



Jon Ritter

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2/3/2016

Melanie Bachman  
Acting Executive Director  
Connecticut Siting Counsel  
10 Franklin Square  
New Britain, CT 06051

Re: **Notice of Exempt Modification**  
**1000 Northrop Road, Wallingford CT 06492**  
**41.488987/-72.768341**

Dear Ms. Bachman:

T-Mobile Northeast, LLC (T-Mobile) currently maintains three (3) antennas at the one hundred and forty (140') foot level of the existing one hundred and fifty (150') foot Monopole at 1000 Northrop Road, Wallingford, CT. The monopole tower is owned by American Tower Corporation. The property is owned by Cogent Management, LLC. T-Mobile now intends to add Three (3) new 700MHz antennas. These antennas would be installed at the one hundred and forty (140') foot level of the tower.

The original zoning decision has been included with this filing dated June 13<sup>th</sup> 1994. The decision includes no conditions that would impact the installation of cellular equipment or modification of the tower. The Tower was approved for a height of one hundred and sixty three (163') feet.

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 the Major, William W. Dickinson, Jr for the Town of Wallingford, as well as the property owner and the tower owner.

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

- 1) The proposed modification will not result in an increase in the height of the existing structure.
- 2) The modifications will not require an extension of the site boundary.
- 3) The proposed modification will not increase the noise levels at the facility by six decibels or more, or to levels that exceed state and local criteria.
- 4) The operation and replacement of antennas 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.

For the foregoing reasons, T-Mobile Northeast LLC 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,



**Jon Ritter**

On behalf of American Tower Corporation  
c/o Tower Resource Management, Inc.  
16 Chestnut Street, Suite 420  
Foxboro, MA 02035  
774-264-0016  
jritter@trmcom.com

cc: **Major, William W. Dickinson, Jr., Town of Wallingford**  
**American Tower Corporation**  
**Cogent Management, LLC**

Exhibit 1

Site Plan

## Exhibit 2

### Power Density Report

## Exhibit 3

### Structural Analysis



**AMERICAN TOWER®**  
CORPORATION

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## Structural Analysis Report

**Structure** : 150 ft Monopole  
**ATC Site Name** : Parsonage Hill AKA Wallingford, CT  
**ATC Site Number** : 302538  
**Engineering Number** : 63605627  
**Proposed Carrier** : T-Mobile  
**Carrier Site Name** : CT11054A\_Wallingford\_I-91\_X15  
**Carrier Site Number** : CT11054A  
**Site Location** : 922 Northrop Road  
Wallingford, CT 06492-1910  
41.489347,-72.768253  
**County** : New Haven  
**Date** : January 29, 2016  
**Max Usage** : 95%  
**Result** : Pass

Reviewed by:  
Scott Wirgau, PE  
Structural Team Leader



Prepared By:  
Emily M. Basile, E.I.  
Structural Engineer I

Jan 29 2016 5:02 PM

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

<b>Tower Drawings</b>	Valmont Drawing #DC1776A, dated June 29, 1994
<b>Foundation Drawing</b>	SAC Engineering, Valmont Order #11715-94, dated July 21, 1994
<b>Geotechnical Report</b>	AET Project #91294, dated July 8, 1994

## 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.

<b>Basic Wind Speed:</b>	105 mph (3-Second Gust)
<b>Basic Wind Speed w/ Ice:</b>	50 mph (3-Second Gust) w/ 3/4" radial ice concurrent
<b>Code:</b>	ANSI/TIA-222-G / 2003 IBC w/ 2005 CT Supplement & 2009 CT Amendment
<b>Structure Class:</b>	II
<b>Exposure Category:</b>	C
<b>Topographic Category:</b>	1
<b>Crest Height:</b>	0 ft
<b>Spectral Response:</b>	$S_s = 0.18, S_1 = 0.06$
<b>Site Class:</b>	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.





**Existing and Reserved Equipment**

Elevation <sup>1</sup> (ft)		Qty	Antenna	Mount Type	Lines	Carrier
Mount	RAD					
150.0	149.0	1	72" x 4" Panel	T-Arms	(12) 1 5/8" Coax	Sprint Nextel
		12	52" x 12" Panel			
148.0	153.0	1	10' Dipole		(1) 7/8" Coax	Double A Transportation
139.0	139.0	3	Ericsson KRY 112 144/1	Proposed Collar Ring Mount w/ T-Arms	(12) 1 5/8" Coax (1) 1 1/4" Hybriflex	T-Mobile
		3	Ericsson AIR 21, 1.3 M, B2A B4P			
133.5	134.0	2	Horizon Compact	Flush	(6) 5/16" Coax (2) 1/2" Coax (2) 2" Conduit	Clearwire
		3	Argus LLPX310R			
		1	DragonWave A-ANT-11G-2-C			
	1	DragonWave A-ANT-18G-2-C				
	132.0	3	NextNet BTS-2500			
123.0	127.0	6	7" x 6" x 3" Diplexer	Platform w/ Handrails	(12) 1 5/8" Coax (2) 0.78" 8 AWG 6 (1) 0.39" Fiber Trunk (1) 3" Conduit	AT&T Mobility
		6	Powerwave LGP21401			
		1	Raycap DC6-48-60-18-8F ("Squid")			
		3	Ericsson RRUS 12 w/ RRUS A2			
		6	Powerwave 7770.00			
	3	CCI OPA-65R-LCUU-H6				
	126.0	6	Ericsson RRUS 11 (Band 12) (55 lb)			
111.0	111.0	-	-	Empty Platform w/ Handrails	-	--
105.0	105.0	3	RFS APXV18-206517S-C	Flush	(6) 1 5/8" Coax	Metro PCS

**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					
139.0	141.0	3	Ericsson RRUS 11 B12	Proposed Collar Ring Mount w/ T-Arms	-	T-Mobile
		3	Ericsson AIR 21 B4A/B12P-B5P 6FT			

<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).



**Structure Usages**

Structural Component	Controlling Usage	Pass/Fail
Anchor Bolts	91%	Pass
Shaft	95%	Pass
Base Plate	94%	Pass

**Foundations**

Reaction Component	Analysis Reactions	% of Usage
Moment (Kips-Ft)	4,368.6	64%
Shear (Kips)	42.9	91%

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

**Deflection and Sway\***

Antenna Elevation (ft)	Antenna	Carrier	Deflection (ft)	Sway (Rotation) (°)
139.0	Ericsson RRUS 11 B12	T-Mobile	1.894	1.382
	Ericsson AIR 21 B4A/B12P-B5P 6FT			
133.5	DragonWave A-ANT-11G-2-C	Clearwire	1.761	1.369
	DragonWave A-ANT-18G-2-C			

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



## Standard Conditions

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

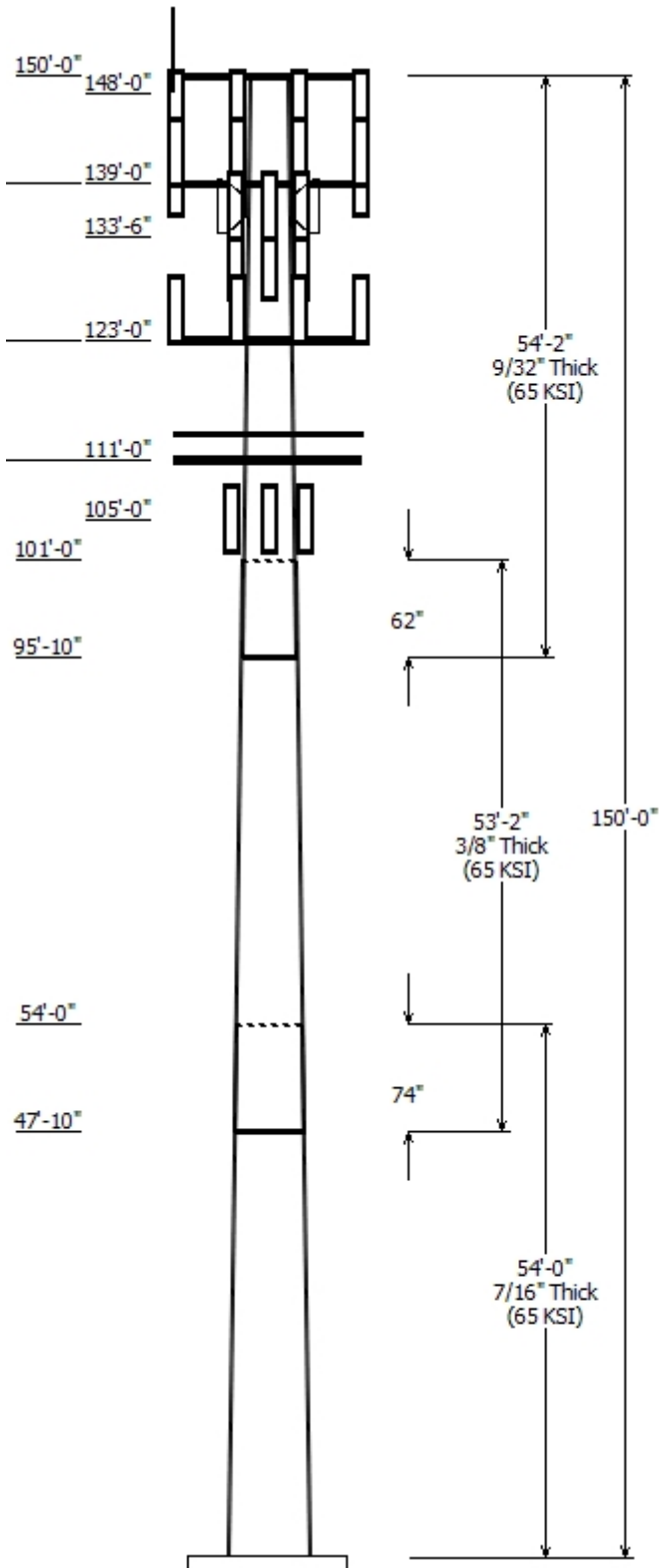
- Information supplied by the client regarding the structure itself, antenna, mounts and feed line loading on the structure and its components, or other relevant information.
- Information from drawings in the possession of American Tower Corporation, or generated by field inspections or measurements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

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

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

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

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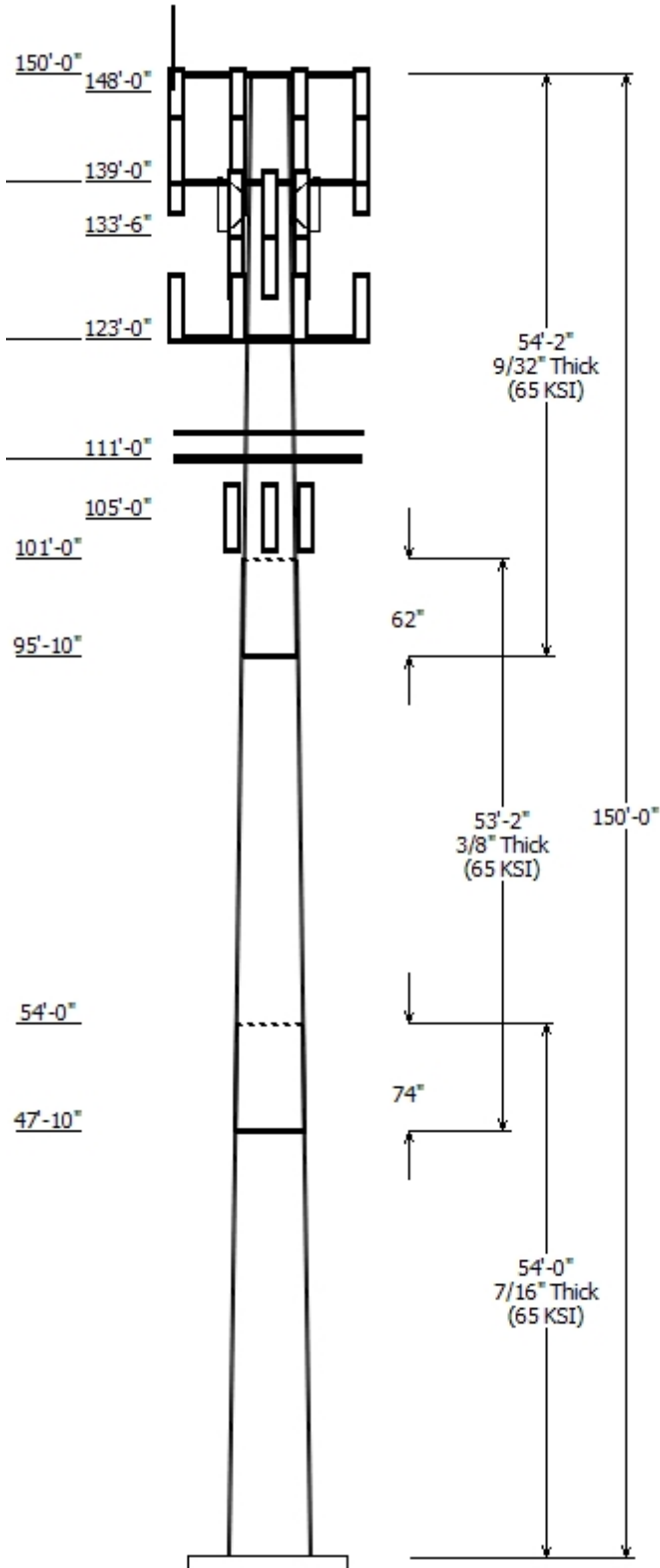


Job Information	
Pole :	302538
Code :	ANSI/TIA-222-G
Description :	150 ft Valmont Monopole
Client :	T-MOBILE
Struct Class :	II
Location :	Parsonage Hill AKA Wallingford, CT
Shape :	12 Sides
Exposure :	C
Height :	150.00 (ft)
Topo :	1
Base Elev (ft):	0.00
Taper:	0.18200(in/ft)

Sections Properties								
Shaft Section	Length (ft)	Diameter (in)		Joint Type	Overlap Length (in)	Taper (in/ft)	Steel Grade (ksi)	
		Across Flats Top	Across Flats Bottom					
1	54.000	39.77	49.60	0.438	0.000	0.182000	65	
2	53.167	31.96	41.64	0.375 Slip Joint	74.000	0.182000	65	
3	54.167	23.61	33.47	0.281 Slip Joint	62.000	0.182000	65	

Discrete Appurtenance				
Attach Elev (ft)	Force Elev (ft)	Qty	Description	
150.000	150.000	3	Round T-Arm	
150.000	149.000	1	72" x 4" Panel	
150.000	149.000	12	52" x 12" Panel	
148.000	153.000	1	10' Dipole	
139.000	139.000	3	Round T-Arm	
139.000	139.000	3	Ericsson AIR 21, 1.3 M, B2A B4	
139.000	139.000	3	Ericsson KRY 112 144/1	
139.000	141.000	3	Ericsson AIR 21 B4A/B12P-B5P	
139.000	141.000	3	Ericsson RRUS 11 B12	
133.500	134.000	1	DragonWave A-ANT-18G-2-C	
133.500	134.000	1	DragonWave A-ANT-11G-2-C	
133.500	134.000	3	Argus LLPX310R	
133.500	132.000	3	NextNet BTS-2500	
133.500	134.000	2	Horizon Compact	
123.000	127.000	6	7" x 6" x 3" Diplexer	
123.000	126.000	6	Ericsson RRUS 11 (Band 12) (55	
123.000	127.000	1	Raycap DC6-48-60-18-8F	
123.000	127.000	6	Powerwave Allgon LGP21401	
123.000	127.000	3	Ericsson RRUS 12 w/ RRUS A2	
123.000	123.000	1	Platform w/ Handrails	
123.000	127.000	3	CCI OPA-65R-LCUU-H6	
123.000	127.000	6	Powerwave 7770.00	
111.000	111.000	1	Empty Platform w/ Handrails	
105.000	105.000	3	RFS APXV18-206517S-C	

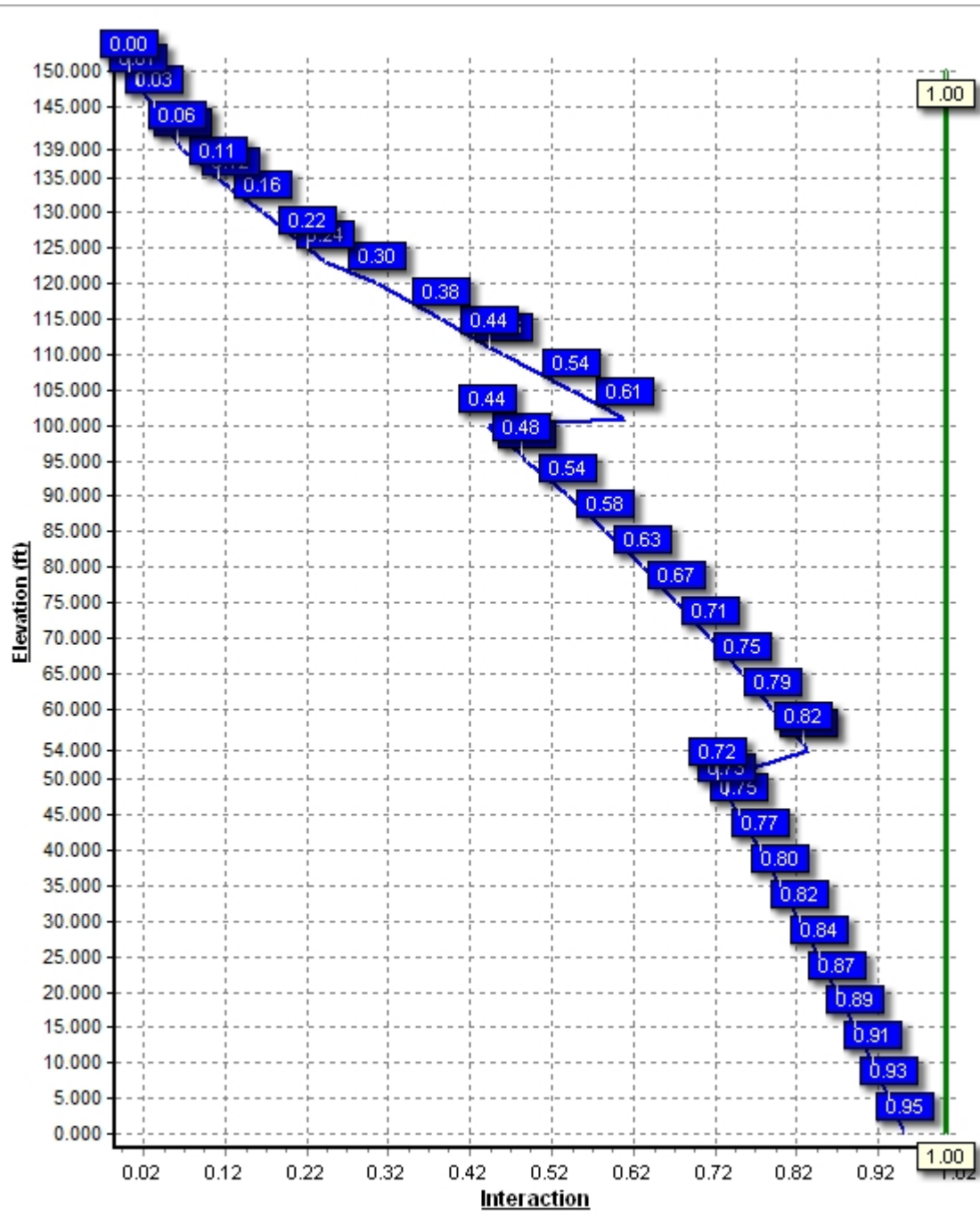
Linear Appurtenance			
Elev (ft)		Description	Exposed To Wind
From	To		
0.000	105.0	1 5/8" Coax	No
0.000	123.0	0.39" Fiber Trunk	No
0.000	123.0	0.78" 8 AWG 6	No
0.000	123.0	1 5/8" Coax	No
0.000	123.0	3" Conduit	No
0.000	133.5	1/2" Coax	Yes
0.000	133.5	2" Conduit	Yes
0.000	133.5	5/16" Coax	No
0.000	139.0	1 1/4" Hybriflex	No
0.000	139.0	1 5/8" Coax	No
0.000	148.0	7/8" Coax	No
0.000	150.0	1 5/8" Coax	No



Load Cases	
1.2D + 1.6W	105 mph with No Ice
0.9D + 1.6W	105 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	4368.58	42.88	47.05
0.9D + 1.6W	4321.20	42.85	35.26
1.2D + 1.0Di + 1.0Wi	869.38	8.12	72.92
(1.2 + 0.2Sds) * DL + E ELFM	180.19	1.54	46.92
(1.2 + 0.2Sds) * DL + E EMAM	195.73	1.80	46.92
(0.9 - 0.2Sds) * DL + E ELFM	177.79	1.54	32.62
(0.9 - 0.2Sds) * DL + E EMAM	192.98	1.80	32.62
1.0D + 1.0W	886.85	8.74	39.30

Dish Deflections			
Load Case	Attach Elev (ft)	Deflection (in)	Rotation (deg)
1.0D + 1.0W	133.50	21.137	1.369
1.0D + 1.0W	133.50	21.137	1.369



Site Number: 302538

Code: ANSI/TIA-222-G

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Site Name: Parsonage Hill AKA Wallingford

Engineering Number: 63605627

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Customer: T-MOBILE

### Analysis Parameters

Location:	New Haven County, CT		
Code:	ANSI/TIA-222-G	Height (ft):	150
Shape:	12 Sides	Base Diameter (in):	49.60
Pole Type:	Taper	Top Diameter (in):	23.61
Pole Manufacturer:	Valmont	Taper (in/ft) :	0.182

### Ice & Wind Parameters

Structure Class:	II	Design Wind Speed Without Ice:	105 mph
Exposure Category:	C	Design Wind Speed With Ice:	50 mph
Topographic Category:	1	Operational Wind Speed:	60 mph
Crest Height:	0.0 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):	2.23		
$T_L$ (sec):	6	$p$ :	1.3
$S_s$ :	0.182	$S_1$ :	0.063
$F_a$ :	1.600	$F_v$ :	2.400
$S_{ds}$ :	0.194	$S_{d1}$ :	0.101
		$C_s$ :	0.030
		$C_s$ Max:	0.030
		$C_s$ Min:	0.030

### Load Cases

1.2D + 1.6W	105 mph with No Ice
0.9D + 1.6W	105 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 ELFM	Seismic Equivalent Lateral Forces Method
(1.2 + 0.2Sds) * DL + E EMAM	Seismic Equivalent Modal Analysis Method
(0.9 - 0.2Sds) * DL + E ELFM	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

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Site Name: Parsonage Hill AKA Wallingford

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Customer: T-MOBILE

**Shaft Section Properties**

Sect Info	Length (ft)	Thick (in)	Fy (ksi)	Joint Type	Slip Joint Len (in)	Weight (lb)	Bottom					Top							
							Dia (in)	Elev (ft)	Area (in <sup>2</sup> )	Ix (in <sup>4</sup> )	W/t Ratio	D/t Ratio	Dia (in)	Elev (ft)	Area (in <sup>2</sup> )	Ix (in <sup>4</sup> )	W/t Ratio	D/t Ratio	Taper (in/ft)
1-12	54.000	0.4375	65		0.00	11,454	49.60	0.00	69.26	21365.7	27.70	113.37	39.77	54.00	55.41	10942.9	21.68	90.91	0.182000
2-12	53.167	0.3750	65	Slip	74.00	7,958	41.64	47.83	49.83	10833.0	27.08	111.05	31.96	101.00	38.15	4860.0	20.16	85.25	0.182000
3-12	54.167	0.2813	65	Slip	62.00	4,717	33.47	95.83	30.06	4226.0	29.21	119.01	23.61	150.00	21.13	1468.0	19.82	83.95	0.182000
Shaft Weight						24,130													

**Discrete Appurtenance Properties**

Attach Elev (ft)	Description	Qty	No Ice			Ice			Distance From Face (ft)	Vert Ecc (ft)
			Weight (lb)	EPAA (sf)	Orientation Factor	Weight (lb)	EPAA (sf)	Orientation Factor		
150.00	52" x 12" Panel	12	40.00	5.550	0.78	182.82	6.587	0.78	0.000	-1.000
150.00	72" x 4" Panel	1	40.00	3.530	0.78	157.81	4.678	0.78	0.000	-1.000
150.00	Round T-Arm	3	250.00	9.700	0.67	459.29	17.955	0.67	0.000	0.000
148.00	10' Dipole	1	30.00	3.760	1.00	141.32	9.746	1.00	0.000	5.000
139.00	Ericsson AIR 21 B4A/B12P-	3	110.00	10.610	0.82	369.52	12.038	0.82	0.000	2.000
139.00	Ericsson AIR 21, 1.3 M, B2A	3	83.00	6.050	0.86	250.22	7.138	0.86	0.000	0.000
139.00	Ericsson KRY 112 144/1	3	11.00	0.410	0.50	27.16	0.632	0.50	0.000	0.000
139.00	Ericsson RRUS 11 B12	3	50.70	2.790	0.67	136.16	3.463	0.67	0.000	2.000
139.00	Round T-Arm	3	250.00	9.700	0.67	457.54	17.886	0.67	0.000	0.000
133.50	Argus LLPX310R	3	28.60	4.290	0.73	134.72	5.177	0.73	0.000	0.500
133.50	DragonWave A-ANT-11G-2-C	1	27.00	4.690	1.00	123.17	5.950	1.00	0.000	0.500
133.50	DragonWave A-ANT-18G-2-C	1	27.10	4.690	1.00	123.63	5.950	1.00	0.000	0.500
133.50	Horizon Compact	2	10.60	0.430	0.50	40.32	0.657	0.50	0.000	0.500
133.50	NextNet BTS-2500	3	35.00	1.820	0.50	91.88	2.390	0.50	0.000	-1.500
123.00	7" x 6" x 3" Diplexer	6	5.00	0.410	0.50	27.97	0.966	0.50	0.000	4.000
123.00	CCI OPA-65R-LCUU-H6	3	73.00	9.660	0.79	299.12	10.996	0.79	0.000	4.000
123.00	Ericsson RRUS 11 (Band 12)	6	55.00	2.520	0.67	134.40	3.206	0.67	0.000	3.000
123.00	Ericsson RRUS 12 w/ RRUS	3	71.40	3.150	0.67	169.11	4.289	0.67	0.000	4.000
123.00	Platform w/ Handrails	1	2000.00	42.400	1.00	3,394.39	62.977	1.00	0.000	0.000
123.00	Powerwave 7770.00	6	35.00	5.510	0.77	166.64	6.536	0.77	0.000	4.000
123.00	Powerwave Allgon LGP21401	6	14.10	1.100	0.50	46.78	1.553	0.50	0.000	4.000
123.00	Raycap DC6-48-60-18-8F	1	31.80	1.280	1.00	122.39	2.838	1.00	0.000	4.000
111.00	Empty Platform w/ Handrails	1	2000.00	42.400	1.00	3,381.22	62.783	1.00	0.000	0.000
105.00	RFS APXV18-206517S-C	3	26.40	5.170	0.80	138.47	6.359	0.80	0.000	0.000
Totals		78	8279.00			19,572.73			Number of Loadings : 24	

**Linear Appurtenance Properties**

Elev From (ft)	Elev To (ft)	Qty	Description	Coax Diameter (in)	Coax Weight (lb/ft)	Flat	Projected Width (in)	Exposed To Wind	Carrier
0.00	150.00	12	1 5/8" Coax	1.98	0.82	N	0.00	N	Sprint Nextel
0.00	148.00	1	7/8" Coax	1.09	0.33	N	0.00	N	Double A Transportation
0.00	139.00	1	1 1/4" Hybriflex Cable	1.54	1.00	N	0.00	N	T-Mobile
0.00	139.00	12	1 5/8" Coax	1.98	0.82	N	0.00	N	T-Mobile
0.00	133.50	2	1/2" Coax	0.63	0.15	N	0.00	Y	Clearwire
0.00	133.50	2	2" Conduit	2.38	3.65	N	2.38	Y	Clearwire
0.00	133.50	6	5/16" Coax	0.31	0.05	N	0.00	N	Clearwire
0.00	123.00	1	0.39" Fiber Trunk	0.39	0.06	N	0.00	N	AT&T Mobility
0.00	123.00	2	0.78" 8 AWG 6	0.78	0.59	N	0.00	N	AT&T Mobility
0.00	123.00	12	1 5/8" Coax	1.98	0.82	N	0.00	N	AT&T Mobility
0.00	123.00	1	3" Conduit	3.50	7.58	N	0.00	N	AT&T Mobility



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Site Number: 302538

Code: ANSI/TIA-222-G

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Site Name: Parsonage Hill AKA Wallingford

Engineering Number: 63605627

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Customer: T-MOBILE

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0.00	105.00	6 1 5/8" Coax	1.98	0.82	N	0.00	N	Metro PCS
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Site Number: 302538

Code: ANSI/TIA-222-G

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Engineering Number: 63605627

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Customer: T-MOBILE

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

Seg Top Elev (ft)	Description	Thick (in)	Flat Dia (in)	Area (in <sup>2</sup> )	Ix (in <sup>4</sup> )	W/t Ratio	D/t Ratio	Fy (ksi)	S (in <sup>3</sup> )	Z (in <sup>3</sup> )	Weight (lb)
0.00		0.4375	49.600	69.257	21,365.7	27.70	113.37	74.5	832.2	0.0	0.0
5.00		0.4375	48.690	67.975	20,201.1	27.14	111.29	75.1	801.5	0.0	1,167.4
10.00		0.4375	47.780	66.693	19,079.5	26.58	109.21	75.7	771.4	0.0	1,145.6
15.00		0.4375	46.870	65.412	18,000.3	26.03	107.13	76.3	741.9	0.0	1,123.8
20.00		0.4375	45.960	64.130	16,962.6	25.47	105.05	76.9	713.0	0.0	1,102.0
25.00		0.4375	45.050	62.848	15,965.5	24.91	102.97	77.5	684.6	0.0	1,080.2
30.00		0.4375	44.140	61.566	15,008.3	24.35	100.89	78.2	656.9	0.0	1,058.4
35.00		0.4375	43.230	60.284	14,090.2	23.80	98.81	78.8	629.7	0.0	1,036.6
40.00		0.4375	42.320	59.002	13,210.3	23.24	96.73	79.4	603.0	0.0	1,014.8
45.00		0.4375	41.410	57.720	12,367.8	22.68	94.65	80.0	577.0	0.0	992.9
47.83	Bot - Section 2	0.4375	40.894	56.993	11,906.6	22.37	93.47	80.3	562.5	0.0	553.0
50.00		0.4375	40.500	56.438	11,561.9	22.12	92.57	80.6	551.5	0.0	783.8
54.00	Top - Section 1	0.3750	40.522	48.477	9,973.0	26.27	108.06	76.1	475.5	0.0	1,427.0
55.00		0.3750	40.340	48.257	9,838.0	26.14	107.57	76.2	471.1	0.0	164.6
60.00		0.3750	39.430	47.159	9,181.1	25.49	105.15	76.9	449.8	0.0	811.7
65.00		0.3750	38.520	46.060	8,554.2	24.84	102.72	77.6	429.0	0.0	793.0
70.00		0.3750	37.610	44.961	7,956.5	24.19	100.29	78.3	408.7	0.0	774.3
75.00		0.3750	36.700	43.862	7,387.3	23.54	97.87	79.0	388.9	0.0	755.6
80.00		0.3750	35.790	42.763	6,845.9	22.89	95.44	79.7	369.5	0.0	736.9
85.00		0.3750	34.880	41.665	6,331.6	22.24	93.01	80.5	350.7	0.0	718.2
90.00		0.3750	33.970	40.566	5,843.7	21.59	90.59	81.2	332.3	0.0	699.5
95.00		0.3750	33.060	39.467	5,381.6	20.94	88.16	81.9	314.5	0.0	680.8
95.83	Bot - Section 3	0.3750	32.908	39.284	5,307.0	20.83	87.76	81.9	311.5	0.0	111.7
100.0		0.3750	32.150	38.368	4,944.5	20.29	85.73	81.9	297.1	0.0	971.8
101.0	Top - Section 2	0.2813	32.530	29.206	3,876.9	28.31	115.66	73.8	230.2	0.0	229.8
105.0		0.2813	31.802	28.546	3,620.2	27.62	113.07	74.6	219.9	0.0	393.0
110.0		0.2813	30.892	27.722	3,315.7	26.75	109.84	75.5	207.3	0.0	478.7
111.0		0.2813	30.710	27.557	3,256.9	26.58	109.19	75.7	204.9	0.0	94.1
115.0		0.2813	29.982	26.898	3,028.7	25.88	106.60	76.5	195.1	0.0	370.6
120.0		0.2813	29.072	26.074	2,758.7	25.02	103.37	77.4	183.3	0.0	450.6
123.0		0.2813	28.526	25.579	2,604.7	24.50	101.43	78.0	176.4	0.0	263.6
125.0		0.2813	28.162	25.250	2,505.3	24.15	100.13	78.4	171.9	0.0	173.0
130.0		0.2813	27.252	24.426	2,267.9	23.28	96.90	79.3	160.8	0.0	422.6
133.5		0.2813	26.615	23.849	2,111.0	22.68	94.63	80.0	153.2	0.0	287.5
135.0		0.2813	26.342	23.602	2,046.0	22.42	93.66	80.3	150.0	0.0	121.1
139.0		0.2813	25.614	22.942	1,879.3	21.72	91.07	81.0	141.7	0.0	316.8
140.0		0.2813	25.432	22.777	1,839.1	21.55	90.43	81.2	139.7	0.0	77.8
145.0		0.2813	24.522	21.953	1,646.6	20.68	87.19	81.9	129.7	0.0	380.5
148.0		0.2813	23.976	21.459	1,537.8	20.16	85.25	81.9	123.9	0.0	221.6
150.0		0.2813	23.612	21.129	1,468.0	19.82	83.95	81.9	120.1	0.0	144.9
24,129.8											

Site Number: 302538

Code: ANSI/TIA-222-G

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Site Name: Parsonage Hill AKA Wallingford

Engineering Number: 63605627

1/29/2016 4:44:11 PM

Customer: T-MOBILE

<b>Load Case:</b> 1.2D + 1.6W	105 mph with No Ice	25 Iterations
Gust Response Factor : 1.10		Wind Importance Factor : 1.00
Dead Load Factor : 1.20		
Wind Load Factor : 1.60		

**Applied Segment Forces Summary**

Seg Elev (ft)	Description	Shaft Forces		Discrete Forces			Linear Forces		Sum of Forces				
		Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Torsion MY (lb-ft)	Moment MZ (lb)
0.00		425.2	0.0					0.0	0.0	425.2	0.0	0.0	0.0
5.00		842.5	1,400.9					0.0	314.8	842.5	1,715.7	0.0	0.0
10.00		826.7	1,374.7					0.0	314.8	826.7	1,689.5	0.0	0.0
15.00		823.7	1,348.6					0.0	314.8	823.7	1,663.3	0.0	0.0
20.00		842.5	1,322.4					0.0	314.8	842.5	1,637.2	0.0	0.0
25.00		865.9	1,296.2					0.0	314.8	865.9	1,611.0	0.0	0.0
30.00		881.9	1,270.1					0.0	314.8	881.9	1,584.8	0.0	0.0
35.00		892.4	1,243.9					0.0	314.8	892.4	1,558.6	0.0	0.0
40.00		898.6	1,217.7					0.0	314.8	898.6	1,532.5	0.0	0.0
45.00		706.0	1,191.5					0.0	314.8	706.0	1,506.3	0.0	0.0
47.83	Bot - Section 2	454.6	663.6					0.0	178.4	454.6	841.9	0.0	0.0
50.00		566.2	940.5					0.0	136.4	566.2	1,076.9	0.0	0.0
54.00	Top - Section 1	458.8	1,712.4					0.0	251.8	458.8	1,964.2	0.0	0.0
55.00		549.0	197.5					0.0	63.0	549.0	260.5	0.0	0.0
60.00		912.0	974.0					0.0	314.8	912.0	1,288.8	0.0	0.0
65.00		906.2	951.6					0.0	314.8	906.2	1,266.4	0.0	0.0
70.00		898.7	929.2					0.0	314.8	898.7	1,243.9	0.0	0.0
75.00		889.8	906.7					0.0	314.8	889.8	1,221.5	0.0	0.0
80.00		879.6	884.3					0.0	314.8	879.6	1,199.1	0.0	0.0
85.00		868.3	861.9					0.0	314.8	868.3	1,176.6	0.0	0.0
90.00		855.9	839.4					0.0	314.8	855.9	1,154.2	0.0	0.0
95.00		494.8	817.0					0.0	314.8	494.8	1,131.8	0.0	0.0
95.83	Bot - Section 3	423.8	134.0					0.0	52.5	423.8	186.4	0.0	0.0
100.00		437.8	1,166.1					0.0	262.3	437.8	1,428.4	0.0	0.0
101.00	Top - Section 2	417.7	275.8					0.0	63.0	417.7	338.8	0.0	0.0
105.00	Appertunance(s)	743.6	471.6	748.7	0.0	0.0	95.0	0.0	251.8	1,492.3	818.5	0.0	0.0
110.00		491.0	574.4					0.0	285.2	491.0	859.6	0.0	0.0
111.00	Appertunance(s)	401.9	112.9	2,588.6	0.0	0.0	2,400.0	0.0	57.0	2,990.5	2,569.9	0.0	0.0
115.00		714.4	444.7					0.0	228.2	714.4	672.9	0.0	0.0
120.00		625.4	540.8					0.0	285.2	625.4	826.0	0.0	0.0
123.00	Appertunance(s)	384.7	316.4	5,971.1	0.0	12,827.2	3,743.5	0.0	171.1	6,355.8	4,231.0	0.0	0.0
125.00		528.5	207.6					0.0	69.3	528.5	276.9	0.0	0.0
130.00		633.0	507.1					0.0	173.3	633.0	680.4	0.0	0.0
133.50	Appertunance(s)	366.3	345.0	1,392.8	0.0	350.7	319.3	0.0	121.3	1,759.0	785.6	0.0	0.0
135.00		394.9	145.3					0.0	37.8	394.9	183.1	0.0	0.0
139.00	Appertunance(s)	356.6	380.1	3,395.6	0.0	3,257.4	1,816.9	0.0	100.8	3,752.1	2,297.9	0.0	0.0
140.00		417.2	93.3					0.0	12.2	417.2	105.5	0.0	0.0
145.00		549.8	456.6					0.0	61.0	549.8	517.6	0.0	0.0
148.00	Appertunance(s)	336.5	265.9	196.5	0.0	982.4	36.0	0.0	36.6	532.9	338.5	0.0	0.0
150.00	Appertunance(s)	133.3	173.9	3,793.7	0.0	-2,842.5	1,524.0	0.0	23.6	3,927.0	1,721.5	0.0	0.0
<b>Totals:</b>										<b>43,182.2</b>	<b>47,163.3</b>	<b>0.00</b>	<b>0.00</b>

Site Number: 302538

Code: ANSI/TIA-222-G

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Site Name: Parsonage Hill AKA Wallingford

Engineering Number: 63605627

1/29/2016 4:44:14 PM

Customer: T-MOBILE

**Load Case:** 1.2D + 1.6W

105 mph with No Ice

25 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	-47.05	-42.88	0.00	-4,368.58	0.00	4,368.58	4,644.06	2,322.03	9,415.76	4,650.09	0.00	0.00	0.950
5.00	-45.13	-42.25	0.00	-4,154.21	0.00	4,154.21	4,595.29	2,297.65	9,142.89	4,515.33	0.15	-0.28	0.930
10.00	-43.24	-41.63	0.00	-3,942.95	0.00	3,942.95	4,545.11	2,272.56	8,870.98	4,381.04	0.60	-0.57	0.910
15.00	-41.38	-40.99	0.00	-3,734.80	0.00	3,734.80	4,493.53	2,246.77	8,600.18	4,247.31	1.35	-0.86	0.889
20.00	-39.56	-40.32	0.00	-3,529.83	0.00	3,529.83	4,440.55	2,220.28	8,330.66	4,114.20	2.40	-1.14	0.867
25.00	-37.77	-39.61	0.00	-3,328.23	0.00	3,328.23	4,386.17	2,193.08	8,062.58	3,981.80	3.75	-1.43	0.845
30.00	-36.02	-38.87	0.00	-3,130.18	0.00	3,130.18	4,330.38	2,165.19	7,796.08	3,850.19	5.40	-1.72	0.822
35.00	-34.30	-38.10	0.00	-2,935.86	0.00	2,935.86	4,273.19	2,136.59	7,531.34	3,719.45	7.36	-2.00	0.798
40.00	-32.61	-37.30	0.00	-2,745.38	0.00	2,745.38	4,214.59	2,107.30	7,268.52	3,589.65	9.61	-2.29	0.773
45.00	-31.00	-36.66	0.00	-2,558.87	0.00	2,558.87	4,154.60	2,077.30	7,007.76	3,460.87	12.16	-2.58	0.747
47.83	-30.08	-36.24	0.00	-2,455.01	0.00	2,455.01	4,119.98	2,059.99	6,860.98	3,388.38	13.74	-2.74	0.732
50.00	-28.93	-35.71	0.00	-2,376.50	0.00	2,376.50	4,093.20	2,046.60	6,749.23	3,333.19	15.01	-2.87	0.720
54.00	-26.90	-35.22	0.00	-2,233.66	0.00	2,233.66	3,318.39	1,659.20	5,491.78	2,712.18	17.51	-3.09	0.832
55.00	-26.56	-34.74	0.00	-2,198.45	0.00	2,198.45	3,309.51	1,654.75	5,452.02	2,692.55	18.17	-3.15	0.825
60.00	-25.15	-33.89	0.00	-2,024.76	0.00	2,024.76	3,264.25	1,632.12	5,253.88	2,594.69	21.63	-3.46	0.788
65.00	-23.77	-33.03	0.00	-1,855.33	0.00	1,855.33	3,217.59	1,608.79	5,056.96	2,497.44	25.41	-3.76	0.751
70.00	-22.43	-32.16	0.00	-1,690.20	0.00	1,690.20	3,169.52	1,584.76	4,861.43	2,400.88	29.50	-4.05	0.711
75.00	-21.12	-31.29	0.00	-1,529.40	0.00	1,529.40	3,120.06	1,560.03	4,667.43	2,305.07	33.89	-4.34	0.671
80.00	-19.85	-30.41	0.00	-1,372.97	0.00	1,372.97	3,069.19	1,534.59	4,475.14	2,210.10	38.58	-4.62	0.628
85.00	-18.61	-29.54	0.00	-1,220.91	0.00	1,220.91	3,016.92	1,508.46	4,284.71	2,116.06	43.56	-4.89	0.584
90.00	-17.41	-28.66	0.00	-1,073.23	0.00	1,073.23	2,963.24	1,481.62	4,096.29	2,023.00	48.81	-5.15	0.537
95.00	-16.26	-28.10	0.00	-929.94	0.00	929.94	2,909.11	1,454.55	3,911.32	1,931.65	54.32	-5.39	0.487
95.83	-16.06	-27.70	0.00	-906.52	0.00	906.52	2,895.61	1,447.80	3,874.90	1,913.67	55.27	-5.43	0.480
100.00	-14.62	-27.15	0.00	-791.13	0.00	791.13	2,828.11	1,414.06	3,695.36	1,825.00	60.09	-5.62	0.439
101.00	-14.28	-26.73	0.00	-763.98	0.00	763.98	1,940.77	970.39	2,581.63	1,274.97	61.27	-5.66	0.607
105.00	-13.52	-25.21	0.00	-657.06	0.00	657.06	1,916.40	958.20	2,491.16	1,230.29	66.08	-5.83	0.542
110.00	-12.66	-24.66	0.00	-531.01	0.00	531.01	1,884.66	942.33	2,378.55	1,174.68	72.30	-6.06	0.459
111.00	-10.38	-21.44	0.00	-506.35	0.00	506.35	1,878.15	939.07	2,356.11	1,163.59	73.57	-6.11	0.441
115.00	-9.73	-20.68	0.00	-420.61	0.00	420.61	1,851.53	925.76	2,266.63	1,119.40	78.75	-6.27	0.381
120.00	-8.94	-19.99	0.00	-317.20	0.00	317.20	1,816.99	908.49	2,155.56	1,064.55	85.40	-6.44	0.303
123.00	-5.43	-13.20	0.00	-244.41	0.00	244.41	1,795.59	897.80	2,089.39	1,031.87	89.47	-6.53	0.240
125.00	-5.20	-12.65	0.00	-218.01	0.00	218.01	1,781.05	890.52	2,045.49	1,010.19	92.22	-6.58	0.219
130.00	-4.58	-11.95	0.00	-154.75	0.00	154.75	1,743.70	871.85	1,936.59	956.41	99.16	-6.69	0.165
133.50	-4.00	-10.12	0.00	-112.57	0.00	112.57	1,716.72	858.36	1,861.13	919.14	104.07	-6.75	0.125
135.00	-3.86	-9.70	0.00	-97.40	0.00	97.40	1,704.95	852.48	1,829.01	903.28	106.19	-6.77	0.110
139.00	-2.02	-5.71	0.00	-55.32	0.00	55.32	1,672.95	836.47	1,744.00	861.30	111.87	-6.81	0.065
140.00	-1.96	-5.28	0.00	-49.62	0.00	49.62	1,664.80	832.40	1,722.91	850.88	113.29	-6.82	0.060
145.00	-1.51	-4.67	0.00	-23.21	0.00	23.21	1,618.18	809.09	1,613.39	796.79	120.43	-6.85	0.030
148.00	-1.24	-4.10	0.00	-8.21	0.00	8.21	1,581.73	790.87	1,541.13	761.10	124.73	-6.86	0.012
150.00	0.00	-3.93	0.00	0.00	0.00	0.00	1,557.43	778.72	1,493.87	737.76	127.60	-6.86	0.000

Site Number: 302538

Code: ANSI/TIA-222-G

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Site Name: Parsonage Hill AKA Wallingford

Engineering Number: 63605627

1/29/2016 4:44:14 PM

Customer: T-MOBILE

**Load Case:** 0.9D + 1.6W

105 mph with No Ice (Reduced DL)

25 Iterations

Gust Response Factor : 1.10

Wind Importance Factor : 1.00

Dead Load Factor : 0.90

Wind Load Factor : 1.60

**Applied Segment Forces Summary**

Seg Elev (ft)	Description	Shaft Forces		Discrete Forces			Linear Forces		Sum of Forces				
		Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Torsion MY (lb-ft)	Moment MZ (lb)
0.00		425.2	0.0					0.0	0.0	425.2	0.0	0.0	0.0
5.00		842.5	1,050.7					0.0	236.1	842.5	1,286.8	0.0	0.0
10.00		826.7	1,031.1					0.0	236.1	826.7	1,267.1	0.0	0.0
15.00		823.7	1,011.4					0.0	236.1	823.7	1,247.5	0.0	0.0
20.00		842.5	991.8					0.0	236.1	842.5	1,227.9	0.0	0.0
25.00		865.9	972.2					0.0	236.1	865.9	1,208.2	0.0	0.0
30.00		881.9	952.5					0.0	236.1	881.9	1,188.6	0.0	0.0
35.00		892.4	932.9					0.0	236.1	892.4	1,169.0	0.0	0.0
40.00		898.6	913.3					0.0	236.1	898.6	1,149.3	0.0	0.0
45.00		706.0	893.6					0.0	236.1	706.0	1,129.7	0.0	0.0
47.83	Bot - Section 2	454.6	497.7					0.0	133.8	454.6	631.5	0.0	0.0
50.00		566.2	705.4					0.0	102.3	566.2	807.7	0.0	0.0
54.00	Top - Section 1	458.8	1,284.3					0.0	188.9	458.8	1,473.2	0.0	0.0
55.00		549.0	148.1					0.0	47.2	549.0	195.3	0.0	0.0
60.00		912.0	730.5					0.0	236.1	912.0	966.6	0.0	0.0
65.00		906.2	713.7					0.0	236.1	906.2	949.8	0.0	0.0
70.00		898.7	696.9					0.0	236.1	898.7	932.9	0.0	0.0
75.00		889.8	680.1					0.0	236.1	889.8	916.1	0.0	0.0
80.00		879.6	663.2					0.0	236.1	879.6	899.3	0.0	0.0
85.00		868.3	646.4					0.0	236.1	868.3	882.5	0.0	0.0
90.00		855.9	629.6					0.0	236.1	855.9	865.6	0.0	0.0
95.00		494.8	612.7					0.0	236.1	494.8	848.8	0.0	0.0
95.83	Bot - Section 3	423.8	100.5					0.0	39.3	423.8	139.8	0.0	0.0
100.00		437.8	874.6					0.0	196.7	437.8	1,071.3	0.0	0.0
101.00	Top - Section 2	417.7	206.9					0.0	47.2	417.7	254.1	0.0	0.0
105.00	Appertunance(s)	743.6	353.7	748.7	0.0	0.0	71.3	0.0	188.9	1,492.3	613.9	0.0	0.0
110.00		491.0	430.8					0.0	213.9	491.0	644.7	0.0	0.0
111.00	Appertunance(s)	401.9	84.6	2,588.6	0.0	0.0	1,800.0	0.0	42.8	2,990.5	1,927.4	0.0	0.0
115.00		714.4	333.5					0.0	171.1	714.4	504.7	0.0	0.0
120.00		625.4	405.6					0.0	213.9	625.4	619.5	0.0	0.0
123.00	Appertunance(s)	384.7	237.3	5,971.1	0.0	12,827.2	2,807.6	0.0	128.4	6,355.8	3,173.3	0.0	0.0
125.00		528.5	155.7					0.0	52.0	528.5	207.6	0.0	0.0
130.00		633.0	380.3					0.0	130.0	633.0	510.3	0.0	0.0
133.50	Appertunance(s)	366.3	258.7	1,392.8	0.0	350.7	239.5	0.0	91.0	1,759.0	589.2	0.0	0.0
135.00		394.9	109.0					0.0	28.4	394.9	137.4	0.0	0.0
139.00	Appertunance(s)	356.6	285.1	3,395.6	0.0	3,257.4	1,362.7	0.0	75.6	3,752.1	1,723.4	0.0	0.0
140.00		417.2	70.0					0.0	9.2	417.2	79.2	0.0	0.0
145.00		549.8	342.5					0.0	45.8	549.8	388.2	0.0	0.0
148.00	Appertunance(s)	336.5	199.4	196.5	0.0	982.4	27.0	0.0	27.5	532.9	253.9	0.0	0.0
150.00	Appertunance(s)	133.3	130.4	3,793.7	0.0	-2,842.5	1,143.0	0.0	17.7	3,927.0	1,291.1	0.0	0.0
<b>Totals:</b>										<b>43,182.2</b>	<b>35,372.5</b>	<b>0.00</b>	<b>0.00</b>

Site Number: 302538

Code: ANSI/TIA-222-G

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Site Name: Parsonage Hill AKA Wallingford

Engineering Number: 63605627

1/29/2016 4:44:16 PM

Customer: T-MOBILE

**Load Case:** 0.9D + 1.6W

105 mph with No Ice (Reduced DL)

25 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	-35.26	-42.85	0.00	-4,321.20	0.00	4,321.20	4,644.06	2,322.03	9,415.76	4,650.09	0.00	0.00	0.937
5.00	-33.77	-42.17	0.00	-4,106.98	0.00	4,106.98	4,595.29	2,297.65	9,142.89	4,515.33	0.15	-0.28	0.917
10.00	-32.31	-41.49	0.00	-3,896.15	0.00	3,896.15	4,545.11	2,272.56	8,870.98	4,381.04	0.60	-0.56	0.897
15.00	-30.87	-40.80	0.00	-3,688.71	0.00	3,688.71	4,493.53	2,246.77	8,600.18	4,247.31	1.34	-0.85	0.876
20.00	-29.46	-40.09	0.00	-3,484.70	0.00	3,484.70	4,440.55	2,220.28	8,330.66	4,114.20	2.37	-1.13	0.854
25.00	-28.08	-39.33	0.00	-3,284.27	0.00	3,284.27	4,386.17	2,193.08	8,062.58	3,981.80	3.71	-1.41	0.832
30.00	-26.72	-38.55	0.00	-3,087.61	0.00	3,087.61	4,330.38	2,165.19	7,796.08	3,850.19	5.34	-1.70	0.808
35.00	-25.40	-37.75	0.00	-2,894.85	0.00	2,894.85	4,273.19	2,136.59	7,531.34	3,719.45	7.27	-1.98	0.785
40.00	-24.10	-36.93	0.00	-2,706.11	0.00	2,706.11	4,214.59	2,107.30	7,268.52	3,589.65	9.49	-2.26	0.760
45.00	-22.86	-36.26	0.00	-2,521.47	0.00	2,521.47	4,154.60	2,077.30	7,007.76	3,460.87	12.01	-2.54	0.734
47.83	-22.16	-35.83	0.00	-2,418.73	0.00	2,418.73	4,119.98	2,059.99	6,860.98	3,388.38	13.57	-2.70	0.720
50.00	-21.27	-35.29	0.00	-2,341.09	0.00	2,341.09	4,093.20	2,046.60	6,749.23	3,333.19	14.83	-2.83	0.708
54.00	-19.74	-34.81	0.00	-2,199.92	0.00	2,199.92	3,318.39	1,659.20	5,491.78	2,712.18	17.29	-3.05	0.818
55.00	-19.47	-34.31	0.00	-2,165.11	0.00	2,165.11	3,309.51	1,654.75	5,452.02	2,692.55	17.94	-3.11	0.810
60.00	-18.38	-33.44	0.00	-1,993.55	0.00	1,993.55	3,264.25	1,632.12	5,253.88	2,594.69	21.35	-3.41	0.774
65.00	-17.32	-32.57	0.00	-1,826.34	0.00	1,826.34	3,217.59	1,608.79	5,056.96	2,497.44	25.08	-3.70	0.737
70.00	-16.30	-31.69	0.00	-1,663.50	0.00	1,663.50	3,169.52	1,584.76	4,861.43	2,400.88	29.12	-4.00	0.698
75.00	-15.30	-30.81	0.00	-1,505.05	0.00	1,505.05	3,120.06	1,560.03	4,667.43	2,305.07	33.45	-4.28	0.658
80.00	-14.33	-29.93	0.00	-1,350.99	0.00	1,350.99	3,069.19	1,534.59	4,475.14	2,210.10	38.07	-4.55	0.616
85.00	-13.39	-29.06	0.00	-1,201.33	0.00	1,201.33	3,016.92	1,508.46	4,284.71	2,116.06	42.98	-4.82	0.573
90.00	-12.48	-28.18	0.00	-1,056.04	0.00	1,056.04	2,963.24	1,481.62	4,096.29	2,023.00	48.16	-5.07	0.527
95.00	-11.61	-27.64	0.00	-915.13	0.00	915.13	2,909.11	1,454.55	3,911.32	1,931.65	53.60	-5.31	0.478
95.83	-11.45	-27.23	0.00	-892.09	0.00	892.09	2,895.61	1,447.80	3,874.90	1,913.67	54.53	-5.35	0.470
100.00	-10.38	-26.71	0.00	-778.64	0.00	778.64	2,828.11	1,414.06	3,695.36	1,825.00	59.27	-5.54	0.431
101.00	-10.12	-26.29	0.00	-751.92	0.00	751.92	1,940.77	970.39	2,581.63	1,274.97	60.44	-5.58	0.596
105.00	-9.57	-24.78	0.00	-646.76	0.00	646.76	1,916.40	958.20	2,491.16	1,230.29	65.18	-5.75	0.531
110.00	-8.92	-24.25	0.00	-522.86	0.00	522.86	1,884.66	942.33	2,378.55	1,174.68	71.31	-5.98	0.451
111.00	-7.28	-21.08	0.00	-498.62	0.00	498.62	1,878.15	939.07	2,356.11	1,163.59	72.57	-6.02	0.433
115.00	-6.79	-20.34	0.00	-414.29	0.00	414.29	1,851.53	925.76	2,266.63	1,119.40	77.67	-6.18	0.374
120.00	-6.20	-19.66	0.00	-312.59	0.00	312.59	1,816.99	908.49	2,155.56	1,064.55	84.23	-6.35	0.298
123.00	-3.74	-13.00	0.00	-240.77	0.00	240.77	1,795.59	897.80	2,089.39	1,031.87	88.24	-6.44	0.236
125.00	-3.58	-12.45	0.00	-214.78	0.00	214.78	1,781.05	890.52	2,045.49	1,010.19	90.94	-6.49	0.215
130.00	-3.13	-11.77	0.00	-152.51	0.00	152.51	1,743.70	871.85	1,936.59	956.41	97.78	-6.59	0.161
133.50	-2.74	-9.96	0.00	-110.95	0.00	110.95	1,716.72	858.36	1,861.13	919.14	102.62	-6.65	0.122
135.00	-2.64	-9.55	0.00	-96.02	0.00	96.02	1,704.95	852.48	1,829.01	903.28	104.71	-6.67	0.108
139.00	-1.36	-5.62	0.00	-54.55	0.00	54.55	1,672.95	836.47	1,744.00	861.30	110.31	-6.71	0.064
140.00	-1.33	-5.20	0.00	-48.93	0.00	48.93	1,664.80	832.40	1,722.91	850.88	111.71	-6.72	0.058
145.00	-1.01	-4.61	0.00	-22.92	0.00	22.92	1,618.18	809.09	1,613.39	796.79	118.75	-6.75	0.029
148.00	-0.82	-4.05	0.00	-8.10	0.00	8.10	1,581.73	790.87	1,541.13	761.10	122.99	-6.76	0.011
150.00	0.00	-3.93	0.00	0.00	0.00	0.00	1,557.43	778.72	1,493.87	737.76	125.81	-6.76	0.000

Site Number: 302538

Code: ANSI/TIA-222-G

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Site Name: Parsonage Hill AKA Wallingford

Engineering Number: 63605627

1/29/2016 4:44:16 PM

Customer: T-MOBILE

<b>Load Case:</b> 1.2D + 1.0Di + 1.0Wi	50 mph with 0.75 in Radial Ice	24 Iterations
Gust Response Factor : 1.10	Ice Dead Load Factor : 1.00	Wind Importance Factor : 1.00
Dead Load Factor : 1.20		Ice Importance Factor : 1.00
Wind Load Factor : 1.00		

**Applied Segment Forces Summary**

Seg Elev (ft)	Description	Shaft Forces		Discrete Forces			Linear Forces		Sum of Forces					
		Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Torsion MY (lb-ft)	Moment MZ (lb)	
0.00		75.6	0.0					0.0	0.0	75.6	0.0	0.0	0.0	
5.00		150.2	1,775.1					0.0	363.4	150.2	2,138.4	0.0	0.0	
10.00		148.1	1,785.8					0.0	370.5	148.1	2,156.3	0.0	0.0	
15.00		148.1	1,773.7					0.0	374.3	148.1	2,148.1	0.0	0.0	
20.00		151.9	1,754.2					0.0	377.0	151.9	2,131.2	0.0	0.0	
25.00		156.5	1,730.8					0.0	379.1	156.5	2,109.9	0.0	0.0	
30.00		159.7	1,705.1					0.0	380.8	159.7	2,085.9	0.0	0.0	
35.00		162.0	1,677.6					0.0	382.3	162.0	2,059.9	0.0	0.0	
40.00		163.5	1,648.9					0.0	383.6	163.5	2,032.5	0.0	0.0	
45.00		128.7	1,619.3					0.0	384.8	128.7	2,004.0	0.0	0.0	
47.83	Bot - Section 2	82.9	905.3					0.0	218.5	82.9	1,123.8	0.0	0.0	
50.00		103.4	1,127.9					0.0	167.3	103.4	1,295.2	0.0	0.0	
54.00	Top - Section 1	83.8	2,054.6					0.0	309.3	83.8	2,364.0	0.0	0.0	
55.00		100.5	283.1					0.0	77.4	100.5	360.5	0.0	0.0	
60.00		167.2	1,395.0					0.0	387.7	167.2	1,782.7	0.0	0.0	
65.00		166.5	1,366.8					0.0	388.5	166.5	1,755.3	0.0	0.0	
70.00		165.5	1,338.2					0.0	389.3	165.5	1,727.5	0.0	0.0	
75.00		164.3	1,309.3					0.0	390.0	164.3	1,699.3	0.0	0.0	
80.00		162.8	1,280.0					0.0	390.7	162.8	1,670.7	0.0	0.0	
85.00		161.1	1,250.5					0.0	391.3	161.1	1,641.8	0.0	0.0	
90.00		159.3	1,220.7					0.0	391.9	159.3	1,612.6	0.0	0.0	
95.00		92.2	1,190.7					0.0	392.5	92.2	1,583.2	0.0	0.0	
95.83	Bot - Section 3	79.1	196.2					0.0	65.5	79.1	261.7	0.0	0.0	
100.00		81.7	1,476.2					0.0	327.6	81.7	1,803.8	0.0	0.0	
101.00	Top - Section 2	78.2	350.0					0.0	78.7	78.2	428.7	0.0	0.0	
105.00	Appertunance(s)	139.4	763.0	130.5	0.0	0.0	431.3	0.0	314.9	270.0	1,509.2	0.0	0.0	
110.00		92.2	930.3					0.0	364.6	92.2	1,294.9	0.0	0.0	
111.00	Appertunance(s)	75.7	183.8	543.2	0.0	0.0	5,781.2	0.0	73.0	618.9	6,038.0	0.0	0.0	
115.00		134.8	722.9					0.0	292.1	134.8	1,015.0	0.0	0.0	
120.00		118.3	879.9					0.0	365.6	118.3	1,245.5	0.0	0.0	
123.00	Appertunance(s)	73.0	516.9	1,145.2	0.0	2,267.8	7,320.7	0.0	219.6	1,218.2	8,057.2	0.0	0.0	
125.00		100.6	339.9					0.0	101.7	100.6	441.6	0.0	0.0	
130.00		120.7	828.9					0.0	254.6	120.7	1,083.4	0.0	0.0	
133.50	Appertunance(s)	70.0	566.0	247.3	0.0	59.3	1,004.4	0.0	178.4	317.3	1,748.8	0.0	0.0	
135.00		75.8	239.3					0.0	37.8	75.8	277.1	0.0	0.0	
139.00	Appertunance(s)	68.5	624.8	651.4	0.0	532.5	3,832.6	0.0	100.8	719.9	4,558.3	0.0	0.0	
140.00		80.4	154.2					0.0	12.2	80.4	166.4	0.0	0.0	
145.00		106.2	751.5					0.0	61.0	106.2	812.5	0.0	0.0	
148.00	Appertunance(s)	65.2	439.6	72.2	0.0	360.9	115.3	0.0	36.6	137.4	591.6	0.0	0.0	
150.00	Appertunance(s)	25.9	288.3	730.4	0.0	-480.9	3,791.5	0.0	23.6	756.3	4,103.5	0.0	0.0	
							<b>Totals:</b>		8,160.18		72,920.1		0.00	

Site Number: 302538

Code: ANSI/TIA-222-G

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Site Name: Parsonage Hill AKA Wallingford

Engineering Number: 63605627

1/29/2016 4:44:19 PM

Customer: T-MOBILE

**Load Case:** 1.2D + 1.0Di + 1.0Wi

50 mph with 0.75 in Radial Ice

24 Iterations

Gust Response Factor : 1.10

Ice Dead Load Factor : 1.00

Wind Importance Factor : 1.00

Dead Load Factor : 1.20

Ice Importance Factor : 1.00

Wind Load Factor : 1.00

**Calculated Forces**

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-72.92	-8.12	0.00	-869.38	0.00	869.38	4,644.06	2,322.03	9,415.76	4,650.09	0.00	0.00	0.203
5.00	-70.77	-8.04	0.00	-828.78	0.00	828.78	4,595.29	2,297.65	9,142.89	4,515.33	0.03	-0.06	0.199
10.00	-68.61	-7.96	0.00	-788.59	0.00	788.59	4,545.11	2,272.56	8,870.98	4,381.04	0.12	-0.11	0.195
15.00	-66.45	-7.87	0.00	-748.80	0.00	748.80	4,493.53	2,246.77	8,600.18	4,247.31	0.27	-0.17	0.191
20.00	-64.31	-7.78	0.00	-709.46	0.00	709.46	4,440.55	2,220.28	8,330.66	4,114.20	0.48	-0.23	0.187
25.00	-62.19	-7.67	0.00	-670.58	0.00	670.58	4,386.17	2,193.08	8,062.58	3,981.80	0.75	-0.29	0.183
30.00	-60.10	-7.56	0.00	-632.22	0.00	632.22	4,330.38	2,165.19	7,796.08	3,850.19	1.08	-0.34	0.178
35.00	-58.04	-7.45	0.00	-594.41	0.00	594.41	4,273.19	2,136.59	7,531.34	3,719.45	1.47	-0.40	0.173
40.00	-56.00	-7.32	0.00	-557.18	0.00	557.18	4,214.59	2,107.30	7,268.52	3,589.65	1.93	-0.46	0.169
45.00	-53.99	-7.22	0.00	-520.57	0.00	520.57	4,154.60	2,077.30	7,007.76	3,460.87	2.44	-0.52	0.163
47.83	-52.86	-7.15	0.00	-500.11	0.00	500.11	4,119.98	2,059.99	6,860.98	3,388.38	2.76	-0.55	0.160
50.00	-51.56	-7.07	0.00	-484.61	0.00	484.61	4,093.20	2,046.60	6,749.23	3,333.19	3.01	-0.58	0.158
54.00	-49.20	-6.99	0.00	-456.33	0.00	456.33	3,318.39	1,659.20	5,491.78	2,712.18	3.52	-0.62	0.183
55.00	-48.83	-6.91	0.00	-449.34	0.00	449.34	3,309.51	1,654.75	5,452.02	2,692.55	3.65	-0.64	0.182
60.00	-47.05	-6.78	0.00	-414.77	0.00	414.77	3,264.25	1,632.12	5,253.88	2,594.69	4.35	-0.70	0.174
65.00	-45.29	-6.64	0.00	-380.89	0.00	380.89	3,217.59	1,608.79	5,056.96	2,497.44	5.11	-0.76	0.167
70.00	-43.55	-6.49	0.00	-347.71	0.00	347.71	3,169.52	1,584.76	4,861.43	2,400.88	5.94	-0.82	0.159
75.00	-41.85	-6.35	0.00	-315.24	0.00	315.24	3,120.06	1,560.03	4,667.43	2,305.07	6.83	-0.88	0.150
80.00	-40.18	-6.20	0.00	-283.51	0.00	283.51	3,069.19	1,534.59	4,475.14	2,210.10	7.78	-0.94	0.141
85.00	-38.53	-6.04	0.00	-252.53	0.00	252.53	3,016.92	1,508.46	4,284.71	2,116.06	8.79	-0.99	0.132
90.00	-36.92	-5.89	0.00	-222.31	0.00	222.31	2,963.24	1,481.62	4,096.29	2,023.00	9.86	-1.05	0.122
95.00	-35.33	-5.79	0.00	-192.86	0.00	192.86	2,909.11	1,454.55	3,911.32	1,931.65	10.99	-1.10	0.112
95.83	-35.07	-5.72	0.00	-188.04	0.00	188.04	2,895.61	1,447.80	3,874.90	1,913.67	11.18	-1.10	0.110
100.00	-33.27	-5.61	0.00	-164.22	0.00	164.22	2,828.11	1,414.06	3,695.36	1,825.00	12.16	-1.14	0.102
101.00	-32.84	-5.54	0.00	-158.61	0.00	158.61	1,940.77	970.39	2,581.63	1,274.97	12.40	-1.15	0.141
105.00	-31.33	-5.26	0.00	-136.45	0.00	136.45	1,916.40	958.20	2,491.16	1,230.29	13.38	-1.19	0.127
110.00	-30.03	-5.16	0.00	-110.14	0.00	110.14	1,884.66	942.33	2,378.55	1,174.68	14.65	-1.24	0.110
111.00	-24.01	-4.42	0.00	-104.99	0.00	104.99	1,878.15	939.07	2,356.11	1,163.59	14.91	-1.25	0.103
115.00	-23.00	-4.27	0.00	-87.32	0.00	87.32	1,851.53	925.76	2,266.63	1,119.40	15.97	-1.28	0.090
120.00	-21.75	-4.14	0.00	-65.96	0.00	65.96	1,816.99	908.49	2,155.56	1,064.55	17.33	-1.32	0.074
123.00	-13.72	-2.74	0.00	-51.28	0.00	51.28	1,795.59	897.80	2,089.39	1,031.87	18.17	-1.33	0.057
125.00	-13.28	-2.63	0.00	-45.81	0.00	45.81	1,781.05	890.52	2,045.49	1,010.19	18.73	-1.34	0.053
130.00	-12.20	-2.49	0.00	-32.66	0.00	32.66	1,743.70	871.85	1,936.59	956.41	20.15	-1.37	0.041
133.50	-10.46	-2.13	0.00	-23.90	0.00	23.90	1,716.72	858.36	1,861.13	919.14	21.15	-1.38	0.032
135.00	-10.19	-2.05	0.00	-20.71	0.00	20.71	1,704.95	852.48	1,829.01	903.28	21.59	-1.38	0.029
139.00	-5.65	-1.22	0.00	-11.99	0.00	11.99	1,672.95	836.47	1,744.00	861.30	22.75	-1.39	0.017
140.00	-5.48	-1.13	0.00	-10.77	0.00	10.77	1,664.80	832.40	1,722.91	850.88	23.04	-1.39	0.016
145.00	-4.67	-1.01	0.00	-5.10	0.00	5.10	1,618.18	809.09	1,613.39	796.79	24.51	-1.40	0.009
148.00	-4.08	-0.86	0.00	-1.71	0.00	1.71	1,581.73	790.87	1,541.13	761.10	25.39	-1.40	0.005
150.00	0.00	-0.76	0.00	0.00	0.00	0.00	1,557.43	778.72	1,493.87	737.76	25.98	-1.40	0.000



Site Number: 302538

Code: ANSI/TIA-222-G

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Site Name: Parsonage Hill AKA Wallingford

Engineering Number: 63605627

1/29/2016 4:44:19 PM

Customer: T-MOBILE

**Load Case:** 1.0D + 1.0W

Serviceability 60 mph

23 Iterations

Gust Response Factor : 1.10

Wind Importance Factor : 1.00

Dead Load Factor : 1.00

Wind Load Factor : 1.00

**Applied Segment Forces Summary**

Seg Elev (ft)	Description	Shaft Forces		Discrete Forces			Linear Forces		Sum of Forces				
		Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Torsion MY (lb-ft)	Moment MZ (lb)
0.00		86.8	0.0					0.0	0.0	86.8	0.0	0.0	0.0
5.00		171.9	1,167.4					0.0	262.3	171.9	1,429.7	0.0	0.0
10.00		168.7	1,145.6					0.0	262.3	168.7	1,407.9	0.0	0.0
15.00		168.1	1,123.8					0.0	262.3	168.1	1,386.1	0.0	0.0
20.00		171.9	1,102.0					0.0	262.3	171.9	1,364.3	0.0	0.0
25.00		176.7	1,080.2					0.0	262.3	176.7	1,342.5	0.0	0.0
30.00		180.0	1,058.4					0.0	262.3	180.0	1,320.7	0.0	0.0
35.00		182.1	1,036.6					0.0	262.3	182.1	1,298.9	0.0	0.0
40.00		183.4	1,014.8					0.0	262.3	183.4	1,277.1	0.0	0.0
45.00		144.1	992.9					0.0	262.3	144.1	1,255.2	0.0	0.0
47.83	Bot - Section 2	92.8	553.0					0.0	148.6	92.8	701.6	0.0	0.0
50.00		115.5	783.8					0.0	113.7	115.5	897.5	0.0	0.0
54.00	Top - Section 1	93.6	1,427.0					0.0	209.8	93.6	1,636.9	0.0	0.0
55.00		112.0	164.6					0.0	52.5	112.0	217.0	0.0	0.0
60.00		186.1	811.7					0.0	262.3	186.1	1,074.0	0.0	0.0
65.00		184.9	793.0					0.0	262.3	184.9	1,055.3	0.0	0.0
70.00		183.4	774.3					0.0	262.3	183.4	1,036.6	0.0	0.0
75.00		181.6	755.6					0.0	262.3	181.6	1,017.9	0.0	0.0
80.00		179.5	736.9					0.0	262.3	179.5	999.2	0.0	0.0
85.00		177.2	718.2					0.0	262.3	177.2	980.5	0.0	0.0
90.00		174.7	699.5					0.0	262.3	174.7	961.8	0.0	0.0
95.00		101.0	680.8					0.0	262.3	101.0	943.1	0.0	0.0
95.83	Bot - Section 3	86.5	111.7					0.0	43.7	86.5	155.4	0.0	0.0
100.00		89.3	971.8					0.0	218.6	89.3	1,190.4	0.0	0.0
101.00	Top - Section 2	85.2	229.8					0.0	52.5	85.2	282.3	0.0	0.0
105.00	Appertunance(s)	151.7	393.0	152.8	0.0	0.0	79.2	0.0	209.8	304.5	682.1	0.0	0.0
110.00		100.2	478.7					0.0	237.7	100.2	716.4	0.0	0.0
111.00	Appertunance(s)	82.0	94.1	528.3	0.0	0.0	2,000.0	0.0	47.5	610.3	2,141.6	0.0	0.0
115.00		145.8	370.6					0.0	190.2	145.8	560.8	0.0	0.0
120.00		127.6	450.6					0.0	237.7	127.6	688.3	0.0	0.0
123.00	Appertunance(s)	78.5	263.6	1,218.6	0.0	2,617.8	3,119.6	0.0	142.6	1,297.1	3,525.9	0.0	0.0
125.00		107.8	173.0					0.0	57.8	107.8	230.7	0.0	0.0
130.00		129.2	422.6					0.0	144.4	129.2	567.0	0.0	0.0
133.50	Appertunance(s)	74.7	287.5	284.2	0.0	71.6	266.1	0.0	101.1	359.0	654.6	0.0	0.0
135.00		80.6	121.1					0.0	31.5	80.6	152.6	0.0	0.0
139.00	Appertunance(s)	72.8	316.8	693.0	0.0	664.8	1,514.1	0.0	84.0	765.7	1,914.9	0.0	0.0
140.00		85.1	77.8					0.0	10.2	85.1	88.0	0.0	0.0
145.00		112.2	380.5					0.0	50.9	112.2	431.4	0.0	0.0
148.00	Appertunance(s)	68.7	221.6	40.1	0.0	200.5	30.0	0.0	30.5	108.8	282.1	0.0	0.0
150.00	Appertunance(s)	27.2	144.9	774.2	0.0	-580.1	1,270.0	0.0	19.7	801.4	1,434.6	0.0	0.0
<b>Totals:</b>										<b>8,812.71</b>	<b>39,302.7</b>	<b>0.00</b>	<b>0.00</b>

Site Number: 302538

Code: ANSI/TIA-222-G

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Site Name: Parsonage Hill AKA Wallingford

Engineering Number: 63605627

1/29/2016 4:44:21 PM

Customer: T-MOBILE

**Load Case:** 1.0D + 1.0W

Serviceability 60 mph

23 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	-39.30	-8.74	0.00	-886.85	0.00	886.85	4,644.06	2,322.03	9,415.76	4,650.09	0.00	0.00	0.199
5.00	-37.86	-8.61	0.00	-843.12	0.00	843.12	4,595.29	2,297.65	9,142.89	4,515.33	0.03	-0.06	0.195
10.00	-36.44	-8.48	0.00	-800.07	0.00	800.07	4,545.11	2,272.56	8,870.98	4,381.04	0.12	-0.12	0.191
15.00	-35.05	-8.34	0.00	-757.69	0.00	757.69	4,493.53	2,246.77	8,600.18	4,247.31	0.27	-0.17	0.186
20.00	-33.68	-8.20	0.00	-715.99	0.00	715.99	4,440.55	2,220.28	8,330.66	4,114.20	0.49	-0.23	0.182
25.00	-32.33	-8.05	0.00	-675.01	0.00	675.01	4,386.17	2,193.08	8,062.58	3,981.80	0.76	-0.29	0.177
30.00	-31.00	-7.89	0.00	-634.77	0.00	634.77	4,330.38	2,165.19	7,796.08	3,850.19	1.10	-0.35	0.172
35.00	-29.69	-7.73	0.00	-595.31	0.00	595.31	4,273.19	2,136.59	7,531.34	3,719.45	1.49	-0.41	0.167
40.00	-28.41	-7.57	0.00	-556.65	0.00	556.65	4,214.59	2,107.30	7,268.52	3,589.65	1.95	-0.46	0.162
45.00	-27.15	-7.43	0.00	-518.82	0.00	518.82	4,154.60	2,077.30	7,007.76	3,460.87	2.47	-0.52	0.156
47.83	-26.45	-7.35	0.00	-497.75	0.00	497.75	4,119.98	2,059.99	6,860.98	3,388.38	2.79	-0.56	0.153
50.00	-25.55	-7.24	0.00	-481.83	0.00	481.83	4,093.20	2,046.60	6,749.23	3,333.19	3.05	-0.58	0.151
54.00	-23.91	-7.14	0.00	-452.88	0.00	452.88	3,318.39	1,659.20	5,491.78	2,712.18	3.55	-0.63	0.174
55.00	-23.69	-7.04	0.00	-445.74	0.00	445.74	3,309.51	1,654.75	5,452.02	2,692.55	3.69	-0.64	0.173
60.00	-22.61	-6.87	0.00	-410.53	0.00	410.53	3,264.25	1,632.12	5,253.88	2,594.69	4.39	-0.70	0.165
65.00	-21.55	-6.69	0.00	-376.20	0.00	376.20	3,217.59	1,608.79	5,056.96	2,497.44	5.16	-0.76	0.157
70.00	-20.51	-6.51	0.00	-342.74	0.00	342.74	3,169.52	1,584.76	4,861.43	2,400.88	5.99	-0.82	0.149
75.00	-19.49	-6.34	0.00	-310.17	0.00	310.17	3,120.06	1,560.03	4,667.43	2,305.07	6.88	-0.88	0.141
80.00	-18.48	-6.16	0.00	-278.48	0.00	278.48	3,069.19	1,534.59	4,475.14	2,210.10	7.83	-0.94	0.132
85.00	-17.50	-5.98	0.00	-247.68	0.00	247.68	3,016.92	1,508.46	4,284.71	2,116.06	8.84	-0.99	0.123
90.00	-16.54	-5.81	0.00	-217.76	0.00	217.76	2,963.24	1,481.62	4,096.29	2,023.00	9.91	-1.04	0.113
95.00	-15.59	-5.70	0.00	-188.73	0.00	188.73	2,909.11	1,454.55	3,911.32	1,931.65	11.03	-1.09	0.103
95.83	-15.44	-5.61	0.00	-183.99	0.00	183.99	2,895.61	1,447.80	3,874.90	1,913.67	11.22	-1.10	0.101
100.00	-14.25	-5.51	0.00	-160.61	0.00	160.61	2,828.11	1,414.06	3,695.36	1,825.00	12.20	-1.14	0.093
101.00	-13.96	-5.42	0.00	-155.10	0.00	155.10	1,940.77	970.39	2,581.63	1,274.97	12.44	-1.15	0.129
105.00	-13.28	-5.11	0.00	-133.42	0.00	133.42	1,916.40	958.20	2,491.16	1,230.29	13.41	-1.18	0.115
110.00	-12.57	-5.00	0.00	-107.87	0.00	107.87	1,884.66	942.33	2,378.55	1,174.68	14.68	-1.23	0.099
111.00	-10.44	-4.35	0.00	-102.86	0.00	102.86	1,878.15	939.07	2,356.11	1,163.59	14.94	-1.24	0.094
115.00	-9.88	-4.20	0.00	-85.47	0.00	85.47	1,851.53	925.76	2,266.63	1,119.40	15.99	-1.27	0.082
120.00	-9.19	-4.06	0.00	-64.48	0.00	64.48	1,816.99	908.49	2,155.56	1,064.55	17.34	-1.31	0.066
123.00	-5.70	-2.68	0.00	-49.69	0.00	49.69	1,795.59	897.80	2,089.39	1,031.87	18.17	-1.33	0.051
125.00	-5.47	-2.57	0.00	-44.32	0.00	44.32	1,781.05	890.52	2,045.49	1,010.19	18.73	-1.34	0.047
130.00	-4.90	-2.43	0.00	-31.47	0.00	31.47	1,743.70	871.85	1,936.59	956.41	20.14	-1.36	0.036
133.50	-4.26	-2.06	0.00	-22.89	0.00	22.89	1,716.72	858.36	1,861.13	919.14	21.14	-1.37	0.027
135.00	-4.10	-1.97	0.00	-19.81	0.00	19.81	1,704.95	852.48	1,829.01	903.28	21.57	-1.37	0.024
139.00	-2.21	-1.16	0.00	-11.26	0.00	11.26	1,672.95	836.47	1,744.00	861.30	22.72	-1.38	0.014
140.00	-2.12	-1.07	0.00	-10.10	0.00	10.10	1,664.80	832.40	1,722.91	850.88	23.01	-1.38	0.013
145.00	-1.69	-0.95	0.00	-4.73	0.00	4.73	1,618.18	809.09	1,613.39	796.79	24.46	-1.39	0.007
148.00	-1.41	-0.84	0.00	-1.67	0.00	1.67	1,581.73	790.87	1,541.13	761.10	25.34	-1.39	0.003
150.00	0.00	-0.80	0.00	0.00	0.00	0.00	1,557.43	778.72	1,493.87	737.76	25.92	-1.39	0.000

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Site Number: 302538

Code: ANSI/TIA-222-G

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Site Name: Parsonage Hill AKA Wallingford

Engineering Number: 63605627

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Customer: T-MOBILE

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### Equivalent Lateral Forces Method Analysis

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

Spectral Response Acceleration for Short Period ( $S_s$ ):	0.18
Spectral Response Acceleration at 1.0 Second Period ( $S_1$ ):	0.06
Long-Period Transition Period ( $T_L$ ):	6
Importance Factor ( $I_E$ ):	1.00
Site Coefficient $F_a$ :	1.60
Site Coefficient $F_v$ :	2.40
Response Modification Coefficient (R):	1.50
Design Spectral Response Acceleration at Short Period ( $S_{ds}$ ):	0.19
Design Spectral Response Acceleration at 1.0 Second Period ( $S_{d1}$ ):	0.10
Seismic Response Coefficient ( $C_s$ ):	0.03
Upper Limit $C_s$	0.03
Lower Limit $C_s$	0.03
Period based on Rayleigh Method (sec):	2.23
Redundancy Factor (p):	1.30
Seismic Force Distribution Exponent (k):	1.86
Total Unfactored Dead Load:	39.30 k
Seismic Base Shear (E):	1.54 k

Site Number: 302538

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Site Name: Parsonage Hill AKA Wallingford

Engineering Number: 63605627

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Customer: T-MOBILE

### Equivalent Modal Forces Analysis

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

Spectral Response Acceleration for Short Period ( $S_s$ ):	0.18
Spectral Response Acceleration at 1.0 Second Period ( $S_1$ ):	0.06
Importance Factor ( $I_E$ ):	1.00
Site Coefficient $F_a$ :	1.60
Site Coefficient $F_v$ :	2.40
Response Modification Coefficient (R):	1.50
Design Spectral Response Acceleration at Short Period ( $S_{ds}$ ):	0.19
Design Spectral Response Acceleration at 1.0 Second Period ( $S_{d1}$ ):	0.10
Period Based on Rayleigh Method (sec):	2.23
Redundancy Factor ( $\rho$ ):	1.30

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

**Seismic Equivalent Lateral Forces Method**

Segment	Height Above Base (ft)	Weight (lb)	a	b	c	Saz	Horizontal Force (lb)	Vertical Force (lb)
39	149.00	165	1.865	1.850	1.093	0.354	50	142
38	146.50	252	1.803	1.551	0.982	0.314	69	217
37	142.50	431	1.706	1.144	0.823	0.256	96	371
36	139.50	88	1.635	0.890	0.718	0.216	16	76
35	137.00	401	1.577	0.708	0.639	0.185	64	345
34	134.25	153	1.514	0.536	0.560	0.153	20	131
33	131.75	389	1.458	0.403	0.494	0.126	43	335
32	127.50	567	1.366	0.222	0.397	0.085	42	488
31	124.00	231	1.292	0.109	0.329	0.056	11	199
30	121.50	406	1.240	0.046	0.286	0.038	13	350
29	117.50	688	1.160	-0.030	0.226	0.012	7	593
28	113.00	561	1.073	-0.084	0.170	-0.011	-5	483
27	110.50	142	1.026	-0.103	0.144	-0.020	-3	122
26	107.50	716	0.971	-0.116	0.117	-0.030	-18	617
25	103.00	603	0.891	-0.122	0.084	-0.038	-20	519
24	100.50	282	0.848	-0.119	0.069	-0.040	-10	243
23	97.92	1,190	0.805	-0.113	0.055	-0.041	-42	1,025
22	95.42	155	0.765	-0.104	0.044	-0.039	-5	134
21	92.50	943	0.719	-0.092	0.034	-0.035	-29	812
20	87.50	962	0.643	-0.068	0.020	-0.024	-20	828
19	82.50	981	0.572	-0.043	0.012	-0.009	-7	844
18	77.50	999	0.505	-0.018	0.007	0.008	6	861
17	72.50	1,018	0.442	0.005	0.006	0.023	20	877
16	67.50	1,037	0.383	0.023	0.007	0.035	31	893
15	62.50	1,055	0.328	0.039	0.010	0.043	39	909
14	57.50	1,074	0.278	0.050	0.014	0.048	45	925
13	54.50	217	0.250	0.055	0.017	0.050	9	187
12	52.00	1,637	0.227	0.059	0.020	0.051	72	1,410
11	48.92	897	0.201	0.063	0.023	0.051	40	773
10	46.42	702	0.181	0.065	0.026	0.051	31	604
9	42.50	1,255	0.152	0.068	0.030	0.051	55	1,081
8	37.50	1,277	0.118	0.070	0.035	0.050	55	1,100
7	32.50	1,299	0.089	0.071	0.039	0.049	55	1,119
6	27.50	1,321	0.064	0.072	0.041	0.047	54	1,137

Site Number: 302538

Code: ANSI/TIA-222-G

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Site Name: Parsonage Hill AKA Wallingford

Engineering Number: 63605627

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Customer: T-MOBILE

5	22.50	1,342	0.043	0.070	0.042	0.046	53	1,156
4	17.50	1,364	0.026	0.067	0.040	0.043	51	1,175
3	12.50	1,386	0.013	0.059	0.034	0.039	47	1,194
2	7.50	1,408	0.005	0.044	0.025	0.030	37	1,212
1	2.50	1,430	0.001	0.018	0.010	0.014	17	1,231
72" x 4" Panel	150.00	40	1.890	1.980	1.140	0.370	13	34
52" x 12" Panel	150.00	480	1.890	1.980	1.140	0.370	154	413
Round T-Arm	150.00	750	1.890	1.980	1.140	0.370	240	646
10' Dipole	148.00	30	1.840	1.726	1.048	0.338	9	26
Ericsson KRY 112 144	139.00	33	1.623	0.851	0.702	0.210	6	28
Ericsson RRUS 11 B12	139.00	152	1.623	0.851	0.702	0.210	28	131
Ericsson AIR 21, 1.3	139.00	249	1.623	0.851	0.702	0.210	45	214
Round T-Arm	139.00	750	1.623	0.851	0.702	0.210	136	646
Ericsson AIR 21 B4A/	139.00	330	1.623	0.851	0.702	0.210	60	284
Horizon Compact	133.50	21	1.497	0.494	0.539	0.145	3	18
NextNet BTS-2500	133.50	105	1.497	0.494	0.539	0.145	13	90
Argus LLPX310R	133.50	86	1.497	0.494	0.539	0.145	11	74
DragonWave A-ANT-11G	133.50	27	1.497	0.494	0.539	0.145	3	23
DragonWave A-ANT-18G	133.50	27	1.497	0.494	0.539	0.145	3	23
7" x 6" x 3" Diplexe	123.00	30	1.271	0.082	0.311	0.049	1	26
Powerwave Allgon LGP	123.00	85	1.271	0.082	0.311	0.049	4	73
Raycap DC6-48-60-18-	123.00	32	1.271	0.082	0.311	0.049	1	27
Ericsson RRUS 11 (Ba	123.00	330	1.271	0.082	0.311	0.049	14	284
Ericsson RRUS 12 w/	123.00	214	1.271	0.082	0.311	0.049	9	184
Powerwave 7770.00	123.00	210	1.271	0.082	0.311	0.049	9	181
CCI OPA-65R-LCUU-H6	123.00	219	1.271	0.082	0.311	0.049	9	189
Platform w/ Handrail	123.00	2,000	1.271	0.082	0.311	0.049	84	1,722
Empty Platform w/ Ha	111.00	2,000	1.035	-0.099	0.149	-0.019	-32	1,722
RFS APXV18-206517S-C	105.00	79	0.926	-0.121	0.098	-0.035	-2	68
		39,303	63.466	22.173	21.128	5.793	1,813	33,847

**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)
39	149.00	165	1.865	1.850	1.093	0.354	50	142
38	146.50	252	1.803	1.551	0.982	0.314	69	217
37	142.50	431	1.706	1.144	0.823	0.256	96	371
36	139.50	88	1.635	0.890	0.718	0.216	16	76
35	137.00	401	1.577	0.708	0.639	0.185	64	345
34	134.25	153	1.514	0.536	0.560	0.153	20	131
33	131.75	389	1.458	0.403	0.494	0.126	43	335
32	127.50	567	1.366	0.222	0.397	0.085	42	488
31	124.00	231	1.292	0.109	0.329	0.056	11	199
30	121.50	406	1.240	0.046	0.286	0.038	13	350
29	117.50	688	1.160	-0.030	0.226	0.012	7	593
28	113.00	561	1.073	-0.084	0.170	-0.011	-5	483
27	110.50	142	1.026	-0.103	0.144	-0.020	-3	122
26	107.50	716	0.971	-0.116	0.117	-0.030	-18	617
25	103.00	603	0.891	-0.122	0.084	-0.038	-20	519
24	100.50	282	0.848	-0.119	0.069	-0.040	-10	243
23	97.92	1,190	0.805	-0.113	0.055	-0.041	-42	1,025
22	95.42	155	0.765	-0.104	0.044	-0.039	-5	134
21	92.50	943	0.719	-0.092	0.034	-0.035	-29	812
20	87.50	962	0.643	-0.068	0.020	-0.024	-20	828
19	82.50	981	0.572	-0.043	0.012	-0.009	-7	844
18	77.50	999	0.505	-0.018	0.007	0.008	6	861
17	72.50	1,018	0.442	0.005	0.006	0.023	20	877
16	67.50	1,037	0.383	0.023	0.007	0.035	31	893
15	62.50	1,055	0.328	0.039	0.010	0.043	39	909

Site Number: 302538

Code: ANSI/TIA-222-G

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Site Name: Parsonage Hill AKA Wallingford

Engineering Number: 63605627

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Customer: T-MOBILE

14	57.50	1,074	0.278	0.050	0.014	0.048	45	925
13	54.50	217	0.250	0.055	0.017	0.050	9	187
12	52.00	1,637	0.227	0.059	0.020	0.051	72	1,410
11	48.92	897	0.201	0.063	0.023	0.051	40	773
10	46.42	702	0.181	0.065	0.026	0.051	31	604
9	42.50	1,255	0.152	0.068	0.030	0.051	55	1,081
8	37.50	1,277	0.118	0.070	0.035	0.050	55	1,100
7	32.50	1,299	0.089	0.071	0.039	0.049	55	1,119
6	27.50	1,321	0.064	0.072	0.041	0.047	54	1,137
5	22.50	1,342	0.043	0.070	0.042	0.046	53	1,156
4	17.50	1,364	0.026	0.067	0.040	0.043	51	1,175
3	12.50	1,386	0.013	0.059	0.034	0.039	47	1,194
2	7.50	1,408	0.005	0.044	0.025	0.030	37	1,212
1	2.50	1,430	0.001	0.018	0.010	0.014	17	1,231
72" x 4" Panel	150.00	40	1.890	1.980	1.140	0.370	13	34
52" x 12" Panel	150.00	480	1.890	1.980	1.140	0.370	154	413
Round T-Arm	150.00	750	1.890	1.980	1.140	0.370	240	646
10' Dipole	148.00	30	1.840	1.726	1.048	0.338	9	26
Ericsson KRY 112 144	139.00	33	1.623	0.851	0.702	0.210	6	28
Ericsson RRUS 11 B12	139.00	152	1.623	0.851	0.702	0.210	28	131
Ericsson AIR 21, 1.3	139.00	249	1.623	0.851	0.702	0.210	45	214
Round T-Arm	139.00	750	1.623	0.851	0.702	0.210	136	646
Ericsson AIR 21 B4A/	139.00	330	1.623	0.851	0.702	0.210	60	284
Horizon Compact	133.50	21	1.497	0.494	0.539	0.145	3	18
NextNet BTS-2500	133.50	105	1.497	0.494	0.539	0.145	13	90
Argus LLPX310R	133.50	86	1.497	0.494	0.539	0.145	11	74
DragonWave A-ANT-11G	133.50	27	1.497	0.494	0.539	0.145	3	23
DragonWave A-ANT-18G	133.50	27	1.497	0.494	0.539	0.145	3	23
7" x 6" x 3" Diplexe	123.00	30	1.271	0.082	0.311	0.049	1	26
Powerwave Allgon LGP	123.00	85	1.271	0.082	0.311	0.049	4	73
Raycap DC6-48-60-18-	123.00	32	1.271	0.082	0.311	0.049	1	27
Ericsson RRUS 11 (Ba	123.00	330	1.271	0.082	0.311	0.049	14	284
Ericsson RRUS 12 w/	123.00	214	1.271	0.082	0.311	0.049	9	184
Powerwave 7770.00	123.00	210	1.271	0.082	0.311	0.049	9	181
CCI OPA-65R-LCUU-H6	123.00	219	1.271	0.082	0.311	0.049	9	189
Platform w/ Handrail	123.00	2,000	1.271	0.082	0.311	0.049	84	1,722
Empty Platform w/ Ha	111.00	2,000	1.035	-0.099	0.149	-0.019	-32	1,722
RFS APXV18-206517S-C	105.00	79	0.926	-0.121	0.098	-0.035	-2	68
		39,303	63.466	22.173	21.128	5.793	1,813	33,847

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

**Seismic (Reduced DL) Equivalent Lateral Forces Method**

Segment	Height Above Base (ft)	Weight (lb)	a	b	c	Saz	Horizontal Force (lb)	Vertical Force (lb)
39	149.00	165	1.865	1.850	1.093	0.354	50	142
38	146.50	252	1.803	1.551	0.982	0.314	69	217
37	142.50	431	1.706	1.144	0.823	0.256	96	371
36	139.50	88	1.635	0.890	0.718	0.216	16	76
35	137.00	401	1.577	0.708	0.639	0.185	64	345
34	134.25	153	1.514	0.536	0.560	0.153	20	131
33	131.75	389	1.458	0.403	0.494	0.126	43	335
32	127.50	567	1.366	0.222	0.397	0.085	42	488
31	124.00	231	1.292	0.109	0.329	0.056	11	199
30	121.50	406	1.240	0.046	0.286	0.038	13	350
29	117.50	688	1.160	-0.030	0.226	0.012	7	593
28	113.00	561	1.073	-0.084	0.170	-0.011	-5	483
27	110.50	142	1.026	-0.103	0.144	-0.020	-3	122
26	107.50	716	0.971	-0.116	0.117	-0.030	-18	617
25	103.00	603	0.891	-0.122	0.084	-0.038	-20	519
24	100.50	282	0.848	-0.119	0.069	-0.040	-10	243

Site Number: 302538

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Site Name: Parsonage Hill AKA Wallingford

Engineering Number: 63605627

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Customer: T-MOBILE

23	97.92	1,190	0.805	-0.113	0.055	-0.041	-42	1,025
22	95.42	155	0.765	-0.104	0.044	-0.039	-5	134
21	92.50	943	0.719	-0.092	0.034	-0.035	-29	812
20	87.50	962	0.643	-0.068	0.020	-0.024	-20	828
19	82.50	981	0.572	-0.043	0.012	-0.009	-7	844
18	77.50	999	0.505	-0.018	0.007	0.008	6	861
17	72.50	1,018	0.442	0.005	0.006	0.023	20	877
16	67.50	1,037	0.383	0.023	0.007	0.035	31	893
15	62.50	1,055	0.328	0.039	0.010	0.043	39	909
14	57.50	1,074	0.278	0.050	0.014	0.048	45	925
13	54.50	217	0.250	0.055	0.017	0.050	9	187
12	52.00	1,637	0.227	0.059	0.020	0.051	72	1,410
11	48.92	897	0.201	0.063	0.023	0.051	40	773
10	46.42	702	0.181	0.065	0.026	0.051	31	604
9	42.50	1,255	0.152	0.068	0.030	0.051	55	1,081
8	37.50	1,277	0.118	0.070	0.035	0.050	55	1,100
7	32.50	1,299	0.089	0.071	0.039	0.049	55	1,119
6	27.50	1,321	0.064	0.072	0.041	0.047	54	1,137
5	22.50	1,342	0.043	0.070	0.042	0.046	53	1,156
4	17.50	1,364	0.026	0.067	0.040	0.043	51	1,175
3	12.50	1,386	0.013	0.059	0.034	0.039	47	1,194
2	7.50	1,408	0.005	0.044	0.025	0.030	37	1,212
1	2.50	1,430	0.001	0.018	0.010	0.014	17	1,231
72" x 4" Panel	150.00	40	1.890	1.980	1.140	0.370	13	34
52" x 12" Panel	150.00	480	1.890	1.980	1.140	0.370	154	413
Round T-Arm	150.00	750	1.890	1.980	1.140	0.370	240	646
10' Dipole	148.00	30	1.840	1.726	1.048	0.338	9	26
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Ericsson RRUS 11 B12	139.00	152	1.623	0.851	0.702	0.210	28	131
Ericsson AIR 21, 1.3	139.00	249	1.623	0.851	0.702	0.210	45	214
Round T-Arm	139.00	750	1.623	0.851	0.702	0.210	136	646
Ericsson AIR 21 B4A/	139.00	330	1.623	0.851	0.702	0.210	60	284
Horizon Compact	133.50	21	1.497	0.494	0.539	0.145	3	18
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7" x 6" x 3" Diplexe	123.00	30	1.271	0.082	0.311	0.049	1	26
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Raycap DC6-48-60-18-	123.00	32	1.271	0.082	0.311	0.049	1	27
Ericsson RRUS 11 (Ba	123.00	330	1.271	0.082	0.311	0.049	14	284
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		39,303	63.466	22.173	21.128	5.793	1,813	33,847

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

**Seismic (Reduced DL) Equivalent Modal Analysis Method**

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36	139.50	88	1.635	0.890	0.718	0.216	16	76
35	137.00	401	1.577	0.708	0.639	0.185	64	345
34	134.25	153	1.514	0.536	0.560	0.153	20	131
33	131.75	389	1.458	0.403	0.494	0.126	43	335

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23	97.92	1,190	0.805	-0.113	0.055	-0.041	-42	1,025
22	95.42	155	0.765	-0.104	0.044	-0.039	-5	134
21	92.50	943	0.719	-0.092	0.034	-0.035	-29	812
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16	67.50	1,037	0.383	0.023	0.007	0.035	31	893
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14	57.50	1,074	0.278	0.050	0.014	0.048	45	925
13	54.50	217	0.250	0.055	0.017	0.050	9	187
12	52.00	1,637	0.227	0.059	0.020	0.051	72	1,410
11	48.92	897	0.201	0.063	0.023	0.051	40	773
10	46.42	702	0.181	0.065	0.026	0.051	31	604
9	42.50	1,255	0.152	0.068	0.030	0.051	55	1,081
8	37.50	1,277	0.118	0.070	0.035	0.050	55	1,100
7	32.50	1,299	0.089	0.071	0.039	0.049	55	1,119
6	27.50	1,321	0.064	0.072	0.041	0.047	54	1,137
5	22.50	1,342	0.043	0.070	0.042	0.046	53	1,156
4	17.50	1,364	0.026	0.067	0.040	0.043	51	1,175
3	12.50	1,386	0.013	0.059	0.034	0.039	47	1,194
2	7.50	1,408	0.005	0.044	0.025	0.030	37	1,212
1	2.50	1,430	0.001	0.018	0.010	0.014	17	1,231
72" x 4" Panel	150.00	40	1.890	1.980	1.140	0.370	13	34
52" x 12" Panel	150.00	480	1.890	1.980	1.140	0.370	154	413
Round T-Arm	150.00	750	1.890	1.980	1.140	0.370	240	646
10' Dipole	148.00	30	1.840	1.726	1.048	0.338	9	26
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Ericsson RRUS 11 B12	139.00	152	1.623	0.851	0.702	0.210	28	131
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Round T-Arm	139.00	750	1.623	0.851	0.702	0.210	136	646
Ericsson AIR 21 B4A/	139.00	330	1.623	0.851	0.702	0.210	60	284
Horizon Compact	133.50	21	1.497	0.494	0.539	0.145	3	18
NextNet BTS-2500	133.50	105	1.497	0.494	0.539	0.145	13	90
Argus LLPX310R	133.50	86	1.497	0.494	0.539	0.145	11	74
DragonWave A-ANT-11G	133.50	27	1.497	0.494	0.539	0.145	3	23
DragonWave A-ANT-18G	133.50	27	1.497	0.494	0.539	0.145	3	23
7" x 6" x 3" Diplexe	123.00	30	1.271	0.082	0.311	0.049	1	26
Powerwave Allgon LGP	123.00	85	1.271	0.082	0.311	0.049	4	73
Raycap DC6-48-60-18-	123.00	32	1.271	0.082	0.311	0.049	1	27
Ericsson RRUS 11 (Ba	123.00	330	1.271	0.082	0.311	0.049	14	284
Ericsson RRUS 12 w/	123.00	214	1.271	0.082	0.311	0.049	9	184
Powerwave 7770.00	123.00	210	1.271	0.082	0.311	0.049	9	181
CCI OPA-65R-LCUU-H6	123.00	219	1.271	0.082	0.311	0.049	9	189
Platform w/ Handrail	123.00	2,000	1.271	0.082	0.311	0.049	84	1,722
Empty Platform w/ Ha	111.00	2,000	1.035	-0.099	0.149	-0.019	-32	1,722
RFS APXV18-206517S-C	105.00	79	0.926	-0.121	0.098	-0.035	-2	68
		39,303	63.466	22.173	21.128	5.793	1,813	33,847



Site Number: 302538

Code: ANSI/TIA-222-G

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Site Name: Parsonage Hill AKA Wallingford

Engineering Number: 63605627

1/29/2016 4:44:21 PM

Customer: T-MOBILE

### Analysis Summary

Load Case	Reactions						Max Usage	
	Shear FX (kips)	Shear FZ (kips)	Axial FY (kips)	Moment MX (ft-kips)	Moment MY (ft-kips)	Moment MZ (ft-kips)	Elev (ft)	Interaction Ratio
1.2D + 1.6W	42.88	0.00	47.05	0.00	0.00	4368.58	0.00	0.95
0.9D + 1.6W	42.85	0.00	35.26	0.00	0.00	4321.20	0.00	0.94
1.2D + 1.0Di + 1.0Wi	8.12	0.00	72.92	0.00	0.00	869.38	0.00	0.20
(1.2 + 0.2Sds) * DL + E ELFM	1.54	0.00	46.92	0.00	0.00	180.19	0.00	0.05
(1.2 + 0.2Sds) * DL + E EMAM	1.80	0.00	46.92	0.00	0.00	195.73	0.00	0.05
(0.9 - 0.2Sds) * DL + E ELFM	1.54	0.00	32.62	0.00	0.00	177.79	0.00	0.05
(0.9 - 0.2Sds) * DL + E EMAM	1.80	0.00	32.62	0.00	0.00	192.98	0.00	0.05
1.0D + 1.0W	8.74	0.00	39.30	0.00	0.00	886.85	0.00	0.20

Site Number: 302538

Code: ANSI/TIA-222-G

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Site Name: Parsonage Hill AKA Wallingford

Engineering Number: 63605627

1/29/2016 4:44:21 PM

Customer: T-MOBILE

**Base Summary**

**Reactions**

Original Design			Analysis			Moment Design %
Moment (kip-ft)	Axial (kip)	Shear (kip)	Moment (kip-ft)	Axial (kip)	Shear (kip)	
3,567.17	35.87	30.48	4,368.58	72.92	42.88	90.72

**Base Plate**

Yield (ksi)	Thick (in)	Width (in)	Style	Poly Sides	Clip Len (in)	Effective Len (in)	Mu (kip-in)	Phi Mn (kip-in)	Ratio
60.0	2.750	63.850	Polygon	12	0.00	9.968	953.33	1017.64	0.94

**Anchor Bolts**

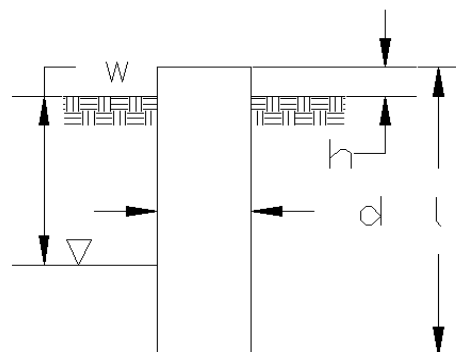
Bolt Circle	Num Bolts	Bolt Type	Bolt Dia (in)	Yield (ksi)	Ultimate (ksi)	Arrange	Cluster Dist (in)	Start Angle (deg)	Compression			Tension		
									Force (kip)	Allow (kip)	Ratio	Force (kip)	Allow (kip)	Ratio
57.85	16	2.25" 18J	2.25	75.00	100.00	Radial	0.00	0.0	231.10	260.00	0.91	221.99	260.00	0.87

Site Name: Parsonage Hill AKA Wallingford, CT  
 Site Number: 302538  
 Engineer: Emily M. Basile, EI  
 Engineering Number: 63605627  
 Date: 01/29/16

Program Last Updated: 5/13/2014  
 American Tower Corporation

**Design Base Loads (Factored) - Analysis per TIA-222-G Standards**

Analyze or Design a Foundation? Analyze  
 Foundation Mapped: N  
 Moment (M): 4368.6 k-ft  
 Shear/Leg (V): 42.9 k  
 Axial Load (P): 72.9 k  
 Uplift/Leg (U): 0.0 k  
 Tower Type (GT / SST / MP): MP



Diameter of Caisson (d): 6.5 ft  
 Caisson Embedment (L-h): 21.0 ft  
 Caisson Height Above Ground (h): 0.5 ft  
 Depth Below Ground Surface to Water Table (w): 99.0 ft  
 Unit Weight of Concrete: 150.0 pcf  
 Unit Weight of Water: 62.4 pcf  
 Tension Skin Friction/Compression Skin Friction: 1.00  
 Pullout Angle: 30.0 degrees

**Engineer Notes**

**Soil Mechanical Properties**

Depth (ft)		$\gamma_{Soil}$	Cohesion	$\phi$	Ultimate Skin	Ultimate Bearing
Top	Bottom	(pcf)	(psf)	(degree)	Friction (psf)	Pressure (psf)
0.0	3.0	130				
3.0	5.0	130		35	1500	
5.0	22.0	140	3000		7000	20000

Required Embedment: 19.1 ft - OK, Caisson Embedment Satisfactory  
 Volume of Concrete: 713.4 ft<sup>3</sup> = 26.4 yd<sup>3</sup>  
 Weight of Concrete (Buoyancy Effect Considered): 107.0 k  
 Average Soil Unit Weight: 137.6 pcf  
 Skin Friction Resistance: 2348.3 k  
 Compressive Bearing Resistance: 663.7 k  
 Pullout Weight (Minus Concrete Weight): 802.6 k  
 Nominal Uplift Capacity per Leg ( $\phi_s T_n$ ): 602.0 k  
 Nominal Compressive Capacity per Leg ( $\phi_s P_n$ ): 2259.0 k  
 $P_u$ : 83.3 k  
 $T_u / \phi_s T_n$ : 0.00 Result: OK  
 $P_u / \phi_s P_n$ : 0.04 Result: OK  
 Total Lateral Resistance: 2594.2 k  
 Inflection Point (Below Ground Surface): 13.5 ft  
 Design Overturning Moment At Inflection Point ( $M_D$ ): 4967.6 k-ft  
 Nominal Moment Capacity ( $\phi_s M_n$ ): 7778.4 k-ft  
 $M_D / \phi_s M_n$ : 0.64 Result: OK  
 $\phi_s$ : 0.75

## Caisson Strength Capacity

Concrete Compressive Strength ( $f'_c$ ):	3000 psi
Vertical Steel Rebar Size #:	11
Vertical Steel Rebar Area:	1.56 in <sup>2</sup>
# of Vertical Steel Rebars:	38
Vertical Steel Rebar Yield Strength ( $F_y$ ):	60 ksi
Horizontal Tie / Stirrup Size #:	4
Horizontal Tie / Stirrup Area:	0.20 in <sup>2</sup>
Design Horizontal Tie / Stirrup Spacing:	12.0 in
Horizontal Tie / Stirrup Steel Yield Strength ( $F_y$ ):	60 ksi
Rebar Cage Diameter:	70.0 in
Strength Bending/Tension Reduction Factor ( $\phi_B$ ):	0.90 ACI318-05 - 9.3.2.1
Strength Shear Reduction Factor ( $\phi_V$ ):	0.75 ACI318-05 - 9.3.2.3
Strength Compression Reduction Factor ( $\phi_P$ ):	0.65 ACI318-05 - 9.3.2.2
Steel Elastic Modulus:	29000 ksi
Design Moment ( $M_u$ ):	4408.7 k-ft
Nominal Moment Capacity ( $\phi_B M_n$ ):	9135.1 k-ft - ACI318-005 - 10.2
$M_u/\phi_B M_n$ :	0.48 Result: OK
Design Shear ( $V_u$ ):	521.1 k
Nominal Shear Capacity ( $\phi_V V_n$ ):	489.2 k - ACI318-05 - 11.3.1.1 or 11.5.7.2
$V_u/\phi_V V_n$ :	0.91 Result: OK
Design Tension ( $T_u$ ):	0.0 k
Nominal Tension Capacity ( $\phi_T T_n$ ):	3201.1 k - ACI318-05 - 10.2
$T_u/\phi_T T_n$ :	0.00 Result: OK
Design Compression ( $P_u$ ):	83.3 k
Nominal Compression Capacity ( $\phi_P P_n$ ):	6257.5 k - ACI318-05 - 10.3.6.2
$P_u/\phi_P P_n$ :	0.01 Result: OK
Bending Reinforcement Ratio:	0.012 ACI318-05 - 10.8.4 & 10.9.1
$M_u/\phi_B M_n + T_u/\phi_T T_n$ :	0.48 Result: OK

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

**T-Mobile Existing Facility**

**Site ID: CT11054A**

**Wallingford I-91 X15  
992 Northrop Road  
Wallingford, CT 06492**

**January 25, 2016**

**EBI Project Number: 6216000531**

<b>Site Compliance Summary</b>	
Compliance Status:	<b>COMPLIANT</b>
Site total MPE% of FCC general public allowable limit:	<b>6.64 %</b>

January 25, 2016

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

Emissions Analysis for Site: **CT11054A – Wallingford I-91 X15**

EBI Consulting was directed to analyze the proposed T-Mobile facility located at **992 Northrop Road, Wallingford, 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 public 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 public 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 limit for the 700 MHz Band is  $467 \mu\text{W}/\text{cm}^2$ , and the general population exposure limit for the 1900 MHz (PCS) and 2100 MHz (AWS) 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 **992 Northrop Road, Wallingford, 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 manufactures supplied specifications, minus 10 dB, 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 (AWS Band – 2100 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 30 Watts per Channel.
- 3) 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.
- 4) 1 LTE channel (700 MHz Band) was considered for each sector of the proposed installation. This channel has a transmit power of 30 Watts.
- 5) 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.

- 6) For the following calculations the sample point was the top of a six foot person standing at the base of the tower. The maximum gain of the antenna per the antenna manufactures supplied specifications minus 10 dB 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.
- 7) The antennas used in this modeling are the **Ericsson AIR21 B2A/B4P** for 1900 MHz (PCS) and 2100 MHz (AWS) channels and the **Ericsson AIR21 B4A/B12P** for 2100 MHz (AWS) and 700 MHz channels. This is based on feedback from the carrier with regards to anticipated antenna selection. The **Ericsson AIR21 B2A/B4P** has a maximum gain of **15.9 dBd** at its main lobe. The **Ericsson AIR21 B4A/B12P** has a maximum gain of **15.9 dBd** at its main lobe at 1900 MHz and 2100 MHz and has a maximum gain of **13.6 dBd** at its main lobe at 700 MHz. The maximum gain of the antenna per the antenna manufactures supplied specifications, minus 10 dB, 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.
- 8) The antenna mounting height centerline of the proposed antennas is **139 feet** above ground level (AGL).
- 9) 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.

All calculations were done with respect to uncontrolled / general public threshold limits.



### T-Mobile Site Inventory and Power Data

Sector:	A	Sector:	B	Sector:	C
Antenna #:	1	Antenna #:	1	Antenna #:	1
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):	139	Height (AGL):	139	Height (AGL):	139
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):	120	Total TX Power(W):	120	Total TX Power(W):	120
ERP (W):	4,668.54	ERP (W):	4,668.54	ERP (W):	4,668.54
Antenna A1 MPE%	0.95	Antenna B1 MPE%	0.95	Antenna C1 MPE%	0.95
Antenna #:	2	Antenna #:	2	Antenna #:	2
Make / Model:	Ericsson AIR21 B4A/B12P	Make / Model:	Ericsson AIR21 B4A/B12P	Make / Model:	Ericsson AIR21 B4A/B12P
Gain:	15.9 / 13.6 dBd	Gain:	15.9 / 13.6 dBd	Gain:	15.9 / 13.6 dBd
Height (AGL):	139	Height (AGL):	139	Height (AGL):	139
Frequency Bands	2100 MHz (AWS) / 700 MHz	Frequency Bands	2100 MHz (AWS) / 700 MHz	Frequency Bands	2100 MHz (AWS) / 700 MHz
Channel Count	3	Channel Count	3	Channel Count	3
Total TX Power(W):	150	Total TX Power(W):	150	Total TX Power(W):	150
ERP (W):	5,355.80	ERP (W):	5,355.80	ERP (W):	5,355.80
Antenna A2 MPE%	1.25	Antenna B2 MPE%	1.25	Antenna C2 MPE%	1.25

Site Composite MPE%	
Carrier	MPE%
T-Mobile	2.20
AT&T	2.81 %
MetroPCS	1.24 %
Nextel	0.28 %
Clearwire	0.11 %
<b>Site Total MPE %:</b>	<b>6.64 %</b>

T-Mobile Sector 1 Total:	2.20 %
T-Mobile Sector 2 Total:	2.20 %
T-Mobile Sector 3 Total:	2.20 %
<b>Site Total:</b>	<b>6.64 %</b>

T-Mobile _per sector	# 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 2100 MHz (AWS) LTE	2	2334.27	139	9.49	2100	1000	0.95 %
T-Mobile 1900 MHz (PCS) GSM/UMTS	2	1167.14	139	4.74	1900	1000	0.47 %
T-Mobile 2100 MHz (AWS) UMTS	2	1167.14	139	4.74	2100	1000	0.47 %
T-Mobile 700 MHz LTE	1	687.26	139	1.40	700	467	0.30 %
						<b>Total:</b>	<b>2.20 %</b>

## Summary

All calculations performed for this analysis yielded results that were **within** the allowable limits for general public 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 public exposure to RF Emissions are shown here:

T-Mobile Sector	Power Density Value (%)
Sector 1:	2.20 %
Sector 2:	2.20 %
Sector 3 :	2.20 %
T-Mobile Total:	2.20 %
Site Total:	6.64 %
Site Compliance Status:	<b>COMPLIANT</b>

The anticipated composite MPE value for this site assuming all carriers present is **6.64%** of the allowable FCC established general public 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.



**Scott Heffernan**  
RF Engineering Director

**EBI Consulting**  
21 B Street  
Burlington, MA 01803

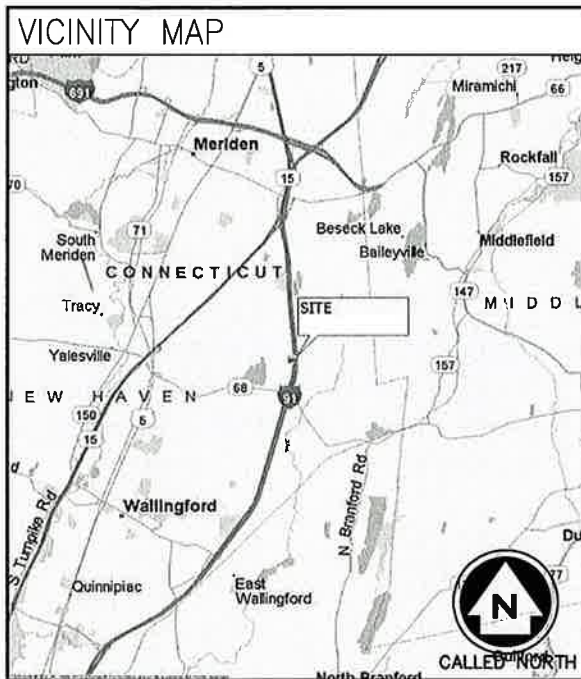
# T-MOBILE NORTHEAST LLC

## CT11054A

### CT11054A\_WALLINGFORD\_I-91\_X15

1000 NORTHROP RD  
WALLINGFORD, CT 06492

(702CC CONFIGURATION)



#### GENERAL NOTES

1. THE CONTRACTOR SHALL GIVE ALL NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY, MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS, AND LOCAL AND STATE JURISDICTIONAL CODES BEARING ON THE PERFORMANCE OF THE WORK. THE WORK PERFORMED ON THE PROJECT AND THE MATERIALS INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS AND ORDINANCES.
2. THE ARCHITECT/ENGINEER HAVE MADE EVERY EFFORT TO SET FORTH IN THE CONSTRUCTION AND CONSTRUCT DOCUMENTS THE COMPLETE SCOPE OF WORK. THE CONTRACTOR BIDDING THE JOB IS NEVERTHELESS CAUTIONED THAT MINOR OMISSIONS OR ERRORS IN THE DRAWINGS AND OR SPECIFICATIONS SHALL NOT EXCUSE SAID CONTRACTOR FROM COMPLETING THE PROJECT AND IMPROVEMENTS IN ACCORDANCE WITH THE INTENT OF THESE DOCUMENTS.
3. THE CONTRACTOR OR BIDDER SHALL BEAR THE RESPONSIBILITY OF NOTIFYING (IN WRITING) THE T-MOBILE REPRESENTATIVE OF ANY CONFLICTS, ERRORS, OR OMISSIONS PRIOR TO THE SUBMISSION OF THE CONTRACTOR'S PROPOSAL OR PERFORMANCE OF WORK. IN THE EVENT OF DISCREPANCIES, THE CONTRACTOR SHALL PRICE THE MORE COSTLY OR EXPENSIVE WORK, UNLESS DIRECTED IN WRITING OTHERWISE.
4. THE SCOPE OF WORK SHALL INCLUDE FURNISHING OF ALL MATERIALS, EQUIPMENT, LABOR AND ALL OTHER MATERIALS AND LABOR DEEMED NECESSARY TO COMPLETE THE WORK/PROJECT AS DESCRIBED HEREIN.
5. THE CONTRACTOR SHALL VISIT THE JOB SITE PRIOR TO THE SUBMISSION OF BIDS OR PERFORMING WORK TO FAMILIARIZE HIMSELF WITH THE FIELD CONDITIONS AND TO VERIFY THAT THE PROJECT CAN BE CONSTRUCTED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
6. THE CONTRACTOR SHALL OBTAIN AUTHORIZATION TO PROCEED WITH CONSTRUCTION PRIOR TO STARTING WORK ON ANY ITEM NOT CLEARLY DEFINED BY THE CONSTRUCTION DRAWINGS/CONTRACT DOCUMENTS.
7. THE CONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS ACCORDING TO THE MANUFACTURER'S/VENDOR'S SPECIFICATIONS UNLESS NOTED OTHERWISE OR WHERE LOCAL CODES OR ORDINANCES TAKE PRECEDENCE.
8. THE CONTRACTOR SHALL PROVIDE A FULL SET OF CONSTRUCTION DOCUMENTS AT THE SITE UPDATED WITH THE LATEST REVISIONS AND ADDENDUM OR CLARIFICATIONS AVAILABLE FOR THE USE BY ALL PERSONNEL INVOLVED WITH THE PROJECT.
9. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE PROJECT DESCRIBED HEREIN. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER CONTRACT.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ANY PERMITS AND INSPECTIONS WHICH ARE REQUIRED FOR THE WORK BY THE ARCHITECT/ENGINEER, THE STATE, COUNTY, OR LOCAL GOVERNMENT AUTHORITY.
11. THE CONTRACTOR SHALL MAKE NECESSARY PROVISIONS TO PROTECT EXISTING IMPROVEMENTS, EASEMENTS, PAVING, CURBING, ETC., DURING CONSTRUCTION. UPON COMPLETION OF WORK, THE CONTRACTOR SHALL REPAIR ANY DAMAGE THAT MAY HAVE OCCURRED DUE TO CONSTRUCTION ON OR ABOUT THE PROPERTY.
12. THE CONTRACTOR SHALL KEEP THE GENERAL WORK AREA CLEAN AND HAZARD FREE DURING CONSTRUCTION AND DISPOSE OF ALL DIRT, DEBRIS, RUBBISH AND REMOVE EQUIPMENT NOT SPECIFIED AS REMAINING ON PROPERTY. PREMISES SHALL BE LEFT IN CLEAN CONDITION AND FREE FROM PAINT SPOTS, DUST, OR SMUDGES OF ANY NATURE.
13. THE CONTRACTOR SHALL COMPLY WITH ALL OSHA REQUIREMENTS, AS WELL AS THE LATEST EDITIONS OF ANY PERTINENT STATE SAFETY REGULATIONS.
14. THE CONTRACTOR SHALL NOTIFY THE T-MOBILE REPRESENTATIVE WHERE A CONFLICT OCCURS ON ANY OF THE CONTRACT DOCUMENTS. THE CONTRACTOR IS NOT TO ORDER MATERIAL OR CONSTRUCT ANY PORTION OF THE WORK THAT IS IN CONFLICT UNTIL CONFLICT IS RESOLVED BY THE T-MOBILE REPRESENTATIVE.
15. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, ELEVATIONS, PROPERTY LINES, ETC., ON THE JOB.
16. THE CONTRACTOR SHALL RETURN ALL DISTURBED AREAS TO THEIR ORIGINAL CONDITION AT THE COMPLETION OF WORK.

#### PROJECT SUMMARY

SITE NUMBER:	CT11054A	APPLICANT:	T-MOBILE NORTHEAST LLC 400 STREET RD BENSALEM, PA 19020
SITE NAME:	CT11054A_WALLINGFORD_I-91_X15	PROJECT MANAGER:	AMERICAN TOWER CORPORATION 319 QUARRY ROAD SPRING CITY, PA 19475
SITE ADDRESS:	1000 NORTHROP RD WALLINGFORD, CT 06492	CONTACT:	BRUCE HOFFMASTER 484-942-6339
TOWER OWNER:	AMERICAN TOWER CORPORATION	ARCHITECT/ENGINEER:	INFINIGY ENGINEERING 1033 WATERVLIT SHAKER ROAD ALBANY, NY 12205
PARCEL:	54/10/4	CONTACT:	ALEX WELLER 518-690-0790
CURRENT ZONING:	IX		
JURISDICTION:	TOWN OF WALLINGFORD		
ATC SITE NUMBER:	302538		
LAT./LONG.:	N 41.48937' / W -72.76828'		
CONSTRUCTION TYPE:	-		
USE GROUP:	-		

#### PROJECT DESCRIPTION

<input checked="" type="checkbox"/> EXISTING MONOPOLE	<input checked="" type="checkbox"/> EXISTING CABINET(S)	<input checked="" type="checkbox"/> OUTDOOR
<input type="checkbox"/> EXISTING LATTICE TOWER	<input type="checkbox"/> EXISTING RBS 2106	<input type="checkbox"/> INDOOR
<input type="checkbox"/> EXISTING TRANSMISSION TOWER	<input checked="" type="checkbox"/> EXISTING RBS 3106	<input checked="" type="checkbox"/> EXISTING CONCRETE PAD
<input type="checkbox"/> EXISTING WATER TANK	<input checked="" type="checkbox"/> EXISTING RBS 6102	<input type="checkbox"/> EXISTING STEEL PLATFORM
<input type="checkbox"/> EXISTING BUILDING	<input type="checkbox"/> SITE SUPPORT KIT	<input checked="" type="checkbox"/> EXISTING PPC
<input type="checkbox"/> EXISTING FLAGPOLE	<input type="checkbox"/> SITE SUPPORT CABINET	<input type="checkbox"/> PANELBOARD
<input type="checkbox"/> EXISTING FORT WORTH	<input checked="" type="checkbox"/> GPS	

T-MOBILE NORTHEAST LLC PROPOSES THE MODIFICATION OF AN UNMANNED WIRELESS BROADBAND FACILITY. ADDITION OF PROPOSED LTE 700 PANEL ANTENNAS & RRUS. REUSE EXISTING HYBRID CABLE, GPS ANTENNA AND EXISTING EQUIPMENT CABINETS.

#### SHEET INDEX

SHEET	DESCRIPTION	REVISION
T-1	TITLE SHEET	1
C-1	SITE PLAN	1
C-2	COMPOUND PLAN & ELEVATION	1
C-3	ANTENNA DETAIL & RF SCHEDULE	1
C-4	EQUIPMENT SPECIFICATIONS	1
E-1	GROUNDING AND POWER DIAGRAMS	1
E-2	COAX/FIBER PLUMBING DIAGRAM	1
N-1	GENERAL AND ELECTRICAL NOTES	1

#### DO NOT SCALE DRAWINGS

CONTRACTOR SHALL VERIFY PLANS AND EXISTING DIMENSIONS AND CONDITIONS ON THE JOB SITE AND SHALL IMMEDIATELY NOTIFY THE ARCHITECT IN WRITING OF ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK OR BE RESPONSIBLE FOR SAME.

**CALL:**  
**"CALL BEFORE YOU DIG"**  
**WWW.CBYD.COM**  
**CALL 811 OR 1-800-922-4455**

CALL THREE WORKING DAYS PRIOR TO DIGGING  
SAFETY PRECAUTIONS SHALL BE IMPLEMENTED BY CONTRACTOR(S) AT ALL TRENCHING IN ACCORDANCE WITH CURRENT CGM STANDARDS.

**COLOR CODE FOR UTILITY LOCATIONS**

ELECTRIC - RED	SEWER	- GREEN
GAS/OIL - YELLOW	SURVEY	- PINK
TEL/CATV - ORANGE	PROPOSED EXCAVATION	- WHITE
WATER - BLUE	RECLAIMED WATER	- PURPLE

**T-Mobile**  
T-MOBILE NORTHEAST LLC  
400 STREET ROAD  
BENSALEM, PA 19020

**INFINIGY**  
1033 Watervliet Shaker Rd  
Albany, NY 12205  
Office #: (518) 690-0790  
Fax #: (518) 690-0793

#### SUBMITTALS

DATE	DESCRIPTION	REVISION
8/25/15	REVISED/FOR PERMIT	0
8/11/15	REVISED/FOR PERMIT	1

DEPT.	DATE	APP'D	REVISIONS
RFE			
RF MAN.			
ZONING			
GPS			
CONSTR.			
SITE AC.			

PROJECT NO: 317-000  
DRAWN BY: MAP  
CHECKED BY: ASW



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SITE NUMBER:  
**CT11054A**

SITE NAME:  
CT11054A\_WALLINGFORD\_I-91\_X15  
1000 NORTHROP RD  
WALLINGFORD, CT 06492

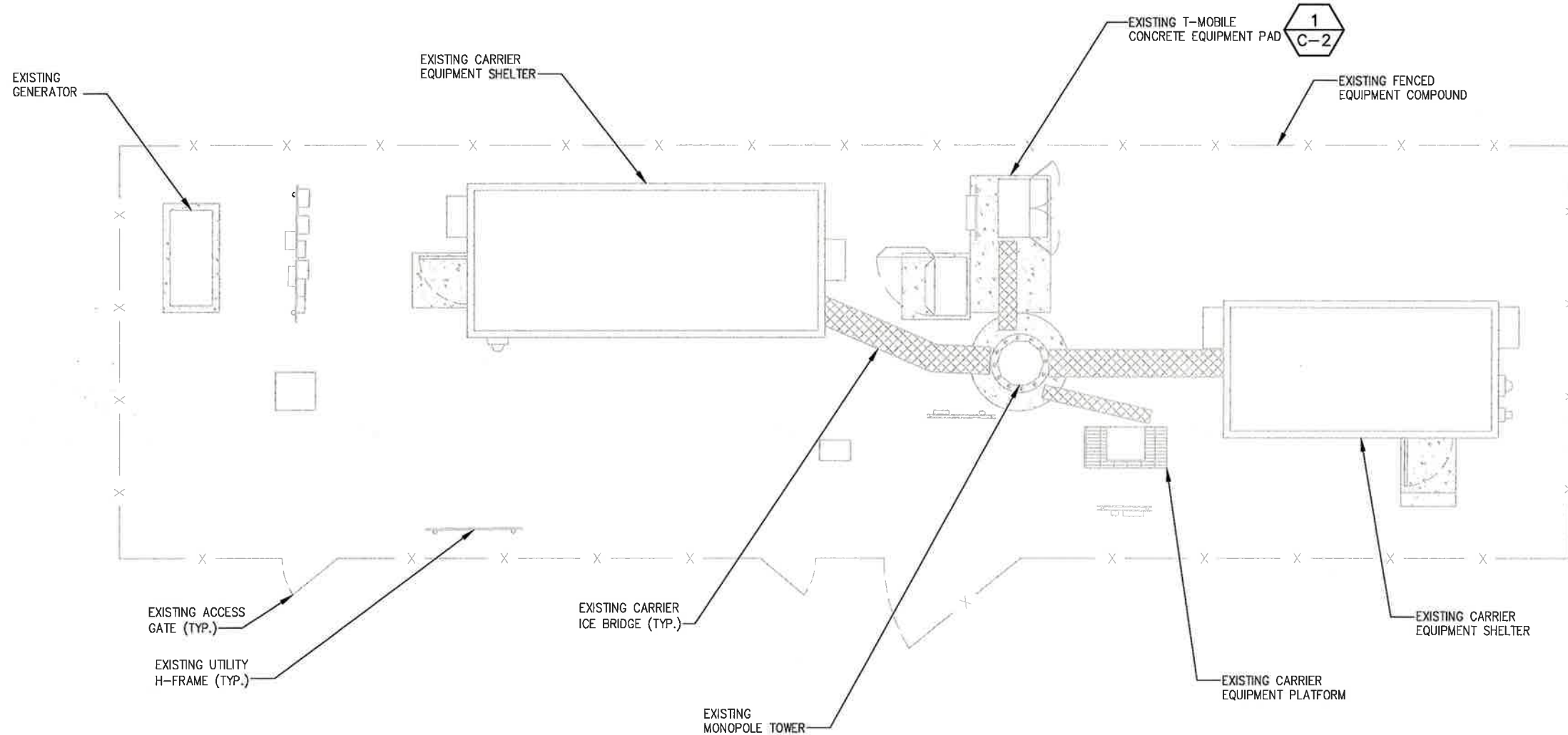
SHEET TITLE

**TITLE SHEET**

SHEET NUMBER

**T-1**

SHEET 1 OF 8 SHEETS



CALLED NORTH

**1**  
COMPOUND PLAN  
SCALE: AS NOTED

- GENERAL SITE NOTES:**
- A COMPLETE BOUNDARY SURVEY OF THE HOST PARCEL HAS NOT BEEN PERFORMED BY INFINIGY. BOUNDARY INFORMATION IF SHOWN WAS OBTAINED FROM INFORMATION PROVIDED BY OTHERS. PROPERTY IS SUBJECT TO ALL EASEMENTS AND RESTRICTIONS OF RECORD.
  - BASEMAPPING INFORMATION BASED ON PROVIDED INFORMATION.
  - CONTRACTOR TO FIELD VERIFY DIMENSIONS AS NECESSARY BEFORE CONSTRUCTION.
  - THE PROPOSED DEVELOPMENT DOES NOT INCLUDE SIGNS OF ADVERTISING.
  - THE PROPOSED DEVELOPMENT IS UNMANNED AND THEREFORE DOES NOT REQUIRE A MEANS OF WATER SUPPLY OR SEWAGE DISPOSAL.
  - NO LANDSCAPING WORK IS PROPOSED IN CONJUNCTION WITH THIS DEVELOPMENT OTHER THAN THAT WHICH IS SHOWN.
  - THE PROPOSED DEVELOPMENT DOES NOT INCLUDE OUTDOOR STORAGE OR ANY SOLID WASTE RECEPTACLES.
  - UTILITIES SHOWN ON PLAN ARE TAKEN FROM OWNERS RECORDS AND FIELD LOCATION OF VISIBLE SURFACE FEATURES. THE EXISTENCE, EXTENT AND EXACT HORIZONTAL AND VERTICAL LOCATIONS OF UTILITIES HAS NOT BEEN VERIFIED. ANY CONTRACTOR PERFORMING WORK ON THIS SITE MUST CONTACT MISS UTILITY AT LEAST 48 HOURS PRIOR TO COMMENCING WORK.
  - ALL OBSOLETE OR UNUSED FACILITIES SHALL BE REMOVED WITHIN 12 MONTHS OF CESSATION OF OPERATIONS.

**SITE LEGEND**

- SITE PROPERTY LINE
- STREET OR ROAD
- x-x- CHAIN LINK FENCE
- OPAQUE WOODEN FENCE
- ☉ TREES/SHRUBS
- ~~~~ TREE LINE
- ⊗ UTILITY POLE
- (E) EXISTING
- (N) NEW
- (P) PROPOSED
- (F) FUTURE



**INFINIGY**  
1033 Wallingford Shelter Rd  
Albany, NY 12205  
Office # (518) 894-0790  
Fax # (518) 894-0793

**SUBMITTALS**

DATE	DESCRIPTION	REVISION
8/25/15	REVISED FOR PERMIT	0
8/11/15	REVISED FOR PERMIT	1

DEPT.	DATE	APP'D	REVISIONS
R/E			
RF MAN.			
ZONING			
OPS			
CONSTR.			
SITE AC.			

PROJECT NO: 317-000  
DRAWN BY: MAP  
CHECKED BY: ASW



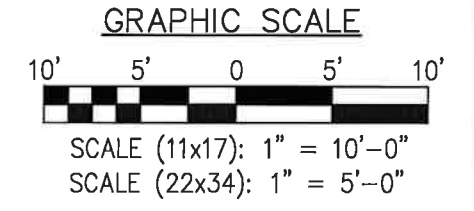
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SITE NUMBER: CT11054A  
SITE NAME: CT11054A\_WALLINGFORD\_I-91\_X15  
1000 NORTHROP RD  
WALLINGFORD, CT 06492

SHEET TITLE  
**SITE PLAN**

SHEET NUMBER  
**C-1**  
SHEET 2 OF 8 SHEETS



NOTE:  
 INFINIGY ENGINEERING HAS NOT EVALUATED THE  
 TOWER OR LOADING FOR THIS SITE, AND ASSUMES  
 NO RESPONSIBILITY FOR ITS STRUCTURAL  
 INTEGRITY REGARDING ITS EXISTING OR PROPOSED  
 LOADING. FINAL INSTALLATION TO COMPLY WITH  
 RESULTS OF PASSING STRUCTURAL ANALYSIS.

SUBMITTALS		
DATE	DESCRIPTION	REVISION
8/25/15	REVISED FOR PERMIT	0
9/11/15	REVISED FOR PERMIT	1

DEPT.	DATE	APP'D.	REVISIONS
R/E			
R/F MAN.			
ZONING			
OPS			
CONSTR.			
SITE AC.			

PROJECT NO: 317-000  
 DRAWN BY: MAP  
 CHECKED BY: ASW



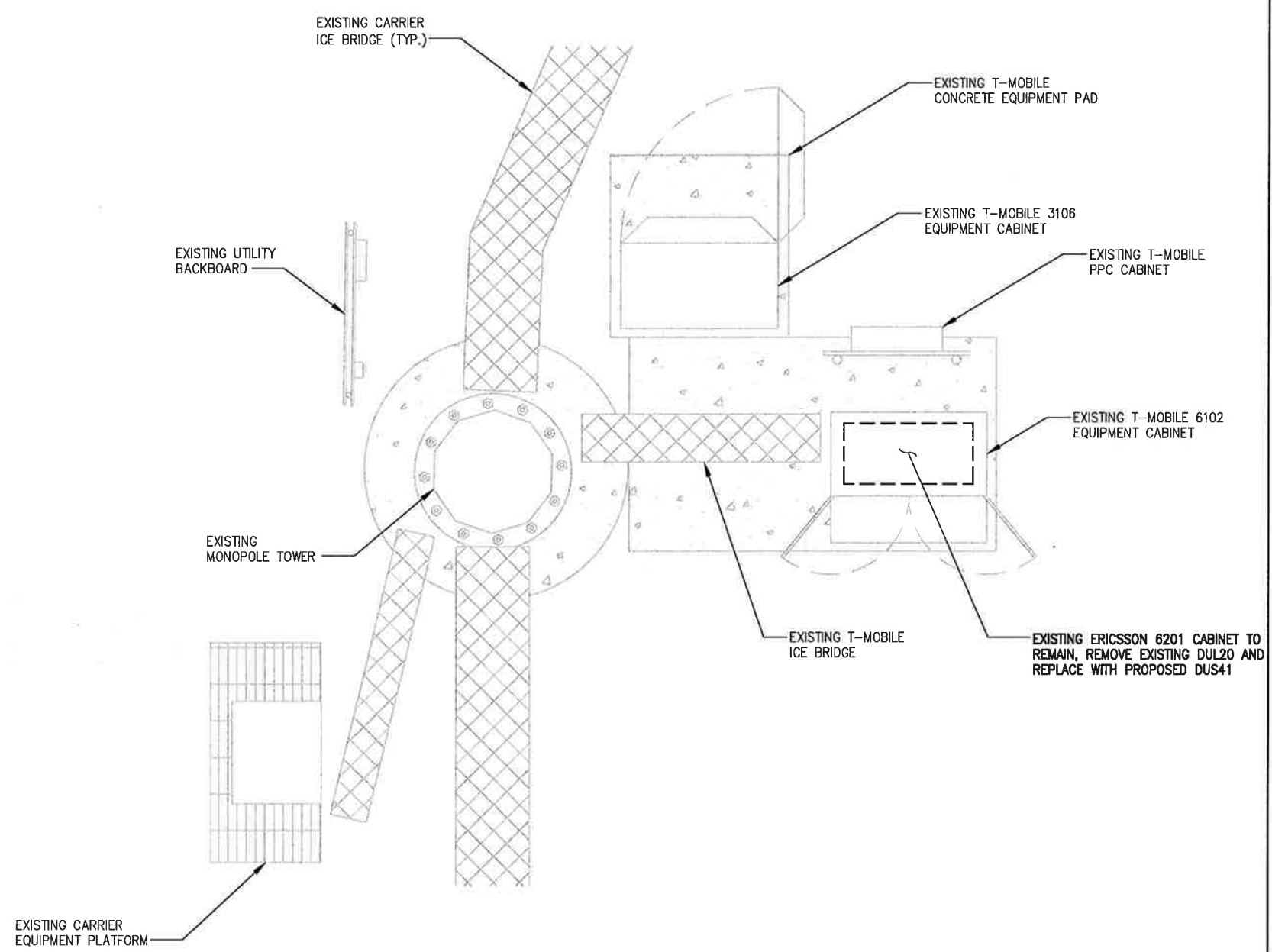
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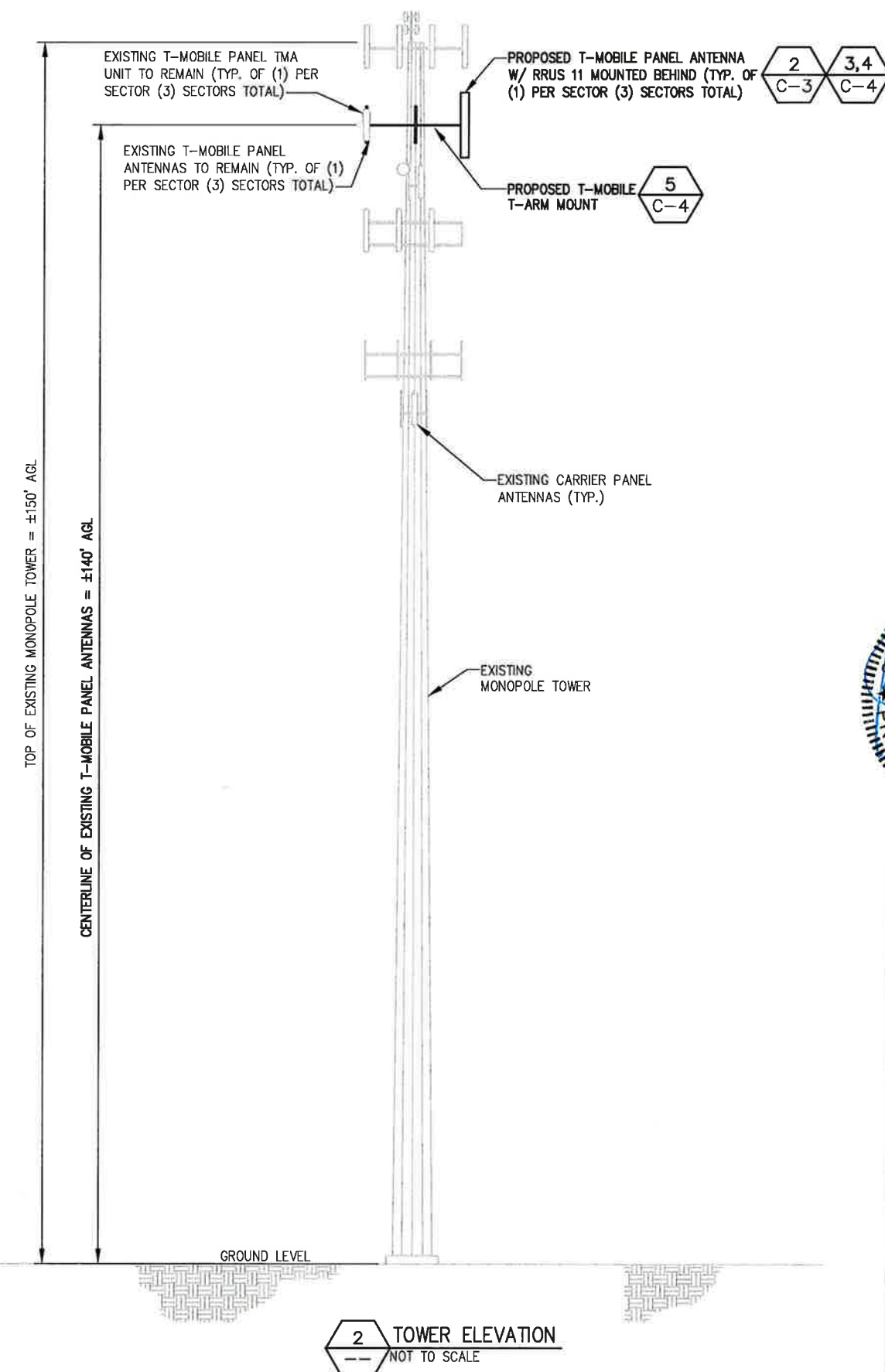
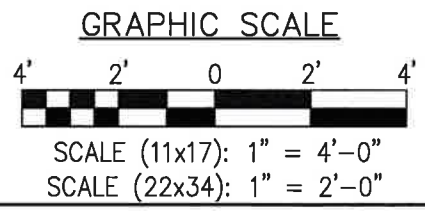
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**CT11054A**  
 SITE NAME:  
 CT11054A\_WALLINGFORD\_I-91\_X16  
 1000 NORTHROP RD  
 WALLINGFORD, CT 06492

SHEET TITLE  
**COMPOUND PLAN  
 & ELEVATION**

SHEET NUMBER  
**C-2**  
 SHEET 3 OF 8 SHEETS



**1** COMPOUND PLAN  
 SCALE: AS NOTED



**2** TOWER ELEVATION  
 NOT TO SCALE

RF SYSTEM SCHEDULE (702CC CONFIGURATION)

SECTOR	TECHNOLOGY	ANTENNA PORT	BAND	ANTENNA MODEL #	VENDOR	QTY (REMOVED)	QTY (NEW)	AZIMUTH	M-TILT	E-TILT	ANTENNA CENTERLINE	TMA MODEL #	VENDOR	RRU MODEL #	VENDOR	CABLE LENGTH	CABLE DIAMETER	CABLE TYPE	CABLE MODEL #	VENDOR	CABLE TAGGING	COLOR CODING	JUMPER TYPE	JUMPER TAGGING	COLOR CODING
A	LTE 700	TBD	B4A	AIR21 B4A/B12P	ERICSSON	0	1	80°	0°	7°	140'-0"	-	-	(PROPOSED) RRUS 11	ERICSSON	(ANTENNA CONNECTED VIA EXISTING HYBRID CABLE.)						FIBER	LTE 700 FIBER	-	
		TBD	B12P									(ANTENNA CONNECTED VIA EXISTING HYBRID CABLE.)						FIBER	LTE 700 FIBER	-					
	GSM	RF #1	B2A	ERICSSON	0	0	80°	0°	2°	140'-0"	-	-	-	-	(ANTENNA CONNECTED VIA EXISTING HYBRID CABLE.)						FIBER	-	-		
	UMTS	RF #2									(ANTENNA CONNECTED VIA EXISTING HYBRID CABLE.)						FIBER	-	-						
	UMTS	LMU #1	B4P	ERICSSON	0	0	80°	0°	2°	140'-0"	(EXISTING) KRY 112 144/1	ERICSSON	-	-	EXISTING	1 1/8"	COAX	EXISTING	N/A	LMU A1	-	COAX	-	-	
LMU #2		EXISTING									1 1/8"	COAX	EXISTING	N/A	LMU A2	-	COAX	-	-						
B	LTE 700	TBD	B4A	AIR21 B4A/B12P	ERICSSON	0	1	220°	0°	7°	140'-0"	-	-	(PROPOSED) RRUS 11	ERICSSON	(ANTENNA CONNECTED VIA EXISTING HYBRID CABLE.)						FIBER	LTE 700 FIBER	-	
		TBD	B12P									(ANTENNA CONNECTED VIA EXISTING HYBRID CABLE.)						FIBER	LTE 700 FIBER	-					
	GSM	RF #1	B2A	ERICSSON	0	0	220°	0°	2°	140'-0"	-	-	-	-	(ANTENNA CONNECTED VIA EXISTING HYBRID CABLE.)						FIBER	-	-		
	UMTS	RF #2									(ANTENNA CONNECTED VIA EXISTING HYBRID CABLE.)						FIBER	-	-						
	UMTS	LMU #1	B4P	ERICSSON	0	0	220°	0°	2°	140'-0"	(EXISTING) KRY 112 144/1	ERICSSON	-	-	EXISTING	1 1/8"	COAX	EXISTING	N/A	LMU A1	-	COAX	-	-	
LMU #2		EXISTING									1 1/8"	COAX	EXISTING	N/A	LMU A2	-	COAX	-	-						
C	GSM	RF #1	B2A	ERICSSON	0	0	310°	0°	2°	140'-0"	-	-	-	-	(ANTENNA CONNECTED VIA EXISTING HYBRID CABLE.)						FIBER	-	-		
		UMTS									RF #2	(ANTENNA CONNECTED VIA EXISTING HYBRID CABLE.)						FIBER	-	-					
	UMTS	LMU #1	B4P	ERICSSON	0	0	310°	0°	2°	140'-0"	(EXISTING) KRY 112 144/1	ERICSSON	-	-	EXISTING	1 1/8"	COAX	EXISTING	N/A	LMU A1	-	COAX	-	-	
		LMU #2									EXISTING	1 1/8"	COAX	EXISTING	N/A	LMU A2	-	COAX	-	-					
	LTE 700	TBD	B4A	AIR21 B4A/B12P	ERICSSON	0	1	310°	0°	7°	140'-0"	-	-	(PROPOSED) RRUS 11	ERICSSON	(ANTENNA CONNECTED VIA EXISTING HYBRID CABLE.)						FIBER	LTE 700 FIBER	-	
TBD		B12P	(ANTENNA CONNECTED VIA EXISTING HYBRID CABLE.)									FIBER	LTE 700 FIBER	-											

1 RF SCHEDULE  
NOT TO SCALE

KEY

EXISTING	R - RED - GSM
PROPOSED	G - GREEN - UMTS 1900
FIBER CONNECTION	B - BLUE - UMTS AWS
	Y - YELLOW - LTE
	O - ORANGE - FIBER CABLE

SUBMITTALS

DATE	DESCRIPTION	REVISION
8/25/15	REVISED FOR PERMIT	0
9/11/15	REVISED FOR PERMIT	1

DEPT.	DATE	APP'D	REVISIONS
RF MAN.			
ZONING			
OPS			
CONSTR.			
SITE AC.			

PROJECT NO: 317-000  
DRAWN BY: MAP  
CHECKED BY: ASW



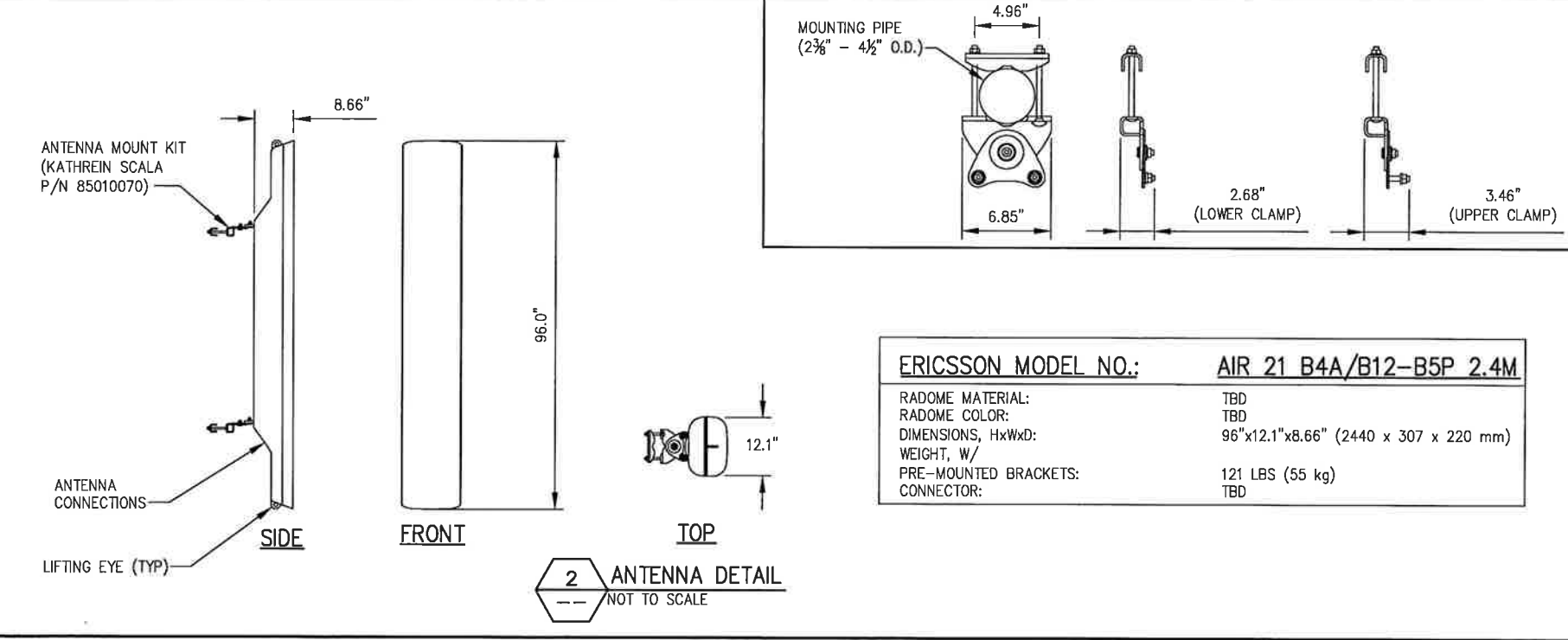
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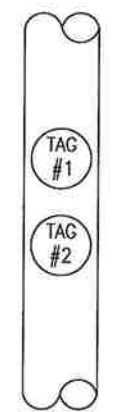
SHEET TITLE  
**ANTENNA DETAIL & RF SCHEDULE**

SHEET NUMBER  
**C-3**  
SHEET 4 OF 8 SHEETS



ERICSSON MODEL NO.: AIR 21 B4A/B12-B5P 2.4M

RADOME MATERIAL:	TBD
RADOME COLOR:	TBD
DIMENSIONS, HxWxD:	96"x12.1"x8.66" (2440 x 307 x 220 mm)
WEIGHT, W/	
PRE-MOUNTED BRACKETS:	121 LBS (55 kg)
CONNECTOR:	TBD



- METALLIC TAG NOTES:
- TWO METALLIC TAGS SHALL BE ATTACHED AT EACH END OF EVERY CABLE LONGER THAN (3) THREE FEET.
  - CABLES LESS THAN (3) THREE FEET WILL HAVE TWO METALLIC TAGS ATTACHED AT THE CENTER OF THE CABLE.
  - TAGS WILL BE FASTENED WITH STAINLESS STEEL ZIP TIES APPROPRIATE FOR CABLE DIAMETER.
  - STANDARDIZED METALLIC TAG KITS WILL BE ASSEMBLED WITH TAGS ALREADY ENGRAVED TO ACCOMODATE ALL CONFIGURATIONS.

**SUBMITTALS**

DATE	DESCRIPTION	REVISION
8/25/15	REVISED FOR PERMIT	0
9/11/15	REVISED FOR PERMIT	1

DEPT.	DATE	APP'D	REVISIONS
RFE			
RF MAN.			
ZONING			
OPS			
CONSTR.			
SITE AC.			

PROJECT NO: 317-000  
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1000 NORTHROP RD  
WALLINGFORD, CT 06492

SHEET TITLE

**EQUIPMENT SPECIFICATIONS**

SHEET NUMBER

**C-4**

SHEET 5 OF 8 SHEETS

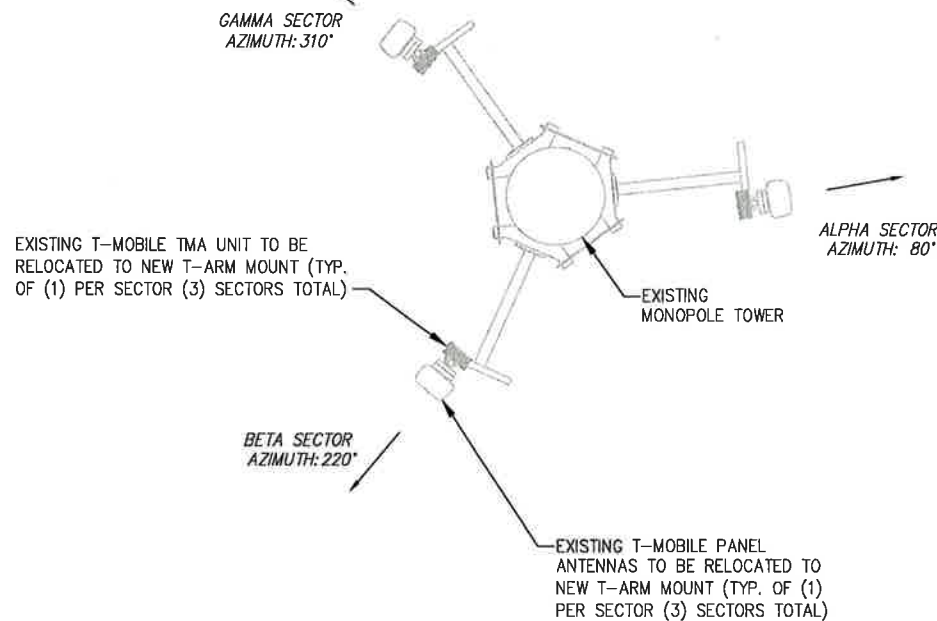
**STRUCTURAL NOTES:**

1. SPECIFICATIONS / CODES:

- CONCRETE WORK SHALL BE PERFORMED IN ACCORDANCE WITH LATEST EDITION OF THE ACI CODE.
- STEEL WORK SHALL BE PERFORMED IN ACCORDANCE WITH AISC STEEL CONSTRUCTION MANUAL, 9TH EDITION.
- WELDING SHALL BE PERFORMED IN ACCORDANCE WITH AMERICAN WELDING SOCIETY (AWS) D1.1-92 "STRUCTURAL WELDING" CODE-STEEL.
- REINFORCING STEEL SHALL BE PLACED IN ACCORDANCE WITH THE CONCRETE REINFORCING STEEL INSTITUTE (CRSI), "MANUAL OF STANDARD PRACTICE."

2. MATERIALS:

- CONCRETE: fc' - 3000psi. (MIN. U.N.O.)
- REINFORCING STEEL: ASTM A615, GRADE 60.
- WIRE MESH: ASTM A185.
- STRUCTURAL STEEL: ASTM A36.
- ELECTRODES FOR WELDING: E 70xx.
- GALVANIZING: ASTM A153 (BOLTS) OR ASTM A123 (SHAPES, PLATES).
- EXPANSION BOLTS: HILTI KWIK BOLT II, STAINLESS STEEL, 3/4"x43/4" EMBEDMENT OR AN APPROVED EQUAL.

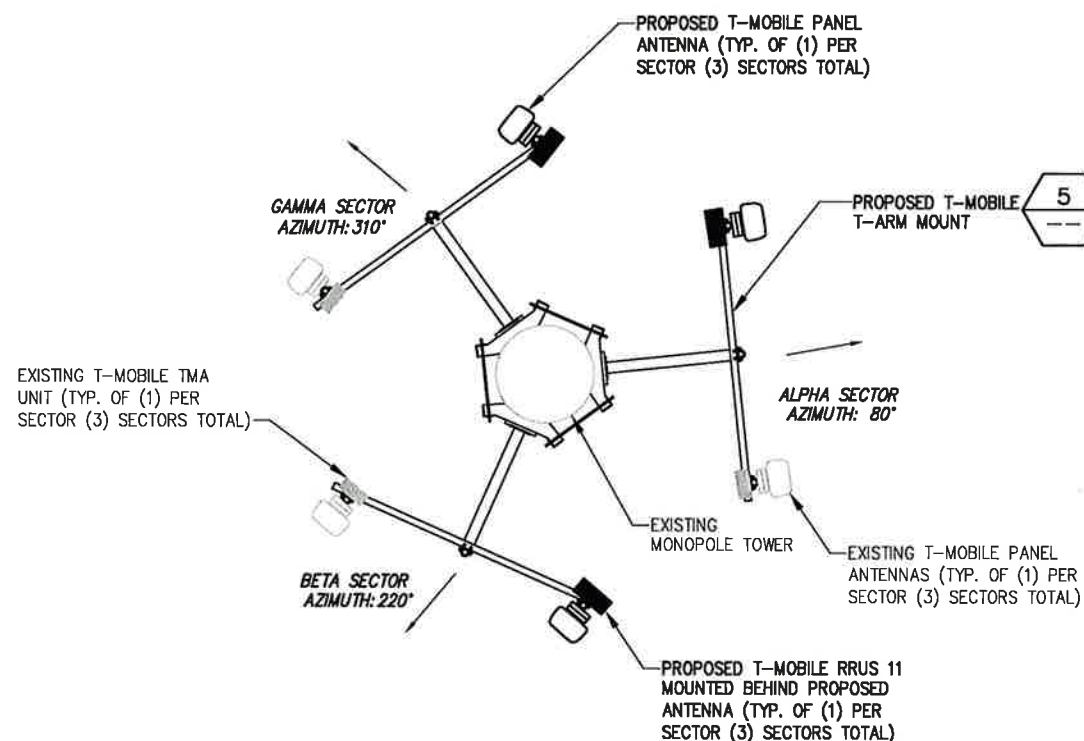


CALLED NORTH



2 EXISTING ANTENNA ORIENTATION PLAN

NOT TO SCALE

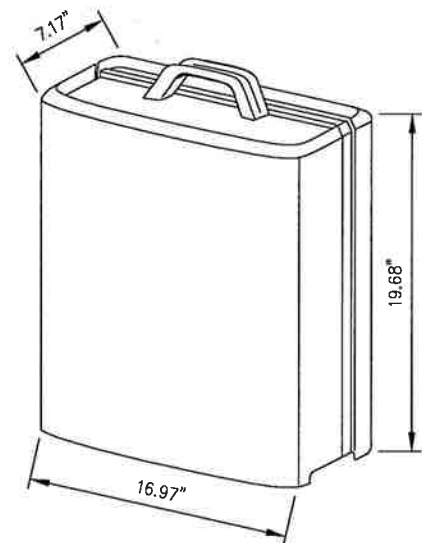


CALLED NORTH



2 PROPOSED ANTENNA ORIENTATION PLAN

NOT TO SCALE

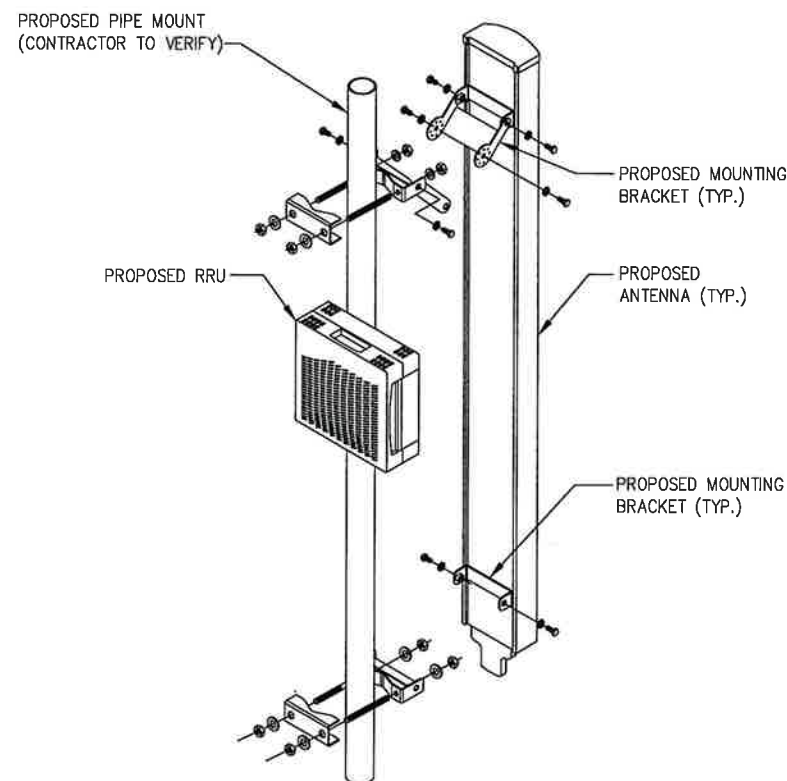


ERICSSON MODEL NO.:	RRUS11 B12
COLOR:	GRAY
DIMENSIONS, HxWxD:	19.68"x16.97"x7.17" (500 x 431 x 182 mm)
WEIGHT:	50.71 LBS (23 kg)



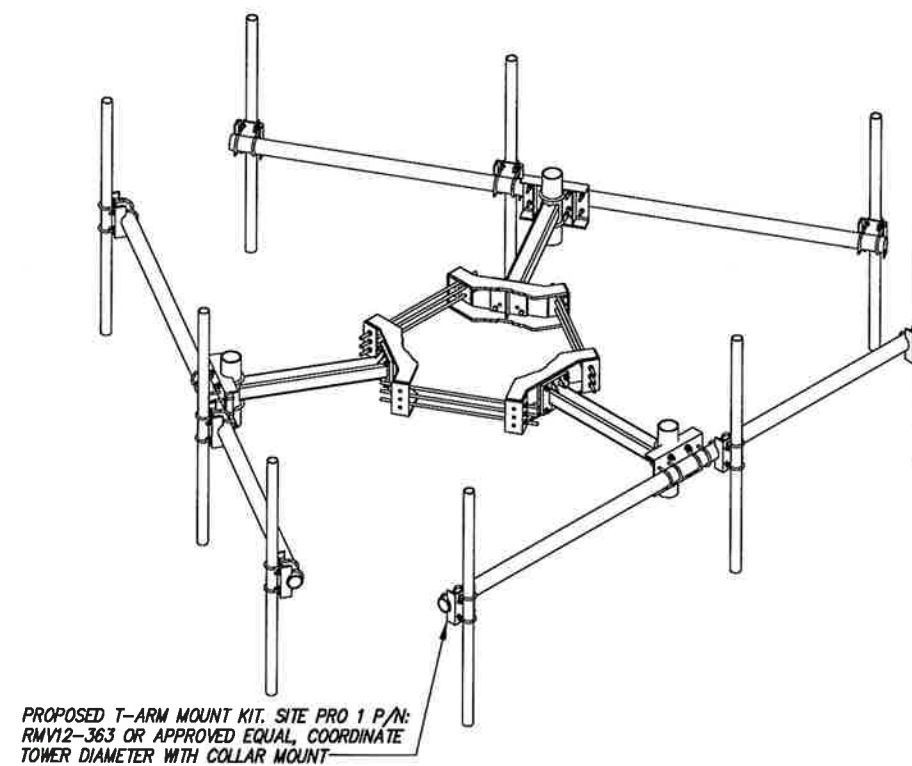
3 RRUS11 B12 DETAIL

NOT TO SCALE



4 MOUNTING DETAIL

NOT TO SCALE



5 SECTOR MOUNT DETAIL

NOT TO SCALE

SUBMITTALS		
DATE	DESCRIPTION	REVISION
8/25/15	REVISED FOR PERMIT	0
9/11/15	REVISED FOR PERMIT	1

DEPT.	DATE	APP'D	REVISIONS
R/E			
RF MAN.			
ZONING			
OPS			
CONSTR.			
SITE AC.			

PROJECT NO: 317-000  
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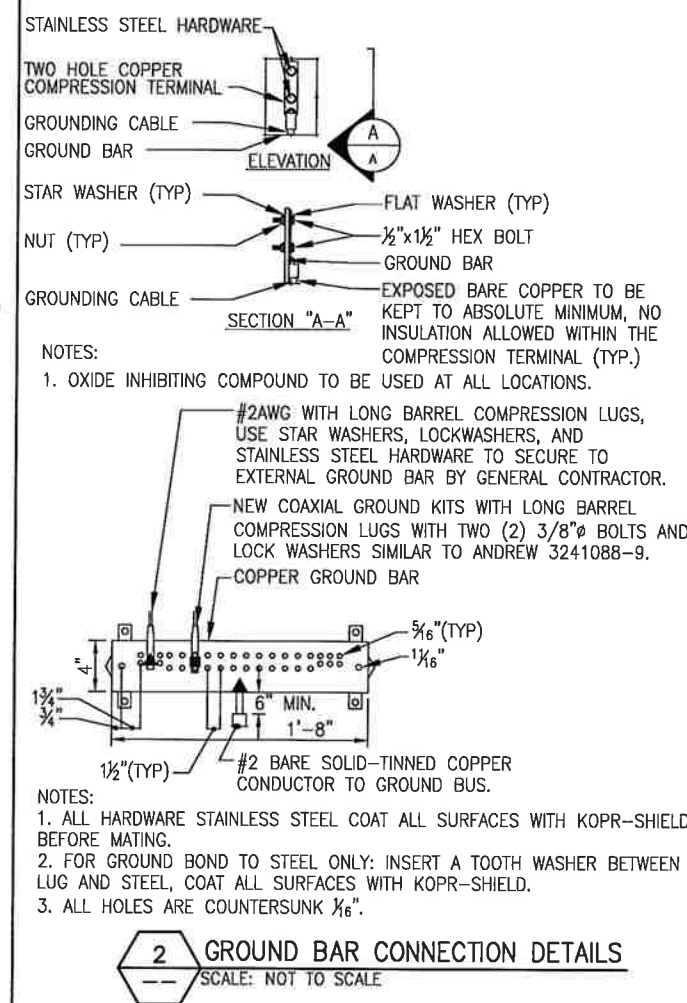
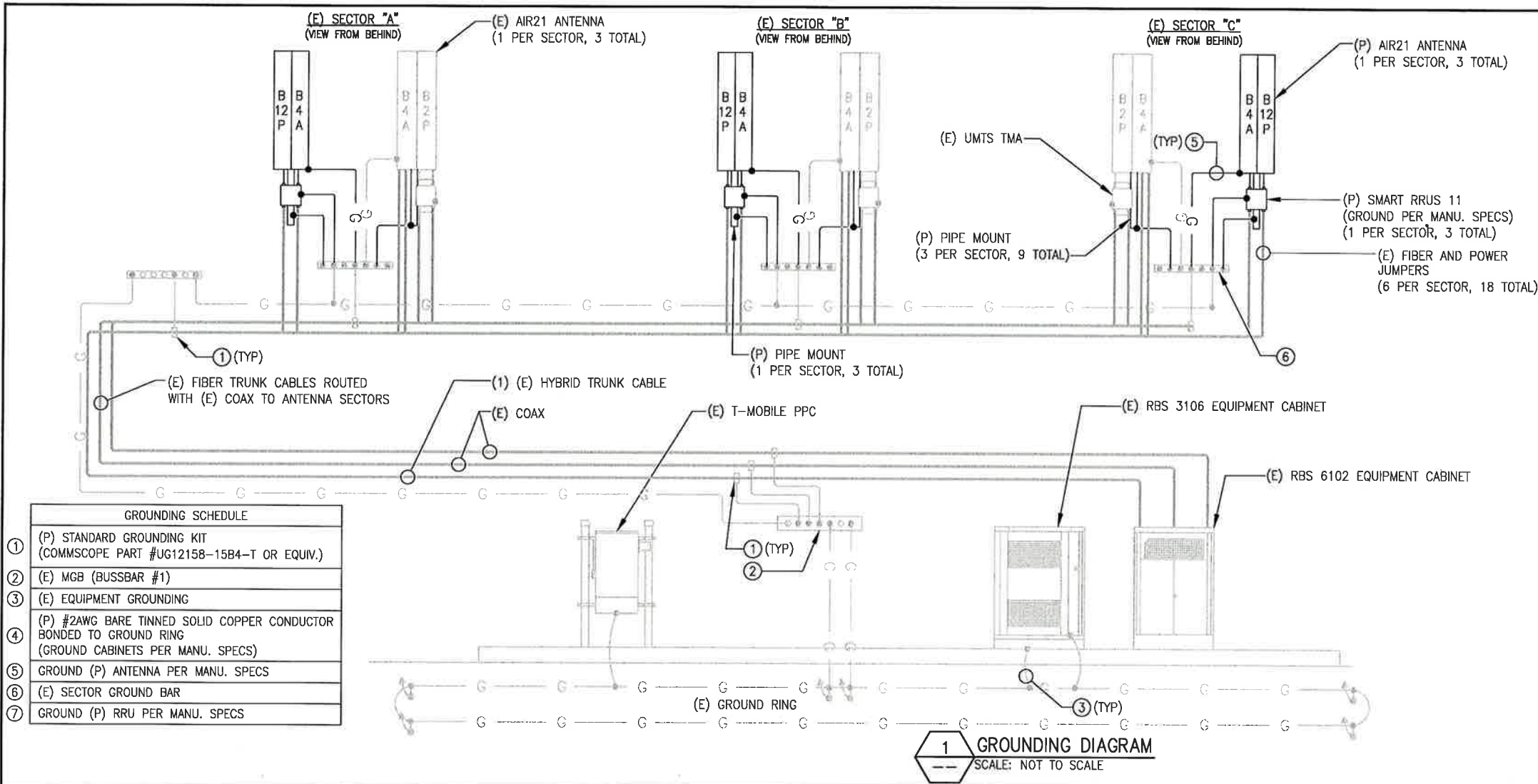
SITE NUMBER: CT11054A  
SITE NAME: CT11054A\_WALLINGFORD\_I-91\_X15  
1000 NORTHROP RD  
WALLINGFORD, CT 06492

SHEET TITLE  
**GROUNDING & POWER DIAGRAMS**

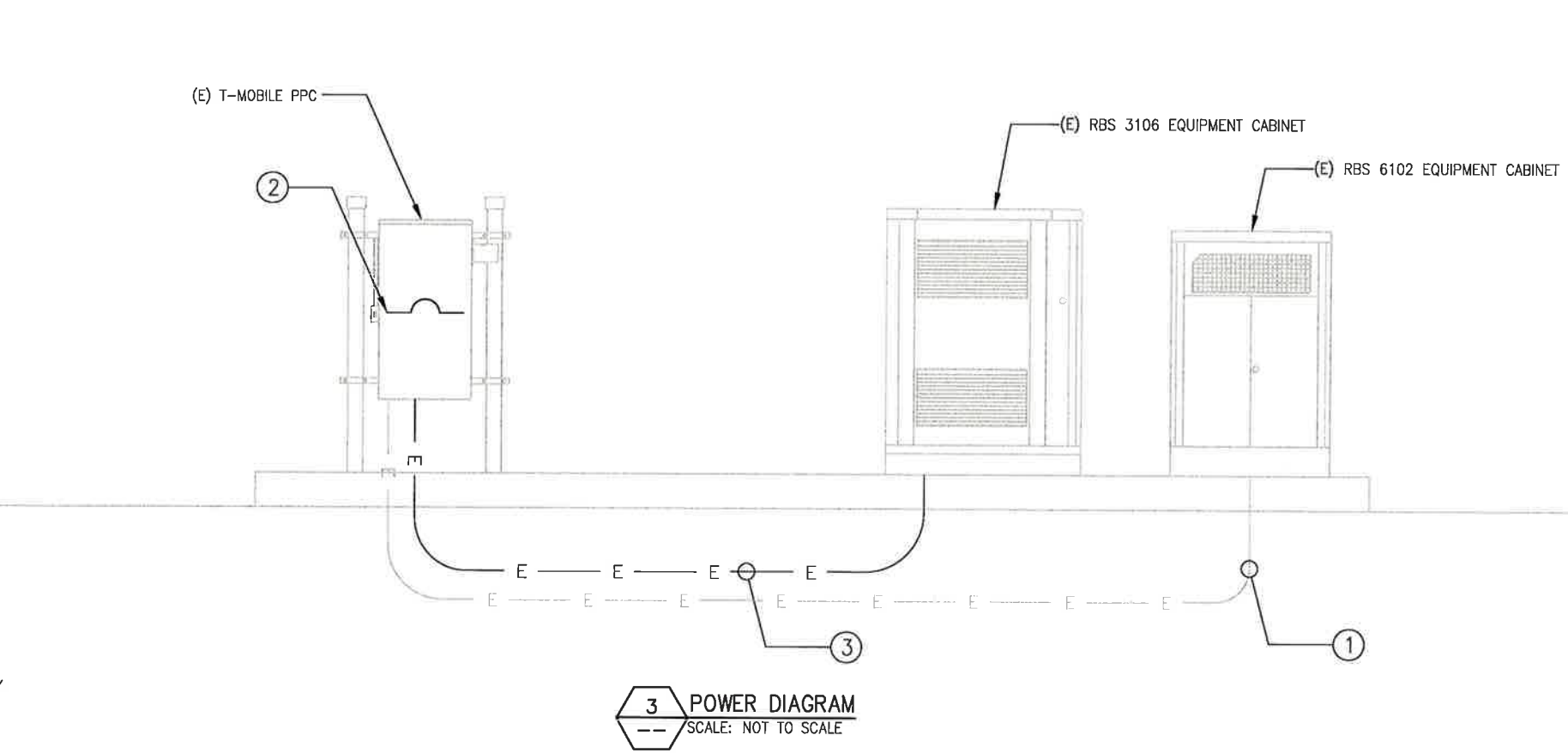
SHEET NUMBER

**E-1**

SHEET 6 OF 8 SHEETS



CONDUIT SCHEDULE	
1	(P) WIRE AND CONDUIT UPGRADE FOR POWER
2	(P) 100A BREAKER UPGRADE
2	(E) POWER CONDUIT

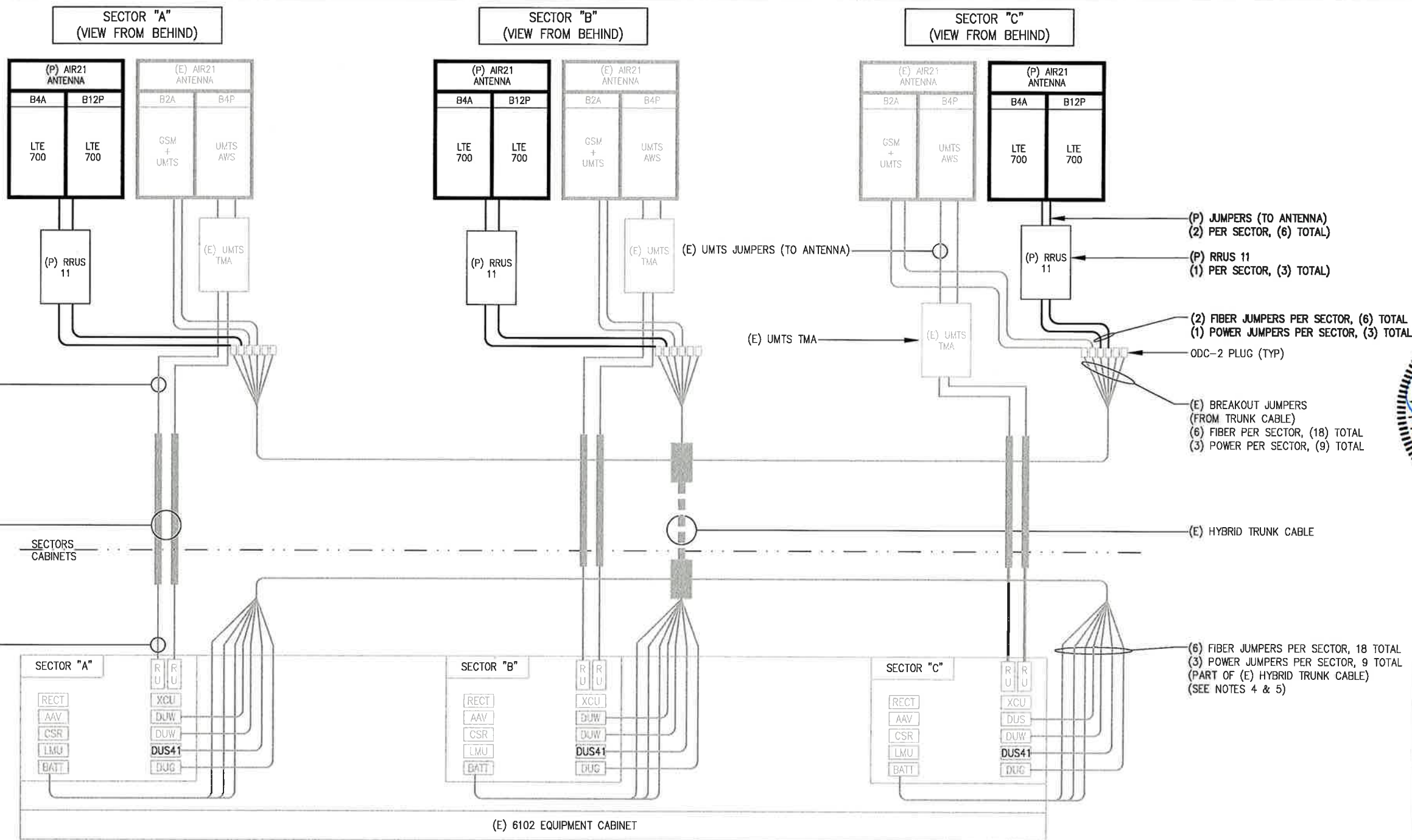


NOTE: INFINIGY HAS NOT CONDUCTED AN ELECTRICAL LOAD STUDY FOR THIS SITE. CONTRACTOR IS TO VERIFY EXISTING ELECTRICAL LOADING PRIOR TO CONSTRUCTION TO ENSURE EXISTING INCOMING SERVICE CAPACITY. ALL ELECTRICAL INSTALLATION IS TO COMPLY WITH NEC, ADOPTED VERSION.

**CONTRACTOR NOTE:**  
CONTRACTOR TO VERIFY THAT THE EXISTING CONDUITS AND WIRE SIZES ARE ADEQUATE FOR THE PROPOSED LOADING IN ACCORDANCE WITH NEC AND INCLUDE ELECTRICAL UPGRADES IN THE SCOPE OF WORK AS REQUIRED.



- NOTES:**
1. TAG ALL EXISTING AND PROPOSED CABLES/JUMPERS PER T-MOBILE SPECIFICATIONS (SEE RF SCHEDULE/C-3)
  2. SEE RF SCHEDULE/C-3 FOR CABLE AND JUMPER LENGTHS.
  3. IF NEW GPS ADDED TO SITE, CAP AND WEATHERPROOF ANY UNUSED COAX FOR FUTURE USE.
  4. TRIM POWER JUMPERS PER MANU. SPECS TO CORRECT LENGTH FOR CONNECTION.
  5. COIL EXCESS FIBER IN CABINET BASE.



SUBMITTALS		
DATE	DESCRIPTION	REVISION
8/25/15	REVISED FOR PERMIT	0
9/11/15	REVISED FOR PERMIT	1

DEPT.	DATE	APP'D	REVISIONS
RFE			
RF MAN.			
ZONING			
OPS			
CONSTR.			
SITE AC.			

PROJECT NO: 317-000  
DRAWN BY: MAP  
CHECKED BY: ASW



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CT11054A\_WALLINGFORD\_I-91\_X15  
1000 NORTHROP RD  
WALLINGFORD, CT 06492

**SHEET TITLE**  
**COAX/FIBER PLUMBING DIAGRAM**

**SHEET NUMBER**  
**E-2**  
SHEET 7 OF 8 SHEETS

**1** 702CC CONFIGURATION COAX/FIBER PLUMBING DIAGRAM  
NOT TO SCALE



VOL. 789 PAGE 0341



Town of Wallingford, Connecticut

# 407-94

SPECIAL PERMIT

ISSUED TO:

NAME SMART SMR OF NEW YORK

ADDRESS 575 Corporate Drive, Suite 402; Mahwah, NJ 07430

ISSUED FOR: 1,650 sq. ft. mobile radio transmission facility  
163 ft. radio tower

OWNER OF PROPERTY Anthony D. Autorino

LEGAL DESCRIPTION OF PROPERTY 1000  
890 Northrup Road

CONDITIONS OF PERMIT:

1. Mr. Costello's comments concerning the "T" driveway
- 2.
- 3.
- 4.

DATE APPROVED BY PZC June 13, 1994

WALLINGFORD PLANNING AND ZONING COMMISSION

RECEIVED FOR RECORD JUN 22 1994 BY *[Signature]*  
AT 3:12 P.M. AND RECORDED BY *[Signature]* ASSISTANT TOWN PLANNER  
*[Signature]* TOWN CLERK