

Alex Murshteyn, Site Acquisition
c/o T-Mobile Northeast LLC ("T-Mobile")
Centerline Communications, LLC
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July 26, 2017

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

**RE: Notice of Exempt Modification // Site Number: CTHA515A (ATC: 302473)
310 Prestige Park Road (aka Drive), East Hartford, CT 06108
N 41.78817 // W -72.60076**

Dear Ms. Bachman:

T-Mobile Northeast LLC ("T-Mobile", f/k/a MetroPCS) currently maintains 6 antennas at the 128-foot mount on the existing 150-foot monopole tower, located at 310 Prestige Park Road (aka 284-310 Prestige Park Road, aka 310 (2) Prestige Park Drive), East Hartford, CT. The tower is owned by American Tower. The property is owned by Fremont Prestige Park, LLC c/o Fremont Management, LLC. T-Mobile now intends to replace 3 of its existing antennas and the existing mounts with 6 new LTE (L700/L1900/L2100) antennas on a new platform for its PCS/AWS and L700 upgrade. Additionally, T-Mobile will install 3 new Smart Bias Ts with its new antennas, as well as 1 new hybrid fiber (HCS) cable; and certain in-cabinet upgrades at the base.

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 Marcia A. Leclerc, Mayor for the Town of East Hartford, the Town's Development Department including Planning & Zoning Commission staff, American Tower, the tower owner, and the ground owners, Fremont Prestige Park, LLC c/o Fremont Management, LLC.

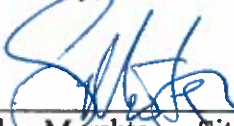
The planned modifications to the facility fall squarely within those activities explicitly provided for in R.C.S.A. § 16-50j-72(b)(2).

Enclosed to accommodate this filing are construction drawings dated July 11, 2017 by ATC Tower Services, a structural analysis dated July 13, 2017 by A.T. Engineering Service, PLLC together with reinforcement drawings dated July 5, 2017 by ATC Tower Services, and an RF Emissions Analysis Report dated July 16, 2017 by EBI Consulting.

1. The proposed modifications will not result in an increase in the height of the existing structure.
2. The proposed modifications will not require the extension of the site boundary.
3. The proposed modifications will not increase noise levels at the facility by six decibels or more, or to levels that exceed state and local criteria.
4. The operation of the new 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, pursuant to the monopole modifications reinforcement drawings by ATC Tower Services and structural analysis by A.T. Engineering Service, PLLC, dated July 5, 2017 and July 13, 2017, respectively.

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

Sincerely,



Alex Murshteyn, Site Acquisition
c/o T-Mobile Northeast LLC
Centerline Communications, LLC
95 Ryan Drive, Suite 1
Raynham, MA 02767
Mobile: (508) 821-0159
AMurshteyn@centerlinecommunications.com

Attachments

cc: Marcia A. Leclerc, Mayor, Town of E. Hartford - as elected official - 1Z9Y45030325532222
Town of E. Hartford Development Department - as P&Z officials - 1Z9Y45030337437830
American Tower Corporation - as tower owner - 1Z9Y45030326636449
Fremont Management, LLC - in care of property owners - 1Z9Y45030334028055



AMERICAN TOWER®
CORPORATION

Post- Modification Structural Analysis Report

Structure : 150 ft Monopole
ATC Site Name : E H F R - Prestige Park, CT
ATC Site Number : 302473
Engineering Number : OAA696438_C4_07
Proposed Carrier : Metro PCS
Carrier Site Name : ATC E. Hartford Monopole
Carrier Site Number : CTHA515A
Site Location : 310 Prestige Park Rd.
East Hartford, CT 06108-1206
41.788300,-72.600600
County : Hartford
Date : July 13, 2017
Max Usage : 99%
Result : Pass *

Prepared By:
Kelsey Sargent, E.I.
Structural Engineer I

Reviewed By:



Jul 14 2017 11:36 AM

COA: PEC.0001553



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Introduction

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

Supporting Documents

Tower Drawings	SpectraSite Drawing #D1, dated June 12, 2002
Foundation Drawing	Southern New England Telephone Job #38904, dated April 20, 1983
Geotechnical Report	GeoTechnologies Project #1-02-1122-EA, dated September 6, 2002
Modifications	ATC Project #51574133, dated January 17, 2013 ATC Project #63706335, dated October 19, 2015 ATC Project #OAA696438_C6_05, dated July 11, 2017 (Pending)

Analysis

The tower was analyzed using American Tower Corporation's tower analysis software. This program considers an elastic three-dimensional model and second-order effects per ANSI/TIA-222.

Basic Wind Speed:	97 mph (3-Second Gust, V_{asd}) / 125 mph (3-Second Gust V_{ult})
Basic Wind Speed w/ Ice:	50 mph (3-Second Gust) w/ 1" radial ice concurrent
Code:	ANSI/TIA-222-G / 2012 IBC / 2016 Connecticut State Building Code
Structure Class:	II
Exposure Category:	B
Topographic Category:	1
Crest Height:	0 ft
Spectral Response:	$S_s = 0.18$, $S_1 = 0.06$
Site Class:	D - Stiff Soil

Conclusion

Based on the analysis results, the structure meets the requirements per the applicable codes listed above. The tower and foundation can support the equipment as described in this report. If the pending modifications cited in the Supporting Documents table are not completed, the results of this analysis are no longer valid, and Metro PCS should contact American Tower's Site Manager for further direction on how to proceed.

If you have any questions or require additional information, please contact American Tower via email at Engineering@americantower.com. Please include the American Tower site name, site number, and engineering number in the subject line for any questions.



Existing and Reserved Equipment

Elevation ¹ (ft)		Qty	Antenna	Mount Type	Lines	Carrier
Mount	RAD					
150.0	157.0	12	Powerwave 7020.00 Dual Band RET	Platform w/ Handrails	(12) 7/8" Coax (4) 0.78" 8 AWG 6 (2) 0.39" Fiber Trunk (1) 3/8" RET Control Cable	AT&T Mobility
		6	Powerwave LGP21401			
		2	Raycap DC6-48-60-18-8F			
		3	Ericsson RRUS 11 (Band 12) (55 lb)			
		3	Ericsson RRUS 12 w/ RRUS A2			
		3	Ericsson RRUS-32			
		6	Powerwave 7770.00 (27 lbs)			
		3	CCI OPA-65R-LCUU-H6			
141.0	141.0	3	RFS IBC1900BB-1	T-Arms	(4) 1 1/4" Hybriflex	Sprint Nextel
		3	RFS IBC1900HG-2A			
		6	Alcatel-Lucent 4X40W RRH			
		3	Alcatel-Lucent 800MHz RRH w/ Notch Filter			
		3	Alcatel-Lucent TD-RRH8x20-25 w/ Solar Shield			
		3	RFS APXVTM14-C-I20			
		2	RFS APXV9ERR18-C-A20			
1	RFS APXVSPP18-C-A20					
128.0	131.0	3	Ericsson AIR 21, 1.3M, B4A B2P (90.4 lbs)	T-Arms	(6) 1 5/8" Coax (1) 1 5/8" Hybriflex	Metro PCS
115.0	119.0	3	DragonWave Horizon Compact	Collar	(6) 5/16" Coax (3) 1/2" Coax (1) 2" Conduit	Clearwire
		1	12" x 12" Junction Box			
		1	DragonWave A-ANT-23G-1-C			
		3	NextNet BTS-2500			
		3	Argus LLPX310R			
		2	DragonWave A-ANT-23G-2-C			
103.0	103.0	3	Alcatel-Lucent RRH2X60-1900A-4R	Platform w/ Handrails	(2) 1.58" Hybrid	Verizon
		3	Alcatel-Lucent RRH2x60 700			
		3	Alcatel-Lucent RRH2X60-AWS Band 4			
		2	RFS DB-T1-6Z-8AB-OZ			
		12	Andrew SBNHH-1D65B			
36.0	36.0	1	GPS	Stand-off	(1) 1/2" Coax	Sprint Nextel
31.0	31.0	1	GPS	Stand-off	(1) 1/2" Coax	AT&T Mobility

Equipment to be Removed

Elevation ¹ (ft)		Qty	Antenna	Mount Type	Lines	Carrier
Mount	RAD					
128.0	128.0	3	Ericsson AIR 21, 1.3M, B2A B4P	-	(1) 1 5/8" Hybriflex	Metro PCS



Proposed Equipment

Elevation ¹ (ft)		Qty	Antenna	Mount Type	Lines	Carrier
Mount	RAD					
128.0	128.0	3	Ericsson AIR32 B66Aa/B2a	T-Arms	(1) 1 1/4" Fiber	Metro PCS
		3	Andrew LNX-6515DS-A1M			

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

Install proposed coax outside the pole shaft. Stacking coax is not allowed.



Structure Usages

Structural Component	Controlling Usage	Pass/Fail
Anchor Bolts	73%	Pass
Shaft	85%	Pass
Base Plate	46%	Pass
Flanges	88%	Pass
Reinforcement	99%	Pass

Foundations

Reaction Component	Analysis Reactions	% of Usage
Moment (Kips-Ft)	3,128.7	97%
Axial (Kips)	42.4	24%
Shear (Kips)	30.2	43%

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) (°)
128.0	Ericsson AIR32 B66Aa/B2a	Metro PCS	2.247	2.012
	Andrew LNX-6515DS-A1M			
115.0	DragonWave A-ANT-23G-1-C	Clearwire Corporatio	1.825	1.730
	DragonWave A-ANT-23G-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:

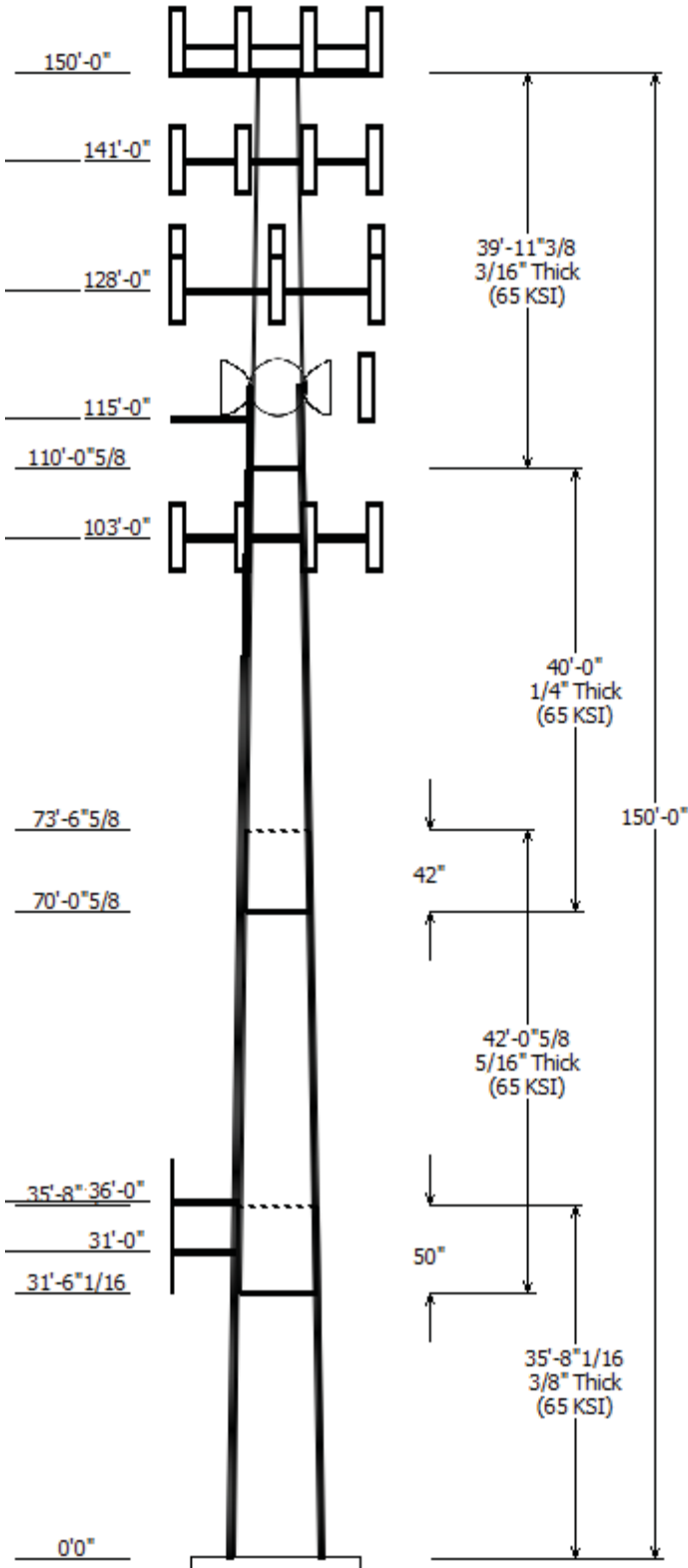
- Information supplied by the client regarding the structure itself, antenna, mounts and feed line loading on the structure and its components, or other relevant information.
- Information from drawings in the possession of American Tower Corporation, or generated by field inspections or measurements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

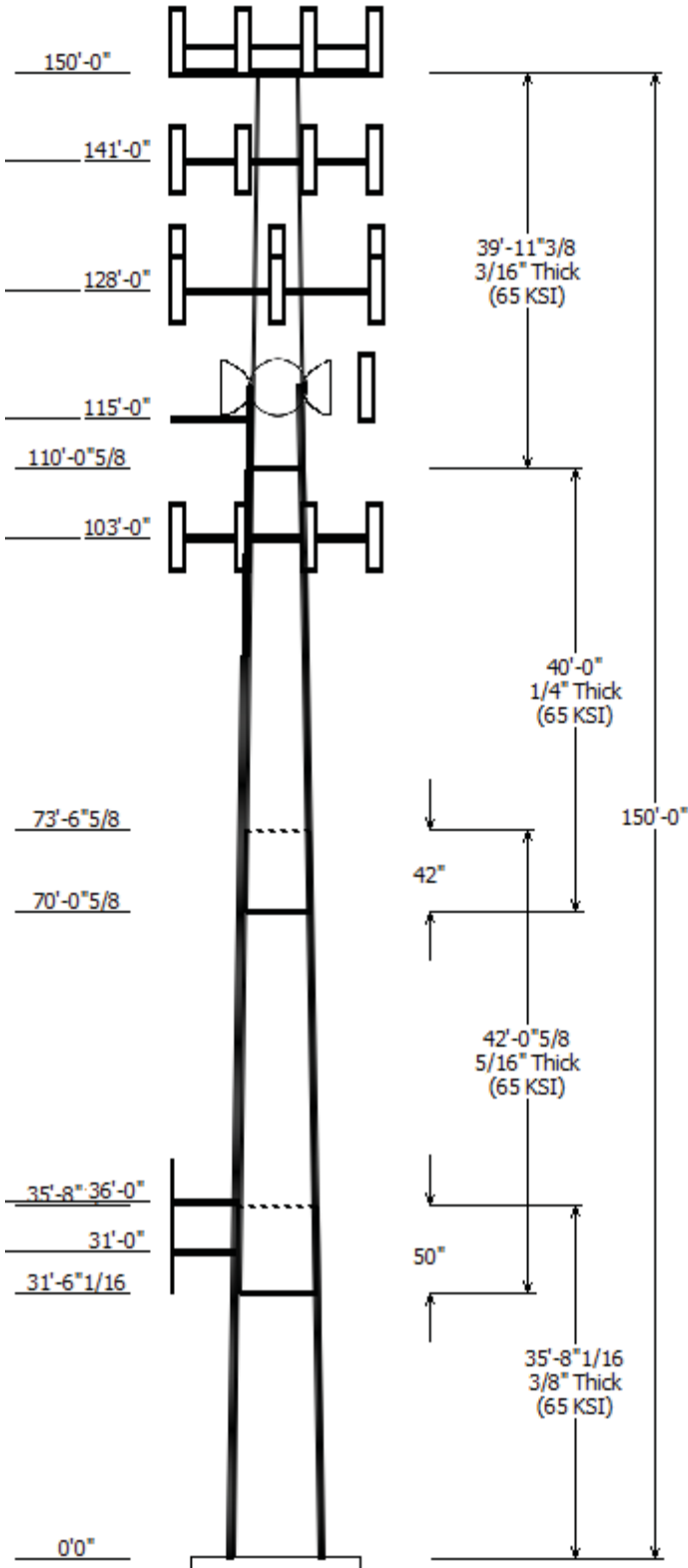
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Job Information	
Pole :	302473
Code :	ANSI/TIA-222-G
Description :	150' ITT Meyer Type "B" Monopole
Client :	METRO PCS INC
Struct Class :	II
Location :	E H F R - Prestige Park, CT
Shape :	12 Sides
Exposure :	B
Height :	150.00 (ft)
Topo :	1
Base Elev (ft):	0.00
Taper:	0.156567(in/ft)

Sections Properties								
Shaft Section	Length (ft)	Diameter (in)		Thick (in)	Joint Type	Overlap Length (in)	Steel Taper (in/ft)	Steel Grade (ksi)
		Across Top	Flats Bottom					
1	35.670	31.77	37.36	0.375		0.000	0.156600	65
2	42.050	26.46	33.05	0.313	Slip Joint	50.000	0.156600	65
3	40.000	21.25	27.51	0.250	Slip Joint	42.000	0.156600	65
4	39.947	15.00	21.25	0.188	Butt Joint	0.000	0.156600	65

Discrete Appurtenance			
Attach Elev (ft)	Force Elev (ft)	Qty	Description
150.000	150.000	1	Round Platform w/ Handrails
150.000	150.000	3	Flat Side Arm
150.000	157.000	12	Powerwave 7020.00 Dual Band
150.000	157.000	6	Powerwave Allgon 7770.00 (27
150.000	157.000	3	Ericsson RRUS 12 w/ RRUS A2
150.000	157.000	3	CCI OPA-65R-LCUU-H6
150.000	157.000	3	Ericsson RRUS-32
150.000	157.000	2	Raycap DC6-48-60-18-8F
150.000	157.000	3	Ericsson RRUS 11 (Band 12) (55
150.000	157.000	6	Powerwave LGP21401
141.000	141.000	3	Round T-Arm
141.000	141.000	1	RFS APXVSP18-C-A20
141.000	141.000	2	RFS APXV9ERR18-C-A20
141.000	141.000	3	RFS APXVTM14-C-I20
141.000	141.000	3	Alcatel-Lucent TD-RRH8x20-25
141.000	141.000	3	Alcatel-Lucent 800 MHz RRH
141.000	141.000	6	Alcatel-Lucent 4X40W RRH
141.000	141.000	3	RFS IBC1900HG-2A
141.000	141.000	3	RFS IBC1900BB-1
128.000	128.000	3	Andrew LNX-6515DS-A1M
128.000	128.000	3	Ericsson AIR32 B66Aa/B2a
128.000	128.000	3	Flat T-Arm
128.000	131.000	3	Ericsson AIR 21, 1.3M, B4A B2P
115.000	115.000	1	Collar
115.000	119.000	2	DragonWave A-ANT-23G-2-C
115.000	119.000	3	Argus LLPX310R
115.000	119.000	3	NextNet BTS-2500
115.000	119.000	1	DragonWave A-ANT-23G-1-C
115.000	119.000	1	12" x 12" Junction Box
115.000	119.000	3	DragonWave Horizon Compact
103.000	103.000	1	Flat Platform w/ Handrails
103.000	103.000	12	Andrew SBNHH-1D65B
103.000	103.000	2	RFS DB-T1-6Z-8AB-0Z
103.000	103.000	3	Alcatel-Lucent RRH2X60-AWS
103.000	103.000	3	Alcatel-Lucent RRH2x60 700
103.000	103.000	3	Alcatel-Lucent RRH2X60-1900A-
36.000	36.000	1	Stand-off
36.000	36.000	1	GPS
31.000	31.000	1	Stand-off
31.000	31.000	1	GPS



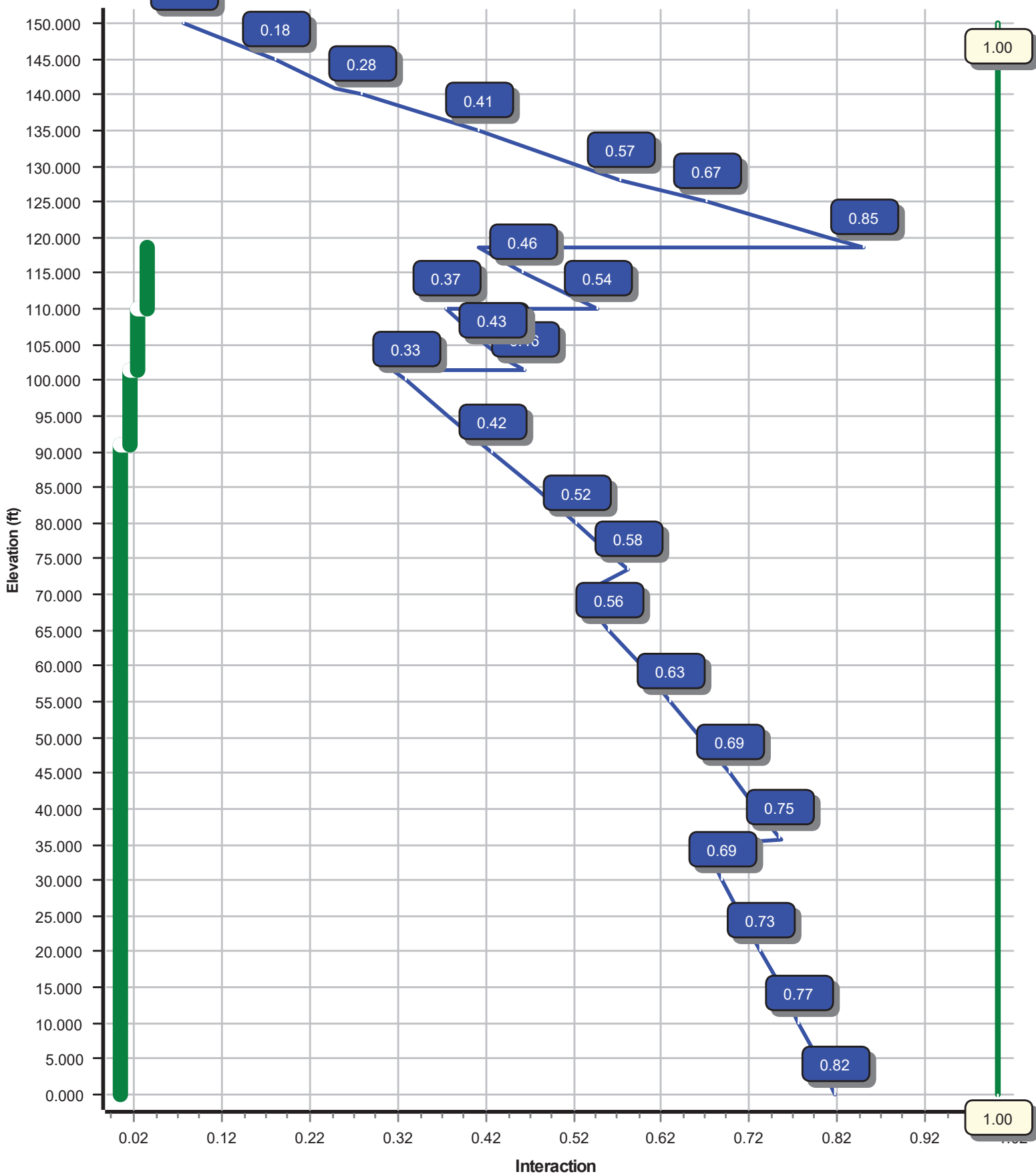
Linear Appurtenance			
Elev (ft)		Description	Exposed To Wind
From	To		
110.0	120.0	Reinforcing Plate	Yes
106.0	110.0	Reinforcing Plate	Yes
4.000	115.0	1/2" Coax	No
4.000	115.0	2" Conduit	No
4.000	115.0	5/16" Coax	No
4.000	31.000	1/2" Coax	No
4.000	36.000	1/2" Coax	No
4.000	103.0	1.58" Hybrid	No
4.000	128.0	1 1/4" Fiber	Yes
4.000	128.0	1 5/8" Coax	No
4.000	128.0	1 5/8" Hybriflex	Yes
4.000	141.0	1 1/4" Hybriflex	No
4.000	150.0	0.39" Fiber Trunk	No
4.000	150.0	0.78" 8 AWG 6	No
4.000	150.0	3/8" RET Control	No
4.000	150.0	7/8" Coax	No
0.000	106.0	#20 Dywidag Bars	Yes

Load Cases	
1.2D + 1.6W	97 mph with No Ice
0.9D + 1.6W	97 mph with No Ice (Reduced DL)
1.2D + 1.0Di + 1.0Wi	50 mph with 1.00 in Radial Ice
(1.2 + 0.2Sds) * DL + E	Seismic Equivalent Lateral Forces Method
(1.2 + 0.2Sds) * DL + E	Seismic Equivalent Modal Analysis Method
(0.9 - 0.2Sds) * DL + E	Seismic (Reduced DL) Equivalent Lateral
(0.9 - 0.2Sds) * DL + E	Seismic (Reduced DL) Equivalent Modal
1.0D + 1.0W	Serviceability 60 mph

Reactions			
Load Case	Moment (kip-ft)	Shear (kip)	Axial (kip)
1.2D + 1.6W	3128.72	30.20	42.39
0.9D + 1.6W	3049.03	29.93	31.77
1.2D + 1.0Di + 1.0Wi	865.37	7.33	80.39
(1.2 + 0.2Sds) * DL + E ELFM	178.06	1.39	42.45
(1.2 + 0.2Sds) * DL + E EMAM	273.73	2.11	42.45
(0.9 - 0.2Sds) * DL + E ELFM	173.78	1.38	29.55
(0.9 - 0.2Sds) * DL + E EMAM	266.47	2.11	29.55
1.0D + 1.0W	745.20	7.30	35.39

Dish Deflections			
Load Case	Attach Elev (ft)	Deflection (in)	Rotation (deg)
1.0D + 1.0W	115.00	21.904	1.730
1.0D + 1.0W	115.00	21.904	1.730

Load Case : 1.2D + 1.6W
Max Ratio 84.81% at 118.5 ft



Site Number: 302473

Code: ANSI/TIA-222-G

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

Engineering Number: OAA696438_C4_07

7/13/2017 11:03:32 AM

Customer: METRO PCS INC

Analysis Parameters

Location:	HARTFORD County, CT	Height (ft):	150
Code:	ANSI/TIA-222-G	Base Diameter (in):	37.36
Shape:	12 Sides	Top Diameter (in):	15.00
Pole Type:	Taper	Taper (in/ft) :	0.157
Pole Manufacturer:	ITT Meyer	Rotation (deg) :	0.00

Ice & Wind Parameters

Structure Class:	II	Design Wind Speed Without Ice:	97 mph
Exposure Category:	B	Design Wind Speed With Ice:	50 mph
Topographic Category:	1	Operational Wind Speed:	60 mph
Crest Height:	0.0 ft	Design Ice Thickness:	1.00 in

Seismic Parameters

Analysis Method:	Equivalent Modal Analysis & Equivalent Lateral Force Methods		
Site Class:	D - Stiff Soil		
Period Based on Rayleigh Method (sec):	2.98		
T _L (sec):	6	p:	1.3
S _s :	0.179	S ₁ :	0.064
F _a :	1.600	F _v :	2.400
S _{ds} :	0.191	S _{d1} :	0.102
		C _s :	0.030
		C _s Max:	0.030
		C _s Min:	0.030

Load Cases

1.2D + 1.6W	97 mph with No Ice
0.9D + 1.6W	97 mph with No Ice (Reduced DL)
1.2D + 1.0Di + 1.0Wi	50 mph with 1.00 in Radial Ice
(1.2 + 0.2S _{ds}) * DL + E ELFM	Seismic Equivalent Lateral Forces Method
(1.2 + 0.2S _{ds}) * DL + E EMAM	Seismic Equivalent Modal Analysis Method
(0.9 - 0.2S _{ds}) * DL + E ELFM	Seismic (Reduced DL) Equivalent Lateral Forces Method
(0.9 - 0.2S _{ds}) * DL + E EMAM	Seismic (Reduced DL) Equivalent Modal Analysis Method
1.0D + 1.0W	Serviceability 60 mph

Site Number: 302473

Code: ANSI/TIA-222-G

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

Engineering Number: OAA696438_C4_07

7/13/2017 11:03:32 AM

Customer: METRO PCS INC

Shaft Section Properties

Sect Info	Length (ft)	Thick (in)	Fy (ksi)	Joint Type	Slip Joint Len (in)	Weight (lb)	Bottom						Top						
							Dia (in)	Elev (ft)	Area (in ²)	Ix (in ⁴)	W/t Ratio	D/t Ratio	Dia (in)	Elev (ft)	Area (in ²)	Ix (in ⁴)	W/t Ratio	D/t Ratio	Taper (in/ft)
1-12	35.670	0.3750	65		0.00	5,011	37.36	0.00	44.66	7797.4	24.02	99.63	31.77	35.67	37.92	4771.7	20.02	84.73	0.156567
2-12	42.050	0.3125	65	Slip	50.00	4,240	33.05	31.50	32.94	4507.5	25.66	105.77	26.46	73.55	26.32	2298.4	20.02	84.70	0.156567
3-12	40.000	0.2500	65	Slip	42.00	2,645	27.51	70.05	21.95	2083.0	26.81	110.07	21.25	110.05	16.91	952.2	20.10	85.02	0.156567
4-12	39.947	0.1875	65	Butt	0.00	1,472	21.25	110.05	12.72	720.5	27.69	113.36	15.00	150.00	8.94	250.5	18.76	80.00	0.156567
Shaft Weight						13,368													

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	CCI OPA-65R-LCUU-H6	3	73.00	9.660	0.66	481.77	15.173	0.66	0.000	7.000
150.00	Ericsson RRUS 11 (Band 12)	3	55.00	2.520	0.50	170.75	3.406	0.50	0.000	7.000
150.00	Ericsson RRUS 12 w/ RRUS	3	71.40	3.150	0.50	187.15	3.406	0.50	0.000	7.000
150.00	Ericsson RRUS-32	3	77.00	3.310	0.50	206.72	5.020	0.50	0.000	7.000
150.00	Flat Side Arm	3	150.00	6.300	0.67	247.57	9.578	0.67	0.000	0.000
150.00	Powerwave 7020.00 Dual	12	2.20	0.400	0.50	27.25	0.742	0.50	0.000	7.000
150.00	Powerwave Allgon 7770.00	6	27.00	5.510	0.65	220.57	6.943	0.65	0.000	7.000
150.00	Powerwave LGP21401	6	14.10	1.100	0.50	64.86	1.742	0.50	0.000	7.000
150.00	Raycap DC6-48-60-18-8F	2	20.00	1.110	1.00	71.76	1.813	1.00	0.000	7.000
150.00	Round Platform w/ Handrails	1	2000.00	27.200	1.00	3,728.35	59.804	1.00	0.000	0.000
141.00	Alcatel-Lucent 4X40W RRH	6	59.50	2.320	0.50	194.90	3.237	0.50	0.000	0.000
141.00	Alcatel-Lucent 800 MHz RRH	3	61.80	2.500	0.50	211.03	3.384	0.50	0.000	0.000
141.00	Alcatel-Lucent TD-RRH8x20-	3	70.00	4.050	0.50	175.02	2.616	0.50	0.000	0.000
141.00	RFS APXV9ERR18-C-A20	2	62.00	8.020	0.71	355.23	9.772	0.71	0.000	0.000
141.00	RFS APXVSP18-C-A20	1	57.00	8.020	0.69	338.30	9.772	0.69	0.000	0.000
141.00	RFS APXVTM14-C-I20	3	52.90	6.340	0.66	279.46	7.843	0.66	0.000	0.000
141.00	RFS IBC1900BB-1	3	22.00	0.970	0.50	75.10	1.560	0.50	0.000	0.000
141.00	RFS IBC1900HG-2A	3	22.00	0.970	0.50	75.10	1.560	0.50	0.000	0.000
141.00	Round T-Arm	3	250.00	9.700	0.67	527.41	20.643	0.67	0.000	0.000
128.00	Andrew LNX-6515DS-A1M	3	49.80	11.450	0.70	350.56	15.725	0.70	0.000	0.000
128.00	Ericsson AIR 21, 1.3M, B4A	3	90.40	6.090	0.70	325.51	7.518	0.70	0.000	3.000
128.00	Ericsson AIR32 B66Aa/B2a	3	132.20	6.510	0.71	341.48	9.387	0.71	0.000	0.000
128.00	Flat T-Arm	3	250.00	12.900	0.67	524.52	23.642	0.67	0.000	0.000
115.00	12" x 12" Junction Box	1	10.00	1.200	0.50	83.44	1.827	0.50	0.000	4.000
115.00	Argus LLPX310R	3	28.60	4.290	0.63	178.34	5.480	0.63	0.000	4.000
115.00	Collar	1	560.00	8.500	1.00	1,167.76	17.725	1.00	0.000	0.000
115.00	DragonWave A-ANT-23G-1-C	1	15.00	1.610	1.00	60.87	2.593	1.00	0.000	4.000
115.00	DragonWave A-ANT-23G-2-C	2	12.30	4.690	1.00	69.93	6.344	1.00	0.000	4.000
115.00	DragonWave Horizon	3	10.60	0.430	0.50	39.79	1.092	0.50	0.000	4.000
115.00	NextNet BTS-2500	3	35.00	1.820	0.50	115.56	2.555	0.50	0.000	4.000
103.00	Alcatel-Lucent RRH2x60 700	3	56.70	2.150	0.50	171.91	3.010	0.50	0.000	0.000
103.00	Alcatel-Lucent RRH2X60-	3	46.00	1.880	0.50	138.61	2.648	0.50	0.000	0.000
103.00	Alcatel-Lucent RRH2X60-	3	55.00	3.350	0.50	190.24	4.962	0.50	0.000	0.000
103.00	Andrew SBNHH-1D65B	12	50.70	8.170	0.69	326.06	9.879	0.69	0.000	0.000
103.00	Flat Platform w/ Handrails	1	2000.00	42.400	1.00	3,827.39	69.367	1.00	0.000	0.000
103.00	RFS DB-T1-6Z-8AB-OZ	2	44.00	4.800	0.50	230.28	5.943	0.50	0.000	0.000
36.00	GPS	1	10.00	1.000	1.00	56.94	1.016	1.00	0.000	0.000
36.00	Stand-off	1	50.00	2.000	1.00	90.33	3.613	1.00	0.000	0.000
31.00	GPS	1	10.00	1.000	1.00	43.34	1.810	1.00	0.000	0.000
31.00	Stand-off	1	50.00	2.000	1.00	89.69	3.587	1.00	0.000	0.000
Totals		123	11255.20			33,103.26			Number of Loadings : 40	

Site Number: 302473

Code: ANSI/TIA-222-G

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

Engineering Number: OAA696438_C4_07

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Customer: METRO PCS INC

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
4.00	150.00	2	0.39" Fiber Trunk	0.39	0.06	N	0.00	N	AT&T Mobility
4.00	150.00	4	0.78" 8 AWG 6	0.78	0.59	N	0.00	N	AT&T Mobility
4.00	150.00	1	3/8" RET Control Cable	0.38	0.23	N	0.00	N	AT&T Mobility
4.00	150.00	12	7/8" Coax	1.09	0.33	N	0.00	N	AT&T Mobility
4.00	141.00	4	1 1/4" Hybriflex Cable	1.54	1.00	N	0.00	N	Sprint Nextel
4.00	128.00	1	1 1/4" Fiber	1.25	1.05	N	0.00	Y	Metro PCS
4.00	128.00	6	1 5/8" Coax	1.98	0.82	N	0.00	N	Metro PCS
4.00	128.00	1	1 5/8" Hybriflex	1.98	1.30	N	1.98	Y	Metro PCS
110.00	120.00	3	Reinforcing Plate	1.25	0.00	N	1.88	Y	--
4.00	115.00	3	1/2" Coax	0.63	0.15	N	0.00	N	Clearwire Corporation
4.00	115.00	1	2" Conduit	2.38	3.65	N	0.00	N	Clearwire Corporation
4.00	115.00	6	5/16" Coax	0.31	0.05	N	0.00	N	Clearwire Corporation
106.00	110.00	4	Reinforcing Plate	1.25	0.00	N	2.50	Y	--
0.00	106.00	4	#20 Dywidag Bars	4.00	0.00	N	6.02	Y	--
4.00	103.00	2	1.58" Hybrid	1.58	1.61	N	0.00	N	Verizon Wireless
4.00	36.00	1	1/2" Coax	0.63	0.15	N	0.00	N	Sprint Nextel
4.00	31.00	1	1/2" Coax	0.63	0.15	N	0.00	N	AT&T Mobility

Additional Steel

Elev From (ft)	Elev To (ft)	Qty	Description	Fy (ksi)	Offset (in)	— Intermediate Connections —			Connectors	Continuation?
					Description	Spacing (in)	Len (in)			
0.00	91.10	4	SOL #20 All Thread	80	2.19	6" Angle Bracket	30.0	3.31	5/8" A36 U-Bolt	No
91.10	101.5	4	SOL #20 All Thread	80	2.19	6" Angle Bracket	30.0	3.31	5/8" A36 U-Bolt	Yes
101.5	110.0	4	PL PL 3 x 1.25	65	0.00	AJAX M20 Class	24.0	3.00	AJAX M20 Class	No
110.0	118.5	3	PL PL 3 x 1.25	65	0.00	AJAX M20 Class	24.0	3.00	AJAX M20 Class	No

Site Number: 302473

Code: ANSI/TIA-222-G

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

Engineering Number: OAA696438_C4_07

7/13/2017 11:03:32 AM

Customer: METRO PCS INC

Segment Properties (Max Len : 5. ft)

Seg Top Elev (ft)	Description	Thick (in)	Flat Dia (in)	Area (in ²)	Ix (in ⁴)	W/t Ratio	D/t Ratio	F'y (ksi)	S (in ³)	Z (in ³)	Weight (lb)	Additional Reinforcing		
												Area (in ²)	Ix (in ⁴)	Weight (lb)
0.00		0.3750	37.360	44.659	7,797.4	24.02	99.63	78.5	403.2	0.0	0.0	19.64	4,954	0.0
5.00		0.3750	36.577	43.714	7,312.7	23.46	97.54	79.1	386.2	0.0	751.8	19.64	4,777	334.0
10.00		0.3750	35.794	42.769	6,848.5	22.90	95.45	79.7	369.6	0.0	735.7	19.64	4,603	334.0
15.00		0.3750	35.012	41.824	6,404.4	22.34	93.36	80.4	353.4	0.0	719.6	19.64	4,433	334.0
20.00		0.3750	34.229	40.878	5,979.9	21.78	91.28	81.0	337.5	0.0	703.5	19.64	4,265	334.0
25.00		0.3750	33.446	39.933	5,574.5	21.22	89.19	81.6	322.0	0.0	687.5	19.64	4,101	334.0
30.00		0.3750	32.663	38.988	5,188.0	20.66	87.10	81.9	306.8	0.0	671.4	19.64	3,940	334.0
31.00		0.3750	32.506	38.799	5,112.9	20.55	86.68	81.9	303.9	0.0	132.3	19.64	3,908	66.8
31.50	Bot - Section 2	0.3750	32.428	38.704	5,075.3	20.49	86.47	81.9	302.4	0.0	66.4	19.64	3,892	33.6
35.00		0.3750	31.880	38.042	4,819.7	20.10	85.01	81.9	292.1	0.0	845.3	19.64	3,908	233.6
35.67	Top - Section 1	0.3125	32.400	32.288	4,243.4	25.10	103.68	77.3	253.0	0.0	160.3	19.64	3,887	44.8
36.00		0.3125	32.349	32.236	4,222.9	25.06	103.52	77.4	252.2	0.0	36.2	19.64	3,876	22.0
40.00		0.3125	31.722	31.606	3,980.1	24.52	101.51	78.0	242.4	0.0	434.5	19.64	3,751	267.2
45.00		0.3125	30.940	30.818	3,689.8	23.85	99.01	78.7	230.4	0.0	531.0	19.64	3,597	334.0
50.00		0.3125	30.157	30.031	3,414.1	23.18	96.50	79.4	218.7	0.0	517.6	19.64	3,447	334.0
55.00		0.3125	29.374	29.243	3,152.4	22.51	94.00	80.2	207.3	0.0	504.2	19.64	3,299	334.0
60.00		0.3125	28.591	28.455	2,904.4	21.84	91.49	80.9	196.2	0.0	490.8	19.64	3,155	334.0
65.00		0.3125	27.808	27.668	2,669.8	21.16	88.99	81.6	185.5	0.0	477.4	19.64	3,014	334.0
70.00		0.3125	27.025	26.880	2,448.2	20.49	86.48	81.9	175.0	0.0	464.0	19.64	2,877	334.0
70.05	Bot - Section 3	0.3125	27.017	26.871	2,445.9	20.49	86.45	81.9	174.9	0.0	4.9	19.64	2,875	3.6
73.55	Top - Section 2	0.2500	26.969	21.509	1,959.9	26.23	107.88	76.1	140.4	0.0	575.5	19.64	2,867	233.8
75.00		0.2500	26.743	21.326	1,910.5	25.98	106.97	76.4	138.0	0.0	105.4	19.64	2,828	96.6
80.00		0.2500	25.960	20.696	1,746.1	25.14	103.84	77.3	129.9	0.0	357.5	19.64	2,695	334.0
85.00		0.2500	25.177	20.066	1,591.4	24.30	100.71	78.2	122.1	0.0	346.8	19.64	2,565	334.0
90.00		0.2500	24.394	19.436	1,446.1	23.47	97.58	79.1	114.5	0.0	336.0	19.64	2,438	334.0
91.10	Reinf. Top Reinf	0.2500	24.222	19.297	1,415.4	23.28	96.89	79.3	112.9	0.0	72.5	19.64	2,410	73.5
95.00		0.2500	23.611	18.806	1,310.0	22.63	94.44	80.0	107.2	0.0	252.8	19.64	2,314	260.5
100.00		0.2500	22.828	18.176	1,182.7	21.79	91.31	81.0	100.1	0.0	314.6	19.64	2,194	334.0
101.5	Reinf. Top Reinf	0.2500	22.593	17.987	1,146.1	21.54	90.37	81.2	98.0	0.0	92.3	19.64	2,158	100.2
103.0		0.2500	22.359	17.797	1,110.4	21.28	89.43	81.5	95.9	0.0	91.3	15.00	1,051	76.6
105.0		0.2500	22.046	17.545	1,063.9	20.95	88.18	81.9	93.2	0.0	120.3	15.00	1,024	102.1
110.0	Reinf. Top Reinf	0.2500	21.263	16.915	953.3	20.11	85.05	81.9	86.6	0.0	293.2	15.00	956.9	255.2
110.0	Top - Section 3	0.2500	21.254	16.908	952.2	20.10	85.02	81.9	86.5	0.0	3.1	11.25	717.1	2.0
110.0	Bot - Section 4	0.1875	21.254	12.719	720.5	27.69	113.36	74.5	65.5	0.0		11.25	717.1	
115.0		0.1875	20.480	12.251	643.9	26.59	109.23	75.7	60.7	0.0	210.2	11.25	669.0	189.4
118.5	Reinf. Top	0.1875	19.932	11.921	593.2	25.80	106.30	76.6	57.5	0.0	143.9	11.25	635.9	134.0
120.0		0.1875	19.697	11.779	572.2	25.47	105.05	76.9	56.1	0.0	60.5			
125.0		0.1875	18.914	11.306	506.1	24.35	100.88	78.2	51.7	0.0	196.4			
128.0		0.1875	18.444	11.023	469.0	23.68	98.37	78.9	49.1	0.0	114.0			
130.0		0.1875	18.131	10.834	445.2	23.23	96.70	79.4	47.4	0.0	74.4			
135.0		0.1875	17.349	10.361	389.5	22.11	92.53	80.6	43.4	0.0	180.3			
140.0		0.1875	16.566	9.888	338.6	20.99	88.35	81.8	39.5	0.0	172.3			
141.0		0.1875	16.409	9.794	328.9	20.77	87.52	81.9	38.7	0.0	33.5			
145.0		0.1875	15.783	9.416	292.3	19.88	84.18	81.9	35.8	0.0	130.7			
150.0		0.1875	15.000	8.943	250.5	18.76	80.00	81.9	32.3	0.0	156.2			
											13,368.2			
												7,539.4		

Site Number: 302473

Code: ANSI/TIA-222-G

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

Engineering Number: OAA696438_C4_07

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Customer: METRO PCS INC

Load Case: 1.2D + 1.6W	97 mph with No Ice	28 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		270.4	0.0					0.0	0.0	270.4	0.0	0.0	0.0
5.00		534.4	902.1					0.0	431.8	534.4	1,333.9	0.0	0.0
10.00		522.3	882.8					94.6	555.8	617.0	1,438.6	0.0	0.0
15.00		510.9	863.5					94.6	555.8	605.5	1,419.3	0.0	0.0
20.00		499.5	844.2					94.6	555.8	594.1	1,400.0	0.0	0.0
25.00		488.1	824.9					94.6	555.8	582.7	1,380.7	0.0	0.0
30.00		289.0	805.6					94.6	555.8	383.6	1,361.4	0.0	0.0
31.00	Appertunance(s)	72.0	158.8	85.4	0.0	0.0	72.0	19.0	111.2	176.4	342.0	0.0	0.0
31.50	Bot - Section 2	196.5	79.6					9.6	55.9	206.1	135.5	0.0	0.0
35.00		205.7	1,014.3					67.5	388.0	273.1	1,402.4	0.0	0.0
35.67	Top - Section 1	49.7	192.4					13.1	74.4	62.8	266.7	0.0	0.0
36.00	Appertunance(s)	216.6	43.5	89.2	0.0	0.0	72.0	6.5	36.6	312.3	152.1	0.0	0.0
40.00		453.0	521.4					79.1	443.2	532.1	964.6	0.0	0.0
45.00		507.1	637.3					101.0	554.0	608.1	1,191.2	0.0	0.0
50.00		509.4	621.2					103.1	554.0	612.5	1,175.1	0.0	0.0
55.00		509.9	605.1					105.1	554.0	615.0	1,159.1	0.0	0.0
60.00		508.9	589.0					106.9	554.0	615.7	1,143.0	0.0	0.0
65.00		506.4	572.9					108.6	554.0	614.9	1,126.9	0.0	0.0
70.00		255.1	556.8					110.1	554.0	365.2	1,110.8	0.0	0.0
70.05	Bot - Section 3	181.4	5.9					1.2	5.9	182.6	11.8	0.0	0.0
73.55	Top - Section 2	252.2	690.6					78.0	387.8	330.2	1,078.4	0.0	0.0
75.00		325.9	126.5					32.4	160.3	358.3	286.8	0.0	0.0
80.00		501.7	429.0					113.0	554.0	614.7	983.0	0.0	0.0
85.00		495.0	416.1					114.4	554.0	609.4	970.1	0.0	0.0
90.00		299.3	403.2					115.7	554.0	415.0	957.2	0.0	0.0
91.10	Reinf. Top Reinf	241.8	87.0					25.6	121.9	267.4	208.9	0.0	0.0
95.00		425.7	303.4					91.3	432.1	517.0	735.5	0.0	0.0
100.00		307.8	377.5					118.1	554.0	425.9	931.5	0.0	0.0
101.50	Reinf. Top Reinf	140.2	110.7					35.6	166.2	175.9	276.9	0.0	0.0
103.00	Appertunance(s)	162.4	109.6	4,215.9	0.0	0.0	3,803.4	35.7	137.8	4,414.1	4,050.8	0.0	0.0
105.00		320.2	144.3					47.8	176.0	368.0	320.4	0.0	0.0
110.00	Reinf. Top Reinf	230.2	351.8					96.9	440.1	327.0	791.9	0.0	0.0
110.05	Top - Section 3	229.0	3.7					0.0	3.9	229.0	7.6	0.0	0.0
115.00	Appertunance(s)	385.6	252.2	1,216.1	0.0	3,456.0	998.6	0.0	359.7	1,601.7	1,610.5	0.0	0.0
118.50	Reinf. Top	226.9	172.7					0.0	236.1	226.9	408.9	0.0	0.0
120.00		243.5	72.6					0.0	32.3	243.5	104.9	0.0	0.0
125.00		279.2	235.7					0.0	107.6	279.2	343.3	0.0	0.0
128.00	Appertunance(s)	171.2	136.8	2,565.7	0.0	1,319.6	1,880.6	0.0	64.6	2,736.8	2,082.0	0.0	0.0
130.00		232.6	89.2					0.0	25.6	232.6	114.9	0.0	0.0
135.00		324.5	216.4					0.0	64.0	324.5	280.4	0.0	0.0
140.00		190.6	206.7					0.0	64.0	190.6	270.7	0.0	0.0
141.00	Appertunance(s)	153.6	40.2	2,369.1	0.0	0.0	2,368.9	0.0	12.8	2,522.7	2,421.9	0.0	0.0
145.00		270.1	156.9					0.0	32.0	270.1	188.9	0.0	0.0
150.00	Appertunance(s)	147.6	187.4	3,745.4	0.0	14,738.1	4,310.6	0.0	40.0	3,893.0	4,538.1	0.0	0.0
Totals:										30,338.2	42,478.4	0.00	0.00

Site Number: 302473

Code: ANSI/TIA-222-G

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

Engineering Number: OAA696438_C4_07

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Customer: METRO PCS INC

Load Case: 1.2D + 1.6W

97 mph with No Ice

28 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	-42.39	-30.20	0.00	-3,128.72	0.00	3,128.72	3,156.09	1,578.04	4,808.01	2,374.50	0.00	0.00	0.815
5.00	-40.88	-29.90	0.00	-2,977.74	0.00	2,977.74	3,113.28	1,556.64	4,641.42	2,292.22	0.18	-0.34	0.795
10.00	-39.27	-29.51	0.00	-2,828.23	0.00	2,828.23	3,069.45	1,534.72	4,476.09	2,210.57	0.72	-0.68	0.774
15.00	-37.69	-29.11	0.00	-2,680.70	0.00	2,680.70	3,024.57	1,512.28	4,312.14	2,129.61	1.62	-1.02	0.753
20.00	-36.13	-28.70	0.00	-2,535.17	0.00	2,535.17	2,978.65	1,489.33	4,149.68	2,049.37	2.88	-1.37	0.731
25.00	-34.59	-28.29	0.00	-2,391.68	0.00	2,391.68	2,931.70	1,465.85	3,988.78	1,969.91	4.49	-1.71	0.708
30.00	-33.15	-27.98	0.00	-2,250.25	0.00	2,250.25	2,873.79	1,436.89	3,816.40	1,884.77	6.46	-2.05	0.687
31.00	-32.79	-27.82	0.00	-2,222.27	0.00	2,222.27	2,859.85	1,429.93	3,779.26	1,866.44	6.90	-2.12	0.683
31.50	-32.59	-27.69	0.00	-2,208.27	0.00	2,208.27	2,852.84	1,426.42	3,760.64	1,857.24	7.13	-2.15	0.681
35.00	-31.13	-27.43	0.00	-2,111.47	0.00	2,111.47	2,804.11	1,402.06	3,632.54	1,793.98	8.79	-2.39	0.658
35.67	-30.85	-27.38	0.00	-2,093.09	0.00	2,093.09	2,247.39	1,123.70	2,971.54	1,467.53	9.13	-2.44	0.753
36.00	-30.64	-27.14	0.00	-2,084.05	0.00	2,084.05	2,245.17	1,122.59	2,963.78	1,463.70	9.30	-2.46	0.751
40.00	-29.55	-26.73	0.00	-1,975.48	0.00	1,975.48	2,217.94	1,108.97	2,870.05	1,417.41	11.49	-2.75	0.726
45.00	-28.24	-26.24	0.00	-1,841.83	0.00	1,841.83	2,182.97	1,091.48	2,753.70	1,359.95	14.56	-3.10	0.694
50.00	-26.94	-25.72	0.00	-1,710.64	0.00	1,710.64	2,146.96	1,073.48	2,638.35	1,302.98	17.99	-3.45	0.661
55.00	-25.68	-25.19	0.00	-1,582.05	0.00	1,582.05	2,109.91	1,054.96	2,524.10	1,246.56	21.78	-3.79	0.628
60.00	-24.44	-24.63	0.00	-1,456.12	0.00	1,456.12	2,071.82	1,035.91	2,411.06	1,190.73	25.92	-4.12	0.594
65.00	-23.22	-24.07	0.00	-1,332.95	0.00	1,332.95	2,032.70	1,016.35	2,299.33	1,135.55	30.41	-4.45	0.559
70.00	-22.08	-23.68	0.00	-1,212.62	0.00	1,212.62	1,981.31	990.65	2,176.68	1,074.98	35.24	-4.77	0.526
70.05	-22.04	-23.54	0.00	-1,211.36	0.00	1,211.36	1,980.69	990.35	2,175.31	1,074.30	35.29	-4.77	0.525
73.55	-20.93	-23.17	0.00	-1,128.98	0.00	1,128.98	1,473.36	736.68	1,622.77	801.43	38.87	-4.99	0.580
75.00	-20.60	-22.86	0.00	-1,095.46	0.00	1,095.46	1,465.95	732.98	1,600.80	790.57	40.39	-5.08	0.567
80.00	-19.55	-22.26	0.00	-981.15	0.00	981.15	1,439.68	719.84	1,525.22	753.25	45.87	-5.39	0.520
85.00	-18.54	-21.66	0.00	-869.83	0.00	869.83	1,412.37	706.19	1,450.29	716.24	51.67	-5.69	0.473
90.00	-17.57	-21.20	0.00	-761.55	0.00	761.55	1,384.02	692.01	1,376.10	679.61	57.77	-5.97	0.424
91.10	-17.34	-20.95	0.00	-738.23	0.00	738.23	1,377.65	688.82	1,359.89	671.60	59.15	-6.03	0.414
91.10	-17.34	-20.95	0.00	-738.23	0.00	738.23	1,377.65	688.82	1,359.89	671.60	59.15	-6.03	0.414
95.00	-16.58	-20.42	0.00	-656.52	0.00	656.52	1,354.64	677.32	1,302.77	643.39	64.15	-6.23	0.376
100.00	-15.65	-19.94	0.00	-554.41	0.00	554.41	1,324.21	662.11	1,230.38	607.64	70.79	-6.47	0.326
101.50	-15.38	-19.75	0.00	-524.51	0.00	524.51	1,314.88	657.44	1,208.86	597.01	72.83	-6.53	0.311
101.50	-15.38	-19.75	0.00	-524.51	0.00	524.51	1,314.88	657.44	1,208.86	597.01	72.83	-6.53	0.461
103.00	-11.83	-14.92	0.00	-494.88	0.00	494.88	1,305.46	652.73	1,187.45	586.44	74.89	-6.60	0.439
105.00	-11.50	-14.56	0.00	-465.04	0.00	465.04	1,293.27	646.64	1,159.51	572.64	77.68	-6.73	0.419
110.00	-10.72	-14.17	0.00	-392.24	0.00	392.24	1,246.82	623.41	1,077.26	532.02	84.87	-7.02	0.373
110.00	-10.72	-14.17	0.00	-392.24	0.00	392.24	1,246.82	623.41	1,077.26	532.02	84.87	-7.02	0.426
110.05	-10.70	-13.97	0.00	-391.49	0.00	391.49	1,246.32	623.16	1,076.40	531.59	84.95	-7.02	0.426
110.05	-10.70	-13.97	0.00	-391.49	0.00	391.49	852.93	426.46	741.03	365.97	84.95	-7.02	0.544
115.00	-9.25	-12.22	0.00	-318.94	0.00	318.94	834.88	417.44	698.45	344.94	92.37	-7.32	0.460
118.50	-8.84	-11.97	0.00	-276.16	0.00	276.16	821.50	410.75	668.53	330.16	97.81	-7.55	0.410
118.50	-8.84	-11.97	0.00	-276.16	0.00	276.16	821.50	410.75	668.53	330.16	97.81	-7.55	0.848
120.00	-8.70	-11.76	0.00	-258.21	0.00	258.21	815.61	407.80	655.76	323.86	100.19	-7.64	0.809
125.00	-8.31	-11.50	0.00	-199.40	0.00	199.40	795.30	397.65	613.53	303.00	108.48	-8.21	0.669
128.00	-6.61	-8.52	0.00	-163.57	0.00	163.57	782.61	391.31	588.45	290.61	113.72	-8.52	0.572
130.00	-6.49	-8.31	0.00	-146.53	0.00	146.53	773.95	386.97	571.85	282.42	117.31	-8.71	0.528
135.00	-6.21	-7.98	0.00	-104.99	0.00	104.99	751.56	375.78	530.84	262.16	126.62	-9.11	0.409
140.00	-5.95	-7.77	0.00	-65.08	0.00	65.08	728.14	364.07	490.58	242.28	136.29	-9.42	0.277
141.00	-3.97	-4.89	0.00	-57.31	0.00	57.31	721.90	360.95	481.67	237.88	138.26	-9.47	0.247
145.00	-3.82	-4.60	0.00	-37.75	0.00	37.75	694.03	347.02	445.00	219.77	146.23	-9.63	0.177
150.00	0.00	-3.89	0.00	-14.74	0.00	14.74	659.19	329.60	401.19	198.13	156.35	-9.76	0.075

Site Number: 302473

Code: ANSI/TIA-222-G

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

Engineering Number: OAA696438_C4_07

7/13/2017 11:03:35 AM

Customer: METRO PCS INC

Load Case: 0.9D + 1.6W **97 mph with No Ice (Reduced DL)** **27 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		224.8	0.0					0.0	0.0	224.8	0.0	0.0	0.0
5.00		488.8	676.6					0.0	323.8	488.8	1,000.5	0.0	0.0
10.00		522.3	662.1					94.6	416.8	617.0	1,079.0	0.0	0.0
15.00		510.9	647.7					94.6	416.8	605.5	1,064.5	0.0	0.0
20.00		499.5	633.2					94.6	416.8	594.1	1,050.0	0.0	0.0
25.00		488.1	618.7					94.6	416.8	582.7	1,035.5	0.0	0.0
30.00		289.0	604.2					94.6	416.8	383.6	1,021.1	0.0	0.0
31.00	Appertunance(s)	72.0	119.1	85.4	0.0	0.0	54.0	19.0	83.4	176.4	256.5	0.0	0.0
31.50	Bot - Section 2	196.5	59.7					9.6	41.9	206.1	101.6	0.0	0.0
35.00		205.7	760.8					67.5	291.0	273.1	1,051.8	0.0	0.0
35.67	Top - Section 1	49.7	144.3					13.1	55.8	62.8	200.1	0.0	0.0
36.00	Appertunance(s)	216.6	32.6	89.2	0.0	0.0	54.0	6.5	27.5	312.3	114.1	0.0	0.0
40.00		453.0	391.0					79.1	332.4	532.1	723.4	0.0	0.0
45.00		507.1	477.9					101.0	415.5	608.1	893.4	0.0	0.0
50.00		509.4	465.9					103.1	415.5	612.5	881.4	0.0	0.0
55.00		509.9	453.8					105.1	415.5	615.0	869.3	0.0	0.0
60.00		508.9	441.8					106.9	415.5	615.7	857.2	0.0	0.0
65.00		506.4	429.7					108.6	415.5	614.9	845.2	0.0	0.0
70.00		255.1	417.6					110.1	415.5	365.2	833.1	0.0	0.0
70.05	Bot - Section 3	181.4	4.4					1.2	4.4	182.6	8.8	0.0	0.0
73.55	Top - Section 2	252.2	518.0					78.0	290.8	330.2	808.8	0.0	0.0
75.00		325.9	94.9					32.4	120.2	358.3	215.1	0.0	0.0
80.00		501.7	321.7					113.0	415.5	614.7	737.2	0.0	0.0
85.00		495.0	312.1					114.4	415.5	609.4	727.6	0.0	0.0
90.00		299.3	302.4					115.7	415.5	415.0	717.9	0.0	0.0
91.10	Reinf. Top Reinf	241.8	65.2					25.6	91.4	267.4	156.6	0.0	0.0
95.00		425.7	227.5					91.3	324.1	517.0	551.6	0.0	0.0
100.00		307.8	283.1					118.1	415.5	425.9	698.6	0.0	0.0
101.50	Reinf. Top Reinf	140.2	83.1					35.6	124.6	175.9	207.7	0.0	0.0
103.00	Appertunance(s)	162.4	82.2	4,215.9	0.0	0.0	2,852.5	35.7	103.4	4,414.1	3,038.1	0.0	0.0
105.00		320.2	108.2					47.8	132.0	368.0	240.3	0.0	0.0
110.00	Reinf. Top Reinf	229.7	263.8					96.9	330.1	326.6	593.9	0.0	0.0
110.05	Top - Section 3	185.3	2.8					0.0	2.9	185.3	5.7	0.0	0.0
115.00	Appertunance(s)	310.2	189.1	1,216.1	0.0	3,456.0	749.0	0.0	269.7	1,526.3	1,207.9	0.0	0.0
118.50	Reinf. Top	180.6	129.5					0.0	177.1	180.6	306.6	0.0	0.0
120.00		229.3	54.4					0.0	24.2	229.3	78.7	0.0	0.0
125.00		278.5	176.7					0.0	80.7	278.5	257.5	0.0	0.0
128.00	Appertunance(s)	170.4	102.6	2,565.7	0.0	1,319.6	1,410.5	0.0	48.4	2,736.1	1,561.5	0.0	0.0
130.00		232.6	66.9					0.0	19.2	232.6	86.1	0.0	0.0
135.00		324.5	162.3					0.0	48.0	324.5	210.3	0.0	0.0
140.00		190.6	155.0					0.0	48.0	190.6	203.0	0.0	0.0
141.00	Appertunance(s)	153.6	30.1	2,369.1	0.0	0.0	1,776.7	0.0	9.6	2,522.7	1,816.4	0.0	0.0
145.00		270.1	117.7					0.0	24.0	270.1	141.7	0.0	0.0
150.00	Appertunance(s)	147.6	140.6	3,745.4	0.0	14,738.1	3,233.0	0.0	30.0	3,893.0	3,403.6	0.0	0.0
Totals:										30,065.3	31,858.8	0.00	0.00

Site Number: 302473

Code: ANSI/TIA-222-G

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

Engineering Number: OAA696438_C4_07

7/13/2017 11:03:38 AM

Customer: METRO PCS INC

Load Case: 0.9D + 1.6W

97 mph with No Ice (Reduced DL)

27 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	-31.77	-29.93	0.00	-3,049.03	0.00	3,049.03	3,156.09	1,578.04	4,808.01	2,374.50	0.00	0.00	0.793
5.00	-30.60	-29.62	0.00	-2,899.36	0.00	2,899.36	3,113.28	1,556.64	4,641.42	2,292.22	0.18	-0.33	0.772
10.00	-29.36	-29.16	0.00	-2,751.26	0.00	2,751.26	3,069.45	1,534.72	4,476.09	2,210.57	0.70	-0.66	0.751
15.00	-28.14	-28.71	0.00	-2,605.44	0.00	2,605.44	3,024.57	1,512.28	4,312.14	2,129.61	1.58	-1.00	0.730
20.00	-26.93	-28.25	0.00	-2,461.91	0.00	2,461.91	2,978.65	1,489.33	4,149.68	2,049.37	2.80	-1.33	0.708
25.00	-25.75	-27.79	0.00	-2,320.67	0.00	2,320.67	2,931.70	1,465.85	3,988.78	1,969.91	4.37	-1.66	0.685
30.00	-24.65	-27.46	0.00	-2,181.72	0.00	2,181.72	2,873.79	1,436.89	3,816.40	1,884.77	6.29	-1.99	0.664
31.00	-24.38	-27.29	0.00	-2,154.27	0.00	2,154.27	2,859.85	1,429.93	3,779.26	1,866.44	6.71	-2.06	0.660
31.50	-24.22	-27.14	0.00	-2,140.53	0.00	2,140.53	2,852.84	1,426.42	3,760.64	1,857.24	6.93	-2.09	0.658
35.00	-23.11	-26.88	0.00	-2,045.63	0.00	2,045.63	2,804.11	1,402.06	3,632.54	1,793.98	8.55	-2.33	0.635
35.67	-22.90	-26.83	0.00	-2,027.62	0.00	2,027.62	2,247.39	1,123.70	2,971.54	1,467.53	8.88	-2.37	0.728
36.00	-22.73	-26.57	0.00	-2,018.76	0.00	2,018.76	2,245.17	1,122.59	2,963.78	1,463.70	9.05	-2.39	0.726
40.00	-21.89	-26.12	0.00	-1,912.49	0.00	1,912.49	2,217.94	1,108.97	2,870.05	1,417.41	11.17	-2.67	0.701
45.00	-20.88	-25.60	0.00	-1,781.88	0.00	1,781.88	2,182.97	1,091.48	2,753.70	1,359.95	14.15	-3.01	0.670
50.00	-19.89	-25.05	0.00	-1,653.90	0.00	1,653.90	2,146.96	1,073.48	2,638.35	1,302.98	17.48	-3.34	0.638
55.00	-18.92	-24.49	0.00	-1,528.65	0.00	1,528.65	2,109.91	1,054.96	2,524.10	1,246.56	21.16	-3.67	0.605
60.00	-17.97	-23.92	0.00	-1,406.19	0.00	1,406.19	2,071.82	1,035.91	2,411.06	1,190.73	25.18	-4.00	0.572
65.00	-17.05	-23.34	0.00	-1,286.59	0.00	1,286.59	2,032.70	1,016.35	2,299.33	1,135.55	29.53	-4.31	0.538
70.00	-16.18	-22.95	0.00	-1,169.90	0.00	1,169.90	1,981.31	990.65	2,176.68	1,074.98	34.21	-4.62	0.506
70.05	-16.15	-22.80	0.00	-1,168.67	0.00	1,168.67	1,980.69	990.35	2,175.31	1,074.30	34.26	-4.62	0.505
73.55	-15.31	-22.45	0.00	-1,088.87	0.00	1,088.87	1,473.36	736.68	1,622.77	801.43	37.73	-4.84	0.558
75.00	-15.05	-22.12	0.00	-1,056.40	0.00	1,056.40	1,465.95	732.98	1,600.80	790.57	39.20	-4.92	0.545
80.00	-14.26	-21.52	0.00	-945.79	0.00	945.79	1,439.68	719.84	1,525.22	753.25	44.51	-5.22	0.500
85.00	-13.49	-20.91	0.00	-838.21	0.00	838.21	1,412.37	706.19	1,450.29	716.24	50.13	-5.51	0.454
90.00	-12.76	-20.46	0.00	-733.67	0.00	733.67	1,384.02	692.01	1,376.10	679.61	56.04	-5.78	0.407
91.10	-12.59	-20.21	0.00	-711.16	0.00	711.16	1,377.65	688.82	1,359.89	671.60	57.37	-5.83	0.397
91.10	-12.59	-20.21	0.00	-711.16	0.00	711.16	1,377.65	688.82	1,359.89	671.60	57.37	-5.83	0.397
95.00	-12.02	-19.68	0.00	-632.36	0.00	632.36	1,354.64	677.32	1,302.77	643.39	62.21	-6.03	0.360
100.00	-11.32	-19.21	0.00	-533.96	0.00	533.96	1,324.21	662.11	1,230.38	607.64	68.64	-6.26	0.313
101.50	-11.11	-19.03	0.00	-505.14	0.00	505.14	1,314.88	657.44	1,208.86	597.01	70.62	-6.32	0.298
101.50	-11.11	-19.03	0.00	-505.14	0.00	505.14	1,314.88	657.44	1,208.86	597.01	70.62	-6.32	0.443
103.00	-8.56	-14.32	0.00	-476.61	0.00	476.61	1,305.46	652.73	1,187.45	586.44	72.61	-6.39	0.421
105.00	-8.31	-13.95	0.00	-447.98	0.00	447.98	1,293.27	646.64	1,159.51	572.64	75.31	-6.51	0.403
110.00	-7.73	-13.58	0.00	-378.21	0.00	378.21	1,246.82	623.41	1,077.26	532.02	82.26	-6.79	0.359
110.00	-7.73	-13.58	0.00	-378.21	0.00	378.21	1,246.82	623.41	1,077.26	532.02	82.26	-6.79	0.410
110.05	-7.71	-13.41	0.00	-377.49	0.00	377.49	1,246.32	623.16	1,076.40	531.59	82.34	-6.79	0.409
110.05	-7.71	-13.41	0.00	-377.49	0.00	377.49	852.93	426.46	741.03	365.97	82.34	-6.79	0.523
115.00	-6.64	-11.78	0.00	-307.68	0.00	307.68	834.88	417.44	698.45	344.94	89.52	-7.08	0.442
118.50	-6.33	-11.58	0.00	-266.44	0.00	266.44	821.50	410.75	668.53	330.16	94.78	-7.30	0.394
118.50	-6.33	-11.58	0.00	-266.44	0.00	266.44	821.50	410.75	668.53	330.16	94.78	-7.30	0.816
120.00	-6.21	-11.38	0.00	-249.07	0.00	249.07	815.61	407.80	655.76	323.86	97.08	-7.39	0.777
125.00	-5.92	-11.11	0.00	-192.17	0.00	192.17	795.30	397.65	613.53	303.00	105.10	-7.94	0.642
128.00	-4.72	-8.20	0.00	-157.51	0.00	157.51	782.61	391.31	588.45	290.61	110.17	-8.23	0.548
130.00	-4.63	-7.99	0.00	-141.10	0.00	141.10	773.95	386.97	571.85	282.42	113.65	-8.42	0.506
135.00	-4.42	-7.66	0.00	-101.18	0.00	101.18	751.56	375.78	530.84	262.16	122.64	-8.80	0.392
140.00	-4.23	-7.45	0.00	-62.88	0.00	62.88	728.14	364.07	490.58	242.28	132.00	-9.10	0.266
141.00	-2.83	-4.68	0.00	-55.43	0.00	55.43	721.90	360.95	481.67	237.88	133.90	-9.15	0.237
145.00	-2.72	-4.40	0.00	-36.72	0.00	36.72	694.03	347.02	445.00	219.77	141.61	-9.31	0.171
150.00	0.00	-3.89	0.00	-14.74	0.00	14.74	659.19	329.60	401.19	198.13	151.39	-9.44	0.075

Site Number: 302473

Code: ANSI/TIA-222-G

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

Engineering Number: OAA696438_C4_07

7/13/2017 11:03:38 AM

Customer: METRO PCS INC

Load Case: 1.2D + 1.0Di + 1.0Wi	50 mph with 1.00 in Radial Ice	27 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		48.4	0.0					0.0	0.0	48.4	0.0	0.0	0.0
5.00		96.3	1,283.4					0.0	579.4	96.3	1,862.8	0.0	0.0
10.00		95.0	1,301.6					34.9	768.2	129.9	2,069.9	0.0	0.0
15.00		93.5	1,296.1					35.7	780.9	129.2	2,076.9	0.0	0.0
20.00		91.8	1,282.8					36.3	789.7	128.2	2,072.5	0.0	0.0
25.00		90.2	1,265.4					36.7	796.6	126.9	2,062.1	0.0	0.0
30.00		53.5	1,245.6					37.1	802.3	90.6	2,047.9	0.0	0.0
31.00	Appertunance(s)	13.4	247.4	25.5	0.0	0.0	111.8	7.5	161.1	46.4	520.2	0.0	0.0
31.50	Bot - Section 2	36.5	124.2					3.8	81.0	40.3	205.3	0.0	0.0
35.00		38.2	1,326.8					27.0	564.3	65.2	1,891.1	0.0	0.0
35.67	Top - Section 1	9.2	252.5					5.3	108.4	14.5	360.8	0.0	0.0
36.00	Appertunance(s)	40.4	73.1	22.8	0.0	0.0	209.3	2.6	53.4	65.8	335.7	0.0	0.0
40.00		84.6	875.7					32.3	648.1	116.9	1,523.7	0.0	0.0
45.00		95.1	1,075.0					41.9	813.5	137.0	1,888.4	0.0	0.0
50.00		95.9	1,053.6					43.5	816.9	139.4	1,870.5	0.0	0.0
55.00		96.4	1,031.5					45.0	820.1	141.4	1,851.5	0.0	0.0
60.00		96.6	1,008.8					46.4	823.0	143.1	1,831.8	0.0	0.0
65.00		96.6	985.7					47.8	825.7	144.4	1,811.3	0.0	0.0
70.00		48.8	962.1					49.0	828.2	97.8	1,790.3	0.0	0.0
70.05	Bot - Section 3	34.7	10.2					0.5	8.8	35.3	19.0	0.0	0.0
73.55	Top - Section 2	48.3	975.6					35.0	581.2	83.4	1,556.8	0.0	0.0
75.00		62.7	243.8					14.6	240.6	77.4	484.4	0.0	0.0
80.00		96.9	825.2					51.4	832.8	148.2	1,658.0	0.0	0.0
85.00		96.1	803.9					52.4	834.9	148.5	1,638.8	0.0	0.0
90.00		58.3	782.3					53.5	836.9	111.8	1,619.3	0.0	0.0
91.10	Reinf. Top Reinf	47.3	170.1					11.9	184.4	59.2	354.5	0.0	0.0
95.00		83.6	592.3					42.6	654.5	126.2	1,246.7	0.0	0.0
100.00		60.6	738.4					55.5	840.7	116.1	1,579.1	0.0	0.0
101.50	Reinf. Top Reinf	27.7	218.4					16.8	252.6	44.6	470.9	0.0	0.0
103.00	Appertunance(s)	32.2	216.4	980.6	0.0	0.0	9,830.7	16.9	224.3	1,029.7	10,271.4	0.0	0.0
105.00		63.8	285.1					22.7	291.6	86.5	576.8	0.0	0.0
110.00	Reinf. Top Reinf	45.9	693.7					47.9	633.9	93.7	1,327.6	0.0	0.0
110.05	Top - Section 3	44.7	7.3					0.0	5.6	44.7	12.9	0.0	0.0
115.00	Appertunance(s)	74.9	580.8	321.1	0.0	796.7	2,384.6	0.0	517.3	396.0	3,482.6	0.0	0.0
118.50	Reinf. Top	43.8	400.5					0.0	348.3	43.8	748.8	0.0	0.0
120.00		56.0	169.4					0.0	80.5	56.0	249.9	0.0	0.0
125.00		68.3	547.8					0.0	202.1	68.3	749.9	0.0	0.0
128.00	Appertunance(s)	42.1	320.5	643.8	0.0	270.5	5,293.6	0.0	121.6	685.8	5,735.7	0.0	0.0
130.00		57.8	210.2					0.0	25.6	57.8	235.8	0.0	0.0
135.00		81.2	507.9					0.0	64.0	81.2	571.9	0.0	0.0
140.00		48.0	487.7					0.0	64.0	48.0	551.7	0.0	0.0
141.00	Appertunance(s)	39.1	96.1	574.2	0.0	0.0	6,450.3	0.0	12.8	613.2	6,559.2	0.0	0.0
145.00		69.2	373.3					0.0	32.0	69.2	405.3	0.0	0.0
150.00	Appertunance(s)	38.0	447.1	1,048.2	0.0	3,480.3	9,729.0	0.0	40.0	1,086.1	10,216.1	0.0	0.0
Totals:										7,312.74	80,396.4	0.00	0.00

Site Number: 302473

Code: ANSI/TIA-222-G

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

Engineering Number: OAA696438_C4_07

7/13/2017 11:03:41 AM

Customer: METRO PCS INC

Load Case: 1.2D + 1.0Di + 1.0Wi

50 mph with 1.00 in Radial Ice

27 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	-80.39	-7.33	0.00	-865.37	0.00	865.37	3,156.09	1,578.04	4,808.01	2,374.50	0.00	0.00	0.241
5.00	-78.52	-7.36	0.00	-828.71	0.00	828.71	3,113.28	1,556.64	4,641.42	2,292.22	0.05	-0.09	0.236
10.00	-76.43	-7.36	0.00	-791.90	0.00	791.90	3,069.45	1,534.72	4,476.09	2,210.57	0.20	-0.19	0.231
15.00	-74.35	-7.34	0.00	-755.12	0.00	755.12	3,024.57	1,512.28	4,312.14	2,129.61	0.45	-0.29	0.226
20.00	-72.26	-7.33	0.00	-718.40	0.00	718.40	2,978.65	1,489.33	4,149.68	2,049.37	0.80	-0.38	0.221
25.00	-70.19	-7.30	0.00	-681.77	0.00	681.77	2,931.70	1,465.85	3,988.78	1,969.91	1.25	-0.48	0.215
30.00	-68.13	-7.26	0.00	-645.26	0.00	645.26	2,873.79	1,436.89	3,816.40	1,884.77	1.81	-0.58	0.210
31.00	-67.61	-7.23	0.00	-638.00	0.00	638.00	2,859.85	1,429.93	3,779.26	1,866.44	1.93	-0.60	0.209
31.50	-67.40	-7.23	0.00	-634.36	0.00	634.36	2,852.84	1,426.42	3,760.64	1,857.24	2.00	-0.61	0.209
35.00	-65.51	-7.19	0.00	-609.07	0.00	609.07	2,804.11	1,402.06	3,632.54	1,793.98	2.47	-0.68	0.203
35.67	-65.14	-7.19	0.00	-604.25	0.00	604.25	2,247.39	1,123.70	2,971.54	1,467.53	2.56	-0.69	0.233
36.00	-64.80	-7.17	0.00	-601.88	0.00	601.88	2,245.17	1,122.59	2,963.78	1,463.70	2.61	-0.70	0.232
40.00	-63.27	-7.13	0.00	-573.22	0.00	573.22	2,217.94	1,108.97	2,870.05	1,417.41	3.23	-0.78	0.226
45.00	-61.37	-7.08	0.00	-537.56	0.00	537.56	2,182.97	1,091.48	2,753.70	1,359.95	4.10	-0.88	0.217
50.00	-59.49	-7.01	0.00	-502.18	0.00	502.18	2,146.96	1,073.48	2,638.35	1,302.98	5.08	-0.98	0.209
55.00	-57.63	-6.94	0.00	-467.12	0.00	467.12	2,109.91	1,054.96	2,524.10	1,246.56	6.16	-1.08	0.199
60.00	-55.79	-6.85	0.00	-432.43	0.00	432.43	2,071.82	1,035.91	2,411.06	1,190.73	7.35	-1.18	0.190
65.00	-53.97	-6.76	0.00	-398.16	0.00	398.16	2,032.70	1,016.35	2,299.33	1,135.55	8.64	-1.28	0.180
70.00	-52.18	-6.67	0.00	-364.36	0.00	364.36	1,981.31	990.65	2,176.68	1,074.98	10.03	-1.37	0.171
70.05	-52.16	-6.66	0.00	-364.00	0.00	364.00	1,980.69	990.35	2,175.31	1,074.30	10.04	-1.38	0.171
73.55	-50.60	-6.58	0.00	-340.69	0.00	340.69	1,473.36	736.68	1,622.77	801.43	11.08	-1.44	0.191
75.00	-50.11	-6.54	0.00	-331.17	0.00	331.17	1,465.95	732.98	1,600.80	790.57	11.52	-1.47	0.187
80.00	-48.44	-6.43	0.00	-298.45	0.00	298.45	1,439.68	719.84	1,525.22	753.25	13.11	-1.56	0.173
85.00	-46.80	-6.31	0.00	-266.30	0.00	266.30	1,412.37	706.19	1,450.29	716.24	14.80	-1.65	0.159
90.00	-45.18	-6.19	0.00	-234.77	0.00	234.77	1,384.02	692.01	1,376.10	679.61	16.57	-1.74	0.145
91.10	-44.82	-6.15	0.00	-227.96	0.00	227.96	1,377.65	688.82	1,359.89	671.60	16.98	-1.76	0.142
91.10	-44.82	-6.15	0.00	-227.96	0.00	227.96	1,377.65	688.82	1,359.89	671.60	16.98	-1.76	0.142
95.00	-43.57	-6.04	0.00	-203.97	0.00	203.97	1,354.64	677.32	1,302.77	643.39	18.44	-1.82	0.130
100.00	-41.99	-5.91	0.00	-173.78	0.00	173.78	1,324.21	662.11	1,230.38	607.64	20.39	-1.89	0.115
101.50	-41.52	-5.86	0.00	-164.93	0.00	164.93	1,314.88	657.44	1,208.86	597.01	20.99	-1.92	0.111
101.50	-41.52	-5.86	0.00	-164.93	0.00	164.93	1,314.88	657.44	1,208.86	597.01	20.99	-1.92	0.160
103.00	-31.29	-4.50	0.00	-156.14	0.00	156.14	1,305.46	652.73	1,187.45	586.44	21.59	-1.94	0.150
105.00	-30.71	-4.43	0.00	-147.13	0.00	147.13	1,293.27	646.64	1,159.51	572.64	22.41	-1.98	0.144
110.00	-29.38	-4.31	0.00	-124.97	0.00	124.97	1,246.82	623.41	1,077.26	532.02	24.53	-2.07	0.130
110.00	-29.38	-4.31	0.00	-124.97	0.00	124.97	1,246.82	623.41	1,077.26	532.02	24.53	-2.07	0.148
110.05	-29.37	-4.30	0.00	-124.74	0.00	124.74	1,246.32	623.16	1,076.40	531.59	24.55	-2.07	0.148
110.05	-29.37	-4.30	0.00	-124.74	0.00	124.74	852.93	426.46	741.03	365.97	24.55	-2.07	0.189
115.00	-25.90	-3.81	0.00	-102.70	0.00	102.70	834.88	417.44	698.45	344.94	26.75	-2.17	0.162
118.50	-25.15	-3.76	0.00	-89.37	0.00	89.37	821.50	410.75	668.53	330.16	28.37	-2.24	0.146
118.50	-25.15	-3.76	0.00	-89.37	0.00	89.37	821.50	410.75	668.53	330.16	28.37	-2.24	0.301
120.00	-24.89	-3.74	0.00	-83.73	0.00	83.73	815.61	407.80	655.76	323.86	29.08	-2.27	0.289
125.00	-24.14	-3.70	0.00	-65.03	0.00	65.03	795.30	397.65	613.53	303.00	31.55	-2.45	0.245
128.00	-18.43	-2.79	0.00	-53.66	0.00	53.66	782.61	391.31	588.45	290.61	33.13	-2.55	0.208
130.00	-18.20	-2.75	0.00	-48.08	0.00	48.08	773.95	386.97	571.85	282.42	34.21	-2.62	0.194
135.00	-17.62	-2.68	0.00	-34.31	0.00	34.31	751.56	375.78	530.84	262.16	37.03	-2.75	0.154
140.00	-17.07	-2.62	0.00	-20.91	0.00	20.91	728.14	364.07	490.58	242.28	39.96	-2.85	0.110
141.00	-10.55	-1.69	0.00	-18.28	0.00	18.28	721.90	360.95	481.67	237.88	40.56	-2.87	0.091
145.00	-10.15	-1.61	0.00	-11.52	0.00	11.52	694.03	347.02	445.00	219.77	42.98	-2.92	0.067
150.00	0.00	-1.09	0.00	-3.48	0.00	3.48	659.19	329.60	401.19	198.13	46.06	-2.95	0.018

Site Number: 302473

Code: ANSI/TIA-222-G

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

Engineering Number: OAA696438_C4_07

7/13/2017 11:03:41 AM

Customer: METRO PCS INC

Load Case: 1.0D + 1.0W

Serviceability 60 mph

26 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		53.8	0.0					0.0	0.0	53.8	0.0	0.0	0.0
5.00		116.9	751.8					0.0	359.8	116.9	1,111.6	0.0	0.0
10.00		124.9	735.7					27.0	463.1	151.9	1,198.9	0.0	0.0
15.00		122.2	719.6					27.0	463.1	149.1	1,182.8	0.0	0.0
20.00		119.4	703.5					27.0	463.1	146.4	1,166.7	0.0	0.0
25.00		116.7	687.5					27.0	463.1	143.7	1,150.6	0.0	0.0
30.00		69.1	671.4					27.0	463.1	96.1	1,134.5	0.0	0.0
31.00	Appertunance(s)	17.2	132.3	20.4	0.0	0.0	60.0	5.4	92.6	43.1	285.0	0.0	0.0
31.50	Bot - Section 2	47.0	66.4					2.7	46.5	49.7	112.9	0.0	0.0
35.00		49.2	845.3					19.4	323.4	68.6	1,168.7	0.0	0.0
35.67	Top - Section 1	11.9	160.3					3.8	62.0	15.7	222.3	0.0	0.0
36.00	Appertunance(s)	51.8	36.2	21.3	0.0	0.0	60.0	1.9	30.5	75.0	126.7	0.0	0.0
40.00		108.3	434.5					23.1	369.3	131.4	803.8	0.0	0.0
45.00		121.3	531.0					29.8	461.6	151.1	992.7	0.0	0.0
50.00		121.8	517.6					30.8	461.6	152.6	979.3	0.0	0.0
55.00		121.9	504.2					31.7	461.6	153.6	965.9	0.0	0.0
60.00		121.7	490.8					32.5	461.6	154.2	952.5	0.0	0.0
65.00		121.1	477.4					33.3	461.6	154.4	939.1	0.0	0.0
70.00		61.0	464.0					34.0	461.6	95.0	925.7	0.0	0.0
70.05	Bot - Section 3	43.4	4.9					0.4	4.9	43.7	9.8	0.0	0.0
73.55	Top - Section 2	60.3	575.5					24.2	323.2	84.6	898.7	0.0	0.0
75.00		77.9	105.4					10.1	133.6	88.0	239.0	0.0	0.0
80.00		120.0	357.5					35.4	461.6	155.4	819.1	0.0	0.0
85.00		118.4	346.8					36.0	461.6	154.4	808.4	0.0	0.0
90.00		71.6	336.0					36.6	461.6	108.2	797.7	0.0	0.0
91.10	Reinf. Top Reinf	57.8	72.5					8.1	101.6	66.0	174.1	0.0	0.0
95.00		101.8	252.8					29.1	360.1	130.9	612.9	0.0	0.0
100.00		73.6	314.6					37.8	461.6	111.4	776.2	0.0	0.0
101.50	Reinf. Top Reinf	33.5	92.3					11.4	138.5	45.0	230.8	0.0	0.0
103.00	Appertunance(s)	38.8	91.3	1,008.2	0.0	0.0	3,169.5	11.5	114.9	1,058.5	3,375.7	0.0	0.0
105.00		76.6	120.3					15.4	146.7	92.0	267.0	0.0	0.0
110.00	Reinf. Top Reinf	54.9	293.2					25.2	366.8	80.1	659.9	0.0	0.0
110.05	Top - Section 3	44.3	3.1					0.0	3.2	44.3	6.3	0.0	0.0
115.00	Appertunance(s)	74.2	210.2	290.8	0.0	826.5	832.2	0.0	299.7	365.0	1,342.1	0.0	0.0
118.50	Reinf. Top	43.2	143.9					0.0	196.8	43.2	340.7	0.0	0.0
120.00		54.8	60.5					0.0	26.9	54.8	87.4	0.0	0.0
125.00		66.6	196.4					0.0	89.7	66.6	286.1	0.0	0.0
128.00	Appertunance(s)	40.8	114.0	613.5	0.0	315.6	1,567.2	0.0	53.8	654.3	1,735.0	0.0	0.0
130.00		55.6	74.4					0.0	21.3	55.6	95.7	0.0	0.0
135.00		77.6	180.3					0.0	53.4	77.6	233.7	0.0	0.0
140.00		45.6	172.3					0.0	53.4	45.6	225.6	0.0	0.0
141.00	Appertunance(s)	36.7	33.5	566.5	0.0	0.0	1,974.1	0.0	10.7	603.3	2,018.3	0.0	0.0
145.00		64.6	130.7					0.0	26.7	64.6	157.4	0.0	0.0
150.00	Appertunance(s)	35.3	156.2	895.6	0.0	3,524.4	3,592.2	0.0	33.4	930.9	3,781.7	0.0	0.0
Totals:										7,326.17	35,398.7	0.00	0.00

Site Number: 302473

Code: ANSI/TIA-222-G

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

Engineering Number: OAA696438_C4_07

7/13/2017 11:03:44 AM

Customer: METRO PCS INC

Load Case: 1.0D + 1.0W

Serviceability 60 mph

26 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	-35.39	-7.30	0.00	-745.20	0.00	745.20	3,156.09	1,578.04	4,808.01	2,374.50	0.00	0.00	0.200
5.00	-34.27	-7.23	0.00	-708.72	0.00	708.72	3,113.28	1,556.64	4,641.42	2,292.22	0.04	-0.08	0.195
10.00	-33.06	-7.12	0.00	-672.58	0.00	672.58	3,069.45	1,534.72	4,476.09	2,210.57	0.17	-0.16	0.189
15.00	-31.87	-7.01	0.00	-636.97	0.00	636.97	3,024.57	1,512.28	4,312.14	2,129.61	0.39	-0.24	0.184
20.00	-30.70	-6.90	0.00	-601.91	0.00	601.91	2,978.65	1,489.33	4,149.68	2,049.37	0.68	-0.32	0.178
25.00	-29.54	-6.79	0.00	-567.39	0.00	567.39	2,931.70	1,465.85	3,988.78	1,969.91	1.07	-0.41	0.173
30.00	-28.40	-6.71	0.00	-533.42	0.00	533.42	2,873.79	1,436.89	3,816.40	1,884.77	1.54	-0.49	0.167
31.00	-28.11	-6.67	0.00	-526.71	0.00	526.71	2,859.85	1,429.93	3,779.26	1,866.44	1.64	-0.50	0.166
31.50	-27.99	-6.64	0.00	-523.35	0.00	523.35	2,852.84	1,426.42	3,760.64	1,857.24	1.69	-0.51	0.166
35.00	-26.82	-6.58	0.00	-500.13	0.00	500.13	2,804.11	1,402.06	3,632.54	1,793.98	2.09	-0.57	0.160
35.67	-26.60	-6.56	0.00	-495.73	0.00	495.73	2,247.39	1,123.70	2,971.54	1,467.53	2.17	-0.58	0.184
36.00	-26.47	-6.50	0.00	-493.56	0.00	493.56	2,245.17	1,122.59	2,963.78	1,463.70	2.21	-0.58	0.183
40.00	-25.66	-6.40	0.00	-467.55	0.00	467.55	2,217.94	1,108.97	2,870.05	1,417.41	2.73	-0.65	0.177
45.00	-24.66	-6.27	0.00	-435.57	0.00	435.57	2,182.97	1,091.48	2,753.70	1,359.95	3.46	-0.74	0.169
50.00	-23.67	-6.14	0.00	-404.23	0.00	404.23	2,146.96	1,073.48	2,638.35	1,302.98	4.27	-0.82	0.161
55.00	-22.70	-6.00	0.00	-373.55	0.00	373.55	2,109.91	1,054.96	2,524.10	1,246.56	5.17	-0.90	0.153
60.00	-21.74	-5.86	0.00	-343.55	0.00	343.55	2,071.82	1,035.91	2,411.06	1,190.73	6.16	-0.98	0.145
65.00	-20.80	-5.72	0.00	-314.26	0.00	314.26	2,032.70	1,016.35	2,299.33	1,135.55	7.22	-1.05	0.136
70.00	-19.87	-5.62	0.00	-285.68	0.00	285.68	1,981.31	990.65	2,176.68	1,074.98	8.37	-1.13	0.128
70.05	-19.86	-5.58	0.00	-285.38	0.00	285.38	1,980.69	990.35	2,175.31	1,074.30	8.38	-1.13	0.128
73.55	-18.96	-5.49	0.00	-265.84	0.00	265.84	1,473.36	736.68	1,622.77	801.43	9.23	-1.18	0.141
75.00	-18.72	-5.41	0.00	-257.90	0.00	257.90	1,465.95	732.98	1,600.80	790.57	9.59	-1.20	0.138
80.00	-17.90	-5.26	0.00	-230.83	0.00	230.83	1,439.68	719.84	1,525.22	753.25	10.89	-1.28	0.127
85.00	-17.09	-5.11	0.00	-204.52	0.00	204.52	1,412.37	706.19	1,450.29	716.24	12.26	-1.35	0.115
90.00	-16.29	-4.99	0.00	-178.96	0.00	178.96	1,384.02	692.01	1,376.10	679.61	13.71	-1.41	0.104
91.10	-16.11	-4.93	0.00	-173.47	0.00	173.47	1,377.65	688.82	1,359.89	671.60	14.04	-1.43	0.101
91.10	-16.11	-4.93	0.00	-173.47	0.00	173.47	1,377.65	688.82	1,359.89	671.60	14.04	-1.43	0.101
95.00	-15.50	-4.80	0.00	-154.23	0.00	154.23	1,354.64	677.32	1,302.77	643.39	15.22	-1.47	0.092
100.00	-14.72	-4.68	0.00	-130.23	0.00	130.23	1,324.21	662.11	1,230.38	607.64	16.79	-1.53	0.080
101.50	-14.49	-4.63	0.00	-123.22	0.00	123.22	1,314.88	657.44	1,208.86	597.01	17.28	-1.54	0.077
101.50	-14.49	-4.63	0.00	-123.22	0.00	123.22	1,314.88	657.44	1,208.86	597.01	17.28	-1.54	0.113
103.00	-11.15	-3.49	0.00	-116.27	0.00	116.27	1,305.46	652.73	1,187.45	586.44	17.77	-1.56	0.106
105.00	-10.88	-3.40	0.00	-109.30	0.00	109.30	1,293.27	646.64	1,159.51	572.64	18.43	-1.59	0.102
110.00	-10.22	-3.30	0.00	-92.32	0.00	92.32	1,246.82	623.41	1,077.26	532.02	20.13	-1.66	0.091
110.00	-10.22	-3.30	0.00	-92.32	0.00	92.32	1,246.82	623.41	1,077.26	532.02	20.13	-1.66	0.104
110.05	-10.21	-3.26	0.00	-92.15	0.00	92.15	1,246.32	623.16	1,076.40	531.59	20.15	-1.66	0.104
110.05	-10.21	-3.26	0.00	-92.15	0.00	92.15	852.93	426.46	741.03	365.97	20.15	-1.66	0.133
115.00	-8.88	-2.87	0.00	-75.17	0.00	75.17	834.88	417.44	698.45	344.94	21.90	-1.73	0.112
118.50	-8.54	-2.82	0.00	-65.13	0.00	65.13	821.50	410.75	668.53	330.16	23.19	-1.78	0.101
118.50	-8.54	-2.82	0.00	-65.13	0.00	65.13	821.50	410.75	668.53	330.16	23.19	-1.78	0.208
120.00	-8.45	-2.78	0.00	-60.89	0.00	60.89	815.61	407.80	655.76	323.86	23.76	-1.81	0.198
125.00	-8.16	-2.71	0.00	-47.01	0.00	47.01	795.30	397.65	613.53	303.00	25.72	-1.94	0.165
128.00	-6.45	-2.01	0.00	-38.55	0.00	38.55	782.61	391.31	588.45	290.61	26.96	-2.01	0.141
130.00	-6.35	-1.96	0.00	-34.54	0.00	34.54	773.95	386.97	571.85	282.42	27.82	-2.06	0.131
135.00	-6.12	-1.88	0.00	-24.76	0.00	24.76	751.56	375.78	530.84	262.16	30.02	-2.15	0.103
140.00	-5.89	-1.83	0.00	-15.36	0.00	15.36	728.14	364.07	490.58	242.28	32.32	-2.22	0.072
141.00	-3.90	-1.15	0.00	-13.53	0.00	13.53	721.90	360.95	481.67	237.88	32.78	-2.24	0.062
145.00	-3.74	-1.08	0.00	-8.93	0.00	8.93	694.03	347.02	445.00	219.77	34.67	-2.28	0.046
150.00	0.00	-0.93	0.00	-3.52	0.00	3.52	659.19	329.60	401.19	198.13	37.08	-2.31	0.018

Site Number: 302473

Code: ANSI/TIA-222-G

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

Engineering Number: OAA696438_C4_07

7/13/2017 11:03:45 AM

Customer: METRO PCS INC

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_{d1}):	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):	2.98
Redundancy Factor (p):	1.30
Seismic Force Distribution Exponent (k):	2.00
Total Unfactored Dead Load:	35.40 k
Seismic Base Shear (E):	1.38 k

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

Seismic Equivalent Lateral Forces Method

Segment	Height Above Base (ft)	Weight (lb)	W_z (lb-ft)	C_{vx}	Horizontal Force (lb)	Vertical Force (lb)
43	147.50	190	4,123	0.014	19	235
42	143.00	157	3,219	0.011	15	195
41	140.50	44	872	0.003	4	55
40	137.50	226	4,265	0.014	19	279
39	132.50	234	4,102	0.014	19	289
38	129.00	96	1,593	0.005	7	119
37	126.50	168	2,685	0.009	12	208
36	122.50	286	4,293	0.014	20	354
35	119.25	87	1,243	0.004	6	108
34	116.75	341	4,644	0.015	21	422
33	112.53	510	6,456	0.021	29	631
32	110.03	6	76	0.000	0	8
31	107.50	660	7,626	0.025	35	817
30	104.00	267	2,887	0.010	13	331
29	102.25	206	2,156	0.007	10	255
28	100.75	231	2,343	0.008	11	286
27	97.50	776	7,379	0.024	34	961
26	93.05	613	5,307	0.018	24	759
25	90.55	174	1,427	0.005	7	216
24	87.50	798	6,107	0.020	28	988
23	82.50	808	5,502	0.018	25	1,001
22	77.50	819	4,920	0.016	22	1,014
21	74.28	239	1,319	0.004	6	296

Site Number: 302473

Code: ANSI/TIA-222-G

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

Engineering Number: OAA696438_C4_07

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Customer: METRO PCS INC

20	71.80	899	4,633	0.015	21	1,113
19	70.03	10	48	0.000	0	12
18	67.50	926	4,218	0.014	19	1,146
17	62.50	939	3,668	0.012	17	1,163
16	57.50	952	3,149	0.010	14	1,179
15	52.50	966	2,662	0.009	12	1,196
14	47.50	979	2,210	0.007	10	1,213
13	42.50	993	1,793	0.006	8	1,229
12	38.00	804	1,161	0.004	5	995
11	35.83	67	86	0.000	0	83
10	35.33	222	278	0.001	1	275
9	33.25	1,169	1,292	0.004	6	1,447
8	31.25	113	110	0.000	1	140
7	30.50	225	209	0.001	1	279
6	27.50	1,135	858	0.003	4	1,405
5	22.50	1,151	582	0.002	3	1,425
4	17.50	1,167	357	0.001	2	1,445
3	12.50	1,183	185	0.001	1	1,464
2	7.50	1,199	67	0.000	0	1,484
1	2.50	1,112	7	0.000	0	1,376
Powerwave 7020.00 Du	150.00	26	594	0.002	3	33
Powerwave LGP21401	150.00	85	1,904	0.006	9	105
Raycap DC6-48-60-18-	150.00	40	900	0.003	4	50
Ericsson RRUS 11 (Ba	150.00	165	3,713	0.012	17	204
Ericsson RRUS 12 w/	150.00	214	4,820	0.016	22	265
Ericsson RRUS-32	150.00	231	5,198	0.017	24	286
Powerwave Allgon 777	150.00	162	3,645	0.012	17	201
Flat Side Arm	150.00	450	10,125	0.033	46	557
CCI OPA-65R-LCUU-H6	150.00	219	4,928	0.016	22	271
Round Platform w/ Ha	150.00	2,000	45,000	0.149	205	2,476
RFS IBC1900BB-1	141.00	66	1,312	0.004	6	82
RFS IBC1900HG-2A	141.00	66	1,312	0.004	6	82
Alcatel-Lucent 4X40W	141.00	357	7,098	0.023	32	442
Alcatel-Lucent 800 M	141.00	185	3,686	0.012	17	230
Alcatel-Lucent TD-RR	141.00	210	4,175	0.014	19	260
RFS APXVTM14-C-I20	141.00	159	3,155	0.010	14	197
RFS APXV9ERR18-C-A20	141.00	124	2,465	0.008	11	154
RFS APXVSP18-C-A20	141.00	57	1,133	0.004	5	71
Round T-Arm	141.00	750	14,911	0.049	68	929
Ericsson AIR 21, 1.3	128.00	271	4,443	0.015	20	336
Ericsson AIR32 B66Aa	128.00	397	6,498	0.021	30	491
Andrew LNX-6515DS-A1	128.00	149	2,448	0.008	11	185
Flat T-Arm	128.00	750	12,288	0.041	56	929
DragonWave Horizon C	115.00	32	421	0.001	2	39
12" x 12" Junction B	115.00	10	132	0.000	1	12
DragonWave A-ANT-23G	115.00	15	198	0.001	1	19
NextNet BTS-2500	115.00	105	1,389	0.005	6	130
Argus LLPX310R	115.00	86	1,135	0.004	5	106
DragonWave A-ANT-23G	115.00	25	325	0.001	1	30
Collar	115.00	560	7,406	0.024	34	693
Alcatel-Lucent RRH2X	103.00	138	1,464	0.005	7	171
Alcatel-Lucent RRH2x	103.00	170	1,805	0.006	8	211
Alcatel-Lucent RRH2X	103.00	165	1,750	0.006	8	204
RFS DB-T1-6Z-8AB-0Z	103.00	88	934	0.003	4	109
Andrew SBNHH-1D65B	103.00	608	6,455	0.021	29	753
Flat Platform w/ Han	103.00	2,000	21,218	0.070	97	2,476
GPS	36.00	10	13	0.000	0	12
Stand-off	36.00	50	65	0.000	0	62
GPS	31.00	10	10	0.000	0	12
Stand-off	31.00	50	48	0.000	0	62
		35,399	302,633	1.000	1,381	43,830

Site Number: 302473

Code: ANSI/TIA-222-G

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

Engineering Number: OAA696438_C4_07

7/13/2017 11:03:45 AM

Customer: METRO PCS INC

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

Seismic (Reduced DL) Equivalent Lateral Forces Method

Segment	Height Above Base (ft)	Weight (lb)	W _z (lb-ft)	C _{vx}	Horizontal Force (lb)	Vertical Force (lb)
43	147.50	190	4,123	0.014	19	163
42	143.00	157	3,219	0.011	15	136
41	140.50	44	872	0.003	4	38
40	137.50	226	4,265	0.014	19	194
39	132.50	234	4,102	0.014	19	201
38	129.00	96	1,593	0.005	7	82
37	126.50	168	2,685	0.009	12	145
36	122.50	286	4,293	0.014	20	247
35	119.25	87	1,243	0.004	6	75
34	116.75	341	4,644	0.015	21	294
33	112.53	510	6,456	0.021	29	439
32	110.03	6	76	0.000	0	5
31	107.50	660	7,626	0.025	35	569
30	104.00	267	2,887	0.010	13	230
29	102.25	206	2,156	0.007	10	178
28	100.75	231	2,343	0.008	11	199
27	97.50	776	7,379	0.024	34	669
26	93.05	613	5,307	0.018	24	528
25	90.55	174	1,427	0.005	7	150
24	87.50	798	6,107	0.020	28	687
23	82.50	808	5,502	0.018	25	697
22	77.50	819	4,920	0.016	22	706
21	74.28	239	1,319	0.004	6	206
20	71.80	899	4,633	0.015	21	775
19	70.03	10	48	0.000	0	8
18	67.50	926	4,218	0.014	19	798
17	62.50	939	3,668	0.012	17	809
16	57.50	952	3,149	0.010	14	821
15	52.50	966	2,662	0.009	12	832
14	47.50	979	2,210	0.007	10	844
13	42.50	993	1,793	0.006	8	856
12	38.00	804	1,161	0.004	5	693
11	35.83	67	86	0.000	0	58
10	35.33	222	278	0.001	1	192
9	33.25	1,169	1,292	0.004	6	1,007
8	31.25	113	110	0.000	1	97
7	30.50	225	209	0.001	1	194
6	27.50	1,135	858	0.003	4	978
5	22.50	1,151	582	0.002	3	992
4	17.50	1,167	357	0.001	2	1,005
3	12.50	1,183	185	0.001	1	1,019
2	7.50	1,199	67	0.000	0	1,033
1	2.50	1,112	7	0.000	0	958
Powerwave 7020.00 Du	150.00	26	594	0.002	3	23
Powerwave LGP21401	150.00	85	1,904	0.006	9	73
Raycap DC6-48-60-18-	150.00	40	900	0.003	4	34
Ericsson RRUS 11 (Ba	150.00	165	3,713	0.012	17	142
Ericsson RRUS 12 w/	150.00	214	4,820	0.016	22	185
Ericsson RRUS-32	150.00	231	5,198	0.017	24	199
Powerwave Allgon 777	150.00	162	3,645	0.012	17	140
Flat Side Arm	150.00	450	10,125	0.033	46	388
CCI OPA-65R-LCUU-H6	150.00	219	4,928	0.016	22	189
Round Platform w/ Ha	150.00	2,000	45,000	0.149	205	1,724
RFS IBC1900BB-1	141.00	66	1,312	0.004	6	57
RFS IBC1900HG-2A	141.00	66	1,312	0.004	6	57
Alcatel-Lucent 4X40W	141.00	357	7,098	0.023	32	308
Alcatel-Lucent 800 M	141.00	185	3,686	0.012	17	160

Site Number: 302473

Code: ANSI/TIA-222-G

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

Engineering Number: OAA696438_C4_07

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Customer: METRO PCS INC

Alcatel-Lucent TD-RR	141.00	210	4,175	0.014	19	181
RFS APXVTM14-C-I20	141.00	159	3,155	0.010	14	137
RFS APXV9ERR18-C-A20	141.00	124	2,465	0.008	11	107
RFS APXVSPP18-C-A20	141.00	57	1,133	0.004	5	49
Round T-Arm	141.00	750	14,911	0.049	68	646
Ericsson AIR 21, 1.3	128.00	271	4,443	0.015	20	234
Ericsson AIR32 B66Aa	128.00	397	6,498	0.021	30	342
Andrew LNX-6515DS-A1	128.00	149	2,448	0.008	11	129
Flat T-Arm	128.00	750	12,288	0.041	56	646
DragonWave Horizon C	115.00	32	421	0.001	2	27
12" x 12" Junction B	115.00	10	132	0.000	1	9
DragonWave A-ANT-23G	115.00	15	198	0.001	1	13
NextNet BTS-2500	115.00	105	1,389	0.005	6	90
Argus LLPX310R	115.00	86	1,135	0.004	5	74
DragonWave A-ANT-23G	115.00	25	325	0.001	1	21
Collar	115.00	560	7,406	0.024	34	483
Alcatel-Lucent RRH2X	103.00	138	1,464	0.005	7	119
Alcatel-Lucent RRH2x	103.00	170	1,805	0.006	8	147
Alcatel-Lucent RRH2X	103.00	165	1,750	0.006	8	142
RFS DB-T1-6Z-8AB-0Z	103.00	88	934	0.003	4	76
Andrew SBNHH-1D65B	103.00	608	6,455	0.021	29	524
Flat Platform w/ Han	103.00	2,000	21,218	0.070	97	1,724
GPS	36.00	10	13	0.000	0	9
Stand-off	36.00	50	65	0.000	0	43
GPS	31.00	10	10	0.000	0	9
Stand-off	31.00	50	48	0.000	0	43
		35,399	302,633	1.000	1,381	30,507

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

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-42.45	-1.39	0.00	-178.06	0.00	178.06	3,156.09	1,578.04	4,808.01	2,374.50	0.00	0.00	0.055
5.00	-40.97	-1.40	0.00	-171.13	0.00	171.13	3,113.28	1,556.64	4,641.42	2,292.22	0.01	-0.02	0.054
10.00	-39.50	-1.41	0.00	-164.12	0.00	164.12	3,069.45	1,534.72	4,476.09	2,210.57	0.04	-0.04	0.053
15.00	-38.06	-1.42	0.00	-157.06	0.00	157.06	3,024.57	1,512.28	4,312.14	2,129.61	0.09	-0.06	0.052
20.00	-36.63	-1.43	0.00	-149.94	0.00	149.94	2,978.65	1,489.33	4,149.68	2,049.37	0.17	-0.08	0.051
25.00	-35.23	-1.44	0.00	-142.79	0.00	142.79	2,931.70	1,465.85	3,988.78	1,969.91	0.26	-0.10	0.050
30.00	-34.95	-1.44	0.00	-135.59	0.00	135.59	2,873.79	1,436.89	3,816.40	1,884.77	0.37	-0.12	0.049
31.00	-34.74	-1.44	0.00	-134.15	0.00	134.15	2,859.85	1,429.93	3,779.26	1,866.44	0.40	-0.12	0.049
31.50	-33.29	-1.44	0.00	-133.42	0.00	133.42	2,852.84	1,426.42	3,760.64	1,857.24	0.41	-0.13	0.048
35.00	-33.01	-1.44	0.00	-128.39	0.00	128.39	2,804.11	1,402.06	3,632.54	1,793.98	0.51	-0.14	0.047
35.67	-32.93	-1.44	0.00	-127.42	0.00	127.42	2,247.39	1,123.70	2,971.54	1,467.53	0.53	-0.14	0.054
36.00	-31.86	-1.44	0.00	-126.94	0.00	126.94	2,245.17	1,122.59	2,963.78	1,463.70	0.54	-0.15	0.054
40.00	-30.63	-1.44	0.00	-121.18	0.00	121.18	2,217.94	1,108.97	2,870.05	1,417.41	0.67	-0.16	0.053
45.00	-29.42	-1.44	0.00	-113.97	0.00	113.97	2,182.97	1,091.48	2,753.70	1,359.95	0.85	-0.18	0.051
50.00	-28.22	-1.43	0.00	-106.79	0.00	106.79	2,146.96	1,073.48	2,638.35	1,302.98	1.06	-0.21	0.049
55.00	-27.04	-1.42	0.00	-99.63	0.00	99.63	2,109.91	1,054.96	2,524.10	1,246.56	1.28	-0.23	0.047
60.00	-25.88	-1.41	0.00	-92.51	0.00	92.51	2,071.82	1,035.91	2,411.06	1,190.73	1.53	-0.25	0.045
65.00	-24.73	-1.40	0.00	-85.45	0.00	85.45	2,032.70	1,016.35	2,299.33	1,135.55	1.80	-0.27	0.042
70.00	-24.72	-1.40	0.00	-78.48	0.00	78.48	1,981.31	990.65	2,176.68	1,074.98	2.10	-0.29	0.041
70.05	-23.61	-1.38	0.00	-78.40	0.00	78.40	1,980.69	990.35	2,175.31	1,074.30	2.10	-0.29	0.040
73.55	-23.31	-1.37	0.00	-73.59	0.00	73.59	1,473.36	736.68	1,622.77	801.43	2.32	-0.30	0.046
75.00	-22.30	-1.35	0.00	-71.60	0.00	71.60	1,465.95	732.98	1,600.80	790.57	2.41	-0.31	0.044
80.00	-21.29	-1.33	0.00	-64.85	0.00	64.85	1,439.68	719.84	1,525.22	753.25	2.75	-0.33	0.041
85.00	-20.31	-1.30	0.00	-58.22	0.00	58.22	1,412.37	706.19	1,450.29	716.24	3.10	-0.35	0.038
90.00	-20.09	-1.30	0.00	-51.72	0.00	51.72	1,384.02	692.01	1,376.10	679.61	3.48	-0.37	0.036
91.10	-19.33	-1.27	0.00	-50.29	0.00	50.29	1,377.65	688.82	1,359.89	671.60	3.57	-0.37	0.035
91.10	-19.33	-1.27	0.00	-50.29	0.00	50.29	1,377.65	688.82	1,359.89	671.60	3.57	-0.37	0.035
95.00	-18.37	-1.23	0.00	-45.34	0.00	45.34	1,354.64	677.32	1,302.77	643.39	3.88	-0.39	0.032
100.00	-18.08	-1.23	0.00	-39.17	0.00	39.17	1,324.21	662.11	1,230.38	607.64	4.29	-0.40	0.029
101.50	-17.83	-1.22	0.00	-37.33	0.00	37.33	1,314.88	657.44	1,208.86	597.01	4.42	-0.41	0.028
101.50	-17.83	-1.22	0.00	-37.33	0.00	37.33	1,314.88	657.44	1,208.86	597.01	4.42	-0.41	0.040
103.00	-13.58	-1.02	0.00	-35.51	0.00	35.51	1,305.46	652.73	1,187.45	586.44	4.55	-0.41	0.037
105.00	-12.76	-0.98	0.00	-33.47	0.00	33.47	1,293.27	646.64	1,159.51	572.64	4.72	-0.42	0.035
110.00	-12.75	-0.98	0.00	-28.55	0.00	28.55	1,246.82	623.41	1,077.26	532.02	5.18	-0.44	0.032
110.00	-12.75	-0.98	0.00	-28.55	0.00	28.55	1,246.82	623.41	1,077.26	532.02	5.18	-0.44	0.037
110.05	-12.12	-0.95	0.00	-28.50	0.00	28.50	1,246.32	623.16	1,076.40	531.59	5.18	-0.44	0.036
110.05	-12.12	-0.95	0.00	-28.50	0.00	28.50	852.93	426.46	741.03	365.97	5.18	-0.44	0.047
115.00	-10.67	-0.87	0.00	-23.79	0.00	23.79	834.88	417.44	698.45	344.94	5.65	-0.47	0.040
118.50	-10.56	-0.87	0.00	-20.73	0.00	20.73	821.50	410.75	668.53	330.16	6.00	-0.48	0.037
118.50	-10.56	-0.87	0.00	-20.73	0.00	20.73	821.50	410.75	668.53	330.16	6.00	-0.48	0.076
120.00	-10.20	-0.85	0.00	-19.43	0.00	19.43	815.61	407.80	655.76	323.86	6.15	-0.49	0.073
125.00	-10.00	-0.84	0.00	-15.17	0.00	15.17	795.30	397.65	613.53	303.00	6.69	-0.53	0.063
128.00	-7.94	-0.70	0.00	-12.65	0.00	12.65	782.61	391.31	588.45	290.61	7.03	-0.56	0.054
130.00	-7.65	-0.68	0.00	-11.24	0.00	11.24	773.95	386.97	571.85	282.42	7.27	-0.57	0.050
135.00	-7.37	-0.66	0.00	-7.83	0.00	7.83	751.56	375.78	530.84	262.16	7.88	-0.60	0.040
140.00	-7.31	-0.66	0.00	-4.51	0.00	4.51	728.14	364.07	490.58	242.28	8.52	-0.62	0.029
141.00	-4.68	-0.44	0.00	-3.85	0.00	3.85	721.90	360.95	481.67	237.88	8.66	-0.63	0.023
145.00	-4.44	-0.42	0.00	-2.09	0.00	2.09	694.03	347.02	445.00	219.77	9.19	-0.64	0.016
150.00	0.00	-0.37	0.00	0.00	0.00	0.00	659.19	329.60	401.19	198.13	9.86	-0.64	0.000

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

Seismic (Reduced DL) Equivalent Lateral Forces Method

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-29.55	-1.38	0.00	-173.78	0.00	173.78	3,156.09	1,578.04	4,808.01	2,374.50	0.00	0.00	0.051
5.00	-28.52	-1.39	0.00	-166.86	0.00	166.86	3,113.28	1,556.64	4,641.42	2,292.22	0.01	-0.02	0.050
10.00	-27.50	-1.40	0.00	-159.89	0.00	159.89	3,069.45	1,534.72	4,476.09	2,210.57	0.04	-0.04	0.049
15.00	-26.49	-1.41	0.00	-152.88	0.00	152.88	3,024.57	1,512.28	4,312.14	2,129.61	0.09	-0.06	0.048
20.00	-25.50	-1.41	0.00	-145.83	0.00	145.83	2,978.65	1,489.33	4,149.68	2,049.37	0.16	-0.08	0.047
25.00	-24.52	-1.42	0.00	-138.77	0.00	138.77	2,931.70	1,465.85	3,988.78	1,969.91	0.25	-0.10	0.046
30.00	-24.32	-1.42	0.00	-131.69	0.00	131.69	2,873.79	1,436.89	3,816.40	1,884.77	0.37	-0.12	0.045
31.00	-24.18	-1.42	0.00	-130.27	0.00	130.27	2,859.85	1,429.93	3,779.26	1,866.44	0.39	-0.12	0.045
31.50	-23.17	-1.42	0.00	-129.55	0.00	129.55	2,852.84	1,426.42	3,760.64	1,857.24	0.40	-0.12	0.045
35.00	-22.98	-1.42	0.00	-124.60	0.00	124.60	2,804.11	1,402.06	3,632.54	1,793.98	0.50	-0.14	0.044
35.67	-22.92	-1.42	0.00	-123.65	0.00	123.65	2,247.39	1,123.70	2,971.54	1,467.53	0.52	-0.14	0.050
36.00	-22.17	-1.41	0.00	-123.18	0.00	123.18	2,245.17	1,122.59	2,963.78	1,463.70	0.53	-0.14	0.050
40.00	-21.32	-1.41	0.00	-117.53	0.00	117.53	2,217.94	1,108.97	2,870.05	1,417.41	0.65	-0.16	0.049
45.00	-20.47	-1.41	0.00	-110.48	0.00	110.48	2,182.97	1,091.48	2,753.70	1,359.95	0.83	-0.18	0.047
50.00	-19.64	-1.40	0.00	-103.45	0.00	103.45	2,146.96	1,073.48	2,638.35	1,302.98	1.03	-0.20	0.045
55.00	-18.82	-1.39	0.00	-96.46	0.00	96.46	2,109.91	1,054.96	2,524.10	1,246.56	1.25	-0.22	0.043
60.00	-18.01	-1.37	0.00	-89.53	0.00	89.53	2,071.82	1,035.91	2,411.06	1,190.73	1.49	-0.24	0.041
65.00	-17.21	-1.36	0.00	-82.66	0.00	82.66	2,032.70	1,016.35	2,299.33	1,135.55	1.75	-0.26	0.039
70.00	-17.20	-1.36	0.00	-75.88	0.00	75.88	1,981.31	990.65	2,176.68	1,074.98	2.04	-0.28	0.037
70.05	-16.43	-1.34	0.00	-75.80	0.00	75.80	1,980.69	990.35	2,175.31	1,074.30	2.04	-0.28	0.037
73.55	-16.22	-1.33	0.00	-71.13	0.00	71.13	1,473.36	736.68	1,622.77	801.43	2.25	-0.30	0.042
75.00	-15.52	-1.31	0.00	-69.20	0.00	69.20	1,465.95	732.98	1,600.80	790.57	2.34	-0.30	0.041
80.00	-14.82	-1.29	0.00	-62.65	0.00	62.65	1,439.68	719.84	1,525.22	753.25	2.67	-0.32	0.038
85.00	-14.13	-1.26	0.00	-56.22	0.00	56.22	1,412.37	706.19	1,450.29	716.24	3.02	-0.34	0.035
90.00	-13.98	-1.25	0.00	-49.93	0.00	49.93	1,384.02	692.01	1,376.10	679.61	3.38	-0.36	0.032
91.10	-13.45	-1.23	0.00	-48.55	0.00	48.55	1,377.65	688.82	1,359.89	671.60	3.46	-0.36	0.032
91.10	-13.45	-1.23	0.00	-48.55	0.00	48.55	1,377.65	688.82	1,359.89	671.60	3.46	-0.36	0.032
95.00	-12.78	-1.19	0.00	-43.76	0.00	43.76	1,354.64	677.32	1,302.77	643.39	3.77	-0.38	0.029
100.00	-12.59	-1.18	0.00	-37.80	0.00	37.80	1,324.21	662.11	1,230.38	607.64	4.17	-0.39	0.026
101.50	-12.41	-1.17	0.00	-36.02	0.00	36.02	1,314.88	657.44	1,208.86	597.01	4.29	-0.40	0.025
101.50	-12.41	-1.17	0.00	-36.02	0.00	36.02	1,314.88	657.44	1,208.86	597.01	4.29	-0.40	0.036
103.00	-9.45	-0.99	0.00	-34.26	0.00	34.26	1,305.46	652.73	1,187.45	586.44	4.42	-0.40	0.034
105.00	-8.88	-0.95	0.00	-32.28	0.00	32.28	1,293.27	646.64	1,159.51	572.64	4.59	-0.41	0.032
110.00	-8.87	-0.95	0.00	-27.53	0.00	27.53	1,246.82	623.41	1,077.26	532.02	5.03	-0.43	0.030
110.00	-8.87	-0.95	0.00	-27.53	0.00	27.53	1,246.82	623.41	1,077.26	532.02	5.03	-0.43	0.034
110.05	-8.43	-0.92	0.00	-27.48	0.00	27.48	1,246.32	623.16	1,076.40	531.59	5.03	-0.43	0.034
110.05	-8.43	-0.92	0.00	-27.48	0.00	27.48	852.93	426.46	741.03	365.97	5.03	-0.43	0.043
115.00	-7.42	-0.84	0.00	-22.92	0.00	22.92	834.88	417.44	698.45	344.94	5.49	-0.45	0.037
118.50	-7.35	-0.84	0.00	-19.96	0.00	19.96	821.50	410.75	668.53	330.16	5.82	-0.47	0.034
118.50	-7.35	-0.84	0.00	-19.96	0.00	19.96	821.50	410.75	668.53	330.16	5.82	-0.47	0.069
120.00	-7.10	-0.82	0.00	-18.70	0.00	18.70	815.61	407.80	655.76	323.86	5.97	-0.47	0.066
125.00	-6.96	-0.81	0.00	-14.60	0.00	14.60	795.30	397.65	613.53	303.00	6.49	-0.52	0.057
128.00	-5.52	-0.68	0.00	-12.16	0.00	12.16	782.61	391.31	588.45	290.61	6.82	-0.54	0.049
130.00	-5.32	-0.66	0.00	-10.81	0.00	10.81	773.95	386.97	571.85	282.42	7.05	-0.55	0.045
135.00	-5.13	-0.64	0.00	-7.53	0.00	7.53	751.56	375.78	530.84	262.16	7.64	-0.58	0.036
140.00	-5.09	-0.63	0.00	-4.33	0.00	4.33	728.14	364.07	490.58	242.28	8.27	-0.60	0.025
141.00	-3.25	-0.42	0.00	-3.70	0.00	3.70	721.90	360.95	481.67	237.88	8.39	-0.61	0.020
145.00	-3.09	-0.40	0.00	-2.01	0.00	2.01	694.03	347.02	445.00	219.77	8.91	-0.62	0.014
150.00	0.00	-0.37	0.00	0.00	0.00	0.00	659.19	329.60	401.19	198.13	9.55	-0.62	0.000

Site Number: 302473

Code: ANSI/TIA-222-G

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

Engineering Number: OAA696438_C4_07

7/13/2017 11:03:45 AM

Customer: METRO PCS INC

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):	2.98
Redundancy Factor (ρ):	1.30

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)
43	147.50	190	1.828	1.667	1.025	0.320	53	235
42	143.00	157	1.718	1.191	0.842	0.254	35	195
41	140.50	44	1.658	0.970	0.752	0.221	8	55
40	137.50	226	1.588	0.742	0.654	0.183	36	279
39	132.50	234	1.475	0.441	0.513	0.126	26	289
38	129.00	96	1.398	0.280	0.430	0.091	8	119
37	126.50	168	1.344	0.186	0.377	0.069	10	208
36	122.50	286	1.261	0.069	0.302	0.036	9	354
35	119.25	87	1.195	0.000	0.251	0.014	1	108
34	116.75	341	1.145	-0.041	0.216	-0.001	0	422
33	112.53	510	1.064	-0.088	0.165	-0.023	-10	631
32	110.03	6	1.017	-0.105	0.140	-0.033	0	8
31	107.50	660	0.971	-0.116	0.117	-0.042	-24	817
30	104.00	267	0.909	-0.122	0.091	-0.050	-12	331
29	102.25	206	0.878	-0.121	0.079	-0.053	-9	255
28	100.75	231	0.853	-0.119	0.070	-0.055	-11	286
27	97.50	776	0.799	-0.112	0.053	-0.056	-38	961
26	93.05	613	0.727	-0.095	0.035	-0.052	-28	759
25	90.55	174	0.689	-0.083	0.028	-0.048	-7	216
24	87.50	798	0.643	-0.068	0.020	-0.039	-27	988
23	82.50	808	0.572	-0.043	0.012	-0.022	-15	1,001
22	77.50	819	0.505	-0.018	0.007	-0.001	-1	1,014
21	74.28	239	0.463	-0.003	0.006	0.012	2	296
20	71.80	899	0.433	0.007	0.006	0.021	16	1,113
19	70.03	10	0.412	0.014	0.006	0.027	0	12
18	67.50	926	0.383	0.023	0.007	0.034	28	1,146
17	62.50	939	0.328	0.039	0.010	0.046	37	1,163
16	57.50	952	0.278	0.050	0.014	0.052	43	1,179
15	52.50	966	0.232	0.058	0.019	0.055	46	1,196
14	47.50	979	0.190	0.064	0.025	0.056	48	1,213
13	42.50	993	0.152	0.068	0.030	0.056	48	1,229
12	38.00	804	0.121	0.070	0.034	0.055	38	995
11	35.83	67	0.108	0.071	0.036	0.054	3	83
10	35.33	222	0.105	0.071	0.037	0.054	10	275

Site Number: 302473

Code: ANSI/TIA-222-G

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

Engineering Number: OAA696438_C4_07

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Customer: METRO PCS INC

9	33.25	1,169	0.093	0.071	0.038	0.053	54	1,447
8	31.25	113	0.082	0.072	0.039	0.053	5	140
7	30.50	225	0.078	0.072	0.040	0.053	10	279
6	27.50	1,135	0.064	0.072	0.041	0.052	51	1,405
5	22.50	1,151	0.043	0.070	0.042	0.050	50	1,425
4	17.50	1,167	0.026	0.067	0.040	0.048	49	1,445
3	12.50	1,183	0.013	0.059	0.034	0.044	45	1,464
2	7.50	1,199	0.005	0.044	0.025	0.035	36	1,484
1	2.50	1,112	0.001	0.018	0.010	0.017	16	1,376
Powerwave 7020.00 Du	150.00	26	1.890	1.980	1.140	0.360	8	33
Powerwave LGP21401	150.00	85	1.890	1.980	1.140	0.360	26	105
Raycap DC6-48-60-18-	150.00	40	1.890	1.980	1.140	0.360	12	50
Ericsson RRUS 11 (Ba	150.00	165	1.890	1.980	1.140	0.360	51	204
Ericsson RRUS 12 w/	150.00	214	1.890	1.980	1.140	0.360	67	265
Ericsson RRUS-32	150.00	231	1.890	1.980	1.140	0.360	72	286
Powerwave Allgon 777	150.00	162	1.890	1.980	1.140	0.360	51	201
Flat Side Arm	150.00	450	1.890	1.980	1.140	0.360	140	557
CCI OPA-65R-LCUU-H6	150.00	219	1.890	1.980	1.140	0.360	68	271
Round Platform w/ Ha	150.00	2,000	1.890	1.980	1.140	0.360	624	2,476
RFS IBC1900BB-1	141.00	66	1.670	1.012	0.769	0.227	13	82
RFS IBC1900HG-2A	141.00	66	1.670	1.012	0.769	0.227	13	82
Alcatel-Lucent 4X40W	141.00	357	1.670	1.012	0.769	0.227	70	442
Alcatel-Lucent 800 M	141.00	185	1.670	1.012	0.769	0.227	37	230
Alcatel-Lucent TD-RR	141.00	210	1.670	1.012	0.769	0.227	41	260
RFS APXVTM14-C-I20	141.00	159	1.670	1.012	0.769	0.227	31	197
RFS APXV9ERR18-C-A20	141.00	124	1.670	1.012	0.769	0.227	24	154
RFS APXVSP18-C-A20	141.00	57	1.670	1.012	0.769	0.227	11	71
Round T-Arm	141.00	750	1.670	1.012	0.769	0.227	148	929
Ericsson AIR 21, 1.3	128.00	271	1.376	0.240	0.408	0.082	19	336
Ericsson AIR32 B66Aa	128.00	397	1.376	0.240	0.408	0.082	28	491
Andrew LNX-6515DS-A1	128.00	149	1.376	0.240	0.408	0.082	11	185
Flat T-Arm	128.00	750	1.376	0.240	0.408	0.082	53	929
DragonWave Horizon C	115.00	32	1.111	-0.064	0.194	-0.011	0	39
12" x 12" Junction B	115.00	10	1.111	-0.064	0.194	-0.011	0	12
DragonWave A-ANT-23G	115.00	15	1.111	-0.064	0.194	-0.011	0	19
NextNet BTS-2500	115.00	105	1.111	-0.064	0.194	-0.011	-1	130
Argus LLPX310R	115.00	86	1.111	-0.064	0.194	-0.011	-1	106
DragonWave A-ANT-23G	115.00	25	1.111	-0.064	0.194	-0.011	0	30
Collar	115.00	560	1.111	-0.064	0.194	-0.011	-5	693
Alcatel-Lucent RRH2X	103.00	138	0.891	-0.122	0.084	-0.052	-6	171
Alcatel-Lucent RRH2x	103.00	170	0.891	-0.122	0.084	-0.052	-8	211
Alcatel-Lucent RRH2X	103.00	165	0.891	-0.122	0.084	-0.052	-7	204
RFS DB-T1-6Z-8AB-0Z	103.00	88	0.891	-0.122	0.084	-0.052	-4	109
Andrew SBNHH-1D65B	103.00	608	0.891	-0.122	0.084	-0.052	-27	753
Flat Platform w/ Han	103.00	2,000	0.891	-0.122	0.084	-0.052	-90	2,476
GPS	36.00	10	0.109	0.071	0.036	0.054	0	12
Stand-off	36.00	50	0.109	0.071	0.036	0.054	2	62
GPS	31.00	10	0.081	0.072	0.040	0.053	0	12
Stand-off	31.00	50	0.081	0.072	0.040	0.053	2	62
		35,399	80.777	34.467	28.684	7.564	2,115	43,830

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

Seismic (Reduced DL) Equivalent Modal Analysis Method

Segment	Height Above Base (ft)	Weight (lb)	a	b	c	Saz	Horizontal Force (lb)	Vertical Force (lb)
43	147.50	190	1.828	1.667	1.025	0.320	53	163
42	143.00	157	1.718	1.191	0.842	0.254	35	136
41	140.50	44	1.658	0.970	0.752	0.221	8	38
40	137.50	226	1.588	0.742	0.654	0.183	36	194

Site Number: 302473

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39	132.50	234	1.475	0.441	0.513	0.126	26	201
38	129.00	96	1.398	0.280	0.430	0.091	8	82
37	126.50	168	1.344	0.186	0.377	0.069	10	145
36	122.50	286	1.261	0.069	0.302	0.036	9	247
35	119.25	87	1.195	0.000	0.251	0.014	1	75
34	116.75	341	1.145	-0.041	0.216	-0.001	0	294
33	112.53	510	1.064	-0.088	0.165	-0.023	-10	439
32	110.03	6	1.017	-0.105	0.140	-0.033	0	5
31	107.50	660	0.971	-0.116	0.117	-0.042	-24	569
30	104.00	267	0.909	-0.122	0.091	-0.050	-12	230
29	102.25	206	0.878	-0.121	0.079	-0.053	-9	178
28	100.75	231	0.853	-0.119	0.070	-0.055	-11	199
27	97.50	776	0.799	-0.112	0.053	-0.056	-38	669
26	93.05	613	0.727	-0.095	0.035	-0.052	-28	528
25	90.55	174	0.689	-0.083	0.028	-0.048	-7	150
24	87.50	798	0.643	-0.068	0.020	-0.039	-27	687
23	82.50	808	0.572	-0.043	0.012	-0.022	-15	697
22	77.50	819	0.505	-0.018	0.007	-0.001	-1	706
21	74.28	239	0.463	-0.003	0.006	0.012	2	206
20	71.80	899	0.433	0.007	0.006	0.021	16	775
19	70.03	10	0.412	0.014	0.006	0.027	0	8
18	67.50	926	0.383	0.023	0.007	0.034	28	798
17	62.50	939	0.328	0.039	0.010	0.046	37	809
16	57.50	952	0.278	0.050	0.014	0.052	43	821
15	52.50	966	0.232	0.058	0.019	0.055	46	832
14	47.50	979	0.190	0.064	0.025	0.056	48	844
13	42.50	993	0.152	0.068	0.030	0.056	48	856
12	38.00	804	0.121	0.070	0.034	0.055	38	693
11	35.83	67	0.108	0.071	0.036	0.054	3	58
10	35.33	222	0.105	0.071	0.037	0.054	10	192
9	33.25	1,169	0.093	0.071	0.038	0.053	54	1,007
8	31.25	113	0.082	0.072	0.039	0.053	5	97
7	30.50	225	0.078	0.072	0.040	0.053	10	194
6	27.50	1,135	0.064	0.072	0.041	0.052	51	978
5	22.50	1,151	0.043	0.070	0.042	0.050	50	992
4	17.50	1,167	0.026	0.067	0.040	0.048	49	1,005
3	12.50	1,183	0.013	0.059	0.034	0.044	45	1,019
2	7.50	1,199	0.005	0.044	0.025	0.035	36	1,033
1	2.50	1,112	0.001	0.018	0.010	0.017	16	958
Powerwave 7020.00 Du	150.00	26	1.890	1.980	1.140	0.360	8	23
Powerwave LGP21401	150.00	85	1.890	1.980	1.140	0.360	26	73
Raycap DC6-48-60-18-	150.00	40	1.890	1.980	1.140	0.360	12	34
Ericsson RRUS 11 (Ba	150.00	165	1.890	1.980	1.140	0.360	51	142
Ericsson RRUS 12 w/	150.00	214	1.890	1.980	1.140	0.360	67	185
Ericsson RRUS-32	150.00	231	1.890	1.980	1.140	0.360	72	199
Powerwave Allgon 777	150.00	162	1.890	1.980	1.140	0.360	51	140
Flat Side Arm	150.00	450	1.890	1.980	1.140	0.360	140	388
CCI OPA-65R-LCUU-H6	150.00	219	1.890	1.980	1.140	0.360	68	189
Round Platform w/ Ha	150.00	2,000	1.890	1.980	1.140	0.360	624	1,724
RFS IBC1900BB-1	141.00	66	1.670	1.012	0.769	0.227	13	57
RFS IBC1900HG-2A	141.00	66	1.670	1.012	0.769	0.227	13	57
Alcatel-Lucent 4X40W	141.00	357	1.670	1.012	0.769	0.227	70	308
Alcatel-Lucent 800 M	141.00	185	1.670	1.012	0.769	0.227	37	160
Alcatel-Lucent TD-RR	141.00	210	1.670	1.012	0.769	0.227	41	181
RFS APXVTM14-C-I20	141.00	159	1.670	1.012	0.769	0.227	31	137
RFS APXV9ERR18-C-A20	141.00	124	1.670	1.012	0.769	0.227	24	107
RFS APXVSP18-C-A20	141.00	57	1.670	1.012	0.769	0.227	11	49
Round T-Arm	141.00	750	1.670	1.012	0.769	0.227	148	646
Ericsson AIR 21, 1.3	128.00	271	1.376	0.240	0.408	0.082	19	234
Ericsson AIR32 B66Aa	128.00	397	1.376	0.240	0.408	0.082	28	342
Andrew LNX-6515DS-A1	128.00	149	1.376	0.240	0.408	0.082	11	129
Flat T-Arm	128.00	750	1.376	0.240	0.408	0.082	53	646
DragonWave Horizon C	115.00	32	1.111	-0.064	0.194	-0.011	0	27
12" x 12" Junction B	115.00	10	1.111	-0.064	0.194	-0.011	0	9

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DragonWave A-ANT-23G	115.00	15	1.111	-0.064	0.194	-0.011	0	13
NextNet BTS-2500	115.00	105	1.111	-0.064	0.194	-0.011	-1	90
Argus LLPX310R	115.00	86	1.111	-0.064	0.194	-0.011	-1	74
DragonWave A-ANT-23G	115.00	25	1.111	-0.064	0.194	-0.011	0	21
Collar	115.00	560	1.111	-0.064	0.194	-0.011	-5	483
Alcatel-Lucent RRH2X	103.00	138	0.891	-0.122	0.084	-0.052	-6	119
Alcatel-Lucent RRH2x	103.00	170	0.891	-0.122	0.084	-0.052	-8	147
Alcatel-Lucent RRH2X	103.00	165	0.891	-0.122	0.084	-0.052	-7	142
RFS DB-T1-6Z-8AB-0Z	103.00	88	0.891	-0.122	0.084	-0.052	-4	76
Andrew SBNHH-1D65B	103.00	608	0.891	-0.122	0.084	-0.052	-27	524
Flat Platform w/ Han	103.00	2,000	0.891	-0.122	0.084	-0.052	-90	1,724
GPS	36.00	10	0.109	0.071	0.036	0.054	0	9
Stand-off	36.00	50	0.109	0.071	0.036	0.054	2	43
GPS	31.00	10	0.081	0.072	0.040	0.053	0	9
Stand-off	31.00	50	0.081	0.072	0.040	0.053	2	43
		35,399	80.777	34.467	28.684	7.564	2,115	30,507

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Load Case (1.2 + 0.2Sds) * DL + E EMAM Seismic Equivalent Modal Analysis Method

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-42.45	-2.11	0.00	-273.73	0.00	273.73	3,156.09	1,578.04	4,808.01	2,374.50	0.00	0.00	0.080
5.00	-40.97	-2.09	0.00	-263.19	0.00	263.19	3,113.28	1,556.64	4,641.42	2,292.22	0.02	-0.03	0.079
10.00	-39.50	-2.07	0.00	-252.72	0.00	252.72	3,069.45	1,534.72	4,476.09	2,210.57	0.06	-0.06	0.077
15.00	-38.06	-2.04	0.00	-242.38	0.00	242.38	3,024.57	1,512.28	4,312.14	2,129.61	0.14	-0.09	0.076
20.00	-36.63	-2.01	0.00	-232.18	0.00	232.18	2,978.65	1,489.33	4,149.68	2,049.37	0.26	-0.12	0.074
25.00	-35.23	-1.97	0.00	-222.15	0.00	222.15	2,931.70	1,465.85	3,988.78	1,969.91	0.40	-0.15	0.073
30.00	-34.95	-1.97	0.00	-212.30	0.00	212.30	2,873.79	1,436.89	3,816.40	1,884.77	0.58	-0.19	0.072
31.00	-34.73	-1.97	0.00	-210.33	0.00	210.33	2,859.85	1,429.93	3,779.26	1,866.44	0.62	-0.19	0.072
31.50	-33.28	-1.91	0.00	-209.34	0.00	209.34	2,852.84	1,426.42	3,760.64	1,857.24	0.64	-0.20	0.072
35.00	-33.01	-1.91	0.00	-202.64	0.00	202.64	2,804.11	1,402.06	3,632.54	1,793.98	0.79	-0.22	0.070
35.67	-32.93	-1.91	0.00	-201.36	0.00	201.36	2,247.39	1,123.70	2,971.54	1,467.53	0.82	-0.22	0.081
36.00	-31.86	-1.87	0.00	-200.73	0.00	200.73	2,245.17	1,122.59	2,963.78	1,463.70	0.84	-0.23	0.080
40.00	-30.63	-1.84	0.00	-193.24	0.00	193.24	2,217.94	1,108.97	2,870.05	1,417.41	1.04	-0.25	0.079
45.00	-29.41	-1.80	0.00	-184.06	0.00	184.06	2,182.97	1,091.48	2,753.70	1,359.95	1.32	-0.29	0.077
50.00	-28.22	-1.77	0.00	-175.06	0.00	175.06	2,146.96	1,073.48	2,638.35	1,302.98	1.64	-0.32	0.075
55.00	-27.04	-1.73	0.00	-166.23	0.00	166.23	2,109.91	1,054.96	2,524.10	1,246.56	2.00	-0.36	0.073
60.00	-25.87	-1.70	0.00	-157.57	0.00	157.57	2,071.82	1,035.91	2,411.06	1,190.73	2.39	-0.39	0.071
65.00	-24.73	-1.68	0.00	-149.05	0.00	149.05	2,032.70	1,016.35	2,299.33	1,135.55	2.82	-0.43	0.069
70.00	-24.71	-1.69	0.00	-140.63	0.00	140.63	1,981.31	990.65	2,176.68	1,074.98	3.29	-0.47	0.067
70.05	-23.60	-1.67	0.00	-140.54	0.00	140.54	1,980.69	990.35	2,175.31	1,074.30	3.30	-0.47	0.067
73.55	-23.30	-1.67	0.00	-134.69	0.00	134.69	1,473.36	736.68	1,622.77	801.43	3.65	-0.49	0.077
75.00	-22.29	-1.68	0.00	-132.27	0.00	132.27	1,465.95	732.98	1,600.80	790.57	3.80	-0.50	0.075
80.00	-21.29	-1.70	0.00	-123.89	0.00	123.89	1,439.68	719.84	1,525.22	753.25	4.34	-0.54	0.072
85.00	-20.30	-1.73	0.00	-115.41	0.00	115.41	1,412.37	706.19	1,450.29	716.24	4.93	-0.58	0.069
90.00	-20.08	-1.74	0.00	-106.77	0.00	106.77	1,384.02	692.01	1,376.10	679.61	5.56	-0.62	0.066
91.10	-19.32	-1.77	0.00	-104.86	0.00	104.86	1,377.65	688.82	1,359.89	671.60	5.70	-0.63	0.065
91.10	-19.32	-1.77	0.00	-104.86	0.00	104.86	1,377.65	688.82	1,359.89	671.60	5.70	-0.63	0.065
95.00	-18.36	-1.80	0.00	-97.97	0.00	97.97	1,354.64	677.32	1,302.77	643.39	6.23	-0.66	0.062
100.00	-18.07	-1.82	0.00	-88.95	0.00	88.95	1,324.21	662.11	1,230.38	607.64	6.93	-0.69	0.058
101.50	-17.82	-1.83	0.00	-86.22	0.00	86.22	1,314.88	657.44	1,208.86	597.01	7.15	-0.70	0.057
101.50	-17.82	-1.83	0.00	-86.22	0.00	86.22	1,314.88	657.44	1,208.86	597.01	7.15	-0.70	0.082
103.00	-13.56	-1.93	0.00	-83.48	0.00	83.48	1,305.46	652.73	1,187.45	586.44	7.37	-0.71	0.079
105.00	-12.74	-1.96	0.00	-79.61	0.00	79.61	1,293.27	646.64	1,159.51	572.64	7.68	-0.74	0.076
110.00	-12.73	-1.96	0.00	-69.83	0.00	69.83	1,246.82	623.41	1,077.26	532.02	8.48	-0.79	0.071
110.00	-12.73	-1.96	0.00	-69.83	0.00	69.83	1,246.82	623.41	1,077.26	532.02	8.48	-0.79	0.081
110.05	-12.10	-1.97	0.00	-69.73	0.00	69.73	1,246.32	623.16	1,076.40	531.59	8.48	-0.79	0.081
110.05	-12.10	-1.97	0.00	-69.73	0.00	69.73	852.93	426.46	741.03	365.97	8.48	-0.79	0.103
115.00	-10.65	-1.97	0.00	-59.99	0.00	59.99	834.88	417.44	698.45	344.94	9.33	-0.84	0.092
118.50	-10.54	-1.97	0.00	-53.11	0.00	53.11	821.50	410.75	668.53	330.16	9.96	-0.88	0.084
118.50	-10.54	-1.97	0.00	-53.11	0.00	53.11	821.50	410.75	668.53	330.16	9.96	-0.88	0.174
120.00	-10.18	-1.97	0.00	-50.15	0.00	50.15	815.61	407.80	655.76	323.86	10.24	-0.90	0.167
125.00	-9.97	-1.97	0.00	-40.32	0.00	40.32	795.30	397.65	613.53	303.00	11.25	-1.01	0.146
128.00	-7.91	-1.82	0.00	-34.42	0.00	34.42	782.61	391.31	588.45	290.61	11.91	-1.08	0.129
130.00	-7.62	-1.80	0.00	-30.78	0.00	30.78	773.95	386.97	571.85	282.42	12.37	-1.12	0.119
135.00	-7.34	-1.76	0.00	-21.80	0.00	21.80	751.56	375.78	530.84	262.16	13.59	-1.20	0.093
140.00	-7.28	-1.76	0.00	-12.98	0.00	12.98	728.14	364.07	490.58	242.28	14.88	-1.26	0.064
141.00	-4.65	-1.28	0.00	-11.23	0.00	11.23	721.90	360.95	481.67	237.88	15.15	-1.28	0.054
145.00	-4.42	-1.22	0.00	-6.11	0.00	6.11	694.03	347.02	445.00	219.77	16.23	-1.31	0.034
150.00	0.00	-1.12	0.00	0.00	0.00	0.00	659.19	329.60	401.19	198.13	17.61	-1.32	0.000

Site Number: 302473

Code: ANSI/TIA-222-G

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

Engineering Number: OAA696438_C4_07

7/13/2017 11:03:45 AM

Customer: METRO PCS INC

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

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-29.55	-2.11	0.00	-266.47	0.00	266.47	3,156.09	1,578.04	4,808.01	2,374.50	0.00	0.00	0.075
5.00	-28.51	-2.08	0.00	-255.95	0.00	255.95	3,113.28	1,556.64	4,641.42	2,292.22	0.02	-0.03	0.074
10.00	-27.49	-2.05	0.00	-245.53	0.00	245.53	3,069.45	1,534.72	4,476.09	2,210.57	0.06	-0.06	0.073
15.00	-26.49	-2.02	0.00	-235.27	0.00	235.27	3,024.57	1,512.28	4,312.14	2,129.61	0.14	-0.09	0.071
20.00	-25.49	-1.98	0.00	-225.19	0.00	225.19	2,978.65	1,489.33	4,149.68	2,049.37	0.25	-0.12	0.070
25.00	-24.52	-1.94	0.00	-215.31	0.00	215.31	2,931.70	1,465.85	3,988.78	1,969.91	0.39	-0.15	0.069
30.00	-24.32	-1.93	0.00	-205.62	0.00	205.62	2,873.79	1,436.89	3,816.40	1,884.77	0.56	-0.18	0.068
31.00	-24.17	-1.93	0.00	-203.69	0.00	203.69	2,859.85	1,429.93	3,779.26	1,866.44	0.60	-0.19	0.067
31.50	-23.17	-1.88	0.00	-202.72	0.00	202.72	2,852.84	1,426.42	3,760.64	1,857.24	0.62	-0.19	0.067
35.00	-22.97	-1.87	0.00	-196.16	0.00	196.16	2,804.11	1,402.06	3,632.54	1,793.98	0.77	-0.21	0.066
35.67	-22.92	-1.87	0.00	-194.91	0.00	194.91	2,247.39	1,123.70	2,971.54	1,467.53	0.80	-0.22	0.076
36.00	-22.17	-1.83	0.00	-194.29	0.00	194.29	2,245.17	1,122.59	2,963.78	1,463.70	0.81	-0.22	0.075
40.00	-21.31	-1.79	0.00	-186.97	0.00	186.97	2,217.94	1,108.97	2,870.05	1,417.41	1.01	-0.25	0.074
45.00	-20.47	-1.75	0.00	-178.02	0.00	178.02	2,182.97	1,091.48	2,753.70	1,359.95	1.28	-0.28	0.072
50.00	-19.64	-1.71	0.00	-169.27	0.00	169.27	2,146.96	1,073.48	2,638.35	1,302.98	1.59	-0.31	0.070
55.00	-18.82	-1.67	0.00	-160.71	0.00	160.71	2,109.91	1,054.96	2,524.10	1,246.56	1.94	-0.35	0.068
60.00	-18.01	-1.64	0.00	-152.34	0.00	152.34	2,071.82	1,035.91	2,411.06	1,190.73	2.32	-0.38	0.066
65.00	-17.21	-1.62	0.00	-144.12	0.00	144.12	2,032.70	1,016.35	2,299.33	1,135.55	2.74	-0.42	0.065
70.00	-17.20	-1.63	0.00	-136.02	0.00	136.02	1,981.31	990.65	2,176.68	1,074.98	3.19	-0.45	0.063
70.05	-16.42	-1.61	0.00	-135.93	0.00	135.93	1,980.69	990.35	2,175.31	1,074.30	3.20	-0.45	0.063
73.55	-16.22	-1.61	0.00	-130.31	0.00	130.31	1,473.36	736.68	1,622.77	801.43	3.54	-0.48	0.072
75.00	-15.51	-1.61	0.00	-127.98	0.00	127.98	1,465.95	732.98	1,600.80	790.57	3.68	-0.49	0.071
80.00	-14.81	-1.63	0.00	-119.93	0.00	119.93	1,439.68	719.84	1,525.22	753.25	4.21	-0.52	0.068
85.00	-14.12	-1.66	0.00	-111.79	0.00	111.79	1,412.37	706.19	1,450.29	716.24	4.78	-0.56	0.065
90.00	-13.97	-1.67	0.00	-103.50	0.00	103.50	1,384.02	692.01	1,376.10	679.61	5.39	-0.60	0.062
91.10	-13.44	-1.70	0.00	-101.66	0.00	101.66	1,377.65	688.82	1,359.89	671.60	5.53	-0.61	0.061
91.10	-13.44	-1.70	0.00	-101.66	0.00	101.66	1,377.65	688.82	1,359.89	671.60	5.53	-0.61	0.061
95.00	-12.77	-1.73	0.00	-95.05	0.00	95.05	1,354.64	677.32	1,302.77	643.39	6.03	-0.63	0.058
100.00	-12.57	-1.75	0.00	-86.38	0.00	86.38	1,324.21	662.11	1,230.38	607.64	6.72	-0.67	0.054
101.50	-12.40	-1.76	0.00	-83.76	0.00	83.76	1,314.88	657.44	1,208.86	597.01	6.93	-0.68	0.053
101.50	-12.40	-1.76	0.00	-83.76	0.00	83.76	1,314.88	657.44	1,208.86	597.01	6.93	-0.68	0.078
103.00	-9.43	-1.88	0.00	-81.13	0.00	81.13	1,305.46	652.73	1,187.45	586.44	7.15	-0.69	0.075
105.00	-8.86	-1.90	0.00	-77.37	0.00	77.37	1,293.27	646.64	1,159.51	572.64	7.44	-0.71	0.073
110.00	-8.86	-1.90	0.00	-67.87	0.00	67.87	1,246.82	623.41	1,077.26	532.02	8.21	-0.76	0.067
110.00	-8.86	-1.90	0.00	-67.87	0.00	67.87	1,246.82	623.41	1,077.26	532.02	8.21	-0.76	0.077
110.05	-8.41	-1.91	0.00	-67.77	0.00	67.77	1,246.32	623.16	1,076.40	531.59	8.22	-0.76	0.077
110.05	-8.41	-1.91	0.00	-67.77	0.00	67.77	852.93	426.46	741.03	365.97	8.22	-0.76	0.098
115.00	-7.40	-1.91	0.00	-58.30	0.00	58.30	834.88	417.44	698.45	344.94	9.04	-0.82	0.088
118.50	-7.33	-1.92	0.00	-51.60	0.00	51.60	821.50	410.75	668.53	330.16	9.65	-0.86	0.080
118.50	-7.33	-1.92	0.00	-51.60	0.00	51.60	821.50	410.75	668.53	330.16	9.65	-0.86	0.165
120.00	-7.08	-1.91	0.00	-48.73	0.00	48.73	815.61	407.80	655.76	323.86	9.93	-0.87	0.159
125.00	-6.93	-1.91	0.00	-39.18	0.00	39.18	795.30	397.65	613.53	303.00	10.90	-0.98	0.138
128.00	-5.50	-1.77	0.00	-33.45	0.00	33.45	782.61	391.31	588.45	290.61	11.54	-1.05	0.122
130.00	-5.30	-1.75	0.00	-29.92	0.00	29.92	773.95	386.97	571.85	282.42	11.99	-1.08	0.113
135.00	-5.10	-1.71	0.00	-21.19	0.00	21.19	751.56	375.78	530.84	262.16	13.17	-1.17	0.088
140.00	-5.06	-1.71	0.00	-12.63	0.00	12.63	728.14	364.07	490.58	242.28	14.42	-1.23	0.059
141.00	-3.23	-1.24	0.00	-10.92	0.00	10.92	721.90	360.95	481.67	237.88	14.68	-1.24	0.050
145.00	-3.07	-1.19	0.00	-5.95	0.00	5.95	694.03	347.02	445.00	219.77	15.73	-1.27	0.031
150.00	0.00	-1.12	0.00	0.00	0.00	0.00	659.19	329.60	401.19	198.13	17.07	-1.28	0.000

Site Number: 302473

Code: ANSI/TIA-222-G

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

Engineering Number: OAA696438_C4_07

7/13/2017 11:03:45 AM

Customer: METRO PCS INC

Analysis Summary

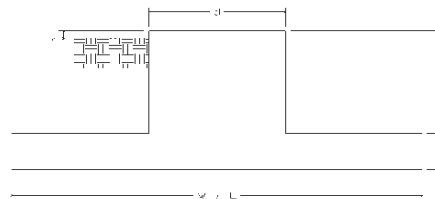
Load Case	Reactions						Max Usage	
	Shear FX (kips)	Shear FZ (kips)	Axial FY (kips)	Moment MX (ft-kips)	Moment MY (ft-kips)	Moment MZ (ft-kips)	Elev (ft)	Interaction Ratio
1.2D + 1.6W	30.20	0.00	42.39	0.00	0.00	3128.72	118.50	0.85
0.9D + 1.6W	29.93	0.00	31.77	0.00	0.00	3049.03	118.50	0.82
1.2D + 1.0Di + 1.0Wi	7.33	0.00	80.39	0.00	0.00	865.37	118.50	0.30
(1.2 + 0.2Sds) * DL + E ELFM	1.39	0.00	42.45	0.00	0.00	178.06	118.50	0.08
(1.2 + 0.2Sds) * DL + E EMAM	2.11	0.00	42.45	0.00	0.00	273.73	118.50	0.17
(0.9 - 0.2Sds) * DL + E ELFM	1.38	0.00	29.55	0.00	0.00	173.78	118.50	0.07
(0.9 - 0.2Sds) * DL + E EMAM	2.11	0.00	29.55	0.00	0.00	266.47	118.50	0.17
1.0D + 1.0W	7.30	0.00	35.39	0.00	0.00	745.20	118.50	0.21

Additional Steel Summary

Elev From (ft)	Elev To (ft)	Member	Intermediate Connectors			Upper Termination Connectors				Lower Termination Connectors				Max Member		
			VQ/I (lb/in)	Shear Applied (kips)	Shear phiVn (kips)	MQ/I (kips)	phiVn (kips)	Num Reqd	Num Actual	MQ/I (kips)	phiVn (kips)	Num Reqd	Num Actual	Pu (kip)	phiPn (kip)	Ratio
0.00	91.1	(4) SOL-#20 All Thre	421.6	12.6	16.8	0.0	12.0	0	0	0.0	12.0	0	0	327.7	330.5	0.992
91.1	101.	(4) SOL-#20 All Thre	434.3	13.0	16.8	138.4	12.0	12	12	0.0	12.0	0	0	180.0	330.5	0.545
101.	110.	(4) PL-PL 3 x 1.25	397.9	9.6	38.3	104.0	38.3	3	6	126.8	38.3	4	6	128.6	197.5	0.651
110.	118.	(3) PL-PL 3 x 1.25	386.7	9.3	38.3	0.0	38.3	0	6	0.0	38.3	0	6	120.3	197.5	0.609

Site Name: E H F R - Prestige Park
 Site Number: 302473
 Engineering Number: OAA696438_C4_07
 Engineer: K. Sargent
 Date: 07/13/17
 Tower Type: MP

Program Last Updated: 5/13/2014



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

Design / Analysis / Mapping:

Analysis

Total Shear:	30.2 k
Moment:	3128.7 k-ft
Tower + Appurtenance Weight:	42.4 k
Depth to Base of Foundation (l + t - h):	8.00 ft
Diameter of Pier (d):	4.33 ft
Height of Pier above Ground (h):	0.50
Width of Pad (W):	18.00 ft
Length of Pad (L):	18.00 ft
Thickness of Pad (t):	3.00 ft
Tower Leg Center to Center:	0.00 ft
Number of Tower Legs:	1.0 (1 if MP or GT)
Tower Center from Mat Center:	0.00 ft
Depth Below Ground Surface to Water Table:	12.00 ft
Unit Weight of Concrete:	150.0 pcf
Unit Weight of Soil Above Water Table:	121.0 pcf
Unit Weight of Water:	62.4 pcf
Unit Weight of Soil Below Water Table:	60.0 pcf
Friction Angle of Uplift:	15.0 Degrees
Ultimate Coefficient of Shear Friction:	0.40
Ultimate Compressive Bearing Pressure:	39000.0 psf
Ultimate Passive Pressure on Pad Face:	1200.0 psf
$\phi_{\text{Soil and Concrete Weight}}$:	0.9
ϕ_{Soil} :	0.75

Concrete Strength (f'_c):	4000 psi
Pad Tension Steel Depth:	32.00 in
ϕ_{Shear} :	0.75
$\phi_{\text{Flexure / Tension}}$:	0.90
$\phi_{\text{Compression}}$:	0.65
β :	0.85
Bottom Pad Rebar Size #:	10
# of Bottom Pad Rebar:	36
Pad Bottom Steel Area:	45.72 in ²
Pad Steel F_y :	60000 psi
Top Pad Rebar Size #:	6
# of Top Pad Rebar:	36
Pad Top Steel Area:	15.84 in ²
Pier Rebar Size #:	11
Pier Steel Area (Single Bar):	1.56 in ²
# of Pier Rebar:	14
Pier Steel F_y :	60000 psi
Pier Cage Diameter:	44.0 in
Rebar Strain Limit:	0.008
Steel Elastic Modulus:	29000 ksi
Tie Rebar Size #:	4
Tie Steel Area (Single Bar):	0.20 in ²
Tie Spacing:	12 in
Tie Steel F_y :	60000 psi

Overturning Moment Usage

Design OTM:	3385.4 k-ft
OTM Resistance:	3474.4 k-ft
Design OTM / OTM Resistance:	0.97 Result: OK

Soil Bearing Pressure Usage

Net Bearing Pressure:	7101 psf
Factored Nominal Bearing Pressure:	29250 psf
Net Bearing Pressure/Factored Nominal Bearing Pressure:	0.24 Result: OK
Load Direction Controlling Design Bearing Pressure:	Diagonal to Pad Edge

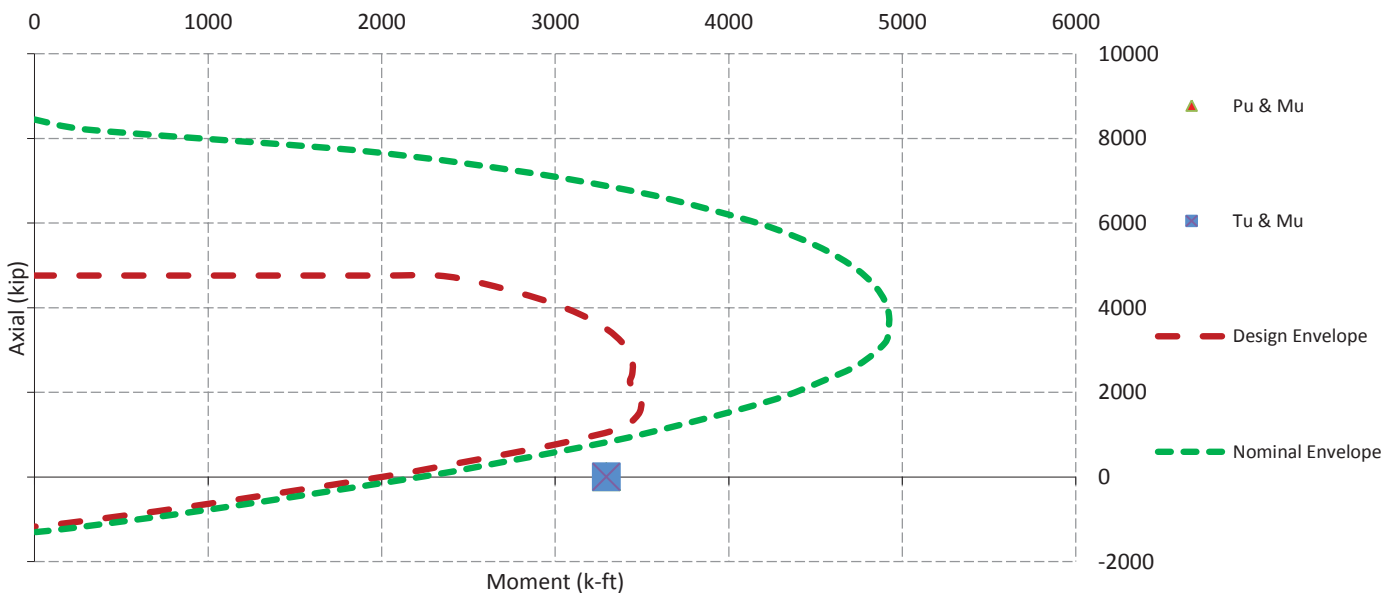
Sliding Factor of Safety

Total Factored Sliding Resistance:	157.9 k
Sliding Design / Sliding Resistance:	0.19 Result: OK

One Way Shear, Flexural Capacity, and Punching Shear

Factored One Way Shear (V_u):	247.6 k
One Way Shear Capacity (ϕV_c):	575.3 k - ACI11.3.1.1
$V_u / \phi V_c$:	0.43 Result: OK
Load Direction Controlling Shear Capacity:	Diagonal to Pad Edge
Lower Steel Pad Factored Moment (M_u):	1469.0 k-ft
Lower Steel Pad Moment Capacity (ϕM_n):	6257.1 k-ft - ACI10.3
$M_u / \phi M_n$:	0.23 Result: OK
Load Direction Controlling Flexural Capacity:	Parallel to Pad Edge
Upper Steel Pad Factored Moment (M_u):	709.7 k-ft
Upper Steel Pad Moment Capacity (ϕM_n):	2241.8 k-ft
$M_u / \phi M_n$:	0.32 Result: OK
Lower Pad Flexural Reinforcement Ratio:	0.0066 OK - Minimum Reinforcement Ratio Met - ACI10.5.1
Upper Pad Flexural Reinforcement Ratio:	0.0023 OK - Minimum Reinforcement Ratio Met - ACI10.5.1
Lower Pad Reinforcement Spacing:	6 in - Pad Reinforcing Spacing OK - ACI7.12.2.2 & 10.5.4
Upper Pad Reinforcement Spacing:	6 in - Pad Reinforcing Spacing OK - ACI7.12.2.2 & 10.5.4
Factored Punching Shear (V_u):	-89.8 k
Nominal Punching Shear Capacity ($\phi_c V_n$):	1601.5 k - ACI11.12.2.1
$V_u / \phi V_c$:	-0.06 Result: OK
Factored Moment in Pier (M_u):	3294.8 k-ft
Pier Moment Capacity (ϕM_n):	2995.7 k-ft
$M_u / \phi M_n$:	0.94 Result: OK
Factored Shear in Pier (V_u):	30.2 k
Pier Shear Capacity (ϕV_n):	201.2 k
$V_u / \phi V_c$:	0.15 Result: OK
Pier Shear Reinforcement Ratio:	0.0009 No Ties Necessary for Shear - ACI11.5.6.1
Factored Tension in Pier (T_u):	0.0 k
Pier Tension Capacity (ϕT_n):	1179.4 k
$T_u / \phi T_n$:	0.00 Result: OK
Factored Compression in Pier (P_u):	0.0 k
Pier Compression Capacity (ϕP_n):	3710.3 k - ACI10.3.6.2
$P_u / \phi P_n$:	0.00 Result: OK
Pier Compression Reinforcement Ratio:	0.010 OK - Reinforcement Ratio Met - ACI10.9.1 & 10.8.4
$M_u / \phi_B M_n + T_u / \phi_T T_n$:	0.94 Result: OK

Nominal and Design Moment Capacity and Factored Design Loads



Base/Flange Plate	Plate Type	Baseplate
	Pole Diameter	37.36 in
	Pole Thickness	0.375 in
	Plate Length	44 in
	Plate Thickness	2.5 in
	Plate Fy	60 ksi
	Weld Length	0.3125 in
	ϕ_s Resistance	1385.29 k-in
	Applied	642.70 k-in
Stiffeners	#	0

Code Rev. **G**

Moment **3128.7 k-ft**

Axial **42.4 k**

Date **7/13/2017**

Engineer **Kelsey.Sargent**

Site # **302473**

Carrier **METRO PCS INC**

Bolts	#	8
	Bolt Circle	44 in
	(R)adial / (S)quare	S
	Bolt Gap	6 in
	Diameter	2.25 in
	Hole Diameter	2.625 in
	Type	A615-75
	Fy	75 ksi
	Fu	100 ksi
	ϕ_s Resistance	259.82 k
Applied	189.59 k	
Reinforcement	#	8
	DYW. Circle	44.235 in
	Offset Angle	22.5 °
	Type	#20
	Diameter	2.5 in
	Fu	100 ksi
ϕ_s Resistance	392.70 k	
Applied	220.60 k	
Extra Bolts	#	0

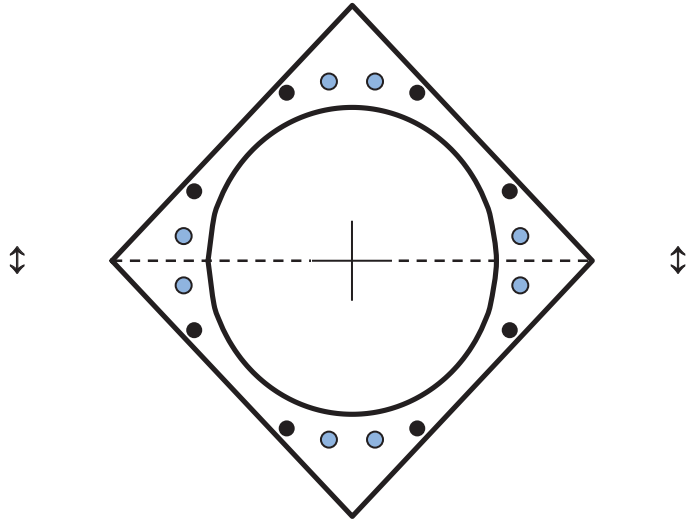


Plate Stress Ratio:
0.46 (Pass)

Bolt Stress Ratio:
0.73 (Pass)

Reinforcement Stress Ratio:
0.56 (Pass)

Base/Flange Plate	Plate Type	Flange @ 110.0 ft
	Pole Diameter	21.25 in
	Pole Thickness	0.1875 in
	Plate Diameter	28.6 in
	Plate Thickness	1 in
	Plate Fy	60 ksi
	Weld Length	0.3125 in
	ϕ_s Resistance	156.82 k-in
	Applied	82.50 k-in
Stiffeners	#	12 Show
	Thickness	0.5 in
	Length	3 in
	Height	3.5 in
	Chamfer	0 in
	Offset Angle	30°
	Fy	36 ksi

Code Rev. **G**

Date **7/13/2017**
 Engineer **Kelsey.Sargent**
 Site # **302473**
 Carrier **METRO PCS INC**

Moment **392.2 k-ft**
 Axial **10.7 k**

Bolts	#	12
	Bolt Circle	25.75 in
	(R)adial / (S)quare	R
	Diameter	1 in
	Hole Diameter	1.125 in
	Type	A490
	Fy	130 ksi
	Fu	150 ksi
	ϕ_s Resistance	68.15 k
Applied	60.00 k	
Reinforcement	#	0
Extra Bolts	#	0

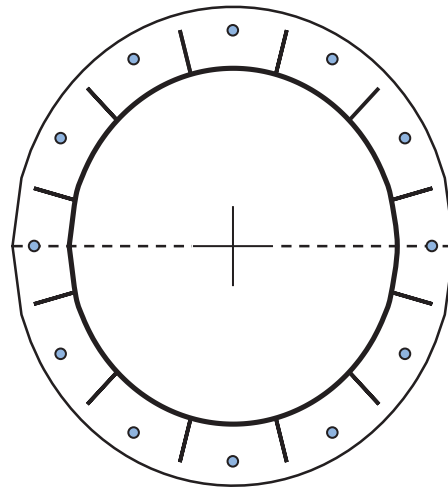


Plate Stress Ratio:
0.53 (Pass)

Bolt Stress Ratio:
0.88 (Pass)



AMERICAN TOWER®
ATC TOWER SERVICES
3500 REGENCY PARKWAY
SUITE 100
CARY, NC 27518
PHONE: (919) 468-0112
COA: 6260F

302473 - E H F R - PRESTIGE PARK, CONNECTICUT

150 FT MONOPOLE MODIFICATIONS

AS-BUILT SIGN-OFF

DESCRIPTION	SIGNATURE	DATE
CONTRACTOR NAME		
CONTRACTOR REPRESENTATIVE (PRINT NAME)		
CONTRACTOR REPRESENTATIVE (SIGNATURE)		
REDEVELOPMENT P.M. (PRINT NAME)		
REDEVELOPMENT P.M. (SIGNATURE)		

PROJECT SUMMARY

PROJECT DESCRIPTION

SHEET

SHEET TITLE

REV.

ATC PROJECT NUMBER: OAA696438_C6_05

CUSTOMER: METRO PCS INC

CUSTOMER SITE NAME: ATC E. HARTFORD MONOPOLE

CUSTOMER SITE NUMBER: CTHA515A

SITE ADDRESS: 310 PRESTIGE PARK RD.
EAST HARTFORD, CT 06108

DATE: 07/05/17

GEOGRAPHIC COORDINATES: 41.78833
-72.60055

THE MODIFICATIONS PRESENTED ON THESE DRAWINGS ARE BASED ON THE RECOMMENDATIONS OUTLINED IN THE STRUCTURAL ANALYSIS COMPLETED UNDER ENGINEERING PROJECT NUMBER OAA696438_C3_03 DATED 04/20/17. SATISFACTORY COMPLETION OF THE WORK INDICATED ON THESE DRAWINGS WILL RESULT IN THE STRUCTURE MEETING THE REQUIREMENTS OF THE SPECIFICATIONS UNDER WHICH THE STRUCTURAL WAS COMPLETED.

B-1	BILL OF MATERIALS	0
IGN	IBC GENERAL NOTES	0
SIC	SPECIAL INSPECTION CHECKLIST	0
A-1	MODIFICATION PROFILE	0
A-2	PLATE WELDMENT INSTALLATION DETAILS	0
F-1	PLATE WELDMENT FABRICATION DETAILS	0
FBSB	FLAT BAR STEP BOLT BRACKET FABRICATION & INSTALLATION DETAILS	0

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REV.	DESCRIPTION	BY	DATE
0	FIRST ISSUE	NHK	07/05/17

ATC SITE NUMBER:

302473

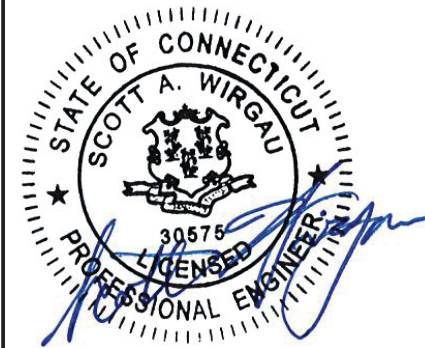
ATC SITE NAME:

E H F R - PRESTIGE PARK

CONNECTICUT

SITE ADDRESS:

310 PRESTIGE PARK RD.
EAST HARTFORD, CT 06108



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DRAWN BY:	NHK
APPROVED BY:	KLS/AT
DATE DRAWN:	07/05/17
ATC JOB NO:	OAA696438_C6_05

COVER

SHEET NUMBER: **COVER**
 REVISION: **0**

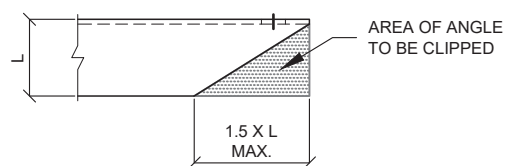
GENERAL

- ALL WORK TO BE COMPLETED PER APPLICABLE LOCAL, STATE, FEDERAL CODES AND ORDINANCES AND COMPLY WITH ATC MASTER SPECIFICATIONS FOR WIRELESS TOWER SITES. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING AND ABIDING BY ALL REQUIRED PERMITS.
- ALL WORK INDICATED ON THESE DRAWINGS SHALL BE PERFORMED BY QUALIFIED CONTRACTORS EXPERIENCED IN TOWER AND FOUNDATION CONSTRUCTION.
- THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF RECORD IMMEDIATELY OF ANY INSTALLATION INTERFERENCES. ALL NEW WORK SHALL ACCOMMODATE EXISTING CONDITIONS. DETAILS NOT SPECIFICALLY SHOWN ON THE DRAWINGS SHALL FOLLOW SIMILAR DETAILS FOR THIS JOB.
- ANY SUBSTITUTIONS SHALL CONFORM TO THE REQUIREMENTS OF THESE NOTES AND SPECIFICATIONS, AND SHOULD BE SIMILAR TO THOSE SHOWN. ALL SUBSTITUTIONS SHALL BE SUBMITTED TO THE ENGINEER OF RECORD FOR REVIEW AND APPROVAL PRIOR TO FABRICATION.
- ANY MANUFACTURED DESIGN ELEMENTS SHALL CONFORM TO THE REQUIREMENTS OF THESE NOTES AND SPECIFICATIONS AND SHOULD BE SIMILAR TO THOSE SHOWN. THESE DESIGN ELEMENTS MUST BE STAMPED BY AN ENGINEER PROFESSIONALLY REGISTERED IN THE STATE OF THE PROJECT, AND SUBMITTED TO THE ENGINEER OF RECORD FOR APPROVAL PRIOR TO FABRICATION.
- ALL WORK SHALL BE DONE IN ACCORDANCE WITH LOCAL CODES AND OSHA SAFETY REGULATIONS.
- THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN AND EXECUTION OF ALL MISCELLANEOUS SHORING, BRACING, TEMPORARY SUPPORTS, ETC. NECESSARY, PER TIA-1019-A-2011, TO PROVIDE A COMPLETE AND STABLE STRUCTURE AS SHOWN ON THESE DRAWINGS.
- CONTRACTOR'S PROPOSED INSTALLATION SHALL NOT INTERFERE, NOR DENY ACCESS TO, ANY EXISTING OPERATIONAL AND SAFETY EQUIPMENT.

STRUCTURAL STEEL

- ALL DETAILING, FABRICATION AND ERECTION OF STRUCTURAL STEEL SHALL CONFORM TO THE AISC SPECIFICATIONS, LATEST EDITION.
- ALL EXPOSED STRUCTURAL STEEL MEMBERS SHALL BE HOT-DIPPED GALVANIZED AFTER FABRICATION PER ASTM A123. EXPOSED STEEL HARDWARE AND ANCHOR BOLTS SHALL BE GALVANIZED PER ASTM A153 OR B695.
- ALL U-BOLTS SHALL BE ASTM A36 OR EQUIVALENT, WITH LOCKING DEVICE, UNLESS NOTED OTHERWISE.
- FIELD CUT EDGES, EXCEPT DRILLED HOLES, SHALL BE GROUND SMOOTH.
- ALL FIELD CUT SURFACES, FIELD DRILLED HOLES & GROUND SURFACES WHERE EXISTING PAINT OR GALVANIZATION REMOVAL WAS REQUIRED SHALL BE REPAIRED WITH (2) BRUSHED COATS OF ZRC GALVILITE COLD GALVANIZING COMPOUND PER ASTM A780 AND MANUFACTURERS RECOMMENDATIONS.
- ALL STRUCTURAL STEEL EMBEDDED IN THE CONCRETE SHALL BE APPLIED WITH (2) BRUSHED COATS OF POLYGUARD CA-14 MASTIC OR EQUIVALENT. REFER TO THE MANUFACTURER SPECIFICATIONS FOR SURFACE PREPARATION AND APPLICATION. APPLICATION OF POLYGUARD 400 WRAP IS NOT ESSENTIAL.
- CONTRACTOR SHALL PERFORM WORK ON ONLY ONE (1) TOWER FACE AND REPLACE/REINFORCE ONE (1) BOLT/MEMBER AT A TIME.
- ALL FIELD DRILLED HOLES TO BE USED FOR FIELD BOLTING INSTALLATION SHALL BE STANDARD HOLES, AS DEFINED BY AISC, UNLESS NOTED OTHERWISE.

MAXIMUM ALLOWABLE ANGLE CLIP



PAINT

- AS REQUIRED, CLEAN AND PAINT PROPOSED STEEL ACCORDING TO FAA ADVISORY CIRCULAR AC 70/7460-1K.

WELDING

- ALL WELDING TO BE PERFORMED BY AWS CERTIFIED WELDERS AND CONDUCTED IN ACCORDANCE WITH THE LATEST EDITION OF THE AWS WELDING CODE D1.1.
- ALL WELDS SHALL BE INSPECTED VISUALLY. IF DIRECTED BY ENGINEER OF RECORD, 25% OF WELDS SHALL BE INSPECTED WITH DYE PENETRANT OR MAGNETIC PARTICLE (100% IF REJECTABLE DEFECTS ARE FOUND) TO MEET THE ACCEPTANCE CRITERIA OF AWS D1.1. REPAIR ALL WELDS AS NECESSARY.
- INSPECTION SHALL BE PERFORMED BY AN AWS CERTIFIED WELD INSPECTOR.
- ALL ELECTRODES TO BE LOW HYDROGEN, MATCHING FILLER METAL, PER AWS D1.1, UNLESS NOTED OTHERWISE.
- ALL WELDING ON LATTICE TOWERS SHALL BE DONE WITH E70XX ELECTRODES. ALL WELDING ON POLE STRUCTURES SHALL BE DONE WITH E80XX ELECTRODES UNLESS NOTED OTHERWISE.
- PRIOR TO FIELD WELDING GALVANIZED MATERIAL, CONTRACTOR SHALL GRIND OFF GALVANIZING 1/2" BEYOND ALL FIELD WELD SURFACES. AFTER WELD AND WELD INSPECTION IS COMPLETE, REPAIR ALL GROUND AND WELDED SURFACES WITH ZRC GALVILITE COLD GALVANIZING COMPOUND PER ASTM A780 AND MANUFACTURERS RECOMMENDATIONS.

BOLT TIGHTENING PROCEDURE

- STRUCTURAL CONNECTIONS TO BE ASSEMBLED AND INSPECTED IN ACCORDANCE WITH RCSC-2004 (SPECIFICATIONS FOR STRUCTURAL JOINTS USING ASTM A325 OR ASTM A490 BOLTS.)
- FLANGE BOLTS SHALL BE INSTALLED AND TIGHTENED USING DIRECT TENSION INDICATING (DTI) SQUIRTER WASHERS. DTI SQUIRTER WASHERS ARE TO BE INSTALLED AND ORIENTED / TIGHTENED PER MANUFACTURER SPECIFICATIONS TO ACHIEVE DESIRED LEVEL OF BOLT PRE-TENSION.
- IN LIEU OF USING DTI SQUIRTER WASHERS, FLANGE BOLTS MAY BE TIGHTENED USING AISC / RCSC "TURN-OF-THE-NUT" METHOD, PENDING APPROVAL BY THE ENGINEER OF RECORD (EOR). TIGHTEN FLANGE BOLTS USING THE CHART BELOW:

BOLT LENGTHS UP TO AND INCLUDING FOUR DIAMETERS

1/2"	BOLTS UP TO AND INCLUDING 2.0 INCH LENGTH	+1/3 TURN BEYOND SNUG TIGHT
5/8"	BOLTS UP TO AND INCLUDING 2.5 INCH LENGTH	+1/3 TURN BEYOND SNUG TIGHT
3/4"	BOLTS UP TO AND INCLUDING 3.0 INCH LENGTH	+1/3 TURN BEYOND SNUG TIGHT
7/8"	BOLTS UP TO AND INCLUDING 3.5 INCH LENGTH	+1/3 TURN BEYOND SNUG TIGHT
1"	BOLTS UP TO AND INCLUDING 4.0 INCH LENGTH	+1/3 TURN BEYOND SNUG TIGHT
1-1/8"	BOLTS UP TO AND INCLUDING 4.5 INCH LENGTH	+1/3 TURN BEYOND SNUG TIGHT
1-1/4"	BOLTS UP TO AND INCLUDING 5.0 INCH LENGTH	+1/3 TURN BEYOND SNUG TIGHT
1-3/8"	BOLTS UP TO AND INCLUDING 5.5 INCH LENGTH	+1/3 TURN BEYOND SNUG TIGHT
1-1/2"	BOLTS UP TO AND INCLUDING 6.0 INCH LENGTH	+1/3 TURN BEYOND SNUG TIGHT

BOLT LENGTHS OVER FOUR DIAMETERS BUT NOT EXCEEDING EIGHT DIAMETERS

1/2"	BOLTS 2.25 TO 4.0 INCH LENGTH	+1/2 TURN BEYOND SNUG TIGHT
5/8"	BOLTS 2.75 TO 5.0 INCH LENGTH	+1/2 TURN BEYOND SNUG TIGHT
3/4"	BOLTS 3.25 TO 6.0 INCH LENGTH	+1/2 TURN BEYOND SNUG TIGHT
7/8"	BOLTS 3.75 TO 7.0 INCH LENGTH	+1/2 TURN BEYOND SNUG TIGHT
1"	BOLTS 4.25 TO 8.0 INCH LENGTH	+1/2 TURN BEYOND SNUG TIGHT
1-1/8"	BOLTS 4.75 TO 9.0 INCH LENGTH	+1/2 TURN BEYOND SNUG TIGHT
1-1/4"	BOLTS 5.25 TO 10.0 INCH LENGTH	+1/2 TURN BEYOND SNUG TIGHT
1-3/8"	BOLTS 5.75 TO 11.0 INCH LENGTH	+1/2 TURN BEYOND SNUG TIGHT
1-1/2"	BOLTS 6.25 TO 12.0 INCH LENGTH	+1/2 TURN BEYOND SNUG TIGHT

- SPLICE BOLTS SUBJECT TO DIRECT TENSION SHALL BE INSTALLED AND TIGHTENED AS PER SECTION 8.2.1 OF THE AISC "SPECIFICATION FOR STRUCTURAL JOINTS USING A325 OR A490 BOLTS", LOCATED IN THE AISC MANUAL OF STEEL CONSTRUCTION. THE INSTALLATION PROCEDURE IS PARAPHRASED AS FOLLOWS:

FASTENERS SHALL BE INSTALLED IN PROPERLY ALIGNED HOLES AND TIGHTENED BY ONE OF THE METHODS DESCRIBED IN SUBSECTION 8.2.1 THROUGH 8.2.4.

8.2.1 TURN-OF-NUT PRETENSIONING

BOLTS SHALL BE INSTALLED IN ALL HOLES OF THE CONNECTION AND BROUGHT TO A SNUG TIGHT CONDITION AS DEFINED IN SECTION 8.1, UNTIL ALL THE BOLTS ARE SIMULTANEOUSLY SNUG TIGHT AND THE CONNECTION IS FULLY COMPACTED. FOLLOWING THIS INITIAL OPERATION ALL BOLTS IN THE CONNECTION SHALL BE TIGHTENED FURTHER BY THE APPLICABLE AMOUNT OF ROTATION SPECIFIED ABOVE. DURING THE TIGHTENING OPERATION THERE SHALL BE NO ROTATION OF THE PART NOT TURNED BY THE WRENCH. TIGHTENING SHALL PROGRESS SYSTEMATICALLY.

- ALL OTHER BOLTED CONNECTIONS SHALL BE BROUGHT TO A SNUG TIGHT CONDITION AS DEFINED IN SECTION 8.1 OF THE SPECIFICATION.

ALL BOLT HOLES SHALL BE ALIGNED TO PERMIT INSERTION OF THE BOLTS WITHOUT UNDUE DAMAGE TO THE THREADS. BOLTS SHALL BE PLACED IN ALL HOLES WITH WASHERS POSITIONED AS REQUIRED AND NUTS THREADED TO COMPLETE THE ASSEMBLY. COMPACTING THE JOINT TO THE SNUG-TIGHT CONDITION SHALL PROGRESS SYSTEMATICALLY FROM THE MOST RIGID PART OF THE JOINT. THE SNUG-TIGHTENED CONDITION IS THE TIGHTNESS THAT IS ATTAINED WITH A FEW IMPACTS OF AN IMPACT WRENCH OR THE FULL EFFORT OF AN IRONWORKER USING AN ORDINARY SPUD WRENCH TO BRING THE CONNECTED PLIES INTO FIRM CONTACT.

APPLICABLE CODES AND STANDARDS

- ANSI/TIA: STRUCTURAL STANDARDS FOR STEEL ANTENNA TOWERS AND ANTENNA SUPPORTING STRUCTURES, 222-G EDITION.
- 2016 CONNECTICUT STATE BUILDING CODE.
- 2012 INTERNATIONAL BUILDING CODE.
- ACI 318: AMERICAN CONCRETE INSTITUTE, BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE, 318-02.
- CRSI: CONCRETE REINFORCING STEEL INSTITUTE, MANUAL OF STANDARD PRACTICE, LATEST EDITION.
- AISC: AMERICAN INSTITUTE OF STEEL CONSTRUCTION, MANUAL OF STEEL CONSTRUCTION, LATEST EDITION.
- AWS: AMERICAN WELDING SOCIETY D1.1, STRUCTURAL WELDING CODE, LATEST EDITION.

SPECIAL INSPECTION

- A QUALIFIED INDEPENDENT TESTING LABORATORY, EMPLOYED BY THE OWNER, SHALL PERFORM INSPECTION AND TESTING IN ACCORDANCE WITH IBC 2012, SECTION 1704 AS REQUIRED BY PROJECT SPECIFICATIONS FOR THE FOLLOWING CONSTRUCTION WORK:
 - STRUCTURAL WELDING (CONTINUOUS INSPECTION OF FIELD WELD ONLY)
 - HIGH STRENGTH BOLTS (PERIODIC INSPECTION OF A325 EXTENSION FLANGE BOLTS TO BE TIGHTENED PER "TURN-OF-THE-NUT" METHOD)
- THE INSPECTION AGENCY SHALL SUBMIT INSPECTION AND TEST REPORTS TO THE BUILDING DEPARTMENT, THE ENGINEER OF RECORD, AND THE OWNER IN ACCORDANCE WITH IBC 2012, SECTION 1704, UNLESS THE FABRICATOR IS APPROVED BY THE BUILDING OFFICIAL TO PERFORM SUCH WORK WITHOUT THE SPECIAL INSPECTIONS.



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REV.	DESCRIPTION	BY	DATE
0	FIRST ISSUE	NHK	07/05/17

ATC SITE NUMBER:

302473

ATC SITE NAME:

E H F R - PRESTIGE PARK

CONNECTICUT

SITE ADDRESS:

310 PRESTIGE PARK RD.
EAST HARTFORD, CT 06108



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DRAWN BY:	NHK
APPROVED BY:	KLS/AT
DATE DRAWN:	07/05/17
ATC JOB NO:	OAA696438_C6_05

IBC GENERAL NOTES

SHEET NUMBER:

IGN

REVISION:

0

MODIFICATION INSPECTION NOTES

THE SPECIAL INSPECTION (SI) PROCEDURE IS INTENDED TO CONFIRM THAT CONSTRUCTION AND INSTALLATION MEETS ENGINEERING DESIGN, ATC PROCEDURES AND ATC STANDARD SPECIFICATIONS FOR WIRELESS TOWER SITES.

TO ENSURE THAT THE REQUIREMENTS OF THE SI ARE MET, IT IS VITAL THAT THE GENERAL CONTRACTOR AND THE INSPECTOR BEGIN COMMUNICATING AND COORDINATING AS SOON AS A PO IS RECEIVED FROM AMERICAN TOWER CORPORATION (ATC). IT IS EXPECTED THAT EACH PARTY WILL PROACTIVELY REACH OUT TO THE OTHER PARTY. IF CONTACT INFORMATION IS NOT KNOWN, CONTACT YOUR AMERICAN TOWER POINT OF CONTACT.

SPECIAL INSPECTOR

THE SPECIAL INSPECTOR IS REQUIRED TO CONTACT THE GENERAL CONTRACTOR AS SOON AS RECEIVING A PO FROM ATC. UPON RECEIVING A PO FROM ATC THE SPECIAL INSPECTOR AT A MINIMUM MUST:

- REVIEW THE REQUIREMENTS OF THE SI CHECKLIST.
- WORK WITH THE GENERAL CONTRACTOR TO DEVELOP A SCHEDULE TO CONDUCT ON-SITE INSPECTIONS, INCLUDING FOUNDATION INSPECTIONS.
- ANY CONCERNS WITH THE SCOPE OF WORK OR PROJECT COMMITMENT MUST BE RELAYED TO THE ATC POINT OF CONTACT IMMEDIATELY.

THE SPECIAL INSPECTOR IS RESPONSIBLE FOR COLLECTING ALL GENERAL CONTRACTOR INSPECTION AND TEST REPORTS, REVIEWING THESE DOCUMENTS FOR ADHERENCE TO CONTRACT DOCUMENTS, CONDUCTING THE IN-FIELD INSPECTIONS, AND SUBMITTING THE SI REPORT TO AMERICAN TOWER CORPORATION.

GENERAL CONTRACTOR

THE GENERAL CONTRACTOR IS REQUIRED TO CONTACT THE SI INSPECTOR AS SOON AS RECEIVING A PO FOR THE MODIFICATION INSTALLATION OR TURNKEY PROJECT TO, AT A MINIMUM:

- REVIEW THE REQUIREMENTS OF THE SI CHECKLIST.
- WORK WITH THE SI TO DEVELOP A SCHEDULE TO CONDUCT ON-SITE INSPECTIONS, INCLUDING FOUNDATION INSPECTIONS.
- BETTER UNDERSTAND ALL INSPECTION AND TESTING REQUIREMENTS.

THE GENERAL CONTRACTOR SHALL PERFORM AND RECORD THE TEST AND INSPECTION RESULTS IN ACCORDANCE WITH THE REQUIREMENTS OF THE SI CHECKLIST.

SPECIAL INSPECTION CHECKLIST

INSPECTION DOCUMENT	DESCRIPTION	INSPECTION TESTING REQUIRED	RESPONSIBILITY	SI REVIEW REQUIRED			INSPECTION FREQUENCY	
				PRE CX	DURING CX	POST CX	PERIODIC	CONTINUOUS
SPECIAL INSPECTION FIELD WORK & REPORT	DOCUMENTATION AND SITE VISIT CONDUCTED BY AN ATC APPROVED SPECIAL INSPECTOR AS REQUIRED BY ATC AND OTHER AUTHORITIES HAVING JURISDICTION. INSPECTION PARAMETERS TO FOLLOW ATC'S STANDARD SPECIFICATION FOR WIRELESS TOWER SITES.	✓	SI			✓		
ENGINEERING ASSEMBLY DRAWINGS	GC SHALL SUBMIT DRAWINGS TO SI FOR INCLUSION IN SI REPORT	✓	GC	✓				
FABRICATED MATERIAL VERIFICATION & INSPECTION	MTR AND OR MILL CERTIFICATIONS FOR SUPPLIED MATERIALS GC SHALL SUPPLY SI WITH REPORTS TO BE INCLUDED IN SI REPORT WHEN REQUIRED BY ATC	✓	SI	✓				
CERTIFIED WELD INSPECTION	INSPECTION AND REPORT OF STRUCTURAL WELDING PERFORMED DURING PROJECT COMPLETED BY A CWI AND INCLUDED WITHIN SI REPORT	✓	GC / TA	✓	✓	✓	✓	
FOUNDATION INSPECTION & VERIFICATION	VISUAL OBSERVATION AND APPROVAL OF FOUNDATION EXCAVATION, REBAR PLACEMENT, CASING/SHORING/FORMING PLACEMENT, AND ANCHOR TEMPLATE AND ANCHOR PLACEMENT - TO BE SI APPROVED PRIOR TO CONCRETE POUR AND DOCUMENTED IN THE SI REPORT		SI					
ANCHOR, ROCK ANCHOR OR HELICAL PULL-OUT TEST	PULL TESTING OF INSTALLED ANCHORS TO BE COMPLETED AND DOCUMENTED IN SI REPORT		GC / TA					
CONCRETE INSPECTION & VERIFICATION	CONCRETE MIX DESIGN, SLUMP TEST, COMPRESSIVE TESTING, AND SAMPLE GATHERING TECHNIQUES ARE TO BE PROVIDED FOR INCLUSION IN THE SI REPORT. SI SHALL VERIFY CONCRETE PLACEMENT AS REQUIRED BY THE DESIGN DOCUMENTS (INSPECTION FREQUENCY IS MARKED CONTINUOUS)		GC / TA					
DYWIDAG PLACEMENT/ANCHOR BOLT EMBEDMENT - EPOXY/GROUT INSTALL	ANCHOR/BAR EMBEDMENT, HOLE SIZE, EPOXY/GROUT TYPE, INSTALLATION TEMPERATURE AND INSTALLATION SHALL BE VERIFIED BY THE SI AND INCLUDED IN THE SI REPORT		GC / SI					
BASE PLATE GROUT INSPECTION & VERIFICATION	BASE PLATE GROUTING TYPE AND PLACEMENT SHALL BE CONFIRMED BY THE SI AND INCLUDED IN THE SI REPORT		GC / SI					
EARTHWORK INSPECTION & VERIFICATION	EXCAVATION, FILL, SLOPE, GRADE AND OTHER EARTHWORK REQUIREMENTS PER PLANS SHALL BE VERIFIED BY THE SI AND INCLUDED IN THE SI REPORT		GC / TA					
COMPACTION VERIFICATION	CONTRACTOR SHALL PROVIDE AN INDEPENDENT THIRD PARTY CERTIFIED INSPECTION WHICH PROVIDES TEST RESULTS FOR COMPACTION TEST OF SOILS IN PLACE TO ASTM STANDARDS.		GC / TA					
GROUND TESTING & VERIFICATION	GC SHALL PROVIDE DOCUMENTATION SHOWING THAT THE GROUNDING SYSTEM SHALL HAVE A MEASURED RESISTANCE TO THE GROUND OF NOT MORE THAN THE RECOMMENDED 10 OHMS. PER THE ATC CONSTRUCTION SPECIFICATION UNDER SECTION 2.15 THIS DOCUMENTATION MUST BE AN INDEPENDENT CERTIFICATION.		GC					
STEEL CONSTRUCTION INSPECTION & VERIFICATION	VISUAL OBSERVATION AND APPROVAL OF STEEL CONSTRUCTION TO BE PERFORMED BY THE SI. INSPECTION TO INCLUDE VERIFICATION OF NEW CONSTRUCTION OR MODIFICATION OF EXISTING CONSTRUCTION PER ENGINEERED PLANS. DETAILED VERIFICATION SHALL BE INCLUDED IN SI REPORT.	✓	SI			✓	✓	
ON-SITE COLD GALVANIZING VERIFICATION	SI SHALL VERIFY WITH GC ALL COLD GALVANIZATION TYPE AND APPLICATION AND INCLUDE SUMMARY IN SI REPORT	✓	GC			✓	✓	
GUY WIRE TENSIONING & TOWER ALIGNMENT REPORT	GC SHALL PROVIDE SI EVIDENCE OF PROPER GUY TENSIONING AND TOWER PLUMB PER PLANS. SI SHALL VERIFY AND INCLUDE PLUMB AND TENSION REPORTING IN SI REPORT.		GC					
GC AS-BUILT DRAWINGS WITH CONSTRUCTION RED-LINES	GC SHALL SUBMIT "AS-BUILT" DRAWINGS INDICATING ANY APPROVED CHANGES TO ENGINEERED PLANS TO SI FOR APPROVAL/REVIEW AND INCLUSION IN SI REPORT	✓	GC			✓		
SI AS-BUILT DRAWINGS WITH INSPECTION RED-LINES (AS REQUIRED)	SI SHALL SUBMIT "AS-BUILT" DRAWINGS INDICATING ANY APPROVED CHANGES TO ENGINEERED PLANS WITHIN SI REPORT	✓	SI			✓		
TIA INSPECTION	SI SHALL COMPLETE TIA INSPECTION AND PROVIDE SEPARATE TIA INSPECTION DOCUMENTATION TO ATC CM		SI					
PHOTOGRAPHS	PHOTOGRAPHIC EVIDENCE OF SPECIAL INSPECTION, ON SITE REMEDIATION, AND ITEMS FAILING INSPECTION & REQUIRING FOLLOW UP TO BE INCLUDED WITHIN THE SI REPORT. COMPLETE PHOTO LOG IS TO BE SUBMITTED WITHIN SI REPORT.	✓	GC / SI			✓		

NOTE: SPECIAL INSPECTIONS ARE INTENDED TO BE A COLLABORATIVE EFFORT BETWEEN GC AND SI. WHENEVER POSSIBLE GC IS TO PROVIDE SI WITH PHOTOGRAPHIC OR OTHER ACCEPTABLE EVIDENCE OF PROPER INSTALLATION IF PERIODIC INSPECTION FREQUENCY IS ACCEPTABLE. THE GC AND SI SHALL WORK TO COMPILE EVIDENCE OF PROPER CONSTRUCTION AND LIMIT THE NUMBER OF SI SITE VISITS REQUIRED.

TABLE KEY:

SI - ATC APPROVED SPECIAL INSPECTOR	CX - CONSTRUCTION
GC - GENERAL CONTRACTOR	CM - CONSTRUCTION MANAGER
TA - 3RD PARTY TESTING AGENCY	ATC - AMERICAN TOWER CORPORATION



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REV.	DESCRIPTION	BY	DATE
0	FIRST ISSUE	NHK	07/05/17

ATC SITE NUMBER:
302473

ATC SITE NAME:
E H F R - PRESTIGE PARK

CONNECTICUT

SITE ADDRESS:
310 PRESTIGE PARK RD.
EAST HARTFORD, CT 06108



Jul 11 2017 9:38 AM **cosign**

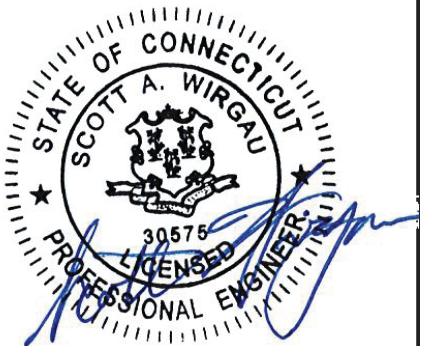
DRAWN BY:	NHK
APPROVED BY:	KLS/AT
DATE DRAWN:	07/05/17
ATC JOB NO:	OAA696438_C6_05


SPECIAL INSPECTION CHECKLIST	
SHEET NUMBER: SIC	REVISION: 0

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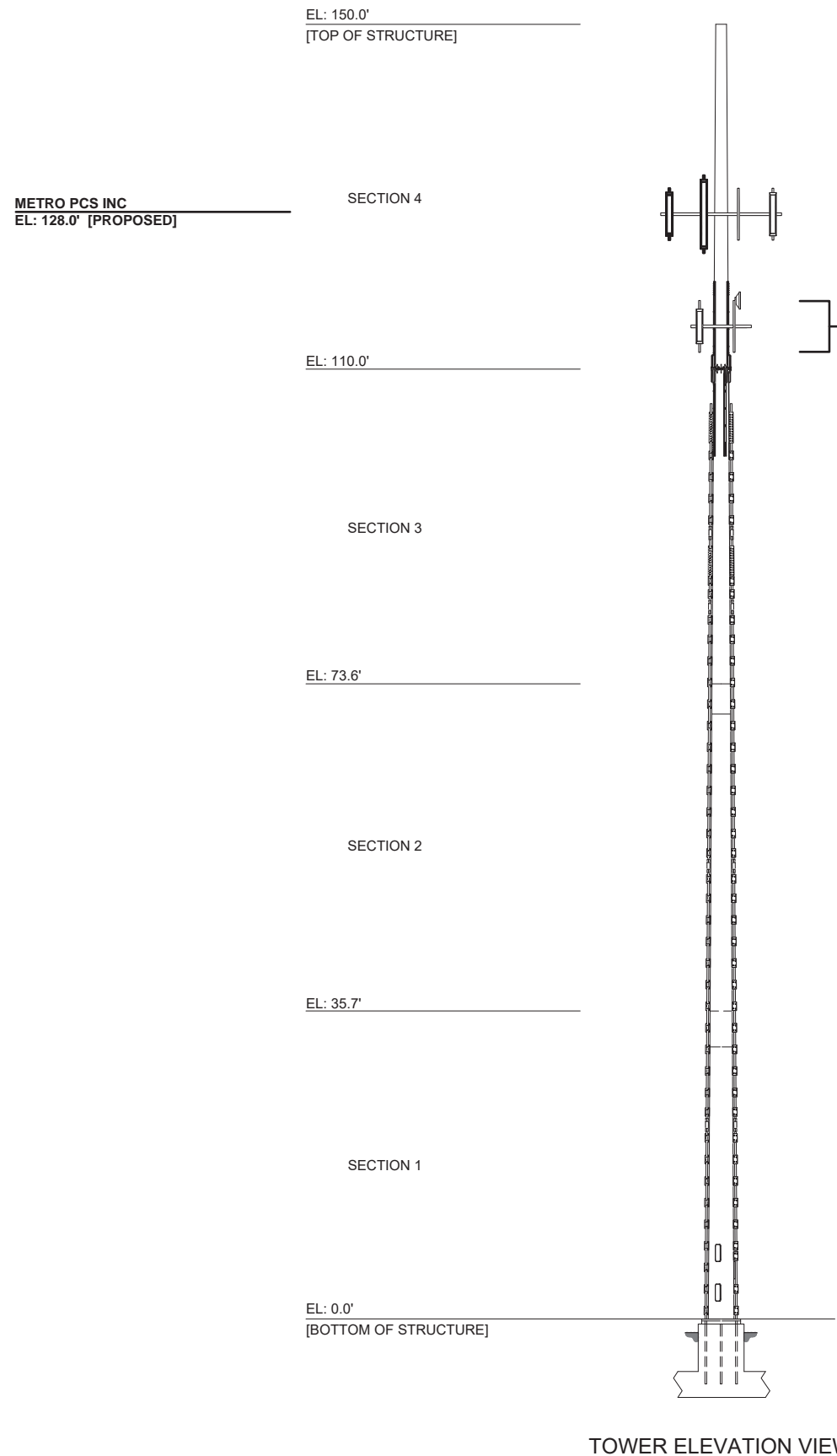


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APPROVED BY:	KLS/AT
DATE DRAWN:	07/05/17
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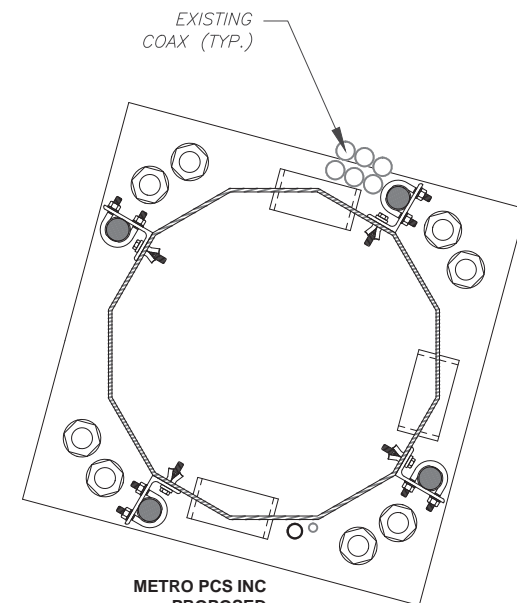
MODIFICATION PROFILE

SHEET NUMBER:	REVISION:
A-1	0



MOUNT MAY REQUIRE SUPPORT AND RE-MOUNTING DURING INSTALLATION. SEE NOTE BELOW.

INSTALL (4) PLATE REINFORCEMENTS [PL 1" X 3"] FROM EL: 100.0' TO 110.0'. AND INSTALL (3) PLATE REINFORCEMENTS [PL 1" X 3"] FROM EL: 110.0' TO 120.0'. SEE SHEET A-2 FOR INSTALLATION DETAILS.



METRO PCS INC PROPOSED (1) 1 1/4" FIBER INSTALLED ALONGSIDE EXISTING. STACKING COAX IS NOT ALLOWED.

COAX DISTRIBUTION EXTERIOR ONLY

NOTE:
 CONTACT AMERICAN TOWER FIELD OPERATIONS WHEN EXISTING EQUIPMENT INTERFERES WITH INSTALLATION OF MODIFICATIONS. ONCE APPROVED, EXISTING EQUIPMENT MAY BE TEMPORARILY MOVED DURING INSTALLATION & REINSTALLED TO THE ORIGINAL HEIGHT & LOCATION BY CONTRACTOR POST COMPLETION OF MODIFICATIONS.

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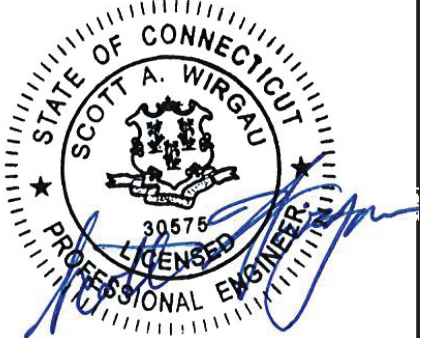
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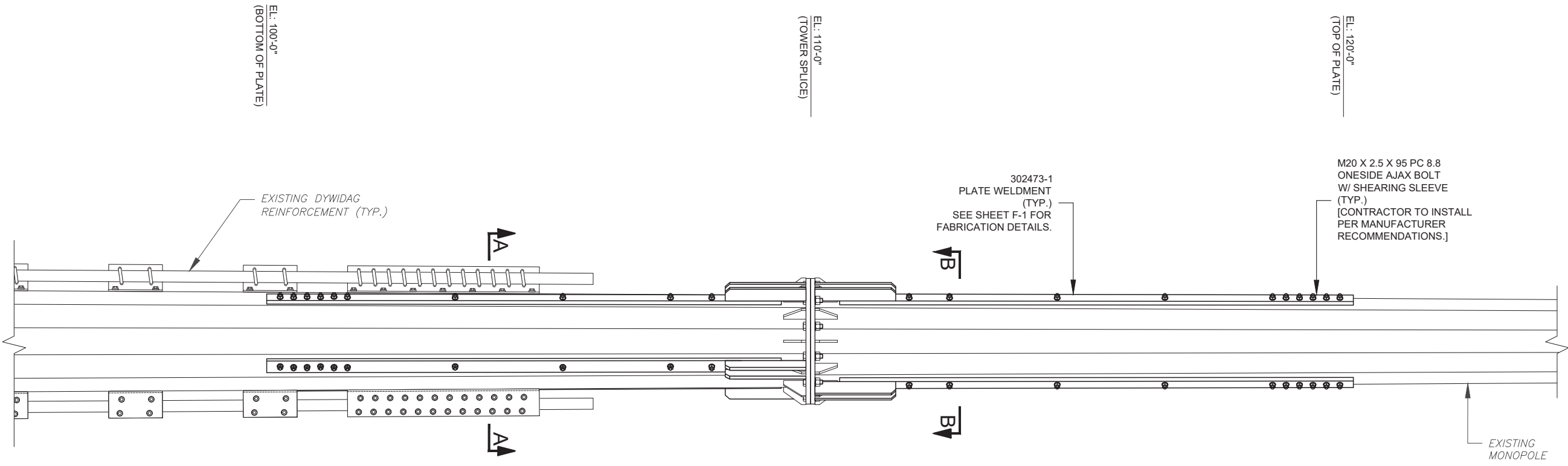


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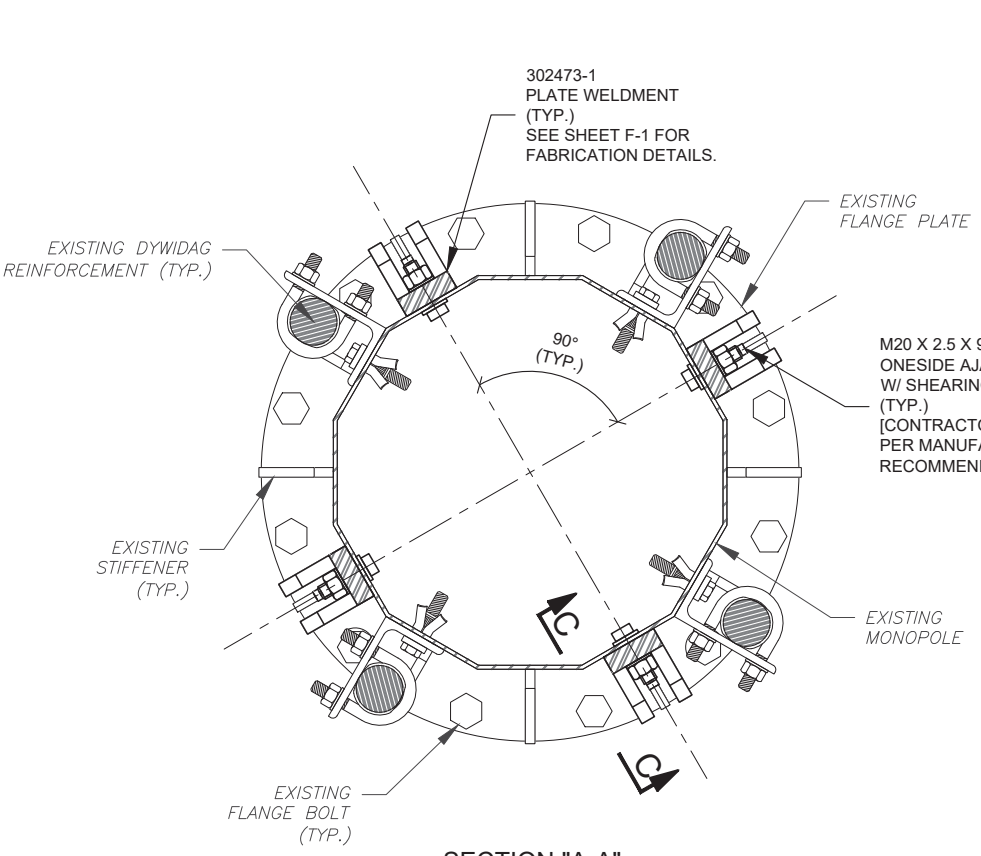
DRAWN BY:	NHK
APPROVED BY:	KLS/JAT
DATE DRAWN:	07/05/17
ATC JOB NO:	OAA696438_C6_05

**PLATE WELDMENT
 INSTALLATION DETAILS**

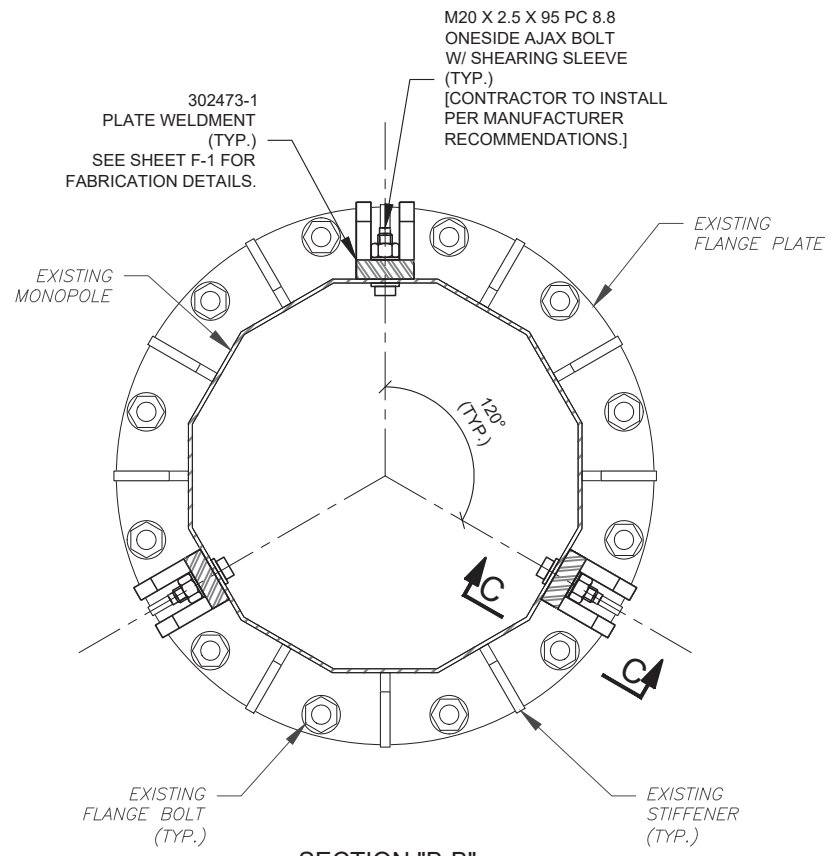
SHEET NUMBER:	REVISION:
A-2	0



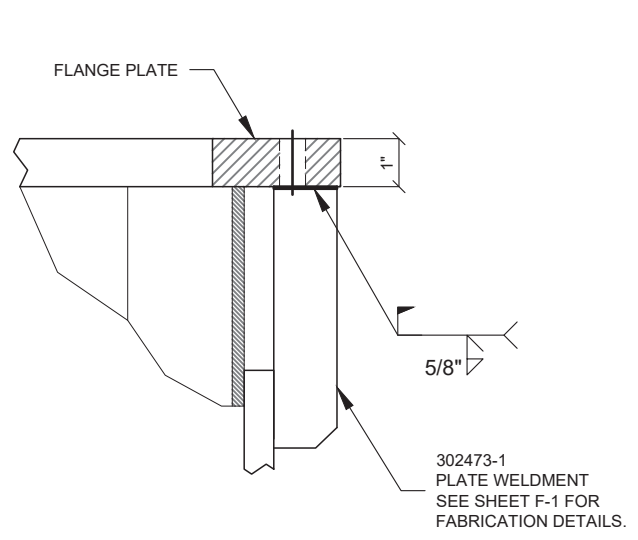
**ELEVATION VIEW
 PLATE INSTALLATION DETAIL**



**SECTION "A-A"
 TYPICAL DETAIL**



**SECTION "B-B"
 TYPICAL DETAIL**

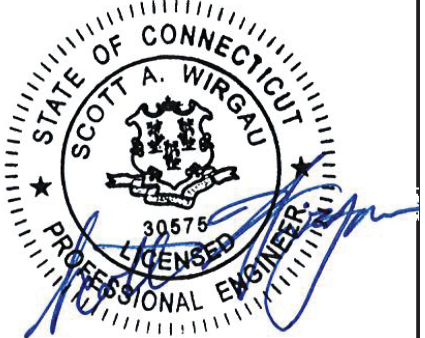



**SECTION "C-C"
 TYPICAL WELD DETAIL**

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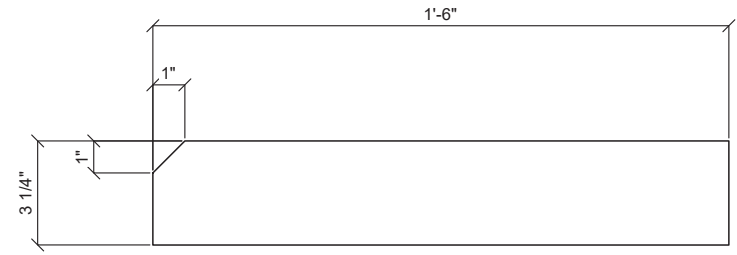


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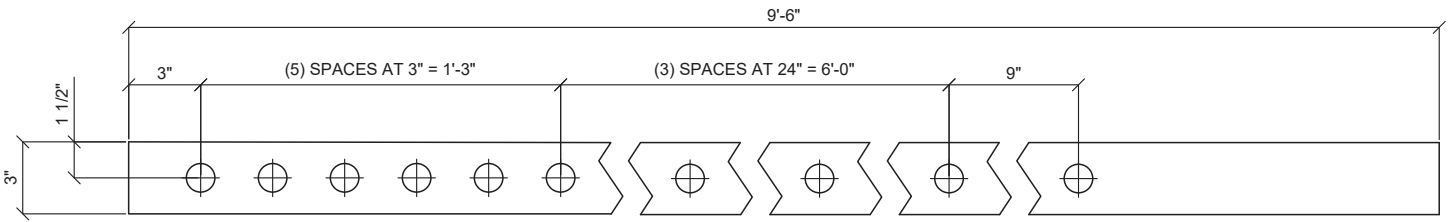
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APPROVED BY:	KLS/AT
DATE DRAWN:	07/05/17
ATC JOB NO:	OAA696438_C6_05

**PLATE WELDMENT
 FABRICATION DETAILS**

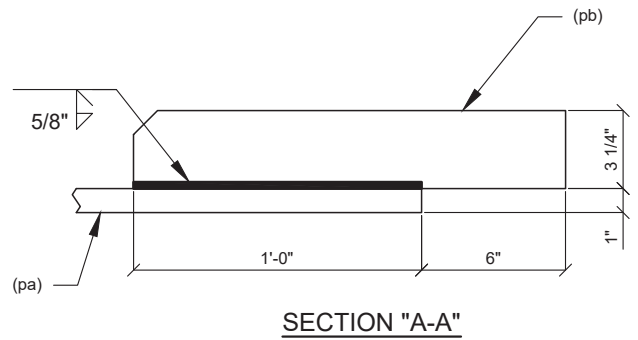
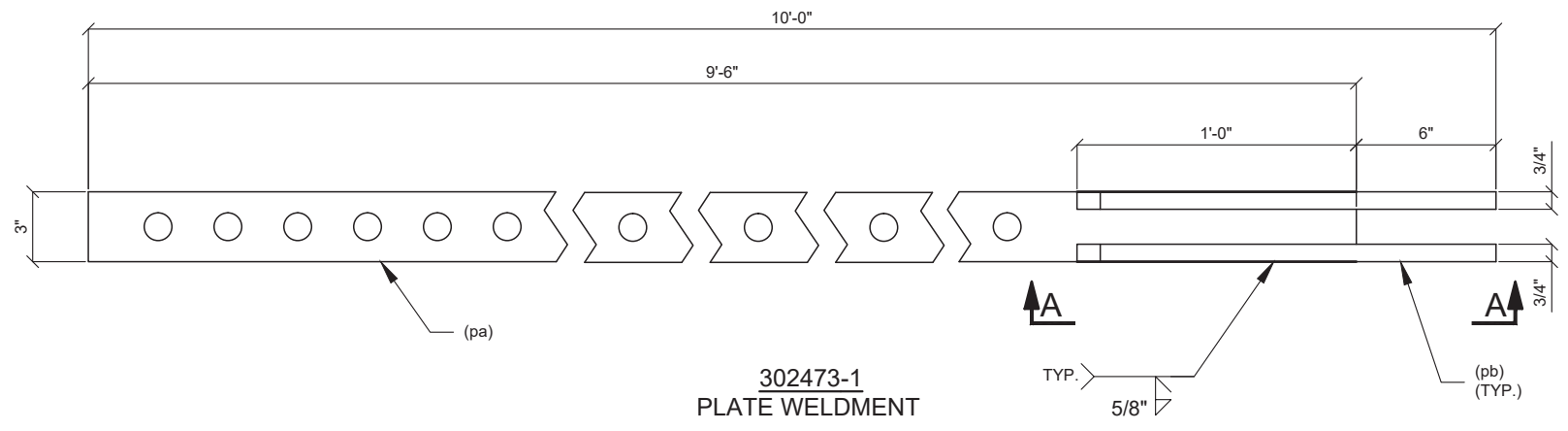
SHEET NUMBER:	REVISION:
F-1	0



(pb)



(pa)

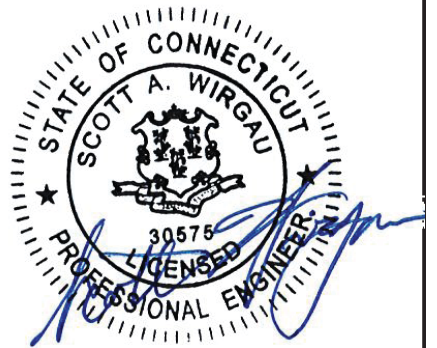



PART NO.	QTY	DESCRIPTION	LENGTH	NOTES	BLK WT
(pb)	2	PL 3/4" X 3 1/4"	1'-6"		24.7#
(pa)	1	PL 1" X 3"	9'-6"		97.0#
302473-1	1	PLATE WELDMENT	10'-0"		121.6#
MATERIAL: A572 GR. 65		FINISH: GALVANIZED		HOLES: 1 3/16"Ø	GALV WT: 127.7#

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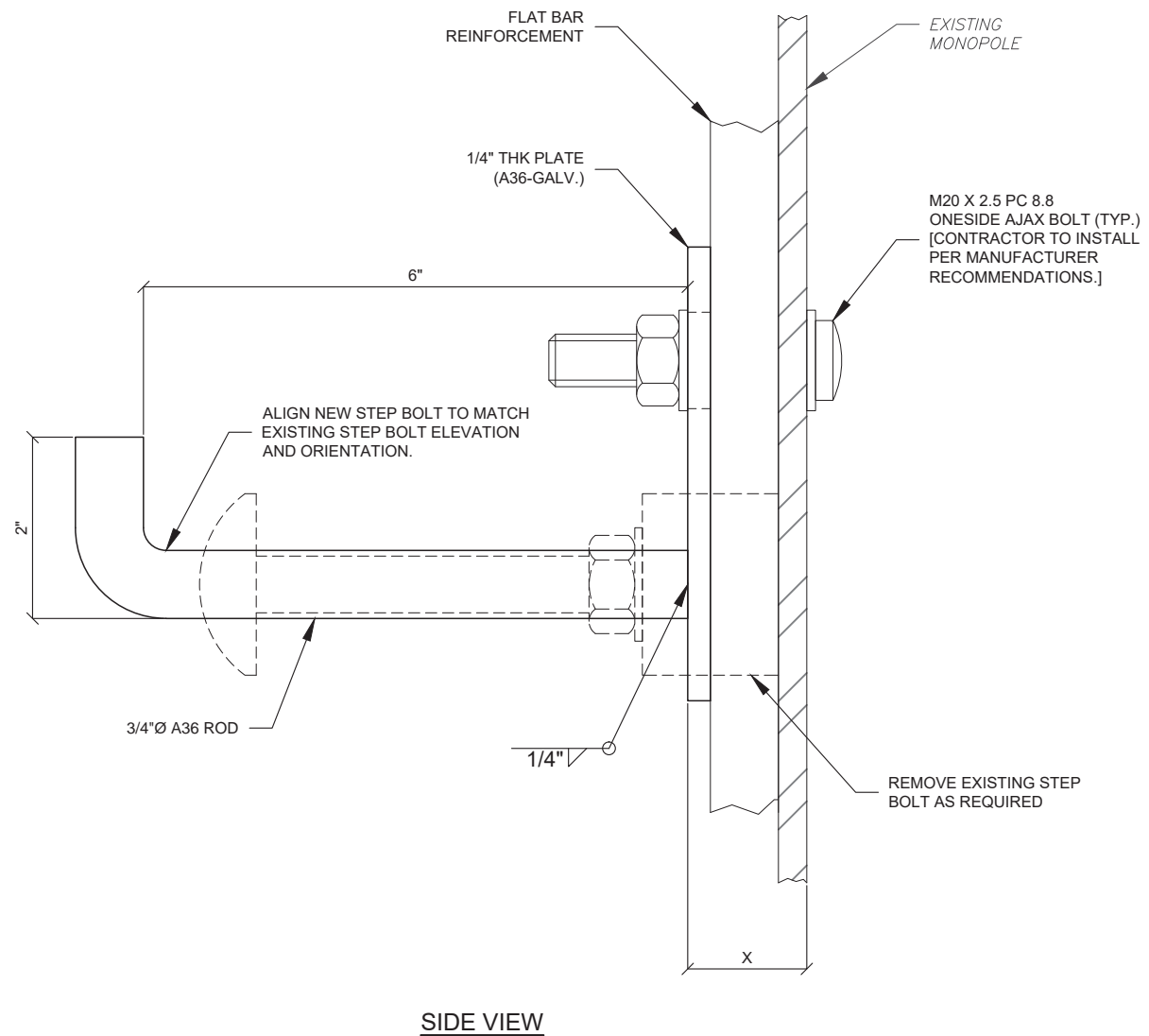
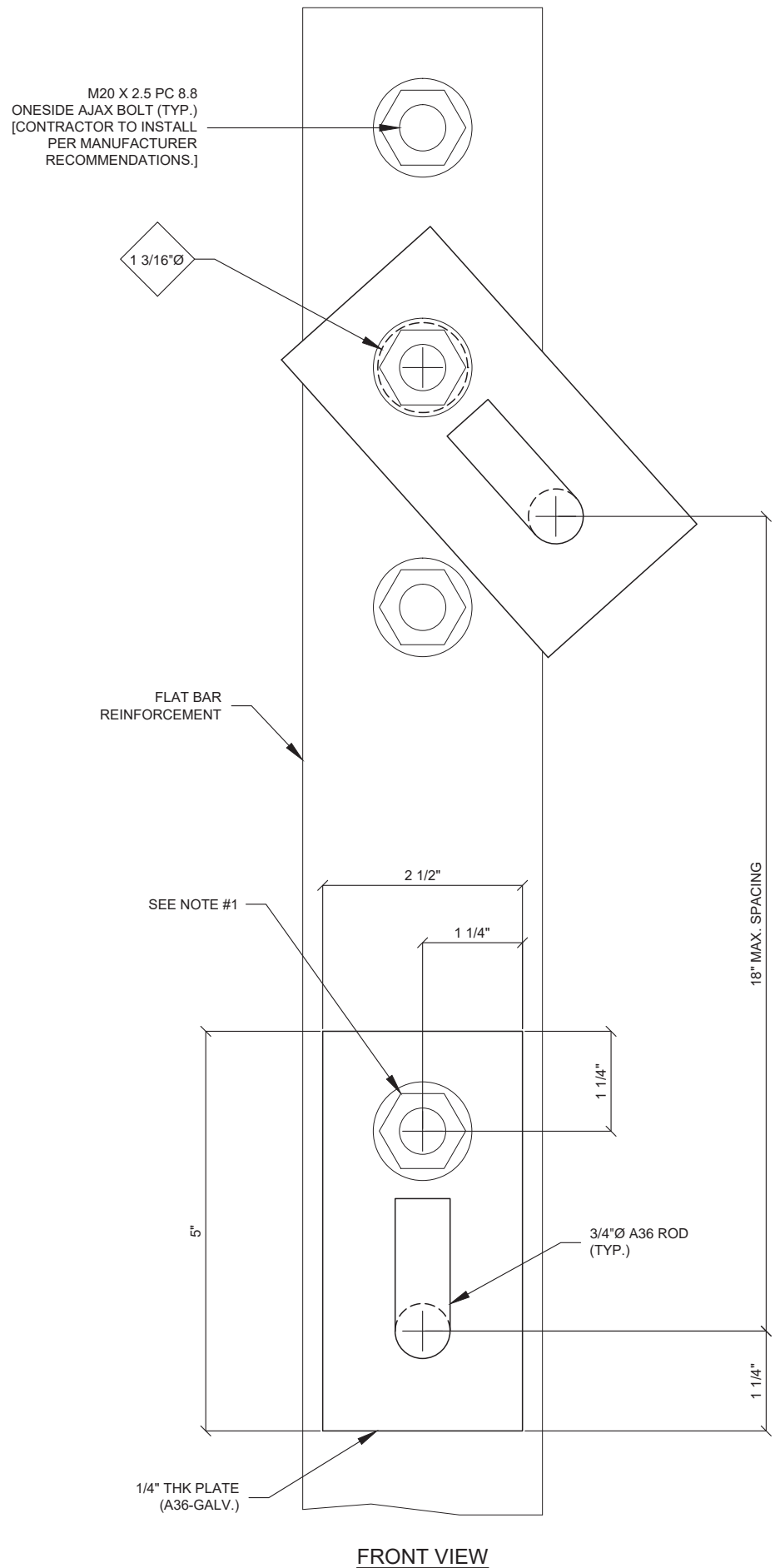


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APPROVED BY:	KLS/AT
DATE DRAWN:	07/05/17
ATC JOB NO:	OAA696438_C6_05

**FLAT BAR STEP BOLT
 BRACKET FABRICATION
 & INSTALLATION
 DETAILS**

SHEET NUMBER:	REVISION:
FBSB	0



AJAX M20X2.5 SIZE	MAX. GRIP (X)
M20X2.5 X 65MM	3/4"
M20X2.5 X 95MM	1 15/16"
M20X2.5 X 135MM	3 9/16"
M20X2.5 X 165MM	4 3/4"
M20X2.5 X 250MM	8 5/16"

- FIELD NOTES:**
- BLIND BOLT LENGTHS TO BE VERIFIED PRIOR TO FLAT BAR AND STEP BOLT INSTALLATION. USE AJAX M20X2.5 CHART.
 - STEP PEG SPACING IS NOT TO EXCEED 15" MAX. STAGGERED OR 30" MAX. ON ANY SINGLE SIDE OF THE FLAT PLATE.

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

T-Mobile Existing Facility

Site ID: CTHA515A

**E H F R - Prestige Park
310 Prestige Park Road
East Hartford, CT 06108**

July 16, 2017

EBI Project Number: 6217003097

Site Compliance Summary	
Compliance Status:	COMPLIANT
Site total MPE% of FCC general population allowable limit:	15.43 %

July 16, 2017

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

Emissions Analysis for Site: **CTHA515A – E H F R - Prestige Park**

EBI Consulting was directed to analyze the proposed T-Mobile facility located at **310 Prestige Park Road, East Hartford, CT**, for the purpose of determining whether the emissions from the Proposed T-Mobile Antenna Installation located on this property are within specified federal limits.

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

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

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

Population 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 approximately 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 **310 Prestige Park Road, East Hartford, 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 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.
- 2) 2 LTE channels (PCS Band - 1900 MHz) were considered for each sector of the proposed installation. These Channels have a transmit power of 60 Watts per Channel.
- 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) Since the 700 MHz LTE radios are ground mounted there are additional cabling losses accounted for. For each ground mounted 700 MHz LTE RF path, an additional 0.84 dB of cable loss was factored into the calculations used for this analysis. This is based on manufacturers Specifications for 150 feet of 1-1/4” coax cable on each path.

- 6) 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.
- 7) For the following calculations the sample point was the top of a 6-foot person standing at the base of the tower. The maximum gain of the antenna per the antenna 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.
- 8) The antennas used in this modeling are the **Ericsson AIR32 B66AA/B2A** & **Ericsson AIR21 B4A/B2P** for 1900 MHz (PCS) and 2100 MHz (AWS) channels and the **Commscope LNX-6515DS-A1M** for 700 MHz channels. This is based on feedback from the carrier with regards to anticipated antenna selection. The **Ericsson AIR32 B66AA/B2A** has a maximum gain of **15.9 dBd** at its main lobe at 1900 MHz and 2100 MHz. The **Ericsson AIR21 B4A/B2P** has a maximum gain of **15.9 dBd** at its main lobe at 2100 MHz. The **Commscope LNX-6515DS-A1M** has a maximum gain of **14.6 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.
- 9) The antenna mounting height centerline of the proposed antennas is **128 feet** above ground level (AGL).
- 10) 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.
- 11) All calculations were done with respect to uncontrolled / general population threshold limits.

T-Mobile Site Inventory and Power Data

Sector:	A	Sector:	B	Sector:	C
Antenna #:	1	Antenna #:	1	Antenna #:	1
Make / Model:	Ericsson AIR32 B66AA/B2A	Make / Model:	Ericsson AIR32 B66AA/B2A	Make / Model:	Ericsson AIR32 B66AA/B2A
Gain:	15.9 dBd	Gain:	15.9 dBd	Gain:	15.9 dBd
Height (AGL):	128	Height (AGL):	128	Height (AGL):	128
Frequency Bands	1900 MHz (PCS) / 2100 MHz (AWS)	Frequency Bands	1900 MHz (PCS) / 2100 MHz (AWS)	Frequency Bands	1900 MHz (PCS) / 2100 MHz (AWS)
Channel Count	4	Channel Count	4	Channel Count	4
Total TX Power(W):	240	Total TX Power(W):	240	Total TX Power(W):	240
ERP (W):	9,337.08	ERP (W):	9,337.08	ERP (W):	9,337.08
Antenna A1 MPE%	2.26	Antenna B1 MPE%	2.26	Antenna C1 MPE%	2.26
Antenna #:	2	Antenna #:	2	Antenna #:	2
Make / Model:	Ericsson AIR21 B4A/B2P	Make / Model:	Ericsson AIR21 B4A/B2P	Make / Model:	Ericsson AIR21 B4A/B2P
Gain:	15.9 dBd	Gain:	15.9 dBd	Gain:	15.9 dBd
Height (AGL):	128	Height (AGL):	128	Height (AGL):	128
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	2	Channel Count	2	Channel Count	2
Total TX Power(W):	60	Total TX Power(W):	60	Total TX Power(W):	60
ERP (W):	2,334.27	ERP (W):	2,334.27	ERP (W):	2,334.27
Antenna A2 MPE%	0.56	Antenna B2 MPE%	0.56	Antenna C2 MPE%	0.56
Antenna #:	3	Antenna #:	3	Antenna #:	3
Make / Model:	Commscope LNX-6515DS-A1M	Make / Model:	Commscope LNX-6515DS-A1M	Make / Model:	Commscope LNX-6515DS-A1M
Gain:	14.6 dBd	Gain:	14.6 dBd	Gain:	14.6 dBd
Height (AGL):	128	Height (AGL):	128	Height (AGL):	128
Frequency Bands	700 MHz	Frequency Bands	700 MHz	Frequency Bands	700 MHz
Channel Count	1	Channel Count	1	Channel Count	1
Total TX Power(W):	30	Total TX Power(W):	30	Total TX Power(W):	30
ERP (W):	713.05	ERP (W):	713.05	ERP (W):	713.05
Antenna A3 MPE%	0.37	Antenna B3 MPE%	0.37	Antenna C3 MPE%	0.37

Site Composite MPE%	
Carrier	MPE%
T-Mobile (Per Sector Max)	3.19 %
Verizon Wireless	8.90 %
Clearwire	0.21 %
AT&T	2.11 %
Sprint	1.02 %
Site Total MPE %:	15.43 %

T-Mobile Sector A Total:	3.19 %
T-Mobile Sector B Total:	3.19 %
T-Mobile Sector C Total:	3.19 %
Site Total:	15.43 %

T-Mobile_Max Values 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 AWS - 2100 MHz LTE	2	2,334.27	128	11.28	AWS - 2100 MHz	1000	1.13%
T-Mobile PCS - 1900 MHz LTE	2	2,334.27	128	11.28	PCS - 1900 MHz	1000	1.13%
T-Mobile AWS - 2100 MHz UMTS	2	1,167.14	128	5.64	AWS - 2100 MHz	1000	0.56%
T-Mobile 700 MHz LTE	1	713.05	128	1.72	700 MHz	467	0.37%
						Total:	3.19%

Summary

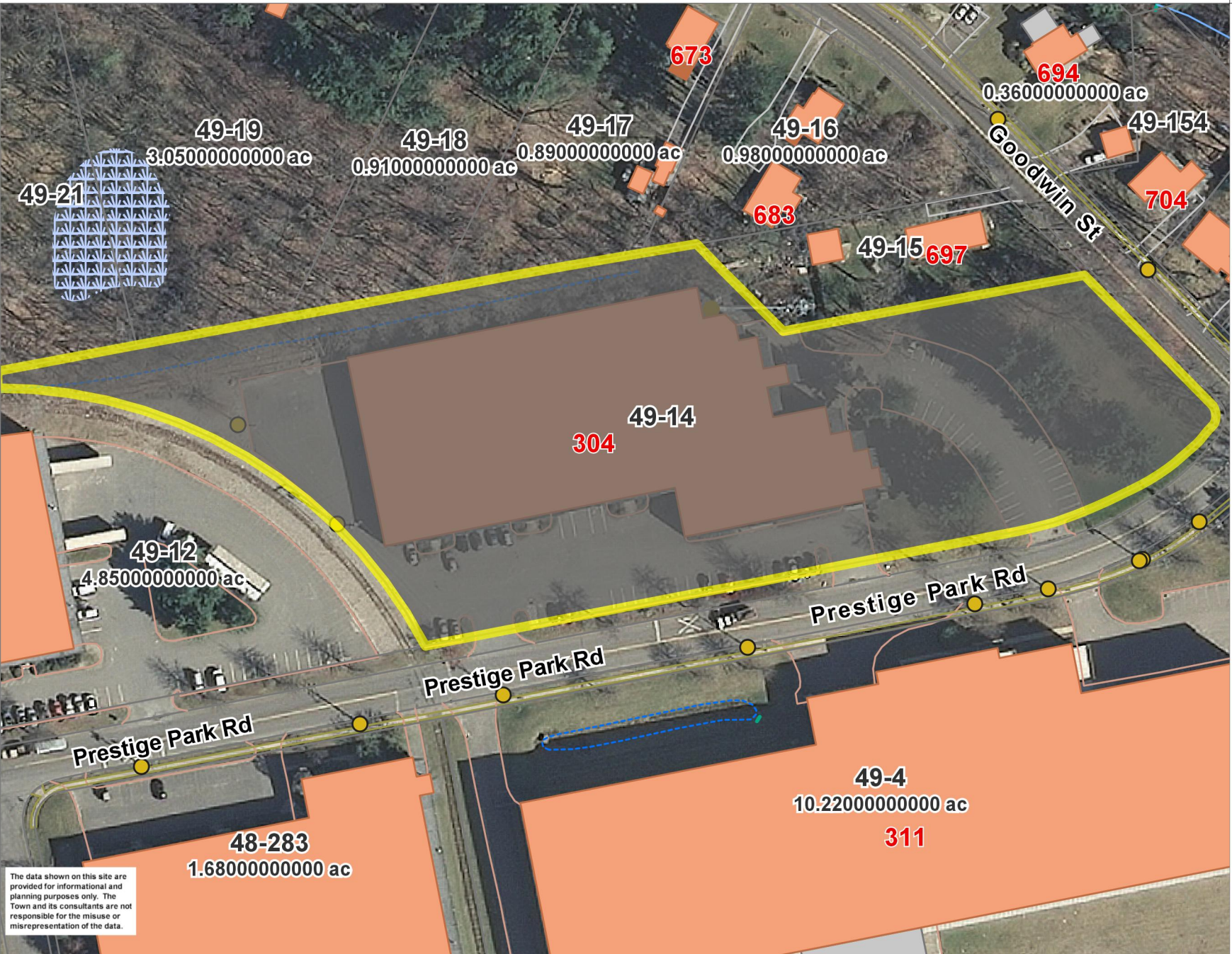
All calculations performed for this analysis yielded results that were **within** the allowable limits for general population exposure to RF Emissions.

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

T-Mobile Sector	Power Density Value (%)
Sector A:	3.19 %
Sector B:	3.19 %
Sector C:	3.19 %
T-Mobile Per Sector Maximum:	3.19 %
Site Total:	15.43 %
Site Compliance Status:	COMPLIANT

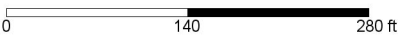
The anticipated composite MPE value for this site assuming all carriers present is **15.43%** of the allowable FCC established general population limit sampled at the ground level. This is based upon values listed in the Connecticut Siting Council database for existing carrier emissions.

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



- Town Boundary
- Schools
- Buildings
 - Building
 - Cement
 - Deck
 - Foundation
 - Greenhouse
 - Tank
- Utility Poles
 - Utility Pole
 - Light Pole
 - Transmission Pole
- Railroad Depot Zone
- Parcels
- Paved Features
 - Driveway
 - Road Edge
 - Parking Lot
 - Sidewalk
 - Trail
 - Tunnel
 - Unpaved
- Water Features Arc
 - Perennial Stream
 - Draining Ditch
 - Culvert
 - Spillway
 - Headwall
 - Dam
 - Directional Flow Arrow
- Water Features Poly
 - Open Water
 - Swamp
 - Pier
- CT Highways
 - Interstate
 - US Highway
 - State Highway
- Abutting Town Labels
 - Az
 - Abutting Towns

The data shown on this site are provided for informational and planning purposes only. The Town and its consultants are not responsible for the misuse or misrepresentation of the data.



Town of East Hartford Property Summary Report

284-310 PRESTIGE PARK RD

MAP LOT:	49-14	CAMA PID:	11576
LOCATION:	284-310 PRESTIGE PARK RD		
OWNER NAME:	FREMONT PRESTIGE I I L L C / C/O FREMONT MANAGEMENT L L C		



11576 03/29/2016

OWNER OF RECORD
FREMONT PRESTIGE I I L L C C/O FREMONT MANAGEMENT L L C 65 LA SALLE RD SUITE 202 WEST HARTFORD, CT 06107



LIVING AREA:	56744	ZONING:	I3	ACREAGE:	3.99
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SALES HISTORY

OWNER	BOOK / PAGE	SALE DATE	SALE PRICE
FREMONT PRESTIGE I I L L C C/O FREMONT MANAGEMENT L L	2714/ 23	14-Mar-2006	\$0.00
FREMONT PRESTIGE PARK LLC C/O FREMONT MANAGEMENT	1932/ 157	31-Oct-2000	\$1,389,000.00
TOLLAND ENTERPRISES	1087/ 147	01-Sep-1987	\$0.00
BECKENSTEIN LOUIS & HENRY	418/ 490	01-Jan-1900	\$0.00

CURRENT PARCEL ASSESSMENT

TOTAL:	\$1,430,830.00	IMPROVEMENTS:	\$1,247,470.00	LAND:	\$183,360.00
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ASSESSING HISTORY

FISCAL YEAR	TOTAL VALUE	IMPROVEMENT VALUE	LAND VALUE
2016	\$1,430,830.00	\$1,247,470.00	\$183,360.00
2015	\$1,336,330.00	\$1,152,970.00	\$183,360.00
2014	\$1,336,330.00	\$1,152,970.00	\$183,360.00
2013	\$1,336,328.00	\$1,152,968.00	\$183,360.00
2012	\$1,336,328.00	\$1,152,968.00	\$183,360.00

Town of East Hartford Property Summary Report

284-310 PRESTIGE PARK RD

MAP LOT:	49-14	CAMA PID:	11576
LOCATION:	284-310 PRESTIGE PARK RD		
OWNER NAME:	FREMONT PRESTIGE I I L L C / C/O FREMONT MANAGEMENT L L C		

BUILDING # 1

YEAR BUILT	1968	EXT WALL 1	Brick
STYLE	Storage Facility	INT WALLS 1	Painted Block
MODEL	Ind/Comm	HEAT FUEL	Other
STORIES	1.0	HEAT TYPE	Other
OCCUPANCY	Light Storage	AC TYPE	Partial
ROOF	Flat	BEDROOMS	
ROOF COVER	Typical	FULL BATHS	0
FLOOR COVER 1	Mixed	HALF BATHS	
% BSMT	null	TOTAL ROOMS	0
% FIN BSMT	null	% REC RM	null
% SEMI FIN BSMT	null	% ATTIC FINISH	null
BSMT GARAGE	null	FIREPLACES	null



11576 03/29/2016

EXTRA FEATURES

DESCRIPTION	CODE	UNITS
Sprinklers-Wet	SPR1	56744 S.F.
Load Dock	LDK	1 UNITS
W/Partitions	MEZ3	5674 S.F.

OUTBUILDINGS

DESCRIPTION	CODE	UNITS
Paving	PAV1	1x47000 (47000 SF)
Rail Road Siding	RRS	1x300 (300 L.F.)



VICINITY MAP



AMERICAN TOWER®

ATC SITE NAME: E H F R - PRESTIGE PARK
 ATC SITE NUMBER: 302473
 T-MOBILE SITE ID: CTHA515A
 SITE ADDRESS: 310 PRESTIGE PARK RD.
 EAST HARTFORD, CT 06108



LOCATION MAP

AMERICAN TOWER®
ATC TOWER SERVICES
 3500 REGENCY PARKWAY
 SUITE 100
 CARY, NC 27518
 PHONE: (919) 468-0112
 COA: 6260F

THESE DRAWINGS AND/OR THE ACCOMPANYING SPECIFICATION AS INSTRUMENTS OR SERVICE ARE THE EXCLUSIVE PROPERTY OF AMERICAN TOWER. THEIR USE AND PUBLICATION SHALL BE RESTRICTED TO THE ORIGINAL SITE FOR WHICH THEY ARE PREPARED. ANY USE OR DISCLOSURE OTHER THAN THAT WHICH RELATES TO AMERICAN TOWER OR THE SPECIFIED CARRIER IS STRICTLY PROHIBITED. TITLE TO THESE DOCUMENTS SHALL REMAIN THE PROPERTY OF AMERICAN TOWER WHETHER OR NOT THE PROJECT IS EXECUTED. NEITHER THE ARCHITECT NOR THE ENGINEER WILL BE PROVIDING ON-SITE CONSTRUCTION REVIEW OF THIS PROJECT. CONTRACTOR(S) MUST VERIFY ALL DIMENSIONS AND ADVISE AMERICAN TOWER OF ANY DISCREPANCIES. ANY PRIOR ISSUANCE OF THIS DRAWING IS SUPERSEDED BY THE LATEST VERSION ON FILE WITH AMERICAN TOWER.

REV.	DESCRIPTION	BY	DATE
△	FOR CONSTRUCTION	JDC	07/11/17
△			
△			
△			
△			

**T-MOBILE ANTENNA AMENDMENT
 795ADB3 CONFIGURATION**

ATC SITE NUMBER:
302473
 ATC SITE NAME:
E H F R - PRESTIGE PARK
 SITE ADDRESS:
 310 PRESTIGE PARK RD.
 EAST HARTFORD, CT 06108

SEAL:

Jul 11 2017 2:47 PM cosign



DRAWN BY:	JDC
APPROVED BY:	PPB
DATE DRAWN:	07/11/17
ATC JOB NO:	12042319

TITLE SHEET

SHEET NUMBER:
G-001
 REVISION:
0

COMPLIANCE CODE	PROJECT SUMMARY	PROJECT DESCRIPTION	SHEET INDEX				
ALL WORK SHALL BE PERFORMED AND MATERIALS INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNMENT AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THESE CODES. 1. INTERNATIONAL BUILDING CODE (IBC) 2. NATIONAL ELECTRIC CODE (NEC) 3. LOCAL BUILDING CODE 4. CITY/COUNTY ORDINANCES	<u>SITE ADDRESS:</u> 310 PRESTIGE PARK RD. EAST HARTFORD, CT 06108 COUNTY: HARTFORD <u>GEOGRAPHIC COORDINATES:</u> LATITUDE: 41.78833 LONGITUDE: -72.60055 GROUND ELEVATION: 72' AMSL	THE PROPOSED PROJECT INCLUDES MODIFYING GROUND BASED AND TOWER MOUNTED EQUIPMENT AS INDICATED PER BELOW: REMOVE (3) PANELS, AND T-ARMS INSTALL (6) NEW PANELS, (3) SMART BIAS T, AND PLATFORM MOUNT EXISTING (3) PANELS TO REMAIN	SHEET NO:	DESCRIPTION:	REV:	DATE:	BY:
		PROJECT NOTES 1. THE FACILITY IS UNMANNED. 2. A TECHNICIAN WILL VISIT THE SITE APPROXIMATELY ONCE A MONTH FOR ROUTINE INSPECTION AND MAINTENANCE. 3. THE PROJECT WILL NOT RESULT IN ANY SIGNIFICANT LAND DISTURBANCE OR EFFECT OF STORM WATER DRAINAGE. 4. NO SANITARY SEWER, POTABLE WATER OR TRASH DISPOSAL IS REQUIRED. 5. HANDICAP ACCESS IS NOT REQUIRED.	G-001	TITLE SHEET	0	07/11/17	JDC
UTILITY COMPANIES POWER COMPANY: EVERSOURCE PHONE: (800) 286-2000 TELEPHONE COMPANY: LIGHT TOWER PHONE: (800) 497-5578	PROJECT TEAM <u>TOWER OWNER:</u> AMERICAN TOWER 10 PRESIDENTIAL WAY WOBURN, MA 01801 <u>ENGINEER:</u> ATC TOWER SERVICES, LLC 3500 REGENCY PKWY STE 100 CARY, NC 27518 <u>PROPERTY OWNER:</u> FREMONT PRESTIGE PARK, LLC 65 LASALLE RD STE 202 WEST HARTFORD, CT 06107	PROJECT LOCATION DIRECTIONS FROM HARTFORD, CT: TAKE I-84 EAST TO EXIT 58. TURN LEFT OFF EXIT ONTO ROBERTS STREET. FOLLOW TO SCOTLAND ROAD AND TURN LEFT. GO TO END AND TURN LEFT ONTO RT 44 (BURNSIDE AVE). TURN RIGHT ONTO SCHOOL STREET (3RD STREET ON RIGHT). FOLLOW TO PRESTIGE PARK ROAD AND TURN RIGHT. FOLLOW TO LAST BUILDING ON LEFT. TOWER IS BEHIND BUILDING.	G-002	GENERAL NOTES	0	07/11/17	JDC
			C-101	DETAILED SITE PLAN & TOWER ELEVATION	0	07/11/17	JDC
			C-501	ANTENNA INFORMATION & SCHEDULE	0	07/11/17	JDC
			C-502	ANTENNA MOUNTING DETAILS	0	07/11/17	ZDR
			E-501	GROUNDING DETAILS	0	07/11/17	JDC
			R-601	SUPPLEMENTAL			



GENERAL CONSTRUCTION NOTES:

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

27. THE CONTRACTOR SHALL PROTECT AT HIS OWN EXPENSE, ALL EXISTING FACILITIES AND SUCH OF HIS NEW WORK LIABLE TO INJURY DURING THE CONSTRUCTION PERIOD. ANY DAMAGE CAUSED BY NEGLIGENCE ON THE PART OF THIS CONTRACTOR OR HIS REPRESENTATIVES, OR BY THE ELEMENTS DUE TO NEGLIGENCE ON THE PART OF THIS CONTRACTOR OR HIS REPRESENTATIVES, EITHER TO THE EXISTING WORK, OR TO HIS WORK OR THE WORK OF ANY OTHER CONTRACTOR, SHALL BE REPAIRED AT HIS EXPENSE TO THE OWNER'S SATISFACTION.
28. ALL WORK SHALL BE INSTALLED IN A FIRST CLASS, NEAT AND WORKMANLIKE MANNER BY MECHANICS SKILLED IN THE TRADE INVOLVED. THE QUALITY OF WORKMANSHIP SHALL BE SUBJECT TO THE APPROVAL OF THE T-MOBILE WIRELESS REP. ANY WORK FOUND BY THE T-MOBILE WIRELESS REP TO BE OF INFERIOR QUALITY AND/OR WORKMANSHIP SHALL BE REPLACED AND/OR REWORKED AT CONTRACTOR EXPENSE UNTIL APPROVAL IS OBTAINED.
29. IN ORDER TO ESTABLISH STANDARDS OF QUALITY AND PERFORMANCE, ALL TYPES OF MATERIALS LISTED HEREINAFTER BY MANUFACTURER'S NAMES AND/OR MANUFACTURER'S CATALOG NUMBER SHALL BE PROVIDED BY THESE MANUFACTURERS AS SPECIFIED.

STRUCTURAL STEEL NOTES:

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



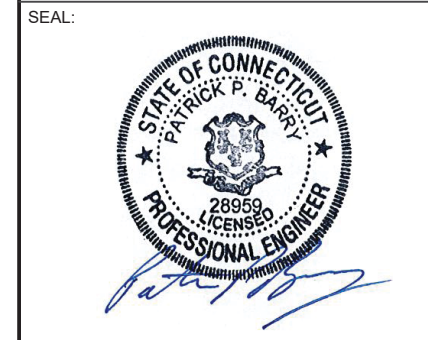
THESE DRAWINGS AND/OR THE ACCOMPANYING SPECIFICATION AS INSTRUMENTS OR SERVICE ARE THE EXCLUSIVE PROPERTY OF AMERICAN TOWER. THEIR USE AND PUBLICATION SHALL BE RESTRICTED TO THE ORIGINAL SITE FOR WHICH THEY ARE PREPARED. ANY USE OR DISCLOSURE OTHER THAN THAT WHICH RELATES TO AMERICAN TOWER OR THE SPECIFIED CARRIER IS STRICTLY PROHIBITED. TITLE TO THESE DOCUMENTS SHALL REMAIN THE PROPERTY OF AMERICAN TOWER WHETHER OR NOT THE PROJECT IS EXECUTED. NEITHER THE ARCHITECT NOR THE ENGINEER WILL BE PROVIDING ON-SITE CONSTRUCTION REVIEW OF THIS PROJECT. CONTRACTOR(S) MUST VERIFY ALL DIMENSIONS AND ADVISE AMERICAN TOWER OF ANY DISCREPANCIES. ANY PRIOR ISSUANCE OF THIS DRAWING IS SUPERSEDED BY THE LATEST VERSION ON FILE WITH AMERICAN TOWER.

REV.	DESCRIPTION	BY	DATE
△	FOR CONSTRUCTION	JDC	07/11/17
△			
△			
△			
△			

ATC SITE NUMBER:
302473

ATC SITE NAME:
E H F R - PRESTIGE PARK

SITE ADDRESS:
310 PRESTIGE PARK RD.
EAST HARTFORD, CT 06108



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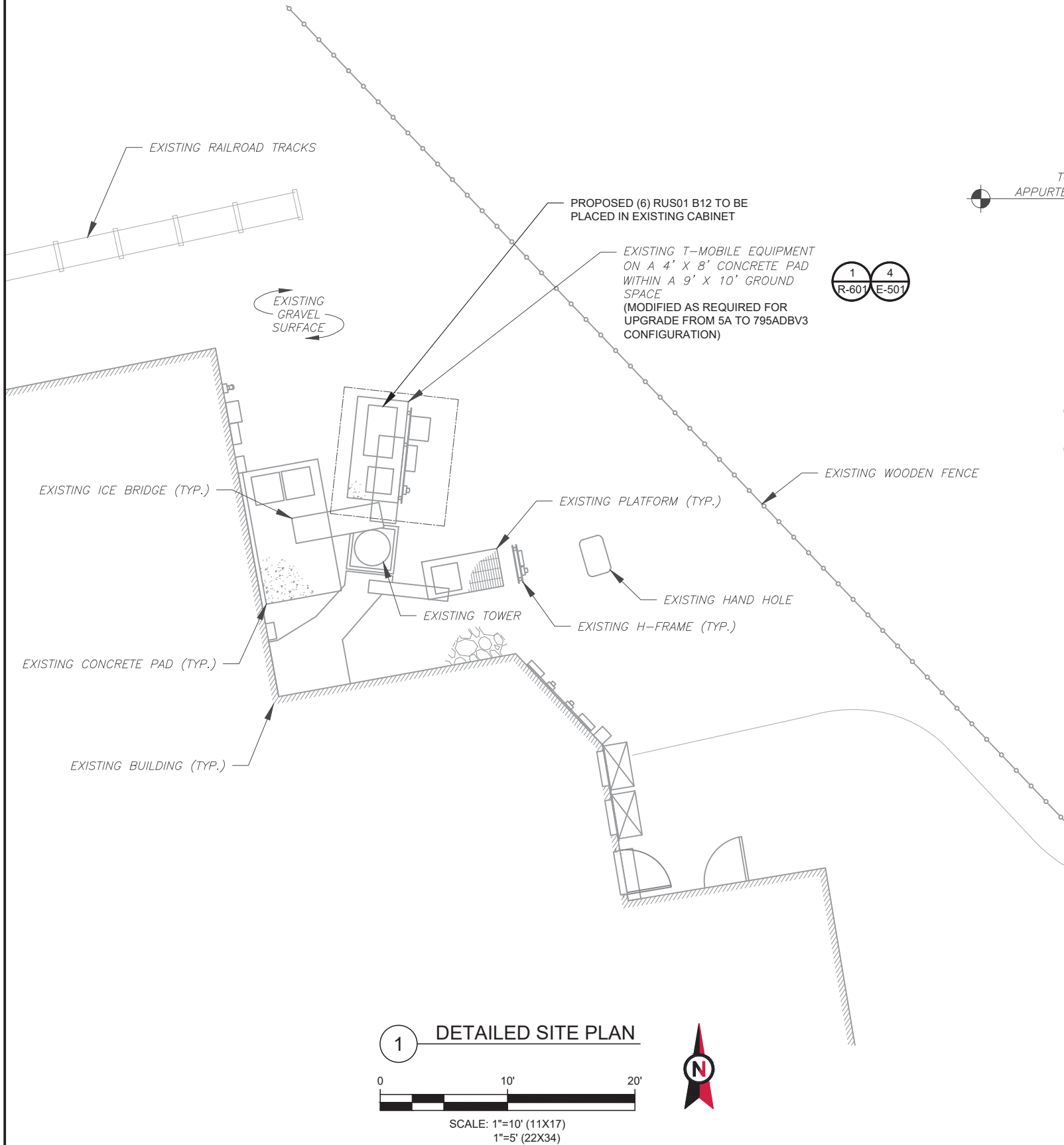
DRAWN BY:	JDC
APPROVED BY:	PPB
DATE DRAWN:	07/11/17
ATC JOB NO:	12042319

GENERAL NOTES	
SHEET NUMBER: G-002	REVISION: 0

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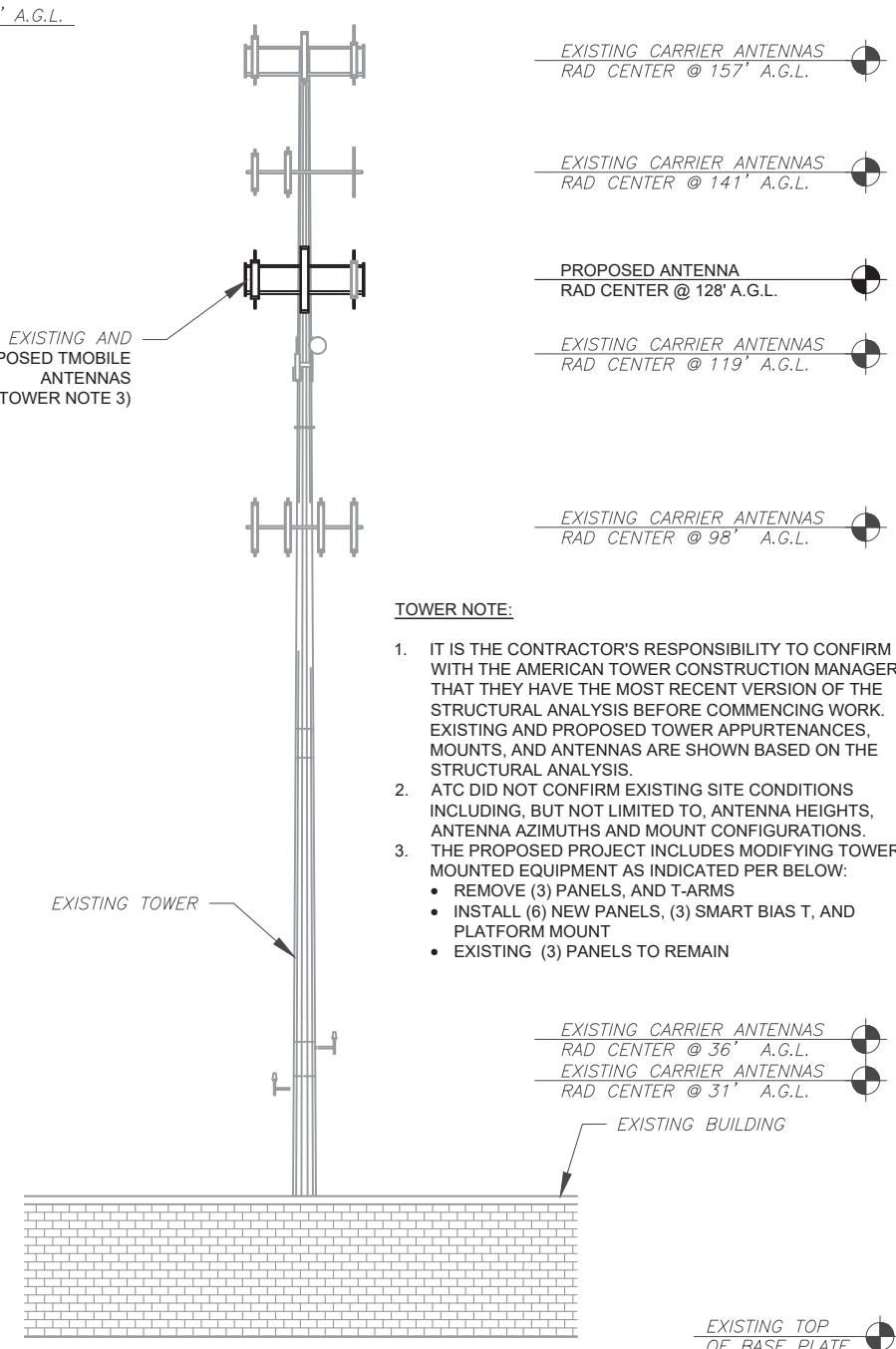
SITE PLAN NOTES:

1. THIS SITE PLAN REPRESENTS THE BEST PRESENT KNOWLEDGE AVAILABLE TO THE ENGINEER AT THE TIME OF THIS DESIGN. THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO CONSTRUCTION AND VERIFY ALL EXISTING CONDITIONS RELATED TO THE SCOPE OF WORK FOR THIS PROJECT.
2. ICE BRIDGE, CABLE LADDER, COAX PORT, AND COAX CABLE ARE SHOWN FOR REFERENCE ONLY. CONTRACTOR SHALL CONFIRM THE EXACT LOCATION OF ALL PROPOSED AND EXISTING EQUIPMENT AND STRUCTURES DEPICTED ON THIS PLAN. BEFORE UTILIZING EXISTING CABLE SUPPORTS, COAX PORTS, INSTALLING NEW PORTS OR ANY OTHER EQUIPMENT, CONTRACTOR SHALL VERIFY ALL ASPECTS OF THE COMPONENTS MEET THE ATC SPECIFICATIONS.
3. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE WITH THE T-MOBILE REPRESENTATIVE AND LOCAL UTILITY COMPANY FOR THE INSTALLATION OF CONDUITS, CONDUCTORS, BREAKERS, DISCONNECTS, OR ANY OTHER EQUIPMENT REQUIRED FOR ELECTRICAL SERVICE. ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH LATEST EDITION OF THE STATE AND NATIONAL CODES, ORDINANCES AND REGULATIONS APPLICABLE TO THIS PROJECT.



1 DETAILED SITE PLAN
 SCALE: 1"=10' (11X17)
 1"=5' (22X34)

TOP OF EXISTING HIGHEST APPURTENANCE ELEV. 160' A.G.L.



2 TOWER ELEVATION
 SCALE: NOT TO SCALE

TOWER NOTE:

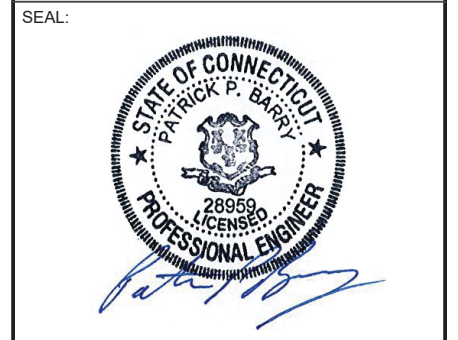
1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONFIRM WITH THE AMERICAN TOWER CONSTRUCTION MANAGER THAT THEY HAVE THE MOST RECENT VERSION OF THE STRUCTURAL ANALYSIS BEFORE COMMENCING WORK. EXISTING AND PROPOSED TOWER APPURTENANCES, MOUNTS, AND ANTENNAS ARE SHOWN BASED ON THE STRUCTURAL ANALYSIS.
2. ATC DID NOT CONFIRM EXISTING SITE CONDITIONS INCLUDING, BUT NOT LIMITED TO, ANTENNA HEIGHTS, ANTENNA AZIMUTHS AND MOUNT CONFIGURATIONS.
3. THE PROPOSED PROJECT INCLUDES MODIFYING TOWER MOUNTED EQUIPMENT AS INDICATED PER BELOW:
 - REMOVE (3) PANELS, AND T-ARMS
 - INSTALL (6) NEW PANELS, (3) SMART BIAS T, AND PLATFORM MOUNT
 - EXISTING (3) PANELS TO REMAIN



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REV.	DESCRIPTION	BY	DATE
0	FOR CONSTRUCTION	JDC	07/11/17

ATC SITE NUMBER:
302473
 ATC SITE NAME:
E H F R - PRESTIGE PARK
 SITE ADDRESS:
 310 PRESTIGE PARK RD.
 EAST HARTFORD, CT 06108



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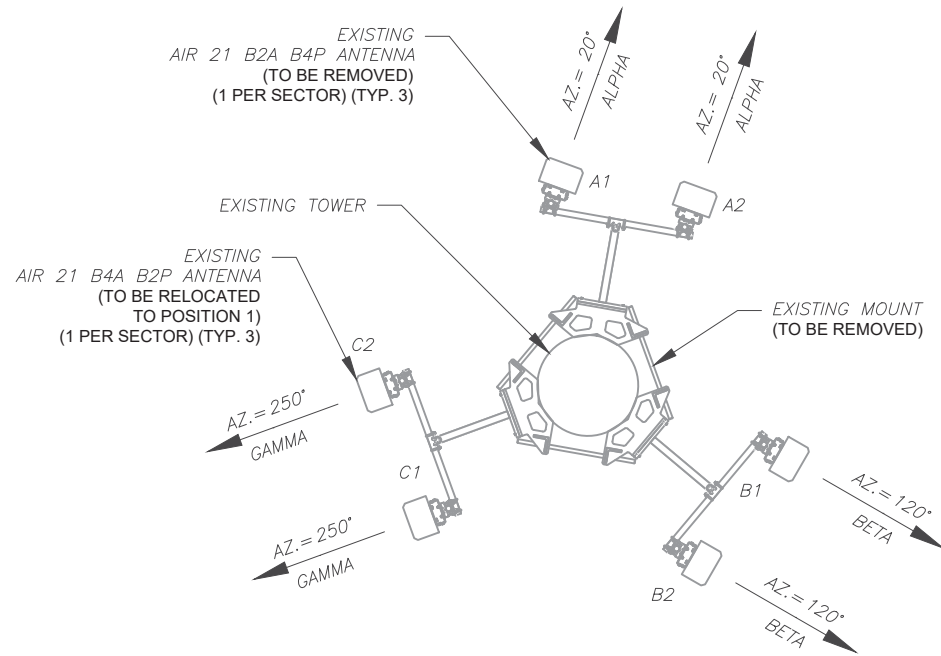


DRAWN BY:	JDC
APPROVED BY:	PPB
DATE DRAWN:	07/11/17
ATC JOB NO:	12042319

DETAILED SITE PLAN & TOWER ELEVATION

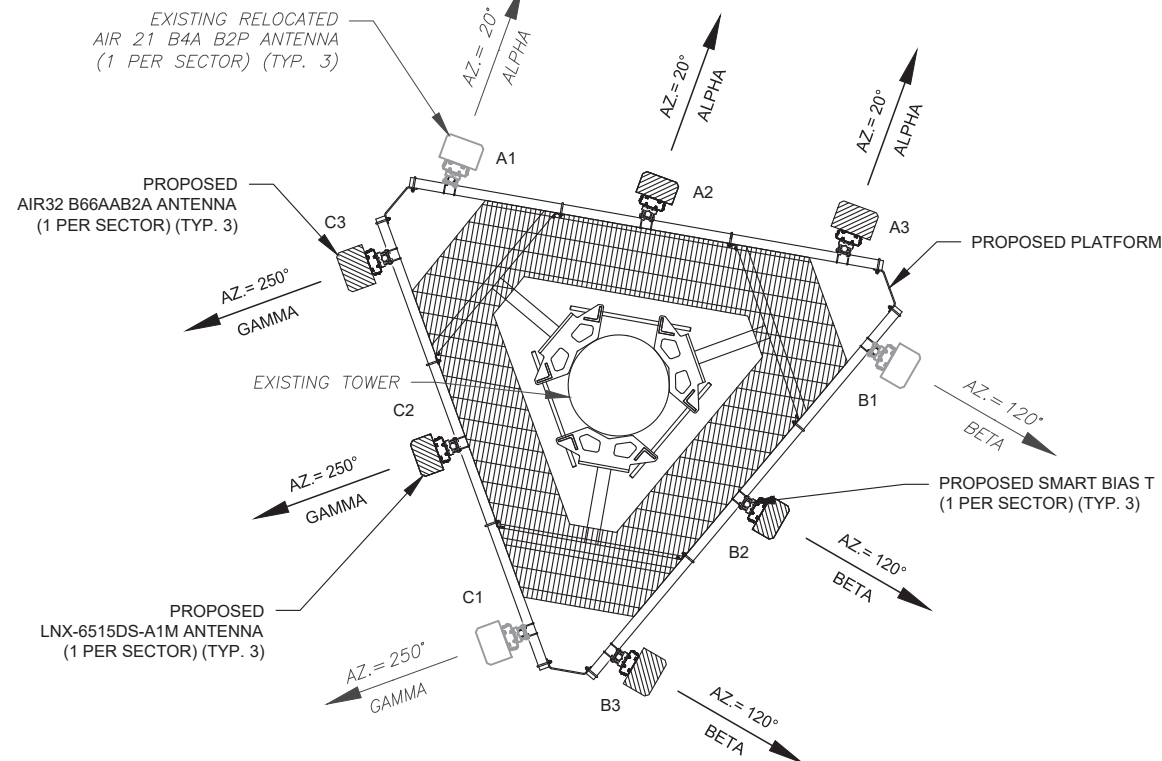
SHEET NUMBER:	REVISION:
C-101	0

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1 EXISTING ANTENNA PLAN

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



2 FINAL ANTENNA PLAN

- NOTES:
- ALL PROPOSED EQUIPMENT INCLUDING ANTENNAS, COAX, ETC. SHALL BE MOUNTED IN ACCORDANCE WITH THE TOWER STRUCTURAL ANALYSIS ON FILE WITH THE ATC CM.
 - SPACING OF PROPOSED EQUIPMENT SHALL BE CONFIRMED FOR TOWER CONFLICTS AND PROPOSED MOUNTS SHALL NOT IMPEDE TOWER CLIMBING PEGS.

EXISTING ANTENNA/ COAX SCHEDULE

SECTOR	ANT.	MANUFACTURER (MODEL #)	RAD CENTER	AZIMUTH (TN)	MECH. D-TILT	ELEC. D-TILT	ADDITIONAL TOWER MOUNTED EQUIPMENT	ANTENNA COAX DESCRIPTION
ALPHA	A1	AIR 21 B2A B4P	128'-0"	20°	0	2	-	-
ALPHA	A2	AIR 21 B4A B2P	128'-0"	20°	0	2	-	-
-	-	-	-	-	-	-	-	-
BETA	B1	AIR 21 B2A B4P	128'-0"	120°	0	2	-	-
BETA	B2	AIR 21 B4A B2P	128'-0"	120°	0	2	-	-
-	-	-	-	-	-	-	-	-
GAMMA	C1	AIR 21 B2A B4P	128'-0"	250°	0	2	-	-
GAMMA	C2	AIR 21 B4A B2P	128'-0"	250°	0	2	-	-
-	-	-	-	-	-	-	-	-

1. (1) EXISTING 1-5/8" HYBRIFLEX CABLE TO REMAIN

FINAL ANTENNA/ COAX SCHEDULE

SECTOR	ANT.	MANUFACTURER (MODEL #)	RAD CENTER	AZIMUTH (TN)	MECH. D-TILT	ELEC. D-TILT	ADDITIONAL TOWER MOUNTED EQUIPMENT	ANTENNA COAX DESCRIPTION
ALPHA	A1	AIR 21 B4A B2P	128'-0"	20°	0	2	-	-
ALPHA	A2	LNX-6515DS-A1M	128'-0"	20°	0	2	SMART BIAS T	(2) 1-1/4"
ALPHA	A3	AIR32 B66AAB2A	128'-0"	20°	0	2	-	-
BETA	B1	AIR 21 B4A B2P	128'-0"	120°	0	2	-	-
BETA	B2	LNX-6515DS-A1M	128'-0"	120°	0	2	SMART BIAS T	(2) 1-1/4"
BETA	B3	AIR32 B66AAB2A	128'-0"	120°	0	2	-	-
GAMMA	C1	AIR 21 B4A B2P	128'-0"	250°	0	2	-	-
GAMMA	C2	LNX-6515DS-A1M	128'-0"	250°	0	2	SMART BIAS T	(2) 1-1/4"
GAMMA	C3	AIR32 B66AAB2A	128'-0"	250°	0	2	-	-

- BASED ON APPROVED ATC APPLICATION OAA696438, DATED 04-06-2017. CONFIRM WITH T-MOBILE REP FOR APPLICABLE UPDATES/REVISIONS AND MOST RECENT RFDS.
- (1) EXISTING 1-5/8" HYBRIFLEX CABLE TO REMAIN
- (1) PROPOSED 1-1/4" HYBRIFLEX CABLE

3 ANTENNA SCHEDULE

AMERICAN TOWER®
ATC TOWER SERVICES
 3500 REGENCY PARKWAY
 SUITE 100
 CARY, NC 27518
 PHONE: (919) 468-0112
 COA: 6260F

THESE DRAWINGS AND/OR THE ACCOMPANYING SPECIFICATION AS INSTRUMENTS OR SERVICE ARE THE EXCLUSIVE PROPERTY OF AMERICAN TOWER. THEIR USE AND PUBLICATION SHALL BE RESTRICTED TO THE ORIGINAL SITE FOR WHICH THEY ARE PREPARED. ANY USE OR DISCLOSURE OTHER THAN THAT WHICH RELATES TO AMERICAN TOWER OR THE SPECIFIED CARRIER IS STRICTLY PROHIBITED. TITLE TO THESE DOCUMENTS SHALL REMAIN THE PROPERTY OF AMERICAN TOWER WHETHER OR NOT THE PROJECT IS EXECUTED. NEITHER THE ARCHITECT NOR THE ENGINEER WILL BE PROVIDING ON-SITE CONSTRUCTION REVIEW OF THIS PROJECT. CONTRACTOR(S) MUST VERIFY ALL DIMENSIONS AND ADVISE AMERICAN TOWER OF ANY DISCREPANCIES. ANY PRIOR ISSUANCE OF THIS DRAWING IS SUPERSEDED BY THE LATEST VERSION ON FILE WITH AMERICAN TOWER.

REV.	DESCRIPTION	BY	DATE
0	FOR CONSTRUCTION	JDC	07/11/17

ATC SITE NUMBER:
302473

ATC SITE NAME:
E H F R - PRESTIGE PARK

SITE ADDRESS:
 310 PRESTIGE PARK RD.
 EAST HARTFORD, CT 06108

SEAL:

Jul 11 2017 2:48 PM cosign



DRAWN BY:	JDC
APPROVED BY:	PPB
DATE DRAWN:	07/11/17
ATC JOB NO:	12042319

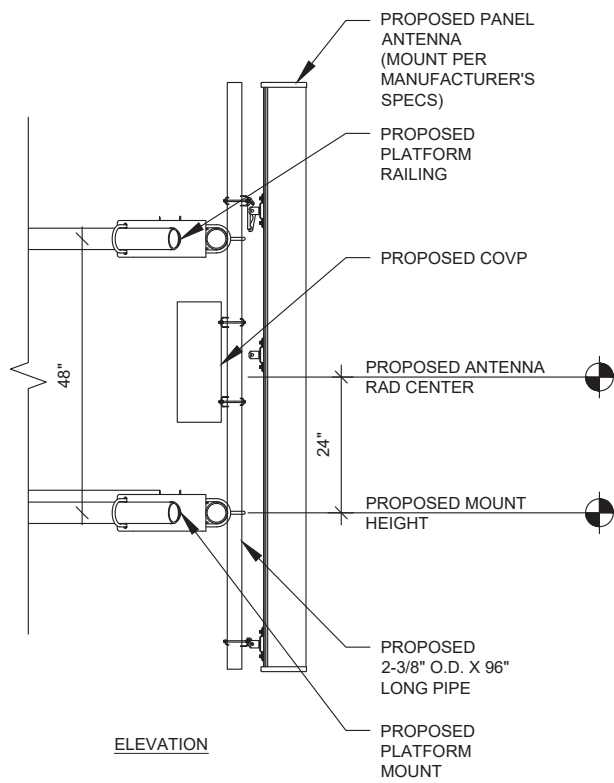
ANTENNA INFORMATION & SCHEDULE

SHEET NUMBER:	REVISION:
C-501	0

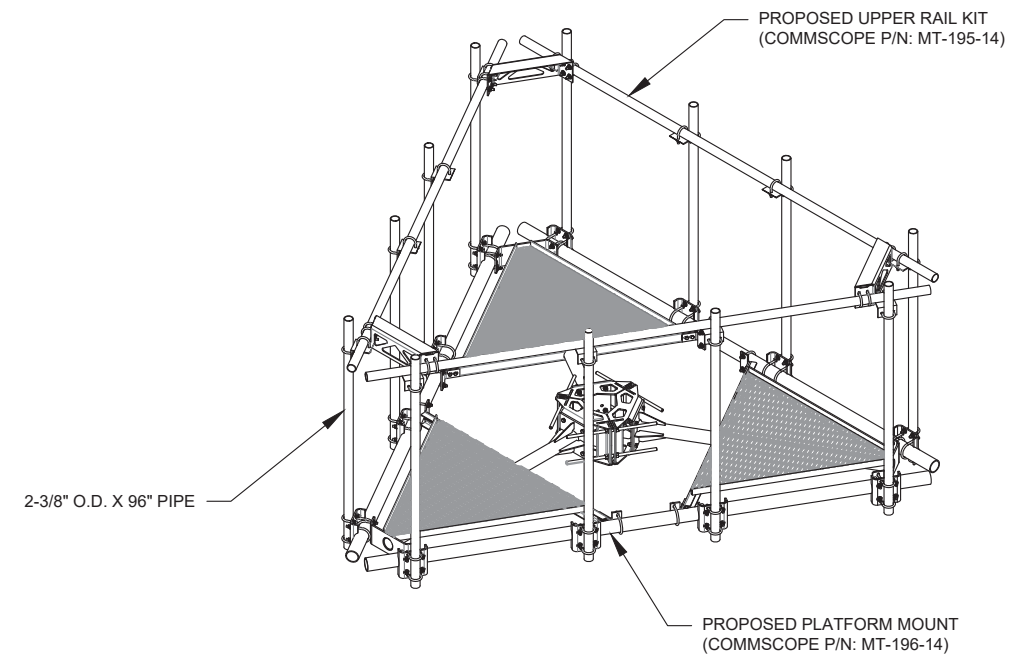
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TOWER NOTE:

1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONFIRM WITH THE AMERICAN TOWER CONSTRUCTION MANAGER THAT THEY HAVE THE MOST RECENT VERSION OF THE STRUCTURAL ANALYSIS BEFORE COMMENCING WORK. EXISTING AND PROPOSED TOWER APPURTENANCES, MOUNTS, AND ANTENNAS ARE SHOWN BASED ON THE STRUCTURAL ANALYSIS.
2. ALL PROPOSED EQUIPMENT INCLUDING ANTENNAS, COAX, ETC. SHALL BE MOUNTED IN ACCORDANCE THE TOWER STRUCTURAL ANALYSIS ON FILE WITH THE ATC CM.
3. CABLE ATTACHMENT TO THE TOWER CANNOT BE INSTALLED ON THE CLIMBING LADDER. QUICK TIES ARE NOT AN ACCEPTABLE METHOD OF COAX ATTACHMENT.



1 PROPOSED ANTENNA MOUNTING DETAIL
SCALE: NOT TO SCALE



2 ISOMETRIC PLATFORM DETAIL
SCALE: N.T.S.



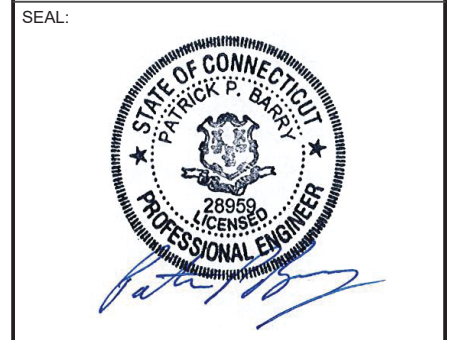
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REV.	DESCRIPTION	BY	DATE
0	FOR CONSTRUCTION	ZDR	07/11/17

ATC SITE NUMBER:
302473

ATC SITE NAME:
E H F R - PRESTIGE PARK

SITE ADDRESS:
310 PRESTIGE PARK RD.
EAST HARTFORD, CT 06108



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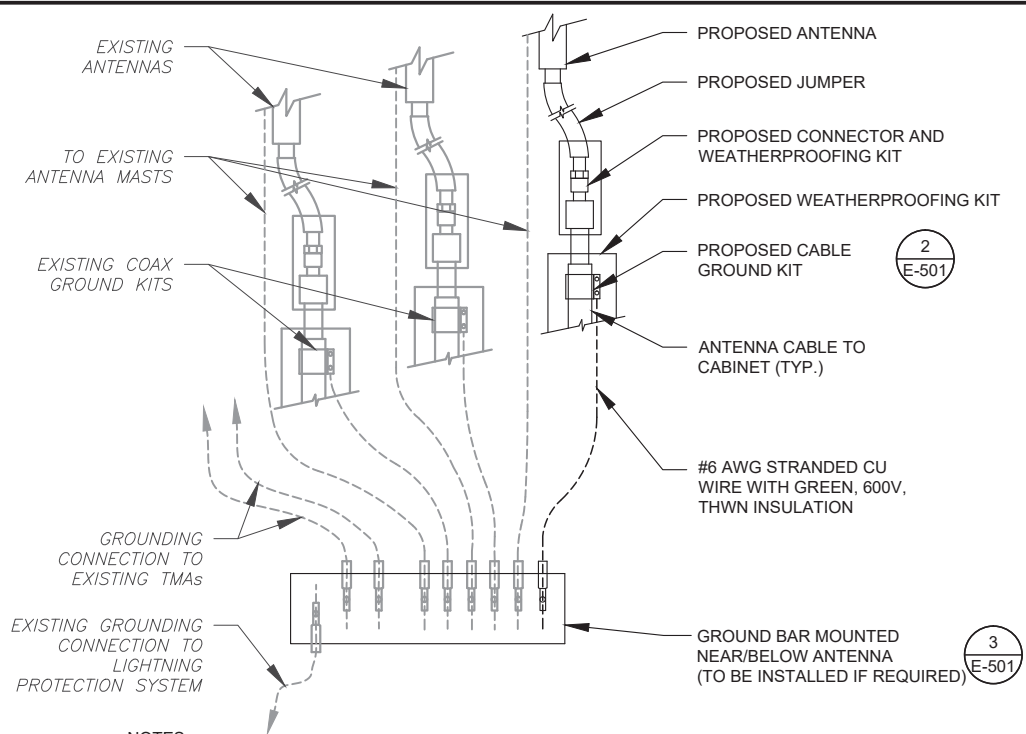


DRAWN BY:	JDC
APPROVED BY:	RRB
DATE DRAWN:	07/11/17
ATC JOB NO:	12042319

ANTENNA MOUNTING DETAILS

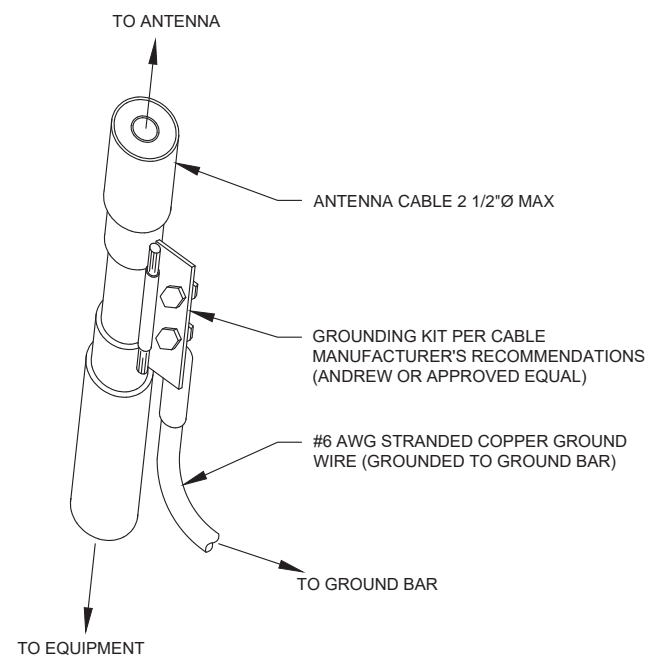
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C-502	0

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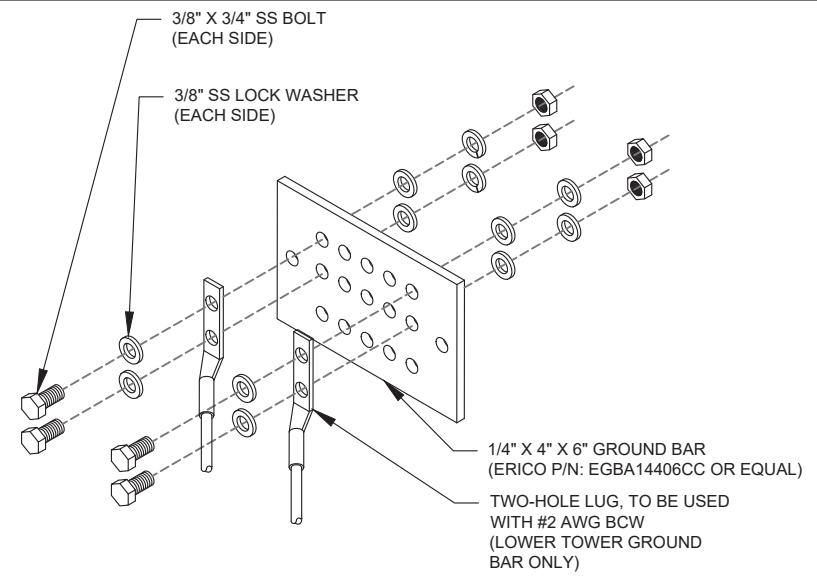
- NOTES:**
1. THIS DETAIL IS INTENDED TO SHOW THE GENERAL GROUNDING REQUIREMENTS. SLIGHT ADJUSTMENTS MAY BE REQUIRED BASED ON EXISTING SITE CONDITIONS. THE CONTRACTOR SHALL MAKE FIELD ADJUSTMENTS AS NEEDED AND INFORM THE CONSTRUCTION MANAGER OF ANY CONFLICTS.
 2. SITE GROUNDING SHALL COMPLY WITH T-MOBILE GROUNDING STANDARDS, LATEST EDITION, AND COMPLY WITH T-MOBILE GROUNDING CHECKLIST, LATEST VERSION, WHEN NATIONAL AND LOCAL GROUNDING CODES ARE MORE STRINGENT THEY SHALL GOVERN.

1 TYPICAL ANTENNA GROUNDING DIAGRAM
SCALE: NOT TO SCALE



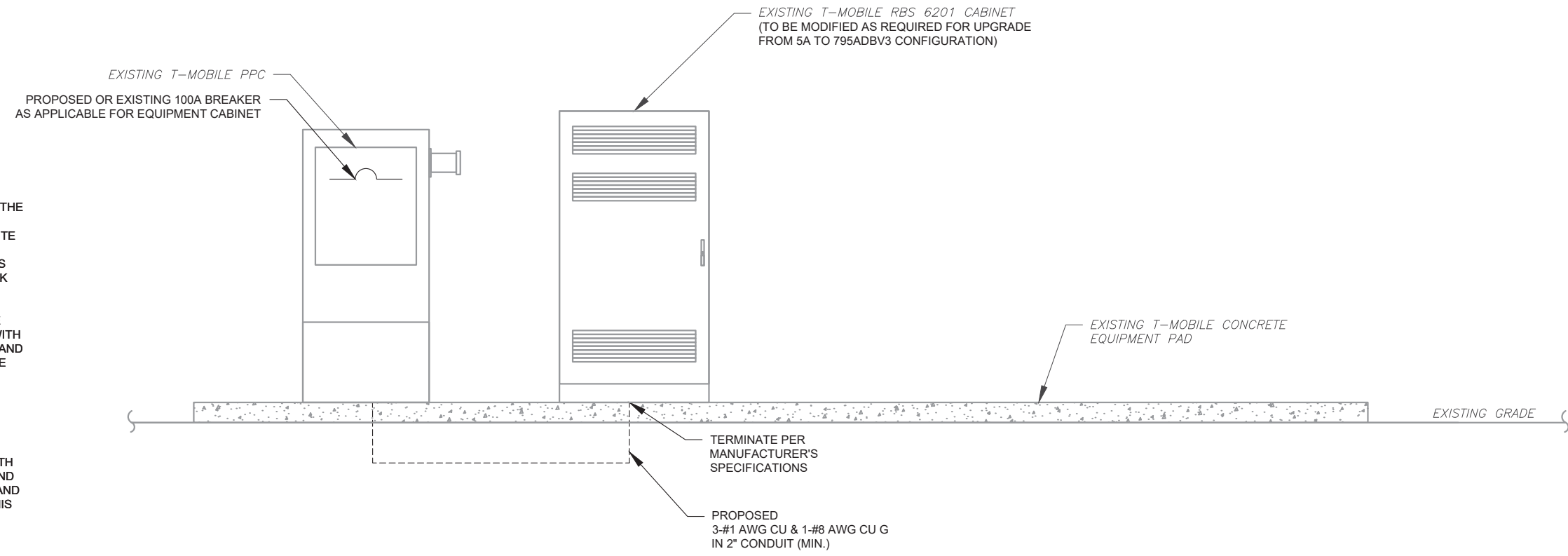
- GROUND KIT NOTES:**
1. DO NOT INSTALL CABLE GROUND KIT AT A BEND AND ALWAYS DIRECT GROUND WIRE DOWN TO GROUND BAR.
 2. CONTRACTOR SHALL PROVIDE WEATHERPROOFING KIT (ANDREW PART NUMBER 221213) AND INSTALL/TAPE PER MANUFACTURER'S SPECIFICATIONS.

2 CABLE GROUND KIT CONNECTION DETAIL
SCALE: NOT TO SCALE



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

3 TOWER GROUND BAR DETAIL
SCALE: NOT TO SCALE



- ELECTRICAL NOTES:**
1. THIS DIAGRAM REPRESENTS THE BEST PRESENT KNOWLEDGE AVAILABLE TO THE ENGINEER AT THE TIME OF THIS DESIGN. THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO CONSTRUCTION AND VERIFY ALL EXISTING CONDITIONS RELATED TO THE SCOPE OF WORK FOR THIS PROJECT.
 2. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE WITH THE T-MOBILE REPRESENTATIVE AND LOCAL UTILITY COMPANY FOR THE INSTALLATION OF CONDUITS, CONDUCTORS, BREAKERS, DISCONNECTS, OR ANY OTHER EQUIPMENT REQUIRED FOR ELECTRICAL SERVICE. ALL ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH LATEST EDITION OF THE STATE AND NATIONAL CODES, ORDINANCES AND REGULATIONS APPLICABLE TO THIS PROJECT.
 3. ATC HAS NOT YET VERIFIED ANY EXISTING T-MOBILE GROUND EQUIPMENT OR ELECTRICAL LOADING. PROPOSED WORK BASED ON INSTALLATION CONFIGURATION PROVIDED BY T-MOBILE. CONTRACTOR TO VERIFY EXISTING T-MOBILE PANEL HAS SUFFICIENT SPACE FOR PROPOSED BREAKER.

4 ELECTRICAL UPGRADE DIAGRAM
SCALE: NOT TO SCALE

AMERICAN TOWER®
ATC TOWER SERVICES
 3500 REGENCY PARKWAY
 SUITE 100
 CARY, NC 27518
 PHONE: (919) 468-0112
 COA: 6260F

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0	FOR CONSTRUCTION	JDC	07/11/17

ATC SITE NUMBER:
302473

ATC SITE NAME:
E H F R - PRESTIGE PARK

SITE ADDRESS:
310 PRESTIGE PARK RD.
EAST HARTFORD, CT 06108

SEAL:

STATE OF CONNECTICUT
 PATRICK P. BARRY
 28959
 LICENSED
 PROFESSIONAL ENGINEER

Jul 11 2017 2:48 PM cosign



DRAWN BY:	JDC
APPROVED BY:	PPB
DATE DRAWN:	07/11/17
ATC JOB NO:	12042319

GROUNDING DETAILS	
SHEET NUMBER:	REVISION:
E-501	0

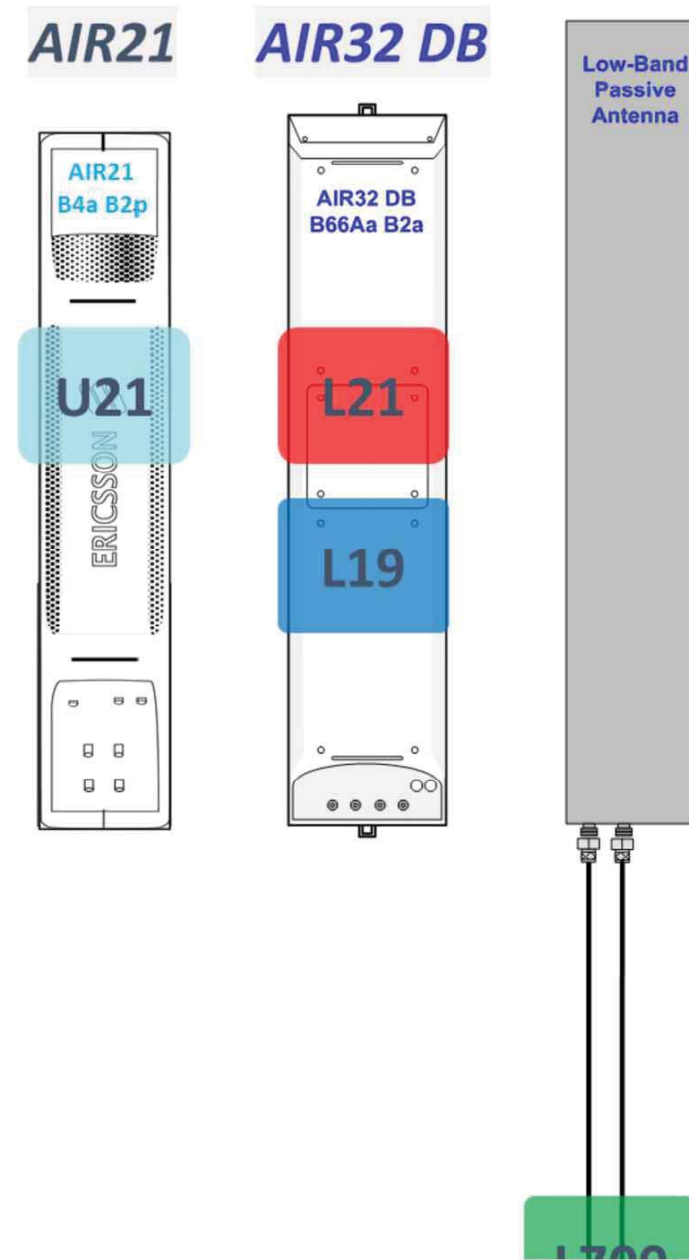
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Existing RAN Equipment	
Template: 5A	
Enclosure	1
Enclosure Type	Legacy ODE
Baseband	DUW30 DUS31
Radio	RUS01 B4 (x3)

Proposed RAN Equipment		
Template: 795ADB V3		
Enclosure	1	2
Enclosure Type	RBS 6201 ODE	Ancillary Equipment
Baseband	DUW30 U2100 DUS41 L2100 DUS41 L1900	
Hybrid Cable System	Ericsson 9x18 HCS*Select Length* Ericsson 6x12 HCS*Select AWG & Length*	
Multiplexer	XMU L700	
Radio	RUS01 B12 (x6) L700	

RAN Scope of Work:

1 CABINET CONFIGURATION
SCALE: NOT TO SCALE



2 ANTENNA CONFIGURATION
SCALE: NOT TO SCALE

SUPPLEMENTAL

SHEET NUMBER: R-601	REVISION: 0
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