



4/29/2019

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

Regarding: Notice of Exempt Modification – Antenna Swap
Property Address: 181-1 Research Drive, Milford, CT
AT&T Site: CTL02169 / FA: 10035075

Dear Ms. Bachman:

On behalf of AT&T, please accept this application as notification pursuant to R.C.S.A. §16-50j-73, for construction that constitutes an exempt modification pursuant to R.C.S.A. §16- 50j-72(b) (2).

AT&T currently maintains a wireless telecommunications facility on an existing monopole at the above-referenced address. American Tower, Inc. owns said facility. The site consists of nine (9) wireless telecommunication antennas at an antenna centerline height of 167-feet on an existing 185-foot monopole tower. AT&T now intends to retain (3) Powerwave 7770, (3) CCI OPA-65R-LCUU-H4, and (3) Quintel QS66512-2 panel antennas, while installing three (3) Kathrein 800-10964 panel antennas on position 3, all sectors (for a total of (12) panel antennas), at the 167-foot level. AT&T also intends to install three (3) RRUS-B14 4478, (3) RRUS 4478 B5, (3) RRUS-4478 B5, (1) DC/Fiber Surge Suppression dome, and (6) low band combiners on new antenna masts.

Please accept this letter pursuant to Regulation of Connecticut State Agencies §16-50j-73, for construction that constitutes an exempt modification pursuant to R.C.S.A. § 16-50j-72(b) (2). In accordance with R.C.S.A., a copy of this letter is being sent to Benjamin G. Blake, Mayor of the City of Milford, Stephen Harris, Zoning Enforcement Officer of the City of Milford, and American Tower, Inc., Tower and Property Owner.

The planned modifications to AT&T's facility fall squarely within those activities explicitly provided for in R.C.S.A. §16-50j-72(b) (2).

1. The proposed modifications will not result in an increase in the height of the existing tower. AT&T's replacement antennas will be installed at the 167-foot level of the 185-foot monopole.
2. The proposed modifications will not involve any changes to ground-mounted equipment and, therefore, will not require and extension of the site boundary.
3. The proposed modifications will not increase the noise levels at the facility by six decibels or more, or to levels that exceed state and local criteria.
4. The operation of the modified facility will not increase radio frequency (RF) emissions at the facility to a level at or above the Federal Communications Commission (FCC) safety standard. A



cumulative worst-case RF emissions calculation for AT&T's modified facility is provided in the RF Emissions Compliance Report, included,

5. The proposed modifications will not cause a change or alteration in the physical or environmental characteristics of the site.
6. The tower and its foundation can support AT&T's proposed modifications. (See Structural Analysis Report included).

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

Sincerely,

A handwritten signature in black ink, appearing to read 'Ryan Lynch'.

Ryan Lynch
Real Estate Specialist | Smartlink, LLC
85 Rangeway Road, Building 3, Suite 102
North Billerica, MA 01862

Enclosures

CC w/ enclosures:

Benjamin G. Blake, Mayor of the City of Milford
Stephen Harris, Zoning Enforcement Officer, City of Milford
American Tower, Inc., Tower and Property Owner

From: TrackingUpdates@fedex.com
To: [Ryan Lynch](#)
Subject: FedEx Shipment 775083249099 Delivered
Date: Tuesday, April 30, 2019 10:14:09 AM

FedEx®

Your package has been delivered

Tracking # 775083249099

Ship date:
Mon, 4/29/2019

Ryan Lynch
Smartlink LLC
North Billerica, MA 01862
US

 **Delivered**

Delivery date:
Tue, 4/30/2019 10:08 am

ATTN: Zoning Department
American Tower Corporation
10 Presidential Way
WOBURN, MA 01801
US

Shipment Facts

Our records indicate that the following package has been delivered.

Tracking number:	775083249099
Status:	Delivered: 04/30/2019 10:08 AM Signed for By: P.ANCRI
Signed for by:	P.ANCRI
Delivery location:	WOBURN, MA
Delivered to:	Receptionist/Front Desk
Service type:	FedEx Express Saver®
Packaging type:	FedEx® Envelope
Number of pieces:	1
Weight:	0.50 lb.
Special handling/Services:	Deliver Weekday
Standard transit:	5/2/2019 by 4:30 pm

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Sent: Thursday, May 2, 2019 12:57 PM
To: Ryan Lynch
Subject: FedEx Shipment 775083328748 Delivered

Your package has been delivered

Tracking # 775083328748

Ship date:
Mon, 4/29/2019

Ryan Lynch
Smartlink LLC
North Billerica, MA 01862
US



Delivery date:
Thu, 5/2/2019 12:53 pm

ATTN: Mayor Benjamin Blake
City of Milford
110 River St
MILFORD, CT 06460
US



Shipment Facts

Our records indicate that the following package has been delivered.

Tracking number:	775083328748
Status:	Delivered: 05/02/2019 12:53 PM Signed for By: L.DICCOCCO
Signed for by:	L.DICCOCCO
Delivery location:	MILFORD, CT
Delivered to:	Receptionist/Front Desk
Service type:	FedEx Express Saver®
Packaging type:	FedEx® Envelope
Number of pieces:	1
Weight:	1.00 lb.
Special handling/Services:	Deliver Weekday
Standard transit:	5/2/2019 by 4:30 pm

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Thank you for your business.

Ryan Lynch

From: TrackingUpdates@fedex.com
Sent: Thursday, May 2, 2019 12:54 PM
To: Ryan Lynch
Subject: FedEx Shipment 775083294459 Delivered

Your package has been delivered

Tracking # 775083294459

Ship date:
Mon, 4/29/2019

Ryan Lynch
Smartlink LLC
North Billerica, MA 01862
US



Delivery date:
Thu, 5/2/2019 12:50 pm

ATTN: Stephen Harris, ZEO
City of Milford
70 West River St
MILFORD, CT 06460
US



Shipment Facts

Our records indicate that the following package has been delivered.

Tracking number:	775083294459
Status:	Delivered: 05/02/2019 12:50 PM Signed for By: T.GREENE
Signed for by:	T.GREENE
Delivery location:	MILFORD, CT
Delivered to:	Receptionist/Front Desk
Service type:	FedEx Express Saver®
Packaging type:	FedEx® Envelope
Number of pieces:	1
Weight:	1.00 lb.
Special handling/Services:	Deliver Weekday
Standard transit:	5/2/2019 by 4:30 pm

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Thank you for your business.

181-1 RESEARCH DR #CELL

Location 181-1 RESEARCH DR #CELL

Mblu 91/ 807/ 13A7/1 /

Acct# 023046

Owner AMERICAN TOWER

Assessment \$322,730

Appraisal \$461,050

PID 100283

Building Count 1

Current Value

Appraisal			
Valuation Year	Improvements	Land	Total
2016	\$461,050	\$0	\$461,050

Assessment			
Valuation Year	Improvements	Land	Total
2016	\$322,730	\$0	\$322,730

Owner of Record

Owner AMERICAN TOWER
Other C/O PROPERTY TAX DEPT
Address P O BOX 723597
ATLANTA, GA 31139

Sale Price \$425,000
Certificate
Book & Page 03366/0163
Sale Date 06/29/2010
Instrument 00

Ownership History

Ownership History					
Owner	Sale Price	Certificate	Book & Page	Instrument	Sale Date
AMERICAN TOWER	\$425,000		03366/0163	00	06/29/2010
DAMATO INVESTMENTS LLC	\$0		02289/0578		07/08/1998
DAMATO JOHN C JR &	\$587,500		01942/0499		12/31/1992

Building Information

Building 1 : Section 1

Year Built:
Living Area: 0
Replacement Cost: \$0
Building Percent
Good:
Replacement Cost
Less Depreciation: \$0

Building Attributes


Field	Description
Style	Outbuildings
Model	
Grade:	
Stories:	
Occupancy	
Exterior Wall 1	
Exterior Wall 2	
Roof Structure:	
Roof Cover	
Interior Wall 1	
Interior Wall 2	
Interior Flr 1	
Interior Flr 2	
Heat Fuel	
Heat Type:	
AC Type:	
Total Bedrooms:	
Total Bthrms:	
Total Half Baths:	
Total Xtra Fixtrs:	
Total Rooms:	
Bath Description:	
Kitchen Descrip:	
Int Condition:	
Solar Panels	
House Generator	

Building Photo



(<http://images.vgsi.com/photos/MilfordCTPhotos//default.jpg>)

Building Layout

 Building Layout

(<http://images.vgsi.com/photos/MilfordCTPhotos//Sketches/1002>)

Building Sub-Areas (sq ft)	Legend
No Data for Building Sub-Areas	

Extra Features

Extra Features	Legend
No Data for Extra Features	

Land

Land Use

Use Code 434V
Description CELL TOWER MDL-00
Zone
Neighborhood F

Land Line Valuation

Size (Acres) 0
Frontage
Depth
Assessed Value \$0

Outbuildings

Outbuildings						Legend
Code	Description	Sub Code	Sub Description	Size	Value	Bldg #
CEL1	CEL TWR SITE			1 UNITS	\$450,000	1
PAT2	PATIO-GOOD			943 S.F.	\$9,620	1
FN8	W/O TOP RL-6'			182 L.F.	\$1,430	1

Valuation History

Appraisal			
Valuation Year	Improvements	Land	Total
2017	\$461,050	\$0	\$461,050
2016	\$461,050	\$0	\$461,050
2013	\$461,050	\$0	\$461,050

Assessment			
Valuation Year	Improvements	Land	Total
2017	\$322,730	\$0	\$322,730
2016	\$322,730	\$0	\$322,730
2013	\$322,730	\$0	\$322,730

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City of Milford, Connecticut

APPLICATION FOR ZONING PERMIT

INSTRUCTIONS: Fill out this application in ball point pen. A scaled plot plan in duplicate, based on a certified surveyor's plot plan must be submitted with this application showing the proposed or existing lot and building dimensions and the location of all buildings in relation to the street lines, side lot lines and rear lot lines.

ADDRESS OF PROPERTY 185 Research Drive ZONE G.I.

MAP _____ BLOCK _____ PARCEL _____ LOT NO. 607 ADDRESS MAP NO. _____ LOT SIZE _____
WIDTH OF STREET RIGHT OF WAY LESS THAN 50 FT.? YES _____ NO CORNER LOT? YES NO _____

IS ANY PORTION OF THE LOT BELOW REGULATORY FLOOD ELEVATION? YES _____ NO

CITY WATER NA PRIVATE WELL* _____ SEWER** NA SEPTIC*** _____ ENG. O.S. PERMIT NO. NA

OWNER John C. D'Amato Jr. Trustee leased to Smart SMR of New York Inc

ADDRESS OF OWNER 147 Research Dr. Milford 575 Corporate Dr. Suite 402
Street City Mahwah, NJ State 07430

PRESENT USE OF PROPERTY 4 Industrial buildings

PROPOSED CONSTRUCTION: NEW ADDITION _____ ALTERATION _____ REPAIR _____

SIZE/USE OF PROPOSED CONSTRUCTION install mobile radio transmission cellular tower facility
tower base 4' tapers to 0'. 185' monopole with antenna array which will not
extend more than 14' additional height

NO. OF STORIES _____ HEIGHT _____ REQUIRED PARKING SPACES _____ LOT COVERAGE _____ %

DATE OF: ZBA APPROVAL Oct 12, 93 CASPR APPROVAL _____ EXEMPTION ISSUED _____

SITE PLAN APPROVAL _____ SPECIAL PERMIT APPROVAL _____ SUBD. REQUIRED YES _____ NO _____

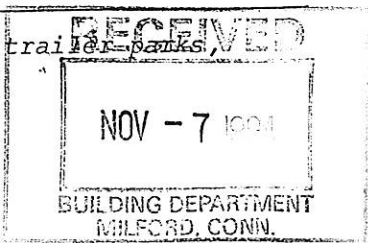
CERTIFICATION: (WARNING) I hereby certify that I am making this application on behalf of and with full authority of the owner of the property and that I am aware of the Zoning Regulations pertinent in this case and that the statements made herein are true and correct. APPROVAL SHALL BE VALID FOR PLANS AS SUBMITTED.

THE OCCUPANCY AND USE OF LAND AND BUILDINGS OR STRUCTURES PRIOR TO THE ISSUANCE OF A CERTIFICATE OF OCCUPANCY IS PROHIBITED.

APPROVED BY:
Richard Vaccaro
Zoning Enforcement Officer
Date Issued 10/26/94

APPLICANTS'S NAME PETER FILATOV
(Please print)
APPLICANT'S SIGNATURE _____
ADDRESS ONE N BROADWAY 2ND FL.
CITY MILFORD Street STATE N.J.
TEL. NO. 914-998-4316

*Permit required from State Health Dept. for apartments, subdivisions, shopping centers and public buildings.
** Permits for sewer connections are granted by Sewer Commission.
*** Septic system approvals are granted by Health Department.





AMERICAN TOWER®
CORPORATION

Structural Analysis Report

Structure : 183 ft Monopole
ATC Site Name : Milford CT 2, CT
ATC Site Number : 302535
Engineering Number : OAA735853_C3_04
Proposed Carrier : AT&T MOBILITY
Carrier Site Name : Milford Research Drive
Carrier Site Number : CTL02169 - 10035075
Site Location : 185 Research Drive
Milford, CT 06460-7733
41.240400,-73.011900
County : New Haven
Date : April 25, 2019
Max Usage : 99%
Result : Pass

Prepared By:
Zackaryah Hughes
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 183 ft monopole to reflect the change in loading by AT&T MOBILITY.

Supporting Documents

Tower Drawings	Summit Manufacturing Drawing #1237-D1, dated September 9, 1994
Foundation Drawing	Summit Manufacturing Drawing #1237-F1 dated October 10, 1994
Geotechnical Report	French & Parrello Project #93N035CR1, dated November 2, 1993
Modifications	ATC Job #42659834, dated January 16, 2009 ATC Job #43915332, dated September 2, 2009 ATC Job #56682734, dated April 16, 2014

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, Vasd) / 125 mph (3-Second Gust, Vult)
Basic Wind Speed w/ Ice:	50 mph (3-Second Gust) w/ 3/4" radial ice concurrent
Code:	ANSI/TIA-222-G / 2015 IBC / 2018 Connecticut State Building Code
Structure Class:	II
Exposure Category:	B
Topographic Category:	1
Crest Height:	0 ft
Spectral Response:	$S_s = 0.19$, $S_1 = 0.06$
Site Class:	D - Stiff Soil

Conclusion

Based on the analysis results, the structure meets the requirements per the applicable codes listed above. The tower and foundation can support the equipment as described in this report.

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



Existing and Reserved Equipment

Elev. ¹ (ft)	Qty	Antenna	Mount Type	Lines	Carrier
185.0	2	DragonWave Horizon Compact	Platform with Handrails	(3) 1 1/4" Hybriflex Cable (1) 1.7" (43.2mm) Hybrid (3) 1/2" Coax (2) 2" conduit (6) 5/16" (0.31"-7.9mm) Coax	CLEARWIRE CORPORATION
	3	Commscope NNVV-65B-R4			
	3	Alcatel-Lucent 1900 MHz 4X45 RRH			
	3	Nokia 2.5G MAA - AAHC(64T64R)			
	6	Alcatel-Lucent RRH2x50-08			
	2	DragonWave A-ANT-18G-2-C			
	3	Argus LLPX310R			
	3	Decibel DB844H90E-XY			
	3	Andrew 844G65VTZASX			
183.0	-	-	-	(12) 1 5/8" Coax	SPRINT NEXTEL
175.0	3	RFS APXV18-206517S-C	Flush	(6) 1 5/8" Coax	METRO PCS INC
167.0	3	Quintel QS66512-2	-	(3) 0.39" (10mm) Fiber Trunk (4) 0.78" (19.7mm) 8 AWG 6 (12) 1 1/4" Coax (2) 2" conduit	AT&T MOBILITY
	3	CCI OPA-65R-LCUU-H4			
	3	Powerwave Allgon 7770.00			
	3	Ericsson RRUS-32 (77 lbs)			
	3	Ericsson RRUS 32 B2			
	3	Ericsson RRUS 11 (Band 4)			
	2	Raycap DC6-48-60-18-8F (23.5" Height)			
	6	Powerwave Allgon LGP21401			
	1	Commscope WCS-IMFQ-AMT			
6	CCI TPX-070821				
145.0	3	Ericsson KRY 112 144/2	Low Profile Platform	(2) 1 5/8" (1.63"-41.3mm) Fiber (18) 1 5/8" Coax	T-MOBILE
	3	Kathrein Scala Smart Bias Tee			
	3	Ericsson KRY 112 489/2			
	3	Ericsson Radio 4449 B12,B71			
	3	Ericsson AIR 32 B2A/B66A			
	3	RFS APXVAARR24_43-U-NA20			
126.0	3	Samsung B2/B66A RRH-BR049	Platform with Handrails	(12) 7/8" Coax (2) 1 5/8" (1.63"-41.3mm) Fiber (6) 1 5/8" Coax	VERIZON WIRELESS
	3	Samsung B5/B13 RRH-BR04C			
	2	RFS DB-T1-6Z-8AB-OZ			
	3	RFS FDJ85020Q4-S1			
	6	Commscope JAHH-45B-R3B			
	3	Andrew HBXX-6517DS-A2M (43 lbs)			
3	Antel BXA-80063/6CF				
7.0	2	Thales PCS VP/360/2 Type 8100	Stand Off	-	T-MOBILE

Equipment to be Removed

Elev. ¹ (ft)	Qty	Antenna	Mount Type	Lines	Carrier
167.0	-	-	Platform with Handrails	-	AT&T MOBILITY



Proposed Equipment

Elev. ¹ (ft)	Qty	Antenna	Mount Type	Lines	Carrier
167.0	3	Kathrein Scala 80010964	Site Pro 1 12' Fortress Tri-Platform Mount with Handrail Kit	(2) 0.78" (19.7mm) 8 AWG 6	AT&T MOBILITY
	3	Ericsson RRUS 4478 B5			
	3	Ericsson RRUS 4478 B14			
	3	Ericsson RRUS 4426 B66			
	1	Raycap DC6-48-60-18-8F ("Squid")			
	6	Kaelus DBCT108F1V92-1			

¹ Contracted elevations are shown for appurtenances within contracted installation tolerances. Appurtenances outside of contract limits are shown at installed elevations.

Install proposed AT&T MOBILITY coax inside the pole shaft.

Structure Usages

Structural Component	Controlling Usage	Pass/Fail
Anchor Bolts	67%	Pass
Shaft	92%	Pass
Base Plate	73%	Pass
Reinforcement	99%	Pass

Foundations

Reaction Component	Analysis Reactions	% of Usage
Moment (Kips-Ft)	4,317.2	64%
Axial (Kips)	74.5	4%

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

Deflection and Sway*

Antenna Elevation (ft)	Antenna	Carrier	Deflection (ft)	Sway (Rotation) (°)
183.0	DragonWave A-ANT-18G-2-C	CLEARWIRE CORPORATION	3.247	2.114
167.0	Kaelus DBCT108F1V92-1	AT&T MOBILITY	2.665	2.038
	Raycap DC6-48-60-18-8F ("Squid")			
	Ericsson RRUS 4426 B66			
	Ericsson RRUS 4478 B14			
	Ericsson RRUS 4478 B5			
	Kathrein Scala 80010964			

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



Standard Conditions

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

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

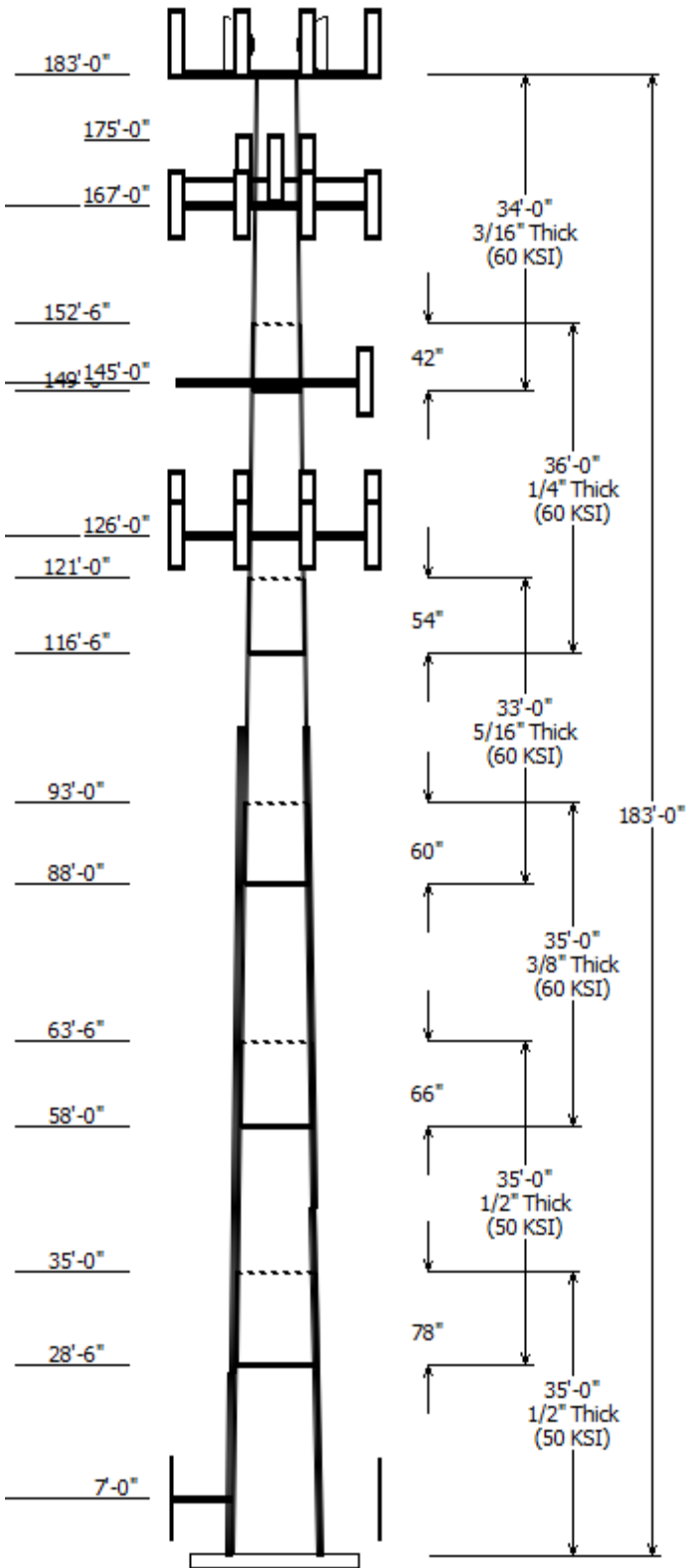
It is the responsibility of the client to ensure that the information provided to A.T. Engineering Service, PLLC and used in the performance of our engineering services is correct and complete.

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

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

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

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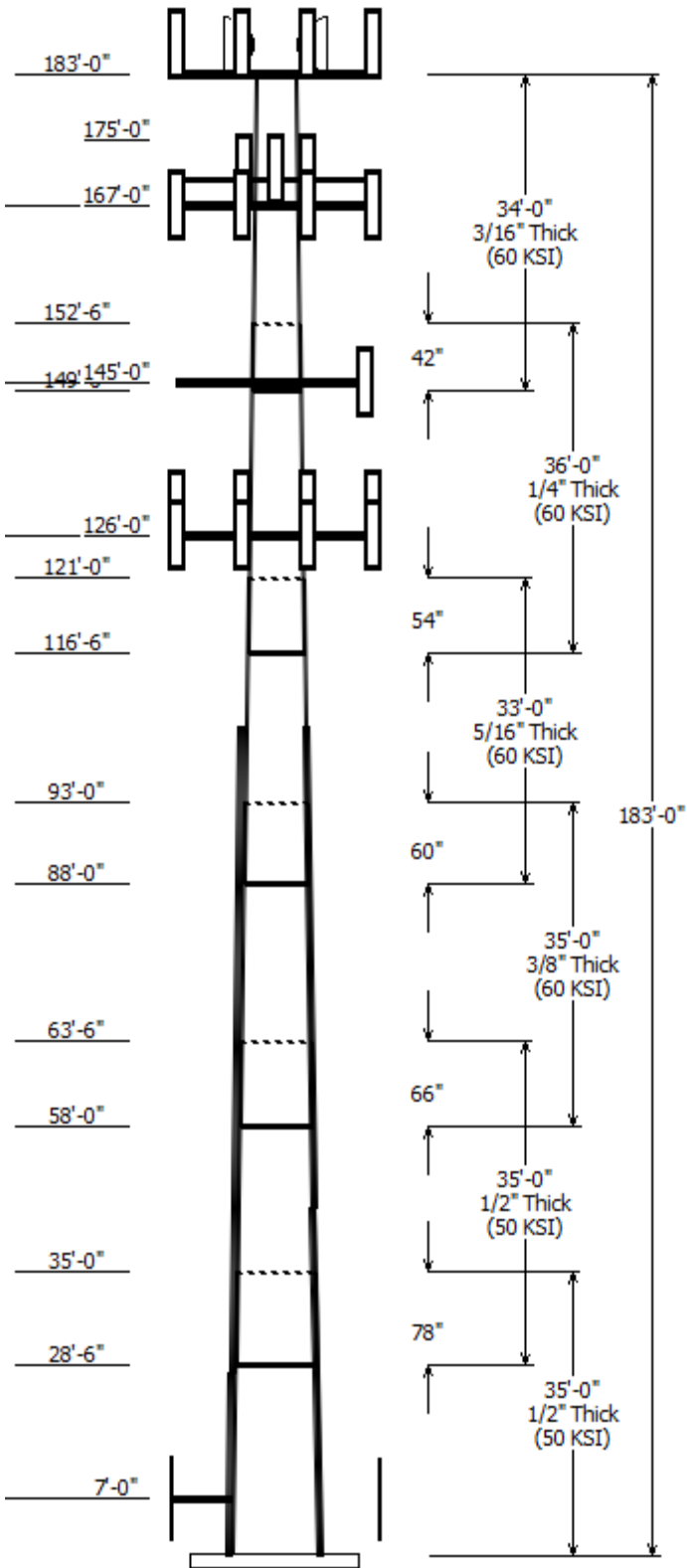


Job Information	
Pole : 302535	Code: ANSI/TIA-222-G
Location : Milford CT 2, CT	
Description : 183 ft Summit Monopole	
Client : AT&T MOBILITY	Struct Class : II
Shape : 18 Sides	Exposure : B
Height : 183.00 (ft)	Topo : 1
Base Elev (ft): 0.00	
Taper: 0.174917(in/ft)	

Sections Properties							
Shaft Section	Length (ft)	Diameter (in)		Thick (in)	Joint Type	Overlap Length (in)	Steel Grade (ksi)
		Across Top	Flats Bottom				
1	35.000	42.49	48.62	0.500		0.000	18 Sides 50
2	35.000	38.51	44.63	0.500	Slip Joint	78.000	18 Sides 50
3	35.000	34.10	40.22	0.375	Slip Joint	66.000	18 Sides 60
4	33.000	29.83	35.60	0.313	Slip Joint	60.000	18 Sides 60
5	36.000	24.82	31.11	0.250	Slip Joint	54.000	18 Sides 60
6	34.000	19.86	25.80	0.188	Slip Joint	42.000	18 Sides 60

Discrete Appurtenance			
Attach Elev (ft)	Force Elev (ft)	Qty	Description
183.000	185.000	3	Commscope NNVV-65B-R4
183.000	185.000	3	Andrew 844G65VTZASX
183.000	185.000	2	DragonWave A-ANT-18G-2-C
183.000	185.000	3	Argus LLPX310R
183.000	185.000	3	Nokia 2.5G MAA -
183.000	185.000	3	Decibel DB844H90E-XY
183.000	185.000	3	Alcatel-Lucent 1900 MHz 4X45
183.000	185.000	6	Alcatel-Lucent RRH2x50-08
183.000	185.000	2	DragonWave Horizon Compact
183.000	183.000	1	Flat Platform w/ Handrails
175.000	171.000	3	RFS APXV18-206517S-C
167.000	167.000	1	Generic Round Platform with
167.000	167.000	3	CCI OPA-65R-LCUU-H4
167.000	167.000	3	Powerwave Allgon 7770.00
167.000	167.000	3	Ericsson RRUS-32 (77 lbs)
167.000	167.000	3	Ericsson RRUS 32 B2
167.000	167.000	3	Ericsson RRUS 11 (Band 4)
167.000	167.000	3	Ericsson RRUS 4478 B5
167.000	167.000	3	Ericsson RRUS 4478 B14
167.000	167.000	3	Ericsson RRUS 4426 B66
167.000	167.000	3	Kathrein Scala 80010964
167.000	167.000	3	Quintel QS66512-2
167.000	167.000	1	Raycap DC6-48-60-18-8F
167.000	167.000	2	Raycap DC6-48-60-18-8F (23.5"
167.000	167.000	6	Powerwave Allgon LGP21401
167.000	167.000	1	Commscope WCS-IMFQ-AMT
167.000	167.000	6	Kaelus DBCT108F1V92-1
167.000	167.000	6	CCI TPX-070821
145.000	145.000	3	RFS APXVAARR24_43-U-NA20
145.000	145.000	3	Ericsson AIR 32 B2A/B66A
145.000	145.000	3	Ericsson Radio 4449 B12,B71
145.000	145.000	3	Ericsson KRY 112 489/2
145.000	145.000	3	Ericsson KRY 112 144/2
145.000	146.000	3	Kathrein Scala Smart Bias Tee
145.000	145.000	1	Flat Low Profile Platform
126.000	126.000	3	Samsung B5/B13 RRH-BR04C
126.000	126.000	3	RFS FDJ85020Q4-S1
126.000	126.000	1	Flat Platform w/ Handrails
126.000	126.000	6	Commscope JAHH-45B-R3B
126.000	127.000	3	Andrew HBXX-6517DS-A2M (43
126.000	127.000	3	Antel BXA-80063/6CF

126.000	127.000	2	RFS DB-T1-6Z-8AB-0Z
126.000	126.000	3	Samsung B2/B66A RRH-BR049
7.000	7.000	1	Stand-Off
7.000	7.000	2	Thales PCS VP/360/2 Type 8100

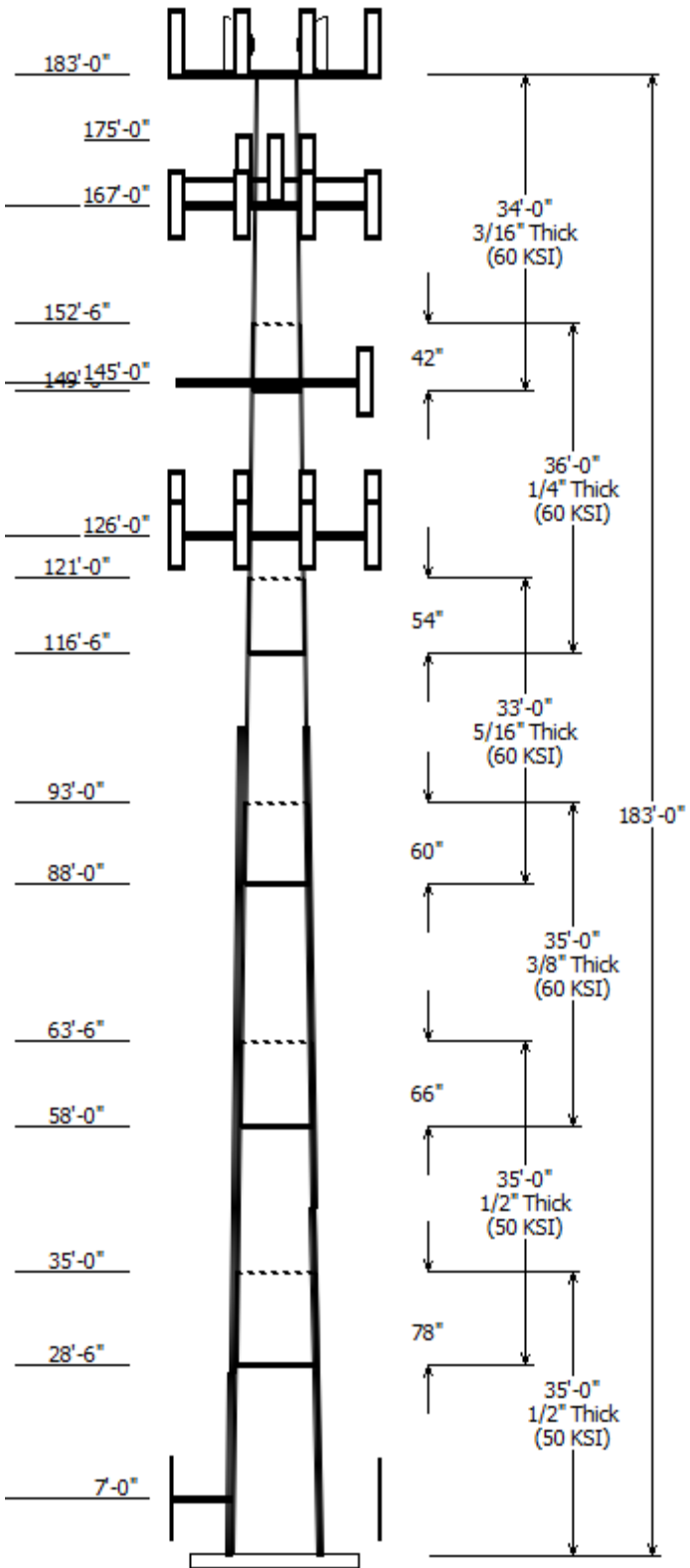


Linear Appurtenance			
Elev (ft)		Description	Exposed To Wind
From	To		
5.000	126.0	1 5/8" (1.63"-	Yes
5.000	126.0	1 5/8" (1.63"-	No
5.000	126.0	1 5/8" Coax	No
5.000	127.0	7/8" Coax	No
5.000	145.0	1 5/8" Coax	Yes
5.000	145.0	1 5/8" Coax	No
5.000	167.0	0.39" (10mm)	No
5.000	167.0	0.39" (10mm)	Yes
5.000	167.0	0.78" (19.7mm) 8	Yes
5.000	167.0	0.78" (19.7mm) 8	No
5.000	167.0	1 1/4" Coax	No
5.000	167.0	2" conduit	No
5.000	175.0	1 5/8" Coax	Yes
5.000	185.0	1 1/4" Hybriflex	Yes
5.000	185.0	1 5/8" Coax	No
5.000	185.0	1 5/8" Coax	No
5.000	185.0	1.7" (43.2mm)	Yes
5.000	185.0	1/2" Coax	Yes
5.000	185.0	1/2" Coax	Yes
5.000	185.0	2" conduit	Yes
0.000	185.0	5/16" (0.31"-	Yes
0.000	145.0	1 5/8" (1.63"-	No
0.000	110.8	#20 Dywidag Bars	Yes
0.000	110.8	#20 Dywidag Bars	Yes
0.000	110.8	#20 Dywidag Bars	Yes
0.000	110.8	#20 Dywidag Bars	Yes

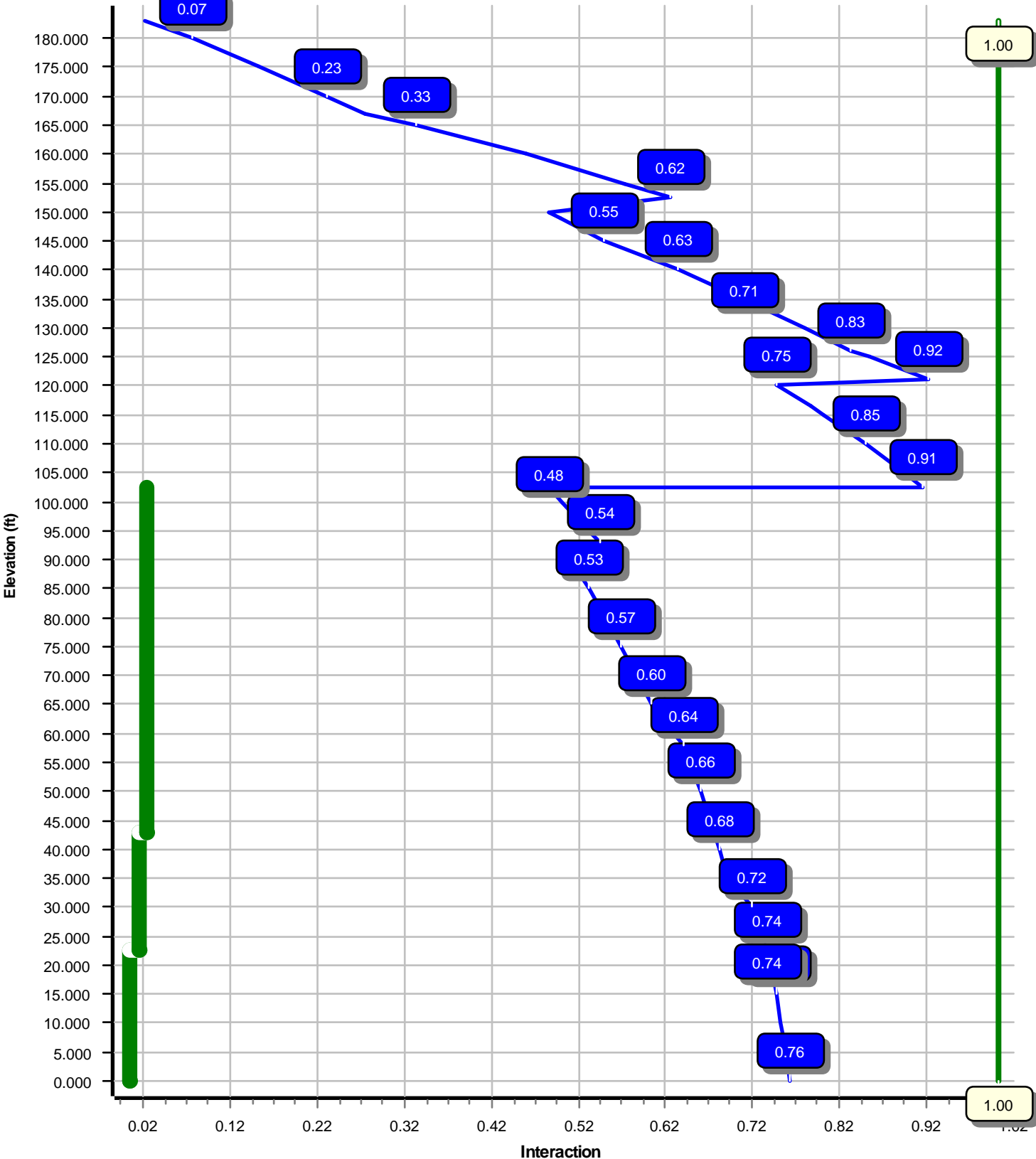
Load Cases	
1.2D + 1.6W	97 mph with No Ice
0.9D + 1.6W	97 mph with No Ice (Reduced DL)
1.2D + 1.0Di + 1.0Wi	50 mph with 0.75 in Radial Ice
(1.2 + 0.2Sds) * DL + E	Seismic Equivalent Lateral Forces Method
(1.2 + 0.2Sds) * DL + E	Seismic Equivalent Modal Analysis Method
(0.9 - 0.2Sds) * DL + E	Seismic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

Reactions			
Load Case	Moment (kip-ft)	Shear (kip)	Axial (kip)
1.2D + 1.6W	4317.17	31.09	74.52
0.9D + 1.6W	4149.18	30.53	55.88
1.2D + 1.0Di + 1.0Wi	2360.03	20.08	113.45
(1.2 + 0.2Sds) * DL + E ELFM	282.16	1.87	75.06
(1.2 + 0.2Sds) * DL + E EMAM	333.36	2.51	75.06
(0.9 - 0.2Sds) * DL + E ELFM	275.17	1.87	52.01
(0.9 - 0.2Sds) * DL + E EMAM	324.31	2.51	52.01
1.0D + 1.0W	1001.30	7.30	62.15

Dish Deflections			
Load Case	Attach Elev (ft)	Deflection (in)	Rotation (deg)
1.0D + 1.0W	183.00	38.967	2.114



Load Case : 1.2D + 1.6W
Max Ratio 91.93% at 121.0 ft



Site Number: 302535

Code: ANSI/TIA-222-G

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Site Name: Milford CT 2, CT

Engineering Number: OAA735853_C3_04

4/25/2019 4:27:19 PM

Customer: AT&T MOBILITY

Analysis Parameters

Location :	New Haven County, CT	Height (ft) :	183
Code :	ANSI/TIA-222-G	Base Diameter (in) :	48.62
Shape :	18 Sides	Top Diameter (in) :	19.86
Pole Type :	Taper	Taper (in/ft) :	0.175
Pole Manufacturer :	Summit Manufacturing	Rotation (deg) :	0.00

Ice & Wind Parameters

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

Seismic Parameters

Analysis Method:	Equivalent Modal Analysis & Equivalent Lateral Force Methods		
Site Class:	D - Stiff Soil		
Period Based on Rayleigh Method (sec):	3.26		
T _L (sec):	6	p:	1
S _s :	0.190	S ₁ :	0.060
F _a :	1.600	F _v :	2.400
S _{ds} :	0.203	S _{d1} :	0.096
		C _s :	0.030
		C _s Max:	0.030
		C _s Min:	0.030

Load Cases

1.2D + 1.6W	97 mph with No Ice
0.9D + 1.6W	97 mph with No Ice (Reduced DL)
1.2D + 1.0Di + 1.0Wi	50 mph with 0.75 in Radial Ice
(1.2 + 0.2S _{ds}) * DL + E ELFM	Seismic Equivalent Lateral Forces Method
(1.2 + 0.2S _{ds}) * DL + E EMAM	Seismic Equivalent Modal Analysis Method
(0.9 - 0.2S _{ds}) * DL + E ELFM	Seismic (Reduced DL) Equivalent Lateral Forces Method
(0.9 - 0.2S _{ds}) * DL + E EMAM	Seismic (Reduced DL) Equivalent Modal Analysis Method
1.0D + 1.0W	Serviceability 60 mph

Site Number: 302535

Code: ANSI/TIA-222-G

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Site Name: Milford CT 2, CT

Engineering Number: OAA735853_C3_04

4/25/2019 4:27:19 PM

Customer: AT&T MOBILITY

Shaft Section Properties

Sect Info	Length (ft)	Thick (in)	Fy (ksi)	Joint Type	Slip Joint Len (in)	Weight (lb)	Bottom						Top							
							Dia (in)	Elev (ft)	Area (in ²)	Ix (in ⁴)	W/t Ratio	D/t Ratio	Dia (in)	Elev (ft)	Area (in ²)	Ix (in ⁴)	W/t Ratio	D/t Ratio	Taper (in/ft)	
1-18	35.000	0.5000	50		0.00	8,516	48.62	0.00	76.36	22340.1	15.38	97.24	42.49	35.00	66.65	14852.2	13.22	85.00	0.174917	
2-18	35.000	0.5000	50	Slip	78.00	7,763	44.63	28.50	70.04	17236.7	13.98	89.27	38.51	63.50	60.32	11012.7	11.82	77.03	0.174917	
3-18	35.000	0.3750	60	Slip	66.00	5,215	40.22	58.00	47.43	9515.8	17.15	107.27	34.10	93.00	40.14	5769.4	14.27	90.94	0.174917	
4-18	33.000	0.3125	60	Slip	60.00	3,609	35.60	88.00	35.00	5507.2	18.33	113.93	29.83	121.00	29.28	3222.7	15.07	95.46	0.174917	
5-18	36.000	0.2500	60	Slip	54.00	2,694	31.11	116.50	24.49	2948.2	20.18	124.47	24.82	152.50	19.50	1486.9	15.74	99.28	0.174917	
6-18	34.000	0.1875	60	Slip	42.00	1,559	25.80	149.00	15.25	1264.3	22.51	137.64	19.86	183.00	11.71	572.4	16.91	105.92	0.174917	
Shaft Weight						29,356														

Discrete Appurtenance Properties

Attach Elev (ft)	Description	Qty	Ka	Vert Ecc (ft)	Weight (lb)	No Ice EPAa (sf)	Orientation Factor	Ice Weight (lb)	Ice EPAa (sf)	Orientation Factor
183.00	DragonWave Horizon Compact	2	0.80	2.000	10.60	0.720	0.50	33.57	1.300	0.50
183.00	Alcatel-Lucent RRH2x50-08	6	0.80	2.000	52.90	1.700	0.50	113.42	2.581	0.50
183.00	Alcatel-Lucent 1900 MHz 4X45	3	0.80	2.000	60.00	2.320	0.50	142.31	3.423	0.50
183.00	Decibel DB844H90E-XY	3	0.80	2.000	14.00	3.610	0.73	127.33	3.941	0.73
183.00	Nokia 2.5G MAA - AAHC(64T64R)	3	0.80	2.000	103.60	4.200	0.64	218.74	5.569	0.64
183.00	Argus LLPX310R	3	0.80	2.000	28.60	4.290	0.63	120.64	5.978	0.63
183.00	DragonWave A-ANT-18G-2-C	2	1.00	2.000	27.10	4.690	1.00	126.77	5.991	1.00
183.00	Andrew 844G65VTZASX	3	0.80	2.000	16.00	5.310	0.71	175.64	6.334	0.71
183.00	Commscope NNVV-65B-R4	3	0.80	2.000	77.40	12.270	0.64	334.03	15.134	0.64
183.00	Flat Platform w/ Handrails	1	1.00	0.000	2,000.00	42.400	1.00	3,451.49	63.819	1.00
175.00	RFS APXV18-206517S-C	3	1.00	-4.000	26.40	5.160	0.68	120.55	7.564	0.68
167.00	CCI TPX-070821	6	0.75	0.000	7.50	0.470	0.50	19.78	0.956	0.50
167.00	Kaelus DBCT108F1V92-1	6	0.75	0.000	13.90	0.630	0.50	39.38	1.180	0.50
167.00	Commscope WCS-IMFQ-AMT	1	0.75	0.000	29.50	0.990	0.50	63.60	1.660	0.50
167.00	Powerwave Allgon LGP21401	6	0.75	0.000	14.10	1.100	0.50	39.36	1.820	0.50
167.00	Raycap DC6-48-60-18-8F (23.5"	2	0.75	0.000	20.00	1.260	1.00	73.30	1.926	1.00
167.00	Raycap DC6-48-60-18-8F	1	0.75	0.000	31.80	1.470	1.00	94.25	2.177	1.00
167.00	Ericsson RRUS 4426 B66	3	0.75	0.000	48.40	1.650	0.50	93.59	2.510	0.50
167.00	Ericsson RRUS 4478 B14	3	0.75	0.000	59.90	1.840	0.50	115.87	2.747	0.50
167.00	Ericsson RRUS 4478 B5	3	0.75	0.000	59.90	1.840	0.50	115.87	2.747	0.50
167.00	Ericsson RRUS 11 (Band 4)	3	0.75	0.000	44.00	2.570	0.50	113.01	3.632	0.50
167.00	Ericsson RRUS 32 B2	3	0.75	0.000	53.00	2.740	0.50	127.45	3.923	0.50
167.00	Ericsson RRUS-32 (77 lbs)	3	0.75	0.000	77.00	3.310	0.50	175.45	4.608	0.50
167.00	Powerwave Allgon 7770.00	3	0.75	0.000	35.00	5.510	0.65	171.87	6.577	0.65
167.00	CCI OPA-65R-LCUU-H4	3	0.75	0.000	57.00	6.080	0.66	199.42	8.005	0.66
167.00	Quintel QS66512-2	3	0.75	0.000	111.00	8.130	0.74	312.72	10.951	0.74
167.00	Kathrein Scala 80010964	3	0.75	0.000	81.60	10.000	0.62	288.64	12.391	0.62
167.00	Generic Round Platform with	1	1.00	0.000	2,500.00	27.200	1.00	4,139.58	51.944	1.00
145.00	Kathrein Scala Smart Bias Tee	3	0.80	1.000	3.30	0.080	0.50	6.58	0.287	0.50
145.00	Ericsson KRY 112 144/2	3	0.80	0.000	9.70	0.480	0.50	23.85	0.952	0.50
145.00	Ericsson KRY 112 489/2	3	0.80	0.000	15.40	0.560	0.50	33.00	1.084	0.50
145.00	Ericsson Radio 4449 B12,B71	3	0.80	0.000	74.00	1.640	0.50	129.81	2.482	0.50
145.00	Ericsson AIR 32 B2A/B66A	3	0.80	0.000	143.30	6.870	0.75	325.33	9.155	0.75
145.00	RFS APXVAARR24_43-U-NA20	3	0.80	0.000	127.90	20.240	0.63	519.28	23.937	0.63
145.00	Flat Low Profile Platform	1	1.00	0.000	1,500.00	26.100	1.00	2,145.90	45.133	1.00
126.00	RFS FDJ85020Q4-S1	3	0.80	0.000	23.60	0.960	0.50	56.40	1.668	0.50
126.00	Samsung B5/B13 RRH-BR04C	3	0.80	0.000	70.30	1.880	0.50	126.61	2.771	0.50
126.00	Samsung B2/B66A RRH-BR049	3	0.80	0.000	84.40	1.880	0.50	147.20	2.771	0.50
126.00	RFS DB-T1-6Z-8AB-OZ	2	0.80	1.000	44.00	4.800	0.50	167.89	6.199	0.50
126.00	Antel BXA-80063/6CF	3	0.80	1.000	14.90	7.580	0.65	178.91	8.820	0.65
126.00	Andrew HBXX-6517DS-A2M (43	3	0.80	1.000	43.00	8.530	0.68	216.12	11.390	0.68
126.00	Commscope JAHH-45B-R3B	6	0.80	0.000	83.80	11.400	0.63	308.72	14.144	0.63
126.00	Flat Platform w/ Handrails	1	1.00	0.000	2,000.00	42.400	1.00	3,398.92	63.044	1.00
7.00	Thales PCS VP/360/2 Type 8100	2	1.00	0.000	0.30	0.030	1.00	1.76	0.151	1.00
7.00	Stand-Off	1	1.00	0.000	75.00	2.500	1.00	101.56	3.449	1.00

Site Number: 302535

Code: ANSI/TIA-222-G

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Site Name: Milford CT 2, CT

Engineering Number: OAA735853_C3_04

4/25/2019 4:27:19 PM

Customer: AT&T MOBILITY

Totals Num Loadings:45 131 14,061.30 31,474.48

Linear Appurtenance Properties Load Case Azimuth (deg) : 315

Elev From (ft)	Elev To (ft)	Qty	Description	Coax Dia (in)	Coax Wt (lb/ft)	Max Coax / Flat Row	Dist Between Rows (in)	Dist Between Cols (in)	Azimuth (deg)	Dist From Face (in)	Exposed To Wind	Carrier
0.00	185.00	6	5/16" (0.31"-7.9mm)	0.31	0.05	N 6	0.00	0.00	150	0.00	Y	CLEARWIRE
5.00	185.00	3	1 1/4" Hybriflex Cable	1.54	1.00	N 3	0.00	0.00	150	0.00	Y	CLEARWIRE
5.00	185.00	9	1 5/8" Coax	1.98	0.82	N 0	0.00	0.00	0	0.00	N	SPRINT NEXTEL
5.00	185.00	3	1 5/8" Coax	1.98	0.82	N 0	0.00	0.00	0	0.00	N	SPRINT NEXTEL
5.00	185.00	1	1.7" (43.2mm) Hybrid	1.70	1.78	N 1	0.00	0.00	150	0.00	Y	CLEARWIRE
5.00	185.00	2	1/2" Coax	0.63	0.15	N 2	0.00	0.00	150	0.00	Y	CLEARWIRE
5.00	185.00	1	1/2" Coax	0.63	0.15	N 1	0.00	0.00	150	0.00	Y	CLEARWIRE
5.00	185.00	2	2" conduit	2.38	3.65	N 2	0.00	0.00	150	0.00	Y	CLEARWIRE
5.00	175.00	6	1 5/8" Coax	1.98	0.82	N 4	0.00	0.00	150	0.00	Y	METRO PCS INC
5.00	167.00	2	0.39" (10mm) Fiber	0.39	0.06	N 0	0.00	0.00	0	0.00	N	AT&T MOBILITY
5.00	167.00	1	0.39" (10mm) Fiber	0.39	0.06	N 1	0.00	0.00	240	0.00	Y	AT&T MOBILITY
5.00	167.00	4	0.78" (19.7mm) 8 AWG	0.78	0.59	N 4	0.00	0.00	210	0.00	Y	AT&T MOBILITY
5.00	167.00	2	0.78" (19.7mm) 8 AWG	0.78	0.59	N 0	0.00	0.00	0	0.00	N	AT&T MOBILITY
5.00	167.00	12	1 1/4" Coax	1.55	0.63	N 0	0.00	0.00	0	0.00	N	AT&T MOBILITY
5.00	167.00	2	2" conduit	2.38	3.65	N 0	0.00	0.00	0	0.00	N	AT&T MOBILITY
0.00	145.00	2	1 5/8" (1.63"-41.3mm)	1.63	1.61	N 0	0.00	0.00	0	0.00	N	T-MOBILE
5.00	145.00	9	1 5/8" Coax	1.98	0.82	N 6	0.00	0.00	270	0.00	Y	T-Mobile
5.00	145.00	9	1 5/8" Coax	1.98	0.82	N 0	0.00	0.00	0	0.00	N	T-Mobile
5.00	127.00	12	7/8" Coax	1.09	0.33	N 0	0.00	0.00	0	0.00	N	VERIZON WIRELESS
5.00	126.00	1	1 5/8" (1.63"-41.3mm)	1.63	1.61	N 1	0.00	0.00	240	0.00	Y	VERIZON WIRELESS
5.00	126.00	1	1 5/8" (1.63"-41.3mm)	1.63	1.61	N 0	0.00	0.00	0	0.00	N	VERIZON WIRELESS
5.00	126.00	6	1 5/8" Coax	1.98	0.82	N 0	0.00	0.00	0	0.00	N	VERIZON WIRELESS
0.00	110.80	1	#20 Dywidag Bars	4.00	0.00	N 1	0.00	0.00	0	0.00	Y	--
0.00	110.80	1	#20 Dywidag Bars	4.00	0.00	N 1	0.00	0.00	90	0.00	Y	--
0.00	110.80	1	#20 Dywidag Bars	4.00	0.00	N 1	0.00	0.00	180	0.00	Y	--
0.00	110.80	1	#20 Dywidag Bars	4.00	0.00	N 1	0.00	0.00	270	0.00	Y	--

Additional Steel

Elev From (ft)	Elev To (ft)	Qty	Description	Fy (ksi)	Offset (in)	— Intermediate Connections —			Connectors	Continuation?
			Description			Spacing (in)	Len (in)			
0.00	22.50	4	SOL #20 All Thread	80	2.19	6" Angle Bracket	20.0	3.31	5/8" A36 U-Bolt	No
22.50	43.00	4	SOL #20 All Thread	80	2.19	6" Angle Bracket	18.0	3.31	5/8" A36 U-Bolt	Yes
43.00	102.5	4	SOL #20 All Thread	80	2.19	6" Angle Bracket	30.0	3.31	5/8" A36 U-Bolt	Yes

Segment Properties (Max Len : 5. ft)

Seg Top Elev (ft)	Description	Thick (in)	Flat Dia (in)	Area (in ²)	Ix (in ⁴)	W/t Ratio	D/t Ratio	F'y (ksi)	S (in ³)	Z (in ³)	Weight (lb)	Additional Reinforcing		
												Area (in ²)	Ix (in ⁴)	Weight (lb)
0.00		0.5000	48.620	76.363	22,340.1	15.38	97.24	63.5	905.0	0.0	0.0	19.64	7,654	0.0
5.00		0.5000	47.745	74.975	21,144.0	15.07	95.49	63.5	872.2	0.0	1,287.4	19.64	7,412	334.0
7.00		0.5000	47.395	74.420	20,677.8	14.95	94.79	63.5	859.3	0.0	508.4	19.64	7,317	133.6
10.00		0.5000	46.871	73.588	19,991.4	14.77	93.74	63.5	840.1	0.0	755.5	19.64	7,175	200.4
15.00		0.5000	45.996	72.200	18,881.4	14.46	91.99	63.5	808.5	0.0	1,240.2	19.64	6,941	334.0
20.00		0.5000	45.121	70.812	17,813.3	14.15	90.24	63.5	777.6	0.0	1,216.6	19.64	6,711	334.0
22.50	Reinf. Top Reinf	0.5000	44.684	70.118	17,294.7	13.99	89.37	63.5	762.3	0.0	599.4	19.64	6,598	167.0
25.00		0.5000	44.247	69.424	16,786.3	13.84	88.49	63.5	747.2	0.0	593.5	19.64	6,485	167.0
28.50	Bot - Section 2	0.5000	43.635	68.452	16,091.4	13.62	87.27	63.5	726.3	0.0	821.0	19.64	6,329	233.8
30.00		0.5000	43.372	68.036	15,799.5	13.53	86.74	63.5	717.5	0.0	704.8	19.64	6,517	100.2
35.00	Top - Section 1	0.5000	43.498	68.235	15,938.6	13.58	87.00	63.5	721.7	0.0	2,318.5	19.64	6,295	334.0
40.00		0.5000	42.623	66.847	14,985.6	13.27	85.25	63.5	692.5	0.0	1,149.1	19.64	6,076	334.0
43.00	Reinf. Top Reinf	0.5000	42.098	66.014	14,432.5	13.08	84.20	63.5	675.2	0.0	678.1	19.64	5,947	200.4
45.00		0.5000	41.749	65.459	14,071.5	12.96	83.50	63.5	663.9	0.0	447.4	19.64	5,861	133.6
50.00		0.5000	40.874	64.071	13,195.2	12.65	81.75	63.5	635.8	0.0	1,101.9	19.64	5,650	334.0
55.00		0.5000	39.999	62.683	12,356.2	12.34	80.00	63.5	608.4	0.0	1,078.3	19.64	5,443	334.0
58.00	Bot - Section 3	0.5000	39.475	61.850	11,870.2	12.16	78.95	63.5	592.3	0.0	635.6	19.64	5,321	200.4
60.00		0.5000	39.125	61.295	11,553.4	12.03	78.25	63.5	581.6	0.0	740.4	19.64	5,414	133.6
63.50	Top - Section 2	0.3750	39.263	46.284	8,843.2	16.70	104.70	76.2	443.6	0.0	1,279.8	19.64	5,272	233.8
65.00		0.3750	39.000	45.972	8,665.4	16.57	104.00	76.2	437.6	0.0	235.4	19.64	5,211	100.2
70.00		0.3750	38.126	44.931	8,090.0	16.16	101.67	76.2	417.9	0.0	773.3	19.64	5,012	334.0
75.00		0.3750	37.251	43.890	7,540.6	15.75	99.34	76.2	398.7	0.0	755.6	19.64	4,817	334.0
80.00		0.3750	36.376	42.849	7,016.7	15.34	97.00	76.2	379.9	0.0	737.9	19.64	4,626	334.0
85.00		0.3750	35.502	41.808	6,517.7	14.93	94.67	76.2	361.6	0.0	720.2	19.64	4,439	334.0
88.00	Bot - Section 4	0.3750	34.977	41.184	6,229.9	14.68	93.27	76.2	350.8	0.0	423.6	19.64	4,329	200.4
90.00		0.3750	34.627	40.767	6,042.9	14.52	92.34	76.2	343.7	0.0	515.9	19.64	4,386	133.6
93.00	Top - Section 3	0.3125	34.727	34.134	5,107.8	17.83	111.13	75.0	289.7	0.0	764.1	19.64	4,277	200.4
95.00		0.3125	34.378	33.787	4,953.6	17.63	110.01	75.2	283.8	0.0	231.1	19.64	4,204	133.6
100.0		0.3125	33.503	32.920	4,581.8	17.14	107.21	75.7	269.4	0.0	567.5	19.64	4,026	334.0
102.5	Reinf. Top	0.3125	33.066	32.486	4,403.1	16.89	105.81	76.0	262.3	0.0	278.2	19.64	3,938	167.0
105.0		0.3125	32.628	32.052	4,229.1	16.65	104.41	76.2	255.3	0.0	274.5			
110.0		0.3125	31.754	31.185	3,894.9	16.15	101.61	76.2	241.6	0.0	538.0			
115.0		0.3125	30.879	30.317	3,578.9	15.66	98.81	76.2	228.3	0.0	523.2			
116.5	Bot - Section 5	0.3125	30.617	30.057	3,487.5	15.51	97.97	76.2	224.4	0.0	154.1			
120.0		0.3125	30.005	29.450	3,280.4	15.17	96.02	76.2	215.3	0.0	643.2			
121.0	Top - Section 4	0.2500	30.330	23.867	2,728.4	19.63	121.32	73.1	177.2	0.0	181.4			
125.0		0.2500	29.630	23.312	2,542.4	19.14	118.52	73.6	169.0	0.0	321.1			
126.0		0.2500	29.455	23.173	2,497.3	19.01	117.82	73.8	167.0	0.0	79.1			
130.0		0.2500	28.756	22.618	2,322.1	18.52	115.02	74.3	159.0	0.0	311.6			
135.0		0.2500	27.881	21.924	2,114.8	17.90	111.52	74.9	149.4	0.0	378.9			
140.0		0.2500	27.006	21.230	1,920.3	17.28	108.03	75.6	140.0	0.0	367.1			
145.0		0.2500	26.132	20.536	1,738.1	16.67	104.53	76.2	131.0	0.0	355.3			
149.0	Bot - Section 6	0.2500	25.432	19.981	1,600.9	16.17	101.73	76.2	124.0	0.0	275.7			
150.0		0.2500	25.257	19.842	1,567.8	16.05	101.03	76.2	122.3	0.0	119.5			
152.5	Top - Section 5	0.1875	25.195	14.882	1,175.8	21.93	134.37	70.7	91.9	0.0	295.0			
155.0		0.1875	24.758	14.622	1,115.2	21.52	132.04	71.2	88.7	0.0	125.5			
160.0		0.1875	23.883	14.101	1,000.3	20.70	127.38	72.0	82.5	0.0	244.3			
165.0		0.1875	23.008	13.581	893.6	19.87	122.71	72.9	76.5	0.0	235.5			
167.0		0.1875	22.659	13.373	853.1	19.55	120.85	73.2	74.2	0.0	91.7			
170.0		0.1875	22.134	13.060	794.8	19.05	118.05	73.7	70.7	0.0	134.9			
175.0		0.1875	21.259	12.540	703.5	18.23	113.38	74.6	65.2	0.0	217.8			
180.0		0.1875	20.385	12.019	619.5	17.41	108.72	75.4	59.9	0.0	208.9			
183.0		0.1875	19.860	11.707	572.4	16.91	105.92	76.0	56.8	0.0	121.1			
											29,356.2			6,847.0

Load Case: 1.2D + 1.6W	97 mph with No Ice	28 Iterations
Gust Response Factor :1.10		Wind Importance Factor :1.00
Dead Load Factor :1.20		
Wind Load Factor :1.60		

Applied Segment Forces Summary

Seg Elev (ft)	Description	Shaft Forces		Discrete Forces			Linear Forces		Sum of Forces				
		Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Torsion MY (lb-ft)	Moment MZ (lb)
0.00		186.8	0.0					0.0	0.0	186.8	0.0	0.0	0.0
5.00		260.5	1,544.9					0.0	421.9	260.5	1,966.8	0.0	0.0
7.00	Appurtenance(s)	183.4	610.0	72.2	0.0	0.0	90.7	0.0	343.3	255.6	1,044.1	0.0	0.0
10.00		289.6	906.5					0.0	515.0	289.6	1,421.5	0.0	0.0
15.00		356.6	1,488.2					0.0	858.3	356.6	2,346.5	0.0	0.0
20.00		263.6	1,459.9					0.0	858.3	263.6	2,318.2	0.0	0.0
22.50	Reinf. Top Reinf	173.2	719.3					0.0	429.1	173.2	1,148.5	0.0	0.0
25.00		205.4	712.2					0.0	429.1	205.4	1,141.4	0.0	0.0
28.50	Bot - Section 2	171.0	985.2					0.0	600.8	171.0	1,586.0	0.0	0.0
30.00		226.2	845.7					0.0	257.5	226.2	1,103.2	0.0	0.0
35.00	Top - Section 1	352.5	2,782.2					0.0	858.3	352.5	3,640.5	0.0	0.0
40.00		286.3	1,379.0					0.0	858.3	286.3	2,237.3	0.0	0.0
43.00	Reinf. Top Reinf	180.8	813.8					0.0	515.0	180.8	1,328.8	0.0	0.0
45.00		255.3	536.8					0.0	343.3	255.3	880.2	0.0	0.0
50.00		366.9	1,322.3					0.0	858.3	366.9	2,180.6	0.0	0.0
55.00		294.9	1,294.0					0.0	858.3	294.9	2,152.2	0.0	0.0
58.00	Bot - Section 3	186.2	762.8					0.0	515.0	186.2	1,277.7	0.0	0.0
60.00		207.5	888.5					0.0	343.3	207.5	1,231.8	0.0	0.0
63.50	Top - Section 2	188.7	1,535.8					0.0	600.8	188.7	2,136.6	0.0	0.0
65.00		245.2	282.5					0.0	257.5	245.2	540.0	0.0	0.0
70.00		376.8	928.0					0.0	858.3	376.8	1,786.3	0.0	0.0
75.00		375.5	906.7					0.0	858.3	375.5	1,765.0	0.0	0.0
80.00		373.5	885.5					0.0	858.3	373.5	1,743.8	0.0	0.0
85.00		297.2	864.2					0.0	858.3	297.2	1,722.5	0.0	0.0
88.00	Bot - Section 4	186.0	508.3					0.0	515.0	186.0	1,023.3	0.0	0.0
90.00		187.1	619.1					0.0	343.3	187.1	962.4	0.0	0.0
93.00	Top - Section 3	186.4	916.9					0.0	515.0	186.4	1,431.9	0.0	0.0
95.00		259.6	277.3					0.0	343.3	259.6	620.7	0.0	0.0
100.00		277.8	681.0					0.0	858.3	277.8	1,539.3	0.0	0.0
102.50	Reinf. Top	184.9	333.8					0.0	429.1	184.9	763.0	0.0	0.0
105.00		276.6	329.4					0.0	228.8	276.6	558.2	0.0	0.0
110.00		367.6	645.5					0.0	457.5	367.6	1,103.0	0.0	0.0
115.00		238.5	627.8					0.0	457.5	238.5	1,085.3	0.0	0.0
116.50	Bot - Section 5	186.0	184.9					0.0	137.3	186.0	322.1	0.0	0.0
120.00		168.5	771.8					0.0	320.3	168.5	1,092.0	0.0	0.0
121.00	Top - Section 4	186.0	217.6					0.0	91.5	186.0	309.1	0.0	0.0
125.00		185.7	385.3					0.0	366.0	185.7	751.3	0.0	0.0
126.00	Appurtenance(s)	186.3	94.9	4,769.9	0.0	1,260.7	3,959.3	0.0	91.5	4,956.2	4,145.7	0.0	0.0
130.00		336.0	374.0					0.0	312.7	336.0	686.6	0.0	0.0
135.00		374.4	454.7					0.0	384.9	374.4	839.6	0.0	0.0
140.00		375.3	440.5					0.0	384.9	375.3	825.4	0.0	0.0
145.00	Appurtenance(s)	328.6	426.4	3,203.4	0.0	4.3	3,145.0	0.0	384.9	3,532.0	3,956.2	0.0	0.0
149.00	Bot - Section 6	176.3	330.9					0.0	221.6	176.3	552.5	0.0	0.0
150.00		124.0	143.4					0.0	55.4	124.0	198.8	0.0	0.0
152.50	Top - Section 5	176.0	354.0					0.0	138.5	176.0	492.5	0.0	0.0
155.00		261.0	150.6					0.0	138.5	261.0	289.1	0.0	0.0
160.00		345.0	293.2					0.0	277.0	345.0	570.2	0.0	0.0
165.00		239.5	282.6					0.0	277.0	239.5	559.6	0.0	0.0

Site Number: 302535

Code: ANSI/TIA-222-G

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Site Name: Milford CT 2, CT

Engineering Number: OAA735853_C3_04

4/25/2019 4:27:31 PM

Customer: AT&T MOBILITY

Load Case: 1.2D + 1.6W

97 mph with No Ice

28 Iterations

Gust Response Factor :1.10

Wind Importance Factor :1.00

Dead Load Factor :1.20

Wind Load Factor :1.60

167.00	Appurtenance(s)	169.4	110.1	4,413.6	0.0	0.0	5,633.6	0.0	110.8	4,582.9	5,854.5	0.0	0.0
170.00		268.5	161.9					0.0	99.3	268.5	261.2	0.0	0.0
175.00	Appurtenance(s)	303.6	261.3	488.3	0.0	-1,953.4	95.0	0.0	165.5	791.9	521.9	0.0	0.0
180.00		217.0	250.7					0.0	136.0	217.0	386.7	0.0	0.0
183.00	Appurtenance(s)	80.6	145.3	5,041.1	0.0	6,071.1	3,949.9	0.0	81.6	5,121.7	4,176.9	0.0	0.0
Totals:										31,144.2	74,578.7	0.00	0.00

Load Case: 1.2D + 1.6W

97 mph with No Ice

28 Iterations

Gust Response Factor :1.10
 Dead Load Factor :1.20
 Wind Load Factor :1.60

Wind Importance Factor :1.00

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-74.52	-31.09	0.00	-4,317.17	0.00	4,317.17	4,364.17	2,182.08	8,607.44	4,310.12	0.00	0.00	0.760
5.00	-72.48	-31.01	0.00	-4,161.72	0.00	4,161.72	4,284.85	2,142.42	8,295.82	4,154.08	0.11	-0.20	0.755
7.00	-71.38	-30.87	0.00	-4,099.71	0.00	4,099.71	4,253.12	2,126.56	8,172.78	4,092.46	0.21	-0.28	0.753
10.00	-69.87	-30.78	0.00	-4,007.09	0.00	4,007.09	4,205.53	2,102.76	7,989.95	4,000.91	0.43	-0.41	0.750
15.00	-67.42	-30.64	0.00	-3,853.21	0.00	3,853.21	4,126.21	2,063.10	7,689.82	3,850.62	0.96	-0.61	0.745
20.00	-65.02	-30.53	0.00	-3,700.00	0.00	3,700.00	4,046.89	2,023.44	7,395.44	3,703.21	1.72	-0.82	0.739
22.50	-63.82	-30.46	0.00	-3,623.68	0.00	3,623.68	4,007.23	2,003.61	7,250.40	3,630.59	2.18	-0.93	0.735
22.50	-63.82	-30.46	0.00	-3,623.68	0.00	3,623.68	4,007.23	2,003.61	7,250.40	3,630.59	2.18	-0.93	0.735
25.00	-62.61	-30.37	0.00	-3,547.54	0.00	3,547.54	3,967.57	1,983.78	7,106.80	3,558.68	2.69	-1.03	0.732
28.50	-60.98	-30.28	0.00	-3,441.24	0.00	3,441.24	3,912.04	1,956.02	6,908.17	3,459.22	3.50	-1.18	0.726
30.00	-59.80	-30.18	0.00	-3,395.82	0.00	3,395.82	3,888.25	1,944.12	6,823.91	3,417.03	3.89	-1.25	0.716
35.00	-56.06	-29.95	0.00	-3,244.92	0.00	3,244.92	3,899.62	1,949.81	6,864.12	3,437.16	5.31	-1.46	0.688
40.00	-53.75	-29.76	0.00	-3,095.18	0.00	3,095.18	3,820.30	1,910.15	6,586.15	3,297.97	6.95	-1.67	0.679
43.00	-52.37	-29.63	0.00	-3,005.90	0.00	3,005.90	3,772.71	1,886.36	6,422.13	3,215.84	8.04	-1.80	0.673
43.00	-52.37	-29.63	0.00	-3,005.90	0.00	3,005.90	3,772.71	1,886.36	6,422.13	3,215.84	8.04	-1.80	0.673
45.00	-51.43	-29.48	0.00	-2,946.64	0.00	2,946.64	3,740.98	1,870.49	6,313.93	3,161.66	8.81	-1.88	0.669
50.00	-49.15	-29.21	0.00	-2,799.24	0.00	2,799.24	3,661.66	1,830.83	6,047.45	3,028.22	10.89	-2.08	0.658
55.00	-46.93	-28.97	0.00	-2,653.18	0.00	2,653.18	3,582.34	1,791.17	5,786.72	2,897.66	13.18	-2.29	0.646
58.00	-45.61	-28.82	0.00	-2,566.26	0.00	2,566.26	3,534.75	1,767.38	5,633.04	2,820.71	14.66	-2.42	0.638
60.00	-44.33	-28.65	0.00	-2,508.63	0.00	2,508.63	3,503.02	1,751.51	5,531.73	2,769.98	15.69	-2.50	0.627
63.50	-42.15	-28.44	0.00	-2,408.38	0.00	2,408.38	3,173.44	1,586.72	5,061.87	2,534.70	17.58	-2.64	0.605
65.00	-41.55	-28.28	0.00	-2,365.72	0.00	2,365.72	3,152.76	1,576.38	4,994.62	2,501.02	18.42	-2.71	0.600
70.00	-39.67	-27.97	0.00	-2,224.35	0.00	2,224.35	3,081.37	1,540.68	4,769.94	2,388.51	21.38	-2.94	0.584
75.00	-37.82	-27.66	0.00	-2,084.48	0.00	2,084.48	3,009.98	1,504.99	4,550.42	2,278.59	24.59	-3.18	0.567
80.00	-35.99	-27.33	0.00	-1,946.19	0.00	1,946.19	2,938.59	1,469.30	4,336.07	2,171.26	28.04	-3.41	0.549
85.00	-34.20	-27.04	0.00	-1,809.54	0.00	1,809.54	2,867.21	1,433.60	4,126.90	2,066.52	31.73	-3.64	0.529
88.00	-33.14	-26.85	0.00	-1,728.43	0.00	1,728.43	2,824.37	1,412.19	4,003.88	2,004.91	34.05	-3.78	0.517
90.00	-32.14	-26.66	0.00	-1,674.73	0.00	1,674.73	2,795.82	1,397.91	3,922.90	1,964.36	35.65	-3.87	0.502
93.00	-30.67	-26.44	0.00	-1,594.74	0.00	1,594.74	2,304.06	1,152.03	3,254.27	1,629.55	38.13	-4.00	0.542
95.00	-30.00	-26.22	0.00	-1,541.86	0.00	1,541.86	2,286.90	1,143.45	3,196.90	1,600.83	39.82	-4.09	0.530
100.00	-28.41	-25.92	0.00	-1,410.76	0.00	1,410.76	2,243.44	1,121.72	3,054.90	1,529.72	44.22	-4.32	0.499
102.50	-27.61	-25.73	0.00	-1,345.97	0.00	1,345.97	2,221.40	1,110.70	2,984.67	1,494.55	46.51	-4.43	0.484
102.50	-27.61	-25.73	0.00	-1,345.97	0.00	1,345.97	2,221.40	1,110.70	2,984.67	1,494.55	46.51	-4.43	0.914
105.00	-26.96	-25.53	0.00	-1,281.65	0.00	1,281.65	2,198.14	1,099.07	2,913.61	1,458.97	48.86	-4.54	0.891
110.00	-25.71	-25.26	0.00	-1,153.99	0.00	1,153.99	2,138.65	1,069.33	2,757.31	1,380.70	53.84	-4.95	0.848
115.00	-24.54	-25.03	0.00	-1,027.71	0.00	1,027.71	2,079.16	1,039.58	2,605.31	1,304.59	59.24	-5.35	0.800
116.50	-24.15	-24.90	0.00	-990.16	0.00	990.16	2,061.32	1,030.66	2,560.55	1,282.18	60.93	-5.47	0.785
120.00	-23.01	-24.69	0.00	-903.02	0.00	903.02	2,019.67	1,009.84	2,457.62	1,230.64	65.04	-5.74	0.746
121.00	-22.64	-24.55	0.00	-878.32	0.00	878.32	1,570.79	785.40	1,940.61	971.75	66.25	-5.82	0.919
125.00	-21.83	-24.36	0.00	-780.12	0.00	780.12	1,545.06	772.53	1,864.04	933.41	71.25	-6.11	0.851
126.00	-18.17	-19.05	0.00	-754.50	0.00	754.50	1,538.54	769.27	1,845.04	923.89	72.53	-6.20	0.829
130.00	-17.41	-18.75	0.00	-678.28	0.00	678.28	1,512.16	756.08	1,769.59	886.11	77.86	-6.53	0.778
135.00	-16.50	-18.39	0.00	-584.52	0.00	584.52	1,478.46	739.23	1,676.61	839.55	84.89	-6.91	0.708
140.00	-15.62	-18.01	0.00	-492.56	0.00	492.56	1,443.96	721.98	1,585.19	793.77	92.30	-7.27	0.632
145.00	-12.08	-14.06	0.00	-402.50	0.00	402.50	1,408.39	704.19	1,495.13	748.68	100.08	-7.61	0.547
149.00	-11.52	-13.84	0.00	-346.27	0.00	346.27	1,370.32	685.16	1,415.01	708.56	106.54	-7.85	0.498
150.00	-11.32	-13.71	0.00	-332.43	0.00	332.43	1,360.80	680.40	1,395.33	698.70	108.19	-7.91	0.485
152.50	-10.82	-13.49	0.00	-298.16	0.00	298.16	947.27	473.64	973.73	487.59	112.36	-8.05	0.624
155.00	-10.52	-13.23	0.00	-264.43	0.00	264.43	936.35	468.18	945.55	473.48	116.60	-8.19	0.571
160.00	-9.95	-12.86	0.00	-198.26	0.00	198.26	913.91	456.96	889.79	445.55	125.31	-8.48	0.457
165.00	-9.40	-12.56	0.00	-133.98	0.00	133.98	890.67	445.33	834.90	418.07	134.29	-8.72	0.332

Site Number: 302535

Code: ANSI/TIA-222-G

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Site Name: Milford CT 2, CT

Engineering Number: OAA735853_C3_04

4/25/2019 4:27:31 PM

Customer: AT&T MOBILITY

Load Case: 1.2D + 1.6W

97 mph with No Ice

28 Iterations

Gust Response Factor :1.10

Wind Importance Factor :1.00

Dead Load Factor :1.20

Wind Load Factor :1.60

167.00	-4.30	-7.15	0.00	-108.86	0.00	108.86	881.14	440.57	813.20	407.21	137.95	-8.80	0.272
170.00	-4.07	-6.85	0.00	-87.42	0.00	87.42	866.62	433.31	780.97	391.06	143.49	-8.90	0.228
175.00	-3.67	-5.99	0.00	-53.18	0.00	53.18	841.76	420.88	728.08	364.58	152.84	-9.02	0.150
180.00	-3.31	-5.72	0.00	-23.23	0.00	23.23	816.11	408.05	676.33	338.67	162.30	-9.10	0.073
183.00	0.00	-5.12	0.00	-6.07	0.00	6.07	800.33	400.16	645.87	323.41	168.00	-9.12	0.019

Load Case: 0.9D + 1.6W	97 mph with No Ice (Reduced DL)	27 Iterations
Gust Response Factor :1.10		Wind Importance Factor :1.00
Dead Load Factor :0.90		
Wind Load Factor :1.60		

Applied Segment Forces Summary

Seg Elev (ft)	Description	Shaft Forces		Discrete Forces			Linear Forces		Sum of Forces				
		Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Torsion MY (lb-ft)	Moment MZ (lb)
0.00		186.8	0.0					0.0	0.0	186.8	0.0	0.0	0.0
5.00		260.5	1,158.7					0.0	316.4	260.5	1,475.1	0.0	0.0
7.00	Appurtenance(s)	183.4	457.5	72.2	0.0	0.0	68.0	0.0	257.5	255.6	783.1	0.0	0.0
10.00		289.6	679.9					0.0	386.2	289.6	1,066.1	0.0	0.0
15.00		356.6	1,116.2					0.0	643.7	356.6	1,759.9	0.0	0.0
20.00		263.6	1,094.9					0.0	643.7	263.6	1,738.7	0.0	0.0
22.50	Reinf. Top Reinf	173.2	539.5					0.0	321.9	173.2	861.4	0.0	0.0
25.00		205.4	534.2					0.0	321.9	205.4	856.0	0.0	0.0
28.50	Bot - Section 2	171.0	738.9					0.0	450.6	171.0	1,189.5	0.0	0.0
30.00		226.2	634.3					0.0	193.1	226.2	827.4	0.0	0.0
35.00	Top - Section 1	352.5	2,086.6					0.0	643.7	352.5	2,730.4	0.0	0.0
40.00		286.3	1,034.2					0.0	643.7	286.3	1,677.9	0.0	0.0
43.00	Reinf. Top Reinf	180.8	610.3					0.0	386.2	180.8	996.6	0.0	0.0
45.00		255.3	402.6					0.0	257.5	255.3	660.1	0.0	0.0
50.00		366.9	991.7					0.0	643.7	366.9	1,635.4	0.0	0.0
55.00		294.9	970.5					0.0	643.7	294.9	1,614.2	0.0	0.0
58.00	Bot - Section 3	186.2	572.1					0.0	386.2	186.2	958.3	0.0	0.0
60.00		207.5	666.4					0.0	257.5	207.5	923.9	0.0	0.0
63.50	Top - Section 2	188.7	1,151.8					0.0	450.6	188.7	1,602.4	0.0	0.0
65.00		245.2	211.9					0.0	193.1	245.2	405.0	0.0	0.0
70.00		376.8	696.0					0.0	643.7	376.8	1,339.7	0.0	0.0
75.00		375.5	680.0					0.0	643.7	375.5	1,323.8	0.0	0.0
80.00		373.5	664.1					0.0	643.7	373.5	1,307.8	0.0	0.0
85.00		297.2	648.2					0.0	643.7	297.2	1,291.9	0.0	0.0
88.00	Bot - Section 4	186.0	381.2					0.0	386.2	186.0	767.5	0.0	0.0
90.00		187.0	464.3					0.0	257.5	187.0	721.8	0.0	0.0
93.00	Top - Section 3	186.3	687.7					0.0	386.2	186.3	1,073.9	0.0	0.0
95.00		258.7	208.0					0.0	257.5	258.7	465.5	0.0	0.0
100.00		275.8	510.7					0.0	643.7	275.8	1,154.4	0.0	0.0
102.50	Reinf. Top	182.2	250.4					0.0	321.9	182.2	572.2	0.0	0.0
105.00		270.7	247.1					0.0	171.6	270.7	418.6	0.0	0.0
110.00		357.1	484.2					0.0	343.1	357.1	827.3	0.0	0.0
115.00		229.9	470.9					0.0	343.1	229.9	814.0	0.0	0.0
116.50	Bot - Section 5	176.5	138.7					0.0	102.9	176.5	241.6	0.0	0.0
120.00		158.9	578.8					0.0	240.2	158.9	819.0	0.0	0.0
121.00	Top - Section 4	174.4	163.2					0.0	68.6	174.4	231.9	0.0	0.0
125.00		173.8	289.0					0.0	274.5	173.8	563.5	0.0	0.0
126.00	Appurtenance(s)	171.2	71.2	4,769.9	0.0	1,260.7	2,969.5	0.0	68.6	4,941.2	3,109.3	0.0	0.0
130.00		304.7	280.5					0.0	234.5	304.7	515.0	0.0	0.0
135.00		332.4	341.0					0.0	288.7	332.4	629.7	0.0	0.0
140.00		325.4	330.4					0.0	288.7	325.4	619.1	0.0	0.0
145.00	Appurtenance(s)	286.9	319.8	3,203.4	0.0	4.3	2,358.7	0.0	288.7	3,490.3	2,967.2	0.0	0.0
149.00	Bot - Section 6	157.6	248.2					0.0	166.2	157.6	414.4	0.0	0.0
150.00		109.8	107.5					0.0	41.6	109.8	149.1	0.0	0.0
152.50	Top - Section 5	155.5	265.5					0.0	103.9	155.5	369.4	0.0	0.0
155.00		228.8	112.9					0.0	103.9	228.8	216.8	0.0	0.0
160.00		298.9	219.9					0.0	207.8	298.9	427.7	0.0	0.0
165.00		205.2	211.9					0.0	207.8	205.2	419.7	0.0	0.0

Site Number: 302535

Code: ANSI/TIA-222-G

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Site Name: Milford CT 2, CT

Engineering Number: OAA735853_C3_04

4/25/2019 4:27:42 PM

Customer: AT&T MOBILITY

Load Case: 0.9D + 1.6W

97 mph with No Ice (Reduced DL)

27 Iterations

Gust Response Factor :1.10

Wind Importance Factor :1.00

Dead Load Factor :0.90

Wind Load Factor :1.60

167.00	Appurtenance(s)	143.1	82.5	4,413.6	0.0	0.0	4,225.2	0.0	83.1	4,556.7	4,390.9	0.0	0.0	
170.00		224.1	121.4					0.0	74.5	224.1	195.9	0.0	0.0	
175.00	Appurtenance(s)	273.0	196.0	488.3	0.0	-1,953.4	71.3	0.0	124.2	761.4	391.4	0.0	0.0	
180.00		212.6	188.0					0.0	102.0	212.6	290.0	0.0	0.0	
183.00	Appurtenance(s)	78.3	109.0	5,041.1	0.0	6,071.1	2,962.4	0.0	61.2	5,119.4	3,132.6	0.0	0.0	
										Totals:	30,617.1	55,934.0	0.00	0.00

Load Case: 0.9D + 1.6W

97 mph with No Ice (Reduced DL)

27 Iterations

Gust Response Factor :1.10

Wind Importance Factor :1.00

Dead Load Factor :0.90

Wind Load Factor :1.60

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-55.88	-30.53	0.00	-4,149.18	0.00	4,149.18	4,364.17	2,182.08	8,607.44	4,310.12	0.00	0.00	0.727
5.00	-54.33	-30.39	0.00	-3,996.55	0.00	3,996.55	4,284.85	2,142.42	8,295.82	4,154.08	0.10	-0.19	0.723
7.00	-53.50	-30.22	0.00	-3,935.77	0.00	3,935.77	4,253.12	2,126.56	8,172.78	4,092.46	0.20	-0.27	0.720
10.00	-52.35	-30.07	0.00	-3,845.10	0.00	3,845.10	4,205.53	2,102.76	7,989.95	4,000.91	0.41	-0.39	0.717
15.00	-50.49	-29.88	0.00	-3,694.73	0.00	3,694.73	4,126.21	2,063.10	7,689.82	3,850.62	0.93	-0.59	0.711
20.00	-48.68	-29.72	0.00	-3,545.35	0.00	3,545.35	4,046.89	2,023.44	7,395.44	3,703.21	1.65	-0.79	0.705
22.50	-47.77	-29.62	0.00	-3,471.05	0.00	3,471.05	4,007.23	2,003.61	7,250.40	3,630.59	2.09	-0.89	0.702
22.50	-47.77	-29.62	0.00	-3,471.05	0.00	3,471.05	4,007.23	2,003.61	7,250.40	3,630.59	2.09	-0.89	0.702
25.00	-46.85	-29.50	0.00	-3,397.00	0.00	3,397.00	3,967.57	1,983.78	7,106.80	3,558.68	2.58	-0.99	0.698
28.50	-45.61	-29.39	0.00	-3,293.75	0.00	3,293.75	3,912.04	1,956.02	6,908.17	3,459.22	3.36	-1.13	0.693
30.00	-44.72	-29.25	0.00	-3,249.67	0.00	3,249.67	3,888.25	1,944.12	6,823.91	3,417.03	3.73	-1.20	0.682
35.00	-41.90	-28.98	0.00	-3,103.42	0.00	3,103.42	3,899.62	1,949.81	6,864.12	3,437.16	5.09	-1.40	0.656
40.00	-40.15	-28.77	0.00	-2,958.50	0.00	2,958.50	3,820.30	1,910.15	6,586.15	3,297.97	6.67	-1.60	0.647
43.00	-39.11	-28.62	0.00	-2,872.20	0.00	2,872.20	3,772.71	1,886.36	6,422.13	3,215.84	7.71	-1.72	0.641
43.00	-39.11	-28.62	0.00	-2,872.20	0.00	2,872.20	3,772.71	1,886.36	6,422.13	3,215.84	7.71	-1.72	0.641
45.00	-38.39	-28.44	0.00	-2,814.95	0.00	2,814.95	3,740.98	1,870.49	6,313.93	3,161.66	8.45	-1.80	0.637
50.00	-36.67	-28.15	0.00	-2,672.74	0.00	2,672.74	3,661.66	1,830.83	6,047.45	3,028.22	10.44	-2.00	0.626
55.00	-34.99	-27.89	0.00	-2,532.01	0.00	2,532.01	3,582.34	1,791.17	5,786.72	2,897.66	12.64	-2.19	0.614
58.00	-33.99	-27.72	0.00	-2,448.35	0.00	2,448.35	3,534.75	1,767.38	5,633.04	2,820.71	14.05	-2.31	0.607
60.00	-33.03	-27.54	0.00	-2,392.90	0.00	2,392.90	3,503.02	1,751.51	5,531.73	2,769.98	15.04	-2.39	0.596
63.50	-31.39	-27.34	0.00	-2,296.50	0.00	2,296.50	3,173.44	1,586.72	5,061.87	2,534.70	16.84	-2.53	0.575
65.00	-30.93	-27.15	0.00	-2,255.49	0.00	2,255.49	3,152.76	1,576.38	4,994.62	2,501.02	17.65	-2.59	0.570
70.00	-29.50	-26.83	0.00	-2,119.73	0.00	2,119.73	3,081.37	1,540.68	4,769.94	2,388.51	20.48	-2.81	0.555
75.00	-28.10	-26.50	0.00	-1,985.59	0.00	1,985.59	3,009.98	1,504.99	4,550.42	2,278.59	23.55	-3.04	0.538
80.00	-26.71	-26.15	0.00	-1,853.11	0.00	1,853.11	2,938.59	1,469.30	4,336.07	2,171.26	26.85	-3.26	0.521
85.00	-25.36	-25.86	0.00	-1,722.35	0.00	1,722.35	2,867.21	1,433.60	4,126.90	2,066.52	30.37	-3.48	0.502
88.00	-24.56	-25.67	0.00	-1,644.78	0.00	1,644.78	2,824.37	1,412.19	4,003.88	2,004.91	32.60	-3.61	0.490
90.00	-23.80	-25.48	0.00	-1,593.43	0.00	1,593.43	2,795.82	1,397.91	3,922.90	1,964.36	34.13	-3.69	0.476
93.00	-22.69	-25.27	0.00	-1,516.98	0.00	1,516.98	2,304.06	1,152.03	3,254.27	1,629.55	36.49	-3.82	0.513
95.00	-22.18	-25.04	0.00	-1,466.45	0.00	1,466.45	2,286.90	1,143.45	3,196.90	1,600.83	38.11	-3.91	0.502
100.00	-20.98	-24.74	0.00	-1,341.25	0.00	1,341.25	2,243.44	1,121.72	3,054.90	1,529.72	42.32	-4.12	0.473
102.50	-20.37	-24.56	0.00	-1,279.40	0.00	1,279.40	2,221.40	1,110.70	2,984.67	1,494.55	44.50	-4.23	0.458
102.50	-20.37	-24.56	0.00	-1,279.40	0.00	1,279.40	2,221.40	1,110.70	2,984.67	1,494.55	44.50	-4.23	0.866
105.00	-19.87	-24.34	0.00	-1,218.01	0.00	1,218.01	2,198.14	1,099.07	2,913.61	1,458.97	46.75	-4.34	0.844
110.00	-18.91	-24.05	0.00	-1,096.30	0.00	1,096.30	2,138.65	1,069.33	2,757.31	1,380.70	51.50	-4.73	0.803
115.00	-18.02	-23.83	0.00	-976.05	0.00	976.05	2,079.16	1,039.58	2,605.31	1,304.59	56.65	-5.11	0.757
116.50	-17.72	-23.69	0.00	-940.31	0.00	940.31	2,061.32	1,030.66	2,560.55	1,282.18	58.27	-5.22	0.742
120.00	-16.85	-23.50	0.00	-857.41	0.00	857.41	2,019.67	1,009.84	2,457.62	1,230.64	62.19	-5.48	0.706
121.00	-16.57	-23.36	0.00	-833.91	0.00	833.91	1,570.79	785.40	1,940.61	971.75	63.34	-5.55	0.870
125.00	-15.95	-23.18	0.00	-740.49	0.00	740.49	1,545.06	772.53	1,864.04	933.41	68.11	-5.83	0.805
126.00	-13.30	-17.99	0.00	-716.05	0.00	716.05	1,538.54	769.27	1,845.04	923.89	69.33	-5.91	0.784
130.00	-12.72	-17.71	0.00	-644.09	0.00	644.09	1,512.16	756.08	1,769.59	886.11	74.41	-6.22	0.736
135.00	-12.02	-17.38	0.00	-555.55	0.00	555.55	1,478.46	739.23	1,676.61	839.55	81.11	-6.59	0.670
140.00	-11.34	-17.05	0.00	-468.64	0.00	468.64	1,443.96	721.98	1,585.19	793.77	88.18	-6.93	0.599
145.00	-8.77	-13.26	0.00	-383.37	0.00	383.37	1,408.39	704.19	1,495.13	748.68	95.60	-7.25	0.519
149.00	-8.35	-13.08	0.00	-330.32	0.00	330.32	1,370.32	685.16	1,415.01	708.56	101.75	-7.48	0.473
150.00	-8.19	-12.96	0.00	-317.24	0.00	317.24	1,360.80	680.40	1,395.33	698.70	103.32	-7.54	0.460
152.50	-7.81	-12.78	0.00	-284.84	0.00	284.84	947.27	473.64	973.73	487.59	107.30	-7.68	0.593
155.00	-7.58	-12.55	0.00	-252.90	0.00	252.90	936.35	468.18	945.55	473.48	111.34	-7.80	0.543
160.00	-7.15	-12.23	0.00	-190.16	0.00	190.16	913.91	456.96	889.79	445.55	119.64	-8.09	0.435
165.00	-6.73	-11.98	0.00	-129.04	0.00	129.04	890.67	445.33	834.90	418.07	128.21	-8.31	0.317

Site Number: 302535

Code: ANSI/TIA-222-G

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Site Name: Milford CT 2, CT

Engineering Number: OAA735853_C3_04

4/25/2019 4:27:43 PM

Customer: AT&T MOBILITY

Load Case: 0.9D + 1.6W

97 mph with No Ice (Reduced DL)

27 Iterations

Gust Response Factor :1.10

Wind Importance Factor :1.00

Dead Load Factor :0.90

Wind Load Factor :1.60

167.00	-3.04	-6.84	0.00	-105.08	0.00	105.08	881.14	440.57	813.20	407.21	131.70	-8.39	0.262
170.00	-2.87	-6.59	0.00	-84.57	0.00	84.57	866.62	433.31	780.97	391.06	136.98	-8.48	0.220
175.00	-2.58	-5.79	0.00	-51.60	0.00	51.60	841.76	420.88	728.08	364.58	145.91	-8.61	0.145
180.00	-2.32	-5.53	0.00	-22.67	0.00	22.67	816.11	408.05	676.33	338.67	154.93	-8.68	0.070
183.00	0.00	-5.12	0.00	-6.07	0.00	6.07	800.33	400.16	645.87	323.41	160.37	-8.70	0.019

Load Case: 1.2D + 1.0Di + 1.0Wi	50 mph with 0.75 in Radial Ice	28 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		60.0	0.0					0.0	0.0	60.0	0.0	0.0	0.0
5.00		83.8	1,899.9					5.5	497.8	89.2	2,397.7	0.0	0.0
7.00	Appurtenance(s)	59.2	764.3	17.6	0.0	0.0	104.0	126.4	475.1	203.2	1,343.3	0.0	0.0
10.00		93.8	1,143.7					189.7	720.3	283.5	1,864.0	0.0	0.0
15.00		115.8	1,892.0					315.4	1,215.3	431.2	3,107.4	0.0	0.0
20.00		85.8	1,870.2					313.8	1,229.0	399.6	3,099.2	0.0	0.0
22.50	Reinf. Top Reinf	56.5	926.7					156.1	618.6	212.6	1,545.2	0.0	0.0
25.00		67.1	920.0					155.6	621.0	222.7	1,540.9	0.0	0.0
28.50	Bot - Section 2	55.9	1,275.7					216.8	873.0	272.7	2,148.7	0.0	0.0
30.00		74.0	973.4					92.5	375.3	166.5	1,348.7	0.0	0.0
35.00	Top - Section 1	115.4	3,204.3					314.1	1,255.8	429.6	4,460.1	0.0	0.0
40.00		93.9	1,799.0					328.8	1,262.3	422.7	3,061.4	0.0	0.0
43.00	Reinf. Top Reinf	59.4	1,065.4					201.6	760.2	261.0	1,825.7	0.0	0.0
45.00		84.1	704.3					136.0	507.9	220.1	1,212.2	0.0	0.0
50.00		120.9	1,735.7					345.3	1,273.4	466.2	3,009.1	0.0	0.0
55.00		97.4	1,703.0					351.8	1,278.2	449.2	2,981.3	0.0	0.0
58.00	Bot - Section 3	61.6	1,007.0					213.8	769.1	275.4	1,776.1	0.0	0.0
60.00		68.6	1,053.6					143.6	513.6	212.2	1,567.2	0.0	0.0
63.50	Top - Section 2	62.5	1,821.8					253.1	900.3	315.6	2,722.1	0.0	0.0
65.00		81.3	404.9					110.3	386.4	191.6	791.3	0.0	0.0
70.00		125.2	1,329.0					370.3	1,290.6	495.5	2,619.6	0.0	0.0
75.00		125.0	1,301.8					373.9	1,294.2	498.9	2,596.0	0.0	0.0
80.00		124.7	1,274.3					376.9	1,297.6	501.6	2,571.9	0.0	0.0
85.00		99.4	1,246.6					379.5	1,300.8	478.9	2,547.4	0.0	0.0
88.00	Bot - Section 4	62.3	735.7					228.7	781.9	291.0	1,517.6	0.0	0.0
90.00		62.7	772.2					152.8	521.9	215.5	1,294.1	0.0	0.0
93.00	Top - Section 3	62.5	1,144.0					229.7	783.7	292.2	1,927.7	0.0	0.0
95.00		87.0	427.7					154.9	523.0	241.8	950.8	0.0	0.0
100.00		92.8	1,049.2					388.6	1,309.5	481.4	2,358.7	0.0	0.0
102.50	Reinf. Top	61.5	516.4					195.3	655.8	256.8	1,172.1	0.0	0.0
105.00		91.5	510.1					196.0	456.0	287.5	966.1	0.0	0.0
110.00		121.0	999.0					393.9	913.9	514.8	1,912.9	0.0	0.0
115.00		78.0	973.7					390.9	832.0	468.9	1,805.7	0.0	0.0
116.50	Bot - Section 5	60.0	288.1					117.0	245.1	177.0	533.3	0.0	0.0
120.00		54.1	1,012.4					272.9	572.6	326.9	1,585.0	0.0	0.0
121.00	Top - Section 4	59.4	286.1					77.9	163.8	137.4	449.9	0.0	0.0
125.00		59.3	653.9					314.1	655.7	373.4	1,309.6	0.0	0.0
126.00	Appurtenance(s)	58.6	161.8	1,072.2	0.0	264.0	7,272.3	78.5	164.1	1,209.3	7,598.2	0.0	0.0
130.00		104.5	636.2					313.7	593.3	418.1	1,229.5	0.0	0.0
135.00		114.4	774.2					391.4	737.1	505.8	1,511.4	0.0	0.0
140.00		112.4	751.8					390.4	738.7	502.8	1,490.5	0.0	0.0
145.00	Appurtenance(s)	99.4	729.3	761.2	0.0	2.5	4,909.7	389.2	740.2	1,249.8	6,379.2	0.0	0.0
149.00	Bot - Section 6	54.7	567.9					181.2	432.0	236.0	999.9	0.0	0.0
150.00		38.2	203.2					45.4	108.1	83.6	311.3	0.0	0.0
152.50	Top - Section 5	54.2	501.3					113.5	270.5	167.7	771.8	0.0	0.0
155.00		80.0	295.8					114.1	270.7	194.1	566.5	0.0	0.0
160.00		104.9	574.7					228.5	542.3	333.4	1,117.0	0.0	0.0
165.00		72.3	555.3					228.9	543.3	301.2	1,098.7	0.0	0.0

Site Number: 302535

Code: ANSI/TIA-222-G

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Site Name: Milford CT 2, CT

Engineering Number: OAA735853_C3_04

4/25/2019 4:27:54 PM

Customer: AT&T MOBILITY

Load Case: 1.2D + 1.0Di + 1.0Wi

50 mph with 0.75 in Radial Ice

28 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

167.00	Appurtenance(s)	50.6	217.9	1,114.9	0.0	0.0	9,629.2	91.6	217.6	1,257.2	10,064.7	0.0	0.0
170.00		79.6	320.4					84.3	238.2	163.9	558.6	0.0	0.0
175.00	Appurtenance(s)	97.4	516.4	118.9	0.0	-475.5	297.3	142.0	397.7	358.3	1,211.4	0.0	0.0
180.00		76.3	496.9					107.9	292.2	184.2	789.1	0.0	0.0
183.00	Appurtenance(s)	28.2	289.9	1,146.3	0.0	1,290.0	7,386.1	65.5	175.6	1,240.0	7,851.6	0.0	0.0
Totals:										20,029.4	113,469.	0.00	0.00

Load Case: 1.2D + 1.0Di + 1.0Wi			50 mph with 0.75 in Radial Ice				28 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	Pu	Vu	Tu	Mu	Mu	Resultant	phi	phi	phi	phi	Total		
Elev	FY (-)	FX (-)	MY	MZ	MX	Moment	Pn	Vn	Tn	Mn	Deflect	Rotation	Ratio
(ft)	(kips)	(kips)	(ft-kips)	(ft-kips)	(ft-kips)	(ft-kips)	(kips)	(kips)	(ft-kips)	(ft-kips)	(in)	(deg)	
0.00	-113.45	-20.08	0.00	-2,360.03	0.00	2,360.03	4,364.17	2,182.08	8,607.44	4,310.12	0.00	0.00	0.429
5.00	-111.03	-20.14	0.00	-2,259.63	0.00	2,259.63	4,284.85	2,142.42	8,295.82	4,154.08	0.06	-0.11	0.423
7.00	-109.66	-20.04	0.00	-2,219.36	0.00	2,219.36	4,253.12	2,126.56	8,172.78	4,092.46	0.11	-0.15	0.421
10.00	-107.77	-19.92	0.00	-2,159.25	0.00	2,159.25	4,205.53	2,102.76	7,989.95	4,000.91	0.23	-0.22	0.417
15.00	-104.63	-19.67	0.00	-2,059.67	0.00	2,059.67	4,126.21	2,063.10	7,689.82	3,850.62	0.52	-0.33	0.411
20.00	-101.50	-19.40	0.00	-1,961.32	0.00	1,961.32	4,046.89	2,023.44	7,395.44	3,703.21	0.93	-0.44	0.404
22.50	-99.94	-19.27	0.00	-1,912.83	0.00	1,912.83	4,007.23	2,003.61	7,250.40	3,630.59	1.18	-0.50	0.401
22.50	-99.94	-19.27	0.00	-1,912.83	0.00	1,912.83	4,007.23	2,003.61	7,250.40	3,630.59	1.18	-0.50	0.401
25.00	-98.38	-19.15	0.00	-1,864.65	0.00	1,864.65	3,967.57	1,983.78	7,106.80	3,558.68	1.45	-0.55	0.397
28.50	-96.21	-18.95	0.00	-1,797.63	0.00	1,797.63	3,912.04	1,956.02	6,908.17	3,459.22	1.89	-0.63	0.392
30.00	-94.84	-18.89	0.00	-1,769.21	0.00	1,769.21	3,888.25	1,944.12	6,823.91	3,417.03	2.09	-0.67	0.386
35.00	-90.35	-18.57	0.00	-1,674.78	0.00	1,674.78	3,899.62	1,949.81	6,864.12	3,437.16	2.85	-0.78	0.367
40.00	-87.27	-18.24	0.00	-1,581.91	0.00	1,581.91	3,820.30	1,910.15	6,586.15	3,297.97	3.72	-0.89	0.359
43.00	-85.43	-18.03	0.00	-1,527.20	0.00	1,527.20	3,772.71	1,886.36	6,422.13	3,215.84	4.30	-0.95	0.354
43.00	-85.43	-18.03	0.00	-1,527.20	0.00	1,527.20	3,772.71	1,886.36	6,422.13	3,215.84	4.30	-0.95	0.354
45.00	-84.20	-17.89	0.00	-1,491.15	0.00	1,491.15	3,740.98	1,870.49	6,313.93	3,161.66	4.71	-0.99	0.350
50.00	-81.17	-17.52	0.00	-1,401.69	0.00	1,401.69	3,661.66	1,830.83	6,047.45	3,028.22	5.80	-1.09	0.341
55.00	-78.18	-17.12	0.00	-1,314.11	0.00	1,314.11	3,582.34	1,791.17	5,786.72	2,897.66	7.00	-1.20	0.332
58.00	-76.39	-16.88	0.00	-1,262.75	0.00	1,262.75	3,534.75	1,767.38	5,633.04	2,820.71	7.78	-1.26	0.326
60.00	-74.81	-16.70	0.00	-1,229.00	0.00	1,229.00	3,503.02	1,751.51	5,531.73	2,769.98	8.31	-1.30	0.318
63.50	-72.08	-16.39	0.00	-1,170.55	0.00	1,170.55	3,173.44	1,586.72	5,061.87	2,534.70	9.29	-1.37	0.305
65.00	-71.28	-16.27	0.00	-1,145.98	0.00	1,145.98	3,152.76	1,576.38	4,994.62	2,501.02	9.73	-1.40	0.302
70.00	-68.64	-15.84	0.00	-1,064.65	0.00	1,064.65	3,081.37	1,540.68	4,769.94	2,388.51	11.25	-1.51	0.291
75.00	-66.03	-15.39	0.00	-985.47	0.00	985.47	3,009.98	1,504.99	4,550.42	2,278.59	12.90	-1.63	0.279
80.00	-63.44	-14.94	0.00	-908.50	0.00	908.50	2,938.59	1,469.30	4,336.07	2,171.26	14.66	-1.73	0.267
85.00	-60.89	-14.47	0.00	-833.82	0.00	833.82	2,867.21	1,433.60	4,126.90	2,066.52	16.54	-1.84	0.255
88.00	-59.37	-14.18	0.00	-790.41	0.00	790.41	2,824.37	1,412.19	4,003.88	2,004.91	17.71	-1.90	0.247
90.00	-58.07	-13.98	0.00	-762.05	0.00	762.05	2,795.82	1,397.91	3,922.90	1,964.36	18.52	-1.95	0.239
93.00	-56.14	-13.67	0.00	-720.12	0.00	720.12	2,304.06	1,152.03	3,254.27	1,629.55	19.76	-2.01	0.256
95.00	-55.19	-13.46	0.00	-692.79	0.00	692.79	2,286.90	1,143.45	3,196.90	1,600.83	20.61	-2.05	0.249
100.00	-52.83	-12.96	0.00	-625.49	0.00	625.49	2,243.44	1,121.72	3,054.90	1,529.72	22.81	-2.15	0.233
102.50	-51.66	-12.71	0.00	-593.09	0.00	593.09	2,221.40	1,110.70	2,984.67	1,494.55	23.95	-2.20	0.224
102.50	-51.66	-12.71	0.00	-593.09	0.00	593.09	2,221.40	1,110.70	2,984.67	1,494.55	23.95	-2.20	0.420
105.00	-50.68	-12.48	0.00	-561.32	0.00	561.32	2,198.14	1,099.07	2,913.61	1,458.97	25.11	-2.25	0.408
110.00	-48.75	-12.04	0.00	-498.91	0.00	498.91	2,138.65	1,069.33	2,757.31	1,380.70	27.56	-2.43	0.384
115.00	-46.95	-11.58	0.00	-438.71	0.00	438.71	2,079.16	1,039.58	2,605.31	1,304.59	30.20	-2.60	0.359
116.50	-46.40	-11.45	0.00	-421.34	0.00	421.34	2,061.32	1,030.66	2,560.55	1,282.18	31.02	-2.65	0.351
120.00	-44.82	-11.10	0.00	-381.27	0.00	381.27	2,019.67	1,009.84	2,457.62	1,230.64	33.01	-2.76	0.332
121.00	-44.36	-11.01	0.00	-370.17	0.00	370.17	1,570.79	785.40	1,940.61	971.75	33.59	-2.80	0.409
125.00	-43.06	-10.63	0.00	-326.14	0.00	326.14	1,545.06	772.53	1,864.04	933.41	35.99	-2.92	0.377
126.00	-35.52	-9.08	0.00	-315.25	0.00	315.25	1,538.54	769.27	1,845.04	923.89	36.60	-2.96	0.364
130.00	-34.29	-8.69	0.00	-278.92	0.00	278.92	1,512.16	756.08	1,769.59	886.11	39.13	-3.09	0.338
135.00	-32.79	-8.19	0.00	-235.48	0.00	235.48	1,478.46	739.23	1,676.61	839.55	42.46	-3.25	0.303
140.00	-31.31	-7.67	0.00	-194.55	0.00	194.55	1,443.96	721.98	1,585.19	793.77	45.93	-3.39	0.267
145.00	-25.01	-6.09	0.00	-156.18	0.00	156.18	1,408.39	704.19	1,495.13	748.68	49.56	-3.52	0.226
149.00	-24.02	-5.82	0.00	-131.82	0.00	131.82	1,370.32	685.16	1,415.01	708.56	52.55	-3.62	0.204
150.00	-23.71	-5.73	0.00	-126.01	0.00	126.01	1,360.80	680.40	1,395.33	698.70	53.31	-3.64	0.198
152.50	-22.95	-5.53	0.00	-111.68	0.00	111.68	947.27	473.64	973.73	487.59	55.23	-3.69	0.253
155.00	-22.39	-5.33	0.00	-97.85	0.00	97.85	936.35	468.18	945.55	473.48	57.17	-3.74	0.231
160.00	-21.29	-4.96	0.00	-71.18	0.00	71.18	913.91	456.96	889.79	445.55	61.15	-3.85	0.183
165.00	-20.21	-4.61	0.00	-46.37	0.00	46.37	890.67	445.33	834.90	418.07	65.23	-3.94	0.134

Site Number: 302535

Code: ANSI/TIA-222-G

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Site Name: Milford CT 2, CT

Engineering Number: OAA735853_C3_04

4/25/2019 4:27:54 PM

Customer: AT&T MOBILITY

Load Case: 1.2D + 1.0Di + 1.0Wi

50 mph with 0.75 in Radial Ice

28 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

167.00	-10.25	-2.66	0.00	-37.16	0.00	37.16	881.14	440.57	813.20	407.21	66.88	-3.96	0.103
170.00	-9.70	-2.47	0.00	-29.17	0.00	29.17	866.62	433.31	780.97	391.06	69.38	-4.00	0.086
175.00	-8.52	-2.03	0.00	-16.82	0.00	16.82	841.76	420.88	728.08	364.58	73.59	-4.04	0.056
180.00	-7.74	-1.79	0.00	-6.67	0.00	6.67	816.11	408.05	676.33	338.67	77.82	-4.06	0.029
183.00	0.00	-1.24	0.00	-1.29	0.00	1.29	800.33	400.16	645.87	323.41	80.38	-4.07	0.004

Load Case: 1.0D + 1.0W	Serviceability 60 mph	26 Iterations
Gust Response Factor :1.10		Wind Importance Factor :1.00
Dead Load Factor :1.00		
Wind Load Factor :1.00		

Applied Segment Forces Summary

Seg Elev (ft)	Description	Shaft Forces		Discrete Forces			Linear Forces		Sum of Forces				
		Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Torsion MY (lb-ft)	Moment MZ (lb)
0.00		44.7	0.0					0.0	0.0	44.7	0.0	0.0	0.0
5.00		62.3	1,287.4					0.0	351.6	62.3	1,639.0	0.0	0.0
7.00	Appurtenance(s)	43.9	508.4	17.3	0.0	0.0	75.6	0.0	286.1	61.1	870.1	0.0	0.0
10.00		69.3	755.5					0.0	429.1	69.3	1,184.6	0.0	0.0
15.00		85.3	1,240.2					0.0	715.2	85.3	1,955.5	0.0	0.0
20.00		63.0	1,216.6					0.0	715.2	63.0	1,931.8	0.0	0.0
22.50	Reinf. Top Reinf	41.4	599.4					0.0	357.6	41.4	957.1	0.0	0.0
25.00		49.1	593.5					0.0	357.6	49.1	951.2	0.0	0.0
28.50	Bot - Section 2	40.9	821.0					0.0	500.7	40.9	1,321.7	0.0	0.0
30.00		54.1	704.8					0.0	214.6	54.1	919.3	0.0	0.0
35.00	Top - Section 1	84.3	2,318.5					0.0	715.2	84.3	3,033.7	0.0	0.0
40.00		68.5	1,149.1					0.0	715.2	68.5	1,864.4	0.0	0.0
43.00	Reinf. Top Reinf	43.2	678.1					0.0	429.1	43.2	1,107.3	0.0	0.0
45.00		61.1	447.4					0.0	286.1	61.1	733.5	0.0	0.0
50.00		87.7	1,101.9					0.0	715.2	87.7	1,817.2	0.0	0.0
55.00		70.5	1,078.3					0.0	715.2	70.5	1,793.5	0.0	0.0
58.00	Bot - Section 3	44.5	635.6					0.0	429.1	44.5	1,064.8	0.0	0.0
60.00		49.6	740.4					0.0	286.1	49.6	1,026.5	0.0	0.0
63.50	Top - Section 2	45.1	1,279.8					0.0	500.7	45.1	1,780.5	0.0	0.0
65.00		58.6	235.4					0.0	214.6	58.6	450.0	0.0	0.0
70.00		90.1	773.3					0.0	715.2	90.1	1,488.6	0.0	0.0
75.00		89.8	755.6					0.0	715.2	89.8	1,470.8	0.0	0.0
80.00		89.3	737.9					0.0	715.2	89.3	1,453.1	0.0	0.0
85.00		71.1	720.2					0.0	715.2	71.1	1,435.4	0.0	0.0
88.00	Bot - Section 4	44.5	423.6					0.0	429.1	44.5	852.8	0.0	0.0
90.00		44.7	515.9					0.0	286.1	44.7	802.0	0.0	0.0
93.00	Top - Section 3	44.6	764.1					0.0	429.1	44.6	1,193.2	0.0	0.0
95.00		61.9	231.1					0.0	286.1	61.9	517.2	0.0	0.0
100.00		66.0	567.5					0.0	715.2	66.0	1,282.7	0.0	0.0
102.50	Reinf. Top	43.6	278.2					0.0	357.6	43.6	635.8	0.0	0.0
105.00		64.7	274.5					0.0	190.6	64.7	465.1	0.0	0.0
110.00		85.4	538.0					0.0	381.3	85.4	919.2	0.0	0.0
115.00		55.0	523.2					0.0	381.3	55.0	904.4	0.0	0.0
116.50	Bot - Section 5	42.2	154.1					0.0	114.4	42.2	268.5	0.0	0.0
120.00		38.0	643.2					0.0	266.9	38.0	910.0	0.0	0.0
121.00	Top - Section 4	41.7	181.4					0.0	76.3	41.7	257.6	0.0	0.0
125.00		41.6	321.1					0.0	305.0	41.6	626.1	0.0	0.0
126.00	Appurtenance(s)	40.9	79.1	1,140.6	0.0	301.5	3,299.4	0.0	76.3	1,181.6	3,454.7	0.0	0.0
130.00		72.9	311.6					0.0	260.6	72.9	572.2	0.0	0.0
135.00		79.5	378.9					0.0	320.8	79.5	699.7	0.0	0.0
140.00		77.8	367.1					0.0	320.8	77.8	687.9	0.0	0.0
145.00	Appurtenance(s)	68.6	355.3	766.0	0.0	1.0	2,620.8	0.0	320.8	834.6	3,296.9	0.0	0.0
149.00	Bot - Section 6	37.7	275.7					0.0	184.7	37.7	460.4	0.0	0.0
150.00		26.3	119.5					0.0	46.2	26.3	165.6	0.0	0.0
152.50	Top - Section 5	37.2	295.0					0.0	115.4	37.2	410.5	0.0	0.0
155.00		54.7	125.5					0.0	115.4	54.7	240.9	0.0	0.0
160.00		71.5	244.3					0.0	230.8	71.5	475.2	0.0	0.0
165.00		49.1	235.5					0.0	230.8	49.1	466.3	0.0	0.0

Site Number: 302535

Code: ANSI/TIA-222-G

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Site Name: Milford CT 2, CT

Engineering Number: OAA735853_C3_04

4/25/2019 4:28:05 PM

Customer: AT&T MOBILITY

Load Case: 1.0D + 1.0W

Serviceability 60 mph

26 Iterations

Gust Response Factor :1.10

Wind Importance Factor :1.00

Dead Load Factor :1.00

Wind Load Factor :1.00

167.00	Appurtenance(s)	34.2	91.7	1,055.4	0.0	0.0	4,694.7	0.0	92.3	1,089.7	4,878.8	0.0	0.0	
170.00		53.6	134.9					0.0	82.8	53.6	217.7	0.0	0.0	
175.00	Appurtenance(s)	65.3	217.8	116.8	0.0	-467.1	79.2	0.0	138.0	182.1	434.9	0.0	0.0	
180.00		50.8	208.9					0.0	113.4	50.8	322.3	0.0	0.0	
183.00	Appurtenance(s)	18.7	121.1	1,205.5	0.0	1,451.8	3,291.6	0.0	68.0	1,224.2	3,480.7	0.0	0.0	
										Totals:	7,321.56	62,148.9	0.00	0.00

Load Case: 1.0D + 1.0W

Serviceability 60 mph

26 Iterations

Gust Response Factor :1.10

Wind Importance Factor :1.00

Dead Load Factor :1.00

Wind Load Factor :1.00

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-62.15	-7.30	0.00	-1,001.30	0.00	1,001.30	4,364.17	2,182.08	8,607.44	4,310.12	0.00	0.00	0.184
5.00	-60.50	-7.27	0.00	-964.80	0.00	964.80	4,284.85	2,142.42	8,295.82	4,154.08	0.02	-0.05	0.183
7.00	-59.63	-7.24	0.00	-950.25	0.00	950.25	4,253.12	2,126.56	8,172.78	4,092.46	0.05	-0.07	0.183
10.00	-58.44	-7.20	0.00	-928.54	0.00	928.54	4,205.53	2,102.76	7,989.95	4,000.91	0.10	-0.09	0.182
15.00	-56.48	-7.16	0.00	-892.52	0.00	892.52	4,126.21	2,063.10	7,689.82	3,850.62	0.22	-0.14	0.180
20.00	-54.54	-7.13	0.00	-856.71	0.00	856.71	4,046.89	2,023.44	7,395.44	3,703.21	0.40	-0.19	0.179
22.50	-53.58	-7.11	0.00	-838.89	0.00	838.89	4,007.23	2,003.61	7,250.40	3,630.59	0.50	-0.21	0.178
22.50	-53.58	-7.11	0.00	-838.89	0.00	838.89	4,007.23	2,003.61	7,250.40	3,630.59	0.50	-0.21	0.178
25.00	-52.63	-7.08	0.00	-821.12	0.00	821.12	3,967.57	1,983.78	7,106.80	3,558.68	0.62	-0.24	0.177
28.50	-51.30	-7.06	0.00	-796.34	0.00	796.34	3,912.04	1,956.02	6,908.17	3,459.22	0.81	-0.27	0.175
30.00	-50.38	-7.03	0.00	-785.75	0.00	785.75	3,888.25	1,944.12	6,823.91	3,417.03	0.90	-0.29	0.173
35.00	-47.34	-6.97	0.00	-750.63	0.00	750.63	3,899.62	1,949.81	6,864.12	3,437.16	1.23	-0.34	0.166
40.00	-45.47	-6.92	0.00	-715.80	0.00	715.80	3,820.30	1,910.15	6,586.15	3,297.97	1.61	-0.39	0.164
43.00	-44.36	-6.88	0.00	-695.05	0.00	695.05	3,772.71	1,886.36	6,422.13	3,215.84	1.86	-0.42	0.162
43.00	-44.36	-6.88	0.00	-695.05	0.00	695.05	3,772.71	1,886.36	6,422.13	3,215.84	1.86	-0.42	0.162
45.00	-43.63	-6.84	0.00	-681.28	0.00	681.28	3,740.98	1,870.49	6,313.93	3,161.66	2.04	-0.44	0.161
50.00	-41.80	-6.78	0.00	-647.07	0.00	647.07	3,661.66	1,830.83	6,047.45	3,028.22	2.52	-0.48	0.158
55.00	-40.01	-6.72	0.00	-613.20	0.00	613.20	3,582.34	1,791.17	5,786.72	2,897.66	3.05	-0.53	0.155
58.00	-38.94	-6.68	0.00	-593.05	0.00	593.05	3,534.75	1,767.38	5,633.04	2,820.71	3.40	-0.56	0.154
60.00	-37.91	-6.63	0.00	-579.70	0.00	579.70	3,503.02	1,751.51	5,531.73	2,769.98	3.63	-0.58	0.151
63.50	-36.13	-6.59	0.00	-556.48	0.00	556.48	3,173.44	1,586.72	5,061.87	2,534.70	4.07	-0.61	0.146
65.00	-35.67	-6.54	0.00	-546.60	0.00	546.60	3,152.76	1,576.38	4,994.62	2,501.02	4.27	-0.63	0.144
70.00	-34.18	-6.47	0.00	-513.88	0.00	513.88	3,081.37	1,540.68	4,769.94	2,388.51	4.95	-0.68	0.141
75.00	-32.71	-6.39	0.00	-481.53	0.00	481.53	3,009.98	1,504.99	4,550.42	2,278.59	5.69	-0.73	0.136
80.00	-31.25	-6.31	0.00	-449.57	0.00	449.57	2,938.59	1,469.30	4,336.07	2,171.26	6.49	-0.79	0.132
85.00	-29.81	-6.24	0.00	-418.01	0.00	418.01	2,867.21	1,433.60	4,126.90	2,066.52	7.35	-0.84	0.127
88.00	-28.95	-6.20	0.00	-399.28	0.00	399.28	2,824.37	1,412.19	4,003.88	2,004.91	7.88	-0.87	0.124
90.00	-28.15	-6.16	0.00	-386.88	0.00	386.88	2,795.82	1,397.91	3,922.90	1,964.36	8.26	-0.89	0.121
93.00	-26.96	-6.10	0.00	-368.42	0.00	368.42	2,304.06	1,152.03	3,254.27	1,629.55	8.83	-0.93	0.131
95.00	-26.44	-6.05	0.00	-356.21	0.00	356.21	2,286.90	1,143.45	3,196.90	1,600.83	9.22	-0.95	0.128
100.00	-25.15	-5.98	0.00	-325.96	0.00	325.96	2,243.44	1,121.72	3,054.90	1,529.72	10.24	-1.00	0.120
102.50	-24.51	-5.94	0.00	-311.01	0.00	311.01	2,221.40	1,110.70	2,984.67	1,494.55	10.77	-1.03	0.117
102.50	-24.51	-5.94	0.00	-311.01	0.00	311.01	2,221.40	1,110.70	2,984.67	1,494.55	10.77	-1.03	0.219
105.00	-24.04	-5.89	0.00	-296.17	0.00	296.17	2,198.14	1,099.07	2,913.61	1,458.97	11.31	-1.05	0.214
110.00	-23.12	-5.82	0.00	-266.72	0.00	266.72	2,138.65	1,069.33	2,757.31	1,380.70	12.46	-1.15	0.204
115.00	-22.21	-5.77	0.00	-237.61	0.00	237.61	2,079.16	1,039.58	2,605.31	1,304.59	13.71	-1.24	0.193
116.50	-21.93	-5.74	0.00	-228.95	0.00	228.95	2,061.32	1,030.66	2,560.55	1,282.18	14.11	-1.27	0.189
120.00	-21.02	-5.70	0.00	-208.85	0.00	208.85	2,019.67	1,009.84	2,457.62	1,230.64	15.06	-1.33	0.180
121.00	-20.76	-5.67	0.00	-203.15	0.00	203.15	1,570.79	785.40	1,940.61	971.75	15.34	-1.35	0.222
125.00	-20.13	-5.62	0.00	-180.49	0.00	180.49	1,545.06	772.53	1,864.04	933.41	16.50	-1.41	0.206
126.00	-16.70	-4.37	0.00	-174.56	0.00	174.56	1,538.54	769.27	1,845.04	923.89	16.79	-1.43	0.200
130.00	-16.13	-4.31	0.00	-157.08	0.00	157.08	1,512.16	756.08	1,769.59	886.11	18.03	-1.51	0.188
135.00	-15.42	-4.23	0.00	-135.54	0.00	135.54	1,478.46	739.23	1,676.61	839.55	19.66	-1.60	0.172
140.00	-14.73	-4.16	0.00	-114.38	0.00	114.38	1,443.96	721.98	1,585.19	793.77	21.38	-1.68	0.154
145.00	-11.46	-3.24	0.00	-93.60	0.00	93.60	1,408.39	704.19	1,495.13	748.68	23.18	-1.76	0.133
149.00	-11.00	-3.19	0.00	-80.65	0.00	80.65	1,370.32	685.16	1,415.01	708.56	24.68	-1.82	0.122
150.00	-10.83	-3.16	0.00	-77.46	0.00	77.46	1,360.80	680.40	1,395.33	698.70	25.06	-1.83	0.119
152.50	-10.42	-3.12	0.00	-69.56	0.00	69.56	947.27	473.64	973.73	487.59	26.03	-1.86	0.154
155.00	-10.18	-3.07	0.00	-61.76	0.00	61.76	936.35	468.18	945.55	473.48	27.01	-1.90	0.141
160.00	-9.70	-2.99	0.00	-46.43	0.00	46.43	913.91	456.96	889.79	445.55	29.04	-1.96	0.115
165.00	-9.24	-2.93	0.00	-31.49	0.00	31.49	890.67	445.33	834.90	418.07	31.13	-2.02	0.086

Site Number: 302535

Code: ANSI/TIA-222-G

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Site Name: Milford CT 2, CT

Engineering Number: OAA735853_C3_04

4/25/2019 4:28:06 PM

Customer: AT&T MOBILITY

Load Case: 1.0D + 1.0W

Serviceability 60 mph

26 Iterations

Gust Response Factor :1.10

Wind Importance Factor :1.00

Dead Load Factor :1.00

Wind Load Factor :1.00

167.00	-4.40	-1.67	0.00	-25.63	0.00	25.63	881.14	440.57	813.20	407.21	31.98	-2.04	0.068
170.00	-4.18	-1.61	0.00	-20.62	0.00	20.62	866.62	433.31	780.97	391.06	33.26	-2.06	0.058
175.00	-3.75	-1.41	0.00	-12.57	0.00	12.57	841.76	420.88	728.08	364.58	35.44	-2.09	0.039
180.00	-3.43	-1.35	0.00	-5.51	0.00	5.51	816.11	408.05	676.33	338.67	37.64	-2.11	0.020
183.00	0.00	-1.22	0.00	-1.45	0.00	1.45	800.33	400.16	645.87	323.41	38.97	-2.11	0.004

Equivalent Lateral Forces Method Analysis

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

Spectral Response Acceleration for Short Period (S_s):	0.19
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}):	0.20
Design Spectral Response Acceleration at 1.0 Second Period (S_{d1}):	0.10
Seismic Response Coefficient (C_s):	0.03
Upper Limit C_s	0.03
Lower Limit C_s	0.03
Period based on Rayleigh Method (sec):	3.26
Redundancy Factor (ρ):	1.00
Seismic Force Distribution Exponent (k):	2.00
Total Unfactored Dead Load:	62.15 k
Seismic Base Shear (E):	1.86 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)
52	181.50	189	6,230	0.009	17	235
51	177.50	322	10,154	0.015	28	400
50	172.50	356	10,585	0.016	30	441
49	168.50	218	6,181	0.009	17	270
48	166.00	184	5,072	0.008	14	228
47	162.50	466	12,314	0.018	34	579
46	157.50	475	11,788	0.018	33	589
45	153.75	241	5,695	0.009	16	299
44	151.25	410	9,390	0.014	26	509
43	149.50	166	3,702	0.006	10	205
42	147.00	460	9,949	0.015	28	571
41	142.50	676	13,728	0.021	38	839
40	137.50	688	13,005	0.020	36	853
39	132.50	700	12,284	0.018	34	868
38	128.00	572	9,375	0.014	26	710
37	125.50	155	2,447	0.004	7	193
36	123.00	626	9,472	0.014	27	777
35	120.50	258	3,741	0.006	10	320
34	118.25	910	12,725	0.019	36	1,129
33	115.75	268	3,597	0.005	10	333
32	112.50	904	11,447	0.017	32	1,122
31	107.50	919	10,623	0.016	30	1,140
30	103.75	465	5,007	0.008	14	577

Site Number: 302535

Code: ANSI/TIA-222-G

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Site Name: Milford CT 2, CT

Engineering Number: OAA735853_C3_04

4/25/2019 4:28:06 PM

Customer: AT&T MOBILITY

29	101.25	636	6,518	0.010	18	789
28	97.50	1,283	12,194	0.018	34	1,591
27	94.00	517	4,570	0.007	13	642
26	91.50	1,193	9,990	0.015	28	1,480
25	89.00	802	6,353	0.010	18	995
24	86.50	853	6,381	0.010	18	1,058
23	82.50	1,435	9,770	0.015	27	1,781
22	77.50	1,453	8,728	0.013	24	1,803
21	72.50	1,471	7,731	0.012	22	1,825
20	67.50	1,489	6,782	0.010	19	1,847
19	64.25	450	1,858	0.003	5	558
18	61.75	1,780	6,789	0.010	19	2,209
17	59.00	1,027	3,573	0.005	10	1,273
16	56.50	1,065	3,399	0.005	10	1,321
15	52.50	1,794	4,943	0.007	14	2,225
14	47.50	1,817	4,100	0.006	11	2,254
13	44.00	733	1,420	0.002	4	910
12	41.50	1,107	1,907	0.003	5	1,374
11	37.50	1,864	2,622	0.004	7	2,313
10	32.50	3,034	3,204	0.005	9	3,763
9	29.25	919	787	0.001	2	1,140
8	26.75	1,322	946	0.001	3	1,640
7	23.75	951	537	0.001	2	1,180
6	21.25	957	432	0.001	1	1,187
5	17.50	1,932	592	0.001	2	2,397
4	12.50	1,955	306	0.000	1	2,426
3	8.50	1,185	86	0.000	0	1,470
2	6.00	794	29	0.000	0	986
1	2.50	1,639	10	0.000	0	2,033
DragonWave Horizon C	183.00	21	710	0.001	2	26
Alcatel-Lucent RRH2x	183.00	317	10,629	0.016	30	394
Alcatel-Lucent 1900	183.00	180	6,028	0.009	17	223
Decibel DB844H90E-XY	183.00	42	1,407	0.002	4	52
Nokia 2.5G MAA - AAH	183.00	311	10,408	0.016	29	386
Argus LLPX310R	183.00	86	2,873	0.004	8	106
DragonWave A-ANT-18G	183.00	54	1,815	0.003	5	67
Andrew 844G65VTZASX	183.00	48	1,607	0.002	4	60
Commscope NNVV-65B-R	183.00	232	7,776	0.012	22	288
Flat Platform w/ Han	183.00	2,000	66,978	0.101	187	2,481
RFS APXV18-206517S-C	175.00	79	2,426	0.004	7	98
CCI TPX-070821	167.00	45	1,255	0.002	4	56
Kaelus DBCT108F1V92-	167.00	83	2,326	0.003	7	103
Commscope WCS-IMFQ-A	167.00	30	823	0.001	2	37
Powerwave Allgon LGP	167.00	85	2,359	0.004	7	105
Raycap DC6-48-60-18-	167.00	40	1,116	0.002	3	50
Raycap DC6-48-60-18-	167.00	32	887	0.001	2	39
Ericsson RRUS 4426 B	167.00	145	4,049	0.006	11	180
Ericsson RRUS 4478 B	167.00	180	5,012	0.008	14	223
Ericsson RRUS 4478 B	167.00	180	5,012	0.008	14	223
Ericsson RRUS 11 (Ba	167.00	132	3,681	0.006	10	164
Ericsson RRUS 32 B2	167.00	159	4,434	0.007	12	197
Ericsson RRUS-32 (77	167.00	231	6,442	0.010	18	287
Powerwave Allgon 777	167.00	105	2,928	0.004	8	130
CCI OPA-65R-LCUU-H4	167.00	171	4,769	0.007	13	212
Quintel QS66512-2	167.00	333	9,287	0.014	26	413
Kathrein Scala 80010	167.00	245	6,827	0.010	19	304
Generic Round Platfo	167.00	2,500	69,723	0.105	195	3,101
Kathrein Scala Smart	145.00	10	208	0.000	1	12
Ericsson KRY 112 144	145.00	29	612	0.001	2	36
Ericsson KRY 112 489	145.00	46	971	0.001	3	57
Ericsson Radio 4449	145.00	222	4,668	0.007	13	275
Ericsson AIR 32 B2A/	145.00	430	9,039	0.014	25	533
RFS APXVAARR24_43-U-	145.00	384	8,067	0.012	23	476
Flat Low Profile Pla	145.00	1,500	31,538	0.047	88	1,861

Site Number: 302535

Code: ANSI/TIA-222-G

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Site Name: Milford CT 2, CT

Engineering Number: OAA735853_C3_04

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Customer: AT&T MOBILITY

RFS FDJ85020Q4-S1	126.00	71	1,124	0.002	3	88
Samsung B5/B13 RRH-B	126.00	211	3,348	0.005	9	262
Samsung B2/B66A RRH-	126.00	253	4,020	0.006	11	314
RFS DB-T1-6Z-8AB-0Z	126.00	88	1,397	0.002	4	109
Antel BXA-80063/6CF	126.00	45	710	0.001	2	55
Andrew HBXX-6517DS-A	126.00	129	2,048	0.003	6	160
Commscope JAHH-45B-R	126.00	503	7,982	0.012	22	624
Flat Platform w/ Han	126.00	2,000	31,752	0.048	89	2,481
Thales PCS VP/360/2	7.00	1	0	0.000	0	1
Stand-Off	7.00	75	4	0.000	0	93
		62,149	666,139	1.000	1,864	77,098

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

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)
52	181.50	189	6,230	0.009	17	163
51	177.50	322	10,154	0.015	28	277
50	172.50	356	10,585	0.016	30	306
49	168.50	218	6,181	0.009	17	187
48	166.00	184	5,072	0.008	14	158
47	162.50	466	12,314	0.018	34	401
46	157.50	475	11,788	0.018	33	408
45	153.75	241	5,695	0.009	16	207
44	151.25	410	9,390	0.014	26	353
43	149.50	166	3,702	0.006	10	142
42	147.00	460	9,949	0.015	28	396
41	142.50	676	13,728	0.021	38	581
40	137.50	688	13,005	0.020	36	591
39	132.50	700	12,284	0.018	34	601
38	128.00	572	9,375	0.014	26	492
37	125.50	155	2,447	0.004	7	134
36	123.00	626	9,472	0.014	27	538
35	120.50	258	3,741	0.006	10	221
34	118.25	910	12,725	0.019	36	782
33	115.75	268	3,597	0.005	10	231
32	112.50	904	11,447	0.017	32	777
31	107.50	919	10,623	0.016	30	790
30	103.75	465	5,007	0.008	14	400
29	101.25	636	6,518	0.010	18	546
28	97.50	1,283	12,194	0.018	34	1,102
27	94.00	517	4,570	0.007	13	445
26	91.50	1,193	9,990	0.015	28	1,026
25	89.00	802	6,353	0.010	18	689
24	86.50	853	6,381	0.010	18	733
23	82.50	1,435	9,770	0.015	27	1,234
22	77.50	1,453	8,728	0.013	24	1,249
21	72.50	1,471	7,731	0.012	22	1,264
20	67.50	1,489	6,782	0.010	19	1,279
19	64.25	450	1,858	0.003	5	387
18	61.75	1,780	6,789	0.010	19	1,530
17	59.00	1,027	3,573	0.005	10	882
16	56.50	1,065	3,399	0.005	10	915
15	52.50	1,794	4,943	0.007	14	1,541
14	47.50	1,817	4,100	0.006	11	1,562
13	44.00	733	1,420	0.002	4	630
12	41.50	1,107	1,907	0.003	5	952
11	37.50	1,864	2,622	0.004	7	1,602
10	32.50	3,034	3,204	0.005	9	2,607
9	29.25	919	787	0.001	2	790

Site Number: 302535

Code: ANSI/TIA-222-G

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Site Name: Milford CT 2, CT

Engineering Number: OAA735853_C3_04

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Customer: AT&T MOBILITY

8	26.75	1,322	946	0.001	3	1,136
7	23.75	951	537	0.001	2	817
6	21.25	957	432	0.001	1	823
5	17.50	1,932	592	0.001	2	1,660
4	12.50	1,955	306	0.000	1	1,681
3	8.50	1,185	86	0.000	0	1,018
2	6.00	794	29	0.000	0	683
1	2.50	1,639	10	0.000	0	1,409
DragonWave Horizon C	183.00	21	710	0.001	2	18
Alcatel-Lucent RRH2x	183.00	317	10,629	0.016	30	273
Alcatel-Lucent 1900	183.00	180	6,028	0.009	17	155
Decibel DB844H90E-XY	183.00	42	1,407	0.002	4	36
Nokia 2.5G MAA - AAH	183.00	311	10,408	0.016	29	267
Argus LLPX310R	183.00	86	2,873	0.004	8	74
DragonWave A-ANT-18G	183.00	54	1,815	0.003	5	47
Andrew 844G65VTZASX	183.00	48	1,607	0.002	4	41
Commscope NNVV-65B-R	183.00	232	7,776	0.012	22	200
Flat Platform w/ Han	183.00	2,000	66,978	0.101	187	1,719
RFS APXV18-206517S-C	175.00	79	2,426	0.004	7	68
CCI TPX-070821	167.00	45	1,255	0.002	4	39
Kaelus DBCT108F1V92-	167.00	83	2,326	0.003	7	72
Commscope WCS-IMFQ-A	167.00	30	823	0.001	2	25
Powerwave Allgon LGP	167.00	85	2,359	0.004	7	73
Raycap DC6-48-60-18-	167.00	40	1,116	0.002	3	34
Raycap DC6-48-60-18-	167.00	32	887	0.001	2	27
Ericsson RRUS 4426 B	167.00	145	4,049	0.006	11	125
Ericsson RRUS 4478 B	167.00	180	5,012	0.008	14	154
Ericsson RRUS 4478 B	167.00	180	5,012	0.008	14	154
Ericsson RRUS 11 (Ba	167.00	132	3,681	0.006	10	113
Ericsson RRUS 32 B2	167.00	159	4,434	0.007	12	137
Ericsson RRUS-32 (77	167.00	231	6,442	0.010	18	199
Powerwave Allgon 777	167.00	105	2,928	0.004	8	90
CCI OPA-65R-LCUU-H4	167.00	171	4,769	0.007	13	147
Quintel QS66512-2	167.00	333	9,287	0.014	26	286
Kathrein Scala 80010	167.00	245	6,827	0.010	19	210
Generic Round Platfo	167.00	2,500	69,723	0.105	195	2,149
Kathrein Scala Smart	145.00	10	208	0.000	1	9
Ericsson KRY 112 144	145.00	29	612	0.001	2	25
Ericsson KRY 112 489	145.00	46	971	0.001	3	40
Ericsson Radio 4449	145.00	222	4,668	0.007	13	191
Ericsson AIR 32 B2A/	145.00	430	9,039	0.014	25	369
RFS APXVAARR24_43-U-	145.00	384	8,067	0.012	23	330
Flat Low Profile Pla	145.00	1,500	31,538	0.047	88	1,289
RFS FDJ85020Q4-S1	126.00	71	1,124	0.002	3	61
Samsung B5/B13 RRH-B	126.00	211	3,348	0.005	9	181
Samsung B2/B66A RRH-	126.00	253	4,020	0.006	11	218
RFS DB-T1-6Z-8AB-OZ	126.00	88	1,397	0.002	4	76
Antel BXA-80063/6CF	126.00	45	710	0.001	2	38
Andrew HBXX-6517DS-A	126.00	129	2,048	0.003	6	111
Commscope JAHH-45B-R	126.00	503	7,982	0.012	22	432
Flat Platform w/ Han	126.00	2,000	31,752	0.048	89	1,719
Thales PCS VP/360/2	7.00	1	0	0.000	0	1
Stand-Off	7.00	75	4	0.000	0	64
		62,149	666,139	1.000	1,864	53,415

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	-75.06	-1.87	0.00	-282.16	0.00	282.16	4,364.17	2,182.08	8,607.44	4,310.12	0.00	0.00	0.062
5.00	-74.08	-1.88	0.00	-272.80	0.00	272.80	4,284.85	2,142.42	8,295.82	4,154.08	0.01	-0.01	0.062
7.00	-72.51	-1.89	0.00	-269.03	0.00	269.03	4,253.12	2,126.56	8,172.78	4,092.46	0.01	-0.02	0.062
10.00	-70.09	-1.90	0.00	-263.36	0.00	263.36	4,205.53	2,102.76	7,989.95	4,000.91	0.03	-0.03	0.062
15.00	-67.69	-1.92	0.00	-253.84	0.00	253.84	4,126.21	2,063.10	7,689.82	3,850.62	0.06	-0.04	0.061
20.00	-66.50	-1.93	0.00	-244.26	0.00	244.26	4,046.89	2,023.44	7,395.44	3,703.21	0.11	-0.05	0.061
22.50	-65.32	-1.93	0.00	-239.44	0.00	239.44	4,007.23	2,003.61	7,250.40	3,630.59	0.14	-0.06	0.060
22.50	-65.32	-1.93	0.00	-239.44	0.00	239.44	4,007.23	2,003.61	7,250.40	3,630.59	0.14	-0.06	0.060
25.00	-63.68	-1.94	0.00	-234.61	0.00	234.61	3,967.57	1,983.78	7,106.80	3,558.68	0.18	-0.07	0.060
28.50	-62.54	-1.94	0.00	-227.83	0.00	227.83	3,912.04	1,956.02	6,908.17	3,459.22	0.23	-0.08	0.060
30.00	-58.78	-1.94	0.00	-224.92	0.00	224.92	3,888.25	1,944.12	6,823.91	3,417.03	0.26	-0.08	0.058
35.00	-56.47	-1.94	0.00	-215.24	0.00	215.24	3,899.62	1,949.81	6,864.12	3,437.16	0.35	-0.10	0.056
40.00	-55.09	-1.94	0.00	-205.55	0.00	205.55	3,820.30	1,910.15	6,586.15	3,297.97	0.46	-0.11	0.055
43.00	-54.18	-1.94	0.00	-199.72	0.00	199.72	3,772.71	1,886.36	6,422.13	3,215.84	0.53	-0.12	0.055
43.00	-54.18	-1.94	0.00	-199.72	0.00	199.72	3,772.71	1,886.36	6,422.13	3,215.84	0.53	-0.12	0.055
45.00	-51.93	-1.93	0.00	-195.84	0.00	195.84	3,740.98	1,870.49	6,313.93	3,161.66	0.58	-0.12	0.054
50.00	-49.70	-1.93	0.00	-186.16	0.00	186.16	3,661.66	1,830.83	6,047.45	3,028.22	0.72	-0.14	0.053
55.00	-48.38	-1.92	0.00	-176.53	0.00	176.53	3,582.34	1,791.17	5,786.72	2,897.66	0.87	-0.15	0.053
58.00	-47.11	-1.92	0.00	-170.75	0.00	170.75	3,534.75	1,767.38	5,633.04	2,820.71	0.97	-0.16	0.052
60.00	-44.90	-1.90	0.00	-166.92	0.00	166.92	3,503.02	1,751.51	5,531.73	2,769.98	1.04	-0.17	0.051
63.50	-44.34	-1.90	0.00	-160.28	0.00	160.28	3,173.44	1,586.72	5,061.87	2,534.70	1.16	-0.17	0.049
65.00	-42.49	-1.88	0.00	-157.44	0.00	157.44	3,152.76	1,576.38	4,994.62	2,501.02	1.22	-0.18	0.049
70.00	-40.67	-1.86	0.00	-148.04	0.00	148.04	3,081.37	1,540.68	4,769.94	2,388.51	1.41	-0.19	0.047
75.00	-38.87	-1.84	0.00	-138.73	0.00	138.73	3,009.98	1,504.99	4,550.42	2,278.59	1.62	-0.21	0.046
80.00	-37.08	-1.82	0.00	-129.53	0.00	129.53	2,938.59	1,469.30	4,336.07	2,171.26	1.85	-0.23	0.045
85.00	-36.03	-1.80	0.00	-120.44	0.00	120.44	2,867.21	1,433.60	4,126.90	2,066.52	2.10	-0.24	0.043
88.00	-35.03	-1.79	0.00	-115.03	0.00	115.03	2,824.37	1,412.19	4,003.88	2,004.91	2.25	-0.25	0.042
90.00	-33.55	-1.76	0.00	-111.46	0.00	111.46	2,795.82	1,397.91	3,922.90	1,964.36	2.36	-0.26	0.041
93.00	-32.91	-1.74	0.00	-106.19	0.00	106.19	2,304.06	1,152.03	3,254.27	1,629.55	2.52	-0.27	0.045
95.00	-31.32	-1.71	0.00	-102.70	0.00	102.70	2,286.90	1,143.45	3,196.90	1,600.83	2.63	-0.27	0.043
100.00	-30.53	-1.69	0.00	-94.16	0.00	94.16	2,243.44	1,121.72	3,054.90	1,529.72	2.93	-0.29	0.041
102.50	-29.95	-1.68	0.00	-89.93	0.00	89.93	2,221.40	1,110.70	2,984.67	1,494.55	3.08	-0.29	0.040
102.50	-29.95	-1.68	0.00	-89.93	0.00	89.93	2,221.40	1,110.70	2,984.67	1,494.55	3.08	-0.29	0.074
105.00	-28.81	-1.65	0.00	-85.73	0.00	85.73	2,198.14	1,099.07	2,913.61	1,458.97	3.23	-0.30	0.072
110.00	-27.69	-1.63	0.00	-77.47	0.00	77.47	2,138.65	1,069.33	2,757.31	1,380.70	3.57	-0.33	0.069
115.00	-27.35	-1.62	0.00	-69.33	0.00	69.33	2,079.16	1,039.58	2,605.31	1,304.59	3.92	-0.36	0.066
116.50	-26.23	-1.59	0.00	-66.90	0.00	66.90	2,061.32	1,030.66	2,560.55	1,282.18	4.04	-0.36	0.065
120.00	-25.91	-1.58	0.00	-61.34	0.00	61.34	2,019.67	1,009.84	2,457.62	1,230.64	4.31	-0.38	0.063
121.00	-25.13	-1.55	0.00	-59.76	0.00	59.76	1,570.79	785.40	1,940.61	971.75	4.39	-0.39	0.078
125.00	-24.94	-1.55	0.00	-53.55	0.00	53.55	1,545.06	772.53	1,864.04	933.41	4.73	-0.41	0.074
126.00	-20.13	-1.35	0.00	-52.00	0.00	52.00	1,538.54	769.27	1,845.04	923.89	4.81	-0.41	0.069
130.00	-19.27	-1.32	0.00	-46.60	0.00	46.60	1,512.16	756.08	1,769.59	886.11	5.17	-0.44	0.065
135.00	-18.41	-1.28	0.00	-40.02	0.00	40.02	1,478.46	739.23	1,676.61	839.55	5.64	-0.46	0.060
140.00	-17.57	-1.24	0.00	-33.61	0.00	33.61	1,443.96	721.98	1,585.19	793.77	6.14	-0.49	0.055
145.00	-13.75	-1.03	0.00	-27.39	0.00	27.39	1,408.39	704.19	1,495.13	748.68	6.66	-0.51	0.046
149.00	-13.55	-1.02	0.00	-23.26	0.00	23.26	1,370.32	685.16	1,415.01	708.56	7.09	-0.53	0.043
150.00	-13.04	-0.99	0.00	-22.24	0.00	22.24	1,360.80	680.40	1,395.33	698.70	7.20	-0.53	0.041
152.50	-12.74	-0.98	0.00	-19.76	0.00	19.76	947.27	473.64	973.73	487.59	7.48	-0.54	0.054
155.00	-12.15	-0.94	0.00	-17.31	0.00	17.31	936.35	468.18	945.55	473.48	7.77	-0.55	0.050
160.00	-11.57	-0.90	0.00	-12.61	0.00	12.61	913.91	456.96	889.79	445.55	8.35	-0.57	0.041
165.00	-11.34	-0.89	0.00	-8.08	0.00	8.08	890.67	445.33	834.90	418.07	8.96	-0.58	0.032
167.00	-5.25	-0.44	0.00	-6.30	0.00	6.30	881.14	440.57	813.20	407.21	9.20	-0.59	0.021
170.00	-4.81	-0.41	0.00	-4.97	0.00	4.97	866.62	433.31	780.97	391.06	9.57	-0.59	0.018
175.00	-4.31	-0.37	0.00	-2.91	0.00	2.91	841.76	420.88	728.08	364.58	10.20	-0.60	0.013
180.00	-4.08	-0.35	0.00	-1.05	0.00	1.05	816.11	408.05	676.33	338.67	10.83	-0.60	0.008
183.00	0.00	-0.31	0.00	0.00	0.00	0.00	800.33	400.16	645.87	323.41	11.21	-0.60	0.000

Site Number: 302535

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Site Name: Milford CT 2, CT

Engineering Number: OAA735853_C3_04

4/25/2019 4:28:06 PM

Customer: AT&T MOBILITY

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

Seismic (Reduced DL) Equivalent Lateral Forces Method

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-52.01	-1.87	0.00	-275.17	0.00	275.17	4,364.17	2,182.08	8,607.44	4,310.12	0.00	0.00	0.057
5.00	-51.32	-1.88	0.00	-265.82	0.00	265.82	4,284.85	2,142.42	8,295.82	4,154.08	0.01	-0.01	0.057
7.00	-50.24	-1.88	0.00	-262.07	0.00	262.07	4,253.12	2,126.56	8,172.78	4,092.46	0.01	-0.02	0.057
10.00	-48.56	-1.89	0.00	-256.42	0.00	256.42	4,205.53	2,102.76	7,989.95	4,000.91	0.03	-0.03	0.056
15.00	-46.90	-1.90	0.00	-246.97	0.00	246.97	4,126.21	2,063.10	7,689.82	3,850.62	0.06	-0.04	0.056
20.00	-46.07	-1.90	0.00	-237.47	0.00	237.47	4,046.89	2,023.44	7,395.44	3,703.21	0.11	-0.05	0.055
22.50	-45.26	-1.91	0.00	-232.71	0.00	232.71	4,007.23	2,003.61	7,250.40	3,630.59	0.14	-0.06	0.055
22.50	-45.26	-1.91	0.00	-232.71	0.00	232.71	4,007.23	2,003.61	7,250.40	3,630.59	0.14	-0.06	0.055
25.00	-44.12	-1.91	0.00	-227.94	0.00	227.94	3,967.57	1,983.78	7,106.80	3,558.68	0.17	-0.07	0.055
28.50	-43.33	-1.91	0.00	-221.26	0.00	221.26	3,912.04	1,956.02	6,908.17	3,459.22	0.22	-0.08	0.055
30.00	-40.72	-1.91	0.00	-218.39	0.00	218.39	3,888.25	1,944.12	6,823.91	3,417.03	0.25	-0.08	0.053
35.00	-39.12	-1.91	0.00	-208.86	0.00	208.86	3,899.62	1,949.81	6,864.12	3,437.16	0.34	-0.09	0.051
40.00	-38.17	-1.91	0.00	-199.33	0.00	199.33	3,820.30	1,910.15	6,586.15	3,297.97	0.45	-0.11	0.051
43.00	-37.54	-1.91	0.00	-193.61	0.00	193.61	3,772.71	1,886.36	6,422.13	3,215.84	0.52	-0.12	0.050
43.00	-37.54	-1.91	0.00	-193.61	0.00	193.61	3,772.71	1,886.36	6,422.13	3,215.84	0.52	-0.12	0.050
45.00	-35.98	-1.90	0.00	-189.80	0.00	189.80	3,740.98	1,870.49	6,313.93	3,161.66	0.56	-0.12	0.050
50.00	-34.43	-1.89	0.00	-180.32	0.00	180.32	3,661.66	1,830.83	6,047.45	3,028.22	0.70	-0.13	0.049
55.00	-33.52	-1.88	0.00	-170.88	0.00	170.88	3,582.34	1,791.17	5,786.72	2,897.66	0.85	-0.15	0.048
58.00	-32.64	-1.87	0.00	-165.24	0.00	165.24	3,534.75	1,767.38	5,633.04	2,820.71	0.94	-0.16	0.047
60.00	-31.11	-1.85	0.00	-161.49	0.00	161.49	3,503.02	1,751.51	5,531.73	2,769.98	1.01	-0.16	0.046
63.50	-30.72	-1.85	0.00	-155.01	0.00	155.01	3,173.44	1,586.72	5,061.87	2,534.70	1.13	-0.17	0.045
65.00	-29.44	-1.83	0.00	-152.23	0.00	152.23	3,152.76	1,576.38	4,994.62	2,501.02	1.18	-0.17	0.045
70.00	-28.17	-1.81	0.00	-143.06	0.00	143.06	3,081.37	1,540.68	4,769.94	2,388.51	1.37	-0.19	0.043
75.00	-26.92	-1.79	0.00	-133.99	0.00	133.99	3,009.98	1,504.99	4,550.42	2,278.59	1.58	-0.20	0.042
80.00	-25.69	-1.77	0.00	-125.02	0.00	125.02	2,938.59	1,469.30	4,336.07	2,171.26	1.80	-0.22	0.041
85.00	-24.96	-1.75	0.00	-116.18	0.00	116.18	2,867.21	1,433.60	4,126.90	2,066.52	2.04	-0.23	0.039
88.00	-24.27	-1.73	0.00	-110.93	0.00	110.93	2,824.37	1,412.19	4,003.88	2,004.91	2.19	-0.24	0.038
90.00	-23.24	-1.71	0.00	-107.46	0.00	107.46	2,795.82	1,397.91	3,922.90	1,964.36	2.29	-0.25	0.037
93.00	-22.80	-1.69	0.00	-102.34	0.00	102.34	2,304.06	1,152.03	3,254.27	1,629.55	2.45	-0.26	0.040
95.00	-21.70	-1.66	0.00	-98.95	0.00	98.95	2,286.90	1,143.45	3,196.90	1,600.83	2.56	-0.26	0.039
100.00	-21.15	-1.64	0.00	-90.66	0.00	90.66	2,243.44	1,121.72	3,054.90	1,529.72	2.84	-0.28	0.037
102.50	-20.75	-1.63	0.00	-86.56	0.00	86.56	2,221.40	1,110.70	2,984.67	1,494.55	2.99	-0.28	0.036
102.50	-20.75	-1.63	0.00	-86.56	0.00	86.56	2,221.40	1,110.70	2,984.67	1,494.55	2.99	-0.28	0.067
105.00	-19.96	-1.60	0.00	-82.49	0.00	82.49	2,198.14	1,099.07	2,913.61	1,458.97	3.14	-0.29	0.066
110.00	-19.18	-1.57	0.00	-74.49	0.00	74.49	2,138.65	1,069.33	2,757.31	1,380.70	3.46	-0.32	0.063
115.00	-18.95	-1.57	0.00	-66.62	0.00	66.62	2,079.16	1,039.58	2,605.31	1,304.59	3.81	-0.34	0.060
116.50	-18.17	-1.53	0.00	-64.27	0.00	64.27	2,061.32	1,030.66	2,560.55	1,282.18	3.92	-0.35	0.059
120.00	-17.95	-1.52	0.00	-58.91	0.00	58.91	2,019.67	1,009.84	2,457.62	1,230.64	4.18	-0.37	0.057
121.00	-17.41	-1.50	0.00	-57.39	0.00	57.39	1,570.79	785.40	1,940.61	971.75	4.26	-0.37	0.070
125.00	-17.27	-1.49	0.00	-51.41	0.00	51.41	1,545.06	772.53	1,864.04	933.41	4.58	-0.39	0.066
126.00	-13.95	-1.30	0.00	-49.92	0.00	49.92	1,538.54	769.27	1,845.04	923.89	4.66	-0.40	0.063
130.00	-13.35	-1.27	0.00	-44.72	0.00	44.72	1,512.16	756.08	1,769.59	886.11	5.01	-0.42	0.059
135.00	-12.75	-1.23	0.00	-38.38	0.00	38.38	1,478.46	739.23	1,676.61	839.55	5.46	-0.45	0.054
140.00	-12.17	-1.19	0.00	-32.23	0.00	32.23	1,443.96	721.98	1,585.19	793.77	5.94	-0.47	0.049
145.00	-9.53	-0.99	0.00	-26.27	0.00	26.27	1,408.39	704.19	1,495.13	748.68	6.45	-0.49	0.042
149.00	-9.38	-0.98	0.00	-22.30	0.00	22.30	1,370.32	685.16	1,415.01	708.56	6.87	-0.51	0.038
150.00	-9.03	-0.95	0.00	-21.32	0.00	21.32	1,360.80	680.40	1,395.33	698.70	6.97	-0.51	0.037
152.50	-8.82	-0.94	0.00	-18.93	0.00	18.93	947.27	473.64	973.73	487.59	7.24	-0.52	0.048
155.00	-8.42	-0.90	0.00	-16.59	0.00	16.59	936.35	468.18	945.55	473.48	7.52	-0.53	0.044
160.00	-8.01	-0.87	0.00	-12.08	0.00	12.08	913.91	456.96	889.79	445.55	8.08	-0.55	0.036
165.00	-7.86	-0.85	0.00	-7.75	0.00	7.75	890.67	445.33	834.90	418.07	8.66	-0.56	0.027
167.00	-3.64	-0.43	0.00	-6.05	0.00	6.05	881.14	440.57	813.20	407.21	8.90	-0.57	0.019
170.00	-3.33	-0.39	0.00	-4.77	0.00	4.77	866.62	433.31	780.97	391.06	9.26	-0.57	0.016
175.00	-2.99	-0.36	0.00	-2.79	0.00	2.79	841.76	420.88	728.08	364.58	9.86	-0.58	0.011
180.00	-2.83	-0.34	0.00	-1.01	0.00	1.01	816.11	408.05	676.33	338.67	10.47	-0.58	0.006
183.00	0.00	-0.31	0.00	0.00	0.00	0.00	800.33	400.16	645.87	323.41	10.84	-0.58	0.000

Equivalent Modal Analysis Method

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

Spectral Response Acceleration for Short Period (S_s):	0.19
Spectral Response Acceleration at 1.0 Second Period (S_1):	0.06
Importance Factor (I_E):	1.00
Site Coefficient F_a :	1.60
Site Coefficient F_v :	2.40
Response Modification Coefficient (R):	1.50
Design Spectral Response Acceleration at Short Period (S_{ds}):	0.20
Design Spectral Response Acceleration at 1.0 Second Period (S_{d1}):	0.10
Period Based on Rayleigh Method (sec):	3.26
Redundancy Factor (p):	1.00

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

Segment	Height Above Base (ft)	Weight (lb)	a	b	c	Saz	Horizontal Force (lb)	Vertical Force (lb)
52	181.50	189	1.859	1.821	1.082	0.359	45	235
51	177.50	322	1.778	1.441	0.940	0.306	66	400
50	172.50	356	1.679	1.045	0.783	0.244	58	441
49	168.50	218	1.602	0.786	0.673	0.199	29	270
48	166.00	184	1.555	0.646	0.611	0.173	21	228
47	162.50	466	1.490	0.477	0.531	0.139	43	579
46	157.50	475	1.400	0.284	0.432	0.094	30	589
45	153.75	241	1.334	0.171	0.367	0.065	10	299
44	151.25	410	1.291	0.108	0.328	0.046	13	509
43	149.50	166	1.261	0.070	0.303	0.035	4	205
42	147.00	460	1.220	0.024	0.270	0.019	6	571
41	142.50	676	1.146	-0.040	0.217	-0.007	-3	839
40	137.50	688	1.067	-0.087	0.167	-0.030	-14	853
39	132.50	700	0.991	-0.112	0.127	-0.048	-22	868
38	128.00	572	0.925	-0.121	0.097	-0.060	-23	710
37	125.50	155	0.889	-0.122	0.083	-0.065	-7	193
36	123.00	626	0.854	-0.119	0.071	-0.068	-28	777
35	120.50	258	0.819	-0.115	0.060	-0.070	-12	320
34	118.25	910	0.789	-0.110	0.051	-0.070	-43	1,129
33	115.75	268	0.756	-0.102	0.042	-0.070	-12	333
32	112.50	904	0.714	-0.091	0.033	-0.066	-40	1,122
31	107.50	919	0.652	-0.071	0.022	-0.057	-35	1,140
30	103.75	465	0.607	-0.056	0.015	-0.045	-14	577
29	101.25	636	0.579	-0.045	0.012	-0.036	-15	789
28	97.50	1,283	0.536	-0.030	0.009	-0.021	-18	1,591
27	94.00	517	0.499	-0.016	0.007	-0.006	-2	642
26	91.50	1,193	0.472	-0.006	0.006	0.005	4	1,480
25	89.00	802	0.447	0.003	0.006	0.015	8	995
24	86.50	853	0.422	0.011	0.006	0.024	14	1,058
23	82.50	1,435	0.384	0.023	0.007	0.038	36	1,781
22	77.50	1,453	0.339	0.036	0.009	0.050	48	1,803
21	72.50	1,471	0.297	0.046	0.013	0.058	57	1,825
20	67.50	1,489	0.257	0.054	0.016	0.062	62	1,847
19	64.25	450	0.233	0.058	0.019	0.064	19	558

18	61.75	1,780	0.215	0.061	0.021	0.064	76	2,209
17	59.00	1,027	0.196	0.063	0.024	0.065	44	1,273
16	56.50	1,065	0.180	0.065	0.026	0.064	46	1,321
15	52.50	1,794	0.156	0.067	0.029	0.064	76	2,225
14	47.50	1,817	0.127	0.070	0.033	0.063	76	2,254
13	44.00	733	0.109	0.071	0.036	0.062	30	910
12	41.50	1,107	0.097	0.071	0.038	0.061	45	1,374
11	37.50	1,864	0.079	0.072	0.040	0.060	75	2,313
10	32.50	3,034	0.060	0.072	0.041	0.059	119	3,763
9	29.25	919	0.048	0.071	0.042	0.058	36	1,140
8	26.75	1,322	0.040	0.070	0.042	0.057	51	1,640
7	23.75	951	0.032	0.069	0.041	0.056	36	1,180
6	21.25	957	0.025	0.067	0.040	0.055	35	1,187
5	17.50	1,932	0.017	0.062	0.037	0.053	68	2,397
4	12.50	1,955	0.009	0.053	0.031	0.047	62	2,426
3	8.50	1,185	0.004	0.042	0.023	0.040	32	1,470
2	6.00	794	0.002	0.032	0.018	0.033	18	986
1	2.50	1,639	0.000	0.015	0.008	0.018	20	2,033
DragonWave Horizon C	183.00	21	1.890	1.980	1.140	0.380	5	26
Alcatel-Lucent RRH2x	183.00	317	1.890	1.980	1.140	0.380	80	394
Alcatel-Lucent 1900	183.00	180	1.890	1.980	1.140	0.380	46	223
Decibel DB844H90E-XY	183.00	42	1.890	1.980	1.140	0.380	11	52
Nokia 2.5G MAA - AAH	183.00	311	1.890	1.980	1.140	0.380	79	386
Argus LLPX310R	183.00	86	1.890	1.980	1.140	0.380	22	106
DragonWave A-ANT-18G	183.00	54	1.890	1.980	1.140	0.380	14	67
Andrew 844G65VTZASX	183.00	48	1.890	1.980	1.140	0.380	12	60
Commscope NNVV-	183.00	232	1.890	1.980	1.140	0.380	59	288
Flat Platform w/ Han	183.00	2,000	1.890	1.980	1.140	0.380	507	2,481
RFS APXV18-206517S-C	175.00	79	1.728	1.233	0.859	0.274	14	98
CCI TPX-070821	167.00	45	1.574	0.700	0.635	0.183	6	56
Kaelus DBCT108F1V92-	167.00	83	1.574	0.700	0.635	0.183	10	103
Commscope WCS-	167.00	30	1.574	0.700	0.635	0.183	4	37
Powerwave Allgon LGP	167.00	85	1.574	0.700	0.635	0.183	10	105
Raycap DC6-48-60-18-	167.00	40	1.574	0.700	0.635	0.183	5	50
Raycap DC6-48-60-18-	167.00	32	1.574	0.700	0.635	0.183	4	39
Ericsson RRUS 4426 B	167.00	145	1.574	0.700	0.635	0.183	18	180
Ericsson RRUS 4478 B	167.00	180	1.574	0.700	0.635	0.183	22	223
Ericsson RRUS 4478 B	167.00	180	1.574	0.700	0.635	0.183	22	223
Ericsson RRUS 11 (Ba	167.00	132	1.574	0.700	0.635	0.183	16	164
Ericsson RRUS 32 B2	167.00	159	1.574	0.700	0.635	0.183	19	197
Ericsson RRUS-32 (77	167.00	231	1.574	0.700	0.635	0.183	28	287
Powerwave Allgon 777	167.00	105	1.574	0.700	0.635	0.183	13	130
CCI OPA-65R-LCUU-H4	167.00	171	1.574	0.700	0.635	0.183	21	212
Quintel QS66512-2	167.00	333	1.574	0.700	0.635	0.183	41	413
Kathrein Scala 80010	167.00	245	1.574	0.700	0.635	0.183	30	304
Generic Round Platfo	167.00	2,500	1.574	0.700	0.635	0.183	306	3,101
Kathrein Scala Smart	145.00	10	1.187	-0.008	0.245	0.007	0	12
Ericsson KRY 112 144	145.00	29	1.187	-0.008	0.245	0.007	0	36
Ericsson KRY 112 489	145.00	46	1.187	-0.008	0.245	0.007	0	57
Ericsson Radio 4449	145.00	222	1.187	-0.008	0.245	0.007	1	275
Ericsson AIR 32 B2A/	145.00	430	1.187	-0.008	0.245	0.007	2	533
RFS APXVAARR24_43-U-	145.00	384	1.187	-0.008	0.245	0.007	2	476
Flat Low Profile Pla	145.00	1,500	1.187	-0.008	0.245	0.007	7	1,861
RFS FDJ85020Q4-S1	126.00	71	0.896	-0.122	0.086	-0.064	-3	88
Samsung B5/B13 RRH-B	126.00	211	0.896	-0.122	0.086	-0.064	-9	262
Samsung B2/B66A RRH-	126.00	253	0.896	-0.122	0.086	-0.064	-11	314
RFS DB-T1-6Z-8AB-0Z	126.00	88	0.896	-0.122	0.086	-0.064	-4	109
Antel BXA-80063/6CF	126.00	45	0.896	-0.122	0.086	-0.064	-2	55
Andrew HBXX-6517DS-A	126.00	129	0.896	-0.122	0.086	-0.064	-5	160
Commscope JAHH-45B-	126.00	503	0.896	-0.122	0.086	-0.064	-21	624
Flat Platform w/ Han	126.00	2,000	0.896	-0.122	0.086	-0.064	-85	2,481
Thales PCS VP/360/2	7.00	1	0.003	0.036	0.020	0.036	0	1
Stand-Off	7.00	75	0.003	0.036	0.020	0.036	2	93

62,149 95.409 38.933 33.483 9.058 2,523 77,098

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)
52	181.50	189	1.859	1.821	1.082	0.359	45	163
51	177.50	322	1.778	1.441	0.940	0.306	66	277
50	172.50	356	1.679	1.045	0.783	0.244	58	306
49	168.50	218	1.602	0.786	0.673	0.199	29	187
48	166.00	184	1.555	0.646	0.611	0.173	21	158
47	162.50	466	1.490	0.477	0.531	0.139	43	401
46	157.50	475	1.400	0.284	0.432	0.094	30	408
45	153.75	241	1.334	0.171	0.367	0.065	10	207
44	151.25	410	1.291	0.108	0.328	0.046	13	353
43	149.50	166	1.261	0.070	0.303	0.035	4	142
42	147.00	460	1.220	0.024	0.270	0.019	6	396
41	142.50	676	1.146	-0.040	0.217	-0.007	-3	581
40	137.50	688	1.067	-0.087	0.167	-0.030	-14	591
39	132.50	700	0.991	-0.112	0.127	-0.048	-22	601
38	128.00	572	0.925	-0.121	0.097	-0.060	-23	492
37	125.50	155	0.889	-0.122	0.083	-0.065	-7	134
36	123.00	626	0.854	-0.119	0.071	-0.068	-28	538
35	120.50	258	0.819	-0.115	0.060	-0.070	-12	221
34	118.25	910	0.789	-0.110	0.051	-0.070	-43	782
33	115.75	268	0.756	-0.102	0.042	-0.070	-12	231
32	112.50	904	0.714	-0.091	0.033	-0.066	-40	777
31	107.50	919	0.652	-0.071	0.022	-0.057	-35	790
30	103.75	465	0.607	-0.056	0.015	-0.045	-14	400
29	101.25	636	0.579	-0.045	0.012	-0.036	-15	546
28	97.50	1,283	0.536	-0.030	0.009	-0.021	-18	1,102
27	94.00	517	0.499	-0.016	0.007	-0.006	-2	445
26	91.50	1,193	0.472	-0.006	0.006	0.005	4	1,026
25	89.00	802	0.447	0.003	0.006	0.015	8	689
24	86.50	853	0.422	0.011	0.006	0.024	14	733
23	82.50	1,435	0.384	0.023	0.007	0.038	36	1,234
22	77.50	1,453	0.339	0.036	0.009	0.050	48	1,249
21	72.50	1,471	0.297	0.046	0.013	0.058	57	1,264
20	67.50	1,489	0.257	0.054	0.016	0.062	62	1,279
19	64.25	450	0.233	0.058	0.019	0.064	19	387
18	61.75	1,780	0.215	0.061	0.021	0.064	76	1,530
17	59.00	1,027	0.196	0.063	0.024	0.065	44	882
16	56.50	1,065	0.180	0.065	0.026	0.064	46	915
15	52.50	1,794	0.156	0.067	0.029	0.064	76	1,541
14	47.50	1,817	0.127	0.070	0.033	0.063	76	1,562
13	44.00	733	0.109	0.071	0.036	0.062	30	630
12	41.50	1,107	0.097	0.071	0.038	0.061	45	952
11	37.50	1,864	0.079	0.072	0.040	0.060	75	1,602
10	32.50	3,034	0.060	0.072	0.041	0.059	119	2,607
9	29.25	919	0.048	0.071	0.042	0.058	36	790
8	26.75	1,322	0.040	0.070	0.042	0.057	51	1,136
7	23.75	951	0.032	0.069	0.041	0.056	36	817
6	21.25	957	0.025	0.067	0.040	0.055	35	823
5	17.50	1,932	0.017	0.062	0.037	0.053	68	1,660
4	12.50	1,955	0.009	0.053	0.031	0.047	62	1,681
3	8.50	1,185	0.004	0.042	0.023	0.040	32	1,018
2	6.00	794	0.002	0.032	0.018	0.033	18	683
1	2.50	1,639	0.000	0.015	0.008	0.018	20	1,409
DragonWave Horizon C	183.00	21	1.890	1.980	1.140	0.380	5	18

Site Number: 302535

Code: ANSI/TIA-222-G

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Site Name: Milford CT 2, CT

Engineering Number: OAA735853_C3_04

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Customer: AT&T MOBILITY

Alcatel-Lucent RRH2x	183.00	317	1.890	1.980	1.140	0.380	80	273
Alcatel-Lucent 1900	183.00	180	1.890	1.980	1.140	0.380	46	155
Decibel DB844H90E-XY	183.00	42	1.890	1.980	1.140	0.380	11	36
Nokia 2.5G MAA - AAH	183.00	311	1.890	1.980	1.140	0.380	79	267
Argus LLPX310R	183.00	86	1.890	1.980	1.140	0.380	22	74
DragonWave A-ANT-18G	183.00	54	1.890	1.980	1.140	0.380	14	47
Andrew 844G65VTZASX	183.00	48	1.890	1.980	1.140	0.380	12	41
Commscope NNVV-	183.00	232	1.890	1.980	1.140	0.380	59	200
Flat Platform w/ Han	183.00	2,000	1.890	1.980	1.140	0.380	507	1,719
RFS APXV18-206517S-C	175.00	79	1.728	1.233	0.859	0.274	14	68
CCI TPX-070821	167.00	45	1.574	0.700	0.635	0.183	6	39
Kaelus DBCT108F1V92-	167.00	83	1.574	0.700	0.635	0.183	10	72
Commscope WCS-	167.00	30	1.574	0.700	0.635	0.183	4	25
Powerwave Allgon LGP	167.00	85	1.574	0.700	0.635	0.183	10	73
Raycap DC6-48-60-18-	167.00	40	1.574	0.700	0.635	0.183	5	34
Raycap DC6-48-60-18-	167.00	32	1.574	0.700	0.635	0.183	4	27
Ericsson RRUS 4426 B	167.00	145	1.574	0.700	0.635	0.183	18	125
Ericsson RRUS 4478 B	167.00	180	1.574	0.700	0.635	0.183	22	154
Ericsson RRUS 4478 B	167.00	180	1.574	0.700	0.635	0.183	22	154
Ericsson RRUS 11 (Ba	167.00	132	1.574	0.700	0.635	0.183	16	113
Ericsson RRUS 32 B2	167.00	159	1.574	0.700	0.635	0.183	19	137
Ericsson RRUS-32 (77	167.00	231	1.574	0.700	0.635	0.183	28	199
Powerwave Allgon 777	167.00	105	1.574	0.700	0.635	0.183	13	90
CCI OPA-65R-LCUU-H4	167.00	171	1.574	0.700	0.635	0.183	21	147
Quintel QS66512-2	167.00	333	1.574	0.700	0.635	0.183	41	286
Kathrein Scala 80010	167.00	245	1.574	0.700	0.635	0.183	30	210
Generic Round Platfo	167.00	2,500	1.574	0.700	0.635	0.183	306	2,149
Kathrein Scala Smart	145.00	10	1.187	-0.008	0.245	0.007	0	9
Ericsson KRY 112 144	145.00	29	1.187	-0.008	0.245	0.007	0	25
Ericsson KRY 112 489	145.00	46	1.187	-0.008	0.245	0.007	0	40
Ericsson Radio 4449	145.00	222	1.187	-0.008	0.245	0.007	1	191
Ericsson AIR 32 B2A/	145.00	430	1.187	-0.008	0.245	0.007	2	369
RFS APXVAARR24_43-U-	145.00	384	1.187	-0.008	0.245	0.007	2	330
Flat Low Profile Pla	145.00	1,500	1.187	-0.008	0.245	0.007	7	1,289
RFS FDJ85020Q4-S1	126.00	71	0.896	-0.122	0.086	-0.064	-3	61
Samsung B5/B13 RRH-B	126.00	211	0.896	-0.122	0.086	-0.064	-9	181
Samsung B2/B66A RRH-	126.00	253	0.896	-0.122	0.086	-0.064	-11	218
RFS DB-T1-6Z-8AB-0Z	126.00	88	0.896	-0.122	0.086	-0.064	-4	76
Antel BXA-80063/6CF	126.00	45	0.896	-0.122	0.086	-0.064	-2	38
Andrew HBXX-6517DS-A	126.00	129	0.896	-0.122	0.086	-0.064	-5	111
Commscope JAHH-45B-	126.00	503	0.896	-0.122	0.086	-0.064	-21	432
Flat Platform w/ Han	126.00	2,000	0.896	-0.122	0.086	-0.064	-85	1,719
Thales PCS VP/360/2	7.00	1	0.003	0.036	0.020	0.036	0	1
Stand-Off	7.00	75	0.003	0.036	0.020	0.036	2	64
		62,149	95.409	38.933	33.483	9.058	2,523	53,415

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	-75.06	-2.51	0.00	-333.36	0.00	333.36	4,364.17	2,182.08	8,607.44	4,310.12	0.00	0.00	0.071
5.00	-74.08	-2.51	0.00	-320.79	0.00	320.79	4,284.85	2,142.42	8,295.82	4,154.08	0.01	-0.02	0.071
7.00	-72.51	-2.49	0.00	-315.77	0.00	315.77	4,253.12	2,126.56	8,172.78	4,092.46	0.02	-0.02	0.070
10.00	-70.09	-2.44	0.00	-308.32	0.00	308.32	4,205.53	2,102.76	7,989.95	4,000.91	0.03	-0.03	0.070
15.00	-67.69	-2.39	0.00	-296.13	0.00	296.13	4,126.21	2,063.10	7,689.82	3,850.62	0.07	-0.05	0.069
20.00	-66.50	-2.36	0.00	-284.19	0.00	284.19	4,046.89	2,023.44	7,395.44	3,703.21	0.13	-0.06	0.069
22.50	-65.32	-2.34	0.00	-278.28	0.00	278.28	4,007.23	2,003.61	7,250.40	3,630.59	0.17	-0.07	0.068
22.50	-65.32	-2.34	0.00	-278.28	0.00	278.28	4,007.23	2,003.61	7,250.40	3,630.59	0.17	-0.07	0.068
25.00	-63.68	-2.30	0.00	-272.44	0.00	272.44	3,967.57	1,983.78	7,106.80	3,558.68	0.21	-0.08	0.068
28.50	-62.54	-2.27	0.00	-264.40	0.00	264.40	3,912.04	1,956.02	6,908.17	3,459.22	0.27	-0.09	0.067
30.00	-58.78	-2.15	0.00	-261.01	0.00	261.01	3,888.25	1,944.12	6,823.91	3,417.03	0.30	-0.10	0.066
35.00	-56.47	-2.09	0.00	-250.25	0.00	250.25	3,899.62	1,949.81	6,864.12	3,437.16	0.41	-0.11	0.063
40.00	-55.09	-2.05	0.00	-239.80	0.00	239.80	3,820.30	1,910.15	6,586.15	3,297.97	0.53	-0.13	0.063
43.00	-54.18	-2.03	0.00	-233.64	0.00	233.64	3,772.71	1,886.36	6,422.13	3,215.84	0.62	-0.14	0.063
43.00	-54.18	-2.03	0.00	-233.64	0.00	233.64	3,772.71	1,886.36	6,422.13	3,215.84	0.62	-0.14	0.063
45.00	-51.93	-1.96	0.00	-229.58	0.00	229.58	3,740.98	1,870.49	6,313.93	3,161.66	0.68	-0.14	0.062
50.00	-49.70	-1.89	0.00	-219.80	0.00	219.80	3,661.66	1,830.83	6,047.45	3,028.22	0.84	-0.16	0.061
55.00	-48.38	-1.85	0.00	-210.35	0.00	210.35	3,582.34	1,791.17	5,786.72	2,897.66	1.02	-0.18	0.061
58.00	-47.11	-1.81	0.00	-204.80	0.00	204.80	3,534.75	1,767.38	5,633.04	2,820.71	1.13	-0.19	0.060
60.00	-44.90	-1.73	0.00	-201.18	0.00	201.18	3,503.02	1,751.51	5,531.73	2,769.98	1.21	-0.19	0.059
63.50	-44.34	-1.72	0.00	-195.12	0.00	195.12	3,173.44	1,586.72	5,061.87	2,534.70	1.36	-0.21	0.058
65.00	-42.49	-1.66	0.00	-192.54	0.00	192.54	3,152.76	1,576.38	4,994.62	2,501.02	1.42	-0.21	0.058
70.00	-40.67	-1.61	0.00	-184.25	0.00	184.25	3,081.37	1,540.68	4,769.94	2,388.51	1.65	-0.23	0.057
75.00	-38.87	-1.57	0.00	-176.20	0.00	176.20	3,009.98	1,504.99	4,550.42	2,278.59	1.90	-0.25	0.056
80.00	-37.08	-1.54	0.00	-168.37	0.00	168.37	2,938.59	1,469.30	4,336.07	2,171.26	2.18	-0.27	0.055
85.00	-36.03	-1.53	0.00	-160.69	0.00	160.69	2,867.21	1,433.60	4,126.90	2,066.52	2.47	-0.29	0.055
88.00	-35.03	-1.52	0.00	-156.11	0.00	156.11	2,824.37	1,412.19	4,003.88	2,004.91	2.65	-0.30	0.054
90.00	-33.55	-1.51	0.00	-153.07	0.00	153.07	2,795.82	1,397.91	3,922.90	1,964.36	2.78	-0.31	0.053
93.00	-32.91	-1.52	0.00	-148.53	0.00	148.53	2,304.06	1,152.03	3,254.27	1,629.55	2.98	-0.32	0.059
95.00	-31.32	-1.54	0.00	-145.49	0.00	145.49	2,286.90	1,143.45	3,196.90	1,600.83	3.12	-0.33	0.058
100.00	-30.53	-1.56	0.00	-137.81	0.00	137.81	2,243.44	1,121.72	3,054.90	1,529.72	3.48	-0.35	0.056
102.50	-29.95	-1.57	0.00	-133.92	0.00	133.92	2,221.40	1,110.70	2,984.67	1,494.55	3.66	-0.36	0.056
102.50	-29.95	-1.57	0.00	-133.92	0.00	133.92	2,221.40	1,110.70	2,984.67	1,494.55	3.66	-0.36	0.103
105.00	-28.81	-1.61	0.00	-129.99	0.00	129.99	2,198.14	1,099.07	2,913.61	1,458.97	3.86	-0.38	0.102
110.00	-27.69	-1.67	0.00	-121.93	0.00	121.93	2,138.65	1,069.33	2,757.31	1,380.70	4.27	-0.42	0.101
115.00	-27.35	-1.69	0.00	-113.60	0.00	113.60	2,079.16	1,039.58	2,605.31	1,304.59	4.73	-0.46	0.100
116.50	-26.22	-1.73	0.00	-111.06	0.00	111.06	2,061.32	1,030.66	2,560.55	1,282.18	4.88	-0.47	0.099
120.00	-25.90	-1.75	0.00	-105.00	0.00	105.00	2,019.67	1,009.84	2,457.62	1,230.64	5.24	-0.50	0.098
121.00	-25.12	-1.78	0.00	-103.25	0.00	103.25	1,570.79	785.40	1,940.61	971.75	5.35	-0.51	0.122
125.00	-24.93	-1.80	0.00	-96.11	0.00	96.11	1,545.06	772.53	1,864.04	933.41	5.79	-0.55	0.119
126.00	-20.12	-1.92	0.00	-94.32	0.00	94.32	1,538.54	769.27	1,845.04	923.89	5.91	-0.56	0.115
130.00	-19.26	-1.95	0.00	-86.62	0.00	86.62	1,512.16	756.08	1,769.59	886.11	6.39	-0.60	0.110
135.00	-18.40	-1.97	0.00	-76.86	0.00	76.86	1,478.46	739.23	1,676.61	839.55	7.05	-0.65	0.104
140.00	-17.56	-1.98	0.00	-67.00	0.00	67.00	1,443.96	721.98	1,585.19	793.77	7.76	-0.70	0.097
145.00	-13.74	-1.92	0.00	-57.10	0.00	57.10	1,408.39	704.19	1,495.13	748.68	8.51	-0.75	0.086
149.00	-13.53	-1.92	0.00	-49.40	0.00	49.40	1,370.32	685.16	1,415.01	708.56	9.15	-0.78	0.080
150.00	-13.02	-1.91	0.00	-47.48	0.00	47.48	1,360.80	680.40	1,395.33	698.70	9.32	-0.79	0.078
152.50	-12.72	-1.90	0.00	-42.72	0.00	42.72	947.27	473.64	973.73	487.59	9.74	-0.81	0.101
155.00	-12.13	-1.86	0.00	-37.98	0.00	37.98	936.35	468.18	945.55	473.48	10.17	-0.83	0.093
160.00	-11.55	-1.82	0.00	-28.65	0.00	28.65	913.91	456.96	889.79	445.55	11.06	-0.87	0.077
165.00	-11.32	-1.80	0.00	-19.55	0.00	19.55	890.67	445.33	834.90	418.07	11.99	-0.91	0.059
167.00	-5.24	-1.10	0.00	-15.95	0.00	15.95	881.14	440.57	813.20	407.21	12.37	-0.92	0.045
170.00	-4.80	-1.04	0.00	-12.65	0.00	12.65	866.62	433.31	780.97	391.06	12.95	-0.93	0.038
175.00	-4.30	-0.95	0.00	-7.46	0.00	7.46	841.76	420.88	728.08	364.58	13.94	-0.95	0.026
180.00	-4.07	-0.90	0.00	-2.71	0.00	2.71	816.11	408.05	676.33	338.67	14.94	-0.96	0.013
183.00	0.00	-0.83	0.00	0.00	0.00	0.00	800.33	400.16	645.87	323.41	15.54	-0.96	0.000

Site Number: 302535

Code: ANSI/TIA-222-G © 2007 - 2019 by ATC IP LLC. All rights reserved.

Site Name: Milford CT 2, CT

Engineering Number: OAA735853_C3_04

4/25/2019 4:28:06 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	-52.01	-2.51	0.00	-324.31	0.00	324.31	4,364.17	2,182.08	8,607.44	4,310.12	0.00	0.00	0.066
5.00	-51.32	-2.50	0.00	-311.76	0.00	311.76	4,284.85	2,142.42	8,295.82	4,154.08	0.01	-0.02	0.065
7.00	-50.24	-2.47	0.00	-306.75	0.00	306.75	4,253.12	2,126.56	8,172.78	4,092.46	0.02	-0.02	0.065
10.00	-48.56	-2.42	0.00	-299.33	0.00	299.33	4,205.53	2,102.76	7,989.95	4,000.91	0.03	-0.03	0.064
15.00	-46.90	-2.37	0.00	-287.22	0.00	287.22	4,126.21	2,063.10	7,689.82	3,850.62	0.07	-0.05	0.063
20.00	-46.07	-2.34	0.00	-275.39	0.00	275.39	4,046.89	2,023.44	7,395.44	3,703.21	0.13	-0.06	0.063
22.50	-45.26	-2.31	0.00	-269.54	0.00	269.54	4,007.23	2,003.61	7,250.40	3,630.59	0.16	-0.07	0.063
22.50	-45.26	-2.31	0.00	-269.54	0.00	269.54	4,007.23	2,003.61	7,250.40	3,630.59	0.16	-0.07	0.063
25.00	-44.12	-2.26	0.00	-263.77	0.00	263.77	3,967.57	1,983.78	7,106.80	3,558.68	0.20	-0.08	0.062
28.50	-43.33	-2.23	0.00	-255.84	0.00	255.84	3,912.04	1,956.02	6,908.17	3,459.22	0.26	-0.09	0.062
30.00	-40.72	-2.12	0.00	-252.49	0.00	252.49	3,888.25	1,944.12	6,823.91	3,417.03	0.29	-0.09	0.060
35.00	-39.12	-2.05	0.00	-241.91	0.00	241.91	3,899.62	1,949.81	6,864.12	3,437.16	0.40	-0.11	0.058
40.00	-38.17	-2.01	0.00	-231.66	0.00	231.66	3,820.30	1,910.15	6,586.15	3,297.97	0.52	-0.12	0.058
43.00	-37.54	-1.98	0.00	-225.62	0.00	225.62	3,772.71	1,886.36	6,422.13	3,215.84	0.60	-0.13	0.057
43.00	-37.54	-1.98	0.00	-225.62	0.00	225.62	3,772.71	1,886.36	6,422.13	3,215.84	0.60	-0.13	0.057
45.00	-35.97	-1.91	0.00	-221.65	0.00	221.65	3,740.98	1,870.49	6,313.93	3,161.66	0.66	-0.14	0.057
50.00	-34.43	-1.84	0.00	-212.10	0.00	212.10	3,661.66	1,830.83	6,047.45	3,028.22	0.81	-0.16	0.056
55.00	-33.52	-1.80	0.00	-202.89	0.00	202.89	3,582.34	1,791.17	5,786.72	2,897.66	0.98	-0.17	0.056
58.00	-32.64	-1.76	0.00	-197.49	0.00	197.49	3,534.75	1,767.38	5,633.04	2,820.71	1.10	-0.18	0.055
60.00	-31.10	-1.68	0.00	-193.97	0.00	193.97	3,503.02	1,751.51	5,531.73	2,769.98	1.17	-0.19	0.054
63.50	-30.72	-1.67	0.00	-188.09	0.00	188.09	3,173.44	1,586.72	5,061.87	2,534.70	1.31	-0.20	0.053
65.00	-29.44	-1.61	0.00	-185.59	0.00	185.59	3,152.76	1,576.38	4,994.62	2,501.02	1.38	-0.20	0.053
70.00	-28.17	-1.55	0.00	-177.57	0.00	177.57	3,081.37	1,540.68	4,769.94	2,388.51	1.60	-0.22	0.052
75.00	-26.92	-1.51	0.00	-169.80	0.00	169.80	3,009.98	1,504.99	4,550.42	2,278.59	1.84	-0.24	0.052
80.00	-25.69	-1.48	0.00	-162.26	0.00	162.26	2,938.59	1,469.30	4,336.07	2,171.26	2.11	-0.26	0.051
85.00	-24.96	-1.47	0.00	-154.88	0.00	154.88	2,867.21	1,433.60	4,126.90	2,066.52	2.39	-0.28	0.051
88.00	-24.27	-1.46	0.00	-150.49	0.00	150.49	2,824.37	1,412.19	4,003.88	2,004.91	2.57	-0.29	0.050
90.00	-23.24	-1.45	0.00	-147.57	0.00	147.57	2,795.82	1,397.91	3,922.90	1,964.36	2.69	-0.30	0.049
93.00	-22.80	-1.46	0.00	-143.21	0.00	143.21	2,304.06	1,152.03	3,254.27	1,629.55	2.88	-0.31	0.054
95.00	-21.69	-1.47	0.00	-140.30	0.00	140.30	2,286.90	1,143.45	3,196.90	1,600.83	3.02	-0.32	0.053
100.00	-21.15	-1.49	0.00	-132.92	0.00	132.92	2,243.44	1,121.72	3,054.90	1,529.72	3.36	-0.34	0.052
102.50	-20.75	-1.51	0.00	-129.19	0.00	129.19	2,221.40	1,110.70	2,984.67	1,494.55	3.54	-0.35	0.051
102.50	-20.75	-1.51	0.00	-129.19	0.00	129.19	2,221.40	1,110.70	2,984.67	1,494.55	3.54	-0.35	0.096
105.00	-19.96	-1.55	0.00	-125.42	0.00	125.42	2,198.14	1,099.07	2,913.61	1,458.97	3.73	-0.36	0.095
110.00	-19.18	-1.60	0.00	-117.69	0.00	117.69	2,138.65	1,069.33	2,757.31	1,380.70	4.13	-0.40	0.094
115.00	-18.95	-1.62	0.00	-109.71	0.00	109.71	2,079.16	1,039.58	2,605.31	1,304.59	4.58	-0.44	0.093
116.50	-18.16	-1.66	0.00	-107.28	0.00	107.28	2,061.32	1,030.66	2,560.55	1,282.18	4.72	-0.46	0.092
120.00	-17.94	-1.68	0.00	-101.48	0.00	101.48	2,019.67	1,009.84	2,457.62	1,230.64	5.07	-0.49	0.091
121.00	-17.40	-1.71	0.00	-99.80	0.00	99.80	1,570.79	785.40	1,940.61	971.75	5.17	-0.50	0.114
125.00	-17.27	-1.72	0.00	-92.98	0.00	92.98	1,545.06	772.53	1,864.04	933.41	5.60	-0.53	0.111
126.00	-13.94	-1.86	0.00	-91.26	0.00	91.26	1,538.54	769.27	1,845.04	923.89	5.71	-0.54	0.108
130.00	-13.34	-1.88	0.00	-83.84	0.00	83.84	1,512.16	756.08	1,769.59	886.11	6.18	-0.58	0.103
135.00	-12.74	-1.90	0.00	-74.42	0.00	74.42	1,478.46	739.23	1,676.61	839.55	6.82	-0.63	0.097
140.00	-12.16	-1.91	0.00	-64.92	0.00	64.92	1,443.96	721.98	1,585.19	793.77	7.50	-0.68	0.090
145.00	-9.51	-1.86	0.00	-55.38	0.00	55.38	1,408.39	704.19	1,495.13	748.68	8.23	-0.72	0.081
149.00	-9.37	-1.86	0.00	-47.93	0.00	47.93	1,370.32	685.16	1,415.01	708.56	8.85	-0.75	0.074
150.00	-9.01	-1.85	0.00	-46.07	0.00	46.07	1,360.80	680.40	1,395.33	698.70	9.01	-0.76	0.073
152.50	-8.81	-1.84	0.00	-41.45	0.00	41.45	947.27	473.64	973.73	487.59	9.41	-0.78	0.094
155.00	-8.40	-1.80	0.00	-36.86	0.00	36.86	936.35	468.18	945.55	473.48	9.83	-0.80	0.087
160.00	-8.00	-1.76	0.00	-27.84	0.00	27.84	913.91	456.96	889.79	445.55	10.69	-0.84	0.071
165.00	-7.84	-1.74	0.00	-19.03	0.00	19.03	890.67	445.33	834.90	418.07	11.59	-0.88	0.054
167.00	-3.63	-1.07	0.00	-15.55	0.00	15.55	881.14	440.57	813.20	407.21	11.96	-0.89	0.042
170.00	-3.32	-1.01	0.00	-12.33	0.00	12.33	866.62	433.31	780.97	391.06	12.52	-0.90	0.035
175.00	-2.98	-0.93	0.00	-7.27	0.00	7.27	841.76	420.88	728.08	364.58	13.48	-0.92	0.023
180.00	-2.82	-0.88	0.00	-2.64	0.00	2.64	816.11	408.05	676.33	338.67	14.44	-0.93	0.011
183.00	0.00	-0.83	0.00	0.00	0.00	0.00	800.33	400.16	645.87	323.41	15.03	-0.93	0.000

Site Number: 302535

Code: ANSI/TIA-222-G

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Site Name: Milford CT 2, CT

Engineering Number: OAA735853_C3_04

4/25/2019 4:28:06 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	31.09	0.00	74.52	0.00	0.00	4317.17	121.00	0.92
0.9D + 1.6W	30.53	0.00	55.88	0.00	0.00	4149.18	121.00	0.87
1.2D + 1.0Di + 1.0Wi	20.08	0.00	113.45	0.00	0.00	2360.03	0.00	0.43
(1.2 + 0.2Sds) * DL + E ELFM	1.87	0.00	75.06	0.00	0.00	282.16	121.00	0.08
(1.2 + 0.2Sds) * DL + E EMAM	2.51	0.00	75.06	0.00	0.00	333.36	121.00	0.12
(0.9 - 0.2Sds) * DL + E ELFM	1.87	0.00	52.01	0.00	0.00	275.17	121.00	0.07
(0.9 - 0.2Sds) * DL + E EMAM	2.51	0.00	52.01	0.00	0.00	324.31	121.00	0.11
1.0D + 1.0W	7.30	0.00	62.15	0.00	0.00	1001.30	121.00	0.22

Site Number: 302535

Code: ANSI/TIA-222-G

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Site Name: Milford CT 2, CT

Engineering Number: OAA735853_C3_04

4/25/2019 4:28:06 PM

Customer: AT&T MOBILITY

Additional Steel Summary

			Intermediate Connectors				Max Member		
Elev From (ft)	Elev To (ft)	Member	VQ/I (lb/in)	Shear Applied (kips)	Shear phiVn (kips)	Ratio	Pu (kip)	phiPn (kip)	Ratio
0.00	22.50	(4) SOL-#20 All Thread Bar	162.1	3.2	16.8	0.193	240.5	343.1	0.701
22.50	43.00	(4) SOL-#20 All Thread Bar	176.0	3.2	16.8	0.188	235.0	345.0	0.681
43.00	102.50	(4) SOL-#20 All Thread Bar	303.0	9.1	16.8	0.541	234.3	330.5	0.709

			Upper Termination Connectors				Lower Termination Connectors					
Elev From (ft)	Elev To (ft)	Member	MQ/I (kips)	phiVn (kips)	Num Reqd	Num Actual	Ratio	MQ/I (kips)	phiVn (kips)	Num Reqd	Num Actual	Ratio
0.00	22.50	(4) SOL-#20 All Thread Bar	0.0	12.0	0	0	0.000	0.0	12.0	0	0	0.000
22.50	43.00	(4) SOL-#20 All Thread Bar	0.0	12.0	0	0	0.000	0.0	12.0	0	0	0.000
43.00	102.50	(4) SOL-#20 All Thread Bar	190.2	12.0	16	16	0.991	0.0	12.0	0	0	0.000

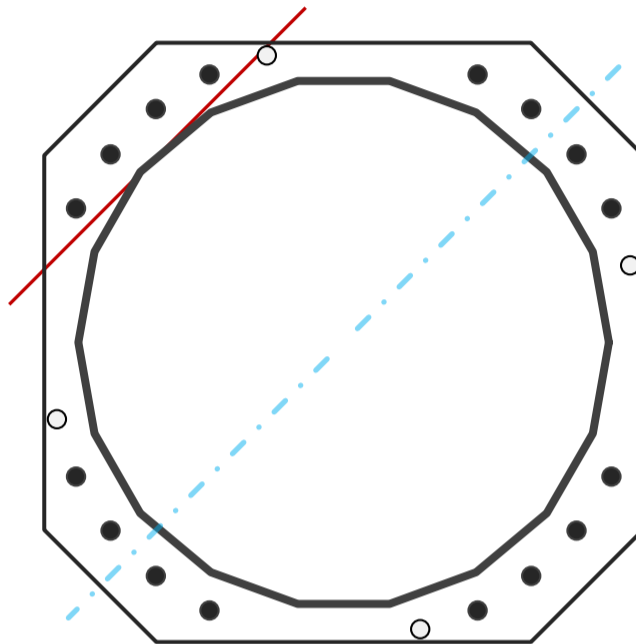
Base Plate & Anchor Rod Analysis

Pole Dimensions		
Number of Sides	18	-
Diameter	48.62	in
Thickness	0.5	in
Orientation Offset	0	°

Base Reactions		
Moment, Mu	4317.2	k-ft
Axial, Pu	31.1	k
Shear, Vu	74.5	k
Neutral Axis	45	°

Report Capacities		
Component	Capacity	Result
Base Plate	73%	Pass
Anchor Rods	67%	Pass
Dwyidag	54%	Pass

Base Plate		
Shape	Square	-
Width	56	in
Thickness	2 3/4	in
Grade	A572-50	-
Yield Strength, Fy	50	ksi
Tensile Strength, Fu	65	ksi
Clip	10.5	in
Orientation Offset	0	°
Anchor Rod Detail	c	$\eta=0.55$
Clear Distance	N/A	in
Applied Moment, Mu	1870.6	k
Bending Stress, ϕMn	2580.1	k



Dwyidag Reinforcement		
Quantity	4	-
Bar Size	#20	in
Diameter, ϕ	2.5	in
Bracket Type	Angle	-
Circle	55.50	in
Orientation Offset	15	°
Applied Force, Pu	210.3	k
Dwyidag Bar, ϕPn	392.7	k

Original Anchor Rods		
Arrangement	Cluster	-
Quantity	16	-
Diameter, ϕ	2 1/4	in
Bolt Circle	56	in
Grade	A615-75	-
Yield Strength, Fy	75	ksi
Tensile Strength, Fu	100	ksi
Spacing	6.0	in
Orientation Offset	0	°
Applied Force, Pu	172.0	k
Anchor Rods, ϕPn	259.8	k

Calculations for Monopole Base Plate & Anchor Rod Analysis

Reaction Distribution

Reaction	Shear Vu	Moment Mu	Factor
-	k	k-ft	-
Base Forces	74.5	3203.7	0.74
Anchor Rod Forces	74.5	3203.7	0.74
Additional Bolt (Grp1) Forces	0.0	0.0	0.00
Additional Bolt (Grp2) Forces	0.0	0.0	0.00
Dywidag Forces	0.0	1113.5	0.26
Stiffener Forces	0.0	0.0	0.00

Geometric Properties

Section	Gross Area	Net Area	Individual Inertia	Threads per Inch	Moment of Inertia
-	in ²	in ²	in ⁴	#	in ⁴
Pole	75.2036	4.1780	0.3500		21773.35
Bolt	3.9761	3.2477	0.8393	4.5	20382.94
Bolt1	0.0000	0.0000	0.0000	0	0.00
Bolt2	0.0000	0.0000	0.0000	0	0.00
Dywidag	4.9087	4.9087	1.9175		7567.74
Stiffener	0.0000	0.0000	0.0000		0.00

Base Plate

Shape	Square	-
Width, W	56	in
Thickness, t	2.75	in
Yield Strength, Fy	50	ksi
Tensile Strength, Fu	65	ksi
Base Plate Chord	27.787	in
Detail Type	c	-
Detail Factor	0.55	-
Clear Distance	N/A	-

Anchor Rods

Anchor Rod Quantity, N	16	-
Rod Diameter, d	2.25	in
Bolt Circle, BC	56	in
Yield Strength, Fy	75	ksi
Tensile Strength, Fu	100	ksi
Applied Axial, Pu	172.0	k
Applied Shear, Vu	0.8	k
Compressive Capacity, φPn	259.8	k
Tensile Capacity, φRnt	0.662	OK
Interaction Capacity	0.668	OK

External Base Plate

Chord Length AA	30.326	in
Additional AA	0.000	in
Section Modulus, Z	57.335	in ³
Applied Moment, Mu	1870.6	k-ft
Bending Capacity, φMn	2580.1	k-ft
Capacity, Mu/φMn	0.725	OK

Chord Length AB	29.572	in
Additional AB	0.000	in
Section Modulus, Z	55.910	in ³
Applied Moment, Mu	1617.2	k-ft
Bending Capacity, φMn	2515.9	k-ft
Capacity, Mu/φMn	0.643	OK

Bend Line Length	0.000	in
Additional Bend Line	0.000	in
Section Modulus, Z	0.000	in ³
Applied Moment, Mu	0.0	k-ft
Bending Capacity, φMn	0.0	k-ft
Capacity, Mu/φMn		

Internal Base Plate

Arc Length	0.000	in
Section Modulus, Z	0.000	in ³
Moment Arm	0.000	in
Applied Moment, Mu	0.0	k-ft
Bending Capacity, φMn	0.0	k-ft
Capacity, Mu/φMn		

Dywidag Reinforcement

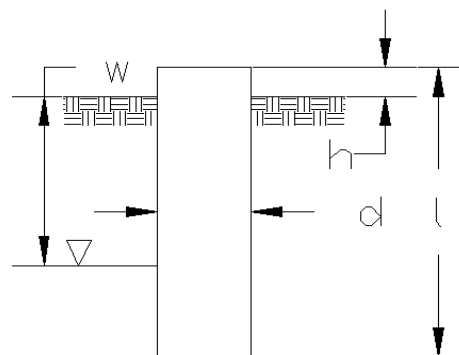
Dywidag Quantity, N	4	-
Dywidag Diameter, d	2.5	in
Bolt Circle, BC	55.5	in
Yield Strength, Fy	80	ksi
Tensile Strength, Fu	100	ksi
Applied Axial, Pu	210.3	k
Compressive Capacity, φPn	392.7	k
Capacity, Pu/φPn	0.536	OK

Site Name: Milford CT2, CT
 Site Number: 302535
 Engineer: Zackaryah.Hughes
 Engineering Number: OAA735853
 Date: 04/25/19

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

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

Analyze or Design a Foundation? Analyze
 Foundation Mapped: N
 Moment (M): 4317.2 k-ft
 Shear/Leg (V): 31.1 k
 Axial Load (P): 74.5 k
 Uplift/Leg (U): 0.0 k
 Tower Type (GT / SST / MP): MP



Diameter of Caisson (d): 6.0 ft
 Caisson Embedment (L-h): 20.0 ft
 Caisson Height Above Ground (h): 0.5 ft
 Depth Below Ground Surface to Water Table (w): 99.0 ft
 Unit Weight of Concrete: 150.0 pcf
 Unit Weight of Water: 62.4 pcf
 Tension Skin Friction/Compression Skin Friction: 1.00
 Pullout Angle: 30.0 degrees

Engineer Notes

Soil Mechanical Properties

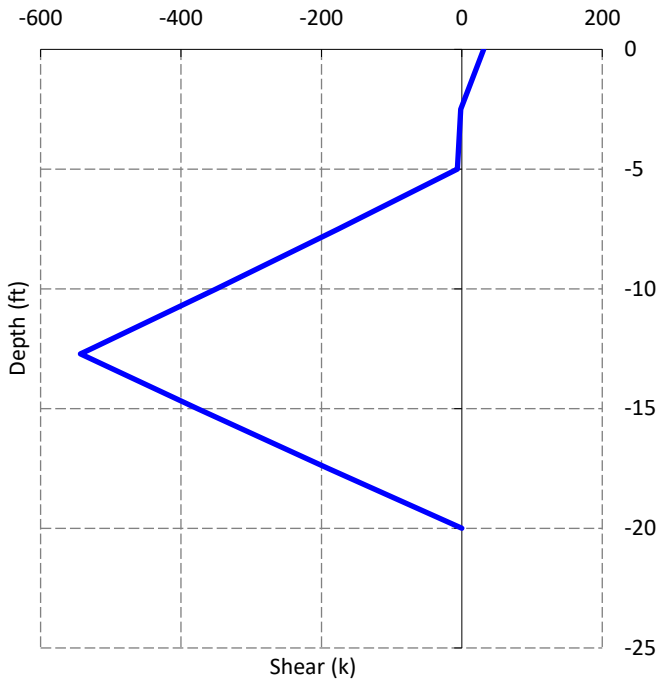
Depth (ft)		γ_{Soil}	Cohesion	ϕ	Ultimate Skin	Ultimate Bearing
Top	Bottom	(pcf)	(psf)	(degree)	Friction (psf)	Pressure (psf)
0.0	3.5	105	0	0	0	0
3.5	21.0	140	5000	0	2250	69294

Volume of Concrete: 579.6 ft³ = 21.5 yd³
 Weight of Concrete (Buoyancy Effect Considered): 86.9 k
 Average Soil Unit Weight: 133.9 pcf
 Skin Friction Resistance: 699.8 k
 Compressive Bearing Resistance: 1959.2 k
 Pullout Weight (Minus Concrete Weight): 665.2 k
 Nominal Uplift Capacity per Leg ($\phi_s T_n$): 498.9 k
 Nominal Compressive Capacity per Leg ($\phi_s P_n$): 1994.3 k
 P_u : 85.4 k
 $T_u / \phi_s T_n$: 0.00 Result: OK
 $P_u / \phi_s P_n$: 0.04 Result: OK
 Total Lateral Resistance: 3454.9 k
 Inflection Point (Below Ground Surface): 12.7 ft
 Design Overturning Moment At Inflection Point (M_D): 4728.1 k-ft
 Nominal Moment Capacity ($\phi_s M_n$): 9794.1 k-ft
 $M_D / \phi_s M_n$: 0.48 Result: OK
 ϕ_s : 0.75

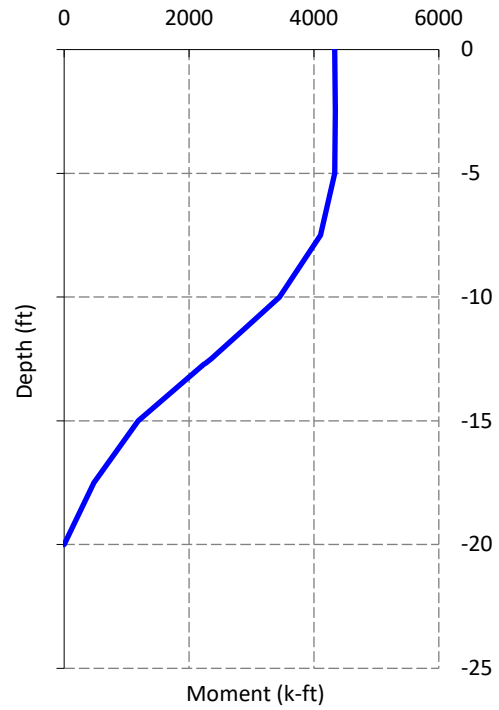
Caisson Strength Capacity

Concrete Compressive Strength (f'_c):	3000 psi
Vertical Steel Rebar Size #:	11
Vertical Steel Rebar Area:	1.56 in ²
# of Vertical Steel Rebars:	33
Vertical Steel Rebar Yield Strength (F_y):	60 ksi
Horizontal Tie / Stirrup Size #:	4
Horizontal Tie / Stirrup Area:	0.20 in ²
Design Horizontal Tie / Stirrup Spacing:	12.0 in
Horizontal Tie / Stirrup Steel Yield Strength (F_y):	60 ksi
Rebar Cage Diameter:	64.0 in
Strength Bending/Tension Reduction Factor (ϕ_B):	0.90 ACI318-05 - 9.3.2.1
Strength Shear Reduction Factor (ϕ_V):	0.75 ACI318-05 - 9.3.2.3
Strength Compression Reduction Factor (ϕ_V):	0.65 ACI318-05 - 9.3.2.2
Steel Elastic Modulus:	29000 ksi
Design Moment (M_u):	4343.0 k-ft
Nominal Moment Capacity ($\phi_B M_n$):	6808.9 k-ft - ACI318-005 - 10.2
$M_u / \phi_B M_n$:	0.64 Result: OK
Design Tension (T_u):	0.0 k
Nominal Tension Capacity ($\phi_T T_n$):	2779.9 k - ACI318-05 - 10.2
$T_u / \phi_T T_n$:	0.00 Result: OK
Design Compression (P_u):	85.4 k
Nominal Compression Capacity ($\phi_P P_n$):	5330.6 k - ACI318-05 - 10.3.6.2
$P_u / \phi_P P_n$:	0.02 Result: OK
Bending Reinforcement Ratio:	0.013 ACI318-05 - 10.8.4 & 10.9.1
$M_u / \phi_B M_n + T_u / \phi_T T_n$:	0.64 Result: OK

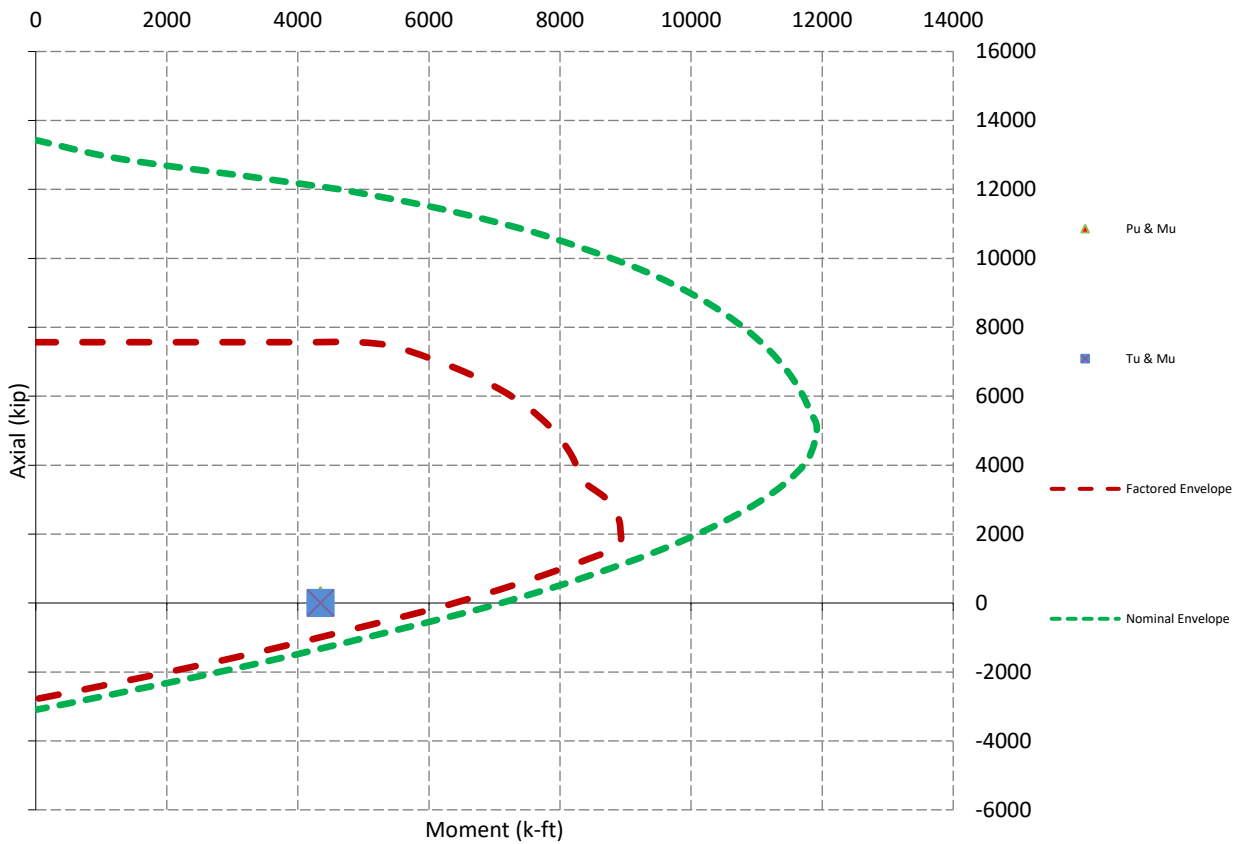
Design Factored Shear / Depth



Design Factored Moment / Depth



Nominal and Factored Moment Capacity and Factored Design Loads





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info@sitesafe.com • www.sitesafe.com



**Smartlink on behalf of
AT&T Mobility, LLC
Site FA – 10035075
Site ID – CT2169
(MRCTB032142-MRCTB031058-
MRCTB031048)
USID – 61189
Site Name – New haven -
Woodmont**

**203 Research Dr
Milford, CT 6460**

Latitude: N41-14-25.47
Longitude: W73-0-42.99
Structure Type: Monopole

Report generated date: July 25, 2018
Report by: Scott Broyles
Customer Contact: Ryan Lynch

**AT&T Mobility, LLC will be compliant when the
remediation recommended in Section 5.2 or
other appropriate remediation is implemented.**

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1 General Site Summary

1.1 Report Summary

AT&T Mobility, LLC	Summary
Access to Antennas Locked?	No
Max Cumulative Simulated RFE Level on the Ground	<1% General Public Limit
FCC & AT&T Compliant?	Will Be Compliant
Optional AT&T Mitigation Items?	No


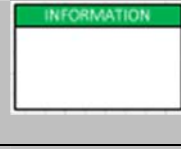






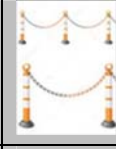
The following documents were provided by the client and were utilized to create this report:

RFDS: NEW-ENGLAND_CONNECTICUT_CT2169_2019-LTE-Next-Carrier_LTE_mr673a_2051A0GHBR_10035075_61189_03-29-2018_Final-Approved_v2.00

CD's: 10035075_AE201_180709_CTL02169_Rev 0_6C-7C-5G NR Upgrade

RF Powers Used: RFDS

1.2 Signage Summary

AT&T Signage Locations									
	Information 1	Information 2	Notice	Notice 2	Caution	Caution 2	Warning	Warning 2	Barriers
Access Point(s)	<input type="checkbox"/> [#]	<input type="checkbox"/> [#]	<input type="checkbox"/> [#]	<input type="checkbox"/> [#]	<input type="checkbox"/> [#]	<input type="checkbox"/> [#]	<input type="checkbox"/> [#]	<input type="checkbox"/> [#]	<input type="checkbox"/>
Alpha	<input type="checkbox"/> [#]	<input type="checkbox"/> [#]	<input type="checkbox"/> [#]	<input type="checkbox"/> [#]	<input type="checkbox"/> [#]	<input type="checkbox"/> [#]	<input type="checkbox"/> [#]	<input type="checkbox"/> [#]	<input type="checkbox"/>
Beta	<input type="checkbox"/> [#]	<input type="checkbox"/> [#]	<input type="checkbox"/> [#]	<input type="checkbox"/> [#]	<input type="checkbox"/> [#]	<input type="checkbox"/> [#]	<input type="checkbox"/> [#]	<input type="checkbox"/> [#]	<input type="checkbox"/>
Gamma	<input type="checkbox"/> [#]	<input type="checkbox"/> [#]	<input type="checkbox"/> [#]	<input type="checkbox"/> [#]	<input type="checkbox"/> [#]	<input type="checkbox"/> [#]	<input type="checkbox"/> [#]	<input type="checkbox"/> [#]	<input type="checkbox"/>

1.3 Fall Arrest Anchor Point Summary

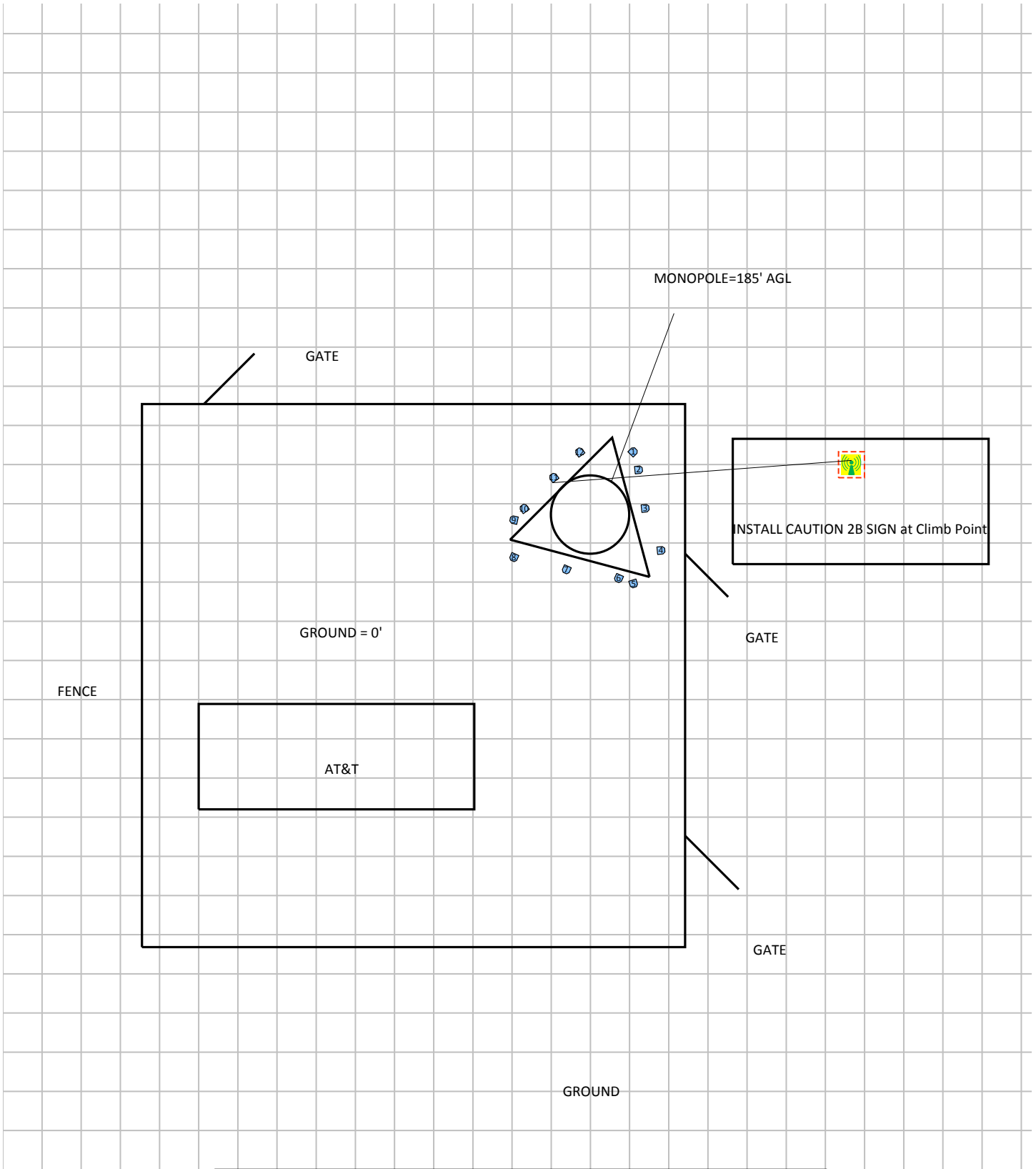
Fall Arrest Anchor & Parapet Info	Parapet Available (Y/N)	Parapet Height (inches)	Fall Arrest Anchor Available (Y/N)
Roof Safety Info	N	N/A	N

2 Scale Maps of Site

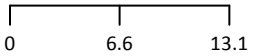
The following diagrams are included:

- Site Scale Map
- RF Exposure Diagram
- RF Exposure Diagram – Elevation View

Site Scale Map For: New haven - Woodmont



(Feet)



www.sitesafe.com
 Site Name: New haven - Woodmont
 7/25/2018 12:03:41 PM

Carrier Identification					
	AT&T MOBILITY LLC		VERIZON WIRELESS		T-MOBILE
	SPRINT		UNKNOWN CARRIER		

Sign Legend							
	Caution 1		Caution 2		Notice 2		Notice 1
	Warning		Warning 2		Info 1		Info 2

Proposed Barriers/ Signs	
	Barrier
	Signs

	RSP	RF Safety Plan
--	-----	----------------

3 Antenna Inventory

The following antenna inventory was obtained by the customer and was utilized to create the site model diagrams:

Ant ID	Operator	Antenna Make & Model	Type	TX Freq (MHz)	Az (Deg)	Hor BW (Deg)	Ant Len (ft)	Ant Gain (dBi)	3G UMTS Radio(s)	4G Radio(s)	Total ERP (Watts)	X	Y	Z AGL
1	AT&T MOBILITY LLC	Powerwave 7770	Panel	850	21	82	4.6	11.51	1	0	167.5	116.1'	146.8'	164.7'
2	AT&T MOBILITY LLC	CCI Antennas OPA-65R-LCUU-H4	Panel	2300	60	61.1	4	14.26	0	1	1285.3	116.6'	145'	165'
2	AT&T MOBILITY LLC	CCI Antennas OPA-65R-LCUU-H4	Panel	737	60	65.8	4	10.76	0	1	1475.7	116.6'	145'	165'
3	AT&T MOBILITY LLC (Proposed)	Kathrein-Scala 800-10964	Panel	850	60	62.4	4.9	12.16	0	1	500	117.3'	141.4'	164.5'
3	AT&T MOBILITY LLC (Proposed)	Kathrein-Scala 800-10964	Panel	763	60	64.9	4.9	11.4	0	1	2951.4	117.3'	141.4'	164.5'
3	AT&T MOBILITY LLC (Proposed)	Kathrein-Scala 800-10964	Panel	2100	60	60.7	4.9	15.18	0	1	3837.1	117.3'	141.4'	164.5'
3	AT&T MOBILITY LLC (Proposed)	Kathrein-Scala 800-10964	Panel	5G 850	60	62.4	4.9	12.16	0	1	500	117.3'	141.4'	164.5'
4	AT&T MOBILITY LLC	Quintel QS66512-2	Panel	737	60	69	6	11.46	0	1	1475.7	118.8'	137.3'	164'
4	AT&T MOBILITY LLC	Quintel QS66512-2	Panel	1900	60	68	6	14.16	0	1	3664.4	118.8'	137.3'	164'
5	AT&T MOBILITY LLC	Powerwave 7770	Panel	850	138	82	4.6	11.51	1	0	265.5	116.1'	134.1'	164.7'
6	AT&T MOBILITY LLC	CCI Antennas OPA-65R-LCUU-H4	Panel	2300	180	61.1	4	14.26	0	1	1285.3	114.7'	134.6'	165'
6	AT&T MOBILITY LLC	CCI Antennas OPA-65R-LCUU-H4	Panel	737	180	65.8	4	10.76	0	1	1475.7	114.7'	134.6'	165'
7	AT&T MOBILITY LLC (Proposed)	Kathrein-Scala 800-10964	Panel	850	180	62.4	4.9	12.16	0	1	500	109.7'	135.5'	164.5'
7	AT&T MOBILITY LLC (Proposed)	Kathrein-Scala 800-10964	Panel	763	180	64.9	4.9	11.4	0	1	2951.4	109.7'	135.5'	164.5'
7	AT&T MOBILITY LLC (Proposed)	Kathrein-Scala 800-10964	Panel	2100	180	60.7	4.9	15.18	0	1	3837.1	109.7'	135.5'	164.5'
7	AT&T MOBILITY LLC (Proposed)	Kathrein-Scala 800-10964	Panel	5G 850	180	62.4	4.9	12.16	0	1	500	109.7'	135.5'	164.5'
8	AT&T MOBILITY LLC	Quintel QS66512-2	Panel	737	180	69	6	11.46	0	1	1475.7	104.7'	136.6'	164'
8	AT&T MOBILITY LLC	Quintel QS66512-2	Panel	1900	180	68	6	14.16	0	1	3664.4	104.7'	136.6'	164'
9	AT&T MOBILITY LLC	Powerwave 7770	Panel	850	259	82	4.6	11.51	1	0	265.5	104.7'	140.2'	164.7'
10	AT&T MOBILITY LLC	CCI Antennas OPA-65R-LCUU-H4	Panel	2300	300	61.1	4	14.26	0	1	1285.3	105.7'	141.3'	165'
10	AT&T MOBILITY LLC	CCI Antennas OPA-65R-LCUU-H4	Panel	737	300	65.8	4	10.76	0	1	1475.7	105.7'	141.3'	165'
11	AT&T MOBILITY LLC (Proposed)	Kathrein-Scala 800-10964	Panel	850	300	62.4	4.9	12.16	0	1	500	108.5'	144.3'	164.5'
11	AT&T MOBILITY LLC (Proposed)	Kathrein-Scala 800-10964	Panel	763	300	64.9	4.9	11.4	0	1	2951.4	108.5'	144.3'	164.5'
11	AT&T MOBILITY LLC (Proposed)	Kathrein-Scala 800-10964	Panel	2100	300	60.7	4.9	15.18	0	1	3837.1	108.5'	144.3'	164.5'

Ant ID	Operator	Antenna Make & Model	Type	TX Freq (MHz)	Az (Deg)	Hor BW (Deg)	Ant Len (ft)	Ant Gain (dBd)	3G UMTS Radio(s)	4G Radio(s)	Total ERP (Watts)	X	Y	Z AGL
11	AT&T MOBILITY LLC (Proposed)	Kathrein-Scala 800-10964	Panel	5G 850	300	62.4	4.9	12.16	0	1	500	108.5'	144.3'	164.5'
12	AT&T MOBILITY LLC	Quintel QS66512-2	Panel	737	300	69	6	11.46	0	1	1475.7	111'	146.7'	164'
12	AT&T MOBILITY LLC	Quintel QS66512-2	Panel	1900	300	68	6	14.16	0	1	3664.4	111'	146.7'	164'

NOTE: X, Y and Z indicate relative position of the bottom of the antenna to the origin location on the site, displayed in the model results diagram. Specifically, the Z reference indicates the bottom of the antenna height above the main site level unless otherwise indicated. The distance to the bottom of the antenna is calculated by subtracting half of the length of the antenna from the antenna centerline. Effective Radiated Power (ERP) is provided by the operator or based on Sitesafe experience. The values used in the modeling may be greater than are currently deployed.

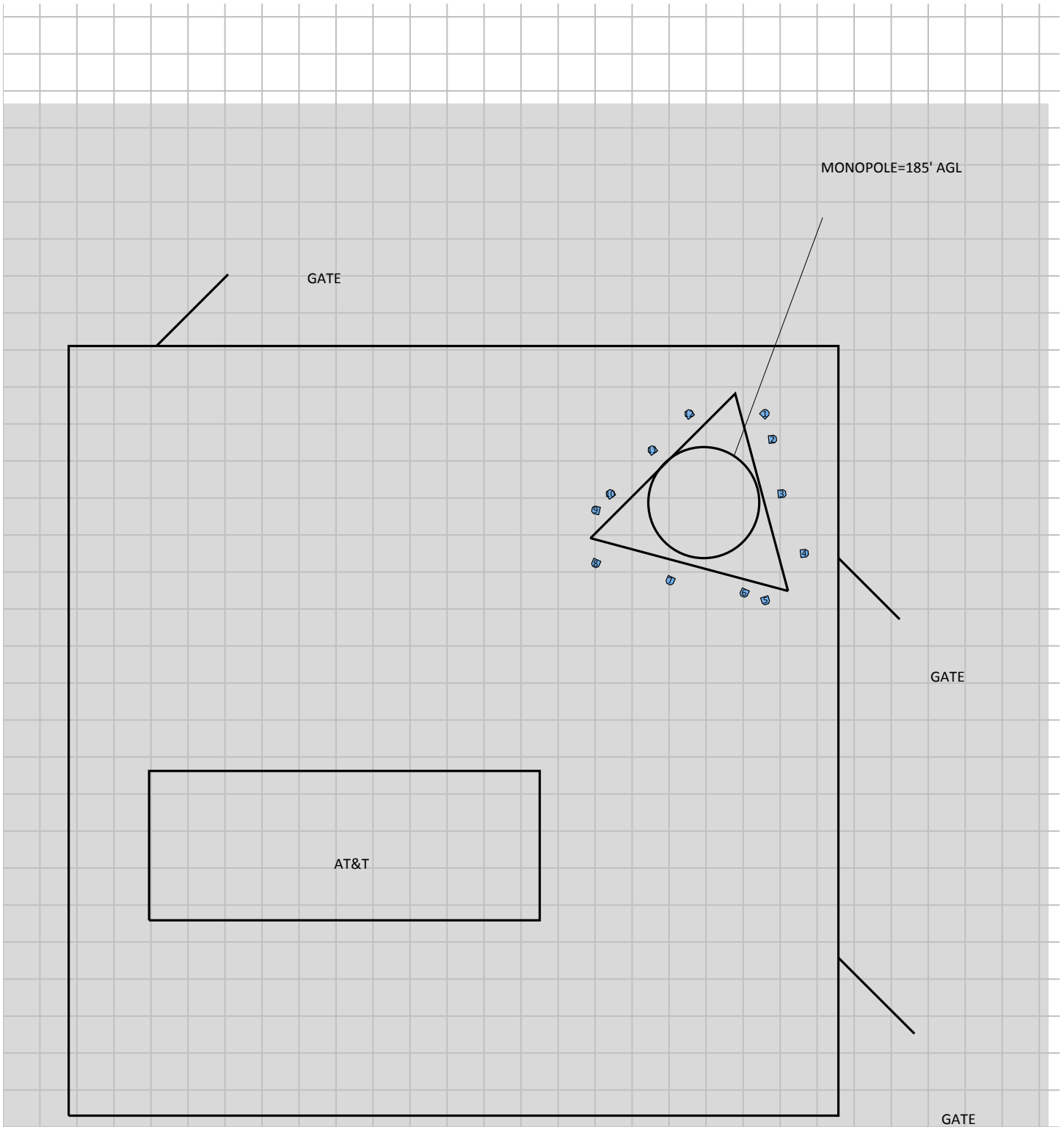
4 Emission Predictions

In the RF Exposure Simulations below all heights are reflected with respect to main site level. In most rooftop cases this is the height of the main rooftop and in other cases this can be ground level. Each different height area, rooftop, or platform level is labeled with its height relative to the main site level. Emissions are calculated appropriately based on the relative height and location of that area to all antennas. The total analyzed elevations in the below RF Exposure Simulations are listed below.

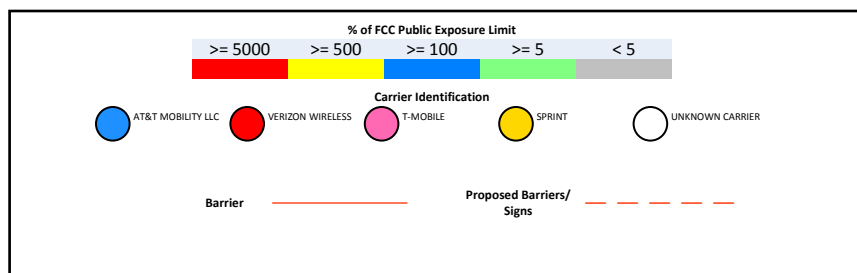
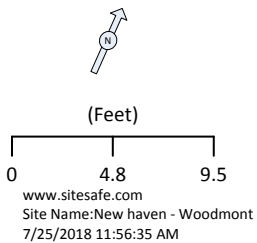
- Ground = 0'

The Antenna Inventory heights are referenced to the same level.

RF Exposure Simulation For: New haven – Woodmont Composite View

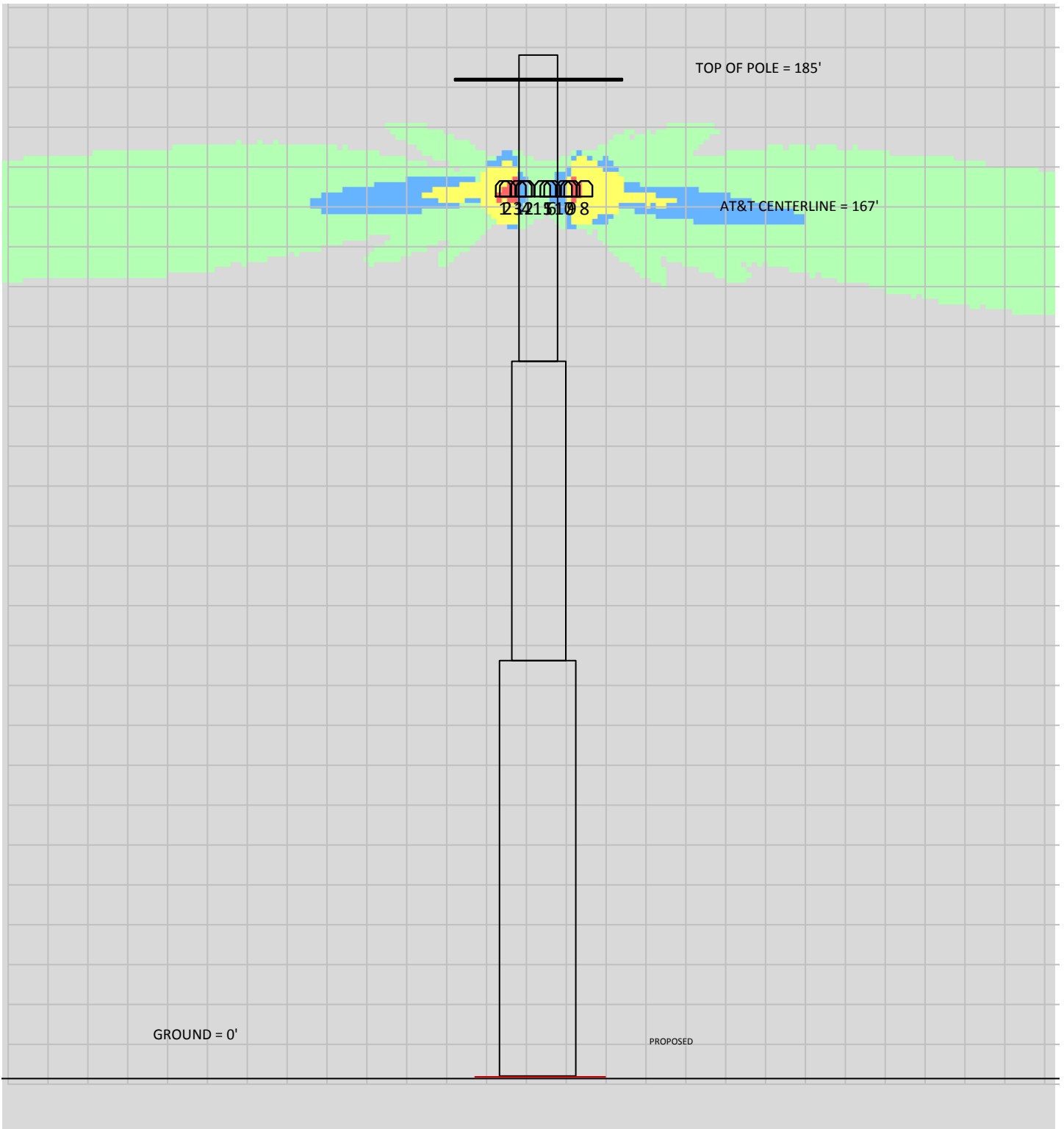


% of FCC Public Exposure Limit
Spatial average 0' - 6'

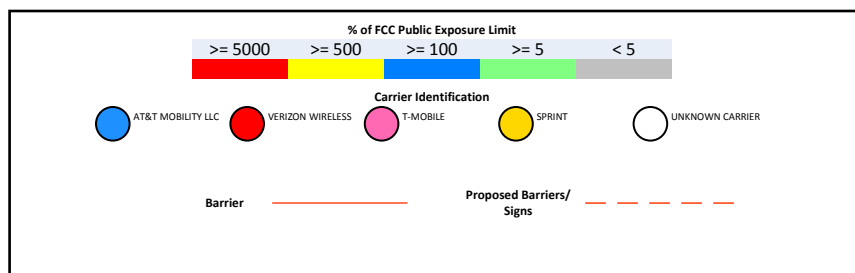
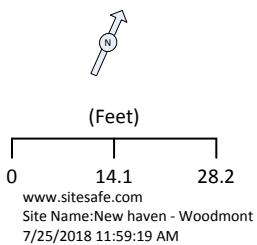


Sitesafe OET-65 Model
Near Field Boundary:
1.5 * Aperture
Reflection Factor: 1
Spatially Averaged

RF Exposure Simulation For: New haven – Woodmont Elevation View



% of FCC Public Exposure Limit
Spatial average 0' - 6'



Sitesafe OET-65 Model
Near Field Boundary:
1.5 * Aperture
Reflection Factor: 1
Spatially Averaged

5 Site Compliance

5.1 Site Compliance Statement

Upon evaluation of the cumulative RF emission levels from all operators at this site, RF hazard signage and antenna locations, Sitesafe has determined that:

AT&T Mobility, LLC will be compliant when the remediation recommended in Section 5.2 or other appropriate remediation is implemented.

The compliance determination is based on General Public RFE levels derived from theoretical modeling, RF signage placement, proposed antenna inventory and the level of restricted access to the antennas at the site. Any deviation from the AT&T Mobility, LLC's proposed deployment plan could result in the site being rendered non-compliant.

Modeling is used for determining compliance and the percentage of MPE contribution.

5.2 Actions for Site Compliance

Based on FCC regulations, common industry practice, and our understanding of AT&T Mobility, LLC RF Safety Policy requirements, this section provides a statement of recommendations for site compliance. Recommendations have been proposed based on our understanding of existing access restrictions, signage, and an analysis of predicted RFE levels.

AT&T Mobility, LLC will be made compliant if the following changes are implemented:

Monopole Access Location

(1) Yellow Caution 2B sign(s) required at monopole climb point.

Notes:

- Signage may already be in place. Sitesafe does not have record of any existing signage because there were no previous visits or data supplied regarding them. All remediation is based on a worst-case scenario.

6 Reviewer Certification

The reviewer whose signature appears below hereby certifies and affirms:

That I am an employee of Sitesafe, LLC., in Vienna, Virginia, at which place the staff and I provide RF compliance services to clients in the wireless communications industry; and

That I am thoroughly familiar with the Rules and Regulations of the Federal Communications Commission (FCC) as well as the regulations of the Occupational Safety and Health Administration (OSHA), both in general and specifically as they apply to the FCC Guidelines for Human Exposure to Radio-frequency Radiation; and

That I have thoroughly reviewed this Site Compliance Report and believe it to be true and accurate to the best of my knowledge as assembled by and attested to by Scott Broyles.

July 25, 2018

Appendix A – Statement of Limiting Conditions

Sitesafe has provided computer generated model(s) in this Site Compliance Report to show approximate dimensions of the site, and the model is included to assist the reader of the compliance report to visualize the site area, and to provide supporting documentation for Sitesafe's recommendations.

Sitesafe may note in the Site Compliance Report any adverse physical conditions, such as needed repairs, that Sitesafe became aware of during the normal research involved in creating this report. Sitesafe will not be responsible for any such conditions that do exist or for any engineering or testing that might be required to discover whether such conditions exist. Because Sitesafe is not an expert in the field of mechanical engineering or building maintenance, the Site Compliance Report must not be considered a structural or physical engineering report.

Sitesafe obtained information used in this Site Compliance Report from sources that Sitesafe considers reliable and believes them to be true and correct. Sitesafe does not assume any responsibility for the accuracy of such items that were furnished by other parties. When conflicts in information occur between data collected by Sitesafe provided by a second party and data collected by Sitesafe, the data will be used.

Appendix B – Regulatory Background Information

FCC Rules and Regulations

In 1996, the Federal Communications Commission (FCC) adopted regulations for the evaluating of the effects of RF emissions in 47 CFR § 1.1307 and 1.1310. The guideline from the FCC Office of Engineering and Technology is Bulletin 65 (“OET Bulletin 65”), *Evaluating Compliance with FCC Guidelines for Human Exposure to Radio Frequency Electromagnetic Fields*, Edition 97-01, published August 1997. Since 1996 the FCC periodically reviews these rules and regulations as per their congressional mandate.

FCC regulations define two separate tiers of exposure limits: Occupational or “Controlled environment” and General Public or “Uncontrolled environment”. The General Public limits are generally five times more conservative or restrictive than the Occupational limit. These limits apply to *accessible* areas where workers or the general public may be exposed to Radio Frequency (RF) electromagnetic fields.

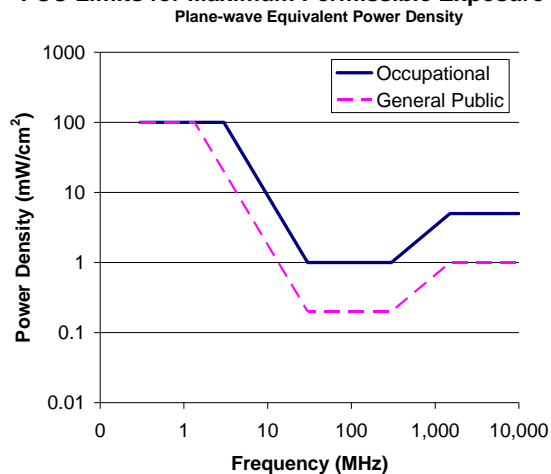
Occupational or Controlled limits apply in situations in which persons are exposed as a consequence of their employment and where those persons exposed have been made fully aware of the potential for exposure and can exercise control over their exposure.

An area is considered a Controlled environment when access is limited to these aware personnel. Typical criteria are restricted access (i.e. locked or alarmed doors, barriers, etc.) to the areas where antennas are located coupled with proper RF warning signage. A site with Controlled environments is evaluated with Occupational limits.

All other areas are considered Uncontrolled environments. If a site has no access controls or no RF warning signage it is evaluated with General Public limits.

The theoretical modeling of the RF electromagnetic fields has been performed in accordance with OET Bulletin 65. The Maximum Permissible Exposure (MPE) limits utilized in this analysis are outlined in the following diagram:

FCC Limits for Maximum Permissible Exposure (MPE)



Limits for Occupational/Controlled Exposure (MPE)

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm ²)	Averaging Time E ² , H ² or S (minutes)
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842/f	4.89/f	(900/f ²)*	6
30-300	61.4	0.163	1.0	6
300-1500	--	--	f/300	6
1500-100,000	--	--	5	6

Limits for General Population/Uncontrolled Exposure (MPE)

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S) (mW/cm ²)	Averaging Time E ² , H ² or S (minutes)
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	(180/f ²)*	30
30-300	27.5	0.073	0.2	30
300-1500	--	--	f/1500	30
1500-100,000	--	--	1.0	30

f = frequency in MHz

*Plane-wave equivalent power density

OSHA Statement

The General Duty clause of the OSHA Act (Section 5) outlines the occupational safety and health responsibilities of the employer and employee. The General Duty clause in Section 5 states:

- (a) Each employer –
 - (1) shall furnish to each of his employees employment and a place of employment which are free from recognized hazards that are causing or are likely to cause death or serious physical harm to his employees;
 - (2) shall comply with occupational safety and health standards promulgated under this Act.
- (b) Each employee shall comply with occupational safety and health standards and all rules, regulations, and orders issued pursuant to this Act which are applicable to his own actions and conduct.

OSHA has defined Radiofrequency and Microwave Radiation safety standards for workers who may enter hazardous RF areas. Regulation Standards 29 CFR § 1910.147 identify a generic Lock Out Tag Out procedure aimed to control the unexpected energization or start up of machines when maintenance or service is being performed.

Appendix C – Safety Plan and Procedures

The following items are general safety recommendations that should be administered on a site by site basis as needed by the carrier.

General Maintenance Work: Any maintenance personnel required to work immediately in front of antennas and / or in areas indicated as above 100% of the Occupational MPE limits should coordinate with the wireless operators to disable transmitters during their work activities.

Training and Qualification Verification: All personnel accessing areas indicated as exceeding the General Population MPE limits should have a basic understanding of EME awareness and RF Safety procedures when working around transmitting antennas. Awareness training increases a workers understanding to potential RF exposure scenarios. Awareness can be achieved in a number of ways (e.g. videos, formal classroom lecture or internet based courses).

Physical Access Control: Access restrictions to transmitting antennas locations is the primary element in a site safety plan. Examples of access restrictions are as follows:

- Locked door or gate
- Alarmed door
- Locked ladder access
- Restrictive Barrier at antenna (e.g. Chain link with posted RF Sign)

RF Signage: Everyone should obey all posted signs at all times. RF signs play an important role in properly warning a worker prior to entering into a potential RF Exposure area.

Assume all antennas are active: Due to the nature of telecommunications transmissions, an antenna transmits intermittently. Always assume an antenna is transmitting. Never stop in front of an antenna. If you have to pass by an antenna, move through as quickly and safely as possible thereby reducing any exposure to a minimum.

Maintain a 3 foot clearance from all antennas: There is a direct correlation between the strength of an EME field and the distance from the transmitting antenna. The further away from an antenna, the lower the corresponding EME field is.

Site RF Emissions Diagram: Section 4 of this report contains an RF Diagram that outlines various theoretical Maximum Permissible Exposure (MPE) areas at the site. The modeling is a worst case scenario assuming a duty cycle of 100% for each transmitting antenna at full power. This analysis is based on one of two access control criteria: General Public criteria means the access to the site is uncontrolled and anyone can gain access. Occupational criteria means the access is restricted and only properly trained individuals can gain access to the antenna locations.

Appendix D – RF Emissions

The RF Emissions Simulation(s) in this report display theoretical spatially averaged percentage of the Maximum Permissible Exposure for all systems at the site unless otherwise noted. These diagrams use modeling as prescribed in OET Bulletin 65 and assumptions detailed in Appendix E.

The key at the bottom of each RF Emissions Simulation indicates percentages displayed referenced to FCC General Public Maximum Permissible Exposure (MPE) limits. Color coding on the diagram is as follows:

- Areas indicated as Gray are predicted to be below 5% of the MPE limits. Gray represents areas more than 20 times below the most conservative exposure limit.
- Green represents areas are predicted to be between 5% and 100% of the MPE limits. **Green areas are accessible to anyone.**
- Blue represents areas predicted to exceed the General Public MPE limits but are less than Occupational limits. **Blue areas should be accessible only to RF trained workers.**
- Yellow represents areas predicted to exceed Occupational MPE limits. Yellow areas should be accessible only to RF trained workers able to assess current exposure levels.
- Red represents areas predicted to have exposure more than 10 times the Occupational MPE limits. **Red indicates that the RF levels must be reduced prior to access.** An RF Safety Plan is required which outlines how to reduce the RF energy in these areas prior to access.

Appendix E – Assumptions and Definitions

General Model Assumptions

In this site compliance report, it is assumed that all antennas are operating at **full power at all times**. Software modeling was performed for all transmitting antennas located on the site. Sitesafe has further assumed a 100% duty cycle and maximum radiated power.

The modeling is based on recommendations from the FCC's OET-65 bulletin with the following variances per AT&T guidance. Reflection has not been considered in the modeling, i.e. the reflection factor is 1.0. The near / far field boundary has been set to 1.5 times the aperture height of the antenna and modeling beyond that point is the lesser of the near field cylindrical model and the far field model taking into account the gain of the antenna.

The site has been modeled with these assumptions to show the maximum RF energy density. Areas modeled with exposure greater than 100% of the General Public MPE level may not actually occur, but are shown as a prediction that could be realized. Sitesafe believes these areas to be safe for entry by occupationally trained personnel utilizing appropriate personal protective equipment (in most cases, a personal monitor).

Use of Generic Antennas

For the purposes of this report, the use of "Generic" as an antenna model, or "Unknown" for an operator means the information about a carrier, their FCC license and/or antenna information was not provided and could not be obtained while on site. In the event of unknown information, Sitesafe will use our industry specific knowledge of equipment, antenna models, and transmit power to model the site. If more specific information can be obtained for the unknown measurement criteria, Sitesafe recommends remodeling of the site utilizing the more complete and accurate data. Information about similar facilities is used when the service is identified and associated with a particular antenna. If no information is available regarding the transmitting service associated with an unidentified antenna, using the antenna manufacturer's published data regarding the antenna's physical characteristics makes more conservative assumptions.

Where the frequency is unknown, Sitesafe uses the closest frequency in the antenna's range that corresponds to the highest Maximum Permissible Exposure (MPE), resulting in a conservative analysis.

Definitions

5% Rule – The rules adopted by the FCC specify that, in general, at multiple transmitter sites actions necessary to bring the area into compliance with the guidelines are the shared responsibility of all licensees whose transmitters produce field strengths or power density levels at the area in question in excess of 5% of the exposure limits. In other words, any wireless operator that contributes 5% or greater of the MPE limit in an area that is identified to be greater than 100% of the MPE limit is responsible taking corrective actions to bring the site into compliance.

Compliance – The determination of whether a site is safe or not with regards to Human Exposure to Radio Frequency Radiation from transmitting antennas.

Decibel (dB) – A unit for measuring power or strength of a signal.

Duty Cycle – The percent of pulse duration to the pulse period of a periodic pulse train. Also, may be a measure of the temporal transmission characteristic of an intermittently transmitting RF source such as a paging antenna by dividing average transmission duration by the average period for transmission. A duty cycle of 100% corresponds to continuous operation.

Effective (or Equivalent) Isotropic Radiated Power (EIRP) – The product of the power supplied to the antenna and the antenna gain in a given direction relative to an isotropic antenna.

Effective Radiated Power (ERP) – In a given direction, the relative gain of a transmitting antenna with respect to the maximum directivity of a half wave dipole multiplied by the net power accepted by the antenna from the connecting transmitter.

Gain (of an antenna) – The ratio of the maximum intensity in a given direction to the maximum radiation in the same direction from an isotropic radiator. Gain is a measure of the relative efficiency of a directional antennas as compared to an omni directional antenna.

General Population/Uncontrolled Environment – Defined by the FCC, as an area where exposure to RF energy may occur to persons who are **unaware** of the potential for exposure and who have no control of their exposure. General Population is also referenced as General Public.

Generic Antenna – For the purposes of this report, the use of "Generic" as an antenna model means the antenna information was not provided and could not be obtained while on site. In the event of unknown information, Sitesafe will use our industry specific knowledge of antenna models to select a worst case scenario antenna to model the site.

Isotropic Antenna – An antenna that is completely non-directional. In other words, an antenna that radiates energy equally in all directions.

Maximum Measurement – This measurement represents the single largest measurement recorded when performing a spatial average measurement.

Maximum Permissible Exposure (MPE) – The maximum levels of RF exposure a person may be exposed to without harmful effect and with acceptable safety factor.

Occupational/Controlled Environment – Defined by the FCC, as an area where Radio Frequency Radiation (RFR) exposure may occur to persons who are **aware** of the

potential for exposure as a condition of employment or specific activity and can exercise control over their exposure.

OET Bulletin 65 – Technical guideline developed by the FCC's Office of Engineering and Technology to determine the impact of Radio Frequency radiation on Humans. The guideline was published in August 1997.

OSHA (Occupational Safety and Health Administration) – Under the Occupational Safety and Health Act of 1970, employers are responsible for providing a safe and healthy workplace for their employees. OSHA's role is to promote the safety and health of America's working men and women by setting and enforcing standards; providing training, outreach and education; establishing partnerships; and encouraging continual process improvement in workplace safety and health. For more information, visit www.osha.gov.

Radio Frequency (RF) – The frequencies of electromagnetic waves which are used for radio communications. Approximately 3 kHz to 300 GHz.

Radio Frequency Exposure (RFE) – The amount of RF power density that a person is or might be exposed to.

Spatial Average Measurement – A technique used to average a minimum of ten (10) measurements taken in a ten (10) second interval from zero (0) to six (6) feet. This measurement is intended to model the average power density an average sized human will be exposed to at a location.

Transmitter Power Output (TPO) – The radio frequency output power of a transmitter's final radio frequency stage as measured at the output terminal while connected to a load.

Appendix F – References

The following references can be followed for further information about RF Health and Safety.

Sitesafe, LLC.

<http://www.sitesafe.com>

FCC Radio Frequency Safety

<http://www.fcc.gov/encyclopedia/radio-frequency-safety>

National Council on Radiation Protection and Measurements (NCRP)

<http://www.ncrponline.org>

Institute of Electrical and Electronics Engineers, Inc., (IEEE)

<http://www.ieee.org>

American National Standards Institute (ANSI)

<http://www.ansi.org>

Environmental Protection Agency (EPA)

<http://www.epa.gov/radtown/wireless-tech.html>

National Institutes of Health (NIH)

<http://www.niehs.nih.gov/health/topics/agents/emf/>

Occupational Safety and Health Agency (OSHA)

<http://www.osha.gov/SLTC/radiofrequencyradiation/>

International Commission on Non-Ionizing Radiation Protection (ICNIRP)

<http://www.icnirp.org>

World Health Organization (WHO)

<http://www.who.int/peh-emf/en/>

National Cancer Institute

<http://www.cancer.gov/cancertopics/factsheet/Risk/cellphones>

American Cancer Society (ACS)

http://www.cancer.org/docroot/PED/content/PED_1_3X_Cellular_Phone_Towers.asp?sitearea=PED

European Commission Scientific Committee on Emerging and Newly Identified Health Risks

http://ec.europa.eu/health/ph_risk/committees/04_scenihr/docs/scenihr_o_022.pdf

Fairfax County, Virginia Public School Survey

<http://www.fcps.edu/fts/safety-security/RFEESurvey/>

UK Health Protection Agency Advisory Group on Non-ionising Radiation

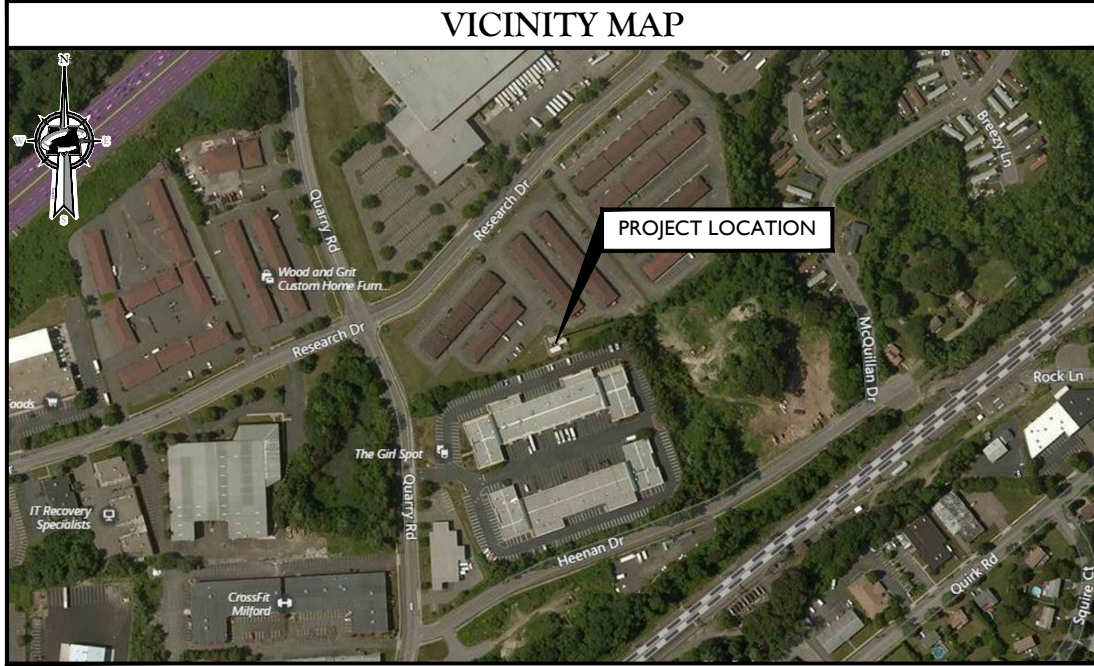
http://www.hpa.org.uk/webw/HPAweb&HPAwebStandard/HPAweb_C/1317133826368

Norwegian Institute of Public Health

<http://www.fhi.no/dokumenter/545eea7147.pdf>

PROJECT NOTES

1. SITE INFORMATION OBTAINED FROM THE FOLLOWING:
 - A. PLAN ENTITLED "NEW HAVEN-WOODMONT" PREPARED BY MASER CONSULTING P.A. OF MT. LAUREL, NJ LAST REVISED 02/03/2017.
 - B. LIMITED FIELD OBSERVATION BY MASER CONSULTING ON 05/21/2018.
2. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE CODES, ORDINANCES, LAWS AND REGULATIONS OF ALL MUNICIPALITIES, UTILITY COMPANIES OR OTHER PUBLIC/GOVERNING AUTHORITIES.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND INSPECTIONS THAT MAY BE REQUIRED BY ANY FEDERAL, STATE, COUNTY OR MUNICIPAL AUTHORITIES.
4. THE CONTRACTOR SHALL NOTIFY THE CONSTRUCTION MANAGER, IN WRITING, OF ANY CONFLICTS, ERRORS OR OMISSIONS PRIOR TO THE SUBMISSION OF BIDS OR PERFORMANCE OF WORK.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL EXISTING SITE IMPROVEMENTS PRIOR TO COMMENCING CONSTRUCTION. THE CONTRACTOR SHALL REPAIR ANY DAMAGE AS A RESULT OF CONSTRUCTION OF THIS FACILITY AT THE CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE OWNER.
6. THE SCOPE OF WORK FOR THIS PROJECT SHALL INCLUDE PROVIDING ALL MATERIALS, EQUIPMENT AND LABOR REQUIRED TO COMPLETE THIS PROJECT. ALL EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
7. THE CONTRACTOR SHALL VISIT THE PROJECT SITE PRIOR TO SUBMITTING THE BID TO VERIFY THAT THE PROJECT CAN BE CONSTRUCTED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND CONSTRUCTION DRAWINGS.
8. THE CONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS PRIOR TO COMMENCING ANY WORK. ALL DIMENSIONS OF EXISTING CONSTRUCTION SHOWN ON THESE DRAWINGS MUST BE VERIFIED. THE CONTRACTOR SHALL NOTIFY THE CONSTRUCTION MANAGER OF ANY DISCREPANCIES PRIOR TO ORDERING MATERIAL OR PROCEEDING WITH CONSTRUCTION.
9. SINCE THE CELL SITE MAY BE ACTIVE, ALL SAFETY PRECAUTIONS MUST BE TAKEN WHEN WORKING AROUND HIGH LEVELS OF ELECTROMAGNETIC RADIATION. EQUIPMENT SHOULD BE SHUTDOWN PRIOR TO PERFORMING ANY WORK THAT COULD EXPOSE THE WORKERS TO DANGER. PERSONAL RF EXPOSURE MONITORS ARE REQUIRED TO BE WORN TO ALERT OF ANY POTENTIALLY DANGEROUS EXPOSURE LEVELS.
10. THE PROPOSED FACILITY WILL CAUSE AN INSIGNIFICANT OR "DE-MINIMUS" INCREASE IN STORM WATER RUNOFF. THEREFORE, NO DRAINAGE STRUCTURES ARE PROPOSED.
11. NO NOISE, SMOKE, DUST OR ODOR WILL RESULT FROM THIS FACILITY AS TO CAUSE A NUISANCE.
12. THE FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION (NO HANDICAP ACCESS IS REQUIRED).
13. THE FACILITY DOES NOT REQUIRE POTABLE WATER OR SANITARY SERVICE.
14. CONTRACTOR SHALL VERIFY ANTENNA ELEVATION AND AZIMUTHS WITH RF ENGINEERING PRIOR TO INSTALLATION.
15. THE TOWER, MOUNTS AND ANTENNAS SHALL BE DESIGNED TO MEET EIA/TIA-222-G AS PER IBC REQUIREMENTS.
16. ALL STRUCTURAL ELEMENTS SHALL BE HOT DIPPED GALVANIZED STEEL.
17. CONTRACTOR MUST FIELD LOCATE ALL EXISTING UNDERGROUND UTILITIES PRIOR TO ANY EXCAVATION.
18. CONSTRUCTION SHALL NOT COMMENCE UNTIL COMPLETION OF A PASSING STRUCTURAL ANALYSIS CERTIFIED BY A LICENSED PROFESSIONAL ENGINEER. THE STRUCTURAL ANALYSIS IS TO BE PERFORMED BY OTHERS.



VICINITY MAP

PROJECT LOCATION

CODE COMPLIANCE

ALL WORK AND MATERIALS SHALL BE PERFORMED AND INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNING AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THE LATEST EDITIONS OF THE FOLLOWING CODES.

1. 2018 CONNECTICUT STATE BUILDING CODE, INCORPORATING THE 2015 IBC	8. INSTITUTE FOR ELECTRICAL AND ELECTRONICS ENGINEERS 81 IEEE C2 LATEST EDITION
2. 2017 NATIONAL ELECTRICAL CODE - NFPA 70	9. TELCORDIA GR-1275
3. 2017 NFPA 101	10. ANSI T1.311
4. AMERICAN INSTITUTE OF STEEL CONSTRUCTION 360-10	11. PROPOSED USE: UNMANNED TELECOM FACILITY
5. AMERICAN CONCRETE INSTITUTE	12. HANDICAP REQUIREMENTS: FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION. HANDICAPPED ACCESS NOT REQUIRED.
6. TIA-222-G	13. CONSTRUCTION TYPE: IIB
7. TIA 607 FOR GROUNDING	14. USE GROUP: U



SITE NAME: NEW HAVEN-WOODMONT
FA NUMBER: 10035075
SITE NUMBER: CTL02169
6C - MRCTB031058
7C - MRCTB031048
5G NR UPDATE - MRCTB032142
203 RESEARCH DRIVE
MILFORD, CT 06460
NEW HAVEN COUNTY

PROJECT INFORMATION

SITE INFORMATION
 LATITUDE: 41.2404089° N
 LONGITUDE: 73.0119431° W
 JURISDICTION: NEW HAVEN COUNTY

APPLICANT/LESSEE
 COMPANY: NEW CINGULAR WIRELESS PCS, LLC
 ADDRESS: 550 COCHITUATE ROAD
 CITY, STATE, ZIP: FRAMINGHAM, MA 01701

TOWER OWNER
 TOWER OWNER: AMERICAN TOWER
 ADDRESS: 116 HUNTINGTON AVENUE, 11TH FLOOR
 CITY, STATE, ZIP: BOSTON, MA 02116

CLIENT REPRESENTATIVE
 COMPANY: SMARTLINK, LLC
 ADDRESS: 85 RANGEWAY ROAD, BUILDING 3, STE. 102
 CITY, STATE, ZIP: NORTH BILLERICA, MA 01862
 CONTACT: TODD OLIVER
 E-MAIL: TODD.OLIVER@SMARTLINKLLC.COM

SITE ACQUISITION
 COMPANY: SMARTLINK, LLC
 ADDRESS: 85 RANGEWAY ROAD, BUILDING 3, STE. 102
 CITY, STATE, ZIP: NORTH BILLERICA, MA 01862
 CONTACT: MICHAEL PATTISON
 E-MAIL: MICHAEL.PATTISON@SMARTLINKLLC.COM

CONSTRUCTION MANAGER
 COMPANY: SMARTLINK, LLC
 ADDRESS: 85 RANGEWAY ROAD, BUILDING 3, STE. 102
 CITY, STATE, ZIP: NORTH BILLERICA, MA 01862
 CONTACT: ROBERT PICARD
 E-MAIL: ROBERT.PICARD@SMARTLINKLLC.COM

ENGINEER
 COMPANY: MASER CONSULTING P.A.
 ADDRESS: 331 NEWMAN SPRINGS ROAD, SUITE 203
 CITY, STATE, ZIP: RED BANK, NJ 07701-5699
 CONTACT: ROBERT ANDREWS
 PHONE: (856) 797-0412
 E-MAIL: RANDREWS@MASERCONSULTING.COM

PROJECT DESCRIPTION/ SCOPE OF WORK

- INSTALL (3) NEW AT&T PANEL ANTENNAS, (1) PER SECTOR
- INSTALL (1) NEW PLATFORM REINFORCEMENT KIT
- REMOVE (3) EXISTING RRUS-11, (1) PER SECTOR
- INSTALL (3) NEW RRUS-4478 B5, (1) PER SECTOR
- INSTALL (3) NEW RRUS-B14 4478, (1) PER SECTOR
- INSTALL (3) NEW RRUS-4426 B66, (1) PER SECTOR
- INSTALL (6) NEW DIPLEXERS, (2) PER SECTOR
- INSTALL (1) DC-6 SURGE SUPPRESSION DOME
- INSTALL (2) NEW 6/C DC POWER CABLES
- INSTALL (1) NEW 12-PAIR FIBER TRUNK
- SWAP BOTH DUS WITH 5216
- SWAP IDL2 WITH IDLe
- ADD (1) 6630
- INSTALL NEW SITEPRO 1 ANTENNA MOUNT
- REMOVE EXISTING ANTENNA MOUNT

SHEET INDEX

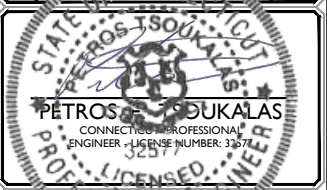
SHEET	DESCRIPTION
T-1	TITLE SHEET
GN-1	GENERAL NOTES
C-1	COMPOUND PLAN
C-2	EQUIPMENT LAYOUT AND ELEVATION VIEW
C-3	ANTENNA LAYOUTS AND ANTENNA SCHEDULE
A-1	CONSTRUCTION DETAILS
A-2	CONSTRUCTION DETAILS
A-3	CONSTRUCTION DETAILS
A-4	CONSTRUCTION DETAILS
A-5	CONSTRUCTION DETAILS
A-6	RF PLUMBING DIAGRAM
G-1	GROUNDING DETAILS AND NOTES



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SCALE:	JOB NUMBER:			
AS SHOWN	18946023A			
4	3/25/19	REVISED PER COMMENTS	AJC	RA
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0	07/09/18	ISSUED	AJC	RA
REV	DATE	DESCRIPTION	DRAWN	CHECKED BY



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SITE NAME:
NEW HAVEN-WOODMONT
FA# 10035075
SITE# CTL02169
203 RESEARCH DRIVE
MILFORD, CT 06460
NEW HAVEN COUNTY



TITLE SHEET
 SHEET NUMBER: T-1

104881003075 CTL02169 CD Rev 04/21/19

GENERAL NOTES:

- THE SUBCONTRACTOR SHALL REVIEW AND INSPECT THE EXISTING FACILITY GROUNDING SYSTEM (AS DESIGNED AND INSTALLED) FOR STRICT COMPLIANCE WITH THE NEC (AS ADOPTED BY THE AHJ), THE SITE-SPECIFIC (UL, LPI, OR NFPA) LIGHTING PROTECTION CODE, AND GENERAL COMPLIANCE WITH TELCORDIA AND TIA GROUNDING STANDARDS. THE SUBCONTRACTOR SHALL REPORT ANY VIOLATIONS OR ADVERSE FINDINGS TO THE CONTRACTOR FOR RESOLUTION.
- ALL GROUND ELECTRODE SYSTEMS (INCLUDING TELECOMMUNICATION, RADIO, LIGHTNING PROTECTION, AND AC POWER GES'S) SHALL BE BONDED TOGETHER, AT OR BELOW GRADE, BY TWO OR MORE COPPER BONDING CONDUCTORS IN ACCORDANCE WITH THE NEC.
- THE SUBCONTRACTOR SHALL PERFORM IEEE FALL-OF-POTENTIAL RESISTANCE TO EARTH TESTING (PER IEEE 1100 AND 81) FOR GROUND ELECTRODE SYSTEMS. THE SUBCONTRACTOR SHALL FURNISH AND INSTALL SUPPLEMENTAL GROUND ELECTRODES AS NEEDED TO ACHIEVE A TEST RESULT OF 50 HMS OR LESS.
- THE SUBCONTRACTOR IS RESPONSIBLE FOR PROPERLY SEQUENCING GROUNDING AND UNDERGROUND CONDUIT INSTALLATION AS TO PREVENT ANY LOSS OF CONTINUITY IN THE GROUNDING SYSTEM OR DAMAGE TO THE CONDUIT.
- METAL CONDUIT AND TRAY SHALL BE GROUNDED AND MADE ELECTRICALLY CONTINUOUS WITH LISTED BONDING FITTINGS OR BY BONDING ACROSS THE DISCONTINUITY WITH #6 AWG COPPER WIRE UL APPROVED GROUNDING TYPE CONDUIT CLAMPS.
- METAL RACEWAY SHALL NOT BE USED AS THE NEC REQUIRED EQUIPMENT GROUND CONDUCTOR. STRANDED COPPER CONDUCTORS WITH GREEN INSULATION, SIZED IN ACCORDANCE WITH THE NEC, SHALL BE FURNISHED AND INSTALLED WITH THE POWER CIRCUITS TO BTS EQUIPMENT.
- EACH BTS CABINET FRAME SHALL BE DIRECTLY CONNECTED TO THE EQUIPMENT GROUND RING WITH GREEN INSULATED SUPPLEMENTAL EQUIPMENT GROUND WIRES, 6 AWG STRANDED COPPER OR LARGER FOR INDOOR BTS; 2 AWG STRANDED COPPER FOR OUTDOOR BTS.
- CONNECTIONS TO THE GROUND BUS SHALL NOT BE DOUBLED UP OR STACKED. BACK TO BACK CONNECTIONS ON OPPOSITE SIDES OF THE GROUND BUS ARE PERMITTED.
- ALL EXTERIOR GROUND CONDUCTORS BETWEEN EQUIPMENT/GROUND BARS AND THE GROUND RING, SHALL BE #2 AWG SOLID TINNED COPPER UNLESS OTHERWISE INDICATED.
- ALUMINUM CONDUCTOR OR COPPER CLAD STEEL CONDUCTOR SHALL NOT BE USED FOR GROUNDING CONNECTIONS.
- USE OF 90° BENDS IN THE PROTECTION GROUNDING CONDUCTORS SHALL BE AVOIDED WHEN 45° BENDS CAN BE ADEQUATELY SUPPORTED. ALL BENDS SHALL BE MADE WITH 12" RADIUS OR LARGER.
- EXOTHERMIC WELDS SHALL BE USED FOR ALL GROUNDING CONNECTIONS BELOW GRADE.
- ALL GROUND CONNECTIONS ABOVE GRADE (INTERIOR) SHALL BE FORMED USING HIGH PRESS CRIMPS EXCEPT FOR GROUND BAR CONNECTION FROM MGB TO OUTSIDE EXTERIOR GROUND SHALL ALL BE CADWELD CONNECTIONS.
- COMPRESSION GROUND CONNECTIONS MAY BE REPLACED BY EXOTHERMIC WELD CONNECTIONS.
- ICE BRIDGE BONDING CONDUCTORS SHALL BE EXOTHERMICALLY BONDED TO THE TOWER GROUND BAR.
- APPROVED ANTIOXIDANT COATINGS (I.E. CONDUCTIVE GEL OR PASTE) SHALL BE USED ON ALL COMPRESSION AND BOLTED GROUND CONNECTIONS.
- ALL EXTERIOR AND INTERIOR GROUND CONNECTIONS SHALL BE COATED WITH A CORROSION RESISTANT MATERIAL.
- MISCELLANEOUS ELECTRICAL AND NON-ELECTRICAL METAL BOXES, FRAMES AND SUPPORTS SHALL BE BONDED TO THE GROUND RING, IN ACCORDANCE WITH THE NEC.
- BOND ALL METALLIC OBJECTS WITHIN 6 FT OF MAIN GROUND WIRES WITH 1-#2 AWG TIN-PLATED COPPER GROUND CONDUCTOR.
- GROUND CONDUCTORS USED IN THE FACILITY GROUND AND LIGHTNING PROTECTION SYSTEMS SHALL NOT BE ROUTED THROUGH METALLIC OBJECTS THAT FORM A RING AROUND THE CONDUCTOR, SUCH AS METALLIC CONDUITS, METAL SUPPORT CLIPS OR SLEEVES THROUGH WALLS OR FLOORS. WHEN IT IS REQUIRED TO BE HOUSED IN CONDUIT TO MEET CODE REQUIREMENTS OR LOCAL CONDITIONS, NON-METALLIC MATERIAL SUCH AS PVC PLASTIC CONDUIT SHALL BE USED. WHERE USE OF METAL CONDUIT IS UNAVOIDABLE (E.G. NON-METALLIC CONDUIT PROHIBITED BY LOCAL CODE) THE GROUND CONDUCTOR SHALL BE BONDED TO EACH END OF THE METAL CONDUIT.
- ALL NEW STRUCTURES WITH A FOUNDATION AND/OR FOOTING HAVING 20 FT. OR MORE OF 1/4" IN. OR GREATER ELECTRICALLY CONDUCTIVE REINFORCING STEEL MUST HAVE IT BONDED TO THE GROUND RING USING AN EXOTHERMIC WELD CONNECTION USING #2 AWG SOLID BARE TINNED COPPER GROUND WIRE, PER NEC 250.50.
- FOR THE PURPOSE OF CONSTRUCTION DRAWING, THE FOLLOWING DEFINITIONS SHALL APPLY:
 - CONTRACTOR - SMARTLINK
 - SUBCONTRACTOR - GENERAL CONTRACTOR (CONSTRUCTION)
 - OWNER - AT&T (NEW CINGULAR WIRELESS PCS, LLC)
- ALL SITE WORK SHALL BE COMPLETED AS INDICATED ON THE DRAWINGS AND PROJECT SPECIFICATIONS.
- DRAWINGS PROVIDED HERE ARE NOT TO BE SCALED AND ARE INTENDED TO SHOW OUTLINE ONLY.
- ALL MATERIALS FURNISHED AND INSTALLED SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES, REGULATIONS, AND ORDINANCES. SUBCONTRACTOR SHALL ISSUE ALL APPROPRIATE NOTICES AND COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS, AND LAWFUL ORDERS OF ANY PUBLIC AUTHORITY REGARDING THE PERFORMANCE OF THE WORK.
- ALL WORK CARRIED OUT SHALL COMPLY WITH ALL APPLICABLE MUNICIPAL AND UTILITY COMPANY SPECIFICATIONS AND LOCAL JURISDICTIONAL CODES, ORDINANCES AND APPLICABLE REGULATIONS.
- UNLESS NOTED OTHERWISE, THE WORK SHALL INCLUDE FURNISHING MATERIALS, EQUIPMENT, APPURTENANCES, AND LABOR NECESSARY TO COMPLETE ALL INSTALLATIONS AS INDICATED ON THE DRAWINGS.

- THE SUBCONTRACTOR SHALL INSTALL ALL EQUIPMENT AND MATERIALS IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS UNLESS SPECIFICALLY STATED OTHERWISE.
- IF THE SPECIFIED EQUIPMENT CANNOT BE INSTALLED AS SHOWN ON THESE DRAWINGS, THE SUBCONTRACTOR SHALL PROPOSE AN ALTERNATIVE INSTALLATION SPACE FOR APPROVAL BY THE CONTRACTOR.
- THE SUBCONTRACTOR SHALL PROTECT EXISTING IMPROVEMENTS, PAVEMENTS, CURBS, LANDSCAPING AND STRUCTURES. ANY DAMAGED PART SHALL BE REPAIRED AT SUBCONTRACTOR'S EXPENSE TO THE SATISFACTION OF OWNER.
- THE SUBCONTRACTOR SHALL CONTACT UTILITY LOCATING SERVICES PRIOR TO THE START OF CONSTRUCTION.
- ALL EXISTING ACTIVE SEWER, WATER, GAS, ELECTRIC, AND OTHER UTILITIES WHERE ENCOUNTERED IN THE WORK, SHALL BE PROTECTED AT ALL TIMES, AND WHERE REQUIRED FOR THE PROPER EXECUTION OF THE WORK, SHALL BE RELOCATED AS DIRECTED BY THE RESPONSIBLE ENGINEER. EXTREME CAUTION SHOULD BE USED BY THE SUBCONTRACTOR WHEN EXCAVATING OR DRILLING PIERS AROUND OR NEAR UTILITIES. SUBCONTRACTOR SHALL PROVIDE SAFETY TRAINING FOR THE WORKING CREW. THIS WILL INCLUDE BUT NOT BE LIMITED TO A) FALL PROTECTION B) CONFINED SPACE C) ELECTRICAL SAFETY D) TRENCHING & EXCAVATION.
- ALL EXISTING INACTIVE SEWER, WATER, GAS, ELECTRIC AND OTHER UTILITIES, WHICH INTERFERE WITH THE EXECUTION OF THE WORK, SHALL BE REMOVED AND/OR CAPPED, PLUGGED OR OTHERWISE DISCONTINUED AT POINTS WHICH WILL NOT INTERFERE WITH THE EXECUTION OF THE WORK, AS DIRECTED BY THE RESPONSIBLE ENGINEER, AND SUBJECT TO THE APPROVAL OF THE OWNER AND/OR LOCAL UTILITIES.
- THE AREAS OF THE OWNER'S PROPERTY DISTURBED BY THE WORK AND NOT COVERED BY THE TOWER, EQUIPMENT OR DRIVEWAY SHALL BE GRADED TO A UNIFORM SLOPE AND STABILIZED TO PREVENT EROSION.
- SUBCONTRACTOR SHALL MINIMIZE DISTURBANCE TO EXISTING SITE DURING CONSTRUCTION. EROSION CONTROL MEASURES, IF REQUIRED DURING CONSTRUCTION, SHALL BE IN CONFORMANCE WITH THE LOCAL GUIDELINES FOR EROSION AND SEDIMENT CONTROL.
- NO FILL OR EMBANKMENT MATERIAL SHALL BE PLACED ON FROZEN GROUND. FROZEN MATERIALS, SNOW OR ICE SHALL NOT BE PLACED IN ANY FILL OR EMBANKMENT.
- THE SUBGRADE SHALL BE COMPACTED AND BROUGHT TO A SMOOTH UNIFORM GRADE PRIOR TO FINISHED SURFACE APPLICATION.
- THE SITE SHALL BE GRADED TO CAUSE SURFACE WATER TO FLOW AWAY FROM THE BTS EQUIPMENT AND TOWER AREAS.
- IF NECESSARY, RUBBISH, STUMPS, DEBRIS, STICKS, STONES AND OTHER REFUSE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF LEGALLY.
- THE SUBCONTRACTOR SHALL PROVIDE SITE SIGNAGE IN ACCORDANCE WITH THE TECHNICAL SPECIFICATION FOR SITE SIGNAGE.
- SUBCONTRACTOR SHALL LEAVE PREMISES IN CLEAN CONDITION.
- PRIOR TO THE SUBMISSION OF BIDS, THE BIDDING SUBCONTRACTOR SHALL VISIT THE CELL SITE TO FAMILIARIZE WITH THE EXISTING CONDITIONS AND TO CONSTRUCTION DRAWINGS. ANY DISCREPANCY FOUND SHALL BE BROUGHT TO THE ATTENTION OF THE CONTRACTOR.
- SUBCONTRACTOR SHALL DETERMINE ACTUAL ROUTING OF CONDUIT, POWER AND T1 CABLES, GROUNDING CABLES AS SHOWN ON THE POWER, GROUNDING AND TELCO PLAN DRAWING. SUBCONTRACTOR SHALL UTILIZE EXISTING TRAYS AND/OR SHALL ADD NEW TRAYS AS NECESSARY. SUBCONTRACTOR SHALL CONFIRM THE ACTUAL ROUTING WITH THE CONTRACTOR.
- ALL CONCRETE REPAIR WORK SHALL BE DONE IN ACCORDANCE WITH AMERICAN CONCRETE INSTITUTE (ACI) 301.
- ANY NEW CONCRETE NEEDED FOR THE CONSTRUCTION SHALL BE AIR-ENTRAINED AND SHALL HAVE 4000 PSI STRENGTH AT 28 DAYS.
- ALL STRUCTURAL STEEL WORK SHALL BE DETAILED, FABRICATED AND ERECTED IN ACCORDANCE WITH AISC SPECIFICATIONS. ALL STRUCTURAL STEEL SHALL BE ASTM A36 (Fy = 36 ksi) UNLESS OTHERWISE NOTED. PIPES SHALL BE ASTM A53 TYPE E (Fy = 36 ksi). ALL STEEL EXPOSED TO WEATHER SHALL BE HOT DIPPED GALVANIZED. TOUCHUP ALL SCRATCHES AND OTHER MARKS IN THE FIELD AFTER STEEL IS ERECTED USING A COMPATIBLE ZINC RICH PAINT.
- CONSTRUCTION SHALL COMPLY WITH SPECIFICATIONS AND "GENERAL CONSTRUCTION SERVICES FOR CONSTRUCTION OF AT&T MOBILITY SITES."
- SUBCONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS PRIOR TO COMMENCING ANY WORK. ALL DIMENSIONS OF EXISTING CONSTRUCTION SHOWN ON THE DRAWINGS MUST BE VERIFIED. SUBCONTRACTOR SHALL NOTIFY THE CONTRACTOR OF ANY DISCREPANCIES PRIOR TO ORDERING MATERIAL OR PROCEEDING WITH CONSTRUCTION.
- THE EXISTING CELL SITE IS IN FULL COMMERCIAL OPERATION, ANY CONSTRUCTION WORK BY SUBCONTRACTOR SHALL NOT DISRUPT THE EXISTING NORMAL OPERATION. ANY WORK ON EXISTING EQUIPMENT MUST BE COORDINATED WITH CONTRACTOR. ALSO, WORK SHOULD BE SCHEDULED FOR AN APPROPRIATE MAINTENANCE WINDOW USUALLY IN LOW TRAFFIC PERIODS AFTER MIDNIGHT.
- SINCE THE CELL SITE IS ACTIVE, ALL SAFETY PRECAUTIONS MUST BE TAKEN WHEN WORKING AROUND HIGH LEVELS OF ELECTROMAGNETIC RADIATION. EQUIPMENT SHOULD BE SHUTDOWN PRIOR TO PERFORMING ANY WORK THAT COULD EXPOSE THE WORKERS TO DANGER. PERSONAL RF EXPOSURE MONITORS ARE ADVISED TO BE WORN ALERT OF DANGEROUS EXPOSURE LEVELS.



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SCALE:	JOB NUMBER:
AS SHOWN	18946023A

REV	DATE	DESCRIPTION	DESIGNED BY	CHECKED BY
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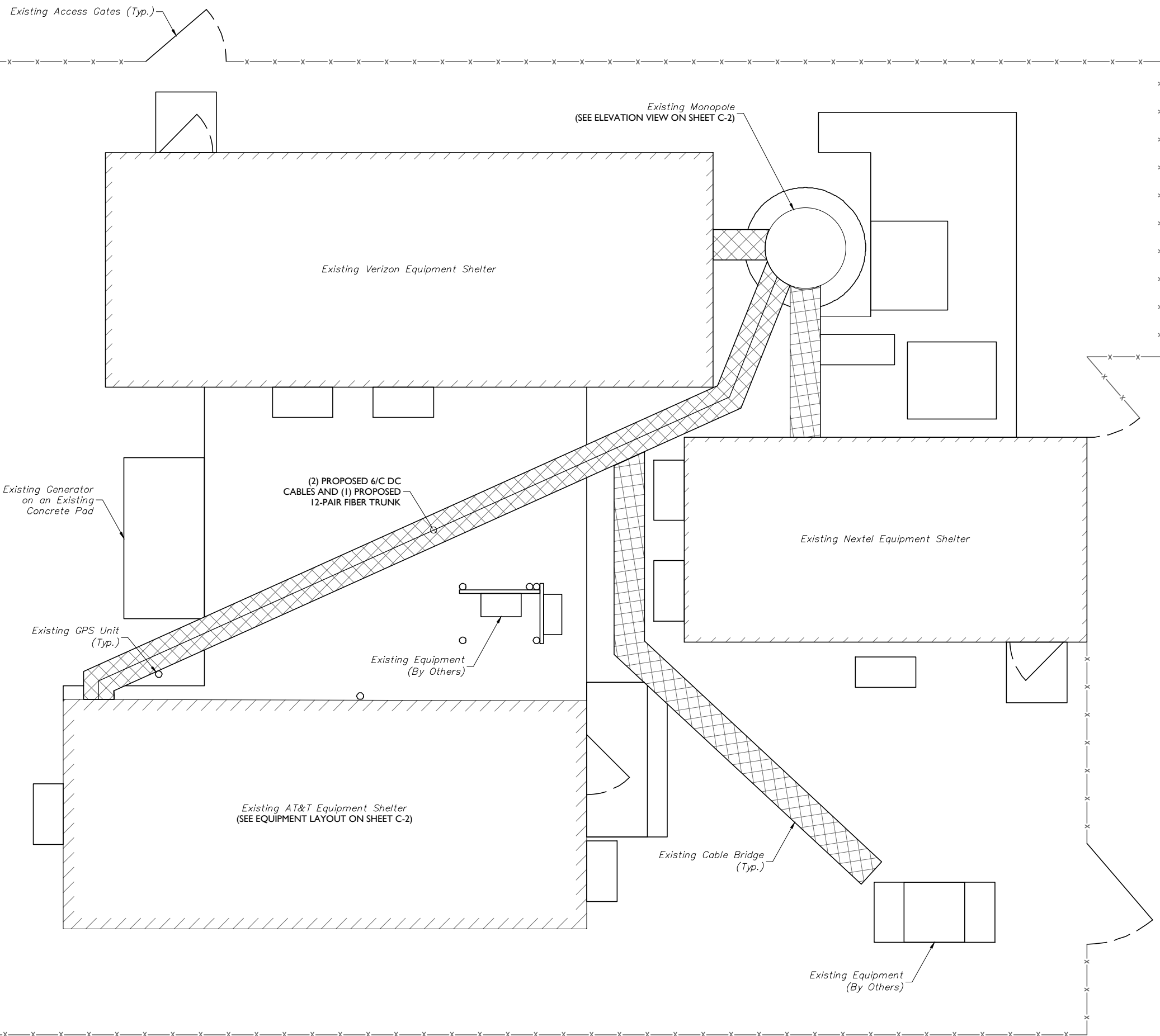
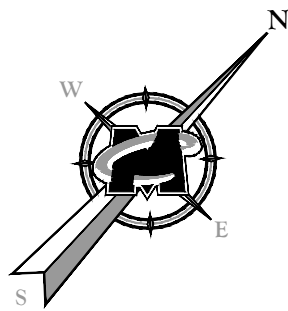
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SITE NAME:
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 FA# 10035075
 SITE# CTL02169
 203 RESEARCH DRIVE
 MILFORD, CT 06460
 NEW HAVEN COUNTY

RED BANK OFFICE
 331 Newnam Springs Road
 Suite 203
 Red Bank NJ 07701-5699
 Phone: 732.383.1950
 Fax: 732.383.1984
 email: solutions@maserconsulting.com

SHEET TITLE:
GENERAL NOTES

SHEET NUMBER:
GN-1

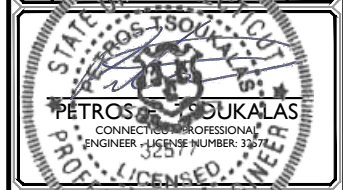


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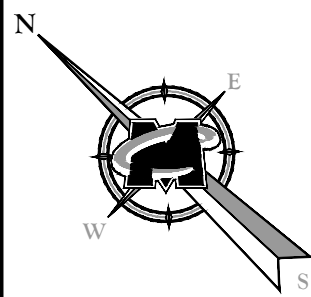
RED BANK OFFICE
 331 Newman Springs Road
 Suite 203
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 Phone: 732.383.1950
 Fax: 732.383.1984
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SHEET TITLE:
COMPOUND PLAN

SHEET NUMBER:
C-1

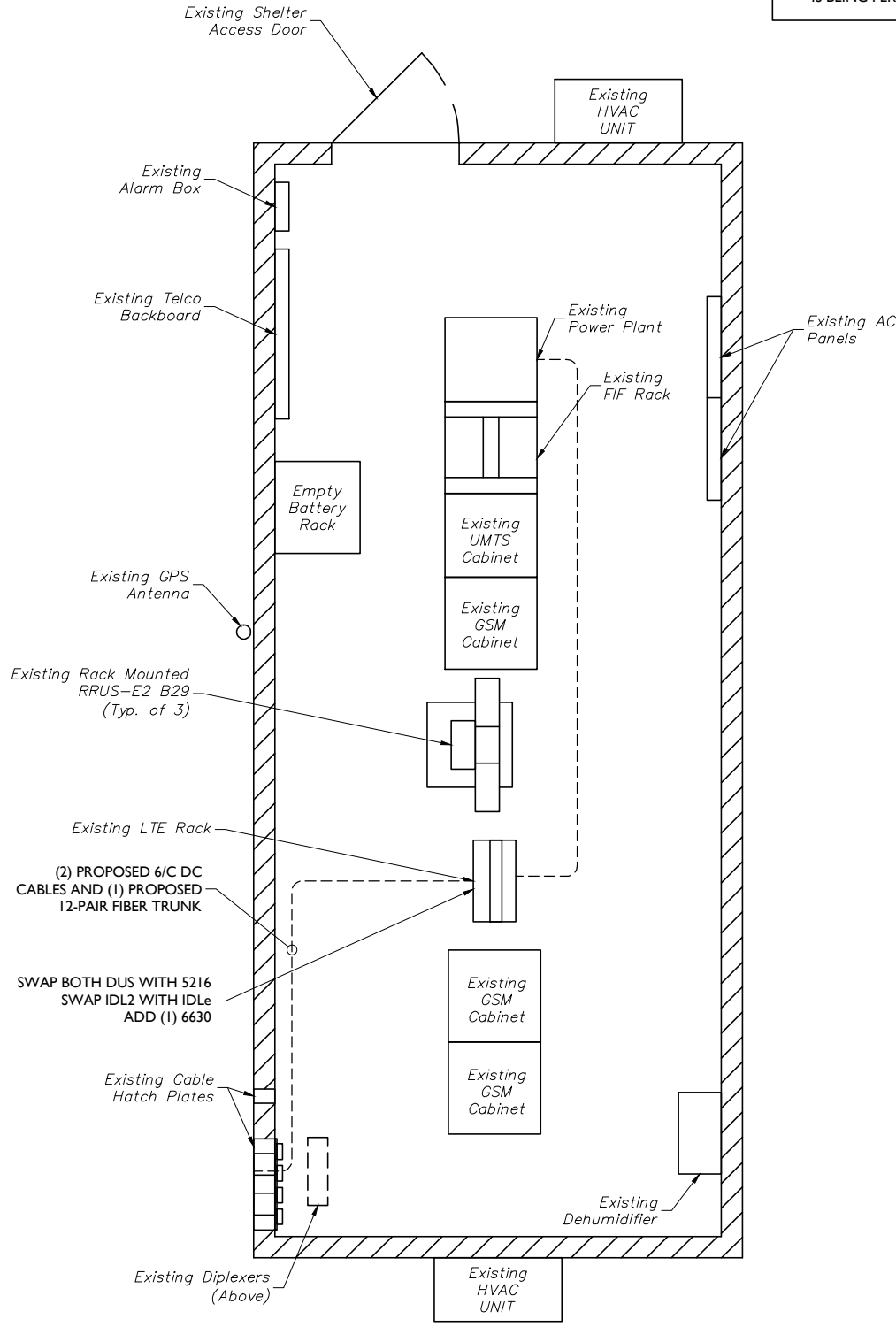
COMPOUND PLAN
 SCALE: 1" = 2' FOR 22"X34"
 SCALE: 1" = 4' FOR 11"X17"

M:\Projects\180811003075_CTL02169_CD_Red_Bank\C1 - By:ACCA



PLATFORM REMOVAL NOTES:

1. NO TORCH CUTTING IS PERMITTED ON SITE. EXISTING PLATFORM SHALL BE REMOVED WITH A GRINDER.
2. EXISTING POLE SHALL BE GROUND SMOOTH AND FLUSH. CARE SHALL BE TAKEN NOT TO REMOVE EXISTING POLE STEEL.
3. ALL SURFACES DAMAGED BY GRINDING SHALL BE WIRE BRUSHED CLEAN, REPAIRED BY COLD GALVANIZING BRUSH APPLIED PAINT (ZRC OR EQUAL), AND REPAINTED TO MATCH THE EXISTING FINISH (IF APPLICABLE).
4. COAX IS FLAMMABLE AND CAN CATCH FIRE IF PROPER PRECAUTIONS ARE NOT MADE TO SHIELD COAX FROM ALL GRINDING PROCEDURES. ALL COAX SHALL BE SHIELDED AT AND BELOW EACH GRINDING PROCEDURE AND ELEVATION. IN ADDITION, COAX SHALL BE PUSHED AWAY FROM TOWER FACE WHERE GRINDING IS BEING PERFORMED. INSTALL 3000° (NFPA 701) FIRE BLANKET AROUND ALL COAX.

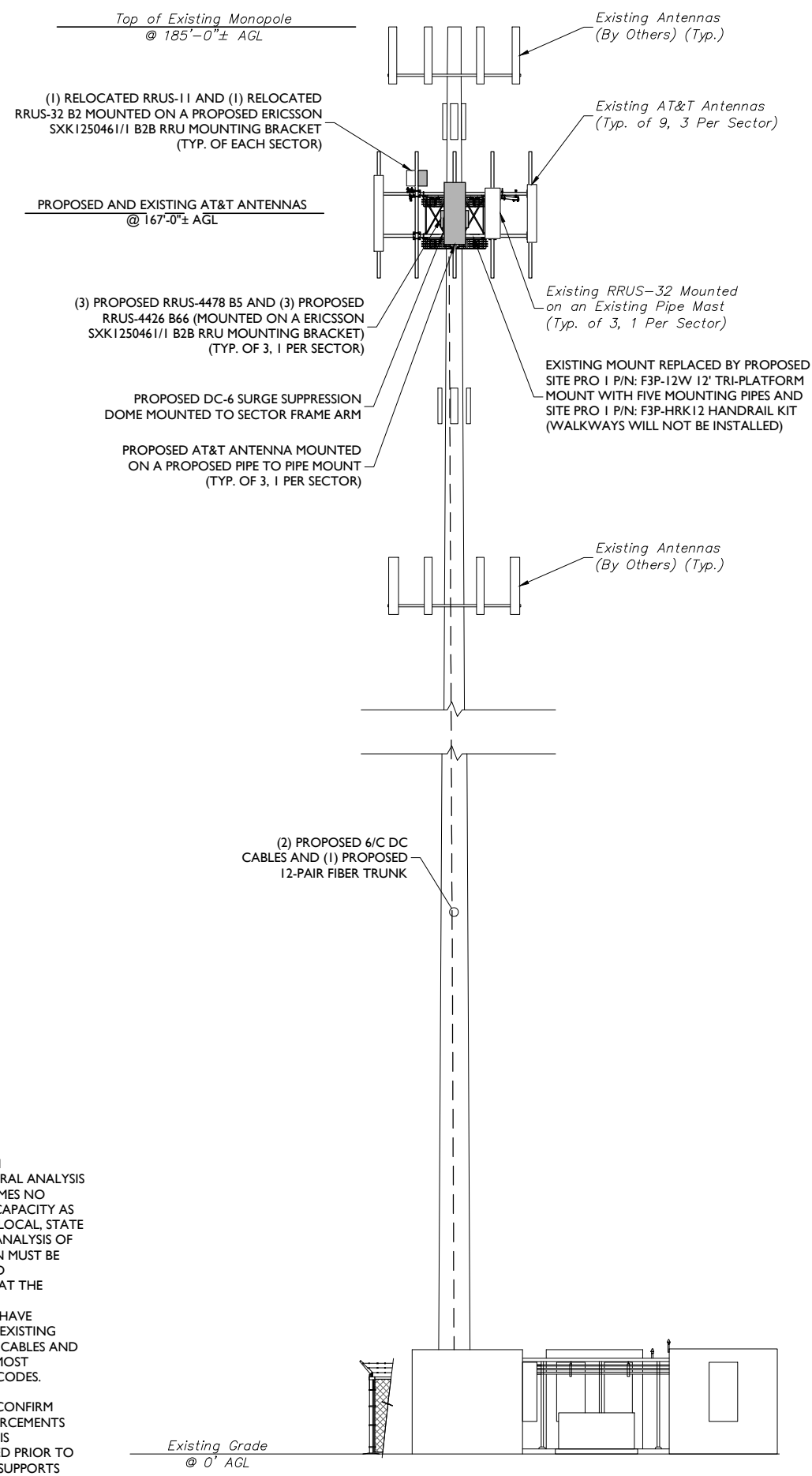


EQUIPMENT LAYOUT

SCALE : 1" = 2' FOR 22"X34"
 (SCALE : 1" = 4' FOR 11"X17")

STRUCTURAL NOTES:

1. MASER CONSULTING P.A. HAS NOT BEEN CONTRACTED TO PERFORM A STRUCTURAL ANALYSIS ON THIS TOWER AND THEREFORE ASSUMES NO RESPONSIBILITY FOR THE STRUCTURAL CAPACITY AS REQUIRED UNDER THE MOST CURRENT LOCAL, STATE AND FEDERAL CODES. A STRUCTURAL ANALYSIS OF THE TOWER AND TOWER FOUNDATION MUST BE PREPARED BY AN APPROPRIATE LICENSED STRUCTURAL ENGINEER CERTIFYING THAT THE EXISTING TOWER AND ANY REQUIRED IMPROVEMENTS AND REINFORCEMENTS HAVE SUFFICIENT CAPACITY TO SUPPORT ALL EXISTING AND PROPOSED ANTENNAS, SUPPORTS, CABLES AND APPURTENANCES COMPLIES WITH THE MOST CURRENT LOCAL, STATE AND FEDERAL CODES.
2. THE CONTRACTOR IS RESPONSIBLE TO CONFIRM THAT ANY IMPROVEMENTS AND REINFORCEMENTS REQUIRED BY THE STRUCTURAL ANALYSIS CERTIFICATION ARE PROPERLY INSTALLED PRIOR TO THE ADDITION OF ANTENNAS, CABLES, SUPPORTS AND APPURTENANCES PROPOSED ON THESE DRAWINGS OR OTHERWISE NOTED IN THE STRUCTURAL ANALYSIS.

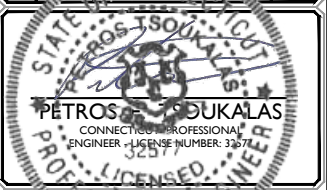


ELEVATION VIEW

SCALE : 1" = 6' FOR 22"X34"
 (SCALE : 1" = 12' FOR 11"X17")



SCALE:	JOB NUMBER:			
AS SHOWN	18946023A			
REV	DATE	DESCRIPTION	DRAWN	CHECKED
4	3/25/19	REVISED PER COMMENTS	AJC	RA
3	3/7/19	ISSUED FOR REVIEW	AJC	RA
2	09/10/18	REVISED PER COMMENTS	AJC	RA
1	07/30/18	FOR CONSTRUCTION	AJC	RA
0	07/09/18	ISSUED	AJC	RA



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 NEW HAVEN-WOODMONT
 FA# 10035075
 SITE# CTL02169
 203 RESEARCH DRIVE
 MILFORD, CT 06460
 NEW HAVEN COUNTY



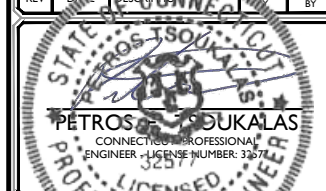
SHEET TITLE:
EQUIPMENT LAYOUT AND ELEVATION VIEW

SHEET NUMBER:
C-2

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REV	DATE	DESCRIPTION	DRAWN BY / CHECKED BY
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3	3/7/19	ISSUED FOR REVIEW	AJC RA
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1	07/30/18	FOR CONSTRUCTION	AJC RA
0	07/09/18	ISSUED FOR PERMIT	AJC RA



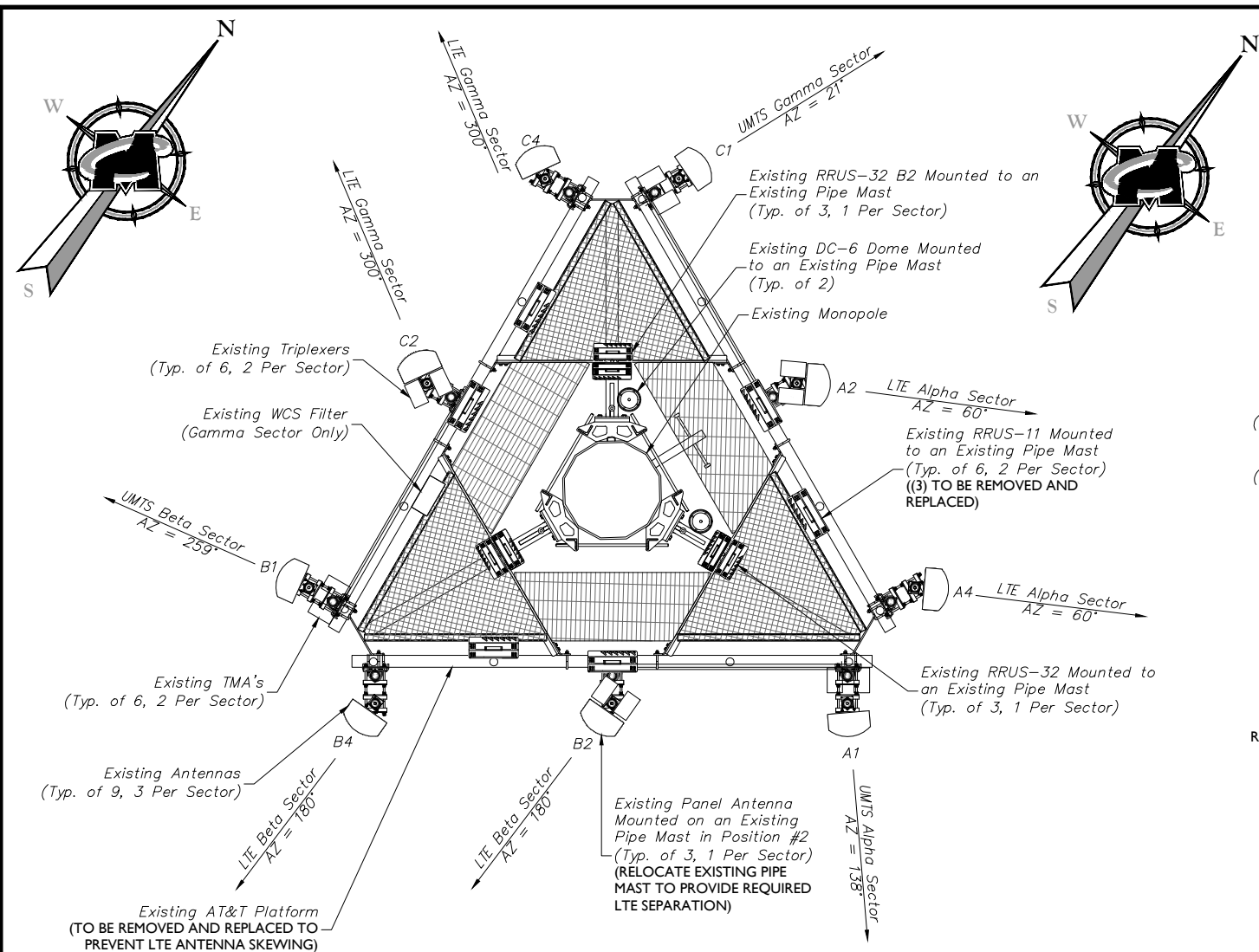
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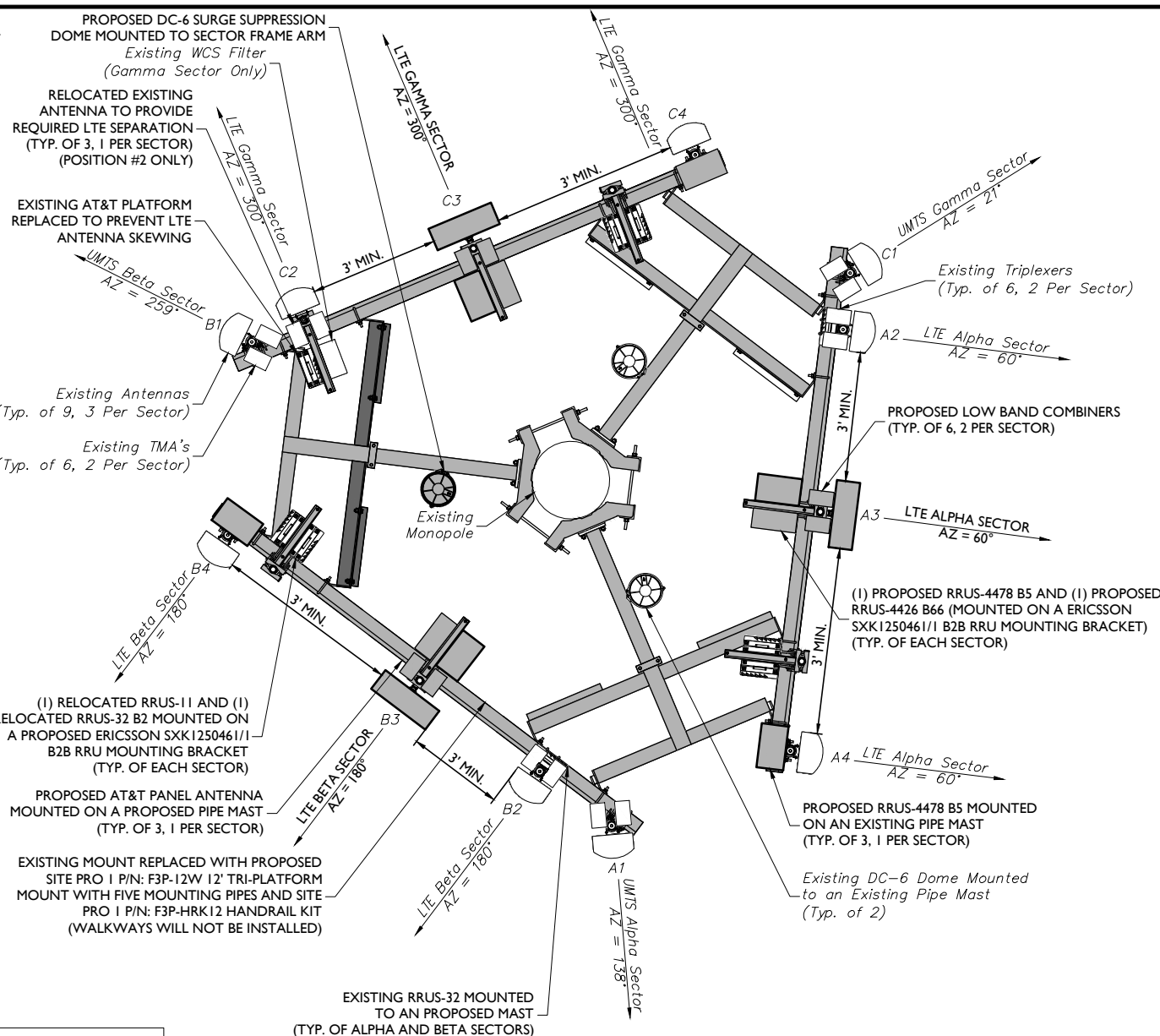
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 331 Newman Springs Road
 Suite 203
 Red Bank NJ 07701-5699
 Phone: 732.383.1950
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 email: solutions@maserconsulting.com

ANTENNA LAYOUTS AND ANTENNA SCHEDULE

SHEET NUMBER: **C-3**



EXISTING ANTENNA LAYOUT
NOT TO SCALE



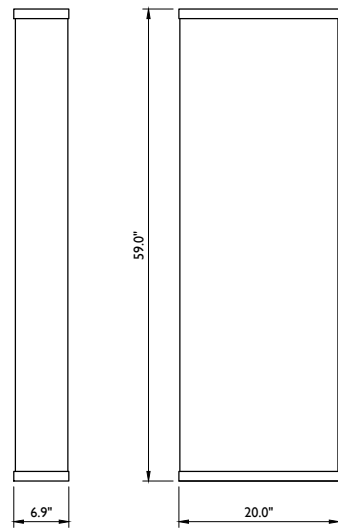
PROPOSED ANTENNA LAYOUT
NOT TO SCALE

3 FEET MINIMUM SEPARATION BETWEEN LTE ANTENNAS
 6 FEET MINIMUM SEPARATION BETWEEN 700BC & 700 DE
 8 INCH MINIMUM SEPARATION BETWEEN BACK OF ANTENNA AND EXISTING PROPOSED EQUIPMENT

- PLATFORM REMOVAL NOTES:**
- NO TORCH CUTTING IS PERMITTED ON SITE. EXISTING PLATFORM SHALL BE REMOVED WITH A GRINDER.
 - EXISTING POLE SHALL BE GROUND SMOOTH AND FLUSH. CARE SHALL BE TAKEN NOT TO REMOVE EXISTING POLE STEEL.
 - ALL SURFACES DAMAGED BY GRINDING SHALL BE WIRE BRUSHED CLEAN, REPAIRED BY COLD GALVANIZING BRUSH APPLIED PAINT (ZRC OR EQUAL), AND REPAINTED TO MATCH THE EXISTING FINISH (IF APPLICABLE).
 - COAX IS FLAMMABLE AND CAN CATCH FIRE IF PROPER PRECAUTIONS ARE NOT MADE TO SHIELD COAX FROM ALL GRINDING PROCEDURES. ALL COAX SHALL BE SHIELDED AT AND BELOW EACH GRINDING PROCEDURE AND ELEVATION. IN ADDITION, COAX SHALL BE PUSHED AWAY FROM TOWER FACE WHERE GRINDING IS BEING PERFORMED. INSTALL 3000° (NFPA 701) FIRE BLANKET AROUND ALL COAX.

SECTOR	EXISTING ANTENNA	PROPOSED ANTENNA	TECHNOLOGY	ANTENNA STATUS	HEIGHT (in)	WIDTH (in)	DEPTH (in)	WEIGHT (lbs)	ANTENNA AZIMUTH (DEG.)	ANT. CL. ELEV. (ft.)	REMOTE RADIO/TMA CONFIGURATION	TRANSMISSION CABLE			
												QUANTITY	TYPE	STATUS	
Sector 1	1	POWERWAVE 7770	UMTS	REMAIN	55.00	11.00	5.00	35.00	138	167	(2) LGP21901 Diplexer (2) LGP21401 TMA	2	1 1/4" COAX	REMAIN	
	2	COI	LTE	REMAIN	48.30	14.40	7.30	55.10	60	167	(4) TPX-070821 Triplexer (1) RRU-E2 B29 Existing (1) RRU-32 Existing	1/4	FIBER/DC	REMAIN	
	3		KATHREIN 80010964	LTE	PROPOSED	59.00	20.00	6.90	94.80	60	167	(1) RRU-B14 4478 (1) RRU-4478 B5 (1) RRU-4426 B66 (2) DBCT108F1V92-1	1/2	FIBER/DC	PROPOSED
	4	QUINTEL QS66512-2	LTE	REMAIN	72.00	12.00	9.60	123.00	60	167	(1) RRU-11 Existing (1) RRU-32 B2 Existing	-	-	-	
Sector 2	1	POWERWAVE 7770	UMTS	REMAIN	55.00	11.00	5.00	35.00	259	167	(2) LGP21901 Diplexer (2) LGP21401 TMA	2	1 1/4" COAX	REMAIN	
	2	COI	LTE	REMAIN	48.30	14.40	7.30	55.10	180	167	(4) TPX-070821 Triplexer (1) RRU-E2 B29 Existing (1) RRU-32 Existing	-	-	-	
	3		KATHREIN 80010964	LTE	PROPOSED	59.00	20.00	6.90	94.80	180	167	(1) RRU-B14 4478 (1) RRU-4478 B5 (1) RRU-4426 B66	-	-	-
	4	QUINTEL QS66512-2	LTE	REMAIN	72.00	12.00	9.60	123.00	180	167	(1) RRU-11 Existing (1) RRU-32 B2 Existing	-	-	-	
Sector 3	1	POWERWAVE 7770	UMTS	REMAIN	55.00	11.00	5.00	35.00	21	167	(2) LGP21901 Diplexer (2) LGP21401 TMA	2	1 1/4" COAX	REMAIN	
	2	COI	LTE	REMAIN	48.30	14.40	7.30	55.10	300	167	(4) TPX-070821 Triplexer (1) RRU-E2 B29 Existing (1) RRU-32 Existing	-	-	-	
	3		KATHREIN 80010964	LTE	PROPOSED	59.00	20.00	6.90	94.80	300	167	(1) RRU-B14 4478 (1) RRU-4478 B5 (1) RRU-4426 B66 (2) DBCT108F1V92-1	-	-	-
	4	QUINTEL QS66512-2	LTE	REMAIN	72.00	12.00	9.60	123.00	300	167	(1) RRU-11 Existing (1) RRU-32 B2 Existing	-	-	-	

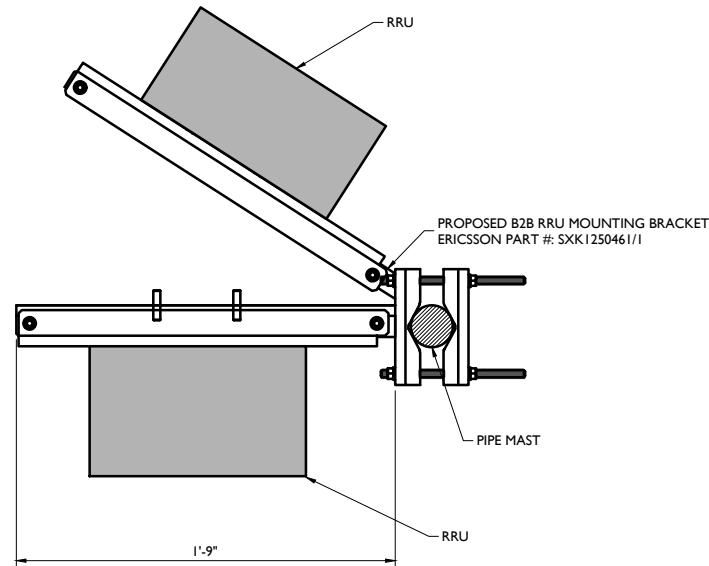
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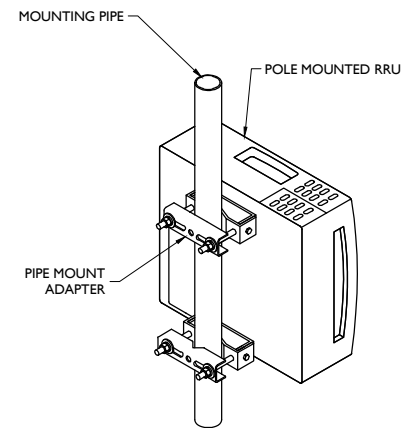
WEIGHT = 83.8 LBS

KATHREIN 800-10964

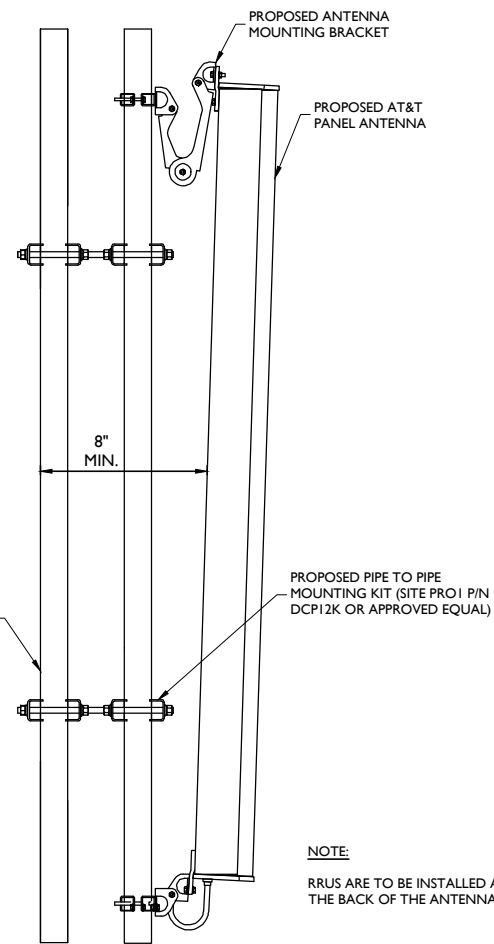
ANTENNA DETAIL
NOT TO SCALE



RRU MOUNTING DETAIL
NOT TO SCALE



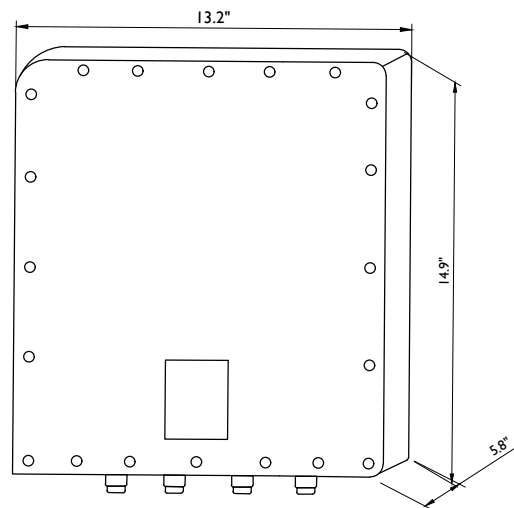
RRU MOUNTING DETAIL
NOT TO SCALE



NOTE:

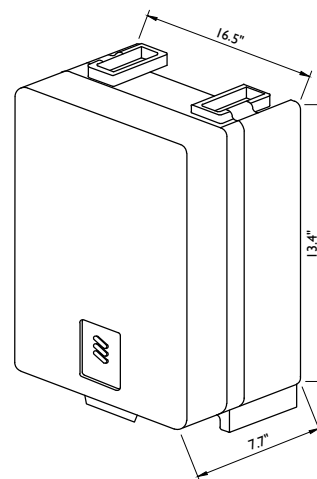
RRUS ARE TO BE INSTALLED A MINIMUM OF 8" FROM THE BACK OF THE ANTENNAS

ANTENNA MOUNTING DETAIL
NOT TO SCALE



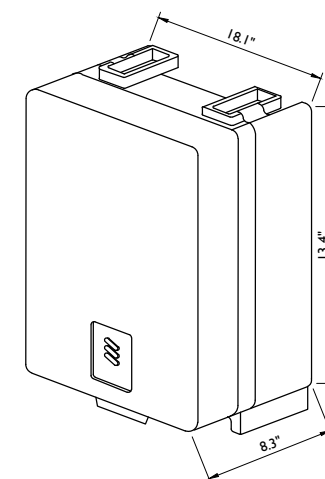
RRUS 4426 B66 DIMENSIONS (H X W X D): 14.9" X 13.2" X 5.9" (INCLUDES SUNSHIELD) WEIGHT: 48 LBS

RRUS 4426 B66 DETAIL
NOT TO SCALE



DIMENSIONS (H X W X D): 16.5"H X 13.4"W X 7.7"D (INCLUDES SUNSHIELD) WEIGHT: 59.9 LBS

RRU-4478-B5 DETAIL
NOT TO SCALE



DIMENSIONS (H X W X D): 18.1"H X 13.4"W X 8.3"D (INCLUDES SUNSHIELD) WEIGHT: 59.4 LBS

RRUS-B14 4478 DETAIL
NOT TO SCALE



SCALE:	JOB NUMBER:
AS SHOWN	18946023A

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4	3/25/19	REVISED PER COMMENTS	AJC	RA
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1	07/30/18	FOR CONSTRUCTION	AJC	RA
0	07/09/18	ISSUED	AJC	RA



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NEW HAVEN-WOODMONT
FA# 10035075
SITE# CTL02169
203 RESEARCH DRIVE
MILFORD, CT 06460
NEW HAVEN COUNTY

RED BANK OFFICE
331 Newnam Springs Road
Suite 203
Rd Bank NJ 07701-5699
Phone: 732.383.1950
Fax: 732.383.1984
email: solutions@maserconsulting.com

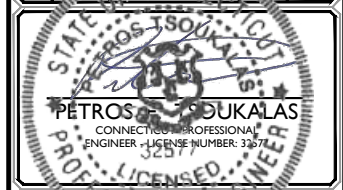
SHEET TITLE:
CONSTRUCTION DETAILS

SHEET NUMBER:
A-1

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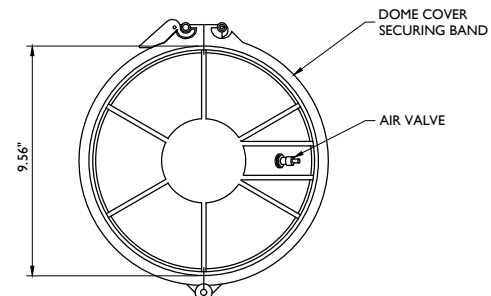


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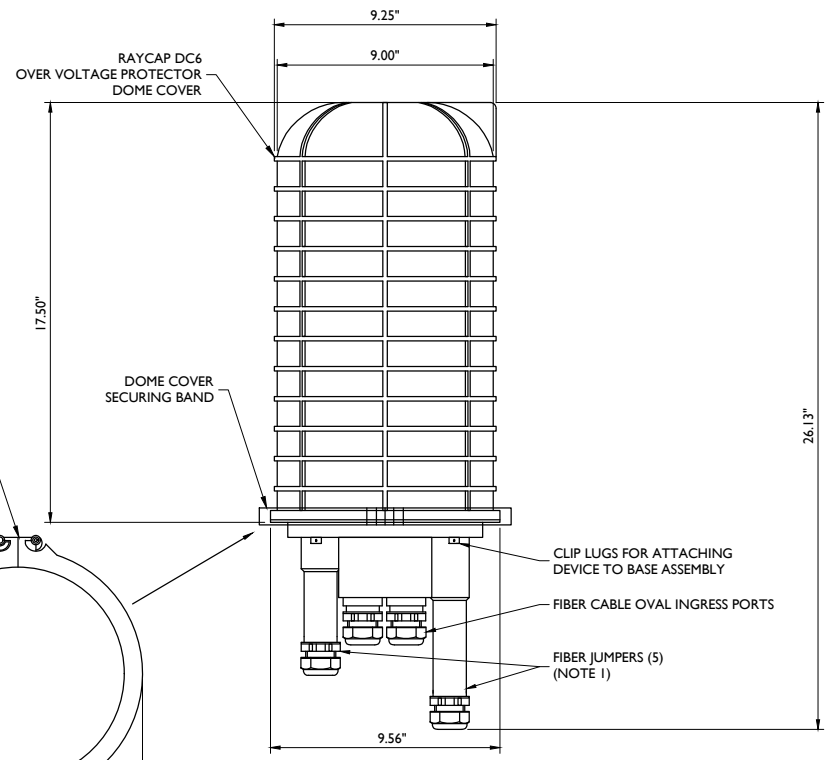
SITE NAME:
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 FA# 10035075
 SITE# CTL02169
 203 RESEARCH DRIVE
 MILFORD, CT 06460
 NEW HAVEN COUNTY

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 email: solutions@maserconsulting.com

SHEET TITLE:
CONSTRUCTION DETAILS
 SHEET NUMBER:
A-2

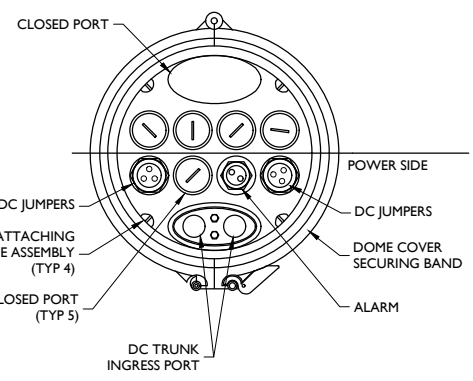


TOP VIEW

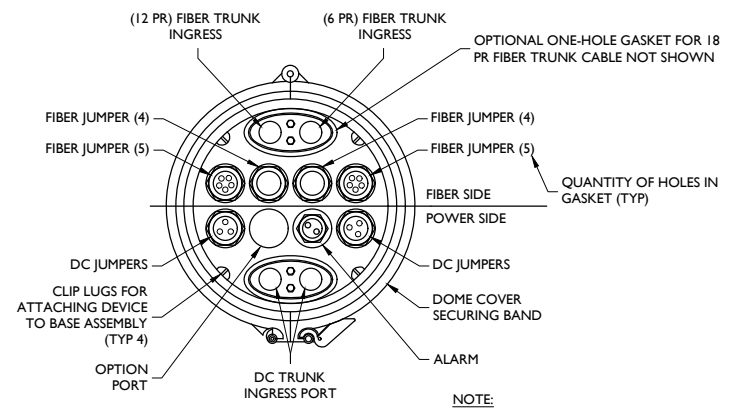


SIDE VIEW
 DC6-48-60-18-8C

WEIGHT = 32.8lbs (EACH)



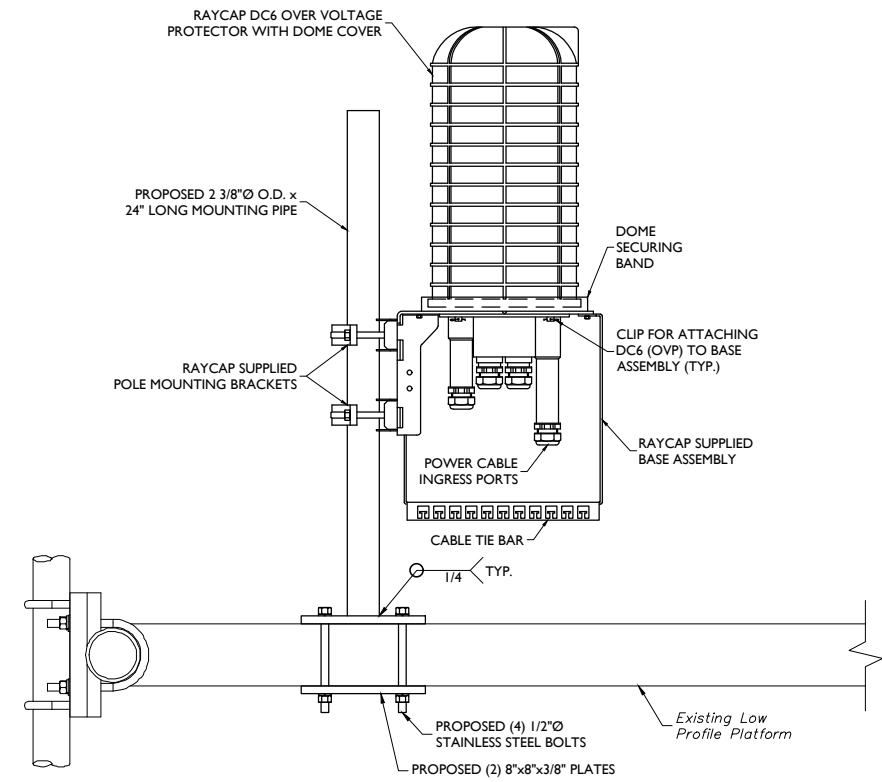
BOTTOM VIEW
 DC6-48-60-18-8C



BOTTOM VIEW
 DC6-48-60-18-8C

NOTE:
 REMOVE CABLE SEALING GLAND AND INSTALL M32x1.5 METRIC-TO-1" NPT ADAPTER (COOPER CROUSE-HINES P/N CAP 740 994 OR EQUIVALENT MFR) WHEN CONNECTING CONDUIT TO OVP.

DC6 SURGE SUPPRESSION DOME
 NOT TO SCALE



NOTES:
 RAYCAP VIA AT&T SUPPLIES THE DC6 OVER VOLTAGE PROTECTOR AND PIPE MOUNTING BRACKETS. SUBCONTRACTOR SHALL SUPPLY THE PIPE.

DC6 SURGE SUPPRESSION DOME
ANTENNA PLATFORM MOUNT ASSEMBLY
 NOT TO SCALE

140811003075_CTL02169_CD_Rev 0.dwg-A-2 By: ACDA



SCALE: AS SHOWN JOB NUMBER: 18946023A

REV	DATE	DESCRIPTION	DRAWN BY	CHECKED BY
4	3/25/19	REVISED PER COMMENTS	AJC	RA
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FA# 10035075
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NEW HAVEN COUNTY

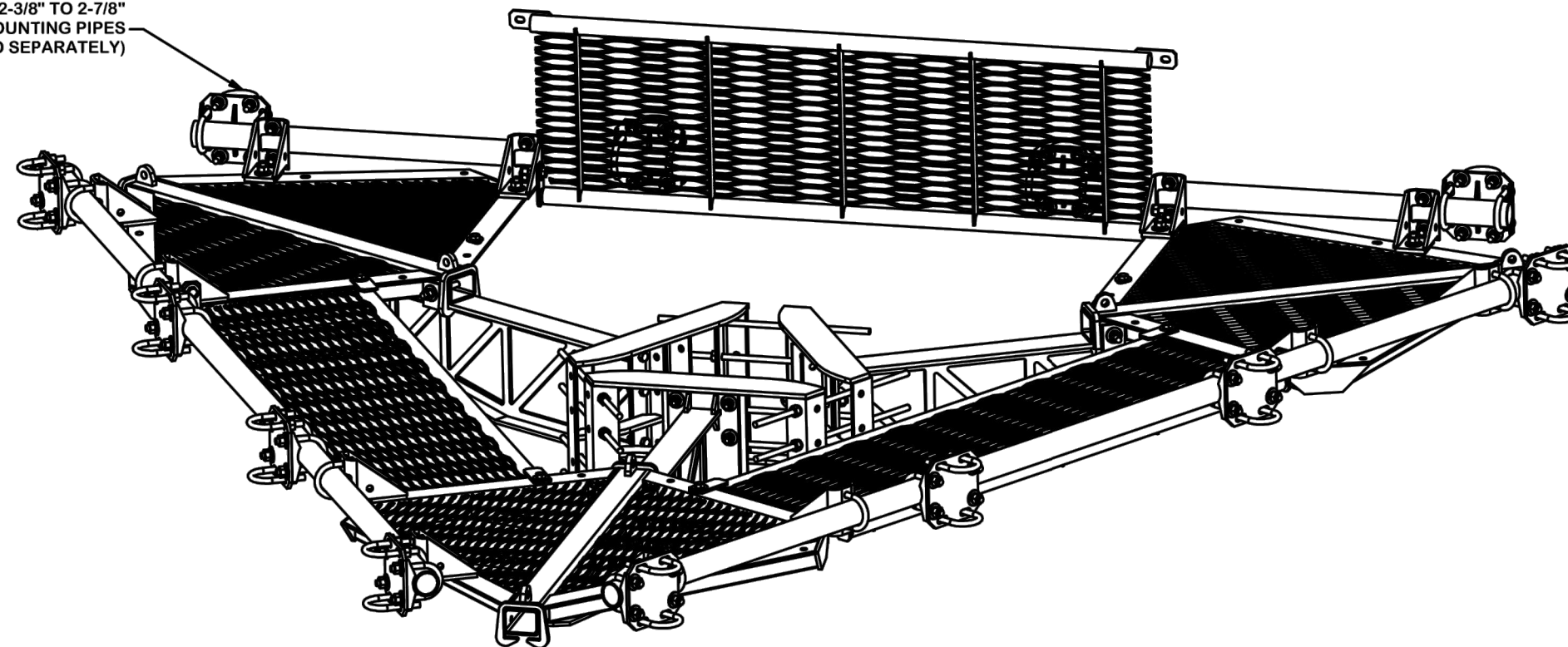
RED BANK OFFICE
331 Newman Springs Road
Suite 203
Rd Bank NJ 07701-5699
Phone: 732.383.1950
Fax: 732.383.1984
email: solutions@maserconsulting.com

SHEET TITLE:
CONSTRUCTION DETAILS

SHEET NUMBER:
A-3

PARTS LIST						
ITEM	QTY	PART NO.	PART DESCRIPTION	LENGTH	UNIT WT.	NET WT.
1	3	X-LPP-CW	LOW PROFILE PLATFORM CORNER WELDMENT		198.75	596.26
2	3	X-LPP-SA12	SIDE ARM WELDMENT FOR 12' LOW PROFILE PLATFORMS		119.21	357.63
3	3	X-RM3HD	WELDMENT FOR 3-SIDED HEAVY DUTY RING MOUNT		84.42	253.25
4	3	X-LPP-W12	WALKWAY FOR 12' LOW PROFILE PLATFORM		86.48	259.44
5	12	X-LPP-PC	FACE PIPE CONNECTION BRACKET FORTRESS PLATFORM		7.01	84.11
6	12	X-SCX3-FR	FORTRESS CROSSOVER PLATE		6.61	79.37
7	12	X-LPP-A7	CORNER WELDMENT ATTACHMENT ANGLE	2 1/2 in	1.27	15.25
8	6	X-LPP-H	HINGE FOR LOW PROFILE PLATFORM WALKWAY		2.78	16.66
9	3	P30150	2-7/8" X 150" (2-1/2" SCH. 40) GALVANIZED PIPE	150 in	76.94	230.81
10	12	G58R-48	5/8" x 48" THREADED ROD (HDG.)	48 in	0.40	4.79
10	12	G58R-24	5/8" x 24" THREADED ROD (HDG.)	24 in	0.40	4.79
11	6	G58R-8	5/8" x 8" THREADED ROD (HDG.)		0.70	4.18
12	48	X-UB5300	5/8" X 3" X 5-1/4" X 2-1/2" U-BOLT (HDG.)		1.15	55.17
13	24	X-UB5258	5/8" X 2-5/8" X 4-1/2" X 2" U-BOLT (HDG.)		1.00	24.00
14	12	X-UB5304	5/8" X 3" X 4-1/4" X 2-1/2" U-BOLT (HDG.)		0.98	11.70
15	48	G58214	5/8" x 2-1/4" HDG HEX BOLT GR5		0.29	13.99
16	186	G58FW	5/8" HDG USS FLATWASHER	1/8 in	0.07	13.11
17	204	G58LW	5/8" HDG LOCKWASHER		0.03	5.32
18	204	G58NUT	5/8" HDG HEAVY 2H HEX NUT		0.13	26.50
TOTAL WT. #						2122.03

2-3/8" TO 2-7/8"
ANTENNA MOUNTING PIPES
(ORDERED SEPARATELY)



TOLERANCE NOTES

TOLERANCES ON DIMENSIONS, UNLESS OTHERWISE NOTED ARE:
SAWED, SHEARED AND GAS CUT EDGES ($\pm 0.030"$)
DRILLED AND GAS CUT HOLES ($\pm 0.030"$) - NO CONING OF HOLES
LASER CUT EDGES AND HOLES ($\pm 0.010"$) - NO CONING OF HOLES
BENDS ARE $\pm 1/2$ DEGREE
ALL OTHER MACHINING ($\pm 0.030"$)
ALL OTHER ASSEMBLY ($\pm 0.060"$)

PROPRIETARY NOTE:
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DESCRIPTION
**12' FORTRESS™
TRI-PLATFORM MOUNT
WITH WALKWAYS**

CPD NO.	DRAWN BY	ENG. APPROVAL
	CEK 8/8/2017	
CLASS	DRAWING USAGE	CHECKED BY
81	CUSTOMER	BMC 8/30/2017

SITE PRO 1
Engineering Support Team:
1-888-753-7446
Locations:
New York, NY
Atlanta, GA
Los Angeles, CA
Plymouth, IN
Salem, OR
Dallas, TX
A valmont COMPANY

PART NO. **F3P-12W**
DWG. NO. **F3P-12W**

PAGE
1 OF 4



SCALE: AS SHOWN JOB NUMBER: 18946023A

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0	07/09/18	ISSUED	AJC	RA



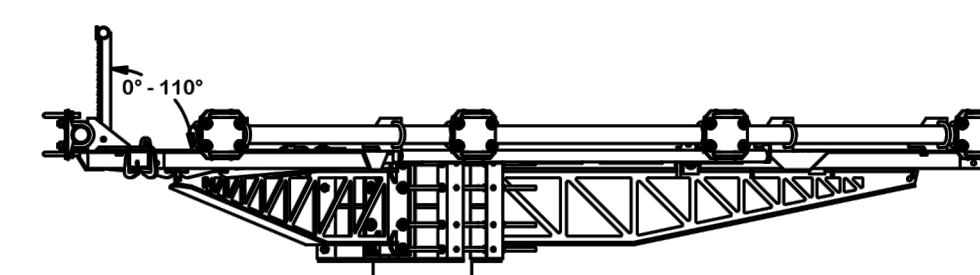
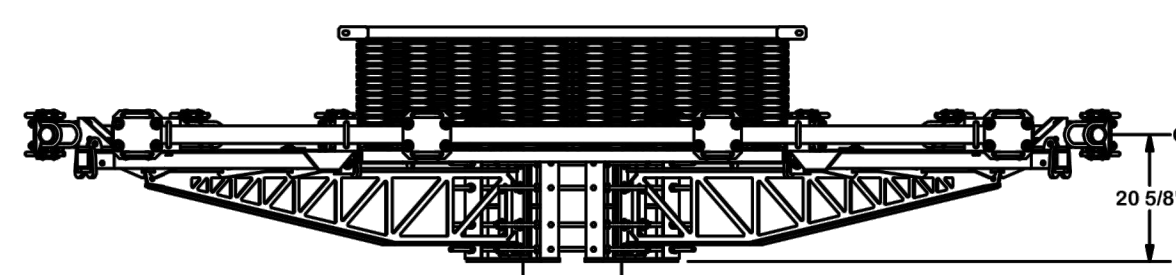
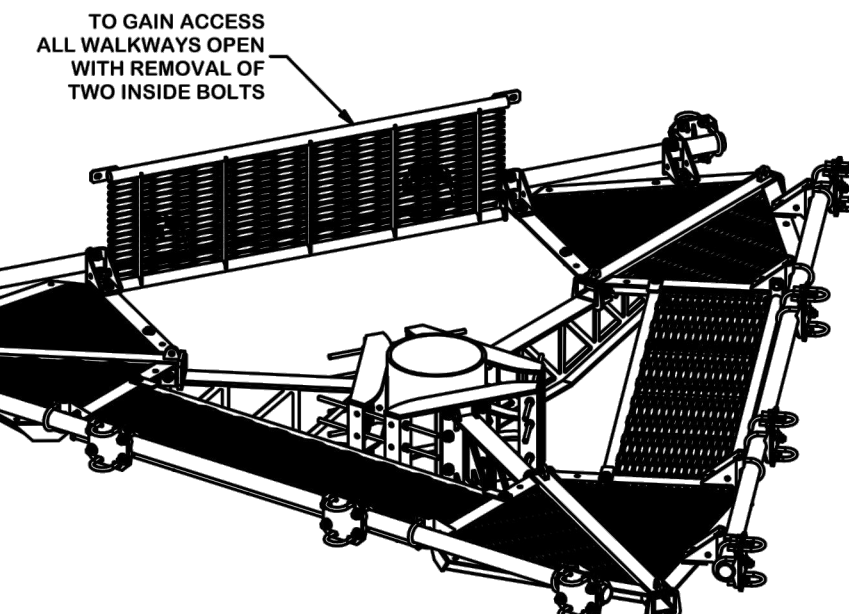
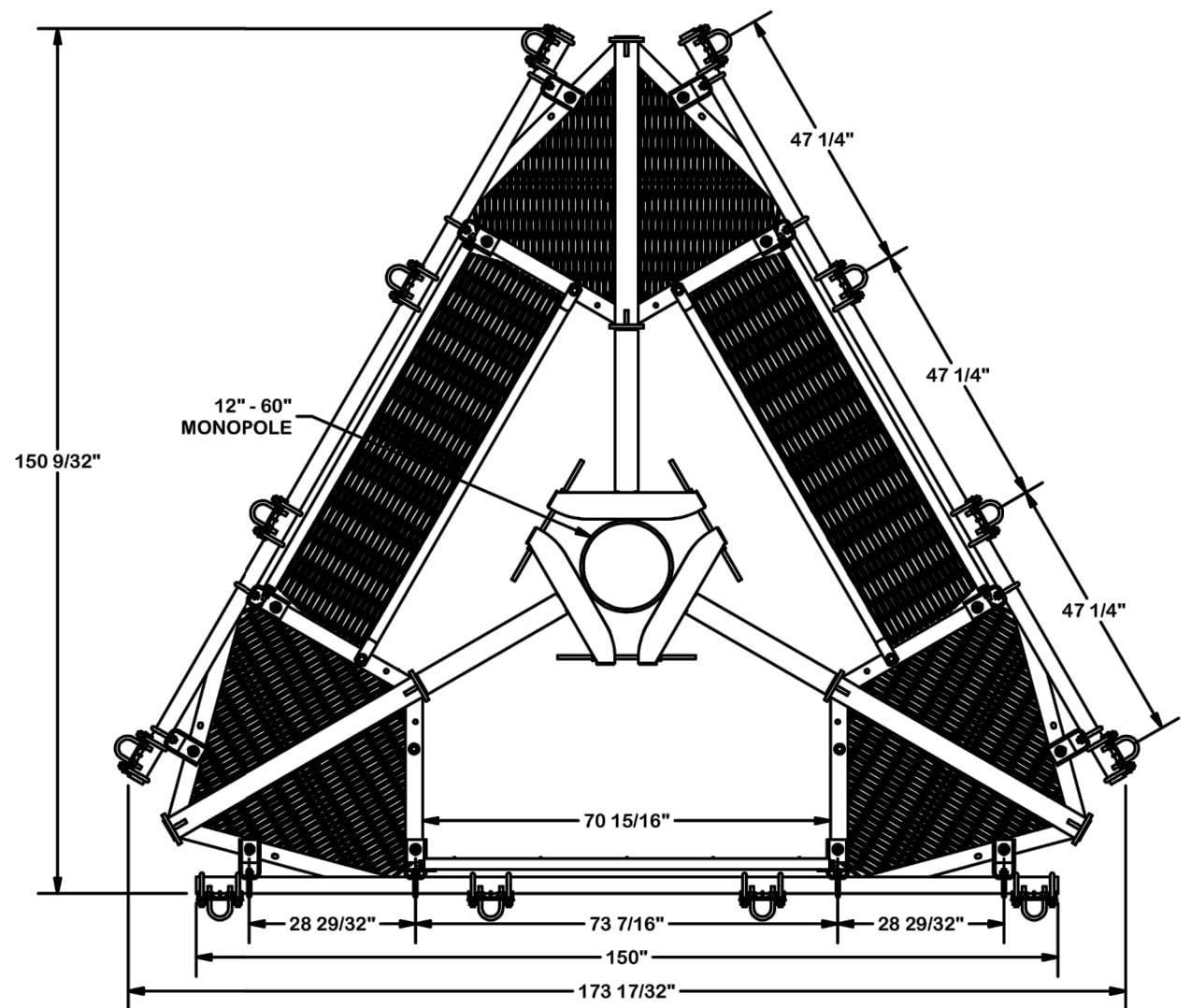
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NEW HAVEN-WOODMONT
FA# 10035075
SITE# CTL02169
203 RESEARCH DRIVE
MILFORD, CT 06460
NEW HAVEN COUNTY

RED BANK OFFICE
331 Newman Springs Road
Suite 203
Rd Bank, NJ 07701-5699
Phone: 732.383.1950
Fax: 732.383.1984
email: solutions@maserconsulting.com

SHEET TITLE:
CONSTRUCTION DETAILS

SHEET NUMBER:
A-4



TOLERANCE NOTES
TOLERANCES ON DIMENSIONS, UNLESS OTHERWISE NOTED ARE:
SAWED, SHEARED AND GAS CUT EDGES ($\pm 0.030''$)
DRILLED AND GAS CUT HOLES ($\pm 0.030''$) - NO CONING OF HOLES
LASER CUT EDGES AND HOLES ($\pm 0.010''$) - NO CONING OF HOLES
BENDS ARE $\pm 1/2$ DEGREE
ALL OTHER MACHINING ($\pm 0.030''$)
ALL OTHER ASSEMBLY ($\pm 0.060''$)

PROPRIETARY NOTE:
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DESCRIPTION		CPD NO.		DRAWN BY		ENG. APPROVAL	
12' FORTRESS™ TRI-PLATFORM MOUNT WITH WALKWAYS		81	02	CEK	8/8/2017	BMC	8/30/2017
CLASS		SUB		DRAWING USAGE		CHECKED BY	
81		02		CUSTOMER		BMC 8/30/2017	

SITE PRO 1
A valmont COMPANY

Engineering Support Team:
1-888-753-7446

Locations:
New York, NY
Atlanta, GA
Los Angeles, CA
Plymouth, IN
Salem, OR
Dallas, TX

PART NO. **F3P-12W**
DWG. NO. **F3P-12W**

PAGE 2 OF 4



SCALE:	AS SHOWN	JOB NUMBER:	18946023A
REV	DATE	DESCRIPTION	DRAWN BY / CHECKED BY
4	3/25/19	REVISED PER COMMENTS	AJC RA
3	3/7/19	ISSUED FOR REVIEW	AJC RA
2	09/10/18	REVISED PER COMMENTS	AJC RA
1	07/30/18	FOR CONSTRUCTION	AJC RA
0	07/09/18	ISSUED FOR REVIEW	AJC RA



IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE REGISTERED UNDER THE DIVISION OF THE RESPONSIBLE ENGINEERING PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

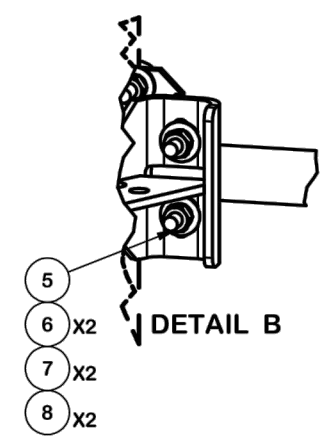
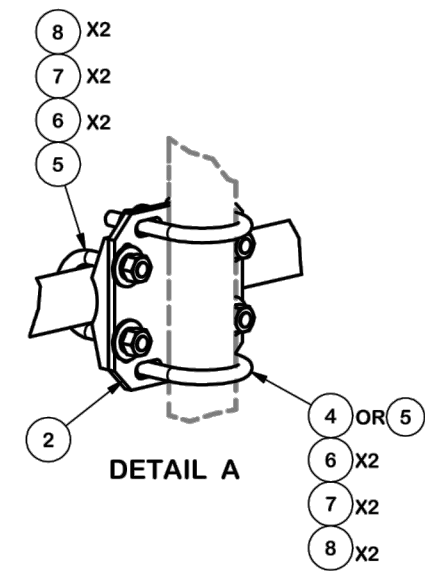
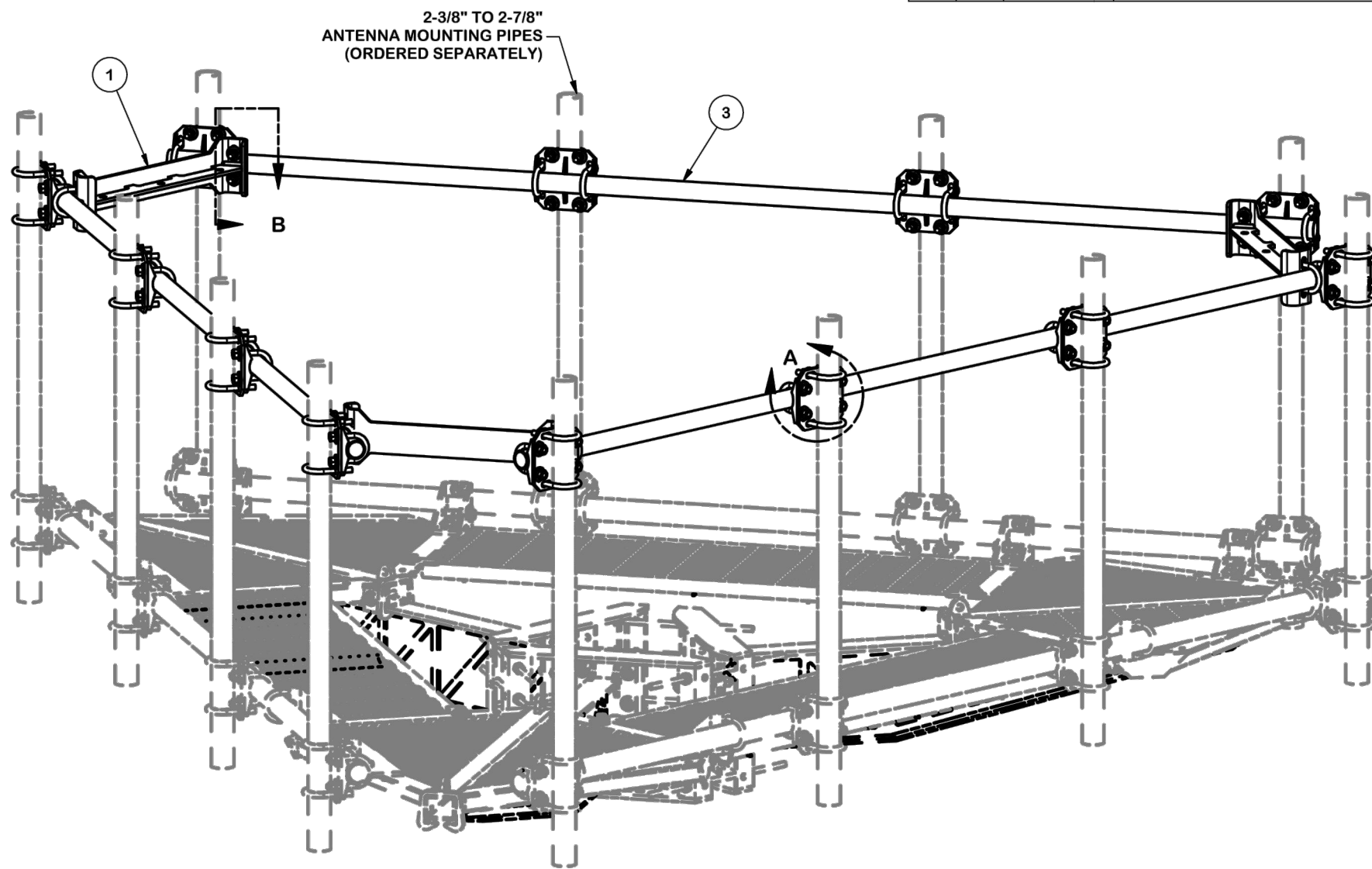
SITE NAME:
NEW HAVEN-WOODMONT
FA# 10035075
SITE# CTL02169
203 RESEARCH DRIVE
MILFORD, CT 06460
NEW HAVEN COUNTY

RED BANK OFFICE
331 Newnam Springs Road
Suite 203
Rd Bank NJ 07701-5699
Phone: 732.383.1950
Fax: 732.383.1984
email: solutions@maserconsulting.com

SHEET TITLE:
CONSTRUCTION DETAILS

SHEET NUMBER:
A-5

PARTS LIST						
ITEM	QTY	PART NO.	PART DESCRIPTION	LENGTH	UNIT WT.	NET WT.
1	3	X-F3PHRW	CORNER WELDMENT FOR 3-SIDED FORTRESS PLATFORM HANDRAIL KITS		27.72	83.15
2	12	X-SCX3-FR	FORTRESS CROSSOVER PLATE		6.61	79.37
3	3	P2150	2-3/8" O.D. X 150" SCH 40 GALVANIZED PIPE	150 in	45.77	137.31
4	24	X-UB5300	5/8" X 3" X 5-1/4" X 2-1/2" U-BOLT (HDG.)		1.15	27.59
5	54	X-UB5258	5/8" X 2-5/8" X 4-1/2" X 2" U-BOLT (HDG.)		1.00	54.01
6	108	G58FW	5/8" HDG USS FLATWASHER	1/8 in	0.07	7.61
7	108	G58LW	5/8" HDG LOCKWASHER		0.03	2.82
8	108	G58NUT	5/8" HDG HEAVY 2H HEX NUT		0.13	14.03
TOTAL WT. #						405.87



TOLERANCE NOTES
TOLERANCES ON DIMENSIONS, UNLESS OTHERWISE NOTED ARE:
SAWED, SHEARED AND GAS CUT EDGES ($\pm 0.030"$)
DRILLED AND GAS CUT HOLES ($\pm 0.030"$) - NO CONING OF HOLES
LASER CUT EDGES AND HOLES ($\pm 0.010"$) - NO CONING OF HOLES
BENDS ARE $\pm 1/2$ DEGREE
ALL OTHER MACHINING ($\pm 0.030"$)
ALL OTHER ASSEMBLY ($\pm 0.060"$)

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DESCRIPTION HANDRAIL KIT FOR 12' FORTRESS™ PLATFORM			
CPD NO.	DRAWN BY CEK 8/29/2017	ENG. APPROVAL	
CLASS 81	SUB 02	DRAWING USAGE CUSTOMER	CHECKED BY BMC 9/14/2017

SITE PRO 1
A valmont COMPANY

Engineering Support Team:
1-888-753-7446

Locations:
New York, NY
Atlanta, GA
Los Angeles, CA
Plymouth, IN
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Dallas, TX

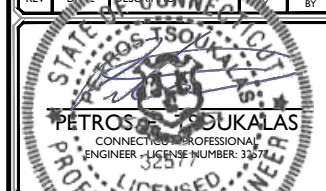
PART NO. **F3P-HRK12**

DWG. NO. **F3P-HRK12**

PAGE
1 OF 2



SCALE:	AS SHOWN	JOB NUMBER:	18946023A
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1	07/30/18	FOR CONSTRUCTION	AJC RA
0	07/09/18	ISSUED FOR PERMIT	AJC RA

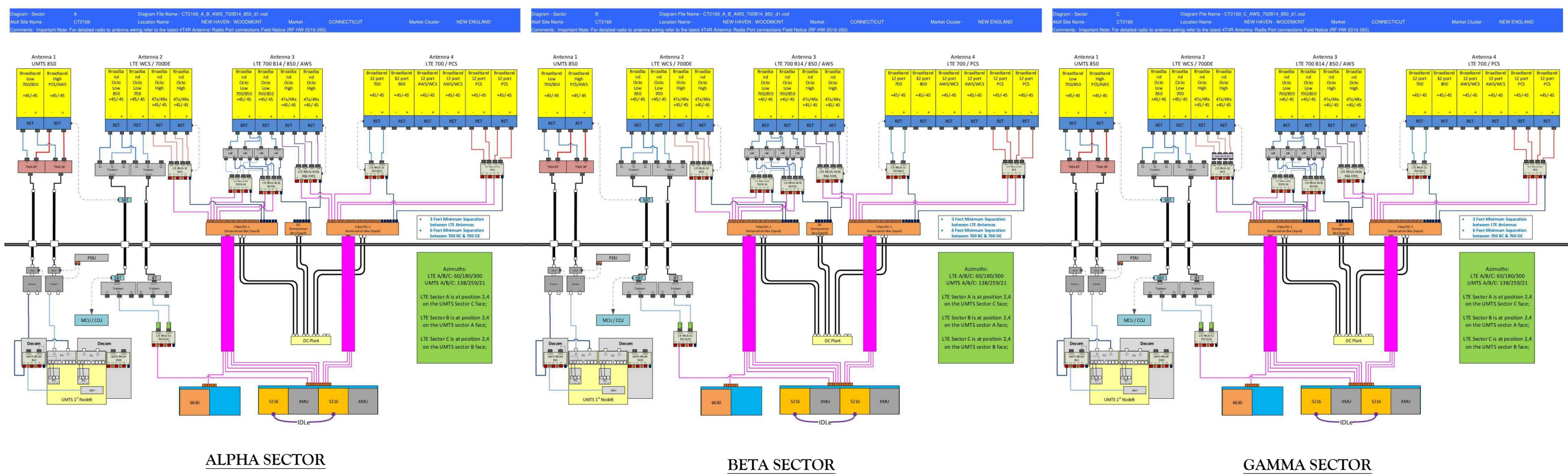


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SITE NAME:
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Fax: 732.383.1984
email: solutions@maserconsulting.com

SHEET TITLE:
PLUMBING DIAGRAM
SHEET NUMBER:
A-6



BASED ON: RF ENGINEERING DESIGN ENTITLED "NEW-ENGLAND_CONNECTICUT_CT2169_2019-LTE-Next-Carrier_LTE_mr673a_2051A0GHBR_10035075_61189_03-29-2018_Final-Approved_v2.00", LAST REVISED 06/13/2018.

RF PLUMBING DIAGRAMS

VP:mas, 10481003075, CT2169_CD_Rev.0.mxd, 4/4

