



Mike Gentile, Site Acquisition
c/o New Cingular Wireless, PCS LLC (AT&T)
Centerline Communications, LLC
95 Ryan Drive, Suite 1
Raynham, MA 02767
Mobile: (508) 844-9813
mgentile@clinellc.com

March 6, 2018

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

**RE: Notice of Exempt Modification // Site Number: CT2580
199 Town Farm Road, Farmington, CT 06032 (Site Name: FARMINGTON)
N 41.757775 // W -72.82993055**

Dear Ms. Bachman:

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The Assessor's office is responsible for the maintenance of records on the ownership of properties. Assessments are computed at 70% of the estimated market value of real property at the time of the last revaluation which was 2012.



Information on the Property Records for the Municipality of Farmington was last updated on 3/5/2018.

Property Summary Information

Parcel Data And Values

Building ▾

Outbuildings

Sales

Google Map

Parcel Information

Location:	199 TOWN FARM RD	Property Use:	Residential	Primary Use:	Residential
Unique ID:	19200199	Map Block Lot:	0017 27	Acres:	9.94
490 Acres:	0.00	Zone:	R40	Volume / Page:	0690/0666
Developers Map / Lot:		Census:	4602-01		

Value Information

	Appraised Value	Assessed Value
Land	224,878	157,420
Buildings	126,086	88,260

	Appraised Value	Assessed Value
Detached Outbuildings	230,120	161,080
Total	581,084	406,760

Owner's Information

Owner's Data

FARMINGTON TOWN OF
C/O RODGER PHILLIPS
199 TOWN FARM RD
FARMINGTON, CT 06032

[Back To Search \(JavaScript>window.history.back\(1\);\)](#)

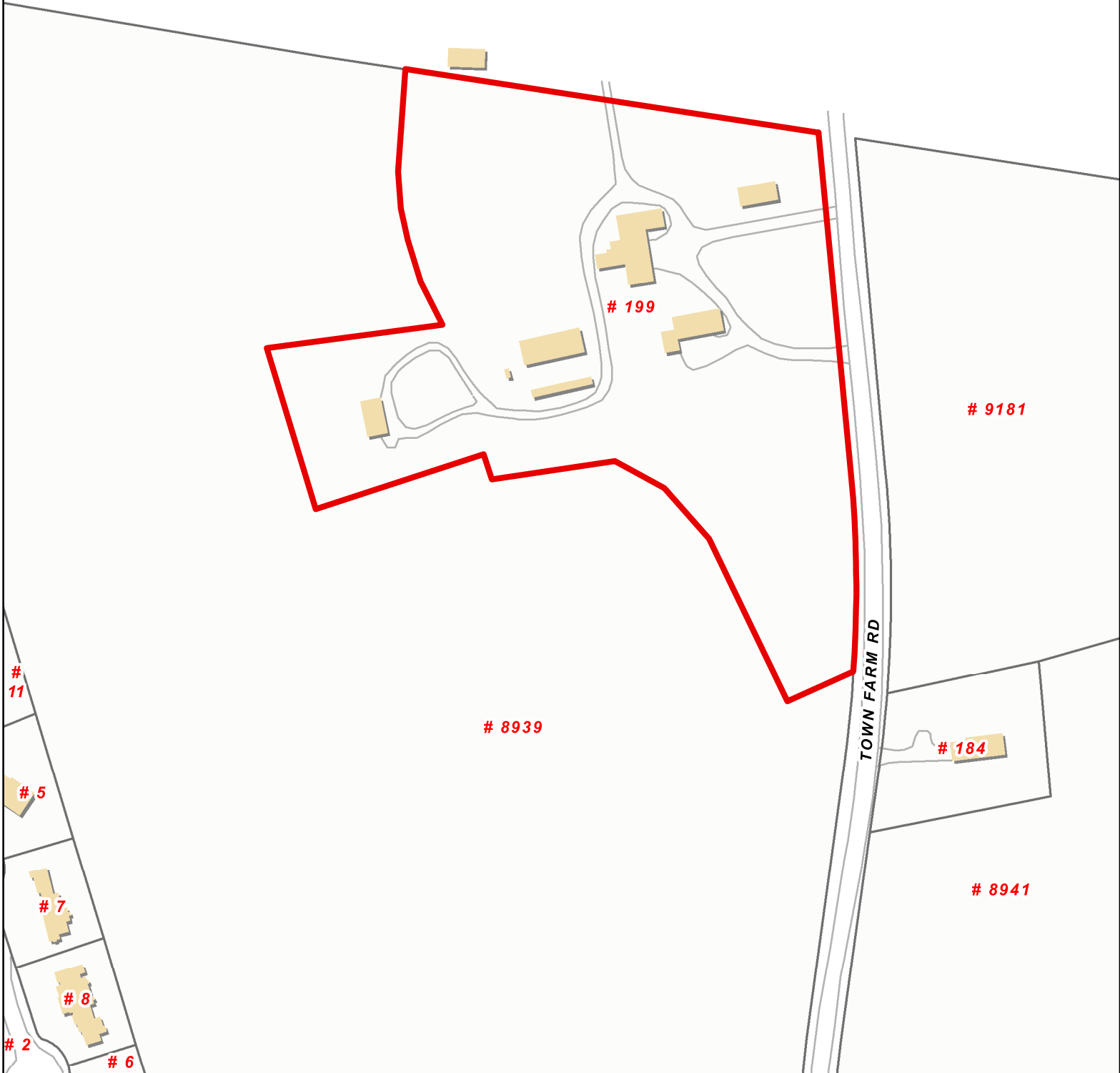
[Print View \(PrintPage.aspx?towncode=052&uniqueid=19200199\)](#)

Information Published With Permission From The Assessor

Town of Farmington, Connecticut - Assessment Parcel Map

UNIQUE ID: 19200199

Address: 199 TOWN FARM RD



Approximate Scale: 1 inch = 200 feet

Disclaimer: This map is for informational purposes only. All information is subject to verification by any user. The Town of Farmington and its mapping contractors assume no legal responsibility for the information contained herein.

Map Produced Aug 2017



Radio Frequency Emissions Analysis Report

AT&T Existing Facility

Site ID: CT2580

FA#: 10141396

Farmington CT Town Farm Road

199 Town Farm Road

Farmington, CT 06032

February 26, 2018

Centerline Communications Project Number: 950012-025

Site Compliance Summary	
Compliance Status:	COMPLIANT
Site total MPE% of FCC general population allowable limit:	13.87 %



February 26, 2018

AT&T Mobility – New England
Attn: John Benedetto, RF Manager
550 Cochituate Road
Suite 550 – 13&14
Framingham, MA 06040

Emissions Analysis for Site: **CT2580 – Farmington CT Town Farm Road**

Centerline Communications, LLC (“Centerline”) was directed to analyze the proposed AT&T facility located at **199 Town Farm Road, Farmington, CT**, for the purpose of determining whether the emissions from the Proposed AT&T 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 limits for the 700 and 850 MHz Bands are approximately $467 \mu\text{W}/\text{cm}^2$ and $567 \mu\text{W}/\text{cm}^2$ respectively. The general population exposure limit for the 1900 MHz (PCS), 2100 MHz (AWS) and 2300 MHz (WCS) 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 performed for the proposed AT&T Wireless antenna facility located at **199 Town Farm Road, Farmington, CT**, using the equipment information listed below. All calculations were performed per the specifications under FCC OET 65. Since AT&T 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.

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. All power values expressed and analyzed are maximum power levels expected to be used on all radios.

All emissions values for additional carriers were taken from the Connecticut Siting Council (CSC) active MPE database. Values in this database are provided by the individual carriers themselves

For each sector the following channel counts, frequency bands and power levels were utilized as shown in *Table 1*:

Technology	Frequency Band	Channel Count	Transmit Power per Channel (W)
UMTS	850 MHz	2	30
UMTS	1900 MHz (PCS)	2	30
LTE	700 MHz	2	30
LTE	1900 MHz (PCS)	4	60
LTE	2300 MHz (WCS)	4	30

Table 1: Channel Data Table



The following antennas listed in *Table 2* were used in the modeling for transmission in the 700 MHz, 850 MHz, 1900 MHz (PCS) and 2300 MHz (WCS) frequency bands. This is based on feedback from the carrier with regards to anticipated antenna selection. Maximum gain values for all antennas are listed in the Inventory and Power Data table below. 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.

Sector	Antenna Number	Antenna Make / Model	Antenna Centerline (ft)
A	1	Commscope SBNH-1D6565C	100
A	2	Commscope SBNH-1D6565C	100
A	3	CCI TPA-65R-LCUUUU-H8	100
B	1	Commscope SBNH-1D6565C	100
B	2	Commscope SBNH-1D6565C	100
B	3	CCI TPA-65R-LCUUUU-H8	100
C	1	Commscope SBNH-1D6565C	100
C	2	Commscope SBNH-1D6565C	100
C	3	Quintel QS66512-2	100

Table 2: Antenna Data

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

RESULTS

Per the calculations completed for the proposed AT&T configurations *Table 3* shows resulting emissions power levels and percentages of the FCC’s allowable general population limit.

Antenna ID	Antenna Make / Model	Frequency Bands	Antenna Gain (dBd)	Channel Count	Total TX Power (W)	ERP (W)	MPE %
Antenna A1	Commscope SBNH-1D6565C	850 MHz / 1900 MHz (PCS)	14.45 / 15.85	4	120	3,979.22	2.14
Antenna A2	Commscope SBNH-1D6565C	700 MHz	13.65	2	60	1,390.44	1.21
Antenna A3	CCI TPA-65R-LCUUUU-H8	1900 MHz (PCS) / 2300 MHz (WCS)	13.75 / 14.45	8	360	9,034.64	3.68
Sector A Composite MPE%							7.03
Antenna B1	Commscope SBNH-1D6565C	850 MHz / 1900 MHz (PCS)	14.45 / 15.85	4	120	3,979.22	2.14
Antenna B2	Commscope SBNH-1D6565C	700 MHz	13.65	2	60	1,390.44	1.21
Antenna B3	CCI TPA-65R-LCUUUU-H8	1900 MHz (PCS) / 2300 MHz (WCS)	13.75 / 14.45	8	360	9,034.64	3.68
Sector B Composite MPE%							7.03
Antenna C1	Commscope SBNH-1D6565C	850 MHz / 1900 MHz (PCS)	14.45 / 15.85	4	120	3,979.22	2.14
Antenna C2	Commscope SBNH-1D6565C	700 MHz	13.65	2	60	1,390.44	1.21
Antenna C3	Quintel QS66512-2	1900 MHz (PCS) / 2300 MHz (WCS)	13.75 / 14.45	8	360	9,489.77	3.86
Sector C Composite MPE%							7.21

Table 3: AT&T Emissions Levels



The Following table (*table 4*) shows all additional carriers on site and their MPE% as recorded in the CSC active MPE database for this facility along with the newly calculated maximum AT&T MPE contributions per this report. FCC OET 65 specifies that for carriers utilizing directional antennas that the highest recorded sector value be used for composite site MPE values due to their greatly reduced emissions contributions in the directions of the adjacent sectors. For this site, the sector with the largest calculated MPE% is Sector C. *Table 5* below shows a summary for each AT&T Sector as well as the composite MPE value for the site.

Site Composite MPE%	
Carrier	MPE%
AT&T – Max Sector Value	7.21 %
Verizon Wireless	6.66 %
Site Total MPE %:	13.87 %

Table 4: All Carrier MPE Contributions

AT&T Sector A Total:	7.03 %
AT&T Sector B Total:	7.03 %
AT&T Sector C Total:	7.21 %
Site Total:	13.87 %

Table 5: Site MPE Summary



FCC OET 65 specifies that for carriers utilizing directional antennas that the highest recorded sector value be used for composite site MPE values due to their greatly reduced emissions contributions in the directions of the adjacent sectors. *Table 6* below details a breakdown by frequency band and technology for the MPE power values for the maximum calculated AT&T sector(s). For this site, the sector with the largest calculated MPE% is Sector C.

AT&T _ Frequency Band / Technology Max Power Values (Sector C)	# 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
AT&T 850 MHz UMTS	2	835.84	100	6.80	850 MHz	567	1.20%
AT&T 1900 MHz (PCS) UMTS	2	1,153.78	100	9.39	1900 MHz (PCS)	1000	0.94%
AT&T 700 MHz LTE	2	695.22	100	5.66	700 MHz	467	1.21%
AT&T 1900 MHz (PCS) LTE	4	1,455.97	100	23.70	1900 MHz (PCS)	1000	2.37%
AT&T 2300 MHz (WCS) LTE	4	916.48	100	14.92	2300 MHz (WCS)	1000	1.49%
						Total:	7.21%

Table 6: AT&T Maximum Sector MPE Power Values



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 AT&T 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:

AT&T Sector	Power Density Value (%)
Sector A:	7.03 %
Sector B:	7.03 %
Sector C:	7.21 %
AT&T Maximum Total (per sector):	7.21 %
Site Total:	13.87 %
Site Compliance Status:	COMPLIANT

The anticipated composite MPE value for this site assuming all carriers present is **13.87 %** 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.

A handwritten signature in black ink, appearing to read 'Scott Heffernan', is positioned above the contact information.

Scott Heffernan
RF Engineering Director
Centerline Communications, LLC
95 Ryan Drive, Suite 1
Raynham, MA 02767



AMERICAN TOWER®
CORPORATION

Structural Analysis Report

Structure : 111 ft Monopole
ATC Site Name : Farmington North 2 CT, CT
ATC Site Number : 411258
Engineering Number : OAA718005_C3_01
Proposed Carrier : AT&T Mobility
Carrier Site Name : Farmington
Carrier Site Number : CT2580
Site Location : 199 Town Farm Road
Farmington, CT 06032-1554
41.757800,-72.829900
County : Hartford
Date : December 5, 2017
Max Usage : 64%
Result : Pass

Prepared By:
Parvin NikpoorParizi
Structural Engineer I

Reviewed By:

COA: PEC.0001553



Table of Contents

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Introduction

The purpose of this report is to summarize results of a structural analysis performed on the 111 ft monopole to reflect the change in loading by AT&T Mobility.

Supporting Documents

Tower Drawings	EEI Project #16046 Rev. 3, dated February 8, 2011
Foundation Drawing	EEI Project #16046 Rev. 2, dated December 14, 2010
Geotechnical Report	Dr. Clarence Welti Project Name Verizon Wireless Cell Tower, dated July 24, 2009

Analysis

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

Basic Wind Speed:	97 mph (3-Second Gust, V_{ASD}) / 125 mph (3-Second Gust, V_{ULT})
Basic Wind Speed w/ Ice:	50 mph (3-Second Gust) w/ 1" radial ice concurrent
Code:	ANSI/TIA-222-G / 2012 IBC / 2016 Connecticut State Building Code
Structure Class:	II
Exposure Category:	C
Topographic Category:	1
Crest Height:	0 ft
Spectral Response:	$S_s = 0.18$, $S_1 = 0.06$
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 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					
109.0	111.0	6	Antel LPA-80063/4CF	T-Arms	(12) 1 5/8" Coax (2) 1 1/4" Hybriflex	Verizon
		6	Commscope SBNHH-1D65B			
	109.0	3	Samsung 700/850MHz Dual Band RRH			
		3	Samsung PCS/AWS Dual Band RRH			
		2	Raycap RC2DC-3315-PF-48			
		1	VZW Unused Reserve: 18,229 sq in			
100.0	100.0	18	RCU	T-Arms	(18) 1 5/8" Coax (2) 0.78" 8 AWG 6 (1) 0.39" Fiber Trunk	AT&T Mobility
		1	Raycap DC6-48-60-18-8F(32.8 lbs)			
		9	CCI DTMAPB7819VG12A (w/ Bracket)			
		3	Ericsson RRUS-11 (50 lbs.)			
		6	Andrew SBNH-1D6565C (60.8 lbs)			

Equipment to be Removed

Elevation ¹ (ft)		Qty	Antenna	Mount Type	Lines	Carrier
Mount	RAD					
100.0	100.0	3	Andrew SBNH-1D6565C	-	-	AT&T Mobility
		3	Ericsson RRUS-11			

Proposed Equipment

Elevation ¹ (ft)		Qty	Antenna	Mount Type	Lines	Carrier
Mount	RAD					
100.0	100.0	1	Raycap DC6-48-60-18-8F ("Squid")	T-Arms	(2) 0.78" 8 AWG 6 (1) 0.39" Fiber Trunk (1) 2" conduit	AT&T Mobility
		3	Ericsson RRUS 32 (50.8 lbs)			
		3	Ericsson RRUS 32 B2			
		1	Quintel QS66512-2			
		2	CCI TPA-65R-LCUUUU-H8			

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

Install proposed coax inside the pole shaft.



Structure Usages

Structural Component	Controlling Usage	Pass/Fail
Anchor Bolts	64%	Pass
Shaft	56%	Pass
Base Plate	38%	Pass

Foundations

Reaction Component	Original Design Reactions	Factored Design Reactions*	Analysis Reactions	% of Design
Moment (Kips-Ft)	6,395.5	8,633.9	4,369.5	51%
Shear (Kips)	68.9	93.0	50.8	55%

* The design reactions are factored by 1.35 per ANSI/TIA-222-G, Sec. 15.5.1

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

Deflection and Sway*

Antenna Elevation (ft)	Antenna	Carrier	Deflection (ft)	Sway (Rotation) (°)
100.0	Raycap DC6-48-60-18-8F ("Squid")	AT&T Mobility	0.643	0.682
	Ericsson RRUS 32 (50.8 lbs)			
	Ericsson RRUS 32 B2			
	Quintel QS66512-2			
	CCI TPA-65R-LCUUUU-H8			

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



Standard Conditions

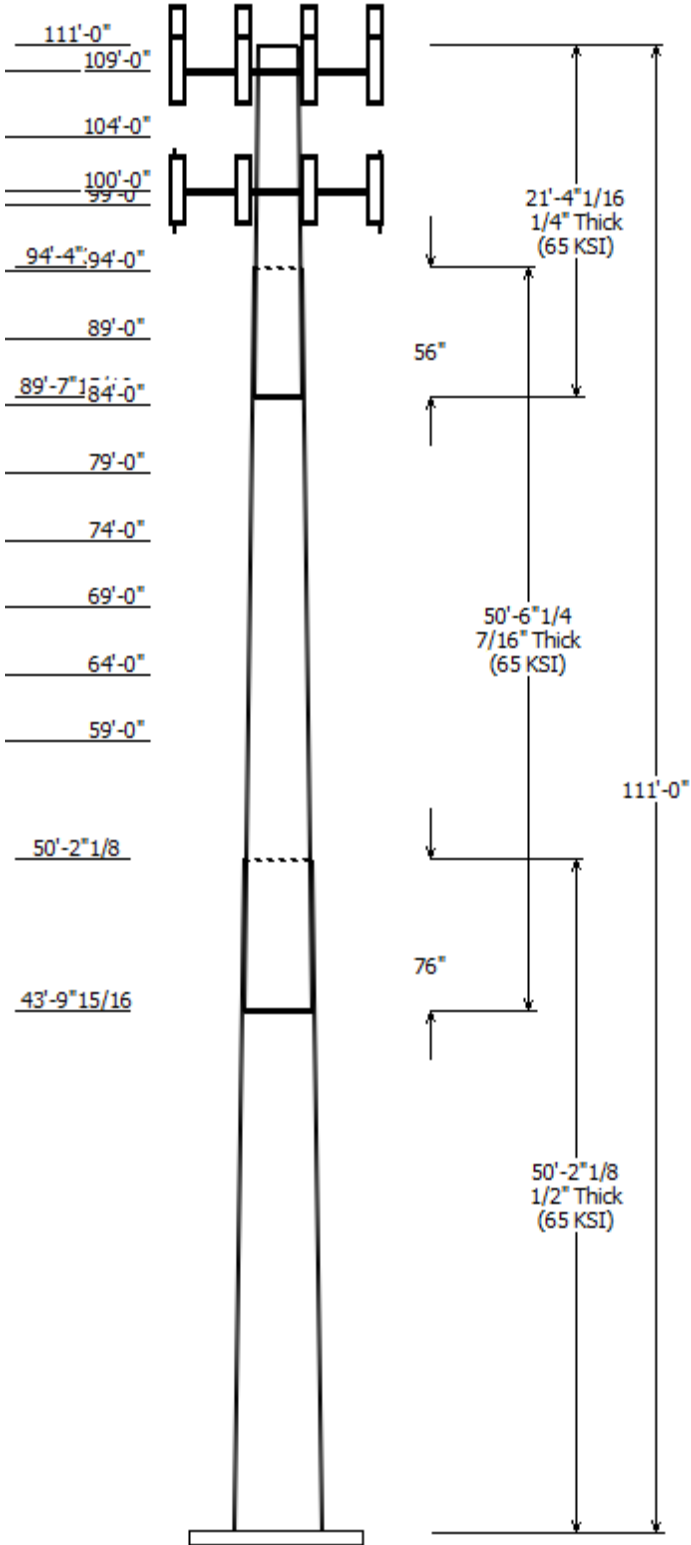
All engineering services are performed on the basis that the information used is current and correct. This information may consist of, but is not necessary limited, to:

- 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.

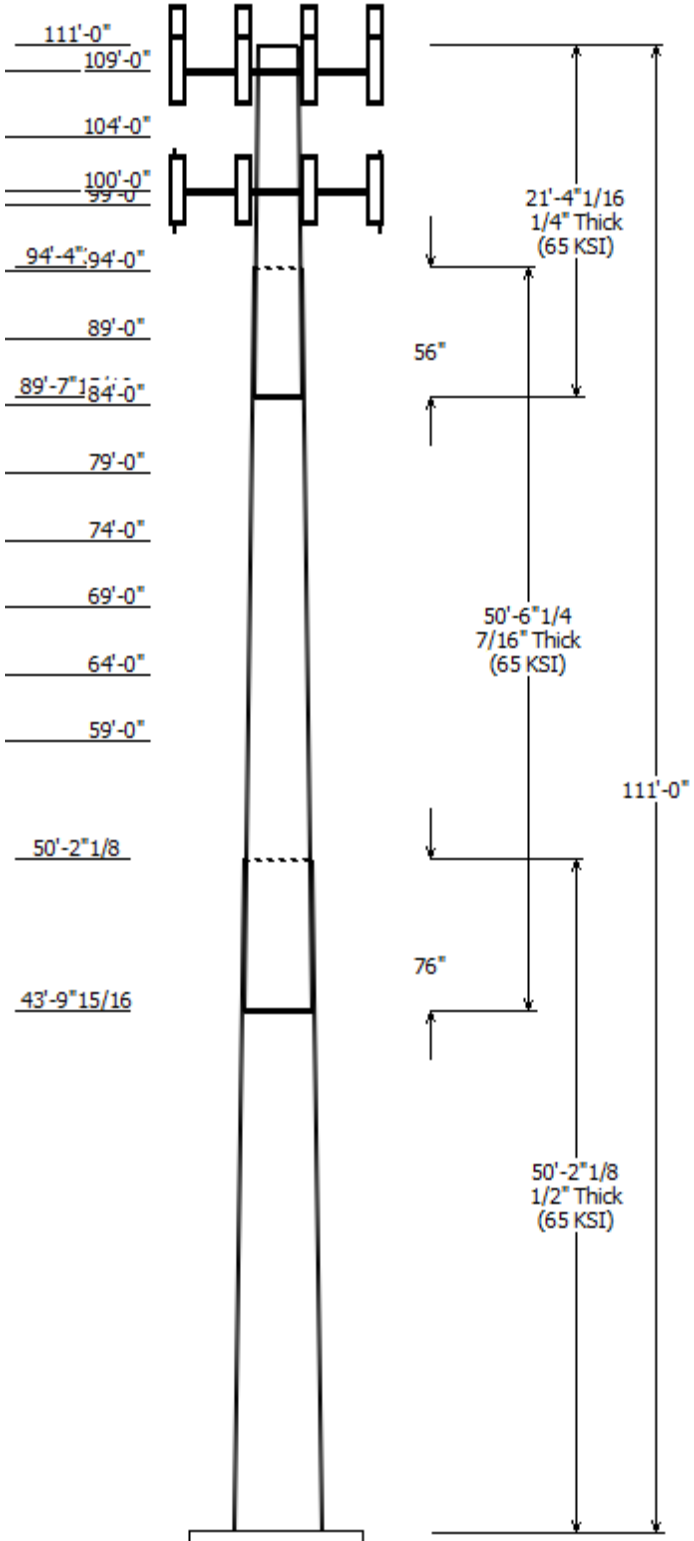


Job Information	
Pole :	411258
Code:	ANSI/TIA-222-G
Description :	
Client :	AT&T MOBILITY
Struct Class :	II
Location :	Farmington North 2 CT, CT
Shape :	18 Sides
Exposure :	C
Height :	111.00 (ft)
Topo :	1
Base Elev (ft):	0.00
Taper:	0.300225 in/ft

Sections Properties							
Shaft Section	Length (ft)	Diameter (in)		Joint Type	Overlap Length (in)	Steel Taper (in/ft)	Steel Grade (ksi)
		Across Flats Top	Across Flats Bottom				
1	50.175	43.93	59.00	0.500	0.000	0.300200	65
2	50.518	31.55	46.71	0.438 Slip Joint	76.156	0.300200	65
3	21.341	27.05	33.45	0.250 Slip Joint	56.250	0.300200	65

Discrete Appurtenance			
Attach Elev (ft)	Force Elev (ft)	Qty	Description
109.000	109.000	3	Samsung 700/850MHz Dual
109.000	109.000	3	Samsung PCS/AWS Dual Band
109.000	111.000	6	Commscope SBNHH-1D65B
109.000	109.000	2	Raycap RC2DC-3315-PF-48
109.000	109.000	1	VZW Unused Reserve: 18,229
109.000	109.000	3	Flat T-Arm
109.000	111.000	6	Antel LPA-80063/4CF
109.000	109.000	1	Pine Branch
104.000	104.000	1	Pine Branch
100.000	100.000	2	CCI TPA-65R-LCUUUU-H8
100.000	100.000	1	Quintel QS66512-2
100.000	100.000	3	Ericsson RRUS 32 B2
100.000	100.000	3	Ericsson RRUS 32 (50.8 lbs)
100.000	100.000	1	Raycap DC6-48-60-18-8F(32.8 lb
100.000	100.000	3	Flat T-Arm
100.000	100.000	6	Andrew SBNH-1D6565C (60.8
100.000	100.000	3	Ericsson RRUS-11 (50 lbs.)
100.000	100.000	9	CCI DTMAP7819VG12A (w/
100.000	100.000	1	Raycap DC6-48-60-18-8F
100.000	100.000	18	RCU
99.000	99.000	1	Pine Branch
94.000	94.000	1	Pine Branch
89.000	89.000	1	Pine Branch
84.000	84.000	1	Pine Branch
79.000	79.000	1	Pine Branch
74.000	74.000	1	Pine Branch
69.000	69.000	1	Pine Branch
64.000	64.000	1	Pine Branch
59.000	59.000	1	Pine Branch

Linear Appurtenance			
From Elev (ft)	To Elev (ft)	Description	Exposed To Wind
3.000	100.0	0.39" Fiber Trunk	No
3.000	100.0	0.39" Fiber Trunk	No
3.000	100.0	0.78" (19.7mm) 8	No
3.000	100.0	0.78" (19.7mm) 8	No
3.000	100.0	1 5/8" Coax	No
3.000	100.0	2" conduit	No
3.000	109.0	1 1/4" Hybriflex	No
3.000	109.0	1 5/8" Coax	No

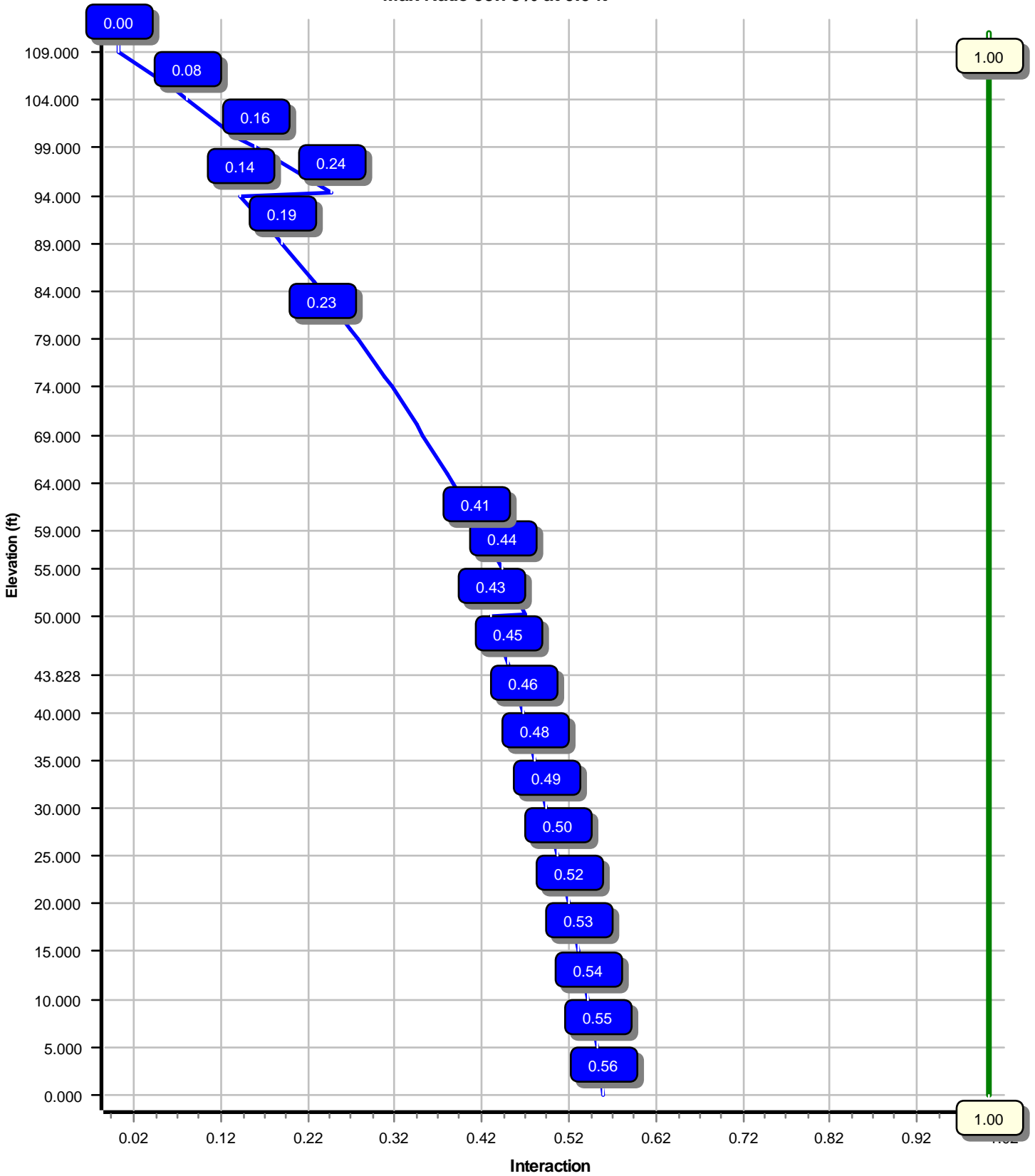


Load Cases	
1.2D + 1.6W	97 mph with No Ice
0.9D + 1.6W	97 mph with No Ice (Reduced DL)
1.2D + 1.0Di + 1.0Wi	50 mph with 1.00 in Radial Ice
(1.2 + 0.2Sds) * DL + E	Seismic Equivalent Lateral Forces Method
(1.2 + 0.2Sds) * DL + E	Seismic Equivalent Modal Analysis Method
(0.9 - 0.2Sds) * DL + E	Seismic (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	4369.53	50.84	47.95
0.9D + 1.6W	4353.36	50.82	35.94
1.2D + 1.0Di + 1.0Wi	1325.00	15.40	83.60
(1.2 + 0.2Sds) * DL + E ELFM	257.81	3.10	47.55
(1.2 + 0.2Sds) * DL + E EMAM	284.78	3.15	47.55
(0.9 - 0.2Sds) * DL + E ELFM	256.70	3.10	33.07
(0.9 - 0.2Sds) * DL + E EMAM	283.46	3.15	33.07
1.0D + 1.0W	1042.62	12.15	40.01

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

Load Case : 1.2D + 1.6W
Max Ratio 55.78% at 0.0 ft



Site Number: 411258

Code: ANSI/TIA-222-G

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Site Name: Farmington North 2 CT, CT

Engineering Number: OAA718005_C3_01

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Customer: AT&T MOBILITY

Analysis Parameters

Location:	HARTFORD County, CT	Height (ft):	111
Code:	ANSI/TIA-222-G	Base Diameter (in):	59.00
Shape:	18 Sides	Top Diameter (in):	27.05
Pole Type:	Taper	Taper (in/ft) :	0.300
Pole Manufacturer:		Rotation (deg) :	0.00

Ice & Wind Parameters

Structure Class:	II	Design Wind Speed Without Ice:	97 mph
Exposure Category:	C	Design Wind Speed With Ice:	50 mph
Topographic Category:	1	Operational Wind Speed:	60 mph
Crest Height:	0.0 ft	Design Ice Thickness:	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):	1.14		
T _L (sec):	6	p:	1.3
S _s :	0.181	S ₁ :	0.064
F _a :	1.600	F _v :	2.400
S _{ds} :	0.193	S _{d1} :	0.102
		C _s :	0.060
		C _s Max:	0.060
		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 + 0.2Sds) * DL + E ELFM	Seismic Equivalent Lateral Forces Method
(1.2 + 0.2Sds) * DL + E EMAM	Seismic Equivalent Modal Analysis Method
(0.9 - 0.2Sds) * DL + E ELFM	Seismic (Reduced DL) Equivalent Lateral Forces Method
(0.9 - 0.2Sds) * DL + E EMAM	Seismic (Reduced DL) Equivalent Modal Analysis Method
1.0D + 1.0W	Serviceability 60 mph

Site Number: 411258

Code: ANSI/TIA-222-G

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Site Name: Farmington North 2 CT, CT

Engineering Number: OAA718005_C3_01

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Customer: AT&T MOBILITY

Shaft Section Properties

Sect Info	Length (ft)	Thick (in)	Fy (ksi)	Joint Type	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)
1-18	50.174	0.5000	65		0.00	13,809	59.00	0.00	92.84	40140.4	19.04	118.00	43.93	50.17	68.93	16431.4	13.73	87.87	0.300225
2-18	50.518	0.4375	65	Slip	76.16	9,237	46.71	43.83	64.26	17389.2	17.07	106.78	31.55	94.35	43.20	5283.5	10.95	72.11	0.300225
3-18	21.341	0.2500	65	Slip	56.25	1,729	33.45	89.66	26.35	3671.0	21.83	133.83	27.05	111.00	21.27	1929.7	17.32	108.20	0.300225
Shaft Weight						24,775													

Discrete Appurtenance Properties

Attach Elev (ft)	Description	Qty	Weight (lb)	No Ice EPAa (sf)	Orientation Factor	Weight (lb)	Ice EPAa (sf)	Orientation Factor	Distance From Face (ft)	Vert Ecc (ft)
109.00	Antel LPA-80063/4CF	6	20.00	6.140	0.76	298.22	7.508	0.76	0.000	2.000
109.00	Commscope SBNHH-1D65B	6	50.70	8.170	0.69	327.61	9.887	0.69	0.000	2.000
109.00	Flat T-Arm	3	250.00	12.900	0.67	519.96	23.463	0.67	0.000	0.000
109.00	Pine Branch	1	600.00	45.000	1.00	1,139.92	85.494	1.00	0.000	0.000
109.00	Raycap RC2DC-3315-PF-48	2	32.00	3.780	0.67	204.20	4.858	0.67	0.000	0.000
109.00	Samsung 700/850MHz Dual	3	70.30	1.880	0.50	166.49	2.630	0.50	0.000	0.000
109.00	Samsung PCS/AWS Dual	3	84.40	1.880	0.50	190.14	2.630	0.50	0.000	0.000
109.00	VZW Unused Reserve:	1	1547.70	126.70	1.00	2,940.42	240.713	1.00	0.000	0.000
104.00	Pine Branch	1	600.00	45.000	1.00	1,137.34	85.301	1.00	0.000	0.000
100.00	Andrew SBNH-1D6565C (60.8	6	60.80	11.450	0.70	415.67	13.590	0.70	0.000	0.000
100.00	CCI DTMAPB7819VG12A (w/	9	19.20	1.370	0.50	80.98	2.028	0.50	0.000	0.000
100.00	CCI TPA-65R-LCUUUU-H8	2	81.60	13.300	0.69	498.98	15.443	0.69	0.000	0.000
100.00	Ericsson RRUS 32 (50.8 lbs)	3	50.80	2.690	0.67	169.59	3.639	0.67	0.000	0.000
100.00	Ericsson RRUS 32 B2	3	53.00	2.740	0.67	173.43	3.698	0.67	0.000	0.000
100.00	Ericsson RRUS-11 (50 lbs.)	3	50.00	2.570	0.67	161.40	3.425	0.67	0.000	0.000
100.00	Flat T-Arm	3	250.00	12.900	0.67	518.00	23.387	0.67	0.000	0.000
100.00	Quintel QS66512-2	1	111.00	8.130	0.74	416.21	9.823	0.74	0.000	0.000
100.00	Raycap DC6-48-60-18-8F	1	31.80	1.280	1.00	158.38	2.140	1.00	0.000	0.000
100.00	Raycap DC6-48-60-18-	1	32.80	1.280	1.00	159.38	2.140	1.00	0.000	0.000
100.00	RCU	18	1.00	0.160	0.50	16.86	0.447	0.50	0.000	0.000
99.00	Pine Branch	1	600.00	45.000	1.00	1,134.65	85.099	1.00	0.000	0.000
94.00	Pine Branch	1	600.00	45.000	1.00	1,131.82	84.887	1.00	0.000	0.000
89.00	Pine Branch	1	600.00	45.000	1.00	1,128.86	84.665	1.00	0.000	0.000
84.00	Pine Branch	1	600.00	45.000	1.00	1,125.74	84.430	1.00	0.000	0.000
79.00	Pine Branch	1	600.00	45.000	1.00	1,122.44	84.183	1.00	0.000	0.000
74.00	Pine Branch	1	600.00	45.000	1.00	1,118.95	83.921	1.00	0.000	0.000
69.00	Pine Branch	1	600.00	45.000	1.00	1,115.23	83.642	1.00	0.000	0.000
64.00	Pine Branch	1	600.00	45.000	1.00	1,111.24	83.343	1.00	0.000	0.000
59.00	Pine Branch	1	600.00	45.000	1.00	1,106.96	83.022	1.00	0.000	0.000
Totals		85	11955.80			30,432.13			Number of Loadings : 29	

Linear Appurtenance Properties

Elev From (ft)	Elev To (ft)	Qty	Description	Coax Diameter (in)	Coax Weight (lb/ft)	Projected Width (in)	Exposed To Wind	Carrier
3.00	109.00	2	1 1/4" Hybriflex Cable	1.54	1.00	N	0.00	Verizon
3.00	109.00	12	1 5/8" Coax	1.98	0.82	N	0.00	Verizon
3.00	100.00	1	0.39" Fiber Trunk	0.39	0.06	N	0.00	AT&T Mobility
3.00	100.00	1	0.39" Fiber Trunk	0.39	0.06	N	0.00	AT&T Mobility
3.00	100.00	2	0.78" (19.7mm) 8	0.78	0.59	N	0.00	AT&T Mobility
3.00	100.00	2	0.78" (19.7mm) 8	0.78	0.59	N	0.00	AT&T Mobility
3.00	100.00	18	1 5/8" Coax	1.98	0.82	N	0.00	AT&T Mobility
3.00	100.00	1	2" conduit	2.38	3.65	N	0.00	AT&T Mobility

Site Number: 411258

Code: ANSI/TIA-222-G

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Site Name: Farmington North 2 CT, CT

Engineering Number: OAA718005_C3_01

12/5/2017 1:14:17 PM

Customer: AT&T MOBILITY

Segment Properties (Max Len : 5.ft)

Seg Top Elev (ft)	Description	Thick (in)	Flat Dia (in)	Area (in ²)	Ix (in ⁴)	W/t Ratio	D/t Ratio	F'y (ksi)	S (in ³)	Z (in ³)	Weight (lb)
0.00		0.5000	59.000	92.836	40,140.4	19.04	118.00	79.0	1340.	0.0	0.0
5.00		0.5000	57.499	90.454	37,129.0	18.51	115.00	79.6	1271.	0.0	1,559.2
10.00		0.5000	55.998	88.072	34,272.1	17.98	112.00	80.2	1205.	0.0	1,518.7
15.00		0.5000	54.497	85.690	31,565.6	17.46	108.99	80.9	1140.	0.0	1,478.2
20.00		0.5000	52.995	83.307	29,005.5	16.93	105.99	81.5	1078.	0.0	1,437.6
25.00		0.5000	51.494	80.925	26,587.7	16.40	102.99	82.1	1017.	0.0	1,397.1
30.00		0.5000	49.993	78.543	24,308.2	15.87	99.99	82.6	957.7	0.0	1,356.6
35.00		0.5000	48.492	76.161	22,162.8	15.34	96.98	82.6	900.2	0.0	1,316.1
40.00		0.5000	46.991	73.779	20,147.5	14.81	93.98	82.6	844.5	0.0	1,275.5
43.83	Bot - Section 2	0.5000	45.842	71.955	18,689.9	14.40	91.68	82.6	803.0	0.0	949.2
45.00		0.5000	45.490	71.396	18,258.2	14.28	90.98	82.6	790.5	0.0	541.1
50.00		0.5000	43.989	69.014	16,490.9	13.75	87.98	82.6	738.4	0.0	2,261.8
50.17	Top - Section 1	0.4375	44.811	61.616	15,328.7	16.30	102.43	82.2	673.7	0.0	77.6
55.00		0.4375	43.363	59.605	13,875.8	15.71	99.11	82.6	630.3	0.0	995.2
59.00		0.4375	42.162	57.937	12,743.4	15.23	96.37	82.6	595.3	0.0	799.9
60.00		0.4375	41.861	57.520	12,470.3	15.11	95.68	82.6	586.7	0.0	196.4
64.00		0.4375	40.661	55.853	11,416.9	14.62	92.94	82.6	553.0	0.0	771.6
65.00		0.4375	40.360	55.436	11,163.2	14.50	92.25	82.6	544.8	0.0	189.3
69.00		0.4375	39.159	53.768	10,185.8	14.02	89.51	82.6	512.3	0.0	743.2
70.00		0.4375	38.859	53.351	9,950.7	13.90	88.82	82.6	504.4	0.0	182.3
74.00		0.4375	37.658	51.684	9,046.5	13.41	86.08	82.6	473.2	0.0	714.8
75.00		0.4375	37.358	51.267	8,829.4	13.29	85.39	82.6	465.5	0.0	175.2
79.00		0.4375	36.157	49.599	7,995.5	12.81	82.65	82.6	435.5	0.0	686.5
80.00		0.4375	35.857	49.183	7,795.6	12.69	81.96	82.6	428.2	0.0	168.1
84.00		0.4375	34.656	47.515	7,029.2	12.20	79.21	82.6	399.5	0.0	658.1
85.00		0.4375	34.356	47.098	6,845.8	12.08	78.53	82.6	392.5	0.0	161.0
89.00		0.4375	33.155	45.431	6,144.1	11.60	75.78	82.6	365.0	0.0	629.7
89.66	Bot - Section 3	0.4375	32.957	45.156	6,033.4	11.52	75.33	82.6	360.6	0.0	101.5
90.00		0.4375	32.855	45.014	5,976.5	11.48	75.10	82.6	358.3	0.0	82.9
94.00		0.4375	31.654	43.346	5,336.6	10.99	72.35	82.6	332.1	0.0	952.4
94.35	Top - Section 2	0.2500	32.050	25.232	3,223.7	20.84	128.20	76.9	198.1	0.0	80.8
95.00		0.2500	31.854	25.077	3,164.4	20.70	127.41	77.0	195.7	0.0	55.9
99.00		0.2500	30.653	24.124	2,817.2	19.86	122.61	78.0	181.0	0.0	334.8
100.0		0.2500	30.352	23.885	2,734.6	19.64	121.41	78.3	177.5	0.0	81.7
104.0		0.2500	29.152	22.933	2,420.2	18.80	116.61	79.3	163.5	0.0	318.6
105.0		0.2500	28.851	22.694	2,345.5	18.59	115.41	79.5	160.1	0.0	77.6
109.0		0.2500	27.650	21.741	2,062.3	17.74	110.60	80.5	146.9	0.0	302.4
110.0		0.2500	27.350	21.503	1,995.3	17.53	109.40	80.8	143.7	0.0	73.6
111.0		0.2500	27.050	21.265	1,929.7	17.32	108.20	81.0	140.5	0.0	72.8
24,775.0											

Site Number: 411258

Code: ANSI/TIA-222-G

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Site Name: Farmington North 2 CT, CT

Engineering Number: OAA718005_C3_01

12/5/2017 1:14:17 PM

Customer: AT&T MOBILITY

Load Case: 1.2D + 1.6W

97 mph with No Ice

18 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		274.2	0.0					0.0	0.0	274.2	0.0	0.0	0.0
5.00		541.3	1,871.1					0.0	78.6	541.3	1,949.6	0.0	0.0
10.00		527.2	1,822.4					0.0	196.4	527.2	2,018.8	0.0	0.0
15.00		521.1	1,773.8					0.0	196.4	521.1	1,970.2	0.0	0.0
20.00		528.5	1,725.2					0.0	196.4	528.5	1,921.6	0.0	0.0
25.00		538.5	1,676.5					0.0	196.4	538.5	1,872.9	0.0	0.0
30.00		543.4	1,627.9					0.0	196.4	543.4	1,824.3	0.0	0.0
35.00		544.6	1,579.3					0.0	196.4	544.6	1,775.6	0.0	0.0
40.00		479.6	1,530.6					0.0	196.4	479.6	1,727.0	0.0	0.0
43.83	Bot - Section 2	271.9	1,139.0					0.0	150.4	271.9	1,289.4	0.0	0.0
45.00		337.8	649.3					0.0	46.0	337.8	695.3	0.0	0.0
50.00		282.8	2,714.1					0.0	196.4	282.8	2,910.5	0.0	0.0
50.17	Top - Section 1	270.0	93.1					0.0	6.9	270.0	99.9	0.0	0.0
55.00		473.5	1,194.3					0.0	189.5	473.5	1,383.8	0.0	0.0
59.00	Appertunance(s)	265.8	959.9	2,052.5	0.0	0.0	720.0	0.0	157.1	2,318.4	1,837.0	0.0	0.0
60.00		262.0	235.7					0.0	39.3	262.0	275.0	0.0	0.0
64.00	Appertunance(s)	261.0	925.9	2,088.0	0.0	0.0	720.0	0.0	157.1	2,349.0	1,803.0	0.0	0.0
65.00		256.7	227.2					0.0	39.3	256.7	266.5	0.0	0.0
69.00	Appertunance(s)	255.6	891.8	2,121.3	0.0	0.0	720.0	0.0	157.1	2,376.9	1,768.9	0.0	0.0
70.00		250.8	218.7					0.0	39.3	250.8	258.0	0.0	0.0
74.00	Appertunance(s)	249.6	857.8	2,152.8	0.0	0.0	720.0	0.0	157.1	2,402.4	1,734.9	0.0	0.0
75.00		244.5	210.2					0.0	39.3	244.5	249.5	0.0	0.0
79.00	Appertunance(s)	243.2	823.7	2,182.6	0.0	0.0	720.0	0.0	157.1	2,425.8	1,700.8	0.0	0.0
80.00		237.7	201.7					0.0	39.3	237.7	241.0	0.0	0.0
84.00	Appertunance(s)	236.3	789.7	2,211.0	0.0	0.0	720.0	0.0	157.1	2,447.3	1,666.8	0.0	0.0
85.00		230.5	193.2					0.0	39.3	230.5	232.4	0.0	0.0
89.00	Appertunance(s)	213.6	755.7	2,238.1	0.0	0.0	720.0	0.0	157.1	2,451.7	1,632.8	0.0	0.0
89.66	Bot - Section 3	45.4	121.9					0.0	25.9	45.4	147.7	0.0	0.0
90.00		196.1	99.5					0.0	13.4	196.1	112.8	0.0	0.0
94.00	Appertunance(s)	195.8	1,142.9	2,264.0	0.0	0.0	720.0	0.0	157.1	2,459.9	2,020.0	0.0	0.0
94.35	Top - Section 2	44.3	96.9					0.0	13.6	44.3	110.6	0.0	0.0
95.00		203.1	67.1					0.0	25.7	203.1	92.8	0.0	0.0
99.00	Appertunance(s)	216.8	401.8	2,288.8	0.0	0.0	720.0	0.0	157.1	2,505.7	1,278.9	0.0	0.0
100.00	Appertunance(s)	210.2	98.0	5,016.1	0.0	0.0	2,527.0	0.0	39.3	5,226.3	2,664.3	0.0	0.0
104.00	Appertunance(s)	208.5	382.3	2,312.7	0.0	0.0	720.0	0.0	56.8	2,521.3	1,159.2	0.0	0.0
105.00		201.7	93.2					0.0	14.2	201.7	107.4	0.0	0.0
109.00	Appertunance(s)	200.0	362.9	12,942.7	0.0	5,153.8	4,620.0	0.0	56.8	13,142.7	5,039.7	0.0	0.0
110.00		78.2	88.3					0.0	0.0	78.2	88.3	0.0	0.0
111.00		38.9	87.3					0.0	0.0	38.9	87.3	0.0	0.0
Totals:									51,051.4	48,014.5	0.00	0.00	

Site Number: 411258

Code: ANSI/TIA-222-G

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Site Name: Farmington North 2 CT, CT

Engineering Number: OAA718005_C3_01

12/5/2017 1:14:18 PM

Customer: AT&T MOBILITY

Load Case: 1.2D + 1.6W

97 mph with No Ice

18 Iterations

Gust Response Factor :1.10

Wind Importance Factor 1.00

Dead Load Factor :1.20

Wind Load Factor :1.60

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-47.95	-50.84	0.00	-4,369.53	0.00	4,369.53	6,600.84	3,300.42	15,856.1	7,939.85	0.00	0.00	0.558
5.00	-45.86	-50.42	0.00	-4,115.32	0.00	4,115.32	6,482.15	3,241.07	15,168.0	7,595.31	0.08	-0.15	0.549
10.00	-43.71	-50.00	0.00	-3,863.23	0.00	3,863.23	6,360.79	3,180.39	14,488.6	7,255.11	0.32	-0.30	0.540
15.00	-41.61	-49.58	0.00	-3,613.23	0.00	3,613.23	6,236.75	3,118.38	13,818.4	6,919.51	0.72	-0.46	0.529
20.00	-39.56	-49.14	0.00	-3,365.33	0.00	3,365.33	6,110.05	3,055.03	13,157.9	6,588.75	1.29	-0.62	0.518
25.00	-37.56	-48.69	0.00	-3,119.62	0.00	3,119.62	5,980.68	2,990.34	12,507.5	6,263.09	2.02	-0.77	0.505
30.00	-35.61	-48.22	0.00	-2,876.18	0.00	2,876.18	5,835.35	2,917.67	11,840.9	5,929.26	2.92	-0.94	0.491
35.00	-33.71	-47.74	0.00	-2,635.10	0.00	2,635.10	5,658.36	2,829.18	11,130.0	5,573.30	3.99	-1.10	0.479
40.00	-31.87	-47.30	0.00	-2,396.42	0.00	2,396.42	5,481.38	2,740.69	10,441.2	5,228.37	5.22	-1.26	0.464
43.83	-30.52	-47.04	0.00	-2,215.35	0.00	2,215.35	5,345.87	2,672.94	9,928.68	4,971.72	6.28	-1.38	0.452
45.00	-29.75	-46.74	0.00	-2,160.23	0.00	2,160.23	5,304.39	2,652.20	9,774.36	4,894.45	6.63	-1.42	0.447
50.00	-26.78	-46.42	0.00	-1,926.53	0.00	1,926.53	5,127.41	2,563.70	9,129.52	4,571.55	8.21	-1.58	0.427
50.17	-26.63	-46.18	0.00	-1,918.43	0.00	1,918.43	4,560.16	2,280.08	8,298.22	4,155.28	8.26	-1.59	0.468
55.00	-25.15	-45.73	0.00	-1,695.58	0.00	1,695.58	4,428.33	2,214.17	7,792.67	3,902.12	9.95	-1.74	0.441
59.00	-23.32	-43.39	0.00	-1,512.65	0.00	1,512.65	4,304.44	2,152.22	7,360.60	3,685.77	11.46	-1.87	0.416
60.00	-22.99	-43.15	0.00	-1,469.26	0.00	1,469.26	4,273.47	2,136.74	7,254.51	3,632.65	11.86	-1.90	0.410
64.00	-21.22	-40.77	0.00	-1,296.66	0.00	1,296.66	4,149.58	2,074.79	6,837.85	3,424.01	13.51	-2.03	0.384
65.00	-20.91	-40.53	0.00	-1,255.89	0.00	1,255.89	4,118.61	2,059.30	6,735.61	3,372.81	13.93	-2.06	0.378
69.00	-19.18	-38.12	0.00	-1,093.76	0.00	1,093.76	3,994.72	1,997.36	6,334.35	3,171.88	15.71	-2.18	0.350
70.00	-18.88	-37.88	0.00	-1,055.64	0.00	1,055.64	3,963.75	1,981.87	6,235.97	3,122.62	16.17	-2.21	0.343
74.00	-17.20	-35.43	0.00	-904.12	0.00	904.12	3,839.86	1,919.93	5,850.11	2,929.41	18.08	-2.32	0.313
75.00	-16.92	-35.20	0.00	-868.69	0.00	868.69	3,808.88	1,904.44	5,755.58	2,882.07	18.57	-2.35	0.306
79.00	-15.29	-32.72	0.00	-727.91	0.00	727.91	3,684.99	1,842.50	5,385.13	2,696.57	20.58	-2.45	0.274
80.00	-15.02	-32.49	0.00	-695.19	0.00	695.19	3,654.02	1,827.01	5,294.44	2,651.16	21.10	-2.48	0.267
84.00	-13.44	-29.98	0.00	-565.24	0.00	565.24	3,530.13	1,765.07	4,939.39	2,473.37	23.21	-2.57	0.233
85.00	-13.19	-29.75	0.00	-535.26	0.00	535.26	3,499.16	1,749.58	4,852.56	2,429.89	23.76	-2.59	0.224
89.00	-11.65	-27.24	0.00	-416.25	0.00	416.25	3,375.27	1,687.63	4,512.92	2,259.81	25.96	-2.67	0.188
89.66	-11.50	-27.19	0.00	-398.31	0.00	398.31	3,354.86	1,677.43	4,458.15	2,232.39	26.33	-2.68	0.182
90.00	-11.38	-26.99	0.00	-389.03	0.00	389.03	3,344.30	1,672.15	4,429.93	2,218.26	26.52	-2.69	0.179
94.00	-9.46	-24.45	0.00	-281.06	0.00	281.06	3,220.41	1,610.20	4,105.69	2,055.90	28.81	-2.75	0.140
94.35	-9.35	-24.40	0.00	-272.60	0.00	272.60	1,746.03	873.02	2,281.47	1,142.43	29.01	-2.76	0.245
95.00	-9.25	-24.20	0.00	-256.65	0.00	256.65	1,738.93	869.46	2,258.06	1,130.71	29.39	-2.77	0.233
99.00	-8.08	-21.64	0.00	-159.86	0.00	159.86	1,694.48	847.24	2,116.07	1,059.61	31.74	-2.84	0.156
100.00	-5.67	-16.29	0.00	-138.22	0.00	138.22	1,683.10	841.55	2,080.94	1,042.02	32.34	-2.86	0.136
104.00	-4.63	-13.71	0.00	-73.07	0.00	73.07	1,636.52	818.26	1,941.96	972.42	34.76	-2.90	0.078
105.00	-4.53	-13.51	0.00	-59.36	0.00	59.36	1,624.61	812.30	1,907.63	955.23	35.36	-2.91	0.065
109.00	-0.17	-0.13	0.00	-0.17	0.00	0.17	1,575.88	787.94	1,772.05	887.34	37.81	-2.93	0.000
110.00	-0.09	-0.04	0.00	-0.04	0.00	0.04	1,563.44	781.72	1,738.62	870.60	38.42	-2.93	0.000
111.00	0.00	-0.04	0.00	0.00	0.00	0.00	1,550.88	775.44	1,705.38	853.95	39.04	-2.93	0.000

Site Number: 411258

Code: ANSI/TIA-222-G

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Site Name: Farmington North 2 CT, CT

Engineering Number: OAA718005_C3_01

12/5/2017 1:14:18 PM

Customer: AT&T MOBILITY

Load Case: 0.9D + 1.6W

97 mph with No Ice (Reduced DL)

18 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		274.2	0.0					0.0	0.0	274.2	0.0	0.0	0.0
5.00		541.3	1,403.3					0.0	58.9	541.3	1,462.2	0.0	0.0
10.00		527.2	1,366.8					0.0	147.3	527.2	1,514.1	0.0	0.0
15.00		521.1	1,330.4					0.0	147.3	521.1	1,477.6	0.0	0.0
20.00		528.5	1,293.9					0.0	147.3	528.5	1,441.2	0.0	0.0
25.00		538.5	1,257.4					0.0	147.3	538.5	1,404.7	0.0	0.0
30.00		543.4	1,220.9					0.0	147.3	543.4	1,368.2	0.0	0.0
35.00		544.6	1,184.5					0.0	147.3	544.6	1,331.7	0.0	0.0
40.00		479.6	1,148.0					0.0	147.3	479.6	1,295.3	0.0	0.0
43.83	Bot - Section 2	271.9	854.3					0.0	112.8	271.9	967.0	0.0	0.0
45.00		337.8	487.0					0.0	34.5	337.8	521.5	0.0	0.0
50.00		282.8	2,035.6					0.0	147.3	282.8	2,182.9	0.0	0.0
50.17	Top - Section 1	270.0	69.8					0.0	5.1	270.0	74.9	0.0	0.0
55.00		473.5	895.7					0.0	142.1	473.5	1,037.9	0.0	0.0
59.00	Appertunance(s)	265.8	719.9	2,052.5	0.0	0.0	540.0	0.0	117.8	2,318.4	1,377.8	0.0	0.0
60.00		262.0	176.8					0.0	29.5	262.0	206.3	0.0	0.0
64.00	Appertunance(s)	261.0	694.4	2,088.0	0.0	0.0	540.0	0.0	117.8	2,349.0	1,352.2	0.0	0.0
65.00		256.7	170.4					0.0	29.5	256.7	199.9	0.0	0.0
69.00	Appertunance(s)	255.6	668.9	2,121.3	0.0	0.0	540.0	0.0	117.8	2,376.9	1,326.7	0.0	0.0
70.00		250.8	164.0					0.0	29.5	250.8	193.5	0.0	0.0
74.00	Appertunance(s)	249.6	643.3	2,152.8	0.0	0.0	540.0	0.0	117.8	2,402.4	1,301.2	0.0	0.0
75.00		244.5	157.6					0.0	29.5	244.5	187.1	0.0	0.0
79.00	Appertunance(s)	243.2	617.8	2,182.6	0.0	0.0	540.0	0.0	117.8	2,425.8	1,275.6	0.0	0.0
80.00		237.7	151.3					0.0	29.5	237.7	180.7	0.0	0.0
84.00	Appertunance(s)	236.3	592.3	2,211.0	0.0	0.0	540.0	0.0	117.8	2,447.3	1,250.1	0.0	0.0
85.00		230.5	144.9					0.0	29.5	230.5	174.3	0.0	0.0
89.00	Appertunance(s)	213.6	566.7	2,238.1	0.0	0.0	540.0	0.0	117.8	2,451.7	1,224.6	0.0	0.0
89.66	Bot - Section 3	45.4	91.4					0.0	19.4	45.4	110.8	0.0	0.0
90.00		196.1	74.6					0.0	10.0	196.1	84.6	0.0	0.0
94.00	Appertunance(s)	195.8	857.1	2,264.0	0.0	0.0	540.0	0.0	117.8	2,459.9	1,515.0	0.0	0.0
94.35	Top - Section 2	44.3	72.7					0.0	10.2	44.3	82.9	0.0	0.0
95.00		203.1	50.4					0.0	19.3	203.1	69.6	0.0	0.0
99.00	Appertunance(s)	216.8	301.4	2,288.8	0.0	0.0	540.0	0.0	117.8	2,505.7	959.2	0.0	0.0
100.00	Appertunance(s)	210.2	73.5	5,016.1	0.0	0.0	1,895.2	0.0	29.5	5,226.3	1,998.2	0.0	0.0
104.00	Appertunance(s)	208.5	286.8	2,312.7	0.0	0.0	540.0	0.0	42.6	2,521.3	869.4	0.0	0.0
105.00		201.7	69.9					0.0	10.7	201.7	80.5	0.0	0.0
109.00	Appertunance(s)	200.0	272.2	12,942.7	0.0	5,153.8	3,465.0	0.0	42.6	13,142.7	3,779.8	0.0	0.0
110.00		78.2	66.2					0.0	0.0	78.2	66.2	0.0	0.0
111.00		38.9	65.5					0.0	0.0	38.9	65.5	0.0	0.0
Totals:										51,051.4	36,010.9	0.00	0.00

Site Number: 411258

Code: ANSI/TIA-222-G

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Site Name: Farmington North 2 CT, CT

Engineering Number: OAA718005_C3_01

12/5/2017 1:14:20 PM

Customer: AT&T MOBILITY

Load Case: 0.9D + 1.6W

97 mph with No Ice (Reduced DL)

18 Iterations

Gust Response Factor :1.10

Wind Importance Factor 1.00

Dead Load Factor :0.90

Wind Load Factor :1.60

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-35.94	-50.82	0.00	-4,353.36	0.00	4,353.36	6,600.84	3,300.42	15,856.1	7,939.85	0.00	0.00	0.554
5.00	-34.35	-50.37	0.00	-4,099.24	0.00	4,099.24	6,482.15	3,241.07	15,168.0	7,595.31	0.08	-0.15	0.545
10.00	-32.70	-49.93	0.00	-3,847.38	0.00	3,847.38	6,360.79	3,180.39	14,488.6	7,255.11	0.32	-0.30	0.536
15.00	-31.09	-49.48	0.00	-3,597.75	0.00	3,597.75	6,236.75	3,118.38	13,818.4	6,919.51	0.72	-0.46	0.525
20.00	-29.52	-49.02	0.00	-3,350.35	0.00	3,350.35	6,110.05	3,055.03	13,157.9	6,588.75	1.28	-0.61	0.514
25.00	-27.99	-48.54	0.00	-3,105.25	0.00	3,105.25	5,980.68	2,990.34	12,507.5	6,263.09	2.01	-0.77	0.501
30.00	-26.50	-48.05	0.00	-2,862.54	0.00	2,862.54	5,835.35	2,917.67	11,840.9	5,929.26	2.91	-0.93	0.488
35.00	-25.04	-47.56	0.00	-2,622.28	0.00	2,622.28	5,658.36	2,829.18	11,130.0	5,573.30	3.97	-1.09	0.475
40.00	-23.64	-47.11	0.00	-2,384.51	0.00	2,384.51	5,481.38	2,740.69	10,441.2	5,228.37	5.20	-1.25	0.461
43.83	-22.61	-46.85	0.00	-2,204.17	0.00	2,204.17	5,345.87	2,672.94	9,928.68	4,971.72	6.26	-1.38	0.448
45.00	-22.02	-46.53	0.00	-2,149.28	0.00	2,149.28	5,304.39	2,652.20	9,774.36	4,894.45	6.60	-1.42	0.444
50.00	-19.78	-46.22	0.00	-1,916.61	0.00	1,916.61	5,127.41	2,563.70	9,129.52	4,571.55	8.17	-1.57	0.423
50.17	-19.65	-45.98	0.00	-1,908.55	0.00	1,908.55	4,560.16	2,280.08	8,298.22	4,155.28	8.23	-1.58	0.464
55.00	-18.51	-45.52	0.00	-1,686.68	0.00	1,686.68	4,428.33	2,214.17	7,792.67	3,902.12	9.90	-1.73	0.437
59.00	-17.15	-43.18	0.00	-1,504.61	0.00	1,504.61	4,304.44	2,152.22	7,360.60	3,685.77	11.41	-1.86	0.413
60.00	-16.89	-42.94	0.00	-1,461.42	0.00	1,461.42	4,273.47	2,136.74	7,254.51	3,632.65	11.80	-1.89	0.407
64.00	-15.56	-40.57	0.00	-1,289.67	0.00	1,289.67	4,149.58	2,074.79	6,837.85	3,424.01	13.45	-2.02	0.381
65.00	-15.32	-40.32	0.00	-1,249.10	0.00	1,249.10	4,118.61	2,059.30	6,735.61	3,372.81	13.87	-2.05	0.374
69.00	-14.03	-37.92	0.00	-1,087.81	0.00	1,087.81	3,994.72	1,997.36	6,334.35	3,171.88	15.64	-2.17	0.347
70.00	-13.80	-37.68	0.00	-1,049.90	0.00	1,049.90	3,963.75	1,981.87	6,235.97	3,122.62	16.10	-2.20	0.340
74.00	-12.55	-35.24	0.00	-899.20	0.00	899.20	3,839.86	1,919.93	5,850.11	2,929.41	17.99	-2.31	0.311
75.00	-12.34	-35.00	0.00	-863.96	0.00	863.96	3,808.88	1,904.44	5,755.58	2,882.07	18.48	-2.34	0.303
79.00	-11.13	-32.54	0.00	-723.95	0.00	723.95	3,684.99	1,842.50	5,385.13	2,696.57	20.49	-2.44	0.272
80.00	-10.92	-32.30	0.00	-691.42	0.00	691.42	3,654.02	1,827.01	5,294.44	2,651.16	21.00	-2.47	0.264
84.00	-9.75	-29.81	0.00	-562.21	0.00	562.21	3,530.13	1,765.07	4,939.39	2,473.37	23.11	-2.56	0.230
85.00	-9.56	-29.58	0.00	-532.39	0.00	532.39	3,499.16	1,749.58	4,852.56	2,429.89	23.65	-2.58	0.222
89.00	-8.43	-27.08	0.00	-414.06	0.00	414.06	3,375.27	1,687.63	4,512.92	2,259.81	25.84	-2.66	0.186
89.66	-8.32	-27.04	0.00	-396.22	0.00	396.22	3,354.86	1,677.43	4,458.15	2,232.39	26.21	-2.67	0.180
90.00	-8.23	-26.84	0.00	-386.99	0.00	386.99	3,344.30	1,672.15	4,429.93	2,218.26	26.40	-2.68	0.177
94.00	-6.81	-24.32	0.00	-279.63	0.00	279.63	3,220.41	1,610.20	4,105.69	2,055.90	28.67	-2.74	0.138
94.35	-6.73	-24.27	0.00	-271.21	0.00	271.21	1,746.03	873.02	2,281.47	1,142.43	28.87	-2.75	0.242
95.00	-6.65	-24.07	0.00	-255.35	0.00	255.35	1,738.93	869.46	2,258.06	1,130.71	29.25	-2.75	0.230
99.00	-5.80	-21.52	0.00	-159.07	0.00	159.07	1,694.48	847.24	2,116.07	1,059.61	31.59	-2.83	0.154
100.00	-4.05	-16.21	0.00	-137.55	0.00	137.55	1,683.10	841.55	2,080.94	1,042.02	32.19	-2.84	0.135
104.00	-3.31	-13.65	0.00	-72.73	0.00	72.73	1,636.52	818.26	1,941.96	972.42	34.59	-2.89	0.077
105.00	-3.23	-13.44	0.00	-59.08	0.00	59.08	1,624.61	812.30	1,907.63	955.23	35.20	-2.90	0.064
109.00	-0.13	-0.12	0.00	-0.17	0.00	0.17	1,575.88	787.94	1,772.05	887.34	37.63	-2.91	0.000
110.00	-0.06	-0.04	0.00	-0.04	0.00	0.04	1,563.44	781.72	1,738.62	870.60	38.24	-2.91	0.000
111.00	0.00	-0.04	0.00	0.00	0.00	0.00	1,550.88	775.44	1,705.38	853.95	38.85	-2.91	0.000

Site Number: 411258

Code: ANSI/TIA-222-G

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Site Name: Farmington North 2 CT, CT

Engineering Number: OAA718005_C3_01

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Customer: AT&T MOBILITY

Load Case: 1.2D + 1.0Di + 1.0Wi	50 mph with 1.00 in Radial Ice	18 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		88.5	0.0					0.0	0.0	88.5	0.0	0.0	0.0
5.00		175.2	2,442.6					0.0	78.6	175.2	2,521.1	0.0	0.0
10.00		171.7	2,446.0					0.0	196.4	171.7	2,642.4	0.0	0.0
15.00		170.4	2,414.0					0.0	196.4	170.4	2,610.4	0.0	0.0
20.00		173.5	2,370.3					0.0	196.4	173.5	2,566.7	0.0	0.0
25.00		177.4	2,320.5					0.0	196.4	177.4	2,516.9	0.0	0.0
30.00		179.6	2,267.0					0.0	196.4	179.6	2,463.3	0.0	0.0
35.00		180.6	2,210.7					0.0	196.4	180.6	2,407.1	0.0	0.0
40.00		159.5	2,152.5					0.0	196.4	159.5	2,348.9	0.0	0.0
43.83	Bot - Section 2	90.6	1,609.4					0.0	150.4	90.6	1,759.7	0.0	0.0
45.00		112.8	795.8					0.0	46.0	112.8	841.8	0.0	0.0
50.00		94.5	3,323.8					0.0	196.4	94.5	3,520.2	0.0	0.0
50.17	Top - Section 1	90.5	114.4					0.0	6.9	90.5	121.3	0.0	0.0
55.00		159.0	1,770.0					0.0	189.5	159.0	1,959.5	0.0	0.0
59.00	Appertunance(s)	89.5	1,428.4	628.9	0.0	0.0	1,827.0	0.0	157.1	718.3	3,412.5	0.0	0.0
60.00		88.5	352.6					0.0	39.3	88.5	391.9	0.0	0.0
64.00	Appertunance(s)	88.2	1,382.5	642.2	0.0	0.0	1,831.2	0.0	157.1	730.4	3,370.9	0.0	0.0
65.00		87.0	341.0					0.0	39.3	87.0	380.3	0.0	0.0
69.00	Appertunance(s)	86.7	1,336.0	654.8	0.0	0.0	1,835.2	0.0	157.1	741.5	3,328.4	0.0	0.0
70.00		85.4	329.4					0.0	39.3	85.4	368.6	0.0	0.0
74.00	Appertunance(s)	85.1	1,289.1	666.7	0.0	0.0	1,838.9	0.0	157.1	751.8	3,285.1	0.0	0.0
75.00		83.7	317.6					0.0	39.3	83.7	356.9	0.0	0.0
79.00	Appertunance(s)	83.3	1,241.7	678.1	0.0	0.0	1,842.4	0.0	157.1	761.4	3,241.3	0.0	0.0
80.00		81.7	305.7					0.0	39.3	81.7	345.0	0.0	0.0
84.00	Appertunance(s)	81.3	1,194.0	688.9	0.0	0.0	1,845.7	0.0	157.1	770.2	3,196.8	0.0	0.0
85.00		79.7	293.7					0.0	39.3	79.7	333.0	0.0	0.0
89.00	Appertunance(s)	73.9	1,145.9	699.3	0.0	0.0	1,848.9	0.0	157.1	773.2	3,151.9	0.0	0.0
89.66	Bot - Section 3	15.8	186.0					0.0	25.9	15.8	211.8	0.0	0.0
90.00		68.1	133.0					0.0	13.4	68.1	146.4	0.0	0.0
94.00	Appertunance(s)	68.1	1,524.3	709.2	0.0	0.0	1,851.8	0.0	157.1	777.3	3,533.2	0.0	0.0
94.35	Top - Section 2	15.4	130.0					0.0	13.6	15.4	143.6	0.0	0.0
95.00		71.0	129.1					0.0	25.7	71.0	154.8	0.0	0.0
99.00	Appertunance(s)	75.9	768.6	718.8	0.0	0.0	1,854.6	0.0	157.1	794.6	2,780.4	0.0	0.0
100.00	Appertunance(s)	74.0	189.1	1,143.0	0.0	0.0	8,554.6	0.0	39.3	1,216.9	8,783.0	0.0	0.0
104.00	Appertunance(s)	73.5	734.3	728.0	0.0	0.0	1,857.3	0.0	56.8	801.5	2,648.5	0.0	0.0
105.00		71.5	180.5					0.0	14.2	71.5	194.7	0.0	0.0
109.00	Appertunance(s)	71.0	699.7	3,736.2	0.0	1,040.6	10,474.2	0.0	56.8	3,807.2	11,230.8	0.0	0.0
110.00		27.9	171.9					0.0	0.0	27.9	171.9	0.0	0.0
111.00		13.9	170.1					0.0	0.0	13.9	170.1	0.0	0.0
								Totals:		15,457.5	83,610.9	0.00	0.00

Site Number: 411258

Code: ANSI/TIA-222-G

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Site Name: Farmington North 2 CT, CT

Engineering Number: OAA718005_C3_01

12/5/2017 1:14:21 PM

Customer: AT&T MOBILITY

Load Case: 1.2D + 1.0Di + 1.0Wi

50 mph with 1.00 in Radial Ice

18 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	-83.60	-15.40	0.00	-1,325.00	0.00	1,325.00	6,600.84	3,300.42	15,856.1	7,939.85	0.00	0.00	0.180
5.00	-81.07	-15.29	0.00	-1,247.98	0.00	1,247.98	6,482.15	3,241.07	15,168.0	7,595.31	0.02	-0.05	0.177
10.00	-78.42	-15.18	0.00	-1,171.52	0.00	1,171.52	6,360.79	3,180.39	14,488.6	7,255.11	0.10	-0.09	0.174
15.00	-75.79	-15.07	0.00	-1,095.62	0.00	1,095.62	6,236.75	3,118.38	13,818.4	6,919.51	0.22	-0.14	0.171
20.00	-73.22	-14.95	0.00	-1,020.28	0.00	1,020.28	6,110.05	3,055.03	13,157.9	6,588.75	0.39	-0.19	0.167
25.00	-70.69	-14.82	0.00	-945.54	0.00	945.54	5,980.68	2,990.34	12,507.5	6,263.09	0.61	-0.23	0.163
30.00	-68.21	-14.69	0.00	-871.44	0.00	871.44	5,835.35	2,917.67	11,840.9	5,929.26	0.89	-0.28	0.159
35.00	-65.79	-14.55	0.00	-797.99	0.00	797.99	5,658.36	2,829.18	11,130.0	5,573.30	1.21	-0.33	0.155
40.00	-63.43	-14.43	0.00	-725.24	0.00	725.24	5,481.38	2,740.69	10,441.2	5,228.37	1.58	-0.38	0.150
43.83	-61.67	-14.35	0.00	-670.02	0.00	670.02	5,345.87	2,672.94	9,928.68	4,971.72	1.91	-0.42	0.146
45.00	-60.82	-14.26	0.00	-653.20	0.00	653.20	5,304.39	2,652.20	9,774.36	4,894.45	2.01	-0.43	0.145
50.00	-57.30	-14.16	0.00	-581.90	0.00	581.90	5,127.41	2,563.70	9,129.52	4,571.55	2.49	-0.48	0.138
50.17	-57.17	-14.10	0.00	-579.42	0.00	579.42	4,560.16	2,280.08	8,298.22	4,155.28	2.50	-0.48	0.152
55.00	-55.20	-13.96	0.00	-511.40	0.00	511.40	4,428.33	2,214.17	7,792.67	3,902.12	3.01	-0.53	0.144
59.00	-51.79	-13.23	0.00	-455.56	0.00	455.56	4,304.44	2,152.22	7,360.60	3,685.77	3.47	-0.57	0.136
60.00	-51.39	-13.16	0.00	-442.33	0.00	442.33	4,273.47	2,136.74	7,254.51	3,632.65	3.59	-0.58	0.134
64.00	-48.03	-12.42	0.00	-389.68	0.00	389.68	4,149.58	2,074.79	6,837.85	3,424.01	4.09	-0.61	0.125
65.00	-47.64	-12.34	0.00	-377.26	0.00	377.26	4,118.61	2,059.30	6,735.61	3,372.81	4.22	-0.62	0.123
69.00	-44.32	-11.58	0.00	-327.89	0.00	327.89	3,994.72	1,997.36	6,334.35	3,171.88	4.76	-0.66	0.115
70.00	-43.94	-11.51	0.00	-316.31	0.00	316.31	3,963.75	1,981.87	6,235.97	3,122.62	4.90	-0.67	0.112
74.00	-40.66	-10.73	0.00	-270.27	0.00	270.27	3,839.86	1,919.93	5,850.11	2,929.41	5.47	-0.70	0.103
75.00	-40.31	-10.66	0.00	-259.54	0.00	259.54	3,808.88	1,904.44	5,755.58	2,882.07	5.62	-0.71	0.101
79.00	-37.07	-9.87	0.00	-216.90	0.00	216.90	3,684.99	1,842.50	5,385.13	2,696.57	6.23	-0.74	0.091
80.00	-36.72	-9.79	0.00	-207.03	0.00	207.03	3,654.02	1,827.01	5,294.44	2,651.16	6.39	-0.75	0.088
84.00	-33.53	-8.99	0.00	-167.86	0.00	167.86	3,530.13	1,765.07	4,939.39	2,473.37	7.03	-0.78	0.077
85.00	-33.20	-8.92	0.00	-158.87	0.00	158.87	3,499.16	1,749.58	4,852.56	2,429.89	7.19	-0.78	0.075
89.00	-30.06	-8.11	0.00	-123.20	0.00	123.20	3,375.27	1,687.63	4,512.92	2,259.81	7.86	-0.81	0.063
89.66	-29.85	-8.09	0.00	-117.86	0.00	117.86	3,354.86	1,677.43	4,458.15	2,232.39	7.97	-0.81	0.062
90.00	-29.70	-8.02	0.00	-115.10	0.00	115.10	3,344.30	1,672.15	4,429.93	2,218.26	8.03	-0.81	0.061
94.00	-26.18	-7.20	0.00	-83.01	0.00	83.01	3,220.41	1,610.20	4,105.69	2,055.90	8.71	-0.83	0.049
94.35	-26.03	-7.18	0.00	-80.52	0.00	80.52	1,746.03	873.02	2,281.47	1,142.43	8.78	-0.83	0.085
95.00	-25.88	-7.12	0.00	-75.82	0.00	75.82	1,738.93	869.46	2,258.06	1,130.71	8.89	-0.83	0.082
99.00	-23.11	-6.29	0.00	-47.35	0.00	47.35	1,694.48	847.24	2,116.07	1,059.61	9.60	-0.86	0.058
100.00	-14.34	-4.94	0.00	-41.07	0.00	41.07	1,683.10	841.55	2,080.94	1,042.02	9.78	-0.86	0.048
104.00	-11.71	-4.10	0.00	-21.31	0.00	21.31	1,636.52	818.26	1,941.96	972.42	10.51	-0.87	0.029
105.00	-11.51	-4.03	0.00	-17.21	0.00	17.21	1,624.61	812.30	1,907.63	955.23	10.69	-0.88	0.025
109.00	-0.34	-0.05	0.00	-0.06	0.00	0.06	1,575.88	787.94	1,772.05	887.34	11.43	-0.88	0.000
110.00	-0.17	-0.02	0.00	-0.02	0.00	0.02	1,563.44	781.72	1,738.62	870.60	11.61	-0.88	0.000
111.00	0.00	-0.01	0.00	0.00	0.00	0.00	1,550.88	775.44	1,705.38	853.95	11.80	-0.88	0.000

Site Number: 411258

Code: ANSI/TIA-222-G

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Site Name: Farmington North 2 CT, CT

Engineering Number: OAA718005_C3_01

12/5/2017 1:14:21 PM

Customer: AT&T MOBILITY

Load Case: 1.0D + 1.0W

Serviceability 60 mph

17 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		65.6	0.0					0.0	0.0	65.6	0.0	0.0	0.0
5.00		129.4	1,559.2					0.0	65.5	129.4	1,624.7	0.0	0.0
10.00		126.1	1,518.7					0.0	163.7	126.1	1,682.4	0.0	0.0
15.00		124.6	1,478.2					0.0	163.7	124.6	1,641.8	0.0	0.0
20.00		126.4	1,437.6					0.0	163.7	126.4	1,601.3	0.0	0.0
25.00		128.8	1,397.1					0.0	163.7	128.8	1,560.8	0.0	0.0
30.00		130.0	1,356.6					0.0	163.7	130.0	1,520.2	0.0	0.0
35.00		130.2	1,316.1					0.0	163.7	130.2	1,479.7	0.0	0.0
40.00		114.7	1,275.5					0.0	163.7	114.7	1,439.2	0.0	0.0
43.83	Bot - Section 2	65.0	949.2					0.0	125.3	65.0	1,074.5	0.0	0.0
45.00		80.8	541.1					0.0	38.4	80.8	579.4	0.0	0.0
50.00		67.6	2,261.8					0.0	163.7	67.6	2,425.4	0.0	0.0
50.17	Top - Section 1	64.6	77.6					0.0	5.7	64.6	83.3	0.0	0.0
55.00		113.2	995.2					0.0	157.9	113.2	1,153.2	0.0	0.0
59.00	Appertunance(s)	63.6	799.9	490.8	0.0	0.0	600.0	0.0	130.9	554.4	1,530.9	0.0	0.0
60.00		62.7	196.4					0.0	32.7	62.7	229.2	0.0	0.0
64.00	Appertunance(s)	62.4	771.6	499.3	0.0	0.0	600.0	0.0	130.9	561.7	1,502.5	0.0	0.0
65.00		61.4	189.3					0.0	32.7	61.4	222.1	0.0	0.0
69.00	Appertunance(s)	61.1	743.2	507.3	0.0	0.0	600.0	0.0	130.9	568.4	1,474.1	0.0	0.0
70.00		60.0	182.3					0.0	32.7	60.0	215.0	0.0	0.0
74.00	Appertunance(s)	59.7	714.8	514.8	0.0	0.0	600.0	0.0	130.9	574.5	1,445.7	0.0	0.0
75.00		58.5	175.2					0.0	32.7	58.5	207.9	0.0	0.0
79.00	Appertunance(s)	58.1	686.5	521.9	0.0	0.0	600.0	0.0	130.9	580.1	1,417.4	0.0	0.0
80.00		56.8	168.1					0.0	32.7	56.8	200.8	0.0	0.0
84.00	Appertunance(s)	56.5	658.1	528.7	0.0	0.0	600.0	0.0	130.9	585.2	1,389.0	0.0	0.0
85.00		55.1	161.0					0.0	32.7	55.1	193.7	0.0	0.0
89.00	Appertunance(s)	51.1	629.7	535.2	0.0	0.0	600.0	0.0	130.9	586.3	1,360.6	0.0	0.0
89.66	Bot - Section 3	10.9	101.5					0.0	21.6	10.9	123.1	0.0	0.0
90.00		46.9	82.9					0.0	11.2	46.9	94.0	0.0	0.0
94.00	Appertunance(s)	46.8	952.4	541.4	0.0	0.0	600.0	0.0	130.9	588.2	1,683.3	0.0	0.0
94.35	Top - Section 2	10.6	80.8					0.0	11.3	10.6	92.1	0.0	0.0
95.00		48.6	55.9					0.0	21.4	48.6	77.3	0.0	0.0
99.00	Appertunance(s)	51.9	334.8	547.3	0.0	0.0	600.0	0.0	130.9	599.2	1,065.8	0.0	0.0
100.00	Appertunance(s)	50.3	81.7	1,199.5	0.0	0.0	2,105.8	0.0	32.7	1,249.8	2,220.2	0.0	0.0
104.00	Appertunance(s)	49.9	318.6	553.0	0.0	0.0	600.0	0.0	47.4	602.9	966.0	0.0	0.0
105.00		48.2	77.6					0.0	11.8	48.2	89.5	0.0	0.0
109.00	Appertunance(s)	47.8	302.4	3,095.0	0.0	1,232.4	3,850.0	0.0	47.4	3,142.8	4,199.8	0.0	0.0
110.00		18.7	73.6					0.0	0.0	18.7	73.6	0.0	0.0
111.00		9.3	72.8					0.0	0.0	9.3	72.8	0.0	0.0
Totals:									12,208.0	40,012.1	0.00	0.00	

Site Number: 411258

Code: ANSI/TIA-222-G

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Site Name: Farmington North 2 CT, CT

Engineering Number: OAA718005_C3_01

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Customer: AT&T MOBILITY

Load Case: 1.0D + 1.0W

Serviceability 60 mph

17 Iterations

Gust Response Factor :1.10

Wind Importance Factor 1.00

Dead Load Factor :1.00

Wind Load Factor :1.00

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-40.01	-12.15	0.00	-1,042.62	0.00	1,042.62	6,600.84	3,300.42	15,856.1	7,939.85	0.00	0.00	0.137
5.00	-38.38	-12.05	0.00	-981.86	0.00	981.86	6,482.15	3,241.07	15,168.0	7,595.31	0.02	-0.04	0.135
10.00	-36.69	-11.94	0.00	-921.62	0.00	921.62	6,360.79	3,180.39	14,488.6	7,255.11	0.08	-0.07	0.133
15.00	-35.04	-11.84	0.00	-861.90	0.00	861.90	6,236.75	3,118.38	13,818.4	6,919.51	0.17	-0.11	0.130
20.00	-33.43	-11.73	0.00	-802.70	0.00	802.70	6,110.05	3,055.03	13,157.9	6,588.75	0.31	-0.15	0.127
25.00	-31.86	-11.62	0.00	-744.04	0.00	744.04	5,980.68	2,990.34	12,507.5	6,263.09	0.48	-0.18	0.124
30.00	-30.33	-11.50	0.00	-685.94	0.00	685.94	5,835.35	2,917.67	11,840.9	5,929.26	0.70	-0.22	0.121
35.00	-28.85	-11.39	0.00	-628.42	0.00	628.42	5,658.36	2,829.18	11,130.0	5,573.30	0.95	-0.26	0.118
40.00	-27.40	-11.28	0.00	-571.48	0.00	571.48	5,481.38	2,740.69	10,441.2	5,228.37	1.25	-0.30	0.114
43.83	-26.32	-11.22	0.00	-528.29	0.00	528.29	5,345.87	2,672.94	9,928.68	4,971.72	1.50	-0.33	0.111
45.00	-25.74	-11.15	0.00	-515.15	0.00	515.15	5,304.39	2,652.20	9,774.36	4,894.45	1.58	-0.34	0.110
50.00	-23.31	-11.07	0.00	-459.41	0.00	459.41	5,127.41	2,563.70	9,129.52	4,571.55	1.96	-0.38	0.105
50.17	-23.22	-11.01	0.00	-457.48	0.00	457.48	4,560.16	2,280.08	8,298.22	4,155.28	1.97	-0.38	0.115
55.00	-22.06	-10.91	0.00	-404.33	0.00	404.33	4,428.33	2,214.17	7,792.67	3,902.12	2.37	-0.41	0.109
59.00	-20.53	-10.35	0.00	-360.71	0.00	360.71	4,304.44	2,152.22	7,360.60	3,685.77	2.73	-0.45	0.103
60.00	-20.30	-10.29	0.00	-350.36	0.00	350.36	4,273.47	2,136.74	7,254.51	3,632.65	2.83	-0.45	0.101
64.00	-18.80	-9.72	0.00	-309.20	0.00	309.20	4,149.58	2,074.79	6,837.85	3,424.01	3.22	-0.48	0.095
65.00	-18.58	-9.66	0.00	-299.48	0.00	299.48	4,118.61	2,059.30	6,735.61	3,372.81	3.32	-0.49	0.093
69.00	-17.11	-9.09	0.00	-260.83	0.00	260.83	3,994.72	1,997.36	6,334.35	3,171.88	3.75	-0.52	0.087
70.00	-16.89	-9.03	0.00	-251.74	0.00	251.74	3,963.75	1,981.87	6,235.97	3,122.62	3.86	-0.53	0.085
74.00	-15.45	-8.45	0.00	-215.61	0.00	215.61	3,839.86	1,919.93	5,850.11	2,929.41	4.31	-0.55	0.078
75.00	-15.24	-8.39	0.00	-207.16	0.00	207.16	3,808.88	1,904.44	5,755.58	2,882.07	4.43	-0.56	0.076
79.00	-13.82	-7.80	0.00	-173.60	0.00	173.60	3,684.99	1,842.50	5,385.13	2,696.57	4.91	-0.59	0.068
80.00	-13.62	-7.75	0.00	-165.80	0.00	165.80	3,654.02	1,827.01	5,294.44	2,651.16	5.03	-0.59	0.066
84.00	-12.24	-7.15	0.00	-134.82	0.00	134.82	3,530.13	1,765.07	4,939.39	2,473.37	5.54	-0.61	0.058
85.00	-12.04	-7.09	0.00	-127.67	0.00	127.67	3,499.16	1,749.58	4,852.56	2,429.89	5.67	-0.62	0.056
89.00	-10.69	-6.49	0.00	-99.29	0.00	99.29	3,375.27	1,687.63	4,512.92	2,259.81	6.19	-0.64	0.047
89.66	-10.56	-6.48	0.00	-95.01	0.00	95.01	3,354.86	1,677.43	4,458.15	2,232.39	6.28	-0.64	0.046
90.00	-10.47	-6.44	0.00	-92.80	0.00	92.80	3,344.30	1,672.15	4,429.93	2,218.26	6.33	-0.64	0.045
94.00	-8.79	-5.83	0.00	-67.05	0.00	67.05	3,220.41	1,610.20	4,105.69	2,055.90	6.87	-0.66	0.035
94.35	-8.70	-5.82	0.00	-65.03	0.00	65.03	1,746.03	873.02	2,281.47	1,142.43	6.92	-0.66	0.062
95.00	-8.62	-5.77	0.00	-61.23	0.00	61.23	1,738.93	869.46	2,258.06	1,130.71	7.01	-0.66	0.059
99.00	-7.56	-5.16	0.00	-38.14	0.00	38.14	1,694.48	847.24	2,116.07	1,059.61	7.57	-0.68	0.040
100.00	-5.36	-3.89	0.00	-32.98	0.00	32.98	1,683.10	841.55	2,080.94	1,042.02	7.72	-0.68	0.035
104.00	-4.40	-3.27	0.00	-17.44	0.00	17.44	1,636.52	818.26	1,941.96	972.42	8.29	-0.69	0.021
105.00	-4.31	-3.22	0.00	-14.17	0.00	14.17	1,624.61	812.30	1,907.63	955.23	8.44	-0.69	0.017
109.00	-0.15	-0.03	0.00	-0.04	0.00	0.04	1,575.88	787.94	1,772.05	887.34	9.02	-0.70	0.000
110.00	-0.07	-0.01	0.00	-0.01	0.00	0.01	1,563.44	781.72	1,738.62	870.60	9.17	-0.70	0.000
111.00	0.00	-0.01	0.00	0.00	0.00	0.00	1,550.88	775.44	1,705.38	853.95	9.31	-0.70	0.000

Site Number: 411258

Code: ANSI/TIA-222-G

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Site Name: Farmington North 2 CT, CT

Engineering Number: OAA718005_C3_01

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Customer: AT&T MOBILITY

Equivalent Lateral Forces Method Analysis

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

Spectral Response Acceleration for Short Period (S_s):	0.18
Spectral Response Acceleration at 1.0 Second Period (S_1):	0.06
Long-Period Transition Period (T_L):	6
Importance Factor (I_E):	1.00
Site Coefficient F_a :	1.60
Site Coefficient F_v :	2.40
Response Modification Coefficient (R):	1.50
Design Spectral Response Acceleration at Short Period (S_{ds}):	0.19
Design Spectral Response Acceleration at 1.0 Second Period (S_{d1}):	0.10
Seismic Response Coefficient (C_s):	0.06
Upper Limit C_s	0.06
Lower Limit C_s	0.03
Period based on Rayleigh Method (sec):	1.14
Redundancy Factor (p):	1.30
Seismic Force Distribution Exponent (k):	1.32
Total Unfactored Dead Load:	40.01 k
Seismic Base Shear (E):	3.10 k

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

Seismic Equivalent Lateral Forces Method

Segment	Height Above Base (ft)	Weight (lb)	W_z (lb-ft)	C_{vx}	Horizontal Force (lb)	Vertical Force (lb)
38	110.50	73	37	0.004	12	90
37	109.50	74	37	0.004	12	91
36	107.00	350	168	0.017	54	433
35	104.50	89	42	0.004	13	111
34	102.00	366	165	0.017	53	453
33	99.50	114	50	0.005	16	142
32	97.00	466	197	0.020	63	577
31	94.67	77	32	0.003	10	96
30	94.17	92	37	0.004	12	114
29	92.00	1,083	427	0.044	136	1,342
28	89.83	94	36	0.004	11	116
27	89.33	123	47	0.005	15	152
26	87.00	761	279	0.029	89	942
25	84.50	194	68	0.007	22	240
24	82.00	789	267	0.028	85	977
23	79.50	201	65	0.007	21	249
22	77.00	817	255	0.026	81	1,012
21	74.50	208	62	0.006	20	257
20	72.00	846	241	0.025	77	1,048
19	69.50	215	59	0.006	19	266
18	67.00	874	227	0.023	72	1,083
17	64.50	222	55	0.006	17	275
16	62.00	902	211	0.022	67	1,118

Site Number: 411258

Code: ANSI/TIA-222-G

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Site Name: Farmington North 2 CT, CT

Engineering Number: OAA718005_C3_01

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Customer: AT&T MOBILITY

15	59.50	229	51	0.005	16	284
14	57.00	931	195	0.020	62	1,153
13	52.59	1,153	217	0.022	69	1,428
12	50.09	83	15	0.002	5	103
11	47.50	2,425	399	0.041	128	3,004
10	44.41	579	87	0.009	28	718
9	41.91	1,074	150	0.015	48	1,331
8	37.50	1,439	173	0.018	55	1,783
7	32.50	1,480	147	0.015	47	1,833
6	27.50	1,520	121	0.013	39	1,883
5	22.50	1,561	96	0.010	31	1,933
4	17.50	1,601	70	0.007	22	1,983
3	12.50	1,642	46	0.005	15	2,034
2	7.50	1,682	24	0.002	8	2,084
1	2.50	1,625	5	0.001	2	2,012
Samsung PCS/AWS Dual	109.00	253	125	0.013	40	314
Samsung 700/850MHz D	109.00	211	104	0.011	33	261
Raycap RC2DC-3315-PF	109.00	64	32	0.003	10	79
Antel LPA-80063/4CF	109.00	120	59	0.006	19	149
Commscope SBNHH-1D65	109.00	304	150	0.015	48	377
Flat T-Arm	109.00	750	370	0.038	118	929
Pine Branch	109.00	600	296	0.030	95	743
VZW Unused Reserve:	109.00	1,548	764	0.079	244	1,917
Pine Branch	104.00	600	278	0.029	89	743
RCU	100.00	18	8	0.001	3	22
Raycap DC6-48-60-18-	100.00	32	14	0.001	4	39
Raycap DC6-48-60-18-	100.00	33	14	0.001	5	41
CCI DTMAPB7819VG12A	100.00	173	76	0.008	24	214
Ericsson RRUS-11 (50	100.00	150	66	0.007	21	186
Ericsson RRUS 32 (50	100.00	152	67	0.007	21	189
Ericsson RRUS 32 B2	100.00	159	70	0.007	22	197
Quintel QS66512-2	100.00	111	49	0.005	16	137
Andrew SBNH-1D6565C	100.00	365	161	0.017	51	452
Flat T-Arm	100.00	750	330	0.034	106	929
CCI TPA-65R-LCUUUU-H	100.00	163	72	0.007	23	202
Pine Branch	99.00	600	261	0.027	83	743
Pine Branch	94.00	600	243	0.025	78	743
Pine Branch	89.00	600	226	0.023	72	743
Pine Branch	84.00	600	210	0.022	67	743
Pine Branch	79.00	600	193	0.020	62	743
Pine Branch	74.00	600	177	0.018	57	743
Pine Branch	69.00	600	162	0.017	52	743
Pine Branch	64.00	600	146	0.015	47	743
Pine Branch	59.00	600	132	0.014	42	743
		40,012	9,719	1.000	3,104	49,560

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)
38	110.50	73	37	0.004	12	63
37	109.50	74	37	0.004	12	63
36	107.00	350	168	0.017	54	301
35	104.50	89	42	0.004	13	77
34	102.00	366	165	0.017	53	315
33	99.50	114	50	0.005	16	99
32	97.00	466	197	0.020	63	401
31	94.67	77	32	0.003	10	67
30	94.17	92	37	0.004	12	79
29	92.00	1,083	427	0.044	136	933

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Customer: AT&T MOBILITY

28	89.83	94	36	0.004	11	81
27	89.33	123	47	0.005	15	106
26	87.00	761	279	0.029	89	655
25	84.50	194	68	0.007	22	167
24	82.00	789	267	0.028	85	680
23	79.50	201	65	0.007	21	173
22	77.00	817	255	0.026	81	704
21	74.50	208	62	0.006	20	179
20	72.00	846	241	0.025	77	729
19	69.50	215	59	0.006	19	185
18	67.00	874	227	0.023	72	753
17	64.50	222	55	0.006	17	191
16	62.00	902	211	0.022	67	777
15	59.50	229	51	0.005	16	197
14	57.00	931	195	0.020	62	802
13	52.59	1,153	217	0.022	69	993
12	50.09	83	15	0.002	5	72
11	47.50	2,425	399	0.041	128	2,089
10	44.41	579	87	0.009	28	499
9	41.91	1,074	150	0.015	48	926
8	37.50	1,439	173	0.018	55	1,240
7	32.50	1,480	147	0.015	47	1,275
6	27.50	1,520	121	0.013	39	1,310
5	22.50	1,561	96	0.010	31	1,344
4	17.50	1,601	70	0.007	22	1,379
3	12.50	1,642	46	0.005	15	1,414
2	7.50	1,682	24	0.002	8	1,449
1	2.50	1,625	5	0.001	2	1,399
Samsung PCS/AWS Dual	109.00	253	125	0.013	40	218
Samsung 700/850MHz D	109.00	211	104	0.011	33	182
Raycap RC2DC-3315-PF	109.00	64	32	0.003	10	55
Antel LPA-80063/4CF	109.00	120	59	0.006	19	103
Commscope SBNHH-1D65	109.00	304	150	0.015	48	262
Flat T-Arm	109.00	750	370	0.038	118	646
Pine Branch	109.00	600	296	0.030	95	517
VZW Unused Reserve:	109.00	1,548	764	0.079	244	1,333
Pine Branch	104.00	600	278	0.029	89	517
RCU	100.00	18	8	0.001	3	16
Raycap DC6-48-60-18-	100.00	32	14	0.001	4	27
Raycap DC6-48-60-18-	100.00	33	14	0.001	5	28
CCI DTMABP7819VG12A	100.00	173	76	0.008	24	149
Ericsson RRUS-11 (50	100.00	150	66	0.007	21	129
Ericsson RRUS 32 (50	100.00	152	67	0.007	21	131
Ericsson RRUS 32 B2	100.00	159	70	0.007	22	137
Quintel QS66512-2	100.00	111	49	0.005	16	96
Andrew SBNH-1D6565C	100.00	365	161	0.017	51	314
Flat T-Arm	100.00	750	330	0.034	106	646
CCI TPA-65R-LCUUUU-H	100.00	163	72	0.007	23	141
Pine Branch	99.00	600	261	0.027	83	517
Pine Branch	94.00	600	243	0.025	78	517
Pine Branch	89.00	600	226	0.023	72	517
Pine Branch	84.00	600	210	0.022	67	517
Pine Branch	79.00	600	193	0.020	62	517
Pine Branch	74.00	600	177	0.018	57	517
Pine Branch	69.00	600	162	0.017	52	517
Pine Branch	64.00	600	146	0.015	47	517
Pine Branch	59.00	600	132	0.014	42	517
		40,012	9,719	1.000	3,104	34,466

Site Number: 411258

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Site Name: Farmington North 2 CT, CT

Engineering Number: OAA718005_C3_01

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Customer: AT&T MOBILITY

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	-47.55	-3.10	0.00	-257.81	0.00	257.81	6,600.84	3,300.42	15,856.1	7,939.85	0.00	0.00	0.040
5.00	-45.46	-3.10	0.00	-242.28	0.00	242.28	6,482.15	3,241.07	15,168.0	7,595.31	0.00	-0.01	0.039
10.00	-43.43	-3.10	0.00	-226.76	0.00	226.76	6,360.79	3,180.39	14,488.6	7,255.11	0.02	-0.02	0.038
15.00	-41.44	-3.08	0.00	-211.29	0.00	211.29	6,236.75	3,118.38	13,818.4	6,919.51	0.04	-0.03	0.037
20.00	-39.51	-3.05	0.00	-195.89	0.00	195.89	6,110.05	3,055.03	13,157.9	6,588.75	0.08	-0.04	0.036
25.00	-37.63	-3.02	0.00	-180.62	0.00	180.62	5,980.68	2,990.34	12,507.5	6,263.09	0.12	-0.05	0.035
30.00	-35.79	-2.98	0.00	-165.52	0.00	165.52	5,835.35	2,917.67	11,840.9	5,929.26	0.17	-0.05	0.034
35.00	-34.01	-2.93	0.00	-150.64	0.00	150.64	5,658.36	2,829.18	11,130.0	5,573.30	0.23	-0.06	0.033
40.00	-32.68	-2.88	0.00	-136.02	0.00	136.02	5,481.38	2,740.69	10,441.2	5,228.37	0.31	-0.07	0.032
43.83	-31.96	-2.85	0.00	-124.99	0.00	124.99	5,345.87	2,672.94	9,928.68	4,971.72	0.37	-0.08	0.031
45.00	-28.96	-2.73	0.00	-121.65	0.00	121.65	5,304.39	2,652.20	9,774.36	4,894.45	0.39	-0.08	0.030
50.00	-28.85	-2.72	0.00	-108.02	0.00	108.02	5,127.41	2,563.70	9,129.52	4,571.55	0.48	-0.09	0.029
50.17	-27.43	-2.65	0.00	-107.55	0.00	107.55	4,560.16	2,280.08	8,298.22	4,155.28	0.48	-0.09	0.032
55.00	-26.27	-2.59	0.00	-94.74	0.00	94.74	4,428.33	2,214.17	7,792.67	3,902.12	0.58	-0.10	0.030
59.00	-25.25	-2.53	0.00	-84.37	0.00	84.37	4,304.44	2,152.22	7,360.60	3,685.77	0.67	-0.11	0.029
60.00	-24.13	-2.47	0.00	-81.84	0.00	81.84	4,273.47	2,136.74	7,254.51	3,632.65	0.69	-0.11	0.028
64.00	-23.11	-2.40	0.00	-71.97	0.00	71.97	4,149.58	2,074.79	6,837.85	3,424.01	0.78	-0.12	0.027
65.00	-22.03	-2.33	0.00	-69.57	0.00	69.57	4,118.61	2,059.30	6,735.61	3,372.81	0.81	-0.12	0.026
69.00	-21.02	-2.26	0.00	-60.25	0.00	60.25	3,994.72	1,997.36	6,334.35	3,171.88	0.91	-0.12	0.024
70.00	-19.97	-2.18	0.00	-58.00	0.00	58.00	3,963.75	1,981.87	6,235.97	3,122.62	0.94	-0.13	0.024
74.00	-18.97	-2.10	0.00	-49.28	0.00	49.28	3,839.86	1,919.93	5,850.11	2,929.41	1.04	-0.13	0.022
75.00	-17.96	-2.02	0.00	-47.17	0.00	47.17	3,808.88	1,904.44	5,755.58	2,882.07	1.07	-0.13	0.021
79.00	-16.97	-1.94	0.00	-39.09	0.00	39.09	3,684.99	1,842.50	5,385.13	2,696.57	1.19	-0.14	0.019
80.00	-15.99	-1.85	0.00	-37.16	0.00	37.16	3,654.02	1,827.01	5,294.44	2,651.16	1.22	-0.14	0.018
84.00	-15.01	-1.76	0.00	-29.76	0.00	29.76	3,530.13	1,765.07	4,939.39	2,473.37	1.34	-0.15	0.016
85.00	-14.06	-1.67	0.00	-28.00	0.00	28.00	3,499.16	1,749.58	4,852.56	2,429.89	1.37	-0.15	0.016
89.00	-13.17	-1.58	0.00	-21.33	0.00	21.33	3,375.27	1,687.63	4,512.92	2,259.81	1.49	-0.15	0.013
89.66	-13.05	-1.57	0.00	-20.29	0.00	20.29	3,354.86	1,677.43	4,458.15	2,232.39	1.51	-0.15	0.013
90.00	-11.71	-1.43	0.00	-19.75	0.00	19.75	3,344.30	1,672.15	4,429.93	2,218.26	1.52	-0.15	0.012
94.00	-10.85	-1.34	0.00	-14.04	0.00	14.04	3,220.41	1,610.20	4,105.69	2,055.90	1.65	-0.16	0.010
94.35	-10.76	-1.33	0.00	-13.58	0.00	13.58	1,746.03	873.02	2,281.47	1,142.43	1.66	-0.16	0.018
95.00	-10.18	-1.26	0.00	-12.71	0.00	12.71	1,738.93	869.46	2,258.06	1,130.71	1.69	-0.16	0.017
99.00	-9.30	-1.16	0.00	-7.66	0.00	7.66	1,694.48	847.24	2,116.07	1,059.61	1.82	-0.16	0.013
100.00	-6.23	-0.80	0.00	-6.50	0.00	6.50	1,683.10	841.55	2,080.94	1,042.02	1.85	-0.16	0.010
104.00	-5.38	-0.70	0.00	-3.29	0.00	3.29	1,636.52	818.26	1,941.96	972.42	1.99	-0.16	0.007
105.00	-4.95	-0.64	0.00	-2.59	0.00	2.59	1,624.61	812.30	1,907.63	955.23	2.02	-0.16	0.006
109.00	-0.09	-0.01	0.00	-0.01	0.00	0.01	1,575.88	787.94	1,772.05	887.34	2.16	-0.16	0.000
110.00	0.00	0.00	0.00	0.00	0.00	0.00	1,563.44	781.72	1,738.62	870.60	2.19	-0.16	0.000
111.00	0.00	0.00	0.00	0.00	0.00	0.00	1,550.88	775.44	1,705.38	853.95	2.23	-0.16	0.000

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Customer: AT&T MOBILITY

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	-33.07	-3.10	0.00	-256.70	0.00	256.70	6,600.84	3,300.42	15,856.1	7,939.85	0.00	0.00	0.037
5.00	-31.62	-3.10	0.00	-241.18	0.00	241.18	6,482.15	3,241.07	15,168.0	7,595.31	0.00	-0.01	0.037
10.00	-30.20	-3.09	0.00	-225.68	0.00	225.68	6,360.79	3,180.39	14,488.6	7,255.11	0.02	-0.02	0.036
15.00	-28.82	-3.07	0.00	-210.23	0.00	210.23	6,236.75	3,118.38	13,818.4	6,919.51	0.04	-0.03	0.035
20.00	-27.48	-3.05	0.00	-194.87	0.00	194.87	6,110.05	3,055.03	13,157.9	6,588.75	0.08	-0.04	0.034
25.00	-26.17	-3.01	0.00	-179.64	0.00	179.64	5,980.68	2,990.34	12,507.5	6,263.09	0.12	-0.05	0.033
30.00	-24.89	-2.97	0.00	-164.59	0.00	164.59	5,835.35	2,917.67	11,840.9	5,929.26	0.17	-0.05	0.032
35.00	-23.65	-2.91	0.00	-149.77	0.00	149.77	5,658.36	2,829.18	11,130.0	5,573.30	0.23	-0.06	0.031
40.00	-22.73	-2.87	0.00	-135.21	0.00	135.21	5,481.38	2,740.69	10,441.2	5,228.37	0.30	-0.07	0.030
43.83	-22.23	-2.84	0.00	-124.23	0.00	124.23	5,345.87	2,672.94	9,928.68	4,971.72	0.37	-0.08	0.029
45.00	-20.14	-2.71	0.00	-120.90	0.00	120.90	5,304.39	2,652.20	9,774.36	4,894.45	0.39	-0.08	0.028
50.00	-20.07	-2.71	0.00	-107.35	0.00	107.35	5,127.41	2,563.70	9,129.52	4,571.55	0.48	-0.09	0.027
50.17	-19.07	-2.64	0.00	-106.87	0.00	106.87	4,560.16	2,280.08	8,298.22	4,155.28	0.48	-0.09	0.030
55.00	-18.27	-2.58	0.00	-94.14	0.00	94.14	4,428.33	2,214.17	7,792.67	3,902.12	0.58	-0.10	0.028
59.00	-17.56	-2.52	0.00	-83.83	0.00	83.83	4,304.44	2,152.22	7,360.60	3,685.77	0.66	-0.11	0.027
60.00	-16.78	-2.45	0.00	-81.31	0.00	81.31	4,273.47	2,136.74	7,254.51	3,632.65	0.68	-0.11	0.026
64.00	-16.07	-2.39	0.00	-71.50	0.00	71.50	4,149.58	2,074.79	6,837.85	3,424.01	0.78	-0.12	0.025
65.00	-15.32	-2.31	0.00	-69.11	0.00	69.11	4,118.61	2,059.30	6,735.61	3,372.81	0.80	-0.12	0.024
69.00	-14.62	-2.24	0.00	-59.85	0.00	59.85	3,994.72	1,997.36	6,334.35	3,171.88	0.90	-0.12	0.023
70.00	-13.89	-2.17	0.00	-57.61	0.00	57.61	3,963.75	1,981.87	6,235.97	3,122.62	0.93	-0.13	0.022
74.00	-13.19	-2.09	0.00	-48.95	0.00	48.95	3,839.86	1,919.93	5,850.11	2,929.41	1.04	-0.13	0.020
75.00	-12.49	-2.01	0.00	-46.86	0.00	46.86	3,808.88	1,904.44	5,755.58	2,882.07	1.07	-0.13	0.020
79.00	-11.80	-1.92	0.00	-38.83	0.00	38.83	3,684.99	1,842.50	5,385.13	2,696.57	1.18	-0.14	0.018
80.00	-11.12	-1.84	0.00	-36.90	0.00	36.90	3,654.02	1,827.01	5,294.44	2,651.16	1.21	-0.14	0.017
84.00	-10.43	-1.75	0.00	-29.56	0.00	29.56	3,530.13	1,765.07	4,939.39	2,473.37	1.33	-0.14	0.015
85.00	-9.78	-1.66	0.00	-27.81	0.00	27.81	3,499.16	1,749.58	4,852.56	2,429.89	1.36	-0.15	0.014
89.00	-9.16	-1.57	0.00	-21.18	0.00	21.18	3,375.27	1,687.63	4,512.92	2,259.81	1.48	-0.15	0.012
89.66	-9.08	-1.56	0.00	-20.15	0.00	20.15	3,354.86	1,677.43	4,458.15	2,232.39	1.50	-0.15	0.012
90.00	-8.14	-1.42	0.00	-19.62	0.00	19.62	3,344.30	1,672.15	4,429.93	2,218.26	1.52	-0.15	0.011
94.00	-7.55	-1.33	0.00	-13.94	0.00	13.94	3,220.41	1,610.20	4,105.69	2,055.90	1.64	-0.15	0.009
94.35	-7.48	-1.32	0.00	-13.48	0.00	13.48	1,746.03	873.02	2,281.47	1,142.43	1.65	-0.15	0.016
95.00	-7.08	-1.25	0.00	-12.62	0.00	12.62	1,738.93	869.46	2,258.06	1,130.71	1.68	-0.15	0.015
99.00	-6.46	-1.15	0.00	-7.61	0.00	7.61	1,694.48	847.24	2,116.07	1,059.61	1.81	-0.16	0.011
100.00	-4.34	-0.80	0.00	-6.46	0.00	6.46	1,683.10	841.55	2,080.94	1,042.02	1.84	-0.16	0.009
104.00	-3.74	-0.69	0.00	-3.26	0.00	3.26	1,636.52	818.26	1,941.96	972.42	1.98	-0.16	0.006
105.00	-3.44	-0.64	0.00	-2.57	0.00	2.57	1,624.61	812.30	1,907.63	955.23	2.01	-0.16	0.005
109.00	-0.06	-0.01	0.00	-0.01	0.00	0.01	1,575.88	787.94	1,772.05	887.34	2.15	-0.16	0.000
110.00	0.00	0.00	0.00	0.00	0.00	0.00	1,563.44	781.72	1,738.62	870.60	2.18	-0.16	0.000
111.00	0.00	0.00	0.00	0.00	0.00	0.00	1,550.88	775.44	1,705.38	853.95	2.21	-0.16	0.000

Site Number: 411258

Code: ANSI/TIA-222-G

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Site Name: Farmington North 2 CT, CT

Engineering Number: OAA718005_C3_01

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Customer: AT&T MOBILITY

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):	1.14
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)
38	110.50	73	1.873	1.892	1.108	0.385	24	90
37	109.50	74	1.839	1.723	1.046	0.364	23	91
36	107.00	350	1.756	1.347	0.904	0.315	95	433
35	104.50	89	1.675	1.030	0.777	0.270	21	111
34	102.00	366	1.596	0.766	0.665	0.228	72	453
33	99.50	114	1.519	0.548	0.565	0.191	19	142
32	97.00	466	1.443	0.371	0.478	0.158	64	577
31	94.67	77	1.375	0.238	0.406	0.131	9	96
30	94.17	92	1.360	0.213	0.392	0.125	10	114
29	92.00	1,083	1.298	0.118	0.335	0.103	97	1,342
28	89.83	94	1.238	0.043	0.284	0.085	7	116
27	89.33	123	1.224	0.029	0.273	0.081	9	152
26	87.00	761	1.161	-0.029	0.227	0.064	42	942
25	84.50	194	1.095	-0.073	0.184	0.050	8	240
24	82.00	789	1.031	-0.101	0.148	0.039	27	977
23	79.50	201	0.970	-0.116	0.117	0.031	5	249
22	77.00	817	0.909	-0.122	0.091	0.026	18	1,012
21	74.50	208	0.851	-0.119	0.070	0.023	4	257
20	72.00	846	0.795	-0.111	0.052	0.022	16	1,048
19	69.50	215	0.741	-0.099	0.039	0.023	4	266
18	67.00	874	0.689	-0.083	0.028	0.025	19	1,083
17	64.50	222	0.638	-0.067	0.019	0.028	5	275
16	62.00	902	0.590	-0.049	0.013	0.031	25	1,118
15	59.50	229	0.543	-0.032	0.009	0.035	7	284
14	57.00	931	0.498	-0.016	0.007	0.038	30	1,153
13	52.59	1,153	0.424	0.010	0.006	0.042	42	1,428
12	50.09	83	0.385	0.023	0.007	0.043	3	103
11	47.50	2,425	0.346	0.034	0.009	0.044	93	3,004
10	44.41	579	0.303	0.045	0.012	0.044	22	718
9	41.91	1,074	0.269	0.052	0.015	0.044	41	1,331
8	37.50	1,439	0.216	0.061	0.021	0.043	53	1,783
7	32.50	1,480	0.162	0.067	0.028	0.040	51	1,833
6	27.50	1,520	0.116	0.070	0.035	0.037	48	1,883
5	22.50	1,561	0.078	0.072	0.040	0.034	46	1,933

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Site Name: Farmington North 2 CT, CT

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4	17.50	1,601	0.047	0.071	0.042	0.031	43	1,983
3	12.50	1,642	0.024	0.066	0.039	0.027	39	2,034
2	7.50	1,682	0.009	0.053	0.030	0.021	31	2,084
1	2.50	1,625	0.001	0.024	0.013	0.010	14	2,012
Samsung PCS/AWS	109.00	253	1.823	1.643	1.016	0.354	78	314
Samsung 700/850MHz D	109.00	211	1.823	1.643	1.016	0.354	65	261
Raycap RC2DC-3315-PF	109.00	64	1.823	1.643	1.016	0.354	20	79
Antel LPA-80063/4CF	109.00	120	1.823	1.643	1.016	0.354	37	149
Commscope SBNHH-Flat T-Arm	109.00	304	1.823	1.643	1.016	0.354	93	377
Flat T-Arm	109.00	750	1.823	1.643	1.016	0.354	230	929
Pine Branch	109.00	600	1.823	1.643	1.016	0.354	184	743
VZW Unused Reserve:	109.00	1,548	1.823	1.643	1.016	0.354	475	1,917
Pine Branch	104.00	600	1.659	0.973	0.753	0.261	136	743
RCU	100.00	18	1.534	0.588	0.584	0.198	3	22
Raycap DC6-48-60-18-	100.00	32	1.534	0.588	0.584	0.198	5	39
Raycap DC6-48-60-18-	100.00	33	1.534	0.588	0.584	0.198	6	41
CCI DTMAP7819VG12A	100.00	173	1.534	0.588	0.584	0.198	30	214
Ericsson RRUS-11 (50	100.00	150	1.534	0.588	0.584	0.198	26	186
Ericsson RRUS 32 (50	100.00	152	1.534	0.588	0.584	0.198	26	189
Ericsson RRUS 32 B2	100.00	159	1.534	0.588	0.584	0.198	27	197
Quintel QS66512-2	100.00	111	1.534	0.588	0.584	0.198	19	137
Andrew SBNH-1D6565C	100.00	365	1.534	0.588	0.584	0.198	63	452
Flat T-Arm	100.00	750	1.534	0.588	0.584	0.198	129	929
CCI TPA-65R-LCUUUU-H	100.00	163	1.534	0.588	0.584	0.198	28	202
Pine Branch	99.00	600	1.503	0.510	0.547	0.184	96	743
Pine Branch	94.00	600	1.355	0.205	0.387	0.123	64	743
Pine Branch	89.00	600	1.215	0.019	0.266	0.078	41	743
Pine Branch	84.00	600	1.082	-0.079	0.176	0.047	25	743
Pine Branch	79.00	600	0.957	-0.118	0.111	0.030	15	743
Pine Branch	74.00	600	0.840	-0.118	0.066	0.023	12	743
Pine Branch	69.00	600	0.730	-0.096	0.036	0.024	12	743
Pine Branch	64.00	600	0.628	-0.063	0.018	0.029	15	743
Pine Branch	59.00	600	0.534	-0.029	0.009	0.035	18	743
		40,012	73.047	28.766	25.461	9.178	3,165	49,560

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)
38	110.50	73	1.873	1.892	1.108	0.385	24	63
37	109.50	74	1.839	1.723	1.046	0.364	23	63
36	107.00	350	1.756	1.347	0.904	0.315	95	301
35	104.50	89	1.675	1.030	0.777	0.270	21	77
34	102.00	366	1.596	0.766	0.665	0.228	72	315
33	99.50	114	1.519	0.548	0.565	0.191	19	99
32	97.00	466	1.443	0.371	0.478	0.158	64	401
31	94.67	77	1.375	0.238	0.406	0.131	9	67
30	94.17	92	1.360	0.213	0.392	0.125	10	79
29	92.00	1,083	1.298	0.118	0.335	0.103	97	933
28	89.83	94	1.238	0.043	0.284	0.085	7	81
27	89.33	123	1.224	0.029	0.273	0.081	9	106
26	87.00	761	1.161	-0.029	0.227	0.064	42	655
25	84.50	194	1.095	-0.073	0.184	0.050	8	167
24	82.00	789	1.031	-0.101	0.148	0.039	27	680
23	79.50	201	0.970	-0.116	0.117	0.031	5	173
22	77.00	817	0.909	-0.122	0.091	0.026	18	704
21	74.50	208	0.851	-0.119	0.070	0.023	4	179
20	72.00	846	0.795	-0.111	0.052	0.022	16	729
19	69.50	215	0.741	-0.099	0.039	0.023	4	185

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18	67.00	874	0.689	-0.083	0.028	0.025	19	753
17	64.50	222	0.638	-0.067	0.019	0.028	5	191
16	62.00	902	0.590	-0.049	0.013	0.031	25	777
15	59.50	229	0.543	-0.032	0.009	0.035	7	197
14	57.00	931	0.498	-0.016	0.007	0.038	30	802
13	52.59	1,153	0.424	0.010	0.006	0.042	42	993
12	50.09	83	0.385	0.023	0.007	0.043	3	72
11	47.50	2,425	0.346	0.034	0.009	0.044	93	2,089
10	44.41	579	0.303	0.045	0.012	0.044	22	499
9	41.91	1,074	0.269	0.052	0.015	0.044	41	926
8	37.50	1,439	0.216	0.061	0.021	0.043	53	1,240
7	32.50	1,480	0.162	0.067	0.028	0.040	51	1,275
6	27.50	1,520	0.116	0.070	0.035	0.037	48	1,310
5	22.50	1,561	0.078	0.072	0.040	0.034	46	1,344
4	17.50	1,601	0.047	0.071	0.042	0.031	43	1,379
3	12.50	1,642	0.024	0.066	0.039	0.027	39	1,414
2	7.50	1,682	0.009	0.053	0.030	0.021	31	1,449
1	2.50	1,625	0.001	0.024	0.013	0.010	14	1,399
Samsung PCS/AWS	109.00	253	1.823	1.643	1.016	0.354	78	218
Samsung 700/850MHz D	109.00	211	1.823	1.643	1.016	0.354	65	182
Raycap RC2DC-3315-PF	109.00	64	1.823	1.643	1.016	0.354	20	55
Antel LPA-80063/4CF	109.00	120	1.823	1.643	1.016	0.354	37	103
Commscope SBNHH-Flat T-Arm	109.00	304	1.823	1.643	1.016	0.354	93	262
Pine Branch	109.00	750	1.823	1.643	1.016	0.354	230	646
Pine Branch	109.00	600	1.823	1.643	1.016	0.354	184	517
VZW Unused Reserve:	109.00	1,548	1.823	1.643	1.016	0.354	475	1,333
Pine Branch	104.00	600	1.659	0.973	0.753	0.261	136	517
RCU	100.00	18	1.534	0.588	0.584	0.198	3	16
Raycap DC6-48-60-18-	100.00	32	1.534	0.588	0.584	0.198	5	27
Raycap DC6-48-60-18-	100.00	33	1.534	0.588	0.584	0.198	6	28
CCI DTMABP7819VG12A	100.00	173	1.534	0.588	0.584	0.198	30	149
Ericsson RRUS-11 (50	100.00	150	1.534	0.588	0.584	0.198	26	129
Ericsson RRUS 32 (50	100.00	152	1.534	0.588	0.584	0.198	26	131
Ericsson RRUS 32 B2	100.00	159	1.534	0.588	0.584	0.198	27	137
Quintel QS66512-2	100.00	111	1.534	0.588	0.584	0.198	19	96
Andrew SBNH-1D6565C	100.00	365	1.534	0.588	0.584	0.198	63	314
Flat T-Arm	100.00	750	1.534	0.588	0.584	0.198	129	646
CCI TPA-65R-LCUUUU-H	100.00	163	1.534	0.588	0.584	0.198	28	141
Pine Branch	99.00	600	1.503	0.510	0.547	0.184	96	517
Pine Branch	94.00	600	1.355	0.205	0.387	0.123	64	517
Pine Branch	89.00	600	1.215	0.019	0.266	0.078	41	517
Pine Branch	84.00	600	1.082	-0.079	0.176	0.047	25	517
Pine Branch	79.00	600	0.957	-0.118	0.111	0.030	15	517
Pine Branch	74.00	600	0.840	-0.118	0.066	0.023	12	517
Pine Branch	69.00	600	0.730	-0.096	0.036	0.024	12	517
Pine Branch	64.00	600	0.628	-0.063	0.018	0.029	15	517
Pine Branch	59.00	600	0.534	-0.029	0.009	0.035	18	517
		40,012	73.047	28.766	25.461	9.178	3,165	34,466

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Customer: AT&T MOBILITY

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	-47.55	-3.15	0.00	-284.78	0.00	284.78	6,600.84	3,300.42	15,856.1	7,939.85	0.00	0.00	0.043
5.00	-45.46	-3.13	0.00	-269.00	0.00	269.00	6,482.15	3,241.07	15,168.0	7,595.31	0.01	-0.01	0.042
10.00	-43.43	-3.10	0.00	-253.35	0.00	253.35	6,360.79	3,180.39	14,488.6	7,255.11	0.02	-0.02	0.042
15.00	-41.44	-3.06	0.00	-237.85	0.00	237.85	6,236.75	3,118.38	13,818.4	6,919.51	0.05	-0.03	0.041
20.00	-39.51	-3.02	0.00	-222.53	0.00	222.53	6,110.05	3,055.03	13,157.9	6,588.75	0.08	-0.04	0.040
25.00	-37.63	-2.98	0.00	-207.41	0.00	207.41	5,980.68	2,990.34	12,507.5	6,263.09	0.13	-0.05	0.039
30.00	-35.79	-2.93	0.00	-192.50	0.00	192.50	5,835.35	2,917.67	11,840.9	5,929.26	0.19	-0.06	0.039
35.00	-34.01	-2.89	0.00	-177.83	0.00	177.83	5,658.36	2,829.18	11,130.0	5,573.30	0.26	-0.07	0.038
40.00	-32.68	-2.85	0.00	-163.40	0.00	163.40	5,481.38	2,740.69	10,441.2	5,228.37	0.34	-0.08	0.037
43.83	-31.96	-2.83	0.00	-152.49	0.00	152.49	5,345.87	2,672.94	9,928.68	4,971.72	0.41	-0.09	0.037
45.00	-28.96	-2.73	0.00	-149.18	0.00	149.18	5,304.39	2,652.20	9,774.36	4,894.45	0.44	-0.09	0.036
50.00	-28.85	-2.73	0.00	-135.51	0.00	135.51	5,127.41	2,563.70	9,129.52	4,571.55	0.54	-0.11	0.035
50.17	-27.43	-2.69	0.00	-135.03	0.00	135.03	4,560.16	2,280.08	8,298.22	4,155.28	0.55	-0.11	0.039
55.00	-26.27	-2.66	0.00	-122.04	0.00	122.04	4,428.33	2,214.17	7,792.67	3,902.12	0.66	-0.12	0.037
59.00	-25.24	-2.64	0.00	-111.38	0.00	111.38	4,304.44	2,152.22	7,360.60	3,685.77	0.76	-0.13	0.036
60.00	-24.13	-2.62	0.00	-108.74	0.00	108.74	4,273.47	2,136.74	7,254.51	3,632.65	0.79	-0.13	0.036
64.00	-23.11	-2.59	0.00	-98.28	0.00	98.28	4,149.58	2,074.79	6,837.85	3,424.01	0.90	-0.14	0.034
65.00	-22.03	-2.58	0.00	-95.68	0.00	95.68	4,118.61	2,059.30	6,735.61	3,372.81	0.93	-0.14	0.034
69.00	-21.02	-2.56	0.00	-85.38	0.00	85.38	3,994.72	1,997.36	6,334.35	3,171.88	1.05	-0.15	0.032
70.00	-19.97	-2.54	0.00	-82.83	0.00	82.83	3,963.75	1,981.87	6,235.97	3,122.62	1.08	-0.15	0.032
74.00	-18.97	-2.52	0.00	-72.66	0.00	72.66	3,839.86	1,919.93	5,850.11	2,929.41	1.21	-0.16	0.030
75.00	-17.95	-2.50	0.00	-70.14	0.00	70.14	3,808.88	1,904.44	5,755.58	2,882.07	1.25	-0.16	0.029
79.00	-16.96	-2.48	0.00	-60.12	0.00	60.12	3,684.99	1,842.50	5,385.13	2,696.57	1.39	-0.17	0.027
80.00	-15.99	-2.45	0.00	-57.64	0.00	57.64	3,654.02	1,827.01	5,294.44	2,651.16	1.43	-0.17	0.026
84.00	-15.00	-2.42	0.00	-47.82	0.00	47.82	3,530.13	1,765.07	4,939.39	2,473.37	1.58	-0.18	0.024
85.00	-14.06	-2.38	0.00	-45.40	0.00	45.40	3,499.16	1,749.58	4,852.56	2,429.89	1.61	-0.18	0.023
89.00	-13.16	-2.32	0.00	-35.90	0.00	35.90	3,375.27	1,687.63	4,512.92	2,259.81	1.77	-0.19	0.020
89.66	-13.05	-2.32	0.00	-34.37	0.00	34.37	3,354.86	1,677.43	4,458.15	2,232.39	1.80	-0.19	0.019
90.00	-11.71	-2.22	0.00	-33.58	0.00	33.58	3,344.30	1,672.15	4,429.93	2,218.26	1.81	-0.19	0.019
94.00	-10.85	-2.14	0.00	-24.71	0.00	24.71	3,220.41	1,610.20	4,105.69	2,055.90	1.97	-0.20	0.015
94.35	-10.75	-2.13	0.00	-23.97	0.00	23.97	1,746.03	873.02	2,281.47	1,142.43	1.99	-0.20	0.027
95.00	-10.18	-2.07	0.00	-22.58	0.00	22.58	1,738.93	869.46	2,258.06	1,130.71	2.02	-0.20	0.026
99.00	-9.29	-1.95	0.00	-14.32	0.00	14.32	1,694.48	847.24	2,116.07	1,059.61	2.19	-0.21	0.019
100.00	-6.23	-1.50	0.00	-12.37	0.00	12.37	1,683.10	841.55	2,080.94	1,042.02	2.23	-0.21	0.016
104.00	-5.38	-1.34	0.00	-6.36	0.00	6.36	1,636.52	818.26	1,941.96	972.42	2.40	-0.21	0.010
105.00	-4.95	-1.25	0.00	-5.01	0.00	5.01	1,624.61	812.30	1,907.63	955.23	2.45	-0.21	0.008
109.00	-0.09	-0.02	0.00	-0.02	0.00	0.02	1,575.88	787.94	1,772.05	887.34	2.63	-0.21	0.000
110.00	0.00	0.00	0.00	0.00	0.00	0.00	1,563.44	781.72	1,738.62	870.60	2.67	-0.21	0.000
111.00	0.00	0.00	0.00	0.00	0.00	0.00	1,550.88	775.44	1,705.38	853.95	2.71	-0.21	0.000

Site Number: 411258

Code: ANSI/TIA-222-G

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Site Name: Farmington North 2 CT, CT

Engineering Number: OAA718005_C3_01

12/5/2017 1:14:23 PM

Customer: AT&T MOBILITY

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

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-33.07	-3.15	0.00	-283.46	0.00	283.46	6,600.84	3,300.42	15,856.1	7,939.85	0.00	0.00	0.041
5.00	-31.62	-3.13	0.00	-267.69	0.00	267.69	6,482.15	3,241.07	15,168.0	7,595.31	0.01	-0.01	0.040
10.00	-30.20	-3.09	0.00	-252.05	0.00	252.05	6,360.79	3,180.39	14,488.6	7,255.11	0.02	-0.02	0.039
15.00	-28.82	-3.06	0.00	-236.58	0.00	236.58	6,236.75	3,118.38	13,818.4	6,919.51	0.05	-0.03	0.039
20.00	-27.48	-3.01	0.00	-221.31	0.00	221.31	6,110.05	3,055.03	13,157.9	6,588.75	0.08	-0.04	0.038
25.00	-26.17	-2.97	0.00	-206.23	0.00	206.23	5,980.68	2,990.34	12,507.5	6,263.09	0.13	-0.05	0.037
30.00	-24.89	-2.92	0.00	-191.39	0.00	191.39	5,835.35	2,917.67	11,840.9	5,929.26	0.19	-0.06	0.037
35.00	-23.65	-2.87	0.00	-176.78	0.00	176.78	5,658.36	2,829.18	11,130.0	5,573.30	0.26	-0.07	0.036
40.00	-22.73	-2.83	0.00	-162.42	0.00	162.42	5,481.38	2,740.69	10,441.2	5,228.37	0.34	-0.08	0.035
43.83	-22.23	-2.81	0.00	-151.57	0.00	151.57	5,345.87	2,672.94	9,928.68	4,971.72	0.41	-0.09	0.035
45.00	-20.14	-2.72	0.00	-148.27	0.00	148.27	5,304.39	2,652.20	9,774.36	4,894.45	0.43	-0.09	0.034
50.00	-20.06	-2.72	0.00	-134.68	0.00	134.68	5,127.41	2,563.70	9,129.52	4,571.55	0.54	-0.11	0.033
50.17	-19.07	-2.68	0.00	-134.21	0.00	134.21	4,560.16	2,280.08	8,298.22	4,155.28	0.54	-0.11	0.036
55.00	-18.27	-2.65	0.00	-121.30	0.00	121.30	4,428.33	2,214.17	7,792.67	3,902.12	0.66	-0.12	0.035
59.00	-17.55	-2.62	0.00	-110.71	0.00	110.71	4,304.44	2,152.22	7,360.60	3,685.77	0.76	-0.13	0.034
60.00	-16.78	-2.60	0.00	-108.08	0.00	108.08	4,273.47	2,136.74	7,254.51	3,632.65	0.78	-0.13	0.034
64.00	-16.07	-2.58	0.00	-97.69	0.00	97.69	4,149.58	2,074.79	6,837.85	3,424.01	0.90	-0.14	0.032
65.00	-15.32	-2.56	0.00	-95.12	0.00	95.12	4,118.61	2,059.30	6,735.61	3,372.81	0.92	-0.14	0.032
69.00	-14.61	-2.54	0.00	-84.88	0.00	84.88	3,994.72	1,997.36	6,334.35	3,171.88	1.05	-0.15	0.030
70.00	-13.88	-2.52	0.00	-82.34	0.00	82.34	3,963.75	1,981.87	6,235.97	3,122.62	1.08	-0.15	0.030
74.00	-13.19	-2.51	0.00	-72.25	0.00	72.25	3,839.86	1,919.93	5,850.11	2,929.41	1.21	-0.16	0.028
75.00	-12.48	-2.49	0.00	-69.74	0.00	69.74	3,808.88	1,904.44	5,755.58	2,882.07	1.24	-0.16	0.027
79.00	-11.79	-2.47	0.00	-59.79	0.00	59.79	3,684.99	1,842.50	5,385.13	2,696.57	1.38	-0.17	0.025
80.00	-11.11	-2.44	0.00	-57.32	0.00	57.32	3,654.02	1,827.01	5,294.44	2,651.16	1.42	-0.17	0.025
84.00	-10.43	-2.40	0.00	-47.56	0.00	47.56	3,530.13	1,765.07	4,939.39	2,473.37	1.57	-0.18	0.022
85.00	-9.78	-2.36	0.00	-45.16	0.00	45.16	3,499.16	1,749.58	4,852.56	2,429.89	1.60	-0.18	0.021
89.00	-9.15	-2.31	0.00	-35.71	0.00	35.71	3,375.27	1,687.63	4,512.92	2,259.81	1.76	-0.19	0.019
89.66	-9.07	-2.30	0.00	-34.19	0.00	34.19	3,354.86	1,677.43	4,458.15	2,232.39	1.79	-0.19	0.018
90.00	-8.14	-2.20	0.00	-33.40	0.00	33.40	3,344.30	1,672.15	4,429.93	2,218.26	1.80	-0.19	0.017
94.00	-7.54	-2.13	0.00	-24.59	0.00	24.59	3,220.41	1,610.20	4,105.69	2,055.90	1.96	-0.20	0.014
94.35	-7.48	-2.12	0.00	-23.85	0.00	23.85	1,746.03	873.02	2,281.47	1,142.43	1.98	-0.20	0.025
95.00	-7.07	-2.05	0.00	-22.47	0.00	22.47	1,738.93	869.46	2,258.06	1,130.71	2.00	-0.20	0.024
99.00	-6.46	-1.94	0.00	-14.25	0.00	14.25	1,694.48	847.24	2,116.07	1,059.61	2.17	-0.20	0.017
100.00	-4.33	-1.50	0.00	-12.31	0.00	12.31	1,683.10	841.55	2,080.94	1,042.02	2.22	-0.21	0.014
104.00	-3.74	-1.34	0.00	-6.33	0.00	6.33	1,636.52	818.26	1,941.96	972.42	2.39	-0.21	0.009
105.00	-3.44	-1.24	0.00	-4.99	0.00	4.99	1,624.61	812.30	1,907.63	955.23	2.43	-0.21	0.007
109.00	-0.06	-0.02	0.00	-0.02	0.00	0.02	1,575.88	787.94	1,772.05	887.34	2.61	-0.21	0.000
110.00	0.00	0.00	0.00	0.00	0.00	0.00	1,563.44	781.72	1,738.62	870.60	2.66	-0.21	0.000
111.00	0.00	0.00	0.00	0.00	0.00	0.00	1,550.88	775.44	1,705.38	853.95	2.70	-0.21	0.000

Site Number: 411258

Code: ANSI/TIA-222-G

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Site Name: Farmington North 2 CT, CT

Engineering Number: OAA718005_C3_01

12/5/2017 1:14:23 PM

Customer: AT&T MOBILITY

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	50.84	0.00	47.95	0.00	0.00	4369.53	0.00	0.56
0.9D + 1.6W	50.82	0.00	35.94	0.00	0.00	4353.36	0.00	0.55
1.2D + 1.0Di + 1.0Wi	15.40	0.00	83.60	0.00	0.00	1325.00	0.00	0.18
(1.2 + 0.2Sds) * DL + E ELFM	3.10	0.00	47.55	0.00	0.00	257.81	0.00	0.04
(1.2 + 0.2Sds) * DL + E EMAM	3.15	0.00	47.55	0.00	0.00	284.78	0.00	0.04
(0.9 - 0.2Sds) * DL + E ELFM	3.10	0.00	33.07	0.00	0.00	256.70	0.00	0.04
(0.9 - 0.2Sds) * DL + E EMAM	3.15	0.00	33.07	0.00	0.00	283.46	0.00	0.04
1.0D + 1.0W	12.15	0.00	40.01	0.00	0.00	1042.62	0.00	0.14

Site Number: 411258

Code: ANSI/TIA-222-G

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Site Name: Farmington North 2 CT, CT

Engineering Number: OAA718005_C3_01

12/5/2017 1:14:23 PM

Customer: AT&T MOBILITY

Base Summary

Reactions

Original Design			Analysis			
Moment (kip-ft)	Axial (kip)	Shear (kip)	Moment (kip-ft)	Axial (kip)	Shear (kip)	Moment Design %
6,395.50	48.80	68.90	4,369.53	83.60	50.84	50.61

Base Plate

Yield (ksi)	Thick (in)	Width (in)	Style	Poly Sides	Clip Len (in)	Effective Len (in)	Mu (kip-in)	Phi Mn (kip-in)	Ratio
50.0	3.000	73.000	Round	0	0.00	9.363	361.90	948.00	0.38

Anchor Bolts

Bolt Circle	Num Bolts	Bolt Type	Bolt Dia (in)	Yield (ksi)	Ultimate (ksi)	Arrange	Cluster Dist (in)	Start Angle (deg)	Compression			Tension		
									Force (kip)	Allow (kip)	Ratio	Force (kip)	Allow (kip)	Ratio
67.00	20	2.25" 18J	2.25	75.00	100.00	Radial	0.00	0.0	160.70	260.00	0.64	152.34	260.00	0.61

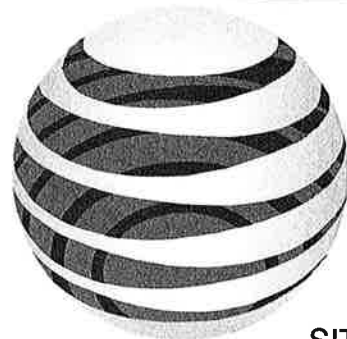
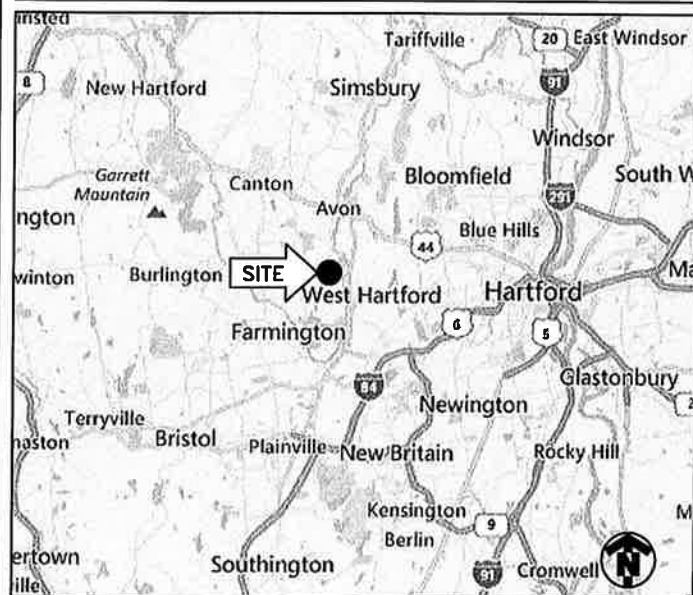
SHEET INDEX

NO.	DESCRIPTION
T1	TITLE SHEET
C1	GENERAL NOTES
C2	GENERAL NOTES
C3	COMPOUND PLAN
C4	EQUIPMENT SITE PLAN
C5	ELEVATION VIEW
C6	EQUIPMENT DETAILS
C7	EQUIPMENT DETAILS
C8	SCHEMATICS, DIAGRAMS & NOTES
C9	PLUMBING DIAGRAM

DRIVING DIRECTIONS

1. LEAVE MAXIM RD TOWARDS BRAINARD RD
2. ROAD NAME CHANGES TO BRAINARD RD
3. TAKE SLIPROAD RIGHT TO US-5 N/CT-15 N SHELL ON THE CORNER
4. TAKE SLIPROAD RIGHT TO I-91 NORTH TOWARDS HARTFORD/SPRINGFIELD
5. TAKE SLIPROAD LEFT TO I-84 WEST TOWARDS WATERBURY
6. PASS RADISSON ON THE RIGHT IN
7. AT JUNCTION 39, TAKE SLIPROAD RIGHT TO CT-4 TOWARDS FARMINGTON
8. KEEP STRAIGHT ON TO CT-4 W/FARMINGTON AVE
9. BEAR RIGHT ON TO CT-10/WATERVILLE RD
10. TURN LEFT ON TO OLD FARMS RD
11. ARRIVE AT TOWN FARM ROAD ON THE LEFT.

LOCATION MAP



at&t

SITE NAME
FARMINGTON
PROJECT
LTE 2C/3C
SITE ID
CT2580
FA SITE NUMBER
10141396
PAGE ID
MRCTB024366/MRCTB024541

SITE ADDRESS
 199 TOWN FARM ROAD
 FARMINGTON, CT 06032
STRUCTURE TYPE
MONOPOLE TOWER



PROJECT TEAM



95 Ryan Drive Suite 1 | Raynham, MA 02767
 Office: 781.713.4725 - Fax: 413-541-8158
PROJECT MANAGER



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

SCOPE OF WORK:

- HANDICAP ACCESS REQUIREMENTS ARE NOT REQUIRED.
 - FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION.
 - FACILITY HAS NO PLUMBING OR REFRIGERANTS.
 - THIS FACILITY SHALL MEET OR EXCEED ALL FAA AND FCC REGULATORY REQUIREMENTS.
 - ALL NEW MATERIAL SHALL BE FURNISHED AND INSTALLED BY CONTRACTOR UNLESS NOTED OTHERWISE. EQUIPMENT, ANTENNAS/RRU AND CABLES FURNISHED BY OWNER AND INSTALLED BY CONTRACTOR.
 - ADD GROUND ISOLATION WHERE NEEDED.
 - MONOPINE--ANTENNAS AND RADIOS PAINTED TO MATCH
- TOWER SCOPE**
- REMOVE (3) PANEL ANTENNAS
 - INSTALL (3) PANEL ANTENNAS
 - INSTALL (3) RRUS-32
 - INSTALL (3) RRUS-32 B2
 - INSTALL (1) DC6 SQUID W/ (1) FIBER, (2) DC CABLES & (1) ALARM CABLE
- GROUND SCOPE**
- INSTALL (1) FIBER BOX ON ICE BRIDGE POST
 - INSTALL (1) FIBER TRAY IN LTE RACK
 - INSTALL (1) DC12 IN LTE RACK
 - SWAP DUL TO 5216
 - ADD (1) XMU
 - INSTALL (6) 30AMP AND (10) 25AMP BREAKER IN EXISTING POWERPLANT

PROJECT SUMMARY

<u>SITE NAME:</u>	FARMINGTON	(NAD 83)
<u>FA SITE NO.:</u>	10141396	(NAD 83)
<u>PAGE ID:</u>	MRCTB024366/MRCTB024541	(AMS)
<u>SITE ID:</u>	CT2580	(AGL)
<u>SITE ADDRESS:</u>	199 TOWN FARM ROAD FARMINGTON, CT 06032	
<u>COUNTY:</u>	HARTFORD	
<u>SITE COORDINATES:</u>		
<u>LATITUDE:</u>	41.7673000°	(NAD 83)
<u>LONGITUDE:</u>	-72.8388000°	(NAD 83)
<u>GROUND ELEVATION:</u>	±320'	(AMS)
<u>ANTENNA RAD:</u>	±100'	(AGL)
<u>JURISDICTION:</u>	HARTFORD COUNTY	
<u>PROPERTY OWNER:</u>	AMERICAN TOWER CORP 10 PRESIDENTIAL WAY WOBURN, MA	
<u>APPLICANT:</u>	AT&T MOBILITY 550 COCHITUATE ROAD FARMINGHAM, MA 01701	
<u>PROJECT MANAGER:</u>	CENTERLINE 95 RYAN DRIVE SUITE 1 RAYNHAM, MA 02767	
<u>CONTACT:</u>	PETER LAMONTAGNE (508) 341-7854	
<u>ENGINEER:</u>	INFINIGY 1033 WATERVLIET SHAKER ROAD ALBANY, NY 12205	
<u>CONTACT:</u>	ALEX WELLER (518) 690-0790	
<u>BUILDING CODE:</u>	CT BUILDING CODE UNIFORM BUILDING CODE BUILDING OFFICIALS & CODE ADMINISTRATORS UNIFORM MECHANICAL CODE UNIFORM PLUMBING CODE LOCAL BUILDING CODE CITY/COUNTY ORDINANCES	
<u>ELECTRICAL CODE:</u>	NATIONAL ELECTRICAL CODE (LATEST EDITION)	

FEE
 2018
 PROFESSIONAL ENGINEER
 STATE OF CONNECTICUT
 JOHN STEVENS
 No. 24705
 REGISTERED



ISSUED FOR PERMIT	BWM 12/08/16
No.	Submit / Revision
Drawn: ASD	Date: 12/14/17
Designed: ASW	Date: 12/14/17
Checked: ASW	Date: 12/14/17

Project Number: 555-022
 Project Title: FA# 10141396 CT2580 FARMINGTON
 199 TOWN FARM ROAD FARMINGTON, CT 06032

ENGINEER'S LICENSE

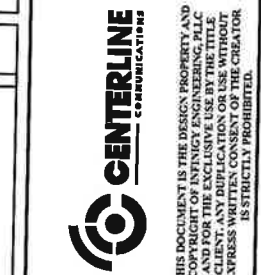
CERTIFICATION STATEMENT:

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF CONNECTICUT.

LICENSED ENGINEER - STATE OF CONNECTICUT

APPROVALS

CONSTRUCTION MGR.	DATE
AT&T PROJECT MGR.	DATE
SITE ACQ.	DATE
SITE OWNER	NAME/COMPANY: DATE



Drawing Scale: AS NOTED
 Date: 02/06/18

Drawing Title

TITLE SHEET

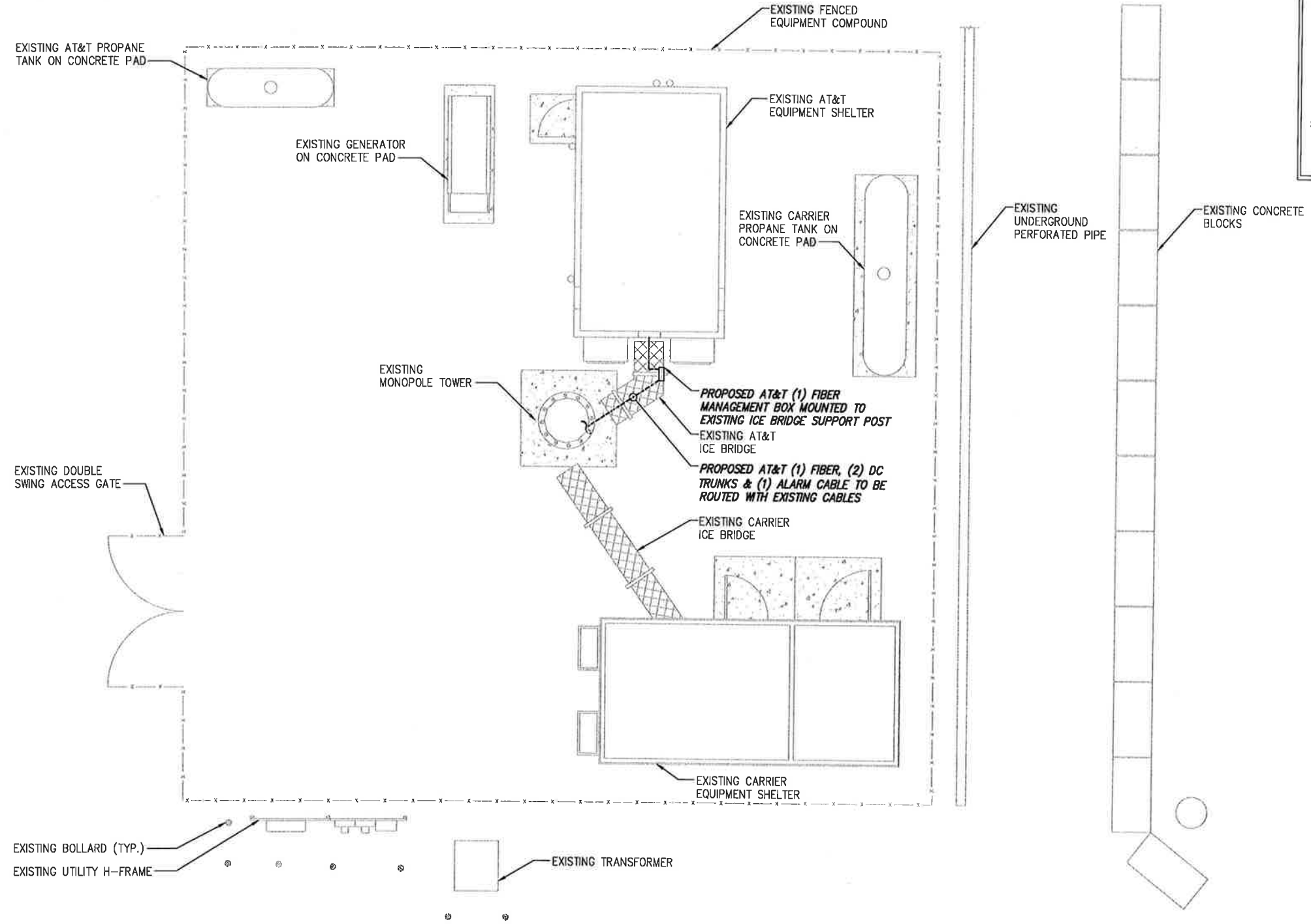
Drawing Number

T1

NOTE:
 INFINIGY ENGINEERING HAS NOT EVALUATED THE EXISTING TOWER STRUCTURE FOR THIS SITE, AND ASSUMES NO RESPONSIBILITY FOR ITS STRUCTURAL INTEGRITY. STRUCTURAL ANALYSIS TO BE COMPLETED PRIOR TO INSTALLATION.

FOR ADDITIONAL STRUCTURAL INFORMATION PERTAINING TO THE ANTENNA MOUNTS, SEE 'MOUNT ANALYSIS' COMPLETED BY INFINIGY, DATED 01/17/18

- NOTES:**
- EXISTING CONDITIONS INFORMATION BASED ON INFORMATION PROVIDED TO INFINIGY.
 - THESE DRAWINGS DO NOT REFLECT ADEQUACY OF EXISTING OR PROPOSED ANTENNA MOUNTS, MOUNT CONNECTIONS, OR CABLE ATTACHMENTS. INFINIGY DOES NOT ACCEPT LIABILITY FOR ANY OF THESE STRUCTURAL ELEMENTS.
 - ROUTE ALL PROPOSED CABLING ON EXISTING CABLE LADDER. ACTUAL ROUTE ON DRAWINGS MAY VARY FROM FIELD LOCATION OF EXISTING CABLE LADDER.
 - INSTALLER SHALL PROVIDE ALL NECESSARY CONDUITS AND CIRCUITS AS REQUIRED FOR A COMPLETED INSTALLATION AND SHALL COMPLY WITH EQUIPMENT MANUFACTURER'S INSTALLATION REQUIREMENTS.
 - INSTALLER SHALL PROVIDE ALL STRAIN RELIEF FOR ALL CABLE ASSEMBLIES ROUTING TO THE ANTENNAS. UTILIZATION OF HOISTING GRIPS ON ALL DC POWER AND FIBER OPTIC CABLES SHALL BE UTILIZED.



1 OVERALL SITE PLAN
 SCALE: AS NOTED
 CALLED NORTH

GRAPHIC SCALE:
 10' 5' 0' 5' 10'
 SCALE (11x17): 1" = 10'-0"
 SCALE (22x34): 1" = 5'-0"

INFINIGY
 1033 Watervliet Shaker Rd
 Albany, NY 12205
 Office #: (518) 660-0790
 Fax #: (518) 660-0793



FEB 16 2018

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No.	Submitted / Revision	App'd	Date

Project Number: 555-022

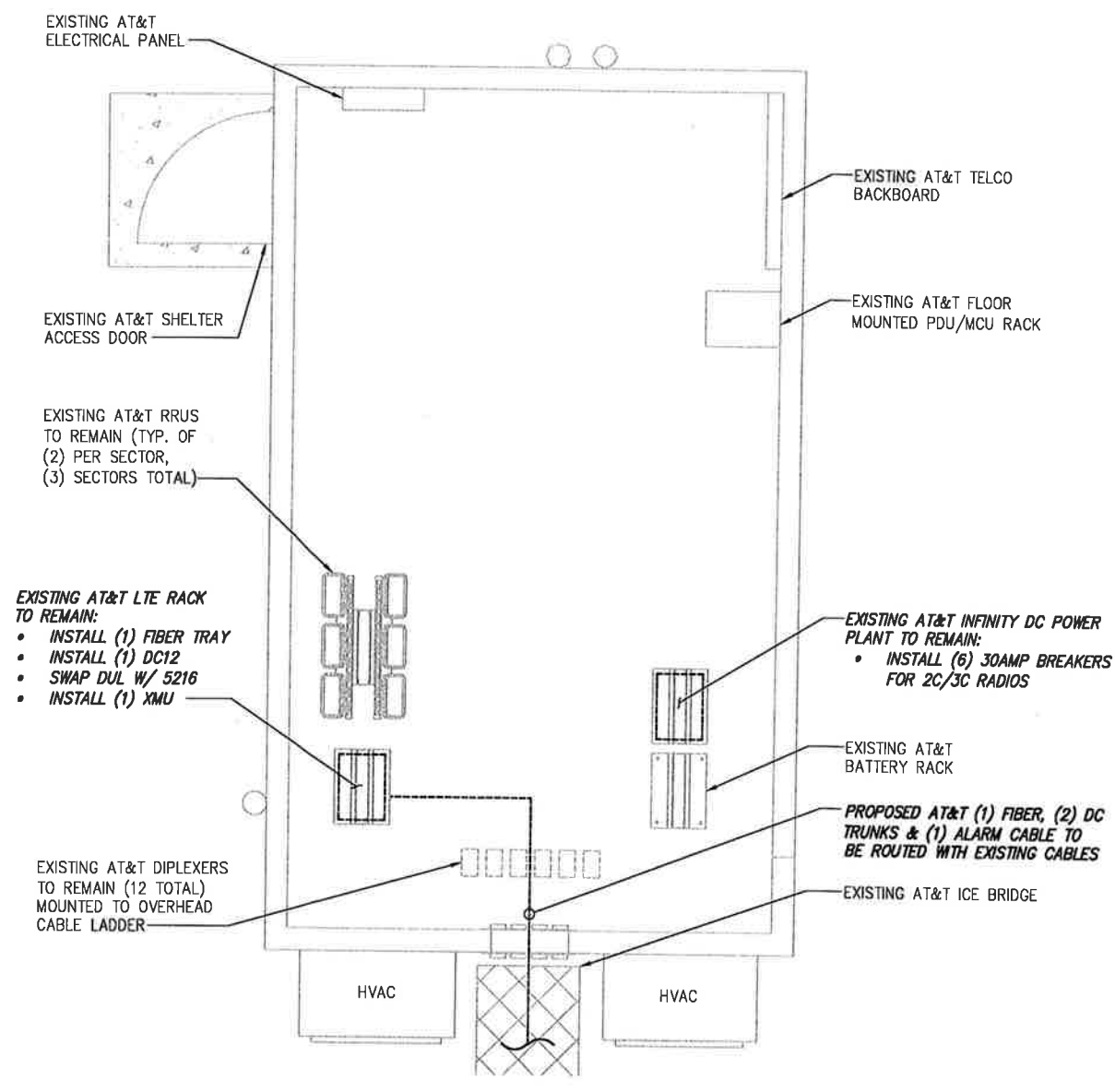
Project Title:
FA# 10141396
CT2580
FARMINGTON
 199 TOWN FARM ROAD
 FARMINGTON, CT 06032

Prepared For:
CENTERLINE COMMUNICATIONS
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Drawing Scale: AS NOTED
 Date: 02/06/18

Drawing Title:
COMPOUND PLAN

Drawing Number:
C3



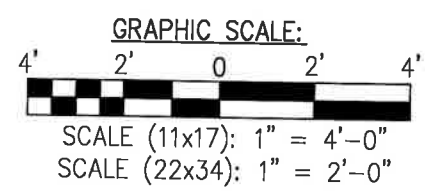
NOTES:
CONTRACTOR TO GROUND ALL EQUIPMENT IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.

SYMBOL	
⊗	COPPER GROUND ROD
▶	CONNECT PER MANUFACTURER SPECS
■	CADWELD CONNECTION
•	MECHANICAL CONNECTION
—	GROUND BAR
---	ELECTRICAL CONDUIT
---	GROUND WIRE
---	DC/FIBER LINE

ABBREVIATIONS:

CIGBE	COAX ISOLATED GROUND BAR EXTERNAL
MIGB	MASTER ISOLATED GROUND BAR
SST	SELF SUPPORTING TOWER
GPS	GLOBAL POSITIONING SYSTEM
TYP.	TYPICAL
DWG	DRAWING
BCW	BARE COPPER WIRE
BFG	BELOW FINISH GRADE
PVC	POLYVINYL CHLORIDE
CAB	CABINET
C	CONDUIT
SS	STAINLESS STEEL
G	GROUND
AWG	AMERICAN WIRE GAUGE
RGS	RIGID GALVANIZED STEEL
AHJ	AUTHORITY HAVING JURISDICTION
TTLNA	TOWER TOP LOW NOISE AMPLIFIER
UNO	UNLESS NOTED OTHERWISE
EMT	ELECTRICAL METALLIC TUBING
AGL	ABOVE GROUND LEVEL

1 EQUIPMENT SITE PLAN
SCALE: AS NOTED



NOTE:
INFINIGY ENGINEERING HAS NOT CONDUCTED AN ELECTRICAL LOAD STUDY FOR THIS SITE. CONTRACTOR IS TO VERIFY EXISTING ELECTRICAL LOADS PRIOR TO CONSTRUCTION TO ENSURE THERE IS AMPLE SERVICE AVAILABLE TO ACCOMMODATE THE EXISTING AND PROPOSED EQUIPMENT.

ELECTRICAL NOTES:

- ALL ELECTRICAL WORK SHALL CONFORM TO THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE (N.E.C.), AND APPLICABLE LOCAL CODES.
- GROUNDING SHALL COMPLY WITH THE ARTICLE 250 OF NATIONAL ELECTRICAL CODE.
- ALL ELECTRICAL ITEMS SHALL BE U.L. APPROVED OR LISTED.
- ALL WIRES SHALL BE AWG MIN #12 THHN COPPER UNLESS NOTED.
- CONDUCTORS SHALL BE INSTALLED IN SCHEDULE 40 PVC CONDUIT UNLESS NOTED OTHERWISE.
- LABEL AT&T SERVICE DISCONNECTS WITH SWITCH AND PANEL WITH ENGRAVED LAMACOID LABELS, LETTERS 1" IN HEIGHT.
- ROUTE GROUNDING CONDUCTORS ALONG THE SHORTEST AND STRAIGHTEST PATH POSSIBLE. BEND GROUNDING LEADS WITH A MINIMUM 8" RADIUS.
- ENGAGE AN INDEPENDENT TESTING FIRM TO TEST AND VERIFY THAT RESISTANCE DOES NOT EXCEED 5 OHMS TO GROUND. TEST GROUND RING RESISTANCE PRIOR TO MAKING FINAL GROUND CONNECTIONS TO INFRASTRUCTURE AND EQUIPMENT. GROUNDING AND OTHER OPERATIONAL TESTING SHALL BE WITNESSED BY AT&T'S REPRESENTATIVE.
- PROVIDE PULL BOXES AND JUNCTION BOXES WHERE REQUIRED SO THAT CONDUIT BENDS DO NOT EXCEED 360 DEGREES.
- OBTAIN PERMITS AND PAY FEES RELATED TO ELECTRICAL WORK PERFORMED ON THIS PROJECT. DELIVER COPIES OF ALL PERMITS TO AT&T REPRESENTATIVE.
- SCHEDULE AND ATTEND INSPECTIONS RELATED TO ELECTRICAL WORK REQUIRED BY JURISDICTION HAVING AUTHORITY. CORRECT AND PAY FOR ANY WORK REQUIRED TO PASS ANY FAILED INSPECTION.
- REDLINED AS-BUILTS ARE TO BE DELIVERED TO AN AT&T REPRESENTATIVE.
- PROVIDE TWO COPIES OF OPERATION AND MAINTENANCE MANUALS IN THREE-RING BINDER.
- FURNISH AND INSTALL THE COMPLETE ELECTRICAL SERVICE, TELCO CONDUIT, AND THE COMPLETE GROUNDING SYSTEM.
- ALL WORK SHALL BE PERFORMED IN STRICT ACCORDANCE WITH ALL APPLICABLE BUILDING CODES AND LOCAL ORDINANCES, INSTALLED IN A NEAT MANNER AND SHALL BE SUBJECT TO APPROVAL BY AN AT&T REPRESENTATIVE.
- CONDUCT A PRE-CONSTRUCTION SITE VISIT AND VERIFY EXISTING SITE CONDITIONS AFFECTING THIS WORK. REPORT ANY OMISSIONS OR DISCREPANCIES FOR CLARIFICATION PRIOR TO THE START OF CONSTRUCTION.
- PROJECT ADJACENT STRUCTURES AND FINISHES FROM DAMAGE, REPAIR TO ORIGINAL CONDITION ANY DAMAGED AREA.
- REMOVE DEBRIS ON A DAILY BASIS. DEBRIS NOT REMOVED IN A TIMELY FASHION WILL BE REMOVED BY OTHERS AND THE RESPONSIBLE SUBCONTRACTOR SHALL BE CHARGED ACCORDINGLY. REMOVAL OF DEBRIS SHALL BE COORDINATED WITH THE OWNER'S REPRESENTATIVE. DEBRIS SHALL BE REMOVED FROM THE PROPERTY AND DISPOSED OF LEGALLY.
- UPON COMPLETION OF WORK, THE SITE SHALL BE CLEAN AND FREE OF DUST AND FINGERPRINTS.
- PRIOR TO ANY TRENCHING, CONTACT LOCAL UTILITY TO VERIFY LOCATION OF ANY EXISTING BURIED SERVICE CONDUITS.
- DOCUMENT GROUND RING INSTALLATION AND CONNECTIONS TO IT WITH PHOTOGRAPHS PRIOR TO BACKFILLING SITE. PRESENT PHOTO ARCHIVE A SITE "PUNCH LIST" WALK TO AT&T'S REPRESENTATIVE.
- ALL ABOVE GRADE CONDUIT TO BE RIGID METALLIC.

GROUNDING NOTES:

- ALL DOWN CONDUCTORS AND GROUND RING AND CONDUCTOR SHALL BE #2 AWG, SOLID, BARE, TINNED COPPER, UNO. ALL CONNECTIONS TO GROUND RING SHALL BE EXOTHERMICALLY WELDED. CONDUCTOR SHALL BE A MINIMUM DEPTH BELOW GRADE OF 30 INCHES OR TO THE LEDGE. MINIMUM BEND RADIUS SHALL BE 8 INCHES. CONDUCTOR SHALL BE AT LEAST 24 INCHES FROM ANY FOUNDATION, UNO.
- WHERE MECHANICAL CONDUCTOR CONNECTIONS ARE SPECIFIED, BOLTED, COMPRESSION-TYPE CLAMPS OR SPLIT-BOLT TYPE CONNECTORS SHALL BE USED.
- GRIND OFF GALVANIZING IN AFFECTED AREA. EXOTHERMICALLY WELD #2 CONDUCTOR AT 6 INCHES ABOVE GRADE R FOUNDATION, WHICHEVER IS HIGHER. COLD-GALY AFTER. EXOTHERMICALLY WELD OTHER END TO THE GROUND.
- GROUND CONDUCTORS ON EXTERIOR WALL OF SHELTER SHALL BE ENCASED IN 3/4" PVC CONDUIT TO GRADE. MOUNT PVC WITH GALVANIZED "C" CLAMPS. SEAL TOP ENDS.
- FOLLOWING COMPLETION OF WORK, CONDUCT GROUND TEST. SUBMIT WRITTEN TEST TO CONSTRUCTION MANAGER AND PROJECT MANAGER.
- ALL GROUNDING WORK SHALL COMPLY WITH CARRIER(S) STANDARDS.
- GROUNDING REQUIREMENTS SHOWN ON THIS PLAN ARE FOR ITEMS THAT ARE LOCATED NEAR GRADE LEVEL AND THAT NEED TO BE TIED TO THE BELOW GRADE GROUND RING.
- UNLESS NOTED OTHERWISE, ALL GROUNDING SHALL BE IN ACCORDANCE WITH AT&T'S SSEQ DOCUMENTS 3.018.02.004 "BONDING, GROUNDING AND TRANSIENT PROTECTION FOR CELL SITES", AND 3.018.10.002 "SITE RESISTANCE TO EARTH TESTING". ALL GROUNDING SHALL ALSO COMPLY WITH ALL STATE AND LOCAL CODES, AND THE NATIONAL ELECTRICAL CODE (NEC).
- UNLESS NOTED OTHERWISE, ALL GROUNDING CONNECTIONS SHALL BE MADE BY AN EXOTHERMIC WELD.
- RESISTANCE TO EARTH TESTING IS REQUIRED PER AT&T STANDARDS ON ALL NEW SITES.

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Drawn: BDJ Date: 12/14/17
Designed: ASW Date: 12/14/17
Checked: ASW Date: 12/14/17

Project Number: 555-022

Project Title:
FA# 10141396
CT2580
FARMINGTON
199 TOWN FARM ROAD
FARMINGTON, CT 06032

Prepared For:
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EQUIPMENT SITE PLAN

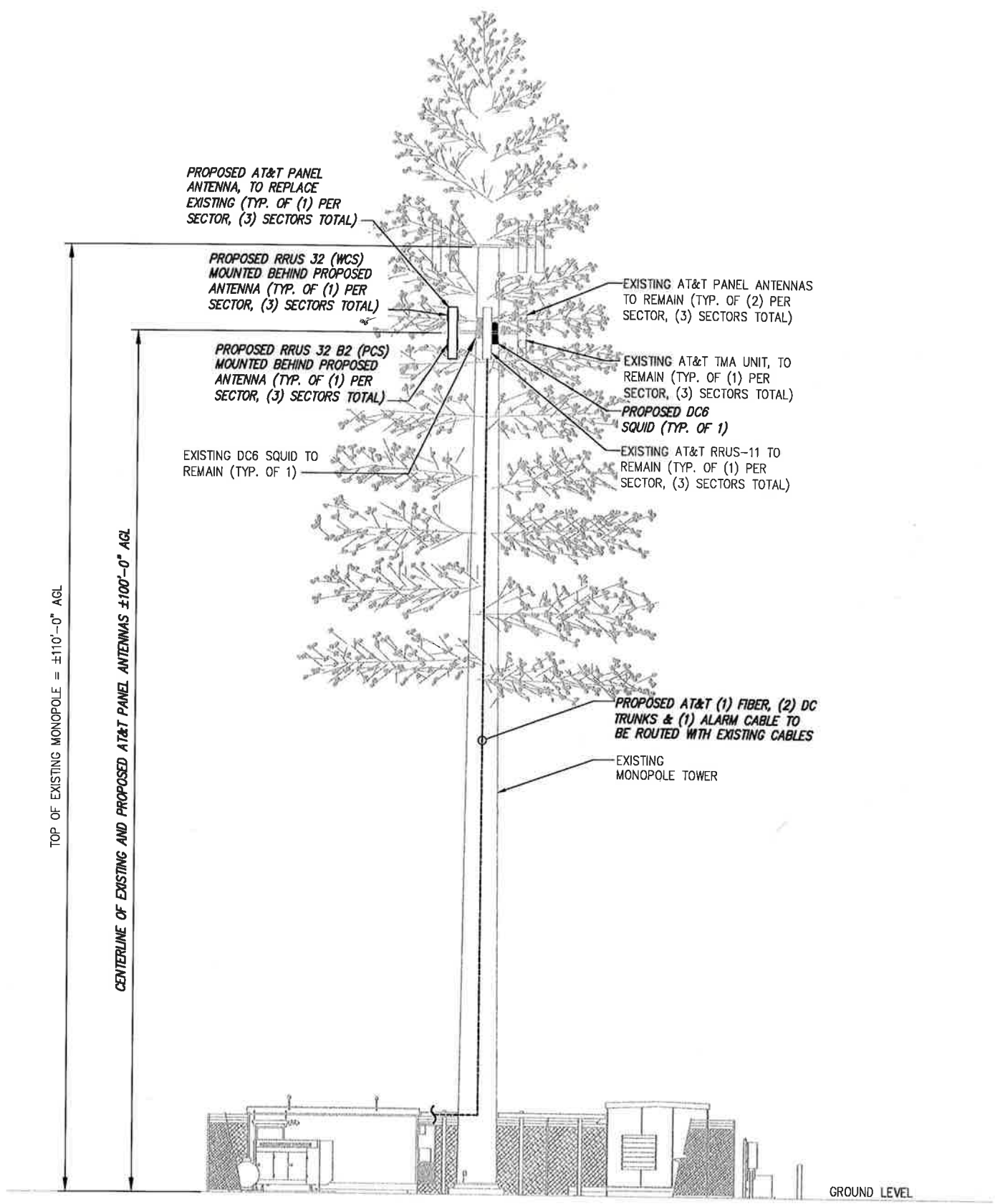
Drawing Number:
C4

NOTE:
 INFINIGY ENGINEERING HAS NOT EVALUATED THE EXISTING TOWER STRUCTURE FOR THIS SITE, AND ASSUMES NO RESPONSIBILITY FOR ITS STRUCTURAL INTEGRITY. STRUCTURAL ANALYSIS TO BE COMPLETED PRIOR TO INSTALLATION.

NOTE:
 3' MINIMUM SEPARATION BETWEEN LTE ANTENNAS & 6' MINIMUM SEPARATION BETWEEN 700 BC & 700 DE.

NOTE:
 ANTENNA AND RADIOS ARE PAINTED TO MATCH

FOR ADDITIONAL STRUCTURAL INFORMATION PERTAINING TO THE ANTENNA MOUNTS, SEE 'MOUNT ANALYSIS' COMPLETED BY INFINIGY, DATED 01/17/18



- NOTES:**
- EXISTING CONDITIONS INFORMATION BASED ON INFORMATION PROVIDED TO INFINIGY.
 - THESE DRAWINGS DO NOT REFLECT ADEQUACY OF EXISTING OR PROPOSED ANTENNA MOUNTS, MOUNT CONNECTIONS, OR CABLE ATTACHMENTS. INFINIGY DOES NOT ACCEPT LIABILITY FOR ANY OF THESE STRUCTURAL ELEMENTS.
 - ROUTE ALL PROPOSED CABLING ON EXISTING CABLE LADDER. ACTUAL ROUTE ON DRAWINGS MAY VARY FROM FIELD LOCATION OF EXISTING CABLE LADDER.
 - INSTALLER SHALL PROVIDE ALL NECESSARY CONDUITS AND CIRCUITS AS REQUIRED FOR A COMPLETED INSTALLATION AND SHALL COMPLY WITH EQUIPMENT MANUFACTURER'S INSTALLATION REQUIREMENTS.
 - INSTALLER SHALL PROVIDE ALL STRAIN RELIEF FOR ALL CABLE ASSEMBLIES ROUTING TO THE ANTENNAS. UTILIZATION OF HOISTING GRIPS ON ALL DC POWER AND FIBER OPTIC CABLES SHALL BE UTILIZED.

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CT2580
FARMINGTON
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 FARMINGTON, CT 06032

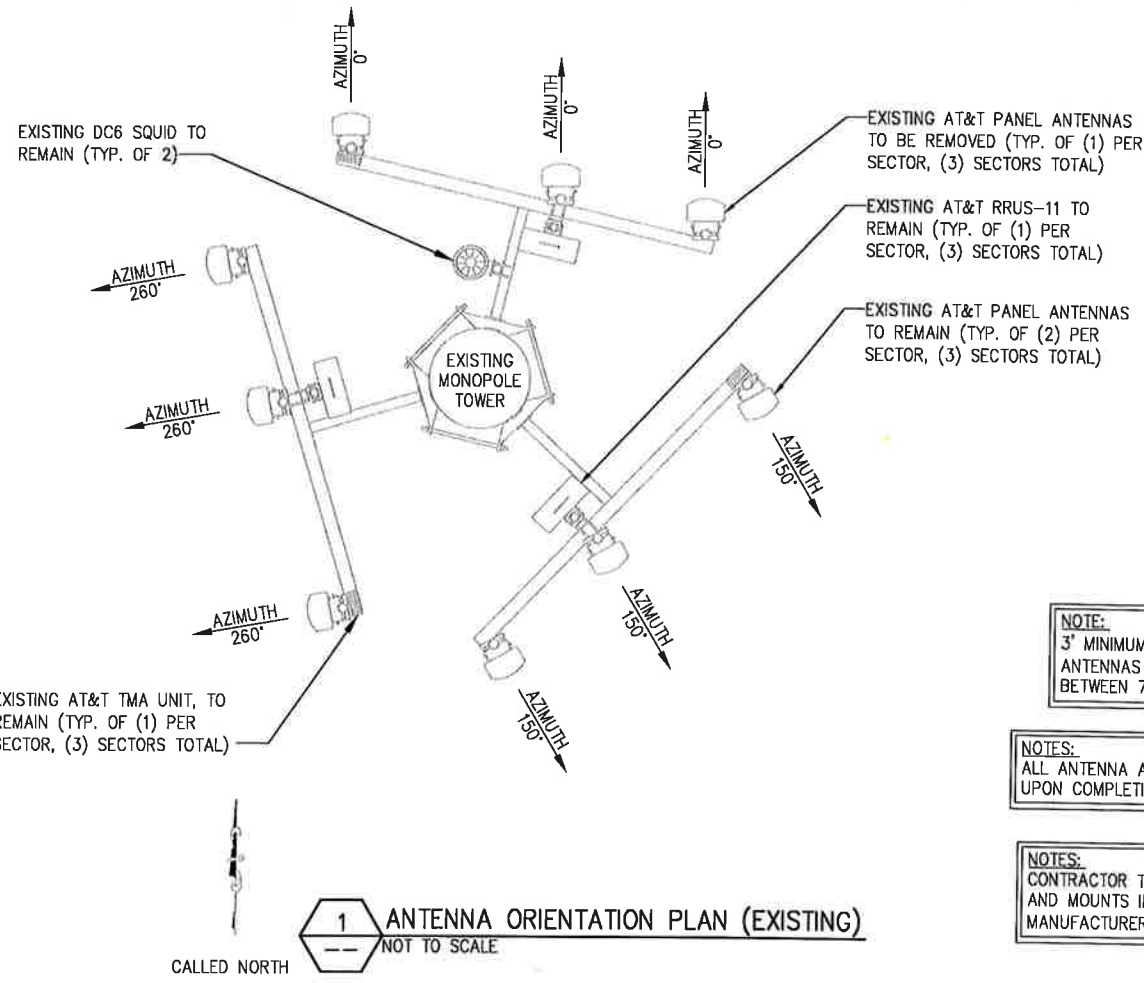
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Drawing Title
ELEVATION VIEW

Drawing Number
C5

1 ELEVATION VIEW
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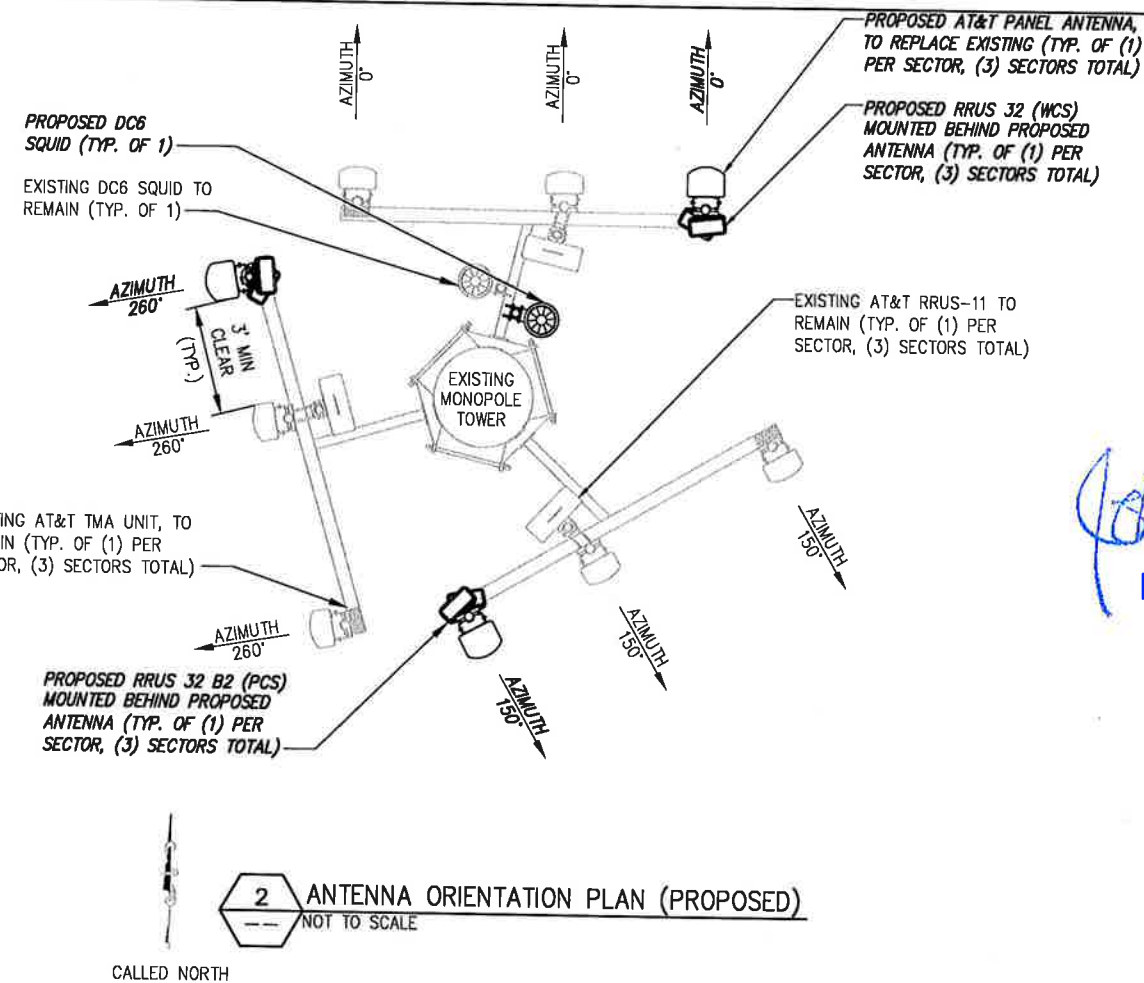


1 ANTENNA ORIENTATION PLAN (EXISTING)
NOT TO SCALE
CALLED NORTH

NOTE:
3' MINIMUM SEPARATION BETWEEN LTE ANTENNAS & 6' MINIMUM SEPARATION BETWEEN 700 BC & 700 DE.

NOTES:
ALL ANTENNA AZIMUTHS MUST BE CORRECT UPON COMPLETION OF CONSTRUCTION

NOTES:
CONTRACTOR TO GROUND ALL EQUIPMENT AND MOUNTS IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.



2 ANTENNA ORIENTATION PLAN (PROPOSED)
NOT TO SCALE
CALLED NORTH

SECTOR	EXISTING/PROPOSED	BAND	ANTENNA	ANTENNA HEIGHT	AZIMUTH	TMA/DIPLEXER	RRU	CABLE	CABLE LENGTH
ALPHA	EXISTING	UMTS 850/1900	SBNH-1D6565C	±100'	0°	(E) (1) DTMABP7819V612A	---	COAX	EXISTING
	EXISTING	LTE 700	SBNH-1D6565C	±100'	0°	---	(E) (1) RRUS-11	FIBER	EXISTING
	---	---	---	---	---	---	---	---	---
	PROPOSED	LTE 1900/WCS	TPA-65R-LCUUUU-H8	±100'	0°	---	(P) (1) RRUS 32 B2 (P) (1) RRUS-32	FIBER FEEDER	±125* SPARE
BETA	EXISTING	UMTS 850/1900	SBNH-1D6565C	±100'	150°	(E) (1) DTMABP7819V612A	---	COAX	EXISTING
	EXISTING	LTE 700	SBNH-1D6565C	±100'	150°	---	(E) (1) RRUS-11	FIBER	EXISTING
	---	---	---	---	---	---	---	---	---
	PROPOSED	LTE 1900/WCS	TPA-65R-LCUUUU-H8	±100'	150°	---	(P) (1) RRUS 32 B2 (P) (1) RRUS-32	FIBER FEEDER	±125* SPARE
GAMMA	EXISTING	UMTS 850/1900	SBNH-1D6565C	±100'	260°	(E) (1) DTMABP7819V612A	---	COAX	EXISTING
	EXISTING	LTE 700	SBNH-1D6565C	±100'	260°	---	(E) (1) RRUS-11	FIBER	EXISTING
	---	---	---	---	---	---	---	---	---
	PROPOSED	LTE 1900/WCS	QS66512-2	±100'	260°	---	(P) (1) RRUS 32 B2 (P) (1) RRUS-32	FIBER FEEDER	±125* SPARE

SECTOR	FIBER TRUNK	SINGLE FIBER	DC 3-PAIR	DC 1-PAIR	RRU'S
ALPHA	---	(4) 5 METER	---	(4) #8 AWG, 15'	(E) (1) RRUS-11 (P) (1) RRUS 32 (WCS) (P) (1) RRUS-32 B2
BETA	(1) 18 PAIR, ±125'	(4) 5 METER	(2) #8 AWG, ±125'	(4) #8 AWG, 15'	(E) (1) RRUS-11 (P) (1) RRUS 32 (WCS) (P) (1) RRUS-32 B2
GAMMA	---	(4) 5 METER	---	(4) #8 AWG, 15'	(E) (1) RRUS-11 (P) (1) RRUS 32 (WCS) (P) (1) RRUS-32 B2

* CABLE LENGTH FROM RFDS, CONTRACTOR TO VERIFY PRIOR TO ORDERING

3 RF EQUIPMENT SCHEDULE
NOT TO SCALE

FOR ADDITIONAL STRUCTURAL INFORMATION PERTAINING TO THE ANTENNA MOUNTS, SEE 'MOUNT ANALYSIS' COMPLETED BY INFINGY, DATED 01/17/18

INFINGY
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Project Number:	555-022

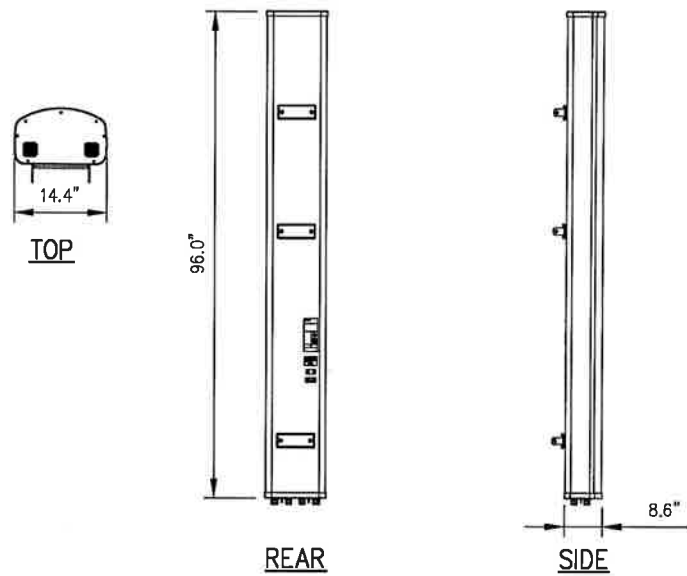
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CT2580
FARMINGTON**
198 TOWN FARM ROAD
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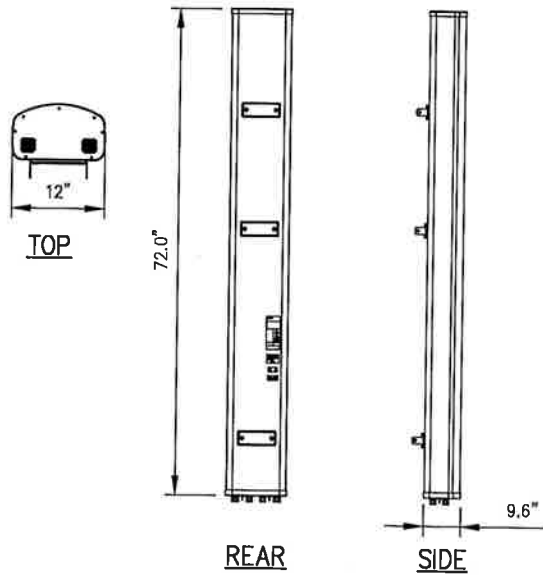
Drawing Title:
EQUIPMENT DETAILS

Drawing Number:
C6



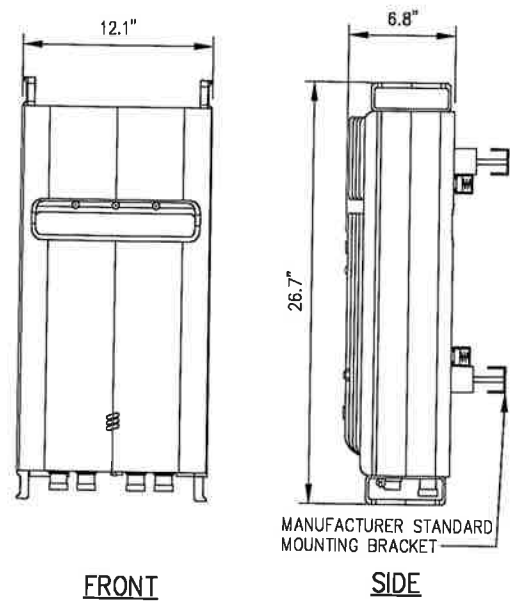
CCI MODEL NO.:	TPA-65R-LCUUUU-H8
RADOME MATERIAL:	FIBERGLASS, UV RESISTANT
RADOME COLOR:	LIGHT GRAY
DIMENSIONS, HxWxD:	96.0"x14.4"x8.6"
WEIGHT, W/ PRE-MOUNTED BRACKETS:	94.2 LBS
CONNECTOR:	(6) 7-16 DIN FEMALE

1 ANTENNA DETAIL
NOT TO SCALE



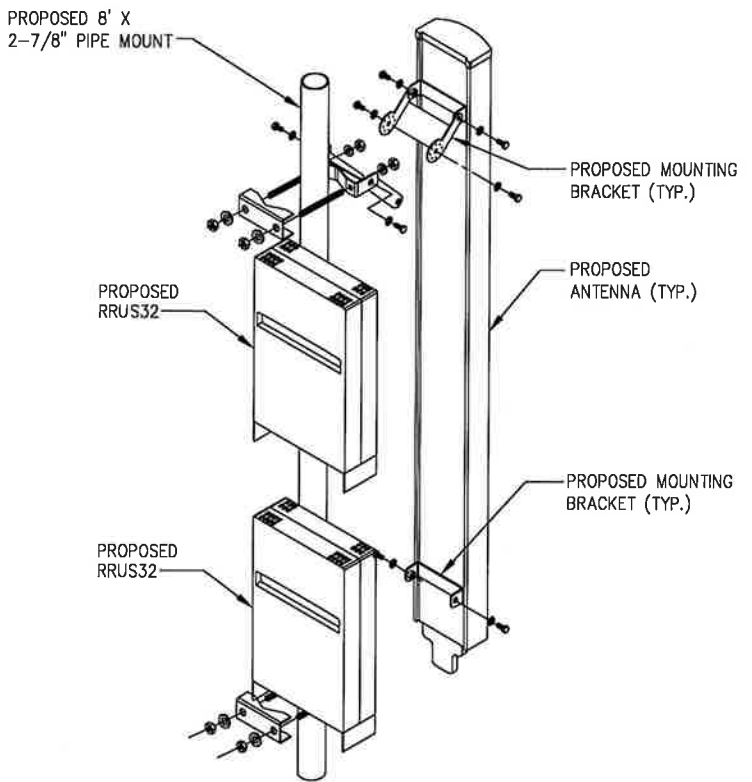
QUINTEL MODEL NO.:	QS66512-2
RADOME MATERIAL:	FIBERGLASS, UV RESISTANT
RADOME COLOR:	LIGHT GRAY
DIMENSIONS, HxWxD:	72.0"x12.0"x9.6"
WEIGHT, W/ PRE-MOUNTED BRACKETS:	111 LBS
CONNECTOR:	(6) 7-16 DIN FEMALE

2 ANTENNA DETAIL
NOT TO SCALE

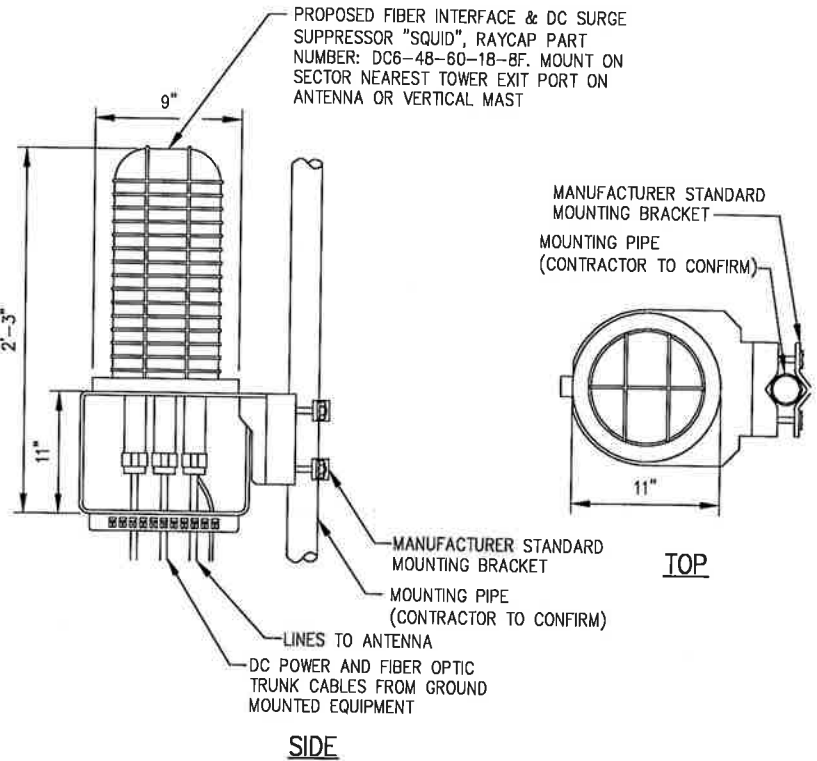


RRUS-32 SPECIFICATIONS	
• HxWxD, (INCHES) :	26.7"x12.1"x6.8"
• WEIGHT (LBS) :	50.8
• COLOR :	GRAY

3 ERICSSON RRUS-32 DETAIL
NOT TO SCALE



4 MOUNTING DETAIL
NOT TO SCALE



5 SQUID DETAIL
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Project Number: 555-022		

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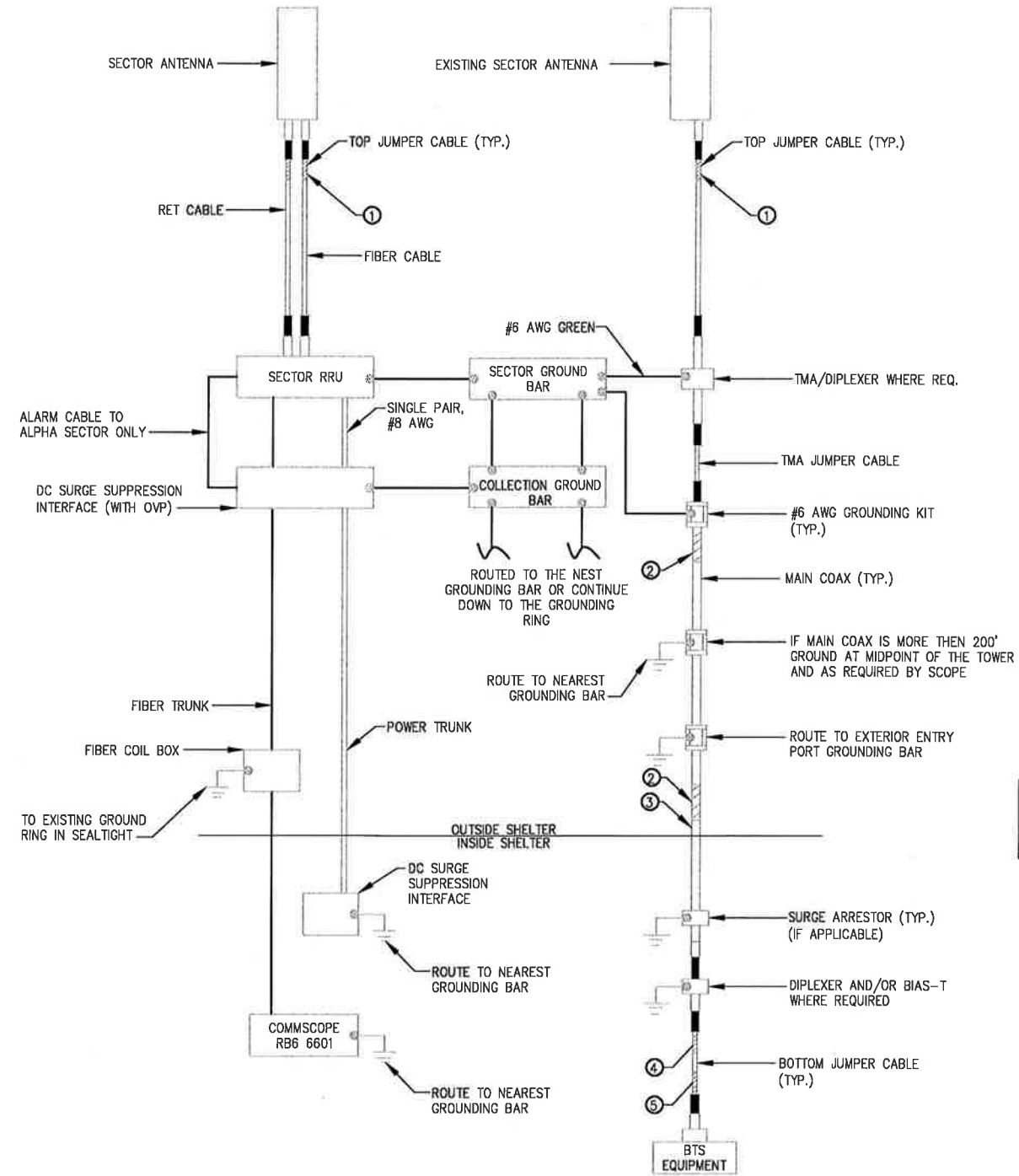
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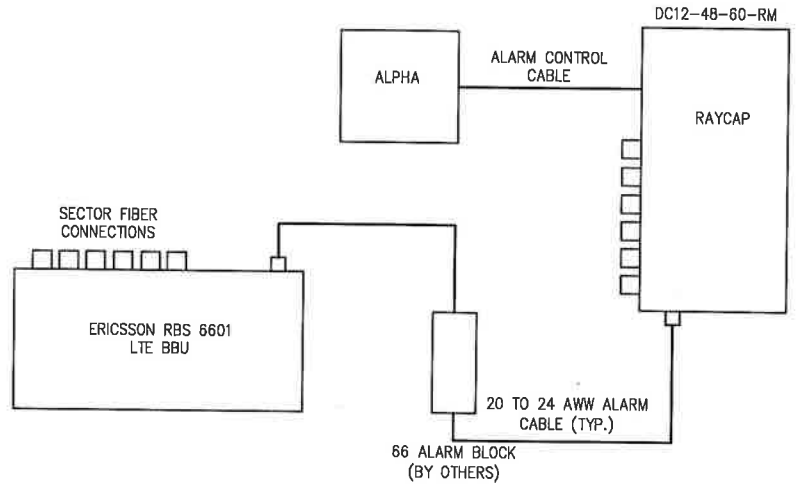
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EQUIPMENT DETAILS

Drawing Number
C7

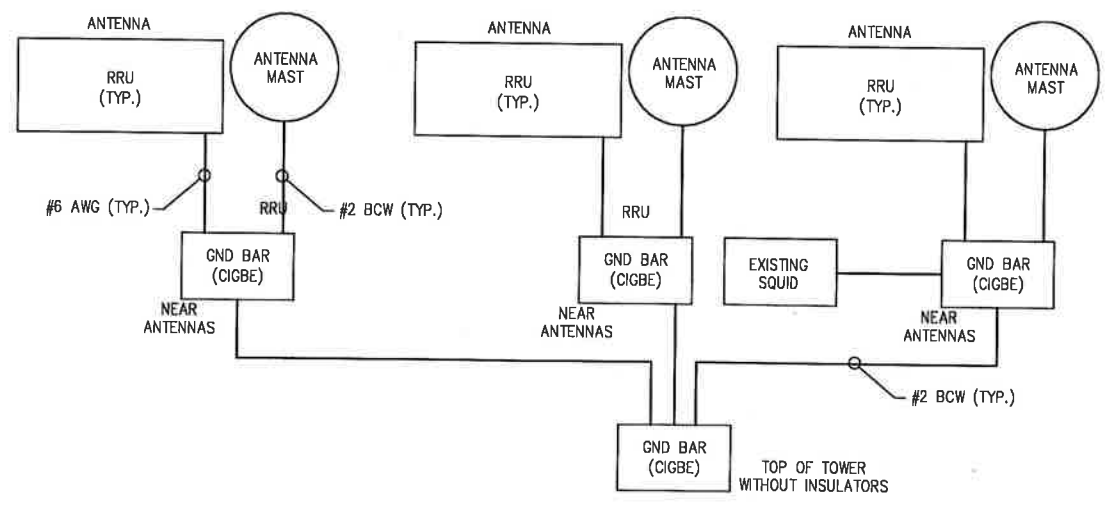
CABLE MARKING LOCATIONS TABLE	
NO.	LOCATIONS
①	EACH TOP JUMPER SHALL BE COLOR CODED WITH ONE (1) SET OF 3" WIDE BANDS
②	EACH MAIN COAX SHALL BE COLOR CODED WITH (1) SET OF 3" WIDE BANDS NEAR THE TOP OF THE JUMPER CONNECTION AND WITH (1) SET OF 3/4" WIDE COLOR BANDS JUST PRIOR TO ENTERING THE BTS OR TRANSMITTER BUILDING
③	CABLE ENTRY PORT ON THE INTERIOR OF THE SHELTER
④	ALL BOTTOM JUMPERS SHALL BE COLOR CODED WITH (1) SET OF 3/4" WIDE BANDS ON EACH END OF THE BOTTOM JUMPER
⑤	ALL BOTTOM JUMPERS SHALL BE COLOR CODED WITH (1) SET OF 3/4" WIDE BANDS ON EACH END OF THE BOTTOM JUMPER



1 CABLE MARKING LOCATIONS DIAGRAM
SCALE: NOT TO SCALE



2 ALARM BLOCK CONNECTIONS
SCALE: NOT TO SCALE



3 SCHEMATIC DIAGRAM GROUNDING SYSTEM
SCALE: NOT TO SCALE

COAX COLOR CODING & IDENTIFICATION NOTES:

1. SECTOR ORIENTATION/ AZIMUTH WILL VARY FROM REGION AND IS SITE SPECIFIC. REFER TO RF REPORT FOR EACH SITE TO DETERMINE THE ANTENNA LOCATION AND FUNCTION OF EACH TOWER SECTOR FACE.
2. THE ANTENNA SYSTEM COAX SHALL BE LABELED WITH VINYL TAPE EXCEPT IN LOCATIONS WHERE ENVIRONMENTAL CONDITIONS CAUSE PHYSICAL DAMAGE, THEN PHYSICAL TAGS ARE PREFERRED.
3. THE STANDARD IS BASED ON EIGHT COLORED TAPES- RED, BLUE, GREEN, YELLOW, ORANGE, BROWN, WHITE AND VIOLET. THESE TAPES MUST BE 3/4" WIDE AND UV RESISTANT SUCH AS SCOTCH 35 VINYL ELECTRICAL COLOR CODING TAPE AND SHOULD BE READILY AVAILABLE TO THE ELECTRICIAN OR SUBCONTRACTOR ON SITE.
4. USING COLOR BANDS ON THE CABLES MARK ALL RF CABLE BY SECTOR AND NUMBER AS SHOWN ON "CABLE MARKING COLOR CONVENTION TABLE".
5. WHEN AN EXISTING COAXIAL LINE THAT IS INTENDED TO BE A SHARED LINE BETWEEN GSM/3G TDMA IS ENCOUNTERED, THE SUBCONTRACTOR SHALL REMOVE THE COLOR CODING SCHEME AND REPLACE IT WITH THE COLOR CODING AND TAGGING STANDARD THAT IS OUTLINED IN THE CURRENT VERSION OF THE STANDARD. IN THE ABSENCE OF AN EXISTING COLOR CODING AND TAGGING SCHEME, OR WHEN INSTALLING PROPOSED COAXIAL CABLES, THIS GUIDELINE SHALL BE IMPLEMENTED AT THAT SITE REGARDLESS OF TECHNOLOGY.
6. ALL COLOR CODE TAPE SHALL BE 3M-35 AND SHALL BE A MINIMUM OF (3) THREE WRAPS OF TAPE AND SHALL BE NEATLY TRIMMED AND SMOOTHED OUT SO AS TO AVOID ANY UNRAVELING.
7. ALL COLOR BANDS INSTALLED AT THE TOP OF THE TOWER SHALL BE A MINIMUM IF 3" WIDE, AND SHALL HAVE A MINIMUM OF 3/4" OF SPACE IN BETWEEN EACH COLOR.
8. ALL COLOR CODES SHALL BE INSTALLED AS TO ALIGN NEATLY WITH ONE ANOTHER FROM SIDE TO SIDE.
9. IF EXISTING CABLES AT THE SITE ALREADY HAVE A COLOR CODING SCHEME AND THEY ARE NOT INTENDED TO BE REUSED OR SHARED WITH THE GSM TECHNOLOGY, THE EXISTING COLOR CODING SCHEME SHALL REMAIN UNTOUCHED.

CABLE MARKING TAGS:

WHEN USING THE ALTERNATIVE LABELING METHOD, EACH RF CABLE SHALL BE IDENTIFIED WITH A METAL ID TAG MADE OF STAINLESS STEEL OR BRASS. THE TAG SHALL BE 1'-1-1/2" IN DIAMETER WITH 1/4" STAMPED LETTERS AND NUMBERS INDICATING THE SECTOR, ANTENNA POSITION, AND CABLE NUMBER. THE ID MARKING LOCATIONS SHOULD BE AS PER "CABLE MARKING LOCATIONS TABLE". THE TAG SHOULD BE ATTACHED WITH CORROSION PROOF WIRE AROUND THE CABLE AT THE SAME LOCATIONS AS DEFINED ABOVE. THE TAG SHOULD BE LABELED AS SHOWN ON THE "GSM AND UMTS LINE TAG" DETAIL.

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Project Number: 555-022

Project Title:

FA# 10141396
CT2580
FARMINGTON
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FARMINGTON, CT 06032

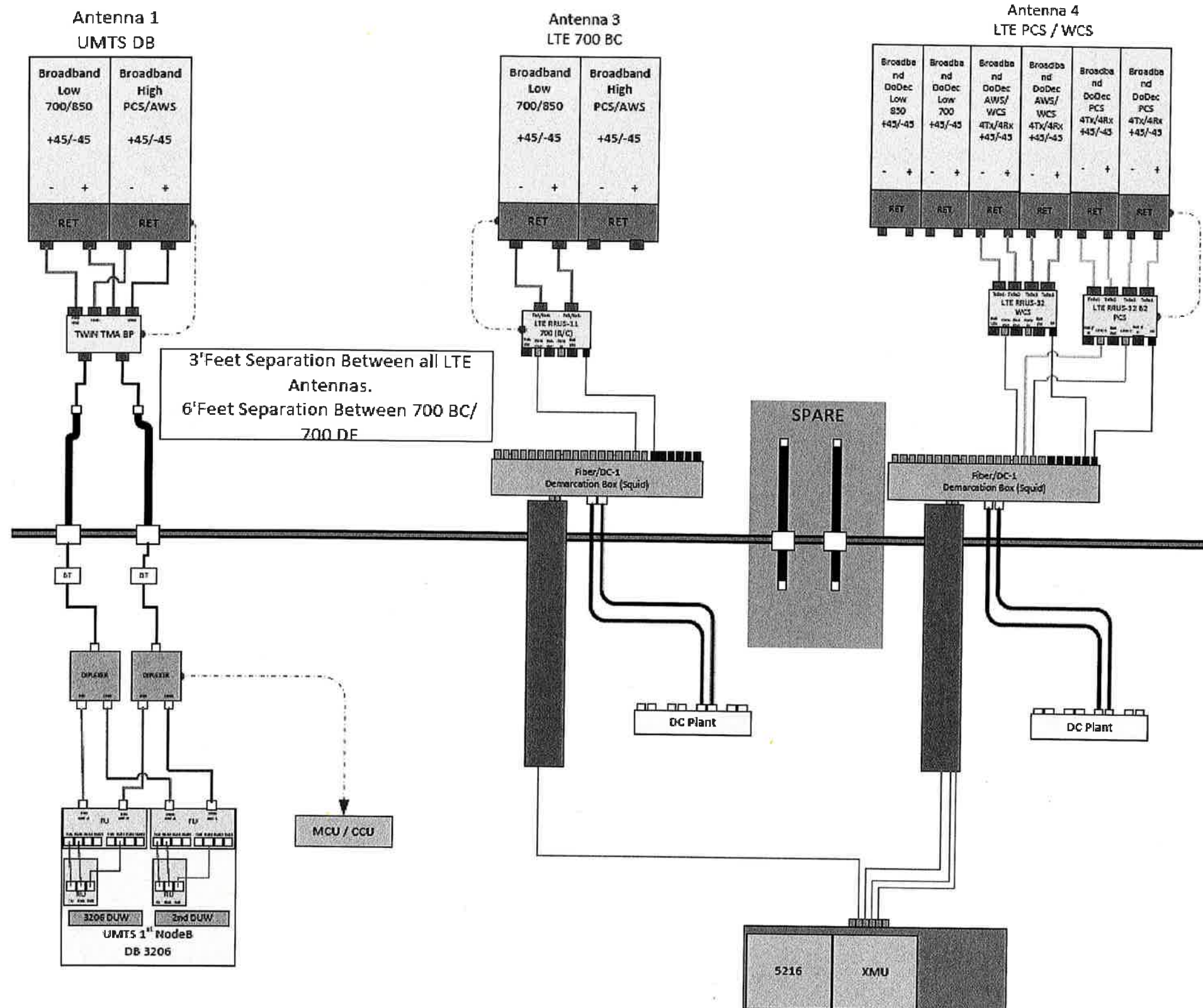
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Drawing Scale: AS NOTED
Date: 02/06/18

Drawing Title: **SCHEMATICS, DIAGRAMS & NOTES**

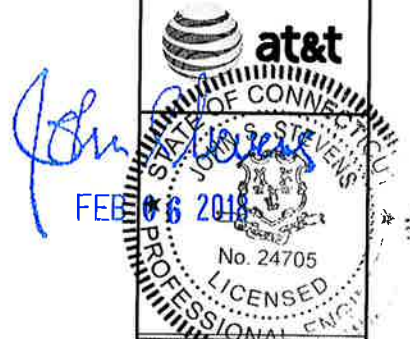
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3' Feet Separation Between all LTE Antennas.
6' Feet Separation Between 700 BC/700 DF

1 PLUMBING DIAGRAM
SCALE: NOT TO SCALE

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CT2580
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199 TOWN FARM ROAD
FARMINGTON, CT 06032

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Drawing Scale: AS NOTED
Date: 02/06/18

Drawing Title:
PLUMBING DIAGRAM

Drawing Number: C9

CONTRACTOR TO REFER TO LATEST RFDS PROVIDED BY AT&T FOR FINAL CONFIGURATION.