobe representing the maximum gain of the antenna per the antenna manufacturer's supplied specifications, minus 10 dB for directional panel antennas for broadcast and microwave backhaul, was focused at the base of the tower. For this report the sample point is the top of a 6-foot person standing at the base of the tower.

For all calculations, all equipment was calculated using the following assumptions:

- 1) 2 GSM channels (PCS Band - 1900 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 30 Watts per Channel.
- 2) 2 UMTS channels (PCS Band - 1900 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 30 Watts per Channel.
- 3) 2 UMTS channels (AWS Band – 2100 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 30 Watts per Channel.
- 4) 2 LTE channels (PCS Band - 1900 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 60 Watts per Channel.
- 5) 2 LTE channels (AWS Band – 2100 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 60 Watts per Channel



- 7) 1 LTE channel (700 MHz Band) was considered for each sector of the proposed installation. This channel has a transmit power of 30 Watts.
- 8) 1 microwave backhaul channel (5 GHz) was considered for the proposed facility. This channel has a transmit power of 1 Watt.
- 9) All radios at the proposed installation were considered to be running at full power and were uncombined in their RF transmissions paths per carrier prescribed configuration. Per FCC OET Bulletin No. 65 - Edition 97-01 recommendations to achieve the maximum anticipated value at each sample point, all power levels emitting from the proposed antenna installation are increased by a factor of 2.56 to account for possible in-phase reflections from the surrounding environment. This is rarely the case, and if so, is never continuous.
- 10) For the following calculations the sample point was the top of a 6-foot person standing at the base of the tower. The maximum gain of the antenna per the antenna manufacturers supplied specifications, minus 10 dB for directional panel antennas for broadcast and microwave backhaul, was used in this direction. This value is a very conservative estimate as gain reductions for these particular antennas are typically much higher in this direction.
- 11) The antennas used in this modeling are the **Ericsson AIR32 B66A/B2A & Ericsson AIR21 B2A/B4P** for 1900 MHz (PCS) and 2100 MHz (AWS) channels, the **Commscope LNX-6515DS-VTM** for 700 MHz channels and the **Fastback IBR1300** for the proposed 5 GHz microwave backhaul. This is based on feedback from the carrier with regard to anticipated antenna selection. The **Ericsson AIR32 B66A/B2A** has a maximum gain of **15.9 dBd** at its main lobe at 1900 MHz and 2100 MHz. The **Ericsson AIR21 B2A/B4P** has a maximum gain of **15.9 dBd** at its main lobe at 1900 MHz and 2100 MHz. The **Commscope LNX-6515DS-VTM** has a maximum gain of **14.6 dBd** at its main lobe at 700 MHz. The **Fastback IBR1300** has a maximum gain of **10 dBd** at its main lobe at 5 GHz. The maximum gain of the antenna per the antenna manufacturers supplied specifications, minus 10 dB for directional panel antennas for broadcast and microwave backhaul, was used for all calculations. This value is a very conservative estimate as gain reductions for these particular antennas are typically much higher in this direction.
- 12) The antenna mounting height centerline of the proposed antennas (both panel antennas and microwave dish) is **137 feet** above ground level (AGL).
- 13) Emissions values for additional carriers were taken from the Connecticut Siting Council active database. Values in this database are provided by the individual carriers themselves.
- 14) All calculations were done with respect to uncontrolled / general population threshold limits.



## T-Mobile Site Inventory and Power Data

Sector:	A	Sector:	B	Sector:	C
Antenna #:	<b>1</b>	Antenna #:	<b>1</b>	Antenna #:	<b>1</b>
Make / Model:	Ericsson AIR32 B66A/B2A	Make / Model:	Ericsson AIR32 B66A/B2A	Make / Model:	Ericsson AIR32 B66A/B2A
Gain:	15.9 dBd	Gain:	15.9 dBd	Gain:	15.9 dBd
Height (AGL):	137	Height (AGL):	137	Height (AGL):	137
Frequency Bands	1900 MHz (PCS) / 2100 MHz (AWS)	Frequency Bands	1900 MHz (PCS) / 2100 MHz (AWS)	Frequency Bands	1900 MHz (PCS) / 2100 MHz (AWS)
Channel Count	4	Channel Count	4	Channel Count	4
Total TX Power(W):	240	Total TX Power(W):	240	Total TX Power(W):	240
ERP (W):	9,337.08	ERP (W):	9,337.08	ERP (W):	9,337.08
Antenna A1 MPE%	<b>1.956</b>	Antenna B1 MPE%	<b>1.956</b>	Antenna C1 MPE%	<b>1.956</b>
Antenna #:	<b>2</b>	Antenna #:	<b>2</b>	Antenna #:	<b>2</b>
Make / Model:	Ericsson AIR21 B2A/B4P	Make / Model:	Ericsson AIR21 B2A/B4P	Make / Model:	Ericsson AIR21 B2A/B4P
Gain:	15.9 dBd	Gain:	15.9 dBd	Gain:	15.9 dBd
Height (AGL):	137	Height (AGL):	137	Height (AGL):	137
Frequency Bands	1900 MHz (PCS) / 2100 MHz (AWS)	Frequency Bands	1900 MHz (PCS) / 2100 MHz (AWS)	Frequency Bands	1900 MHz (PCS) / 2100 MHz (AWS)
Channel Count	6	Channel Count	6	Channel Count	6
Total TX Power(W):	180	Total TX Power(W):	180	Total TX Power(W):	180
ERP (W):	7,002.81	ERP (W):	7,002.81	ERP (W):	7,002.81
Antenna A2 MPE%	<b>1.467</b>	Antenna B2 MPE%	<b>1.467</b>	Antenna C2 MPE%	<b>1.467</b>
Antenna #:	<b>3</b>	Antenna #:	<b>3</b>	Antenna #:	<b>3</b>
Make / Model:	Commscope LNX-6515DS-VTM	Make / Model:	Commscope LNX-6515DS-VTM	Make / Model:	Commscope LNX-6515DS-VTM
Gain:	14.6 dBd	Gain:	14.6 dBd	Gain:	14.6 dBd
Height (AGL):	137	Height (AGL):	137	Height (AGL):	137
Frequency Bands	700 MHz	Frequency Bands	700 MHz	Frequency Bands	700 MHz
Channel Count	1	Channel Count	1	Channel Count	1
Total TX Power(W):	30	Total TX Power(W):	30	Total TX Power(W):	30
ERP (W):	865.21	ERP (W):	865.21	ERP (W):	865.21
Antenna A3 MPE%	<b>0.388</b>	Antenna B3 MPE%	<b>0.388</b>	Antenna C3 MPE%	<b>0.388</b>

## Microwave Backhaul Data

Make / Model:	Gain	Height (AGL):	Frequency Bands	Channel Count	Total TX Power(W)	ERP (W)	MPE %	Sector
Fastback IBR1300	10 dBd	137	5 GHz	1	1	10	<b>0.002</b>	A

Site Composite MPE%	
Carrier	MPE%
T-Mobile (Per Sector Max)	<b>3.813 %</b>
AT&T	<b>6.910 %</b>
Site Total MPE %:	<b>10.723 %</b>

T-Mobile Sector A Total:	<b>3.813 %</b>
T-Mobile Sector B Total:	<b>3.811 %</b>
T-Mobile Sector C Total:	<b>3.811 %</b>
Site Total:	<b>10.723 %</b>



## T-Mobile Max Power Values (Sector A)

T-Mobile _Max Power Values	# Channels	Watts ERP (Per Channel)	Height (feet)	Total Power Density ( $\mu\text{W}/\text{cm}^2$ )	Frequency (MHz)	Allowable MPE ( $\mu\text{W}/\text{cm}^2$ )	Calculated % MPE
T-Mobile AWS - 2100 MHz LTE	2	2,334.27	137	9.78	AWS - 2100 MHz	1000	0.978%
T-Mobile PCS - 1900 MHz LTE	2	2,334.27	137	9.78	PCS - 1900 MHz	1000	0.978%
T-Mobile AWS - 2100 MHz UMTS	2	1,167.14	137	4.89	AWS - 2100 MHz	1000	0.489%
T-Mobile PCS - 1900 MHz UMTS	2	1,167.14	137	4.89	PCS - 1900 MHz	1000	0.489%
T-Mobile PCS - 1900 MHz GSM	2	1,167.14	137	4.89	PCS - 1900 MHz	1000	0.489%
T-Mobile 700 MHz LTE	1	865.21	137	1.81	700 MHz	467	0.388%
T-Mobile 5 GHz Microwave	1	10	137	0.02	5 GHz	1000	0.002%
						<b>Total:</b>	<b>3.813%</b>



## Summary

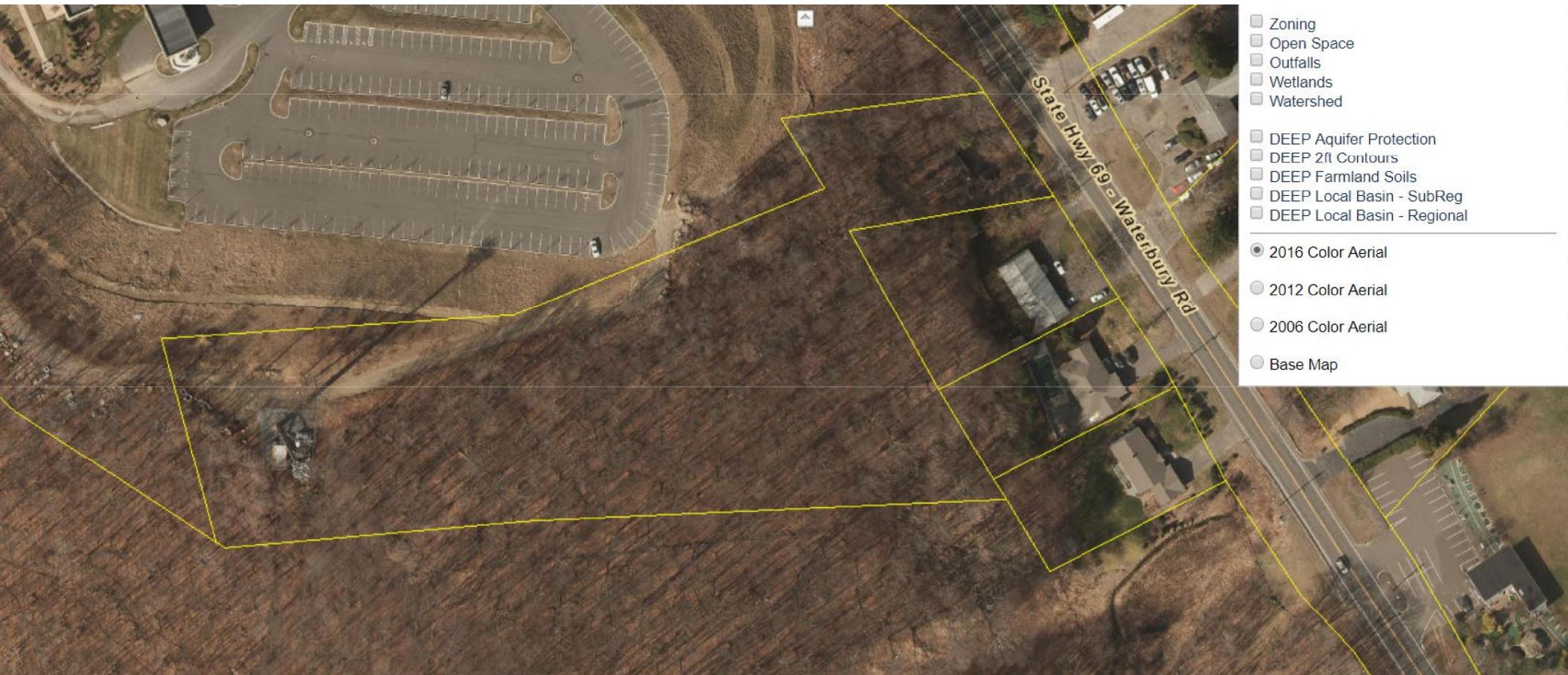
All calculations performed for this analysis yielded results that were **within** the allowable limits for general population exposure to RF Emissions.

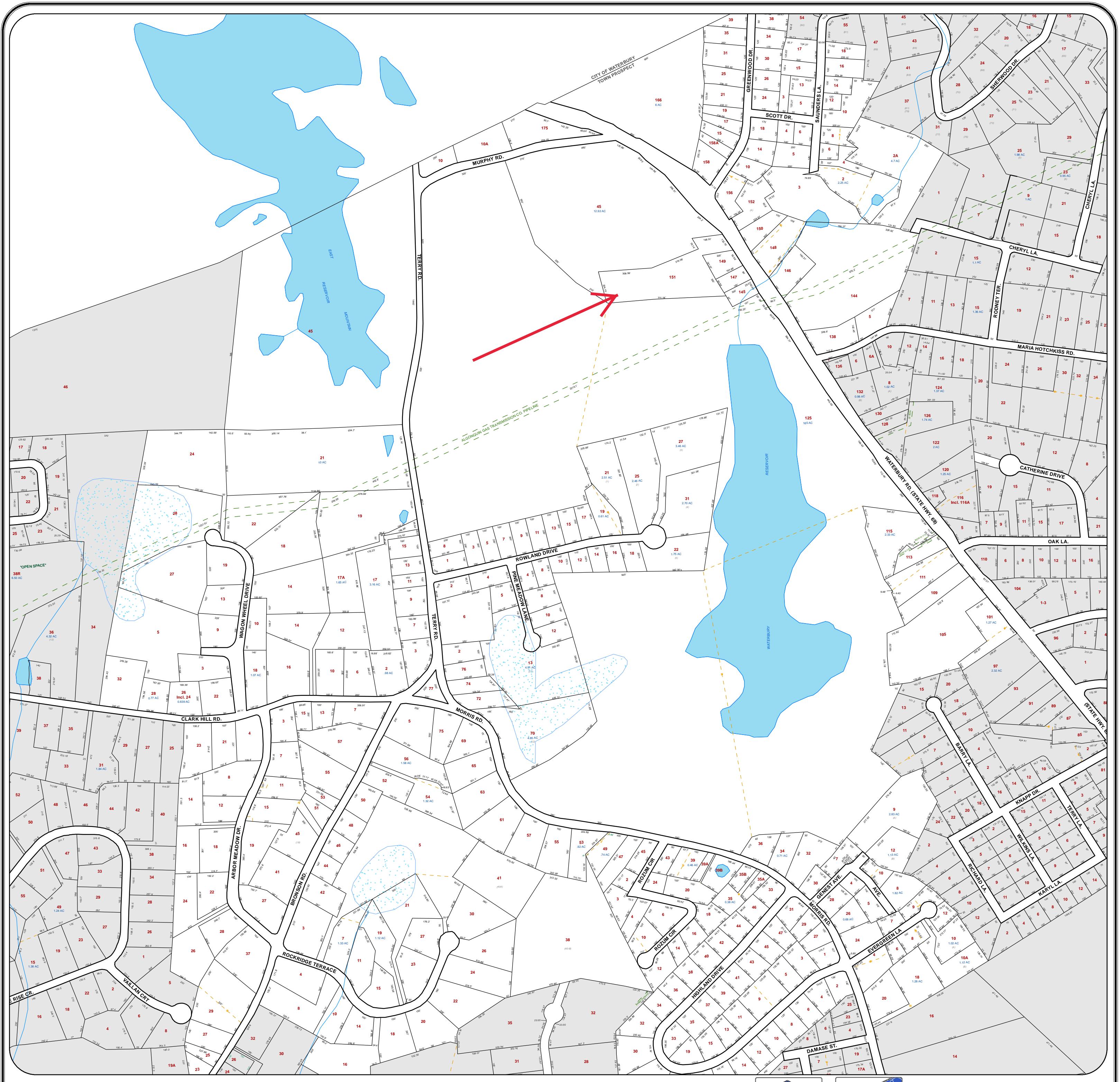
The anticipated maximum composite contributions from the T-Mobile facility as well as the site composite emissions value with regards to compliance with FCC's allowable limits for general population exposure to RF Emissions are shown here:

T-Mobile Sector	Power Density Value (%)
Sector A:	3.813 %
Sector B:	3.811 %
Sector C:	3.811 %
T-Mobile Per Sector Maximum (Sector A):	3.811 %
Site Total:	10.723 %
Site Compliance Status:	<b>COMPLIANT</b>

The anticipated composite MPE value for this site assuming all carriers present is **10.723%** of the allowable FCC established general population limit sampled at the ground level. This is based upon values listed in the Connecticut Siting Council database for existing carrier emissions.

FCC guidelines state that if a site is found to be out of compliance (over allowable thresholds), that carriers over a 5% contribution to the composite value will require measures to bring the site into compliance. For this facility, the composite values calculated were well within the allowable 100% threshold standard per the federal government.





The Assessor's office is responsible for the maintenance of records on the ownership of properties. Assessments are computed at 70% of the estimated market value of real property at the time of the last revaluation which was 2015.



[www.townofprospect.org](http://www.townofprospect.org)

Information on the Property Records for the Municipality of Prospect was last updated on 5/4/2018.

## Parcel Information

Location:	151 WATERBURY RD	Property Use:	Office	Primary Use:	Office Building
Unique ID:	G0121400	Map Block Lot:	104 160 151	Acres:	3.91
490 Acres:	0.00	Zone:	B	Volume / Page:	0819/0091
Developers Map / Lot:		Census:	3472		

## Value Information

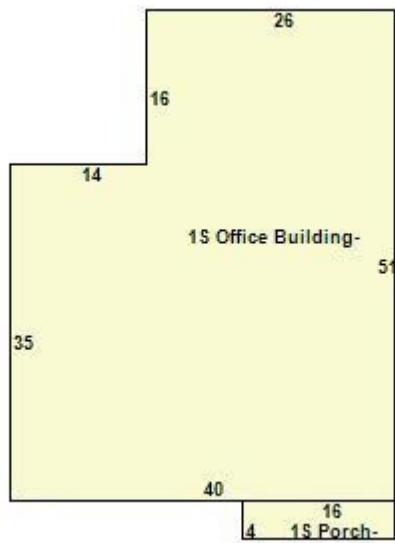
	Appraised Value	Assessed Value
Land	145,748	102,020
Buildings	18,751	13,130
Detached Outbuildings	615,568	430,900
Total	780,067	546,050

**Owner's Data**

ATC WATERTOWN LLC  
AMERICAN TOWER PROP TAX  
P O BOX 723597  
ATLANTA GA 31139

**Building 1**

**Photo Not Available**



Category:	Office	Use:	Office Building	GLA:	1,816
Stories:	1.00	Construction:	Masonry and Wood Frame	Year Built:	1973
Heating:	FHA	Fuel:	Oil	Cooling Percent:	100

Siding:	Concrete Block/B. V. Solid	Roof Material:		Beds/Units:	0
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## Special Features

## Attached Components

Type:	Year Built:	Area:
Open Porch	1973	64

## Detached Outbuildings

Type:	Year Built:	Length:	Width:	Area:
Paving	1973	0.00	0.00	2,400
Average Shed	1973	0.00	0.00	120
Cell Tower	2008	0.00	0.00	1
Cell Tower	2008	0.00	0.00	1

## Owner History - Sales

Owner Name	Volume	Page	Sale Date	Deed Type	Valid Sale	Sale Price
ATC WATERTOWN LLC	0819	0091	04/09/2018	Warranty Deed	No	\$0
RICHLAND TOWERS MANAGEMENT PARKVIEW LLC	0722	0095	03/01/2013	Quit Claim	No	\$666,450
SFX BROADCASTING OF CONNECTICUT	0291	0059	06/30/1997	Warranty Deed	No	\$0

## Building Permits

Permit Number	Permit Type	Date Opened	Date Closed	Permit Status	Reason

Permit Number	Permit Type	Date Opened	Date Closed	Permit Status	Reason
7916	Commercial	11/29/2017		Permit Issued	REMOVE EXISTING TIMBER WALL & TREES INSTALL NEW REDI ROCK WALL & FENCING
7751	Commercial	04/02/2017		Permit Issued	REMOVE/REPLAE 3 ANTENNAS 3 RRUS 11 RRDE2
7624	Commercial	08/03/2016		Closed	MODIFICATION TO AN EXISTING TELECOMMUNICATIONS FACILITY
7523	Outbuilding/Yard Item	04/15/2016		Closed	REPLACE 3 ANTENNAS INSTALL 3 RRO S
7472	Outbuilding/Yard Item	12/29/2015			
7149	Commercial	10/14/2014		Needs Visit	INSTALL THREE (3} ADDITIONAL REMORE RADIO UNITS ON EXISTING TOWER
6603	Building	06/15/2012		Permit Issued	ADD 3 LTE ANTENNAS TO EXISTING TOWER ADD EQUIP TO EXISTING SHELTER
6034		01/20/2010		Closed	REPLC EXISTING 195' GUYED TOWER WITH NEW;150' MONOPOLE & FOUNDATION CHNINK FENC;
5004		10/21/2005		Closed	CERT OF COMPLETION10212005;;

Information Published With Permission From The Assessor



VICINITY MAP



**AMERICAN TOWER®**

ATC SITE NAME: PROSPECT CT  
 ATC SITE NUMBER: 282660  
 T-MOBILE SITE ID: CTNH302A  
 SITE ADDRESS: 151 WATERBURY PROSPECT RD  
 PROSPECT, CT 06712-1228



LOCATION MAP

## T-MOBILE ANTENNA AMENDMENT MICROWAVE DISH ADD

COMPLIANCE CODE	PROJECT SUMMARY	PROJECT DESCRIPTION	SHEET INDEX					
<small>ALL WORK SHALL BE PERFORMED AND MATERIALS INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNMENT AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THESE CODES</small>	<u>SITE ADDRESS:</u> <b>151 WATERBURY PROSPECT RD PROSPECT, CT 06712-1228 COUNTY: NEW HAVEN</b>  <u>GEOGRAPHIC COORDINATES:</u> LATITUDE: 41.522983 LONGITUDE: -72.997775 GROUND ELEVATION: 879' AMSL	<small>THE PROPOSED PROJECT INCLUDES MODIFYING GROUND BASED AND TOWER MOUNTED EQUIPMENT AS INDICATED PER BELOW:           INSTALL (1) ODU, (2) 0.27" CAT6 AND (1) 0.33" FIBER          EXISTING (9) PANELS, (3) TTAs, (3) RRUs TO REMAIN AND (12) 1-5/8" COAX CABLES</small>	<small>SHEET NO:</small> <b>G-001</b> <b>G-002</b> <b>C-101</b> <b>C-501</b> <b>E-501</b>	<small>DESCRIPTION:</small> TITLE SHEET GENERAL NOTES DETAILED SITE PLAN & TOWER ELEVATION ANTENNA INFORMATION & SCHEDULE GROUNDING DETAILS	<small>REV:</small> <b>1</b> <b>0</b> <b>0</b> <b>0</b> <b>0</b>	<small>DATE:</small> <b>05/07/18</b> <b>04/26/18</b> <b>04/26/18</b> <b>04/26/18</b> <b>04/26/18</b>	<small>BY:</small> <b>SF</b> <b>SRF</b> <b>SRF</b> <b>SRF</b> <b>SRF</b>	
1. INTERNATIONAL BUILDING CODE (IBC) 2. NATIONAL ELECTRIC CODE (NEC) 3. LOCAL BUILDING CODE 4. CITY/COUNTY ORDINANCES		<u>PROJECT NOTES</u> <ul style="list-style-type: none"> <li>1. THE FACILITY IS UNMANNED.</li> <li>2. A TECHNICIAN WILL VISIT THE SITE APPROXIMATELY ONCE A MONTH FOR ROUTINE INSPECTION AND MAINTENANCE.</li> <li>3. THE PROJECT WILL NOT RESULT IN ANY SIGNIFICANT LAND DISTURBANCE OR EFFECT OF STORM WATER DRAINAGE.</li> <li>4. NO SANITARY SEWER, POTABLE WATER OR TRASH DISPOSAL IS REQUIRED.</li> <li>5. HANDICAP ACCESS IS NOT REQUIRED.</li> </ul>						
<b>UTILITY COMPANIES</b>	<b>PROJECT TEAM</b>	<u>TOWER OWNER:</u> <b>AMERICAN TOWER</b> 10 PRESIDENTIAL WAY WOBURN, MA 01801	<u>APPLICANT:</u> <b>T-MOBILE</b> 6200 OAK TREE BLVD, STE 125 INDEPENDENCE, OH 44131					
POWER COMPANY: EVERSOURCE PHONE: (877) 659-6329	<u>ENGINEER:</u> <b>ATC TOWER SERVICES, LLC</b> 3500 REGENCY PKWY STE 100 CARY, NC 27518	<u>CARRIER CONTACT:</u> <b>KEITH MCCOMBS</b> (412) 519-4361						
TELEPHONE COMPANY: FRONTIER COMMUNICATIONS PHONE: (800) 376-6843								
 Know what's below. Call before you dig.		<u>PROPERTY OWNER:</u> <b>AMERICAN TOWER</b> 116 HUNTINGTON AVE BOSTON, MA 02116						
		<u>PROJECT LOCATION DIRECTIONS</u>  FROM WATERBURY, CT:  START OUT GOING EAST ON E MAIN ST TOWARD ORANGE ST. TAKE THE 1ST RIGHT ONTO BRASS MILL DR. TURN LEFT ONTO UNION ST. UNION ST BECOMES CT-69. TURN SHARP RIGHT ONTO MURPHY RD. 45 MURPHY RD, PROSPECT, CT 06712-1134. 45 MURPHY RD IS ON THE LEFT.						

AMERICAN TOWER® A.T. ENGINEERING SERVICE, PLLC 3500 REGENCY PARKWAY SUITE 100 CARY, NC 27518 PHONE: (919) 468-0112 COA: PEC.0001553	
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REV.	DESCRIPTION
0	FOR CONSTRUCTION SRF 04/26/18
1	COORDINATES UPDATED SF 05/07/18
<small>ATC SITE NUMBER:  <b>282660</b></small>	
<small>ATC SITE NAME:  <b>PROSPECT CT</b></small>	
<small>SITE ADDRESS:          151 WATERBURY PROSPECT RD          PROSPECT, CT 06712-1228</small>	
<small>SEAL:</small> 	
<small>Authorized by "EOR"          May 7 2018 12:25 PM cosign</small>	
	
DRAWN BY:	SRF
APPROVED BY:	KRF
DATE DRAWN:	04/26/18
ATC JOB NO:	12482797
<b>TITLE SHEET</b>	
SHEET NUMBER:	REVISION:
<b>G-001</b>	<b>1</b>

**GENERAL CONSTRUCTION NOTES:**

1. ALL WORK SHALL CONFORM TO ALL CURRENT APPLICABLE FEDERAL, STATE, AND LOCAL CODES, INCLUDING ANSI/EIA/TIA-222, AND COMPLY WITH ATC MASTER SPECIFICATIONS.
2. CONTRACTOR SHALL CONTACT LOCAL 811 FOR IDENTIFICATION OF UNDERGROUND UTILITIES PRIOR TO START OF CONSTRUCTION.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL REQUIRED INSPECTIONS.
4. ALL DIMENSIONS TO, OF, AND ON EXISTING BUILDINGS, DRAINAGE STRUCTURES, AND SITE IMPROVEMENTS SHALL BE VERIFIED IN FIELD BY CONTRACTOR WITH ALL DISCREPANCIES REPORTED TO THE ENGINEER.
5. DO NOT CHANGE SIZE OR SPACING OF STRUCTURAL ELEMENTS.
6. DETAILS SHOWN ARE TYPICAL; SIMILAR DETAILS APPLY TO SIMILAR CONDITIONS UNLESS OTHERWISE NOTED.
7. THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY WHICH SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
8. CONTRACTOR SHALL BRACE STRUCTURES UNTIL ALL STRUCTURAL ELEMENTS NEEDED FOR STABILITY ARE INSTALLED. THESE ELEMENTS ARE AS FOLLOWS: LATERAL BRACING, ANCHOR BOLTS, ETC.
9. CONTRACTOR SHALL DETERMINE EXACT LOCATION OF EXISTING UTILITIES, GROUNDS DRAINS, DRAIN PIPES, VENTS, ETC. BEFORE COMMENCING WORK.
10. INCORRECTLY FABRICATED, DAMAGED, OR OTHERWISE MISFITTING OR NONCONFORMING MATERIALS OR CONDITIONS SHALL BE REPORTED TO THE T-MOBILE WIRELESS REP PRIOR TO REMEDIAL OR CORRECTIVE ACTION. ANY SUCH REMEDIAL ACTION SHALL REQUIRE WRITTEN APPROVAL BY THE T-MOBILE WIRELESS REP PRIOR TO PROCEEDING.
11. EACH CONTRACTOR SHALL COOPERATE WITH THE T-MOBILE WIRELESS REP, AND COORDINATE HIS WORK WITH THE WORK OF OTHERS.
12. CONTRACTOR SHALL REPAIR ANY DAMAGE CAUSED BY CONSTRUCTION OF THIS PROJECT TO MATCH EXISTING PRE-CONSTRUCTION CONDITIONS TO THE SATISFACTION OF THE T-MOBILE WIRELESS CONSTRUCTION MANAGER.
13. ALL CABLE/CONDUIT ENTRY/EXIT PORTS SHALL BE WEATHERPROOFED DURING INSTALLATION USING A SILICONE SEALANT.
14. WHERE EXISTING CONDITIONS DO NOT MATCH THOSE SHOWN IN THIS PLAN SET, CONTRACTOR SHALL NOTIFY THE T-MOBILE WIRELESS REP IMMEDIATELY.
15. CONTRACTOR SHALL ENSURE ALL SUBCONTRACTORS ARE PROVIDED WITH A COMPLETE AND CURRENT SET OF DRAWINGS AND SPECIFICATIONS FOR THIS PROJECT.
16. CONTRACTOR SHALL REMOVE ALL RUBBISH AND DEBRIS FROM THE SITE AT THE END OF EACH DAY.
17. CONTRACTOR SHALL COORDINATE WORK SCHEDULE WITH LANDLORD AND TAKE PRECAUTIONS TO MINIMIZE IMPACT AND DISRUPTION OF OTHER OCCUPANTS OF THE FACILITY.
18. CONTRACTOR SHALL FURNISH T-MOBILE WIRELESS WITH A PDF MARKED UP AS-BUILT SET OF DRAWINGS UPON COMPLETION OF WORK.
19. PRIOR TO SUBMISSION OF BID, CONTRACTOR SHALL COORDINATE WITH T-MOBILE WIRELESS REP TO DETERMINE WHAT, IF ANY, ITEMS WILL BE PROVIDED. ALL ITEMS NOT PROVIDED SHALL BE PROVIDED AND INSTALLED BY THE CONTRACTOR. CONTRACTOR WILL INSTALL ALL ITEMS PROVIDED.
20. PRIOR TO SUBMISSION OF BID, CONTRACTOR SHALL COORDINATE WITH T-MOBILE WIRELESS REP TO DETERMINE IF ANY PERMITS WILL BE OBTAINED BY CONTRACTOR. ALL REQUIRED PERMITS NOT OBTAINED BY T-MOBILE WIRELESS MUST BE OBTAINED, AND PAID FOR, BY THE CONTRACTOR.
21. CONTRACTOR SHALL INSTALL ALL SITE SIGNAGE IN ACCORDANCE WITH T-MOBILE WIRELESS SPECIFICATIONS AND REQUIREMENTS.
22. CONTRACTOR SHALL SUBMIT ALL SHOP DRAWINGS TO T-MOBILE WIRELESS FOR REVIEW AND APPROVAL PRIOR TO FABRICATION.
23. ALL EQUIPMENT SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS AND LOCATED ACCORDING TO T-MOBILE WIRELESS SPECIFICATIONS, AND AS SHOWN IN THESE PLANS.
24. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE PROJECT DESCRIBED HEREIN. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL THE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT.
25. CONTRACTOR SHALL NOTIFY T-MOBILE WIRELESS REP A MINIMUM OF 48 HOURS IN ADVANCE OF POURING CONCRETE OR BACKFILLING ANY UNDERGROUND UTILITIES, FOUNDATIONS OR SEALING ANY WALL, FLOOR OR ROOF PENETRATIONS FOR ENGINEERING REVIEW AND APPROVAL.
26. CONTRACTOR SHALL BE RESPONSIBLE FOR SITE SAFETY INCLUDING COMPLIANCE WITH ALL APPLICABLE OSHA STANDARDS AND RECOMMENDATIONS AND SHALL PROVIDE ALL NECESSARY SAFETY DEVICES INCLUDING PPE AND PPM AND CONSTRUCTION DEVICES SUCH AS WELDING AND FIRE PREVENTION, TEMPORARY SHORING, SCAFFOLDING, TRENCH BOXES/SLOPING, BARRIERS, ETC.
27. THE CONTRACTOR SHALL PROTECT AT HIS OWN EXPENSE, ALL EXISTING FACILITIES AND SUCH OF HIS NEW WORK LIABLE TO INJURY DURING THE CONSTRUCTION PERIOD. ANY DAMAGE CAUSED BY NEGLECT ON THE PART OF THIS CONTRACTOR OR HIS REPRESENTATIVES, OR BY THE ELEMENTS DUE TO NEGLECT ON THE PART OF THIS CONTRACTOR OR HIS REPRESENTATIVES, EITHER TO THE EXISTING WORK, OR TO HIS WORK OR THE WORK OF ANY OTHER CONTRACTOR, SHALL BE REPAIRED AT HIS EXPENSE TO THE OWNER'S SATISFACTION.
28. ALL WORK SHALL BE INSTALLED IN A FIRST CLASS, NEAT AND WORKMANLIKE MANNER BY MECHANICS SKILLED IN THE TRADE INVOLVED. THE QUALITY OF WORKMANSHIP SHALL BE SUBJECT TO THE APPROVAL OF THE T-MOBILE WIRELESS REP. ANY WORK FOUND BY THE T-MOBILE WIRELESS REP TO BE OF INFERIOR QUALITY AND/OR WORKMANSHIP SHALL BE REPLACED AND/OR REWORKED AT CONTRACTOR EXPENSE UNTIL APPROVAL IS OBTAINED.
29. IN ORDER TO ESTABLISH STANDARDS OF QUALITY AND PERFORMANCE, ALL TYPES OF MATERIALS LISTED HEREINAFTER BY MANUFACTURER'S NAMES AND/OR MANUFACTURER'S CATALOG NUMBER SHALL BE PROVIDED BY THESE MANUFACTURERS AS SPECIFIED.

**STRUCTURAL STEEL NOTES:**

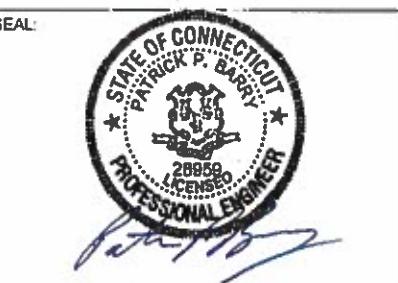
1. STRUCTURAL STEEL SHALL CONFORM TO THE LATEST EDITION OF THE AISC "SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS."
2. STRUCTURAL STEEL ROLLED SHAPES, PLATES AND BARS SHALL CONFORM TO THE FOLLOWING ASTM DESIGNATIONS:
  - A. ASTM A-572, GRADE 50 - ALL W SHAPES, UNLESS NOTED OR A992 OTHERWISE
  - B. ASTM A-36 - ALL OTHER ROLLED SHAPES, PLATES AND BARS UNLESS NOTED OTHERWISE
  - C. ASTM A-500, GRADE B - HSS SECTION (SQUARE, RECTANGULAR, AND ROUND)
  - D. ASTM A-325, TYPE SC OR N - ALL BOLTS FOR CONNECTING STRUCTURAL MEMBERS
  - E. ASTM F-1554 07 - ALL ANCHOR BOLTS, UNLESS NOTED OTHERWISE
3. ALL EXPOSED STRUCTURAL STEEL MEMBERS SHALL BE HOT-DIPPED GALVANIZED AFTER FABRICATION PER ASTM A123. EXPOSED STEEL HARDWARE AND ANCHOR BOLTS SHALL BE GALVANIZED PER ASTM A153 OR B695.
4. ALL FIELD CUT SURFACES, FIELD DRILLED HOLES AND GROUND SURFACES WHERE EXISTING PAINT OR GALVANIZATION REMOVAL WAS REQUIRED SHALL BE REPAIRED WITH (2) BRUSHED COATS OF ZRC GALVILITE COLD GALVANIZING COMPOUND PER ASTM A780 AND MANUFACTURER'S RECOMMENDATIONS.
5. DO NOT DRILL HOLES THROUGH STRUCTURAL STEEL MEMBERS EXCEPT AS SHOWN AND DETAILED ON STRUCTURAL DRAWINGS.
6. CONNECTIONS:
  - A. ALL WELDING TO BE PERFORMED BY AWS CERTIFIED WELDERS AND CONDUCTED IN ACCORDANCE WITH THE LATEST EDITION OF THE AWS WELDING CODE D1.1.
  - B. ALL WELDS SHALL BE INSPECTED VISUALLY. 25% OF WELDS SHALL BE INSPECTED WITH DYE PENETRANT OR MAGNETIC PARTICLE TO MEET THE ACCEPTANCE CRITERIA OF AWS D1.1. REPAIR ALL WELDS AS NECESSARY.
  - C. INSPECTION SHALL BE PERFORMED BY AN AWS CERTIFIED WELD INSPECTOR.
  - D. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE BURNING/WELDING PERMITS AS REQUIRED BY LOCAL GOVERNING AUTHORITY AND IF REQUIRED SHALL HAVE FIRE DEPARTMENT DETAIL FOR ANY WELDING ACTIVITY.
  - E. ALL ELECTRODES TO BE LOW HYDROGEN, MATCHING FILLER METAL, PER AWS D1.1, UNLESS NOTED OTHERWISE.
  - F. MINIMUM WELD SIZE TO BE 0.1875 INCH FILLET WELDS, UNLESS NOTED OTHERWISE.
  - G. PRIOR TO FIELD WELDING GALVANIZING MATERIAL, CONTRACTOR SHALL GRIND OFF GALVANIZING  $\frac{1}{2}$ " BEYOND ALL FIELD WELD SURFACES. AFTER WELD AND WELD INSPECTION IS COMPLETE, REPAIR ALL GROUND AND WELDED SURFACES WITH ZRC GALVILITE COLD GALVANIZING COMPOUND PER ASTM A780 AND MANUFACTURER'S RECOMMENDATIONS.

**AMERICAN TOWER®**  
**A.T. ENGINEERING SERVICE, PLLC**  
**3500 REGENCY PARKWAY**  
**SUITE 100**  
**CARY, NC 27518**  
**PHONE: (919) 468-0112**  
**COA: PEC.0001553**

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REV.	DESCRIPTION	BY	DATE
0	FOR CONSTRUCTION	SRF	04/26/18

ATC SITE NUMBER:  
**282660**  
ATC SITE NAME:  
**PROSPECT CT**  
SITE ADDRESS:  
151 WATERBURY PROSPECT RD  
PROSPECT, CT 06712-1228

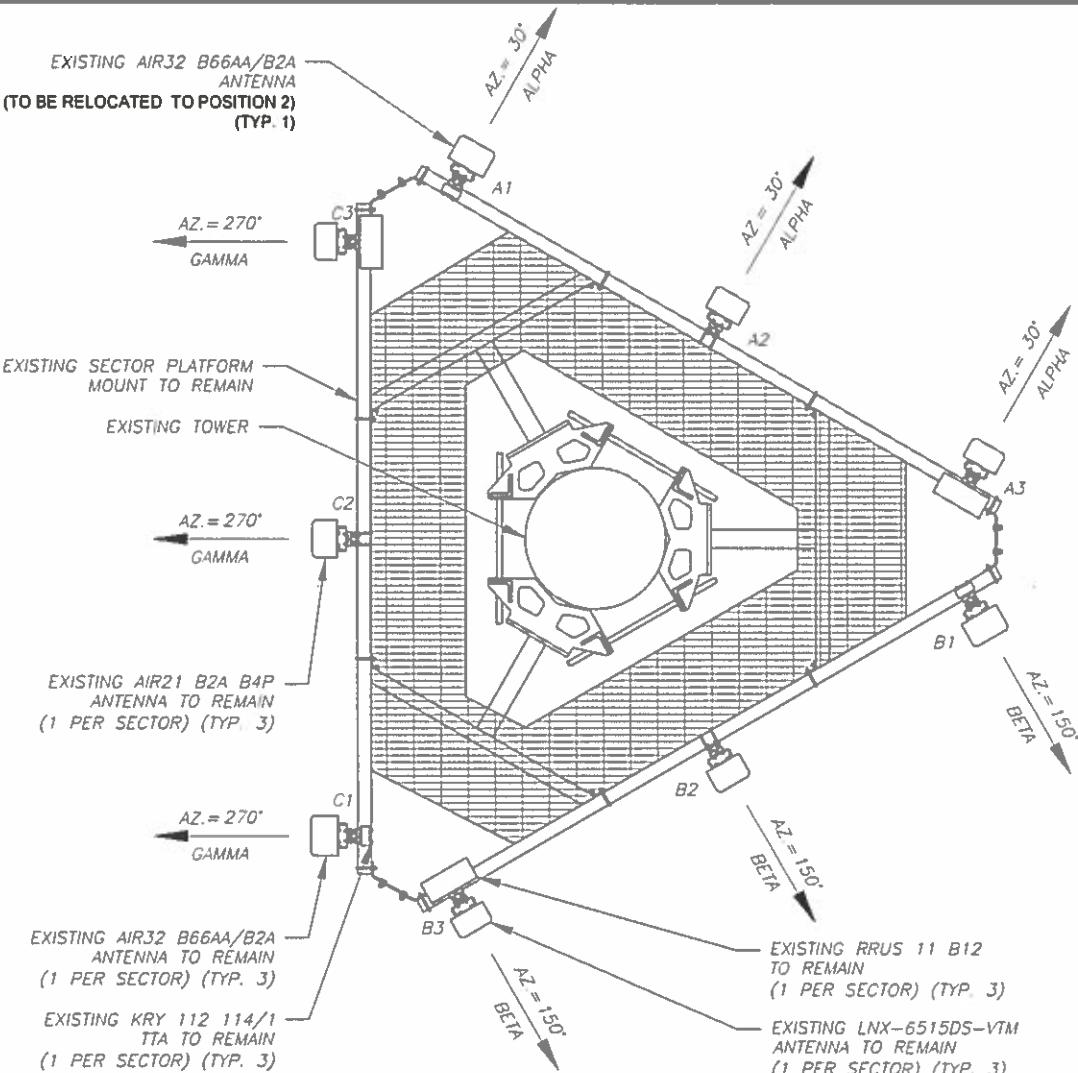


Authorized by "EOR"  
May 7 2018 12:25 PM **cosign**

DRAWN BY:	SRF
APPROVED BY:	KRF
DATE DRAWN:	04/26/18
ATC JOB NO:	12482797

GENERAL NOTES	
SHEET NUMBER:	REVISION:
<b>G-002</b>	<b>0</b>

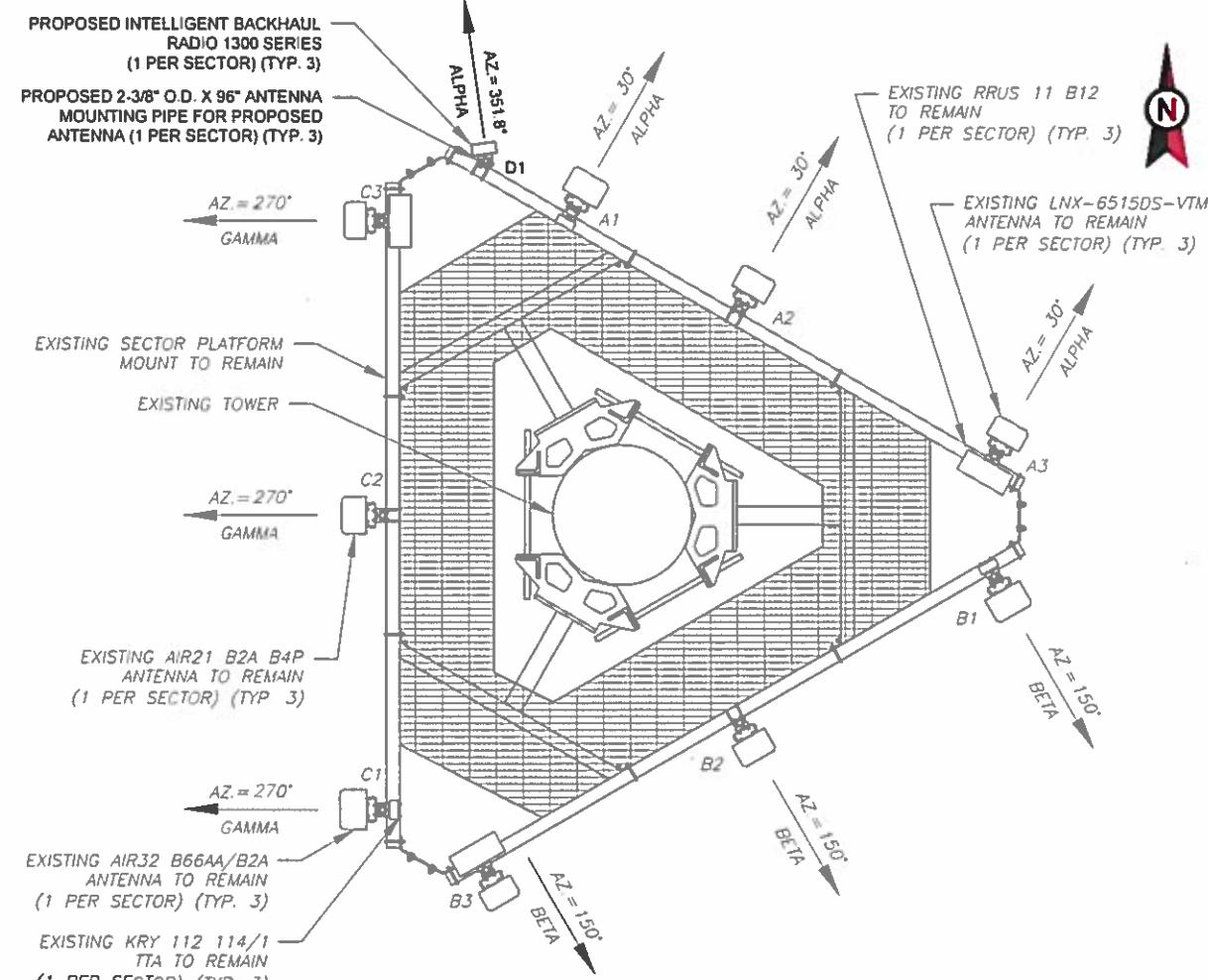




## NOTES:

- ATC HAS NOT YET VERIFIED ANY EXISTING ANTENNA CONFIGURATION OR MOUNT CONFIGURATION. CONTRACTOR TO VERIFY MOUNT CONFIGURATION HAS SUFFICIENT SPACE FOR PROPOSED LESSEE EQUIPMENT (I.E. CLEARANCES, MOUNT PIPE OR SUFFICIENT LENGTH, ETC.) ATC DID NOT ANALYZE ANTENNA MOUNT TO DETERMINE ADEQUATE STRUCTURAL CAPACITY FOR ANY LESSEE LOADING.

EXISTING ANTENNA/COAX SCHEDULE							
SECTOR	ANT.	MANUFACTURER (MODEL #)	RAD CENTER	AZIMUTH (TN)	MECH. D-TILT	ELEC. D-TILT	ADDITIONAL TOWER MOUNTED EQUIPMENT
ALPHA	A1	AIR32 B66AAB2A	137'-0"	30°	-	-	KRY 112 144/1
ALPHA	A2	AIR 21 B2A B4P	137'-0"	30°	-	-	(4) 1-5/8"
ALPHA	A3	LNX-6515DS-VM	137'-0"	30°	-	-	RRUS11 B12
BETA	B1	AIR32 B66AAB2A	137'-0"	150°	-	-	KRY 112 144/1
BETA	B2	AIR 21 B2A B4P	137'-0"	150°	-	-	(4) 1-5/8"
BETA	B3	LNX-6515DS-VM	137'-0"	150°	-	-	RRUS11 B12
GAMMA	C1	AIR32 B66AAB2A	137'-0"	270°	-	-	KRY 112 144/1
GAMMA	C2	AIR 21 B2A B4P	137'-0"	270°	-	-	(4) 1-5/8"
GAMMA	C3	LNX-6515DS-VM	137'-0"	270°	-	-	RRUS11 B12
1. (2) 1-1/4" HYBRIFLEX CABLES (TO REMAIN)							

**3 ANTENNA SCHEDULE**

## NOTES:

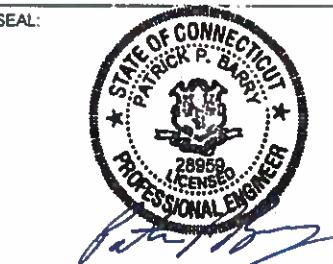
- ALL PROPOSED EQUIPMENT INCLUDING ANTENNAS, COAX, ETC. SHALL BE MOUNTED IN ACCORDANCE WITH THE TOWER STRUCTURAL ANALYSIS ON FILE WITH THE ATC CM.
- SPACING OF PROPOSED EQUIPMENT SHALL BE CONFIRMED FOR TOWER CONFLICTS AND PROPOSED MOUNTS SHALL NOT IMPEDE TOWER CLIMBING PEGS.
- CONTRACTOR SHALL RE-ORIENT T-ARMS AS NECESSARY TO ACHIEVE PROPOSED ANTENNA AZIMUTHS. (DELETE IF NOT USED)

FINAL ANTENNA/COAX SCHEDULE							
SECTOR	ANT.	MANUFACTURER (MODEL #)	RAD CENTER	AZIMUTH (TN)	MECH. D-TILT	ELEC. D-TILT	ADDITIONAL TOWER MOUNTED EQUIPMENT
DELTA	D1	-	137'-0"	351.8°	-	-	(1) INTELLIGENT BACKHAUL RADIO 1300 SERIES
ALPHA	A1	AIR32 B66AAB2A	137'-0"	30°	-	-	KRY 112 144/1
ALPHA	A2	AIR 21 B2A B4P	137'-0"	30°	-	-	(4) 1-5/8"
ALPHA	A3	LNX-6515DS-VM	137'-0"	30°	-	-	RRUS11 B12
BETA	B1	AIR32 B66AAB2A	137'-0"	150°	-	-	KRY 112 144/1
BETA	B2	AIR 21 B2A B4P	137'-0"	150°	-	-	(4) 1-5/8"
BETA	B3	LNX-6515DS-VM	137'-0"	150°	-	-	RRUS11 B12
GAMMA	C1	AIR32 B66AAB2A	137'-0"	270°	-	-	KRY 112 144/1
GAMMA	C2	AIR 21 B2A B4P	137'-0"	270°	-	-	(4) 1-5/8"
GAMMA	C3	LNX-6515DS-VM	137'-0"	270°	-	-	RRUS11 B12
1. BASED ON APPROVED ATC APPLICATION OAA727017, DATED 03-26-2018. CONFIRM WITH T-MOBILE REP FOR APPLICABLE UPDATES/REVISIONS AND MOST RECENT RFDS. 2. (2) 0.27" CAT6 AND (1) 0.33" FIBER CABLES PROPOSED 3. (2) 1-1/4" HYBRIFLEX CABLES (TO REMAIN)							

SHEET NUMBER:	REVISION:
C-501	0

ATC SITE NUMBER:  
**282660**  
ATC SITE NAME:  
**PROSPECT CT**

SITE ADDRESS:  
151 WATERBURY PROSPECT RD  
PROSPECT, CT 06712-1228



Authorized by "EOR"  
May 7 2018 12:25 PM **cosign**

**T-Mobile**

DRAWN BY: SRF  
APPROVED BY: KRF  
DATE DRAWN: 04/26/18  
ATC JOB NO: 12482797

**ANTENNA INFORMATION & SCHEDULE**



**AMERICAN TOWER®**  
**A.T. ENGINEERING SERVICE, PLLC**  
**3500 REGENCY PARKWAY**  
**SUITE 100**  
**CARY, NC 27518**  
**PHONE: (919) 466-0112**  
**COA: PEC.0001553**

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REV.	DESCRIPTION	BY	DATE
0	FOR CONSTRUCTION	SRF	04/26/18
△			
△			
△			
△			

ATC SITE NUMBER:  
**282660**

ATC SITE NAME:

**PROSPECT CT**

SITE ADDRESS:  
151 WATERBURY PROSPECT RD  
PROSPECT, CT 06712-1228

SEAL:



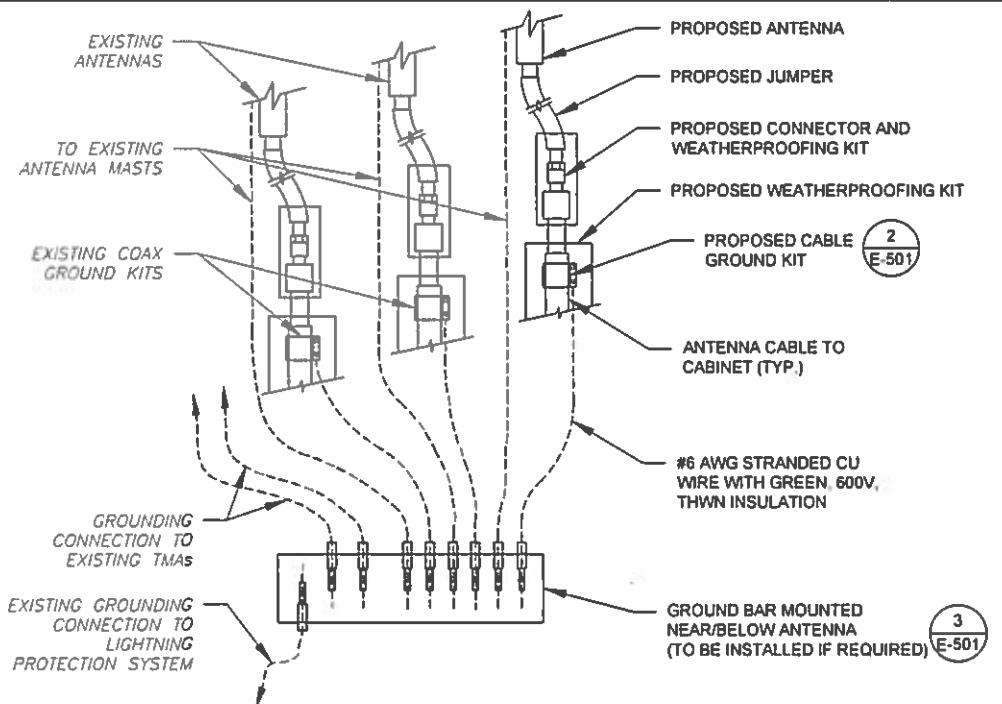
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May 7 2018 12:25 PM **cosign**

**T-Mobile**

DRAWN BY:	SRF
APPROVED BY:	KRF
DATE DRAWN:	04/26/18
ATC JOB NO:	12482797

#### GROUNDING DETAILS

SHEET NUMBER:	REVISION:
<b>E-501</b>	<b>0</b>

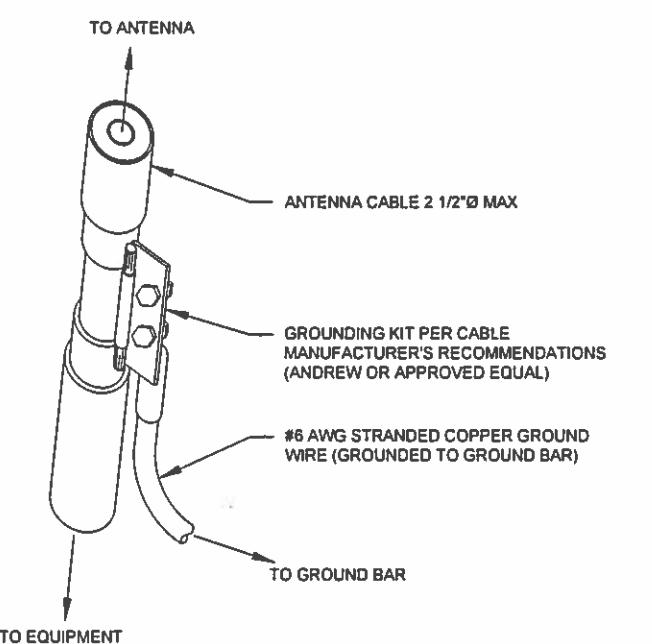


**1 TYPICAL ANTENNA GROUNDING DIAGRAM**

SCALE: NOT TO SCALE

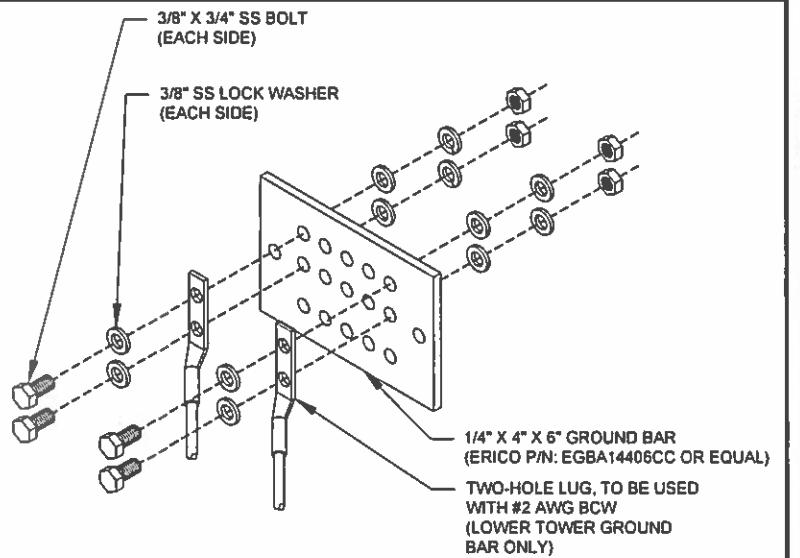
**2 CABLE GROUND KIT CONNECTION DETAIL**

SCALE: NOT TO SCALE



**GROUND KIT NOTES:**

- DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO GROUND BAR.
- CONTRACTOR SHALL PROVIDE WEATHERPROOFING KIT (ANDREW PART NUMBER 221213) AND INSTALL/TAPE PER MANUFACTURER'S SPECIFICATIONS.



**GROUND BAR NOTES:**

- GROUND BAR KITS COME WITH ALL HARDWARE, NUTS, BOLTS, WASHERS, ETC. EXCEPT THE STRUCTURAL MOUNTING MEMBER(S).
- GROUND BAR TO BE BONDED DIRECTLY TO TOWER.

**3 TOWER GROUND BAR DETAIL**

SCALE: NOT TO SCALE

DRAWN BY:	SRF
APPROVED BY:	KRF
DATE DRAWN:	04/26/18
ATC JOB NO:	12482797

#### GROUNDING DETAILS

SHEET NUMBER:	REVISION:
<b>E-501</b>	<b>0</b>