



MJ Umali, Site Acquisition Consultant
c/o Cellco Partnership d/b/a Verizon Wireless
Centerline Communications, LLC
750 West Center Street, Floor 3
West Bridgewater, MA 02379
Mobile: (978) 568-7906
MUmali@centerlinecommunications.com

August 16, 2021

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

**RE: Notice of Exempt Modification // Site: MOHAWK MTN CT (ATC: 88009)
35 Toomey Road, Cornwall, CT 06759
N 41.8213 // W 72.2964**

Dear Ms. Bachman:

Alltel Communications, LLC. d/b/a Verizon Wireless currently maintains 18 antennas at the 46-ft level on the existing 65-foot monopole tower, located at 35 Toomey Road, Cornwall, CT. The tower is owned by American Tower. The state of Connecticut and American Tower are the property owners. Verizon Wireless now intends to remove 8 antennas, install 3 new ones, and relocated 2 antennas for the LTE (3700 MHz) replacements for its 5G upgrade. Additionally, Verizon Wireless will remove 12 Remote Radio Heads (RRHs) and replace them with 6 new ones; install 4 Diplexers, relocate 5 Mount Pipes and 1 Dual Antenna Mounting bracket; altogether updating leased equipment rights, as reflected by the final configuration outlined in the structural analysis and proposed hereby.

Please accept this letter as notification pursuant to Regulations of Connecticut State Agencies §16-50j-73, for construction that constitutes an exempt modification pursuant to R.C.S.A. § 16-50j-72(b)(2). In accordance with R.C.S.A. § 16-50j-73, a copy of this letter is being sent to Gordon Ridgway, First Selectman of Cornwall, CT., Karen Nelson, Zoning Enforcement Officer & Clerk, American Tower, the tower owner, and the State of Connecticut, the property owner.

The planned modifications to the facility fall squarely within those activities explicitly provided for in R.C.S.A. § 16-50j-72(b)(2). Enclosed to accommodate this filing are construction drawings dated July 29, 2021, by CLS Engineering, PLLC., a structural analysis dated May 3, 2021, by A. T. Engineering Service, PLLC., and a structural mount analysis by Maser Consulting Connecticut dated June 17, 2021, and radio frequency (RF) analysis table showing worst-case RF emission calculation by Verizon Wireless RF Design Engineering.

1. The proposed modifications will not result in an increase in the height of the existing structure.
2. The proposed modifications will not require the extension of the site boundary.
3. The proposed modifications will not increase noise levels at the facility by six decibels or more, or to levels that exceed state and local criteria.
4. The operation of the new antennas will not increase radio frequency emissions at the facility to a level at or above the Federal Communications Commission safety standard.
5. The proposed modifications will not cause a change or alteration in the physical or environmental characteristics of the site.
6. The existing structure and its foundation can support the proposed loading, as shown in the attached structural analysis by A. T. Engineering Service, PLLC., dated May 3, 2021, and a structural mount analysis by Maser Consulting Connecticut, dated June 17, 2021, pursuant to certain conditions defined therein. Design and engineering are fully illustrated within final construction drawings, signed, and stamped dated July 29, 2021.

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

Sincerely,

MJ Umali

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Attachments

cc: Gordon Ridgway, First Selectman of Cornwall, CT - as chief elected official
Karen Nelson, Zoning Enforcement Officer & Clerk - as P&Z official
American Tower Corporation – as the tower owner
State of CT – as the Property Owner

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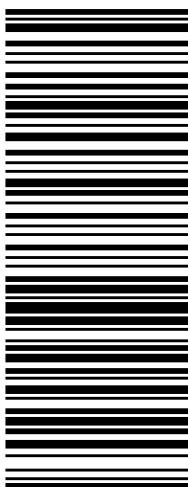

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<p style="text-align: right;">1 OF 1</p> <p style="text-align: center;">1 LBS</p> <p>MJ UMALI 9785687906 CENTERLINE COMMUNICATIONS, LLC 750 WEST CENTER STREET WEST BRIDGEWATER MA 02379</p> <p>SHIP TO: GORDON RIDGWAY FIRST SELECTMAN OF CORNWALL, CT 26 PINE STREET CORNWALL TOWN HALL CORNWALL CT 06753-1014</p>	<p style="font-size: 2em;">CT 067 9-02</p> 	<p style="font-size: 1.5em;">UPS GROUND</p> <p>TRACKING #: 1Z 9Y4 503 03 1303 2624</p> 	<p style="text-align: center;">BILLING: P/P</p> <p>Reference # 1: 88009 Reference # 2: Cornwall CT <small>CS22.0*18. WNTNV50 32.DA 08/2021*</small></p> 
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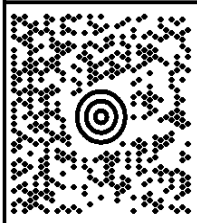


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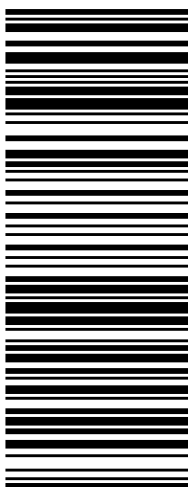

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<p style="text-align: right;">1 OF 1</p> <p style="text-align: right;">5 LBS</p> <p>SHIP TO: MJ UMALT 9785687906 CENTERLINE COMMUNICATIONS, LLC 750 WEST CENTER STREET WEST BRIDGEWATER MA 02379</p> <p>LAND MANAGEMENT 7814287250 AMERICAN TOWER CORPORATION 10 PRESIDENTIAL WAY WOBURN MA 01801-1053</p>	<p style="font-size: 2em;">MA 018 9-04</p> 	<p style="font-size: 1.5em;">UPS GROUND</p> <p>TRACKING #: 1Z 9Y4 503 03 0742 7577</p> 	<p style="text-align: center;">BILLING: P/P</p> <p style="text-align: center;">Reference # 1: ATC CSC Hard Copies</p> <p style="text-align: center; font-size: 0.8em;">CS 22.0.18. WNTNV50 32.0A 08/2021*</p> 
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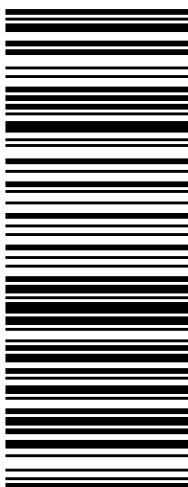

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AMERICAN TOWER®
CORPORATION

Structural Analysis Report

Structure : 65 ft Self Supported Tower
ATC Site Name : CORNWALL CT, CT
ATC Asset Number : 88009
Engineering Number : 13668803_C3_01
Proposed Carrier : ALLTEL COMMUNICATIONS, LLC
Carrier Site Name : MOHAWK MTN CT
Carrier Site Number : 468041
Site Location : 36 Toomey Rd.
Cornwall, CT 06759-4232
41.821300,-73.296400
County : Litchfield
Date : May 3, 2021
Max Usage : 68%
Result : Pass



Prepared By:
Lyle Morin
Structural Engineer I

Reviewed By:

COA: PEC.0001553



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Introduction

The purpose of this report is to summarize results of a structural analysis performed on the 65 ft self supported tower to reflect the change in loading by ALLTEL COMMUNICATIONS, LLC.

Supporting Documents

Tower Drawings	CSEI ATC Engineering #26472221, dated September 19, 2006
Foundation Drawing	TEP Project #74252-101870, dated November 22, 2016
Geotechnical Report	FDH Project #16PWAQ1600, dated November 30, 2016
Modifications	ATC Project #OAA687939_C6_07, dated November 6, 2017

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:	114 mph (3-Second Gust)
Basic Wind Speed w/ Ice:	40 mph (3-Second Gust) w/ 1" radial ice concurrent
Code:	ANSI/TIA-222-H / 2015 IBC / 2018 Connecticut State Building Code
Exposure Category:	B
Risk Category:	II
Topographic Factor Procedure:	Method 3
Topographic Category:	3
Crest Height (H):	214 ft
Spectral Response:	$S_s = 0.17$, $S_1 = 0.05$
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
75.0	1	Generic 12' Dipole	Leg	-	OTHER
74.0	1	Generic 18' Omni	Leg	(1) 7/8" Coax	US DEPT OF HOMELAND SECURITY
72.0	1	Generic 6' Omni	Leg	-	OTHER
69.0	3	Alcatel-Lucent RRH2x50-08	Side Arm	(4) 1 1/4" Hybriflex Cable	SPRINT NEXTEL
	3	Commscope DT465B-2XR			
	3	Alcatel-Lucent 800 MHz RRH			
	3	Alcatel-Lucent TD-RRH8x20-25 w/ Solar Shield			
	3	RFS APXVSP18-C-A20			
	3	Alcatel-Lucent RRH2x40 (700)			
65.0	3	Ericsson RRUS 4449 B5, B12	Platform with Handrails	(2) 0.39" (10mm) Fiber Trunk (4) 0.78" (19.7mm) 8 AWG 6 (12) 1 1/4" Coax	AT&T MOBILITY
	3	Ericsson RRUS 4478 B14			
	1	Raycap DC6-48-60-18-8F			
	6	Powerwave Allgon TT19-08BP111-001			
	1	Andrew ABT-DFDM-ADB			
	3	Ericsson RRUS 32 (50.8 lbs)			
	4	CCI DMP65R-BU6DA			
	2	CCI DMP65R-BU4D			
	3	Powerwave Allgon 7770.00A			
1	Raycap DC6-48-60-18				
63.0	1	Sinclair SV228-HF2SNM	Leg	(1) 7/8" Coax	US DEPT OF HOMELAND SECURITY
59.0	4	Generic 10' Dish w/ Radome	Platform with Handrails	-	OTHER
57.0	3	Ericsson RRUS 11 B4	Sector Frame	(3) 1 5/8" (1.63"-41.3mm) Fiber	T-MOBILE
	3	Ericsson Radio 4449 B12,B71			
	3	Ericsson RRUS 11 B2			
	3	RFS APX16DWV-16DWVS-E-A20			
	3	RFS APXVAARR24_43-U-NA20			
46.0	1	RFS DB-C1-12C-24AB-OZ	Platform with Handrails	(2) 1 5/8" (1.63"-41.3mm) Fiber (6) 1 5/8" Coax	ALLTEL COMMUNICATIONS, LLC
	6	Commscope JAHH-65B-R3B			
	4	Antel LPA-80063/6CF			

Equipment to be Removed

Elev. ¹ (ft)	Qty	Antenna	Mount Type	Lines	Carrier
46.0	3	Nokia B5 RRH4x40-850	-	-	ALLTEL COMMUNICATIONS, LLC
	3	Alcatel-Lucent B25 RRH4x30-4R			
	2	Antel LPA-80063/6CF			
	3	Alcatel-Lucent B66a RRH4x45 (AWS-3)			
	6	Andrew DB846F65ZAXY			
	3	Alcatel-Lucent B13 RRH4x30-4R			



Proposed Equipment

Elev. ¹ (ft)	Qty	Antenna	Mount Type	Lines	Carrier
46.0	1	Commscope CHB726-01	Platform with Handrails	-	ALLTEL COMMUNICATIONS, LLC
	3	Commscope CBC78T-DS-43-2X			
	3	Samsung B5/B13 RRH-BR04C			
	3	Samsung B2/B66A RRH-BR049			
	1	RFS DB-C1-12C-24AB-OZ			
	3	Samsung MT6407-77A			

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

Structure Usages

Structural Component	Controlling Usage	Pass/Fail
Legs	41%	Pass
Diagonals	68%	Pass
Horizontals	27%	Pass

Foundations

Reaction Component	Analysis Reactions	% of Usage
Moment (Kip-Ft)	2,387.0	29%
Axial (Kips)	97.4	3%
Total Shear (Kips)	51.7	15%

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, Twist and Sway*

Antenna Elevation (ft)	Antenna	Carrier	Deflection (ft)	Twist (°)	Sway (Rotation) (°)
63.0	Sinclair SV228-HF2SNM	US DEPT OF HOMELAND	0.253	1.495	0.565
59.0	Generic 10' Dish w/ Radome	Other	0.183	1.496	0.913
46.0	Commscope CHB726-01	ALLTEL COMMUNICATION	0.014	1.458	1.392
	Commscope CBC78T-DS-43-2X				
	Samsung B5/B13 RRH-BR04C				
	Samsung B2/B66A RRH-BR049				
	RFS DB-C1-12C-24AB-OZ				
	Samsung MT6407-77A				

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



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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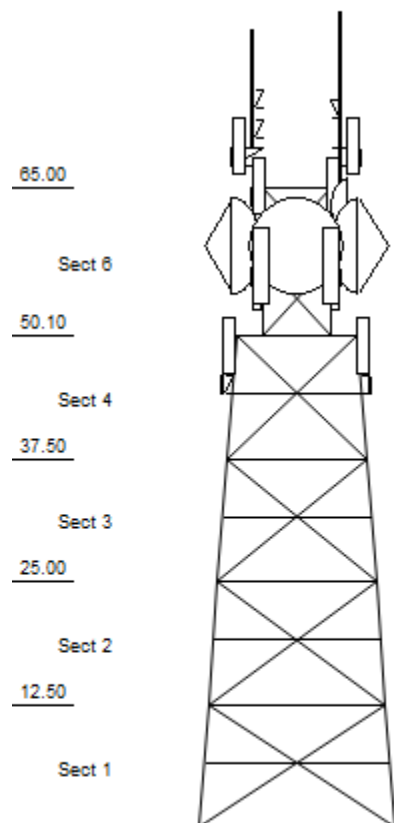
Loads: 114 mph no ice
 40 mph w/ 1" radial ice
 Site Class: D Ss: 0.17 S1: 0.05
 60 mph Serviceability

Job Information			
Client : ALLTEL COMMUNICATIONS, LLC			
Tower : 88009	Location : CORNWALL CT,	Base Width : 20.00 ft	
Code : ANSI/TIA-222-H	Topo Method: Method 3	Top Width : 7.00 ft	
Risk Cat : II	Topo: 3	Tower Ht : 65.00 ft	
	Exposure : B	Shape : Square	

Sections Properties				
Section	Leg Members		Diagonal Members	Horizontal Members
1 - 2	SAE 33 ksi	6X6X0.625	SAU 36 ksi 4X3X0.25	DAL 36 ksi 3X2.5X0.25
3	SAE 33 ksi	6X6X0.5	SAU 36 ksi 3.5X3X0.25	DAL 36 ksi 3.5X3X0.3125
4	SAE 33 ksi	6X6X0.5	SAE 36 ksi 3.5x3.5x0.25	DAL 36 ksi 3.5X3X0.3125
5	SAE 33 ksi	6X6X0.5		
6	SAE 33 ksi	6X6X0.5	SAU 36 ksi 3X2X0.25	DAL 36 ksi 2.5X2X0.25

Redundant Secondary Bracing						
Section	Sub Diag 1	Sub Horiz 1	Sub Diag 2	Sub Horiz 2	Sub Diag 3	Sub Horiz 3
1 - 2	-	S3X2.5X0.25	-	-	-	-
3	-	CC6 x 8.2	-	-	-	-
4	-	S2.5X2X0.25	-	-	-	-
5 - 6	-	-	-	-	-	-

Discrete Appurtenance			
Elev (ft)	Type	Qty	Description
75.00	Whip	1	Generic 12' Dipole
74.00	Whip	1	Generic 18' Omni
72.00	Whip	1	Generic 6' Omni
69.00	Straight Arm	6	Generic Flat Side Arm
69.00	Panel	3	Commscope DT465B-2XR
69.00	Panel	3	RFS APXVSP18-C-A20
69.00		3	Alcatel-Lucent TD-RRH8x20-25 w
69.00		3	Alcatel-Lucent 800 MHz RRH
69.00		3	Alcatel-Lucent RRH2x40 (700)
69.00		3	Alcatel-Lucent RRH2x50-08
65.00	Other	1	Fire Warden Cabin
65.00	Panel	4	CCI DMP65R-BU6DA
65.00	Panel	2	CCI DMP65R-BU4D
65.00	Panel	3	Powerwave Allgon 7770.00A
65.00		1	Raycap DC6-48-60-18
65.00		3	Ericsson RRUS 32 (50.8 lbs)
65.00		3	Ericsson RRUS 4449 B5, B12
65.00		3	Ericsson RRUS 4478 B14
65.00		1	Raycap DC6-48-60-18-8F
65.00		6	Powerwave Allgon TT19-08BP111-
65.00		1	Andrew ABT-DFDM-ADB
63.00	Dish	1	Sinclair SV228-HF2SNM
62.00	Platform	1	Platform with Handrails
59.00	Dish	4	Generic 10' Dish w/ Radome
57.00	Panel	3	RFS APXVAARR24_43-U-NA20
57.00	Panel	3	RFS APX16DWV-16DWVS-E-A20
57.00		3	Ericsson RRUS 11 B2
57.00		3	Ericsson RRUS 11 B4
57.00		3	Ericsson Radio 4449 B12,B71
56.00	Mounting Frame	3	Site Pro TPF123XX
50.00	Platform	1	Platform w/ Handrails
46.00	Panel	4	Antel LPA-80063/6CF
46.00	Panel	6	Commscope JAHH-65B-R3B
46.00	Panel	3	Samsung MT6407-77A
46.00		1	RFS DB-C1-12C-24AB-0Z
46.00		1	RFS DB-C1-12C-24AB-0Z
46.00		3	Samsung B2/B66A RRH-BR049
46.00		3	Samsung B5/B13 RRH-BR04C
46.00		3	Commscope CBC78T-DS-43-2X



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Job Information		
Client : ALLTEL COMMUNICATIONS, LLC		
Tower : 88009	Location : CORNWALL CT,	Base Width : 20.00 ft
Code : ANSI/TIA-222-H	Topo Method: Method 3	Top Width : 7.00 ft
Risk Cat : II	Topo: 3	Tower Ht : 65.00 ft
	Exposure : B	Shape : Square

46.00	1	Commscope CHB726-01
37.50 Platform	1	Access Platform

Linear Appurtenance			
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Elev (ft)			
From	To	Qty	Description
0.00	74.00	1	7/8" Coax
0.00	69.00	4	1 1/4" Hybriflex Cab
0.00	67.00	1	Waveguide
0.00	67.00	1	Climbing Ladder
0.00	65.00	12	1 1/4" Coax
0.00	65.00	4	0.78" (19.7mm) 8 AWG
0.00	65.00	2	0.39" (10mm) Fiber T
0.00	63.00	1	7/8" Coax
0.00	57.00	3	1 5/8" (1.63"-41.3mm
0.00	56.00	1	Waveguide
0.00	46.00	6	1 5/8" Coax
0.00	46.00	2	1 5/8" (1.63"-41.3mm

Global Base Foundation Design Loads			
Load Case	Moment (k-ft)	Vertical (kip)	Horizontal (kip)
DL + WL	2,386.95	52.15	51.69
DL + WL + IL	552.13	114.31	11.51

Individual Base Foundation Design Loads		
Vertical (kip)	Uplift (kip)	Horizontal (kip)
97.44	74.54	21.67

Site Number: 88009

Code: ANSI/TIA-222-H

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Site Name: CORNWALL CT, CT

Engineering Number: 13668803_C3_01

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Customer: ALLTEL COMMUNICATIONS, LLC

Analysis Parameters

Location:	Litchfield County, CT	Height (ft):	65
Code:	ANSI/TIA-222-H	Base Elevation (ft):	0.00
Shape:	Square	Bottom Face Width (ft):	20.00
Tower Manufacturer:	CSEI	Top Face Width (ft):	7.00
Tower Type:	Self Support	Anchor Bolt Detail Type	c
Kd:	0.85		
Ke:	0.94		

Ice & Wind Parameters

Exposure Category:	B	Design Windspeed Without Ice:	114 mph
Risk Category:	II	Design Windspeed With Ice:	40 mph
Topographic Factor Procedure:	Method 3	Operational Windspeed:	60 mph
Topographic Category:	3	Design Ice Thickness:	1.00 in
Crest Height:	214 ft	HMSL:	1678.00 ft

Seismic Parameters

Analysis Method:	Equivalent Lateral Force Method		
Site Class:	D - Stiff Soil		
Period Based on Rayleigh Method (sec):	0.61		
T_L (sec):	6	p:	1.3
S_S :	0.173	S_1 :	0.054
F_a :	1.600	F_V :	2.400
S_{ds} :	0.185	S_{d1} :	0.086
		C_S :	0.047
		C_S, Max :	0.047
		C_S, Min :	0.030

Load Cases

1.2D + 1.0W Normal	114 mph Normal with No Ice
1.2D + 1.0W 45 deg	114 mph 45 degree with No Ice
0.9D + 1.0W Normal	114 mph Normal with No Ice (Reduced DL)
0.9D + 1.0W 45 deg	114 mph 45 deg with No Ice (Reduced DL)
1.2D + 1.0Di + 1.0Wi Normal	40 mph Normal with 1.00 in Radial Ice
1.2D + 1.0Di + 1.0Wi 45 deg	40 mph 45 deg with 1.00 in Radial Ice
1.2D + 1.0Ev + 1.0Eh Normal	Seismic Normal
1.2D + 1.0Ev + 1.0Eh 45 deg	Seismic 45 deg
0.9D - 1.0Ev + 1.0Eh Normal	Seismic (Reduced DL) Normal
0.9D - 1.0Ev + 1.0Eh 45 deg	Seismic (Reduced DL) 45 deg
1.0D + 1.0W Service Normal	Serviceability - 60 mph Wind Normal
1.0D + 1.0W Service 45 deg	Serviceability - 60 mph Wind 45 deg

Site Number: 88009

Code:

ANSI/TIA-222-H

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Site Name: CORNWALL CT, CT

Engineering Number: 13668803_C3_01

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Customer: ALLTEL COMMUNICATIONS, LLC

Tower Loading

Discrete Appurtenance Properties 1.2D + 1.0W

Elevation (ft)	Description	Qty	Wt. (lb)	EPA (sf)	Length (ft)	Width (in)	Depth (in)	K _a	Orient. Factor	Vert. Ecc.(ft)	M _u (lb-ft)	Q _z (psf)	F _a (WL) (lb)	P _a (DL) (lb)
75.00	Generic 12' Dipole	1	40	4.5	12.0	3.0	3.0	1.00	1.00	0.0	0.0	37.06	142	48
74.00	Generic 18' Omni	1	55	5.4	18.0	3.0	3.0	1.00	1.00	0.0	0.0	37.05	170	66
72.00	Generic 6' Omni	1	25	1.8	6.0	3.0	3.0	1.00	1.00	0.0	0.0	37.03	55	30
69.00	Alcatel-Lucent	3	53	1.7	1.3	13.0	9.8	0.80	0.50	0.0	0.0	36.99	64	190
69.00	Alcatel-Lucent	3	50	2.1	1.7	12.2	10.6	0.80	0.50	0.0	0.0	36.99	80	180
69.00	Alcatel-Lucent 800	3	53	2.1	1.6	13.0	10.8	0.80	0.50	0.0	0.0	36.99	81	191
69.00	Alcatel-Lucent TD-	3	70	4.0	2.2	18.6	6.7	0.80	0.61	0.0	0.0	36.99	186	252
69.00	Generic Flat Side	6	188	6.3	0.0	0.0	0.0	1.00	0.67	0.0	0.0	36.99	796	1350
69.00	RFS APXVSP18-C-	3	57	8.0	6.0	11.8	7.0	0.80	0.69	0.0	0.0	36.99	418	205
69.00	Commscope	3	58	9.1	6.0	13.8	8.2	0.80	0.69	0.0	0.0	36.99	474	209
65.00	Andrew ABT-DFDM-	1	1	0.0	0.3	1.7	1.6	0.75	1.00	2.0	2.1	36.95	1	1
65.00	Powerwave Allgon	6	16	0.6	0.8	6.7	5.4	0.75	0.50	2.0	78.2	36.95	39	115
65.00	Raycap DC6-48-60-	1	20	1.3	2.0	9.7	9.7	0.75	1.00	2.0	59.4	36.95	30	24
65.00	Ericsson RRUS 4478	3	60	1.8	1.4	13.4	7.7	0.75	0.50	0.0	0.0	36.92	65	216
65.00	Ericsson RRUS 4449	3	71	2.0	1.5	13.2	9.4	0.75	0.50	-4.0	277.3	36.82	69	256
65.00	Ericsson RRUS 32	3	51	2.7	2.2	12.1	6.7	0.75	0.50	2.0	190.3	36.95	95	183
65.00	Raycap DC6-48-60-	1	30	3.8	2.3	16.7	5.5	0.75	1.00	0.0	0.0	36.92	90	36
65.00	Powerwave Allgon	3	27	5.6	4.6	11.0	4.9	0.75	0.65	2.0	510.4	36.95	255	97
65.00	CCI DMP65R-BU4D	2	68	8.3	4.0	20.7	7.7	0.75	0.72	0.0	0.0	36.92	281	163
65.00	CCI DMP65R-BU6DA	4	79	12.7	5.9	20.7	7.7	0.75	0.63	0.0	0.0	36.92	754	381
65.00	Fire Warden Cabin	1	2000	150.0	0.0	0.0	0.0	1.00	1.00	0.0	0.0	36.92	4707	2400
63.00	Sinclair SV228-	1	93	15.8	6.0	116.0	62.0	1.00	1.00	0.0	0.0	36.87	496	112
62.00	Platform with	1	2000	27.2	0.0	0.0	0.0	1.00	1.00	0.0	0.0	36.85	852	2400
59.00	Generic 10' Dish w/	4	400	67.8	10.0	120.0	0.0	1.00	1.00	0.0	0.0	36.77	8476	1920
57.00	Ericsson Radio 4449	3	74	1.6	1.2	13.2	9.3	0.80	0.50	0.0	0.0	36.70	61	266
57.00	Ericsson RRUS 11 B4	3	51	2.8	1.6	17.0	7.2	0.80	0.50	-1.0	104.4	36.67	104	183
57.00	Ericsson RRUS 11 B2	3	51	2.8	1.6	17.0	7.2	0.80	0.50	-1.0	104.4	36.67	104	183
57.00	RFS APX16DWV-	3	41	6.6	4.7	13.3	3.1	0.80	0.60	-1.0	295.6	36.67	296	147
57.00	RFS	3	128	20.2	8.0	24.0	8.7	0.80	0.63	0.0	0.0	36.70	955	460
56.00	Site Pro TPF123XX	3	300	14.4	0.0	0.0	0.0	0.75	0.67	0.0	0.0	36.67	677	1080
50.00	Platform w/	1	5000	70.0	0.0	0.0	0.0	1.00	1.00	0.0	0.0	36.41	2166	6000
46.00	Commscope	1	10	0.4	0.6	7.1	3.4	0.75	1.00	0.0	0.0	36.18	10	12
46.00	Commscope	3	21	0.6	0.8	6.9	6.4	0.75	0.50	0.0	0.0	36.18	19	75
46.00	Samsung B5/B13	3	70	1.9	1.3	15.0	8.1	0.75	0.50	0.0	0.0	36.18	65	253
46.00	Samsung B2/B66A	3	84	1.9	1.3	15.0	10.0	0.75	0.50	0.0	0.0	36.18	65	304
46.00	RFS DB-C1-12C-	1	32	4.1	2.5	16.5	12.6	0.75	1.00	1.0	93.7	36.24	94	38
46.00	RFS DB-C1-12C-	1	32	4.1	2.5	16.5	12.6	0.75	1.00	1.0	93.7	36.24	94	38
46.00	Samsung MT6407-	3	82	4.7	2.9	16.1	5.5	0.75	0.61	0.0	0.0	36.18	199	294
46.00	Commscope JAHH-	6	61	9.1	6.0	13.8	8.2	0.75	0.69	1.0	871.6	36.24	872	436
46.00	Antel LPA-80063/6CF	4	27	9.6	5.9	15.0	13.1	0.75	0.76	0.0	0.0	36.18	673	130
37.50	Access Platform	1	5000	45.0	0.0	0.0	0.0	1.00	1.00	0.0	0.0	35.47	1357	6000
Totals		106	22436	1096.1									26485	26923

Discrete Appurtenance Properties 0.9D + 1.0W

Elevation (ft)	Description	Qty	Wt. (lb)	EPA (sf)	Length (ft)	Width (in)	Depth (in)	K _a	Orient. Factor	Vert. Ecc.(ft)	M _u (lb-ft)	Q _z (psf)	F _a (WL) (lb)	P _a (DL) (lb)
75.00	Generic 12' Dipole	1	40	4.5	12.0	3.0	3.0	1.00	1.00	0.0	0.0	37.06	142	36
74.00	Generic 18' Omni	1	55	5.4	18.0	3.0	3.0	1.00	1.00	0.0	0.0	37.05	170	50
72.00	Generic 6' Omni	1	25	1.8	6.0	3.0	3.0	1.00	1.00	0.0	0.0	37.03	55	23
69.00	Alcatel-Lucent	3	53	1.7	1.3	13.0	9.8	0.80	0.50	0.0	0.0	36.99	64	143
69.00	Alcatel-Lucent	3	50	2.1	1.7	12.2	10.6	0.80	0.50	0.0	0.0	36.99	80	135

Site Number: 88009

Code: ANSI/TIA-222-H

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Site Name: CORNWALL CT, CT

Engineering Number: 13668803_C3_01

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Customer: ALLTEL COMMUNICATIONS, LLC

Tower Loading

69.00	Alcatel-Lucent 800	3	53	2.1	1.6	13.0	10.8	0.80	0.50	0.0	0.0	36.99	81	143
69.00	Alcatel-Lucent TD-	3	70	4.0	2.2	18.6	6.7	0.80	0.61	0.0	0.0	36.99	186	189
69.00	Generic Flat Side	6	188	6.3	0.0	0.0	0.0	1.00	0.67	0.0	0.0	36.99	796	1013
69.00	RFS APXVSPP18-C-	3	57	8.0	6.0	11.8	7.0	0.80	0.69	0.0	0.0	36.99	418	154
69.00	Commscope	3	58	9.1	6.0	13.8	8.2	0.80	0.69	0.0	0.0	36.99	474	157
65.00	Andrew ABT-DFDM-	1	1	0.0	0.3	1.7	1.6	0.75	1.00	2.0	2.1	36.95	1	1
65.00	Powerwave Allgon	6	16	0.6	0.8	6.7	5.4	0.75	0.50	2.0	78.2	36.95	39	86
65.00	Raycap DC6-48-60-	1	20	1.3	2.0	9.7	9.7	0.75	1.00	2.0	59.4	36.95	30	18
65.00	Ericsson RRUS 4478	3	60	1.8	1.4	13.4	7.7	0.75	0.50	0.0	0.0	36.92	65	162
65.00	Ericsson RRUS 4449	3	71	2.0	1.5	13.2	9.4	0.75	0.50	-4.0	277.3	36.82	69	192
65.00	Ericsson RRUS 32	3	51	2.7	2.2	12.1	6.7	0.75	0.50	2.0	190.3	36.95	95	137
65.00	Raycap DC6-48-60-	1	30	3.8	2.3	16.7	5.5	0.75	1.00	0.0	0.0	36.92	90	27
65.00	Powerwave Allgon	3	27	5.6	4.6	11.0	4.9	0.75	0.65	2.0	510.4	36.95	255	73
65.00	CCI DMP65R-BU4D	2	68	8.3	4.0	20.7	7.7	0.75	0.72	0.0	0.0	36.92	281	122
65.00	CCI DMP65R-BU6DA	4	79	12.7	5.9	20.7	7.7	0.75	0.63	0.0	0.0	36.92	754	286
65.00	Fire Warden Cabin	1	2000	150.0	0.0	0.0	0.0	1.00	1.00	0.0	0.0	36.92	4707	1800
63.00	Sinclair SV228-	1	93	15.8	6.0	116.0	62.0	1.00	1.00	0.0	0.0	36.87	496	84
62.00	Platform with	1	2000	27.2	0.0	0.0	0.0	1.00	1.00	0.0	0.0	36.85	852	1800
59.00	Generic 10' Dish w/	4	400	67.8	10.0	120.0	0.0	1.00	1.00	0.0	0.0	36.77	8476	1440
57.00	Ericsson Radio 4449	3	74	1.6	1.2	13.2	9.3	0.80	0.50	0.0	0.0	36.70	61	200
57.00	Ericsson RRUS 11 B4	3	51	2.8	1.6	17.0	7.2	0.80	0.50	-1.0	104.4	36.67	104	137
57.00	Ericsson RRUS 11 B2	3	51	2.8	1.6	17.0	7.2	0.80	0.50	-1.0	104.4	36.67	104	137
57.00	RFS APX16DWV-	3	41	6.6	4.7	13.3	3.1	0.80	0.60	-1.0	295.6	36.67	296	110
57.00	RFS	3	128	20.2	8.0	24.0	8.7	0.80	0.63	0.0	0.0	36.70	955	345
56.00	Site Pro TPF123XX	3	300	14.4	0.0	0.0	0.0	0.75	0.67	0.0	0.0	36.67	677	810
50.00	Platform w/	1	5000	70.0	0.0	0.0	0.0	1.00	1.00	0.0	0.0	36.41	2166	4500
46.00	Commscope	1	10	0.4	0.6	7.1	3.4	0.75	1.00	0.0	0.0	36.18	10	9
46.00	Commscope	3	21	0.6	0.8	6.9	6.4	0.75	0.50	0.0	0.0	36.18	19	56
46.00	Samsung B5/B13	3	70	1.9	1.3	15.0	8.1	0.75	0.50	0.0	0.0	36.18	65	190
46.00	Samsung B2/B66A	3	84	1.9	1.3	15.0	10.0	0.75	0.50	0.0	0.0	36.18	65	228
46.00	RFS DB-C1-12C-	1	32	4.1	2.5	16.5	12.6	0.75	1.00	1.0	93.7	36.24	94	29
46.00	RFS DB-C1-12C-	1	32	4.1	2.5	16.5	12.6	0.75	1.00	1.0	93.7	36.24	94	29
46.00	Samsung MT6407-	3	82	4.7	2.9	16.1	5.5	0.75	0.61	0.0	0.0	36.18	199	220
46.00	Commscope JAHH-	6	61	9.1	6.0	13.8	8.2	0.75	0.69	1.0	871.6	36.24	872	327
46.00	Antel LPA-80063/6CF	4	27	9.6	5.9	15.0	13.1	0.75	0.76	0.0	0.0	36.18	673	97
37.50	Access Platform	1	5000	45.0	0.0	0.0	0.0	1.00	1.00	0.0	0.0	35.47	1357	4500
Totals		106	22436	1096.1									26485	20192

Discrete Appurtenance Properties 1.2D + 1.0Di + 1.0Wi

Elevation (ft)	Description	Qty	Ice Wt (lb)	Ice EPA (sf)	Length (ft)	Width (in)	Depth (in)	K _a	Orient. Factor	Vert. Ecc.(ft)	M _u (lb-ft)	Q _z (psf)	F _a (WL) (lb)	P _a (DL) (lb)
75.00	Generic 12' Dipole	1	137	9.7	12.0	3.0	3.0	1.00	1.00	0.0	0.0	4.56	38	145
74.00	Generic 18' Omni	1	154	10.1	18.0	3.0	3.0	1.00	1.00	0.0	0.0	4.56	39	165
72.00	Generic 6' Omni	1	59	2.7	6.0	3.0	3.0	1.00	1.00	0.0	0.0	4.56	10	64
69.00	Alcatel-Lucent	3	96	2.3	1.3	13.0	9.8	0.80	0.50	0.0	0.0	4.55	11	320
69.00	Alcatel-Lucent	3	104	2.8	1.7	12.2	10.6	0.80	0.50	0.0	0.0	4.55	13	341
69.00	Alcatel-Lucent 800	3	107	2.8	1.6	13.0	10.8	0.80	0.50	0.0	0.0	4.55	13	352
69.00	Alcatel-Lucent TD-	3	139	5.0	2.2	18.6	6.7	0.80	0.61	0.0	0.0	4.55	28	459
69.00	Generic Flat Side	6	285	8.6	0.0	0.0	0.0	1.00	0.67	0.0	0.0	4.55	133	1933
69.00	RFS APXVSPP18-C-	3	183	10.1	6.0	11.8	7.0	0.80	0.69	0.0	0.0	4.55	64	582
69.00	Commscope	3	205	11.1	6.0	13.8	8.2	0.80	0.69	0.0	0.0	4.55	71	651
65.00	Andrew ABT-DFDM-	1	3	0.2	0.3	1.7	1.6	0.75	1.00	2.0	1.0	4.55	0	3
65.00	Powerwave Allgon	6	31	0.9	0.8	6.7	5.4	0.75	0.50	2.0	16.1	4.55	8	204
65.00	Raycap DC6-48-60-	1	58	1.7	2.0	9.7	9.7	0.75	1.00	2.0	10.1	4.55	5	62
65.00	Ericsson RRUS 4478	3	100	2.5	1.4	13.4	7.7	0.75	0.50	0.0	0.0	4.54	11	337

Site Number: 88009

Code:

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Site Name: CORNWALL CT, CT

Engineering Number: 13668803_C3_01

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Customer: ALLTEL COMMUNICATIONS, LLC

Tower Loading

65.00	Ericsson RRUS 4449	3	118	2.6	1.5	13.2	9.4	0.75	0.50	-4.0	45.9	4.53	11	397
65.00	Ericsson RRUS 32	3	103	3.5	2.2	12.1	6.7	0.75	0.50	2.0	30.8	4.55	15	339
65.00	Raycap DC6-48-60-	1	92	4.8	2.3	16.7	5.5	0.75	1.00	0.0	0.0	4.54	14	98
65.00	Powerwave Allgon	3	110	7.1	4.6	11.0	4.9	0.75	0.65	2.0	80.4	4.55	40	347
65.00	CCI DMP65R-BU4D	2	200	9.8	4.0	20.7	7.7	0.75	0.72	0.0	0.0	4.54	41	426
65.00	CCI DMP65R-BU6DA	4	267	14.7	5.9	20.7	7.7	0.75	0.63	0.0	0.0	4.54	108	1132
65.00	Fire Warden Cabin	1	5047	569.0	0.0	0.0	0.0	1.00	1.00	0.0	0.0	4.54	2198	5447
63.00	Sinclair SV228-	1	442	48.3	6.0	116.0	62.0	1.00	1.00	0.0	0.0	4.54	187	460
62.00	Platform with	1	2945	45.0	0.0	0.0	0.0	1.00	1.00	0.0	0.0	4.54	174	3345
59.00	Generic 10' Dish w/	4	1819	70.7	10.0	120.0	0.0	1.00	1.00	0.0	0.0	4.53	1088	7597
57.00	Ericsson Radio 4449	3	115	2.3	1.2	13.2	9.3	0.80	0.50	0.0	0.0	4.52	10	389
57.00	Ericsson RRUS 11 B4	3	103	3.6	1.6	17.0	7.2	0.80	0.50	-1.0	16.5	4.51	17	341
57.00	Ericsson RRUS 11 B2	3	103	3.6	1.6	17.0	7.2	0.80	0.50	-1.0	16.5	4.51	17	341
57.00	RFS APX16DWV-	3	126	8.2	4.7	13.3	3.1	0.80	0.60	-1.0	45.1	4.51	45	402
57.00	RFS	3	414	22.9	8.0	24.0	8.7	0.80	0.63	0.0	0.0	4.52	133	1319
56.00	Site Pro TPF123XX	3	568	26.5	0.0	0.0	0.0	0.75	0.67	0.0	0.0	4.51	153	1884
50.00	Platform w/	1	13912	248.2	0.0	0.0	0.0	1.00	1.00	0.0	0.0	4.48	946	14912
46.00	Commscope	1	20	0.7	0.6	7.1	3.4	0.75	1.00	0.0	0.0	4.45	2	22
46.00	Commscope	3	37	0.9	0.8	6.9	6.4	0.75	0.50	0.0	0.0	4.45	4	123
46.00	Samsung B5/B13	3	112	2.5	1.3	15.0	8.1	0.75	0.50	0.0	0.0	4.45	11	379
46.00	Samsung B2/B66A	3	131	2.5	1.3	15.0	10.0	0.75	0.50	0.0	0.0	4.45	11	444
46.00	RFS DB-C1-12C-	1	125	5.1	2.5	16.5	12.6	0.75	1.00	1.0	14.4	4.46	14	131
46.00	RFS DB-C1-12C-	1	125	5.1	2.5	16.5	12.6	0.75	1.00	1.0	14.4	4.46	14	131
46.00	Samsung MT6407-	3	156	5.8	2.9	16.1	5.5	0.75	0.61	0.0	0.0	4.45	30	517
46.00	Commscope JAHH-	6	208	11.1	6.0	13.8	8.2	0.75	0.69	1.0	131.2	4.46	131	1324
46.00	Antel LPA-80063/6CF	4	229	10.6	5.9	15.0	13.1	0.75	0.76	0.0	0.0	4.45	91	937
37.50	Access Platform	1	14064	158.3	0.0	0.0	0.0	1.00	1.00	0.0	0.0	4.37	588	15064
	Totals	106	59378	2022.7									6539	63865

Discrete Appurtenance Properties 1.0D + 1.0W Service

Elevation (ft)	Description	Qty	Wt. (lb)	EPA (sf)	Length (ft)	Width (in)	Depth (in)	K _a	Orient. Factor	Vert. Ecc.(ft)	M _u (lb-ft)	Q _z (psf)	F _a (WL) (lb)	P _a (DL) (lb)
75.00	Generic 12' Dipole	1	40	4.5	12.0	3.0	3.0	1.00	1.00	0.0	0.0	10.26	39	40
74.00	Generic 18' Omni	1	55	5.4	18.0	3.0	3.0	1.00	1.00	0.0	0.0	10.26	47	55
72.00	Generic 6' Omni	1	25	1.8	6.0	3.0	3.0	1.00	1.00	0.0	0.0	10.26	15	25
69.00	Alcatel-Lucent	3	53	1.7	1.3	13.0	9.8	0.80	0.50	0.0	0.0	10.25	18	159
69.00	Alcatel-Lucent	3	50	2.1	1.7	12.2	10.6	0.80	0.50	0.0	0.0	10.25	22	150
69.00	Alcatel-Lucent 800	3	53	2.1	1.6	13.0	10.8	0.80	0.50	0.0	0.0	10.25	22	159
69.00	Alcatel-Lucent TD-	3	70	4.0	2.2	18.6	6.7	0.80	0.61	0.0	0.0	10.25	52	210
69.00	Generic Flat Side	6	188	6.3	0.0	0.0	0.0	1.00	0.67	0.0	0.0	10.25	221	1125
69.00	RFS APXVSP18-C-	3	57	8.0	6.0	11.8	7.0	0.80	0.69	0.0	0.0	10.25	116	171
69.00	Commscope	3	58	9.1	6.0	13.8	8.2	0.80	0.69	0.0	0.0	10.25	131	174
65.00	Andrew ABT-DFDM-	1	1	0.0	0.3	1.7	1.6	0.75	1.00	2.0	0.6	10.24	0	1
65.00	Powerwave Allgon	6	16	0.6	0.8	6.7	5.4	0.75	0.50	2.0	21.7	10.24	11	96
65.00	Raycap DC6-48-60-	1	20	1.3	2.0	9.7	9.7	0.75	1.00	2.0	16.4	10.24	8	20
65.00	Ericsson RRUS 4478	3	60	1.8	1.4	13.4	7.7	0.75	0.50	0.0	0.0	10.23	18	180
65.00	Ericsson RRUS 4449	3	71	2.0	1.5	13.2	9.4	0.75	0.50	-4.0	76.8	10.20	19	213
65.00	Ericsson RRUS 32	3	51	2.7	2.2	12.1	6.7	0.75	0.50	2.0	52.7	10.24	26	152
65.00	Raycap DC6-48-60-	1	30	3.8	2.3	16.7	5.5	0.75	1.00	0.0	0.0	10.23	25	30
65.00	Powerwave Allgon	3	27	5.6	4.6	11.0	4.9	0.75	0.65	2.0	141.4	10.24	71	81
65.00	CCI DMP65R-BU4D	2	68	8.3	4.0	20.7	7.7	0.75	0.72	0.0	0.0	10.23	78	136
65.00	CCI DMP65R-BU6DA	4	79	12.7	5.9	20.7	7.7	0.75	0.63	0.0	0.0	10.23	209	318
65.00	Fire Warden Cabin	1	2000	150.0	0.0	0.0	0.0	1.00	1.00	0.0	0.0	10.23	1304	2000
63.00	Sinclair SV228-	1	93	15.8	6.0	116.0	62.0	1.00	1.00	0.0	0.0	10.21	137	93
62.00	Platform with	1	2000	27.2	0.0	0.0	0.0	1.00	1.00	0.0	0.0	10.21	236	2000

Site Number: 88009

Code: ANSI/TIA-222-H

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Site Name: CORNWALL CT, CT

Engineering Number: 13668803_C3_01

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Customer: ALLTEL COMMUNICATIONS, LLC

Tower Loading

59.00	Generic 10' Dish w/	4	400	67.8	10.0	120.0	0.0	1.00	1.00	0.0	0.0	10.19	2348	1600
57.00	Ericsson Radio 4449	3	74	1.6	1.2	13.2	9.3	0.80	0.50	0.0	0.0	10.17	17	222
57.00	Ericsson RRUS 11 B4	3	51	2.8	1.6	17.0	7.2	0.80	0.50	-1.0	28.9	10.16	29	152
57.00	Ericsson RRUS 11 B2	3	51	2.8	1.6	17.0	7.2	0.80	0.50	-1.0	28.9	10.16	29	152
57.00	RFS APX16DWW-	3	41	6.6	4.7	13.3	3.1	0.80	0.60	-1.0	81.9	10.16	82	122
57.00	RFS	3	128	20.2	8.0	24.0	8.7	0.80	0.63	0.0	0.0	10.17	265	384
56.00	Site Pro TPF123XX	3	300	14.4	0.0	0.0	0.0	0.75	0.67	0.0	0.0	10.16	187	900
50.00	Platfrom w/	1	5000	70.0	0.0	0.0	0.0	1.00	1.00	0.0	0.0	10.09	600	5000
46.00	Commscope	1	10	0.4	0.6	7.1	3.4	0.75	1.00	0.0	0.0	10.02	3	10
46.00	Commscope	3	21	0.6	0.8	6.9	6.4	0.75	0.50	0.0	0.0	10.02	5	62
46.00	Samsung B5/B13	3	70	1.9	1.3	15.0	8.1	0.75	0.50	0.0	0.0	10.02	18	211
46.00	Samsung B2/B66A	3	84	1.9	1.3	15.0	10.0	0.75	0.50	0.0	0.0	10.02	18	253
46.00	RFS DB-C1-12C-	1	32	4.1	2.5	16.5	12.6	0.75	1.00	1.0	26.0	10.04	26	32
46.00	RFS DB-C1-12C-	1	32	4.1	2.5	16.5	12.6	0.75	1.00	1.0	26.0	10.04	26	32
46.00	Samsung MT6407-	3	82	4.7	2.9	16.1	5.5	0.75	0.61	0.0	0.0	10.02	55	245
46.00	Commscope JAHH-	6	61	9.1	6.0	13.8	8.2	0.75	0.69	1.0	241.4	10.04	241	364
46.00	Antel LPA-80063/6CF	4	27	9.6	5.9	15.0	13.1	0.75	0.76	0.0	0.0	10.02	186	108
37.50	Access Platform	1	5000	45.0	0.0	0.0	0.0	1.00	1.00	0.0	0.0	9.83	376	5000
	Totals	106	22436	1096.1									7336	22436

Site Number: 88009

Code:

ANSI/TIA-222-H

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Site Name: CORNWALL CT, CT

Engineering Number: 13668803_C3_01

5/3/2021 4:05:05 PM

Customer: ALLTEL COMMUNICATIONS, LLC

Tower Loading

Linear Appurtenance Properties

Elev From (ft)	Elev To (ft)	Description	Qty	Width (in)	Weight (lb/ft)	Pct In Block	Spread On Faces	Bundling Arrangement	Cluster Dia (in)	Out Of Zone	Spacing (in)	Orientation Factor	Ka Override
0.00	74.00	7/8" Coax	1	1.09	0.33	100	1	Individual	0.00	N	1.00	1.00	0.00
0.00	69.00	1 1/4" Hybriflex	4	1.54	1.00	100	1	Individual	0.00	N	1.00	1.00	0.00
0.00	67.00	Climbing Ladder	1	2.00	6.90	100	1	Individual	0.00	N	1.00	1.00	0.00
0.00	67.00	Waveguide	1	2.00	6.00	100	1	Individual	0.00	N	1.00	1.00	0.00
0.00	65.00	0.39" (10mm) Fiber	2	0.39	0.06	100	1	Individual	0.00	N	1.00	1.00	0.00
0.00	65.00	0.78" (19.7mm) 8	4	0.78	0.59	100	1	Individual	0.00	N	1.00	1.00	0.00
0.00	65.00	1 1/4" Coax	12	1.55	0.63	33	1	Block	0.00	N	1.00	1.00	0.00
0.00	63.00	7/8" Coax	1	1.09	0.33	100	1	Individual	0.00	N	1.00	1.00	0.00
0.00	57.00	1 5/8" (1.63")	3	1.63	1.61	100	3	Individual	0.00	N	1.00	1.00	0.00
0.00	56.00	Waveguide	1	2.00	6.00	100	3	Individual	0.00	N	1.00	1.00	0.00
0.00	46.00	1 5/8" (1.63")	2	1.63	1.61	100	1	Individual	0.00	N	1.00	1.00	0.00
0.00	46.00	1 5/8" Coax	6	1.98	0.82	67	1	Block	0.00	N	1.00	1.00	0.00

Section Forces

LoadCase 1.2D + 1.0W Normal

114 mph Normal with No Ice

Gust Response Factor (Gh): 0.85

Wind Importance Factor (Iw) : 1.00

Section	Elev. (ft)	Q _z (psf)	A _f (sf)	A _r (sf)	Ice A _r (sf)	e	C _f	D _f	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{bi} (sf)	Wt. (lb)	Ice Wt. (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
6	57.55	36.72	30.064	0.000	0.000	0.269	2.70	1.00	1.00	0.0	30.06	81.24	0.00	3535	0	2536	944	3480
5	50.05	36.41	4.279	0.000	0.000	1.000	2.10	1.00	1.00	0.0	4.28	8.99	0.00	407	0	278	0	67
4	43.75	36.02	32.213	0.000	0.000	0.185	3.05	1.00	1.00	0.0	32.21	98.12	0.00	4829	0	3004	1124	4128
3	31.25	34.70	39.046	0.000	0.000	0.198	2.99	1.00	1.00	0.0	39.05	116.77	0.00	5499	0	3444	1189	4634
2	18.75	36.53	38.105	0.000	0.000	0.172	3.10	1.00	1.00	0.0	38.10	118.20	0.00	5333	0	3670	1252	4923
1	6.25	39.17	40.268	0.000	0.000	0.165	3.14	1.00	1.00	0.0	40.27	126.32	0.00	5624	0	4205	1343	5548
														25227	0			22779

** = Section Force Exceeds Solidity Ratio Criteria

LoadCase 1.2D + 1.0W 45 deg

114 mph 45 degree with No Ice

Gust Response Factor (Gh): 0.85

Wind Importance Factor (Iw) : 1.00

Section	Elev. (ft)	Q _z (psf)	A _f (sf)	A _r (sf)	Ice A _r (sf)	e	C _f	D _f	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{bi} (sf)	Wt. (lb)	Ice Wt. (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
6	57.55	36.72	30.064	0.000	0.000	0.269	2.70	1.20	1.20	0.0	36.08	97.49	0.00	3535	0	3043	944	3988
5	50.05	36.41	4.279	0.000	0.000	1.000	2.10	1.20	1.20	0.0	5.14	10.78	0.00	407	0	334	0	67
4	43.75	36.02	32.213	0.000	0.000	0.185	3.05	1.14	1.14	0.0	36.68	111.72	0.00	4829	0	3421	1124	4544
3	31.25	34.70	39.046	0.000	0.000	0.198	2.99	1.15	1.15	0.0	44.83	134.07	0.00	5499	0	3954	1189	5144
2	18.75	36.53	38.105	0.000	0.000	0.172	3.10	1.13	1.13	0.0	43.03	133.48	0.00	5333	0	4145	1252	5397
1	6.25	39.17	40.268	0.000	0.000	0.165	3.14	1.12	1.12	0.0	45.24	141.92	0.00	5624	0	4724	1343	6067
														25227	0			25206

** = Section Force Exceeds Solidity Ratio Criteria

LoadCase 0.9D + 1.0W Normal

114 mph Normal with No Ice (Reduced DL)

Gust Response Factor (Gh): 0.85

Wind Importance Factor (Iw) : 1.00

Section	Elev. (ft)	Q _z (psf)	A _f (sf)	A _r (sf)	Ice A _r (sf)	e	C _f	D _f	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{bi} (sf)	Wt. (lb)	Ice Wt. (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
6	57.55	36.72	30.064	0.000	0.000	0.269	2.70	1.00	1.00	0.0	30.06	81.24	0.00	2651	0	2536	944	3480
5	50.05	36.41	4.279	0.000	0.000	1.000	2.10	1.00	1.00	0.0	4.28	8.99	0.00	305	0	278	0	67
4	43.75	36.02	32.213	0.000	0.000	0.185	3.05	1.00	1.00	0.0	32.21	98.12	0.00	3622	0	3004	1124	4128
3	31.25	34.70	39.046	0.000	0.000	0.198	2.99	1.00	1.00	0.0	39.05	116.77	0.00	4124	0	3444	1189	4634
2	18.75	36.53	38.105	0.000	0.000	0.172	3.10	1.00	1.00	0.0	38.10	118.20	0.00	4000	0	3670	1252	4923
1	6.25	39.17	40.268	0.000	0.000	0.165	3.14	1.00	1.00	0.0	40.27	126.32	0.00	4218	0	4205	1343	5548
														18920	0			22779

** = Section Force Exceeds Solidity Ratio Criteria

LoadCase 0.9D + 1.0W 45 deg

114 mph 45 deg with No Ice (Reduced DL)

Gust Response Factor (Gh): 0.85

Wind Importance Factor (Iw) : 1.00

Section	Elev. (ft)	Q _z (psf)	A _f (sf)	A _r (sf)	Ice A _r (sf)	e	C _f	D _f	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{bi} (sf)	Wt. (lb)	Ice Wt. (lb)	F _{st} (lb)	F _a (lb)	Force (lb)
6	57.55	36.72	30.064	0.000	0.000	0.269	2.70	1.20	1.20	0.0	36.08	97.49	0.00	2651	0	3043	944	3988

Site Number: 88009

Code: ANSI/TIA-222-H

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Site Name: CORNWALL CT, CT

Engineering Number: 13668803_C3_01

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Customer: ALLTEL COMMUNICATIONS, LLC

Section Forces

5	50.05	36.41	4.279	0.000	0.000	1.000	2.10	1.20	1.20	0.0	5.14	10.78	0.00	305	0	334	0	67	**
4	43.75	36.02	32.213	0.000	0.000	0.185	3.05	1.14	1.14	0.0	36.68	111.72	0.00	3622	0	3421	1124	4544	
3	31.25	34.70	39.046	0.000	0.000	0.198	2.99	1.15	1.15	0.0	44.83	134.07	0.00	4124	0	3954	1189	5144	
2	18.75	36.53	38.105	0.000	0.000	0.172	3.10	1.13	1.13	0.0	43.03	133.48	0.00	4000	0	4145	1252	5397	
1	6.25	39.17	40.268	0.000	0.000	0.165	3.14	1.12	1.12	0.0	45.24	141.92	0.00	4218	0	4724	1343	6067	
														18920	0			25206	

** = Section Force Exceeds Solidity Ratio Criteria

LoadCase 1.2D + 1.0Di + 1.0Wi Normal

40 mph Normal with 1.00 in Radial Ice

Gust Response Factor (Gh): 0.85

Ice Dead Load Factor :1.00

Ice Importance Factor :1.00

Wind Importance Factor (Iw) : 1.00

Section Elev. (ft)	Q _z (psf)	A _f (sf)	A _r (sf)	Ice A _r (sf)	e	C _f	D _f	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt. (lb)	Ice Wt. (lb)	F _{st} (lb)	F _a (lb)	Force (lb)		
6	57.55	4.52	30.064	19.713	19.71	0.433	2.19	1.00	1.00	1.3	49.78	109.25	19.71	7473	3939	420	262	682	
5	50.05	4.48	4.279	1.803	1.803	1.000	2.10	1.00	1.00	1.3	6.08	12.77	1.80	641	234	49	0	8	**
4	43.75	4.43	32.213	17.365	17.36	0.280	2.66	1.00	1.00	1.3	49.58	131.90	17.36	9938	5109	497	345	842	
3	31.25	4.27	39.046	18.255	18.25	0.286	2.64	1.00	1.00	1.3	57.30	151.24	18.26	11153	5654	549	352	901	
2	18.75	4.50	38.105	18.862	18.86	0.255	2.76	1.00	1.00	1.2	56.97	157.04	18.86	10844	5511	600	375	975	
1	6.25	4.82	40.268	16.902	16.90	0.232	2.85	1.00	1.00	1.0	57.17	162.79	16.90	10398	4774	667	375	1042	
														50448	25221			4451	

** = Section Force Exceeds Solidity Ratio Criteria

LoadCase 1.2D + 1.0Di + 1.0Wi 45 deg

40 mph 45 deg with 1.00 in Radial Ice

Gust Response Factor (Gh): 0.85

Ice Dead Load Factor :1.00

Ice Importance Factor :1.00

Wind Importance Factor (Iw) : 1.00

Section Elev. (ft)	Q _z (psf)	A _f (sf)	A _r (sf)	Ice A _r (sf)	e	C _f	D _f	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt. (lb)	Ice Wt. (lb)	F _{st} (lb)	F _a (lb)	Force (lb)		
6	57.55	4.52	30.064	19.713	19.71	0.433	2.19	1.20	1.20	1.3	59.73	131.10	19.71	7473	3939	504	262	766	
5	50.05	4.48	4.279	1.803	1.803	1.000	2.10	1.20	1.20	1.3	7.30	15.33	1.80	641	234	58	0	8	**
4	43.75	4.43	32.213	17.365	17.36	0.280	2.66	1.20	1.20	1.3	59.49	158.28	17.36	9938	5109	597	345	942	
3	31.25	4.27	39.046	18.255	18.25	0.286	2.64	1.20	1.20	1.3	68.76	181.49	18.26	11153	5654	659	352	1011	
2	18.75	4.50	38.105	18.862	18.86	0.255	2.76	1.19	1.19	1.2	67.85	187.04	18.86	10844	5511	715	375	1090	
1	6.25	4.82	40.268	16.902	16.90	0.232	2.85	1.17	1.17	1.0	67.11	191.09	16.90	10398	4774	783	375	1158	
														50448	25221			4975	

** = Section Force Exceeds Solidity Ratio Criteria

LoadCase 1.0D + 1.0W Service Normal

Serviceability - 60 mph Wind Normal

Gust Response Factor (Gh): 0.85

Wind Importance Factor (Iw) : 1.00

Section Elev. (ft)	Q _z (psf)	A _f (sf)	A _r (sf)	Ice A _r (sf)	e	C _f	D _f	D _r	T _{iz} (in)	A _e (sf)	EPA _a (sf)	EPA _{ai} (sf)	Wt. (lb)	Ice Wt. (lb)	F _{st} (lb)	F _a (lb)	Force (lb)		
6	57.55	10.17	30.064	0.000	0.000	0.269	2.70	1.00	1.00	0.0	30.06	81.24	0.00	2946	0	702	262	964	
5	50.05	10.09	4.279	0.000	0.000	1.000	2.10	1.00	1.00	0.0	4.28	8.99	0.00	339	0	77	0	18	**
4	43.75	9.98	32.213	0.000	0.000	0.185	3.05	1.00	1.00	0.0	32.21	98.12	0.00	4024	0	832	311	1143	
3	31.25	9.61	39.046	0.000	0.000	0.198	2.99	1.00	1.00	0.0	39.05	116.77	0.00	4582	0	954	329	1284	
2	18.75	10.12	38.105	0.000	0.000	0.172	3.10	1.00	1.00	0.0	38.10	118.20	0.00	4444	0	1017	347	1364	
1	6.25	10.85	40.268	0.000	0.000	0.165	3.14	1.00	1.00	0.0	40.27	126.32	0.00	4687	0	1165	372	1537	
														21022	0			6310	

** = Section Force Exceeds Solidity Ratio Criteria

Site Number: 88009

Code: ANSI/TIA-222-H

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Site Name: CORNWALL CT, CT

Engineering Number: 13668803_C3_01

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Customer: ALLTEL COMMUNICATIONS, LLC

Section Forces

LoadCase 1.0D + 1.0W Service 45 deg

Serviceability - 60 mph Wind 45 deg

Gust Response Factor (Gh): 0.85

Wind Importance Factor (Iw) : 1.00

Section	Elev. (ft)	Q_z (psf)	A_f (sf)	A_r (sf)	Ice	A_{re} (sf)	e	C_f	D_f	D_r	T_{iz} (in)	A_e (sf)	EPA_{ei} (sf)	EPA_{bi} (sf)	Wt. (lb)	Ice Wt. (lb)	F_{st} (lb)	F_a (lb)	Force (lb)	
6	57.55	10.17	30.064	0.000	0.000	0.269	2.70	1.20	1.20	1.20	0.0	36.08	97.49	0.00	2946	0	843	262	1105	
5	50.05	10.09	4.279	0.000	0.000	1.000	2.10	1.20	1.20	1.20	0.0	5.14	10.78	0.00	339	0	92	0	18	**
4	43.75	9.98	32.213	0.000	0.000	0.185	3.05	1.14	1.14	1.14	0.0	36.68	111.72	0.00	4024	0	948	311	1259	
3	31.25	9.61	39.046	0.000	0.000	0.198	2.99	1.15	1.15	1.15	0.0	44.83	134.07	0.00	4582	0	1095	329	1425	
2	18.75	10.12	38.105	0.000	0.000	0.172	3.10	1.13	1.13	1.13	0.0	43.03	133.48	0.00	4444	0	1148	347	1495	
1	6.25	10.85	40.268	0.000	0.000	0.165	3.14	1.12	1.12	1.12	0.0	45.24	141.92	0.00	4687	0	1309	372	1681	
																21022	0			6982

** = Section Force Exceeds Solidity Ratio Criteria

Site Number: 88009

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Site Name: CORNWALL CT, CT

Engineering Number: 13668803_C3_01

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Customer: ALLTEL COMMUNICATIONS, LLC

Equivalent Lateral Force Method

Spectral Response Acceleration for Short Period (S_s):	0.17
Spectral Response Acceleration at 1.0 Second Period (S_{d1}):	0.05
Long-Period Transition Period (T_L - Seconds):	6
Importance Factor (I_p):	1.00
Site Coefficient F_a :	1.60
Site Coefficient F_v :	2.40
Response Modification Coefficient (R):	3.00
Design Spectral Response Acceleration at Short Period (S_{ds}):	0.18
Design Spectral Response Acceleration at 1.0 Second Period (S_{d1}):	0.09
Seismic Response Coefficient (C_s):	0.05
Upper Limit C_s :	0.05
Lower Limit C_s :	0.03
Period based on Rayleigh Method (sec):	0.61
Redundancy Factor (p):	1.30
Seismic Force Distribution Exponent (k):	1.05
Total Unfactored Dead Load:	43.46 k
Seismic Base Shear (E):	2.67 k

LoadCase 1.2D + 1.0Ev + 1.0Eh

Seismic

Section	Height Above Base (ft)	Weight (lb)	W_z (lb-ft)	C_{vx}	Horizontal Force (lb)	Vertical Force (lb)
6	57.55	2,946	211,825	0.095	253	3,643
5	50.05	339	21,062	0.009	25	420
4	43.75	4,024	216,700	0.097	259	4,977
3	31.25	4,582	173,031	0.077	207	5,668
2	18.75	4,444	97,902	0.044	117	5,497
1	6.25	4,687	32,398	0.015	39	5,797
Generic 12' Dipole	65.00	40	3,271	0.001	4	49
Generic 18' Omni	65.00	55	4,497	0.002	5	68
Generic 6' Omni	65.00	25	2,044	0.001	2	31
Alcatel-Lucent RRH2x50-08	65.00	159	12,977	0.006	16	196
Alcatel-Lucent RRH2x40 (700)	65.00	150	12,265	0.005	15	186
Alcatel-Lucent 800 MHz RRH	65.00	159	13,001	0.006	16	197
Alcatel-Lucent TD-RRH8x20-25 w/ Solar	65.00	210	17,172	0.008	21	260
Generic Flat Side Arm	65.00	1,125	91,991	0.041	110	1,392
RFS APXVSP18-C-A20	65.00	171	13,983	0.006	17	212
Commscope DT465B-2XR	65.00	174	14,228	0.006	17	215
Andrew ABT-DFDM-ADB	65.00	1	90	0.000	0	1
Powerwave Allgon TT19-08BP111-001	65.00	96	7,850	0.004	9	119
Raycap DC6-48-60-18-8F	65.00	20	1,635	0.001	2	25
Ericsson RRUS 4478 B14	65.00	180	14,694	0.007	18	222
Ericsson RRUS 4449 B5, B12	65.00	213	17,417	0.008	21	263
Ericsson RRUS 32 (50.8 lbs)	65.00	152	12,462	0.006	15	189
Raycap DC6-48-60-18	65.00	30	2,453	0.001	3	37
Powerwave Allgon 7770.00A	65.00	81	6,623	0.003	8	100
CCI DMP65R-BU4D	65.00	136	11,104	0.005	13	168

Site Number: 88009

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Site Name: CORNWALL CT, CT

Engineering Number: 13668803_C3_01

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Customer: ALLTEL COMMUNICATIONS, LLC

Equivalent Lateral Force Method

CCI DMP65R-BU6DA	65.00	318	25,970	0.012	31	393
Fire Warden Cabin	65.00	2,000	163,540	0.073	195	2,474
Sinclair SV228-HF2SNM	63.00	93	7,358	0.003	9	115
Platform with Handrails	62.00	2,000	155,587	0.070	186	2,474
Generic 10' Dish w/ Radome	59.00	1,600	118,124	0.053	141	1,979
Ericsson Radio 4449 B12,B71	57.00	222	15,804	0.007	19	275
Ericsson RRUS 11 B4	57.00	152	10,828	0.005	13	188
Ericsson RRUS 11 B2	57.00	152	10,828	0.005	13	188
RFS APX16DWV-16DWVS-E-A20	57.00	122	8,692	0.004	10	151
RFS APXVAARR24_43-U-NA20	57.00	384	27,316	0.012	33	475
Site Pro TPF123XX	56.00	900	62,886	0.028	75	1,113
Platform w/ Handrails	50.00	5,000	309,996	0.139	370	6,185
Commscope CHB726-01	46.00	10	562	0.000	1	12
Commscope CBC78T-DS-43-2X	46.00	62	3,526	0.002	4	77
Samsung B5/B13 RRH-BR04C	46.00	211	11,975	0.005	14	261
Samsung B2/B66A RRH-BR049	46.00	253	14,376	0.006	17	313
RFS DB-C1-12C-24AB-0Z	46.00	32	1,817	0.001	2	40
RFS DB-C1-12C-24AB-0Z	46.00	32	1,817	0.001	2	40
Samsung MT6407-77A	46.00	245	13,899	0.006	17	303
Commscope JAHH-65B-R3B	46.00	364	20,645	0.009	25	450
Antel LPA-80063/6CF	46.00	108	6,132	0.003	7	134
Access Platform	37.50	5,000	228,848	0.102	273	6,185
		43,458	2,233,202	1.000	2,667	53,753

LoadCase 0.9D - 1.0Ev + 1.0Eh

Seismic (Reduced DL)

Section	Height Above Base (ft)	Weight (lb)	W _z (lb-ft)	C _{vx}	Horizontal Force (lb)	Vertical Force (lb)
6	57.55	2,946	211,825	0.095	253	2,542
5	50.05	339	21,062	0.009	25	293
4	43.75	4,024	216,700	0.097	259	3,473
3	31.25	4,582	173,031	0.077	207	3,955
2	18.75	4,444	97,902	0.044	117	3,836
1	6.25	4,687	32,398	0.015	39	4,045
Generic 12' Dipole	65.00	40	3,271	0.001	4	35
Generic 18' Omni	65.00	55	4,497	0.002	5	47
Generic 6' Omni	65.00	25	2,044	0.001	2	22
Alcatel-Lucent RRH2x50-08	65.00	159	12,977	0.006	16	137
Alcatel-Lucent RRH2x40 (700)	65.00	150	12,265	0.005	15	129
Alcatel-Lucent 800 MHz RRH	65.00	159	13,001	0.006	16	137
Alcatel-Lucent TD-RRH8x20-25 w/ Solar	65.00	210	17,172	0.008	21	181
Generic Flat Side Arm	65.00	1,125	91,991	0.041	110	971
RFS APXVSP18-C-A20	65.00	171	13,983	0.006	17	148
Commscope DT465B-2XR	65.00	174	14,228	0.006	17	150
Andrew ABT-DFDM-ADB	65.00	1	90	0.000	0	1
Powerwave Allgon TT19-08BP111-001	65.00	96	7,850	0.004	9	83
Raycap DC6-48-60-18-8F	65.00	20	1,635	0.001	2	17
Ericsson RRUS 4478 B14	65.00	180	14,694	0.007	18	155
Ericsson RRUS 4449 B5, B12	65.00	213	17,417	0.008	21	184
Ericsson RRUS 32 (50.8 lbs)	65.00	152	12,462	0.006	15	132
Raycap DC6-48-60-18	65.00	30	2,453	0.001	3	26
Powerwave Allgon 7770.00A	65.00	81	6,623	0.003	8	70
CCI DMP65R-BU4D	65.00	136	11,104	0.005	13	117
CCI DMP65R-BU6DA	65.00	318	25,970	0.012	31	274

Site Number: 88009

Code: ANSI/TIA-222-H

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Site Name: CORNWALL CT, CT

Engineering Number: 13668803_C3_01

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Customer: ALLTEL COMMUNICATIONS, LLC

Equivalent Lateral Force Method

Fire Warden Cabin	65.00	2,000	163,540	0.073	195	1,726	
Sinclair SV228-HF2SNM	63.00	93	7,358	0.003	9	80	
Platform with Handrails	62.00	2,000	155,587	0.070	186	1,726	
Generic 10' Dish w/ Radome	59.00	1,600	118,124	0.053	141	1,381	
Ericsson Radio 4449 B12,B71	57.00	222	15,804	0.007	19	192	
Ericsson RRUS 11 B4	57.00	152	10,828	0.005	13	131	
Ericsson RRUS 11 B2	57.00	152	10,828	0.005	13	131	
RFS APX16DWV-16DWVS-E-A20	57.00	122	8,692	0.004	10	105	
RFS APXVAARR24_43-U-NA20	57.00	384	27,316	0.012	33	331	
Site Pro TPF123XX	56.00	900	62,886	0.028	75	777	
Platform w/ Handrails	50.00	5,000	309,996	0.139	370	4,315	
Commscope CHB726-01	46.00	10	562	0.000	1	9	
Commscope CBC78T-DS-43-2X	46.00	62	3,526	0.002	4	54	
Samsung B5/B13 RRH-BR04C	46.00	211	11,975	0.005	14	182	
Samsung B2/B66A RRH-BR049	46.00	253	14,376	0.006	17	219	
RFS DB-C1-12C-24AB-0Z	46.00	32	1,817	0.001	2	28	
RFS DB-C1-12C-24AB-0Z	46.00	32	1,817	0.001	2	28	
Samsung MT6407-77A	46.00	245	13,899	0.006	17	211	
Commscope JAHH-65B-R3B	46.00	364	20,645	0.009	25	314	
Antel LPA-80063/6CF	46.00	108	6,132	0.003	7	93	
Access Platform	37.50	5,000	228,848	0.102	273	4,315	
		43,458	2,233,202	1.000	2,667	37,508	

Section: 1 1 Bot Elev (ft): 0.00 Height (ft): 12.500

	Pu (kip)	Load Case	Len (ft)	Bracing %			F'y (ksi)	PhiC Pn Num (kip)	Pn Num Bolts	Holes	Shear Bear		Use %	Controls
				X	Y	Z					phiRnv (kip)	phiRn (kip)		
Max Compression Member														
LEG SAE - 6X6X0.625	-86.73	1.2D + 1.0W 45 deg	12.57	50	50	50	63.9	33.0	207.00	0	0	0.00	0.00	41 Member Z
HORIZ DAL - 3X2.5X0.25	-3.59	0.9D + 1.0W Normal	18.12	50	100	13	199.8	36.0	18.86	0	0	0.00	0.00	19 Member Y
DIAG SAU - 4X3X0.25	-10.34	1.2D + 1.0W Normal	22.81	47	47	47	179.2	36.0	15.06	0	0	0.00	0.00	68 Member Z

	Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	PhiT Pn Num (kip)	Pn Num Bolts	Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Blk Shear phiT Pn (kip)	Use %	Controls
LEG SAE - 6X6X0.625	66.29	0.9D + 1.0W 45 deg	33	45	211.17	0	0	0.00	0.00			31 Member
HORIZ DAL - 3X2.5X0.25	4.75	1.2D + 1.0W Normal	36	58	85.21	0	0	0.00	0.00	0.00		5 Member
DIAG SAU - 4X3X0.25	8.91	1.2D + 1.0W Normal	36	58	54.76	0	0	0.00	0.00	0.00		16 Member

	Pu (kip)	Load Case	phiRnt (kip)	Use %	Num Bolts	Bolt Type
Max Splice Forces						
Top Tension	59.48	0.9D + 1.0W 45 deg	0.00	0	0	
Top Compression	81.13	1.2D + 1.0W 45 deg	0.00	0		
Bot Tension	76.48	0.9D + 1.0W 45 deg	0.00	0		
Bot Compression	98.40	1.2D + 1.0W 45 deg	0.00	0		

Site Number: 88009

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Site Name: CORNWALL CT, CT

Engineering Number: 13668803_C3_01

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Customer: ALLTEL COMMUNICATIONS, LLC

Force/Stress Summary

Section: 2		1		Bot Elev (ft): 12.50				Height (ft): 12.500							
		Pu (kip)	Load Case	Len (ft)	Bracing %			F'y (ksi)	Phic (kip)	Pn Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls
Max Compression Member															
LEG	SAE - 6X6X0.625	-70.65	1.2D + 1.0W 45 deg	12.57	50	50	50	63.9	33.0	207.00	0	0	0.00	0.00	34 Member Z
HORIZ	DAL - 3X2.5X0.25	-2.18	1.2D + 1.0W Normal	16.25	50	50	17	106.7	36.0	60.78	0	0	0.00	0.00	3 Member Y
DIAG	SAU - 4X3X0.25	-10.81	1.2D + 1.0W Normal	21.27	47	47	47	169.0	36.0	16.93	0	0	0.00	0.00	63 Member Z
Max Tension Member															
		Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	Phit (kip)	Pn Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Blk Shear phit Pn (kip)	Use %	Controls		
LEG	SAE - 6X6X0.625	51.44	0.9D + 1.0W 45 deg	33	45	211.17	0	0	0.00	0.00			24 Member		
HORIZ	DAL - 3X2.5X0.25	3.14	1.2D + 1.0W Normal	36	58	85.21	0	0	0.00	0.00	0.00		3 Member		
DIAG	SAU - 4X3X0.25	9.45	1.2D + 1.0W Normal	36	58	54.76	0	0	0.00	0.00	0.00		17 Member		
Max Splice Forces															
		Pu (kip)	Load Case			phiRnt (kip)	Use %	Num Bolts	Bolt Type						
Top Tension		43.21	0.9D + 1.0W 45 deg			0.00	0	0							
Top Compression		63.72	1.2D + 1.0W 45 deg			0.00	0								
Bot Tension		59.48	0.9D + 1.0W 45 deg			0.00	0								
Bot Compression		0.00				0.00	0								

Section: 3		1		Bot Elev (ft): 25.00				Height (ft): 12.500							
		Pu (kip)	Load Case	Len (ft)	Bracing %			F'y (ksi)	Phic (kip)	Pn Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls
Max Compression Member															
LEG	SAE - 6X6X0.5	-51.13	1.2D + 1.0W 45 deg	12.57	50	50	50	63.9	33.0	167.41	0	0	0.00	0.00	30 Member Z
HORIZ	DAL - 3.5X3X0.3125	-3.61	0.9D + 1.0W Normal	14.37	50	100	17	136.1	36.0	59.82	0	0	0.00	0.00	6 Member Y
DIAG	SAU - 3.5X3X0.25	-11.00	1.2D + 1.0W Normal	19.78	47	47	47	163.4	36.0	16.73	0	0	0.00	0.00	65 Member Z
Max Tension Member															
		Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	Phit (kip)	Pn Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Blk Shear phit Pn (kip)	Use %	Controls		
LEG	SAE - 6X6X0.5	34.69	0.9D + 1.0W 45 deg	33	45	170.77	0	0	0.00	0.00			20 Member		
HORIZ	DAL - 3.5X3X0.3125	5.62	1.2D + 1.0W Normal	36	58	125.39	0	0	0.00	0.00	0.00		4 Member		
DIAG	SAU - 3.5X3X0.25	9.32	1.2D + 1.0W Normal	36	58	50.54	0	0	0.00	0.00	0.00		18 Member		
Max Splice Forces															
		Pu (kip)	Load Case			phiRnt (kip)	Use %	Num Bolts	Bolt Type						
Top Tension		25.79	0.9D + 1.0W 45 deg			0.00	0	0							
Top Compression		43.69	1.2D + 1.0W 45 deg			0.00	0								
Bot Tension		43.21	0.9D + 1.0W 45 deg			0.00	0								
Bot Compression		0.00				0.00	0								

Force/Stress Summary

Section: 4		1		Bot Elev (ft): 37.50				Height (ft): 12.500							
Max Compression Member		Pu (kip)	Load Case	Len (ft)	Bracing %			F'y (ksi)	Phic (kip)	Pn Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls
LEG	SAE - 6X6X0.5	-31.08	1.2D + 1.0W 45 deg	12.57	50	50	50	63.9	33.0	167.41	0	0	0.00	0.00	18 Member Z
HORIZ	DAL - 3.5X3X0.3125	-7.28	1.2D + 1.0W 45 deg	12.50	100	100	17	136.4	36.0	59.56	0	0	0.00	0.00	12 Member X
DIAG	SAE - 3.5x3.5x0.25	-10.79	1.2D + 1.0W Normal	18.37	47	47	47	143.4	36.0	23.53	0	0	0.00	0.00	45 Member Z

Max Tension Member		Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	Phit (kip)	Pn Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Blk Shear phit Pn (kip)	Use %	Controls
LEG	SAE - 6X6X0.5	20.33	0.9D + 1.0W 45 deg	33	45	170.77	0	0	0.00	0.00		11	Member
HORIZ	DAL - 3.5X3X0.3125	2.02	1.2D + 1.0W Normal	36	58	125.39	0	0	0.00	0.00	0.00	1	Member
DIAG	SAE - 3.5x3.5x0.25	8.56	1.2D + 1.0W Normal	36	58	54.76	0	0	0.00	0.00	0.00	15	Member

Max Splice Forces		Pu (kip)	Load Case	phiRnt (kip)	Use %	Num Bolts	Bolt Type
Top Tension		9.48	0.9D + 1.0W 45 deg	0.00	0	0	
Top Compression		25.35	1.2D + 1.0W 45 deg	0.00	0		
Bot Tension		25.79	0.9D + 1.0W 45 deg	0.00	0		
Bot Compression		0.00		0.00	0		

Section: 5		1		Bot Elev (ft): 50.00				Height (ft): 0.100							
Max Compression Member		Pu (kip)	Load Case	Len (ft)	Bracing %			F'y (ksi)	Phic (kip)	Pn Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Use %	Controls
LEG	SAE - 6X6X0.5	-5.73	1.2D + 1.0Di + 1.0Wi	0.39	50	50	50	2.0	33.0	189.73	0	0	0.00	0.00	3 Member Z
HORIZ		0.00		0.000	0	0	0	0.0	0.0	0.00	0	0	0.00	0.00	0
DIAG		0.00		0.000	0	0	0	0.0	0.0	0.00	0	0	0.00	0.00	

Max Tension Member		Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	Phit (kip)	Pn Num Bolts	Num Holes	Shear phiRnv (kip)	Bear phiRn (kip)	Blk Shear phit Pn (kip)	Use %	Controls
LEG	SAE - 6X6X0.5	21.70	1.2D + 1.0W 45 deg	33	45	170.77	0	0	0.00	0.00		12	Member
HORIZ		0.00		0	0	0.00	0	0	0.00	0.00	0.00	0	
DIAG		0.00		0	0	0.00	0	0	0.00	0.00	0.00	0	

Max Splice Forces		Pu (kip)	Load Case	phiRnt (kip)	Use %	Num Bolts	Bolt Type
Top Tension		21.72	0.9D + 1.0W 45 deg	0.00	0	0	
Top Compression		5.96	1.2D + 1.0Di + 1.0Wi	0.00	0		
Bot Tension		9.48	0.9D + 1.0W 45 deg	0.00	0		
Bot Compression		0.00		0.00	0		

Site Number: 88009

Code: ANSI/TIA-222-H

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Site Name: CORNWALL CT, CT

Engineering Number: 13668803_C3_01

5/3/2021 4:05:06 PM

Customer: ALLTEL COMMUNICATIONS, LLC

Force/Stress Summary

Section: 6		1		Bot Elev (ft): 50.10				Height (ft): 14.900				Shear		Bear		Use	
Max Compression Member		Pu (kip)	Load Case	Len (ft)	Bracing %			F'y (ksi)	Phic (kip)	Pn (Bolts)	Num (Holes)	phiRnv (kip)	phiRn (kip)	%	Controls		
LEG	SAE - 6X6X0.5	-29.64	1.2D + 1.0W 45 deg	7.45	100	100	100	75.8	33.0	158.36	0	0	0.00	0.00	18	Member Z	
HORIZ	DAL - 2.5X2X0.25	-9.36	1.2D + 1.0W 45 deg	7.000	100	100	50	133.7	36.0	34.09	0	0	0.00	0.00	27	Member Y	
DIAG	SAU - 3X2X0.25	-7.71	1.2D + 1.0W Normal	10.22	50	50	50	136.0	36.0	18.40	0	0	0.00	0.00	41	Member Z	

Max Tension Member		Pu (kip)	Load Case	Fy (ksi)	Fu (ksi)	Phit (kip)	Pn (Bolts)	Num (Holes)	Shear phiRnv (kip)	Bear phiRn (kip)	Blk Shear phit Pn (kip)	%	Controls	
LEG	SAE - 6X6X0.5	4.22	1.2D + 1.0W 45 deg	33	45	170.77	0	0	0.00	0.00			2	Member
HORIZ	DAL - 2.5X2X0.25	1.62	1.2D + 1.0W Normal	36	58	69.01	0	0	0.00	0.00	0.00		2	Member
DIAG	SAU - 3X2X0.25	17.18	1.2D + 1.0W 45 deg	36	58	38.56	0	0	0.00	0.00	0.00		44	Member

Max Splice Forces		Pu (kip)	Load Case	phiRnt (kip)	Use %	Num Bolts	Bolt Type
Top Tension		0.00		0.00	0	0	
Top Compression		6.07	1.2D + 1.0Di + 1.0Wi	0.00	0		
Bot Tension		21.72	0.9D + 1.0W 45 deg	0.00	0		
Bot Compression		0.00		0.00	0		

Site Number: 88009

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Site Name: CORNWALL CT, CT

Engineering Number: 13668803_C3_01

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Customer: ALLTEL COMMUNICATIONS, LLC

Detailed Reactions

Load Case	Radius (ft)	Elevation (ft)	Azimuth (deg)	Node	FX (kip)	FY (kip)	FZ (kip)	(-) = Uplift (+) = Down
1.2D + 1.0W Normal	14.14	00.00	45	1	-7.52	70.81	-14.15	
	14.14	00.00	135	1a	4.60	-44.11	-11.20	
	14.14	00.00	225	1b	-5.36	-44.30	-10.55	
	14.14	00.00	315	1c	8.27	69.75	-13.36	
1.2D + 1.0W 45 deg	14.14	00.00	45	1	-14.78	97.44	-15.86	
	14.14	00.00	135	1a	-6.38	13.62	-3.38	
	14.14	00.00	225	1b	-12.92	-71.34	-12.00	
	14.14	00.00	315	1c	-2.47	12.42	-5.32	
0.9D + 1.0W Normal	14.14	00.00	45	1	-7.16	67.49	-13.77	
	14.14	00.00	135	1a	4.98	-47.47	-11.57	
	14.14	00.00	225	1b	-5.72	-47.52	-10.91	
	14.14	00.00	315	1c	7.91	66.61	-13.01	
0.9D + 1.0W 45 deg	14.14	00.00	45	1	-14.42	94.11	-15.47	
	14.14	00.00	135	1a	-6.01	10.21	-3.75	
	14.14	00.00	225	1b	-13.29	-74.54	-12.36	
	14.14	00.00	315	1c	-2.83	9.33	-4.97	
1.2D + 1.0Di + 1.0Wi Normal	14.14	00.00	45	1	-2.45	42.02	-4.08	
	14.14	00.00	135	1a	0.18	16.76	-1.59	
	14.14	00.00	225	1b	-0.37	15.39	-1.60	
	14.14	00.00	315	1c	2.64	40.14	-3.72	
1.2D + 1.0Di + 1.0Wi 45 deg	14.14	00.00	45	1	-4.05	48.13	-4.49	
	14.14	00.00	135	1a	-2.29	30.09	0.19	
	14.14	00.00	225	1b	-2.03	9.22	-1.96	
	14.14	00.00	315	1c	0.23	26.88	-1.89	
1.2D + 1.0Ev + 1.0Eh Normal M1	14.14	00.00	45	1	-1.89	16.15	-2.18	
	14.14	00.00	135	1a	-1.12	9.28	0.85	
	14.14	00.00	225	1b	1.12	9.28	0.85	
	14.14	00.00	315	1c	1.89	16.15	-2.18	
1.2D + 1.0Ev + 1.0Eh 45 deg M1	14.14	00.00	45	1	-2.25	17.58	-2.26	
	14.14	00.00	135	1a	-1.70	12.71	1.32	
	14.14	00.00	225	1b	0.76	7.85	0.77	
	14.14	00.00	315	1c	1.31	12.71	-1.71	
0.9D - 1.0Ev + 1.0Eh Normal M1	14.14	00.00	45	1	-1.44	12.31	-1.72	
	14.14	00.00	135	1a	-0.66	5.44	0.39	
	14.14	00.00	225	1b	0.66	5.44	0.39	
	14.14	00.00	315	1c	1.44	12.31	-1.72	
0.9D - 1.0Ev + 1.0Eh 45 deg M1	14.14	00.00	45	1	-1.79	13.73	-1.80	
	14.14	00.00	135	1a	-1.25	8.87	0.86	
	14.14	00.00	225	1b	0.31	4.01	0.31	
	14.14	00.00	315	1c	0.86	8.87	-1.25	
1.0D + 1.0W Service Normal	14.14	00.00	45	1	-2.85	26.88	-4.78	
	14.14	00.00	135	1a	0.42	-4.64	-2.28	
	14.14	00.00	225	1b	-0.67	-4.99	-2.10	
	14.14	00.00	315	1c	3.11	26.21	-4.48	
1.0D + 1.0W Service 45 deg	14.14	00.00	45	1	-4.86	34.27	-5.26	
	14.14	00.00	135	1a	-2.63	11.34	-0.13	
	14.14	00.00	225	1b	-2.77	-12.48	-2.49	
	14.14	00.00	315	1c	0.14	10.33	-2.24	

Site Number: 88009

Code: ANSI/TIA-222-H

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Site Name: CORNWALL CT, CT

Engineering Number: 13668803_C3_01

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Customer: ALLTEL COMMUNICATIONS, LLC

Max Uplift:	74.54 (kip)	Moment Ice:	552.13 (kip-ft)	Moment:	2,386.95 (kip-ft)	1.2D + 1.0W 45 deg
Max Down:	97.44 (kip)	Total Down Ice:	114.31 (kip)	Total Down:	52.15 (kip)	
Max Shear:	21.67 (kip)	Total Shear Ice:	11.51 (kip)	Total Shear:	51.69 (kip)	

Site Number: 88009

Code:

ANSI/TIA-222-H

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Site Name: CORNWALL CT, CT

Engineering Number: 13668803_C3_01

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Customer: ALLTEL COMMUNICATIONS, LLC

Deflections and Rotations

Load Case	Elevation (ft)	Deflection (ft)	Twist (deg)	Sway (deg)	Resultant (deg)
114 mph Normal with No Ice	37.50	0.031	1.6057	0.8363	1.7563
114 mph Normal with No Ice	50.00	0.047	2.2316	2.7740	3.5602
114 mph Normal with No Ice	57.55	0.410	2.3988	2.3594	3.3647
114 mph Normal with No Ice	65.00	0.648	2.3735	1.7717	2.9519
114 mph 45 degree with No Ice	37.50	0.033	1.8250	1.0194	2.0625
114 mph 45 degree with No Ice	50.00	0.049	2.5473	3.3319	4.1941
114 mph 45 degree with No Ice	57.55	0.463	2.6342	2.7855	3.8338
114 mph 45 degree with No Ice	65.00	0.709	2.6240	1.8684	3.1647
114 mph Normal with No Ice (Reduced DL)	37.50	0.031	1.5730	0.7760	1.6821
114 mph Normal with No Ice (Reduced DL)	50.00	0.047	2.1559	2.5489	3.3384
114 mph Normal with No Ice (Reduced DL)	57.55	0.404	2.3147	2.3071	3.2681
114 mph Normal with No Ice (Reduced DL)	65.00	0.641	2.2913	1.7515	2.8834
114 mph 45 deg with No Ice (Reduced DL)	37.50	0.033	1.7959	0.9589	1.9996
114 mph 45 deg with No Ice (Reduced DL)	50.00	0.049	2.4907	3.1041	3.9798
114 mph 45 deg with No Ice (Reduced DL)	57.55	0.457	2.5765	2.7056	3.7361
114 mph 45 deg with No Ice (Reduced DL)	65.00	0.700	2.5667	1.8407	3.1021
40 mph Normal with 1.00 in Radial Ice	37.50	0.008	0.8661	0.6591	1.0865
40 mph Normal with 1.00 in Radial Ice	50.00	0.011	1.2339	2.3699	2.6719
40 mph Normal with 1.00 in Radial Ice	57.55	0.141	1.2769	0.9952	1.6190
40 mph Normal with 1.00 in Radial Ice	65.00	0.193	1.2736	0.4805	1.3273
40 mph 45 deg with 1.00 in Radial Ice	37.50	0.009	1.0018	0.7143	1.2291
40 mph 45 deg with 1.00 in Radial Ice	50.00	0.013	1.4156	2.5441	2.9114
40 mph 45 deg with 1.00 in Radial Ice	57.55	0.174	1.4438	1.2626	1.9180
40 mph 45 deg with 1.00 in Radial Ice	65.00	0.242	1.4442	0.7248	1.5570
Seismic Normal M1	37.50	0.002	0.0076	0.2473	0.2475
Seismic Normal M1	50.00	0.003	0.0017	0.9202	0.9202
Seismic Normal M1	57.55	0.015	0.0053	0.2485	0.2486
Seismic Normal M1	65.00	0.027	0.0049	0.1400	0.1400
Seismic 45 deg M1	37.50	0.002	0.0075	0.2604	0.2605
Seismic 45 deg M1	50.00	0.003	0.0011	0.9623	0.9623
Seismic 45 deg M1	57.55	0.016	0.0032	0.3056	0.3056
Seismic 45 deg M1	65.00	0.029	0.0031	0.1638	0.1638
Seismic (Reduced DL) Normal M1	37.50	0.002	0.0069	0.1796	0.1797
Seismic (Reduced DL) Normal M1	50.00	0.003	0.0007	0.6648	0.6648
Seismic (Reduced DL) Normal M1	57.55	0.015	0.0028	0.2008	0.2009
Seismic (Reduced DL) Normal M1	65.00	0.027	0.0025	0.1199	0.1199
Seismic (Reduced DL) 45 deg M1	37.50	0.002	0.0068	0.1925	0.1926
Seismic (Reduced DL) 45 deg M1	50.00	0.003	0.0003	0.7062	0.7062
Seismic (Reduced DL) 45 deg M1	57.55	0.016	0.0017	0.2535	0.2535
Seismic (Reduced DL) 45 deg M1	65.00	0.029	0.0016	0.1382	0.1382
Serviceability - 60 mph Wind Normal	37.50	0.009	0.8651	0.3648	0.9165
Serviceability - 60 mph Wind Normal	50.00	0.013	1.1928	1.2176	1.7045
Serviceability - 60 mph Wind Normal	57.55	0.148	1.2359	0.7451	1.4431
Serviceability - 60 mph Wind Normal	65.00	0.210	1.2331	0.5043	1.3166
Serviceability - 60 mph Wind 45 deg	37.50	0.009	1.0574	0.4236	1.1216
Serviceability - 60 mph Wind 45 deg	50.00	0.014	1.4583	1.3924	2.0163
Serviceability - 60 mph Wind 45 deg	57.55	0.183	1.4958	0.9129	1.7523
Serviceability - 60 mph Wind 45 deg	65.00	0.253	1.4951	0.5652	1.5748

Maximum Reactions Summary

Anchor Group	Vertical (kip)				Horizontal (kip)		Moment (kip-ft)	
	DL+W/L	DL+W/L+IL	UpLift	Shear	DL+W/L	DL+W/L+IL	DL+W/L	DL+W/L+IL
Base	52.15	114.31	97.44	21.67	51.69	11.51	2386.95	552.13

Site Number: 88009

Code: ANSI/TIA-222-H

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Site Name: CORNWALL CT, CT

Engineering Number: 13668803_C3_01

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Customer: ALLTEL COMMUNICATIONS, LLC

Site Name: Cornwall, CT
Site Number: 88009
Tower Type: SST w/4 Legs
Design Loads (Factored) - Analysis per TIA-222-H Standards

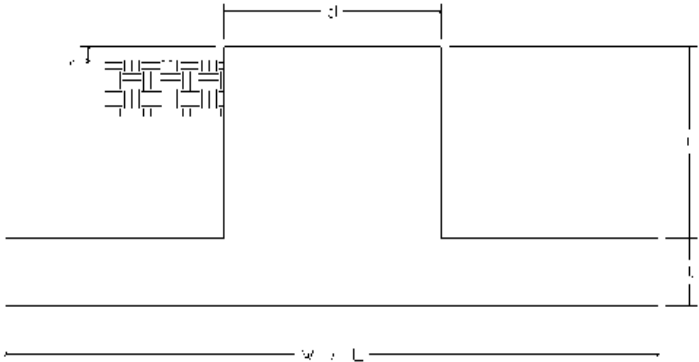
Monolithic Mat & Pier Foundation Analysis

Foundation Analysis Parameters		
Design / Analysis / Mapping:	Mapping	-
Compression/Leg:	97.4	k
Uplift/Leg:	74.5	k
Total Shear:	51.7	k
Moment:	2,387.0	k-ft
Tower + Appurtenance Weight:	43.5	k
Depth to Base of Foundation (l + t - h):	4.92	ft
Diameter of Pier (d):	4	ft
Length of Pier (l):	2.5	ft
Height of Pier above Ground (h):	0.5	ft
Width of Pad (W):	30	ft
Length of Pad (L):	30	ft
Thickness of Pad (t):	2.92	ft
Tower Leg Center to Center:	20	ft
Number of Tower Legs:	4	-
Tower Center from Mat Center:	0	ft
Depth Below Ground Surface to Water Table:	99	ft
Unit Weight of Concrete:	150	pcf
Unit Weight of Soil Above Water Table:	125	pcf
Unit Weight of Water:	62.4	pcf
Unit Weight of Soil Below Water Table:	62.6	pcf
Friction Angle of Uplift:	35	°
Coefficient of Shear Friction:	0.5	-
Ultimate Compressive Bearing Pressure:	40,000	psf
Ultimate Passive Pressure on Pad Face:	1,914	psf
$f_{\text{Soil and Concrete Weight}}$:	0.9	-
f_{Soil} :	0.75	-

Overturning Moment Usage		
Design OTM:	2667.1	k-ft
OTM Resistance:	9299.4	k-ft
Design OTM / OTM Resistance:	29%	Pass

Soil Bearing Pressure Usage		
Net Bearing Pressure:	1035	psf
Factored Nominal Bearing Pressure:	30000	psf
Factored Nominal (Net) Bearing Pressure:	3%	Pass
Load Direction Controlling Design Bearing Pressure:	<i>Diagonal to Pad Edge</i>	

Sliding Factor of Safety		
Ultimate Friction Resistance:	330.8	k
Ultimate Passive Pressure Resistance:	125.7	k
Total Factored Sliding Resistance:	342.4	k
Sliding Design / Sliding Resistance:	15%	Pass





GPD Engineering and Architecture Professional Corporation
 520 South Main Street, Suite 2531
 Akron, OH 44311

Maser Consulting Contact:
 peter.albano@colliersengineering.com

Antenna Mount Analysis Report and PMI Requirements

Mount Analysis

SMART Tool Project #: 10050479
 GPD Project #: 2021740.468041.01
 Maser Consulting Project #: 21777486
 June 17, 2021

Site Information

Site ID: 468041-VZW/MOHAWK MTN CT
 Site Name: MOHAWK MTN CT
 Carrier Name: Verizon Wireless
 Address: 36 MOHAWK MOUNTAIN RD.
 CORNWALL, Connecticut 06753,
 Litchfield County
 Latitude: 41.821289°
 Longitude: -73.296433°

Structure Information

Tower Type: 65-Ft Self Support
 Mount Type: Pipe Mounts
 FUZE ID #: 16271975

Analysis Results

Pipe Mounts: 85.3% Pass

*****Contractor PMI Requirements:**

Included at the end of this MA report
Available & Submitted via portal at <https://pmi.vzwsmart.com>
Contractor - Please Review Specific Site PMI Requirements Upon Award
Requirements also Noted on Mount Modification Drawings
Requirements may also be Noted on A & E drawings

Report Prepared By: Nick Andrews

Respectfully Submitted By:

Christopher J. Scheks, P.E.
 Connecticut #: 0030026



6/17/2021

Executive Summary:

The objective of this report is to determine the capacity of the antenna support mount at the subject facility for the final wireless telecommunications configuration, per the applicable codes and standards. Any modification listed under Sources of Information was assumed completed and was included in this analysis.

This analysis is inclusive of the mount structure only and does not address the structural capacity of the supporting structure. This mounting frame was not analyzed as an anchor attachment point for fall protection. All climbing activities are required to have a fall protection plan completed by a competent person.

Sources of Information:

Document Type	Remarks
Radio Frequency Data Sheet (RFDS)	Verizon RFDS Site ID: 324384, dated 3/16/2021
Desktop Mount Mapping	Mapping Form by Paul J. Ford & Company, PSLC #: 468041, dated 4/20/2021

Analysis Criteria:

Codes and Standards:	ANSI/TIA-222-H
Wind Parameters:	Basic Wind Speed (Ultimate 3-sec. Gust), V_{ULT} : 114 mph Ice Wind Speed (3-sec. Gust): 40 mph Design Ice Thickness: 1.00 in Risk Category: II Exposure Category: B Topographic Factor: 1.572 Topographic Feature Considered: Hill Topographic Method: Method 2 Ground Elevation Factor, K_e : 0.941
Seismic Parameters:	S_s : 0.173 S_1 : 0.054
Maintenance Parameters:	Wind Speed (3-sec. Gust): 30 mph Maintenance Live Load, L_v : N/A Maintenance Live Load, L_m : N/A
Analysis Software:	RISA-3D (V17.0.2)

Final Loading Configuration:

The following equipment has been considered for the analysis of the mounts:

Mount Elevation (ft)	Equipment Elevation (ft)	Quantity	Manufacturer	Model	Status
46.50	46.50	3	Samsung	MT6407-77A	Added
		3	Commscope	CBC78T-DS-43-2X	Added
		1	Commscope	CHB626-43-2X	Added
		3	Samsung	B2/B66A RRH-BR049	Added
		3	Samsung	B5/B13 RRH-BR04C	Added
		6	Commscope	JAHH-65B-R3B	Retained
		4	Antel	LPA-80063/6CF 5	Retained
		2	RFS	DB-C1-12C-24AB-0Z*	Retained

* Equipment to be flush mounted directly to the Self Support. They are not mounted on Platform mounts and are not included in this mount analysis.

Any proposed antennas not currently installed should be mounted such that the centerline of the antennas does not exceed 6 inches vertically from the center of the antenna mounts.

The tower has existing OVP units. It is acceptable to install up to any three (3) of the OVP model numbers listed below as required at any location other than the mount face without affecting the structural capacity of the mount. If OVP units are installed on the mount face, a mount re-analysis may be required unless replacing an existing OVP.

Model Number	Ports	AKA
DB-CQ-12C-24AB-0Z	6	OVP-6
RVZDC-6627-PF-48	12	OVP-12

Standard Conditions:

1. All engineering services are performed on the basis that the information provided to GPD and used in this analysis is current and correct. The existing equipment loading has been applied at locations determined from the supplied documentation. Any deviation from the loading locations specified in this report shall be communicated to GPD to verify deviation will not adversely impact the analysis.
2. Mounts are assumed to have been properly fabricated, installed and maintained in good condition, twist free and plumb in accordance with its original design and manufacturer’s specifications.

Obvious safety and structural issues/deficiencies noticed at the time of the mount mapping and reported in the Mount Mapping Report are assumed to be corrected and documented as part of the PMI process and are not considered in the mount analysis.

The mount analysis and the mount mapping are not a condition assessment of the mount. Proper maintenance and condition assessments are still required post analysis.

3. For mount analyses completed from other data sources (including new replacement mounts) and not specifically mapped by GPD, the mounts are assumed to have been properly fabricated, installed and maintained in good condition, twist free and plumb in accordance with its original design and manufacturer’s specifications.

4. All member connections are assumed to have been designed to meet or exceed the load carrying capacity of the connected member unless otherwise specified in this report.
5. The mount was checked up to, and including, the bolts that fasten it to the mount collar/attachment and threaded rod connections in collar members if applicable. Local deformation and interaction between the mount collar/attachment and the supporting tower structure are outside the scope of this analysis.
6. All services are performed, results obtained, and recommendations made in accordance with generally accepted engineering principles and practices. GPD is not responsible for the conclusion, opinions, and recommendations made by others based on the information supplied.
7. Structural Steel Grades have been assumed as follows, if applicable, unless otherwise noted in this analysis:
 - o Channel, Solid Round, Angle, Plate ASTM A36 (Gr. 36)
 - o HSS (Rectangular) ASTM 500 (Gr. B-46)
 - o Pipe ASTM A53 (Gr. B-35)
 - o Threaded Rod F1554 (Gr. 36)
 - o Bolts ASTM A325

Discrepancies between in-field conditions and the assumptions listed above may render this analysis invalid unless explicitly approved by GPD.

Analysis Results:

Component	Utilization %	Pass/Fail
Mount Pipe P2.0 STD	84.0 %	Pass
Mount Pipe P2.5 STD	85.3 %	Pass
Pipe Mount Connections	61.4 %	Pass

Structure Rating – (Controlling Utilization of all Components)	85.3%
---	--------------

Recommendation:

The existing mounts are **SUFFICIENT** for the final loading configuration and do not require modifications.

ANSI/ASSP rigging plan review services compliant with the requirements of ANSI/TIA 322 are available for a Construction Class IV site or other, if required. Separate review fees will apply.

Attachments:

1. Mount Photos
2. Desktop Mount Mapping Report (for reference only)
3. Mount Geometry Verification
4. Analysis Calculations
5. **Contractor Required Post Installation Inspection (PMI) Report Deliverables**
6. Antenna Placement Diagrams





Desktop Mount Mapping Form

Site Name:	MOHAWK MTN CT	Tower Type:	Self-Support Tower
Site ID:		Tower Owner:	
PSLC:	468041	Tower Height (Ft.):	
Customer:		Mount Elevation (Ft.):	
Colliers Project No.:	21777486	Date:	4/20/2021

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Document Type	Provided? (Yes/No)	Source Name	Project No.	Dated	Comments/Remarks
Previous Mount Mapping	No				
Previous Mapping Photos	No				
Previous Mount Analysis	Yes	MOHAWKMTNCT_AWSPCS850MOUN TSA_20180618	140308	6/18/2018	Provided and is a good source for relevant mount information.
Previous Mount Modifications	No				
Previous Structural Analysis	Yes	ATCColloPrj_OAA715460_Structural_2017-11-01	OAA715460_C3_01	10/31/2017	Provided but not necessary for MA. It may provide some information on the tower platform but it isn't clear at this time.
Construction Drawings	Yes	MOHAWK_MTN_CT_AWSPrelimCD's_20180118	12162881	11/2/2017	Provided and is a good source for relevant mount information.
Closeout Package	Yes	Mohawk Mtn COP		2/15/2017	Provided but not necessary for MA.
Closeout Photos	Yes				Provided but pictures weren't particularly helpful.
Handover Package	No				
New Build 445 Documentation	No				
Other	No				
Previous PMI	No				

The **desktop mount mapping** is based on the engineering review of the available site documents in FUZE, as listed above, in place of a full mount mapping. It is assumed that the information provided in the documents listed above, provide an accurate representation of the existing mount. EOR reserves the right and will typically require additional clarification and verification as will be included in the PMI requirements. During the Post Modification Inspection (PMI) process, the GC on site will be required to confirm all questions, confirmations, and validations as posed by the EOR. The engineering review for this desktop mount mapping was performed in accordance to the ANSI/TIA-222-H requirements and Verizon's NSTD446 standard.



Photo taken from: Closeout Package

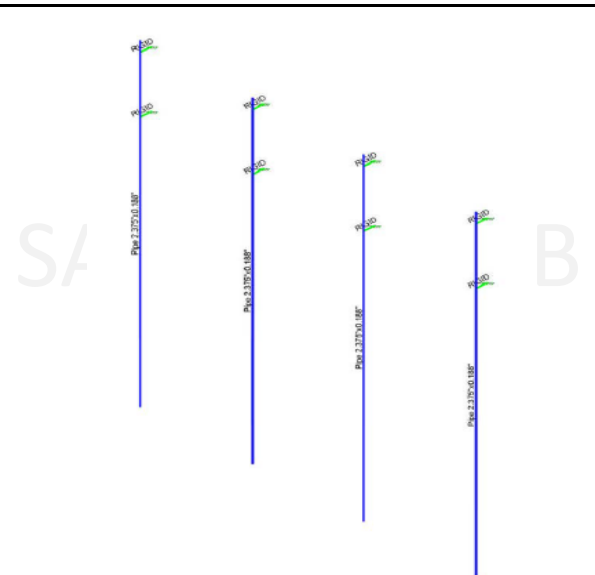
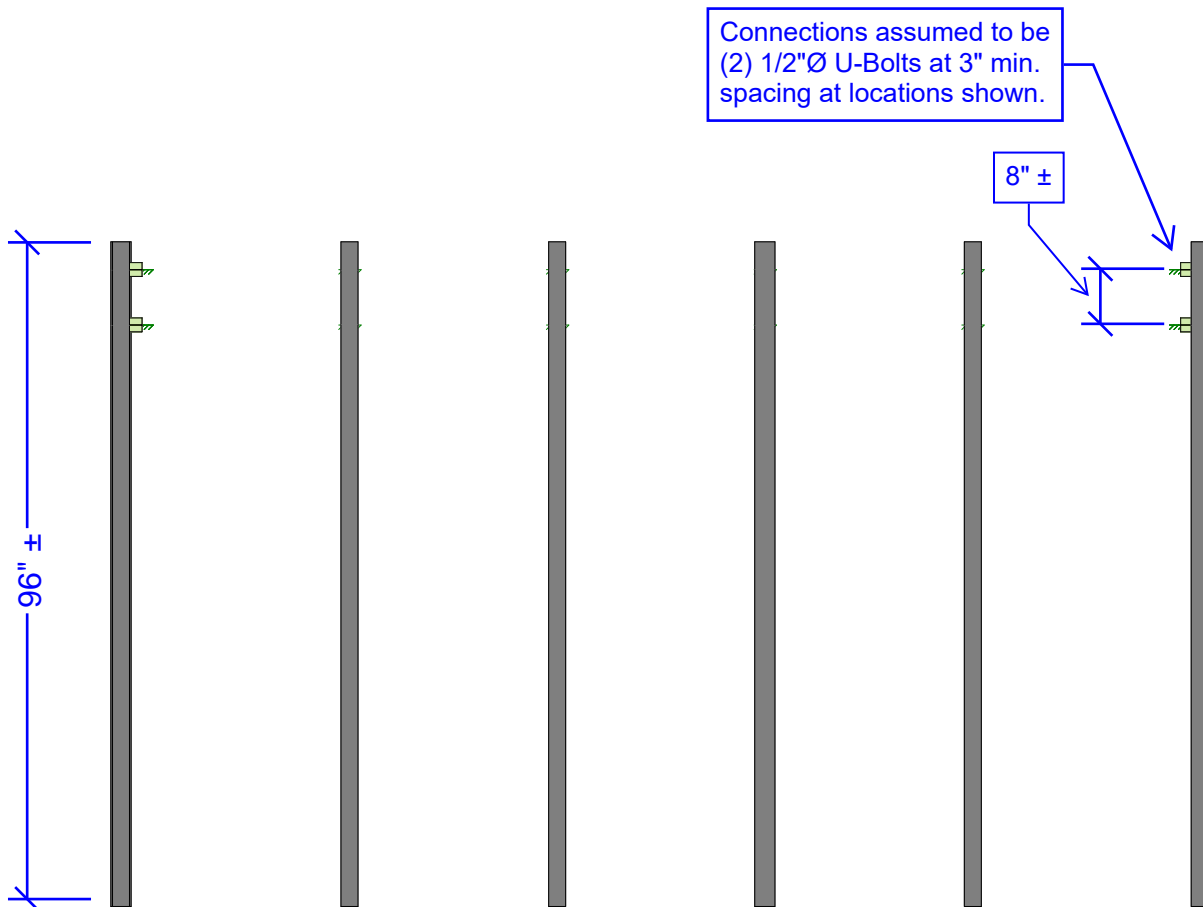


Photo taken from: Previous MA



MOUNT FRONT VIEW

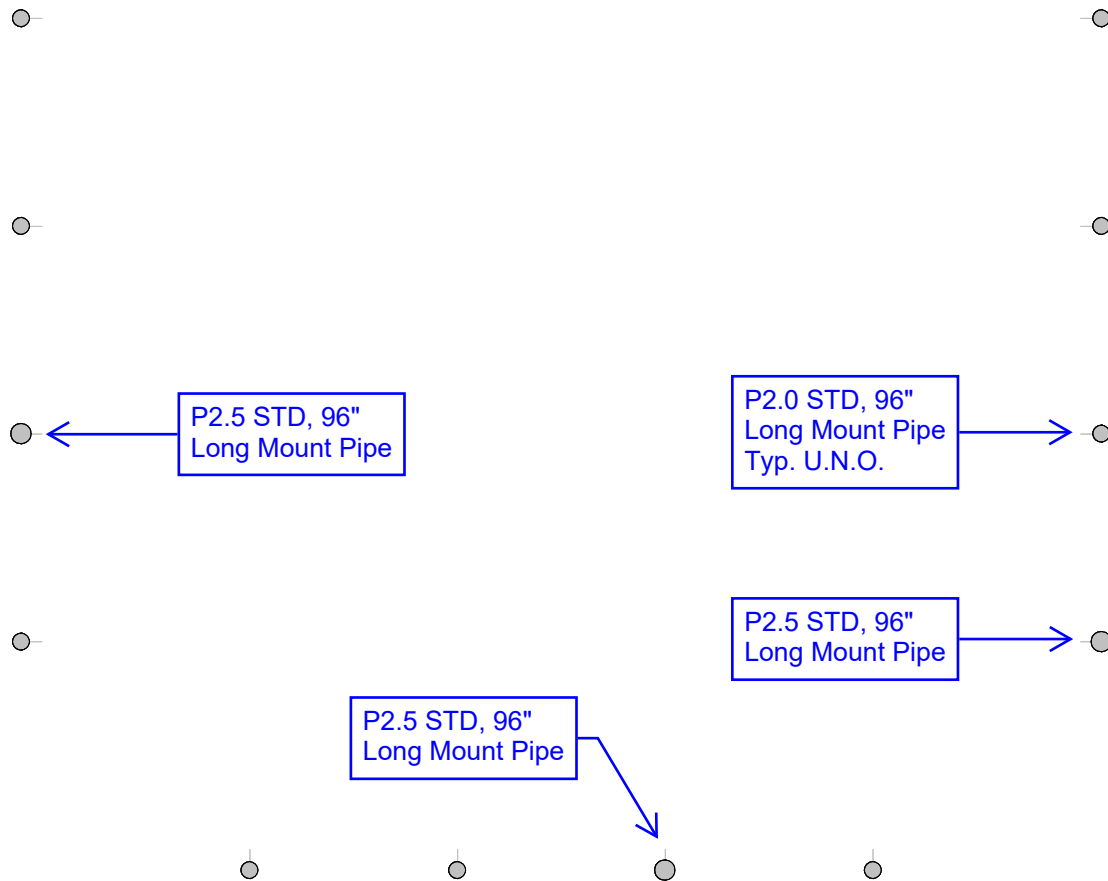


MOUNT GEOMETRY VERIFICATION

CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND MEMBER SIZES SHOWN IN THIS SKETCH. DOCUMENT ALL VARIATIONS OR DEVIATIONS VIA PHOTOS AND SKETCHES AND PROVIDE TO THE EOR FOR EVALUATION.

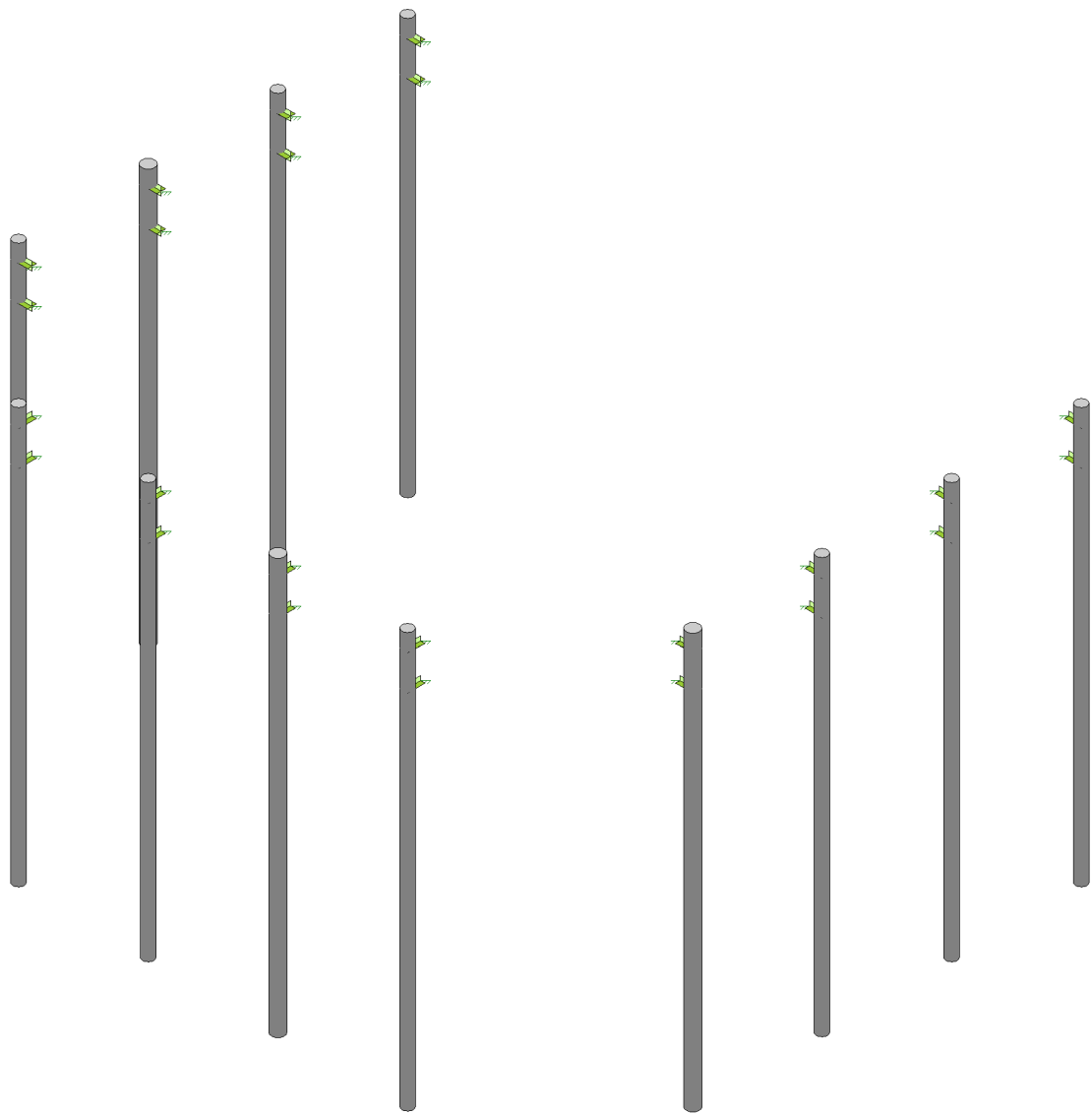


MOUNT PLAN VIEW



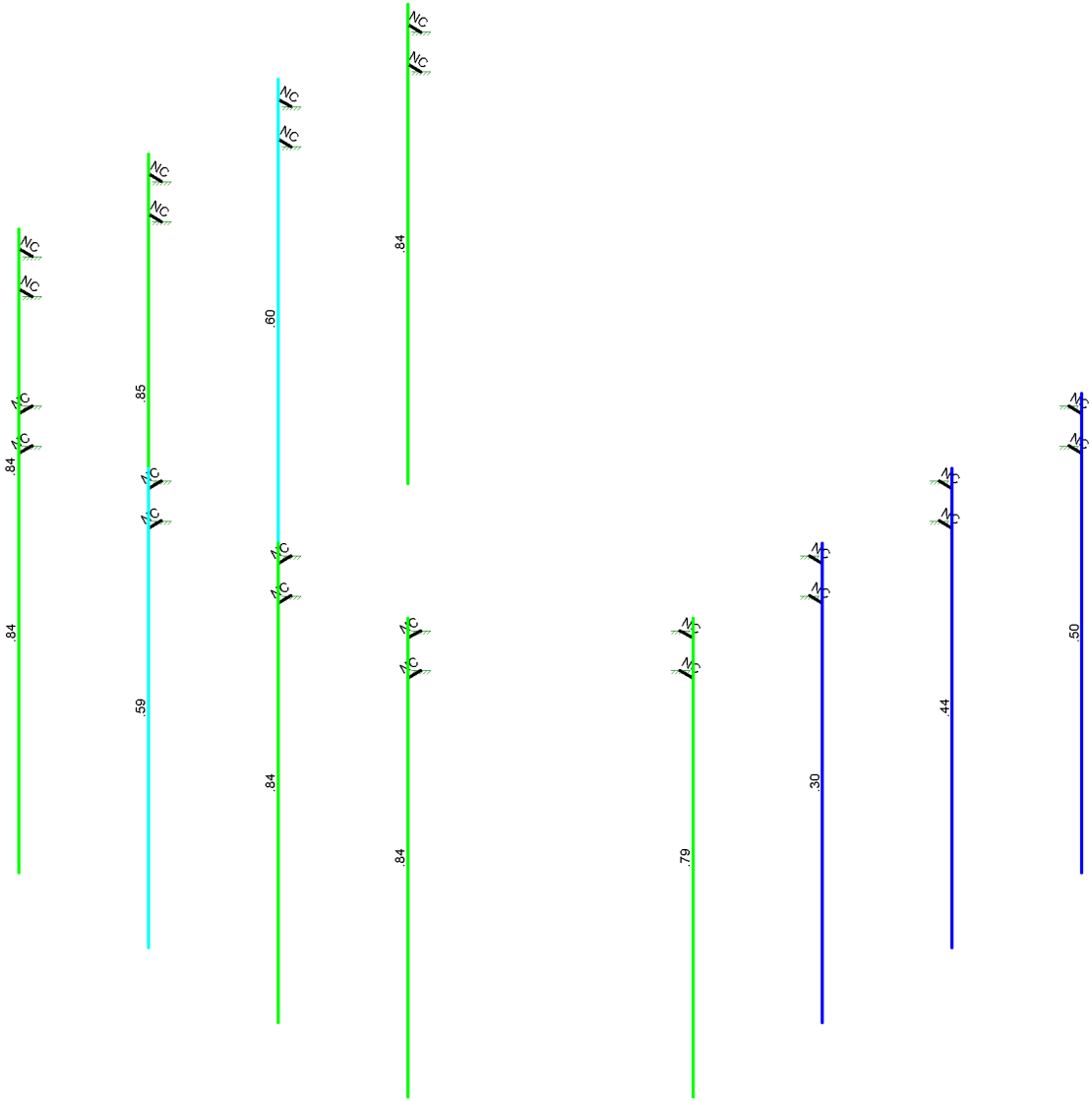
MOUNT GEOMETRY VERIFICATION

CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND MEMBER SIZES SHOWN IN THIS SKETCH. DOCUMENT ALL VARIATIONS OR DEVIATIONS VIA PHOTOS AND SKETCHES AND PROVIDE TO THE EOR FOR EVALUATION.



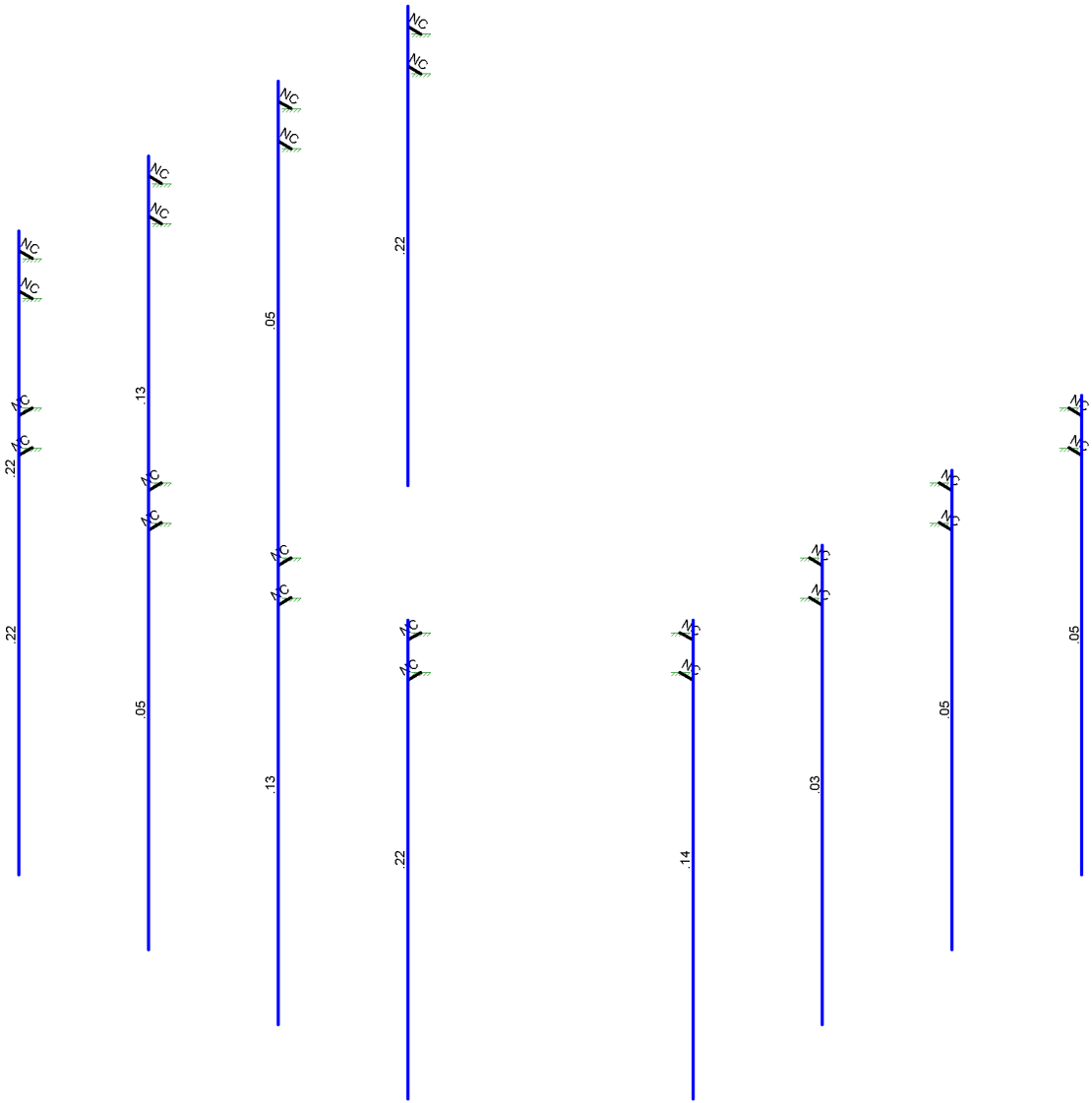


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Red	> 1.0
Purple	.90-1.0
Green	.75-90
Cyan	.50-.75
Blue	0-.50





Shear Check (Env)	
Black	No Calc
Red	> 1.0
Magenta	.90-1.0
Green	.75-90
Cyan	.50-.75
Blue	0-.50



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F	ÞF	HÉÍ	€	ÍÊ	€	
G	ÞG	HÉÍ	€	ÍÊ	€	
H	ÞH	HÉÍ	ÊÊÍÍÍÍ	ÍÊ	€	
I	ÞI	HÉÍ	ÊÊÍÍÍÍ	ÍÊ	€	
Í	ÞÍ	HÉÍ	ÊÊÍÍÍÍ	ÍÊ	€	
Î	ÞÎ	HÉÍ	€HHHH	ÍÊ	€	
Ï	ÞÏ	FÊ	€	ÍÊ	€	
Ì	ÞÌ	FÊ	€	ÍÊ	€	
J	ÞJ	FÊ	ÊÊÍÍÍÍ	ÍÊ	€	
F€	ÞF€	FÊ	ÊÊÍÍÍÍ	ÍÊ	€	
FF	ÞFF	FÊ	ÊÊÍÍÍÍ	ÍÊ	€	
FG	ÞFG	FÊ	€HHHH	ÍÊ	€	
FH	ÞFH	ÊFÊ	€	ÍÊ	€	
FI	ÞFI	ÊFÊ	€	ÍÊ	€	
FÍ	ÞFÍ	ÊFÊ	ÊÊÍÍÍÍ	ÍÊ	€	
FÎ	ÞFÎ	ÊFÊ	ÊÊÍÍÍÍ	ÍÊ	€	
FÏ	ÞFÏ	ÊFÊ	ÊÊÍÍÍÍ	ÍÊ	€	
FÌ	ÞFÌ	ÊFÊ	€HHHH	ÍÊ	€	
FJ	ÞFJ	ÊHÉÍ	€	ÍÊ	€	
œ	Þœ	ÊHÉÍ	€	ÍÊ	€	
GF	ÞGF	ÊHÉÍ	ÊÊÍÍÍÍ	ÍÊ	€	
GG	ÞGG	ÊHÉÍ	ÊÊÍÍÍÍ	ÍÊ	€	
GH	ÞGH	ÊHÉÍ	ÊÊÍÍÍÍ	ÍÊ	€	
G	ÞG	ÊHÉÍ	€HHHH	ÍÊ	€	
Ĝ	ÞĜ	ÊÊ	€	HÉÍ	€	
Ĝ	ÞĜ	ÊÊ	€	HÉÍ	€	
Ĝ	ÞĜ	ÊÊ	ÊÊÍÍÍÍ	HÉÍ	€	
Ĝ	ÞĜ	ÊÊ	ÊÊÍÍÍÍ	HÉÍ	€	
GJ	ÞGJ	ÊÊ	ÊÊÍÍÍÍ	HÉÍ	€	
H€	ÞH€	ÊÊ	€HHHH	HÉÍ	€	
HF	ÞHF	ÊÊ	€	FÊ	€	
HG	ÞHG	ÊÊ	€	FÊ	€	
HH	ÞHH	ÊÊ	ÊÊÍÍÍÍ	FÊ	€	
H	ÞH	ÊÊ	ÊÊÍÍÍÍ	FÊ	€	
H	ÞH	ÊÊ	ÊÊÍÍÍÍ	FÊ	€	
H	ÞH	ÊÊ	€HHHH	FÊ	€	
H	ÞH	ÊÊ	€	ÊFÊ	€	
H	ÞH	ÊÊ	€	ÊFÊ	€	
HJ	ÞHJ	ÊÊ	ÊÊÍÍÍÍ	ÊFÊ	€	
I€	ÞI€	ÊÊ	ÊÊÍÍÍÍ	ÊFÊ	€	
IF	ÞIF	ÊÊ	ÊÊÍÍÍÍ	ÊFÊ	€	
IG	ÞIG	ÊÊ	€HHHH	ÊFÊ	€	
IH	ÞIH	ÊÊ	€	ÊHÉÍ	€	
II	ÞII	ÊÊ	€	ÊHÉÍ	€	
Í	ÞÍ	ÊÊ	ÊÊÍÍÍÍ	ÊHÉÍ	€	
Î	ÞÎ	ÊÊ	ÊÊÍÍÍÍ	ÊHÉÍ	€	
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Ì	ÞÌ	ÊÊ	ÊÊÍÍÍÍ	ÊHÉÍ	€	
Ì	ÞÌ	ÊÊ	€HHHH	ÊHÉÍ	€	
IJ	ÞIJ	ÍÊ	€	ÊHÉÍ	€	
Í€	ÞÍ€	ÍÊ	€	ÊHÉÍ	€	
ÍF	ÞÍF	ÍÊ	ÊÊÍÍÍÍ	ÊHÉÍ	€	

A Ya Vyf Dc]bhi@UXg f6 @ * : ' 5 bhYbbUK c fl \$'8 Yl tL

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H	T ÚFÔ	Tç	ÊÇÇ	H
I	T ÚFÔ	Ý	Í JÊË J	Í
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Ï	T ÚHÇE	Z	€	H
J	T ÚHÇE	Tç	ÊÇÇ	H
F€	T ÚHÇE	Ý	Í HË Î J	Í
FF	T ÚHÇE	Z	€	Í
FG	T ÚHÇE	Tç	ÊÇÇ	Í
FH	T ÚHÓ	Ý	I HÇ I	H
FI	T ÚHÓ	Z	€	H
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ÇFV	T ÚÇE	Ý	Í ÊË H	Í
ÇFW	T ÚÇE	Z	€	Í
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ÇGX	T ÚÇE	Z	€	Í
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ÇHF	T ÚÇE	Ý	Í ÊË H	Í
ÇHG	T ÚÇE	Z	€	Í
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ÇHJ	T ÚÇE	Z	€	Í
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TIA-222-H CONNECTION CHECK
Mount to Tower Connection - Typ. All Sectors
2021740.468041.01

Bolt Information		
Bolt Diameter (d)	0.5	in
Net Tensile Area (A _n)	0.142	in ²
# of Bolts Total (n)	4	
Bolt Distance Up-Down	3	in
Bolt Distance Left-Right	3	in
Bolt Grade	A325N	
Bolt Tensile Strength (F _{ub})	120	ksi

RISA 3D Reactions (Up-Down)		
Moment (M)	2.53	k-ft
Axial (T)	0.80	kips
Shear (V)	0.20	kips

RISA 3D Reactions (Left-Right)		
Moment (M)	0.45	k-ft
Axial (T)	0.32	kips
Shear (V)	0.59	kips

Bolt Capacity (Up-Down)		
Nominal Tensile Strength (R _{nt})	17.028	kips
Nominal Shear Strength (R _{nv})	11.78	kips
Bolt Tensile Force (T _{ub})	7.85	kips
Bolt Shear Force (V _{ub})	0.050	kips
$T_{ub}/\phi R_{nt}$	0.61431	
$V_{ub}/\phi R_{nv}$	0.00566	
$(V_{ub}/\phi R_{nv})^2 + (T_{ub}/\phi R_{nt})^2$	0.37741	
Bolt Capacity =	61.4%	OK

Bolt Capacity (Left-Right)		
Nominal Tensile Strength (R _{nt})	17.028	kips
Nominal Shear Strength (R _{nv})	11.78	kips
Bolt Tensile Force (T _{ub})	0.99	kips
Bolt Shear Force (V _{ub})	0.148	kips
$T_{ub}/\phi R_{nt}$	0.07722	
$V_{ub}/\phi R_{nv}$	0.01670	
$(V_{ub}/\phi R_{nv})^2 + (T_{ub}/\phi R_{nt})^2$	0.00624	
Bolt Capacity =	7.7%	OK

Mount Desktop – Post Modification Inspection (PMI) Report Requirements

Documents & Photos Required from Contractor – **Passing Mount Analysis**

Purpose – to provide GPD the proper documentation in order to complete the required Mount Desktop review of the Post Modification Inspection Report.

- Contractor is responsible for making certain the photos provided as noted below provide confirmation that the installation was completed in accordance with this Passing Mount Analysis.
- Contractor shall relay any data that can impact the performance of the mount, this includes safety issues.



Base Requirements:







- Any special photos outside of the standard requirements will be indicated on the passing MA
- Verification that loading is as communicated in the Passing Mount Analysis. NOTE If loading is different than what is conveyed contact GPD immediately.
- Each photo should be time and date stamped
- Photos should be high resolution and submitted in a Zip File and should be organized in the file structure as depicted in Schedule A attached.
- Contractor shall ensure that the safety climb wire rope is supported and not adversely impacted by the install of the modification components. This may involve the install of wire rope guides, or other items to protect the wire rope.
- The photos in the file structure should be uploaded to <https://pmi.vzsmart.com> as depicted on the drawings








Photo Requirements:


- **Base and “During Installation Photos”**
 - Base pictures include
 - Photo of Gate Signs showing the tower owner, site name, and number
 - Photo of carrier shelter showing the carrier site name and number if available
 - Photos of the galvanizing compound and/or paint used (if applicable), clearly showing the label and name
 - “During Installation Photos if provided - must be placed only in this folder
- **Photos taken at ground level**
 - Overall tower structure before and after installation of the equipment modifications
 - Photos of the appropriate mount before and after installation of the modifications; if the mounts are at different rad elevations, pictures must be provided for all elevations that the modifications were installed
- **Photos taken at Mount Elevation**
 - Photos showing each individual sector before and also after installation of equipment.


Schedule A – Photo & Document File Structure

-  VzW Site Number / Name
 -  Base & “During Installation” Photos

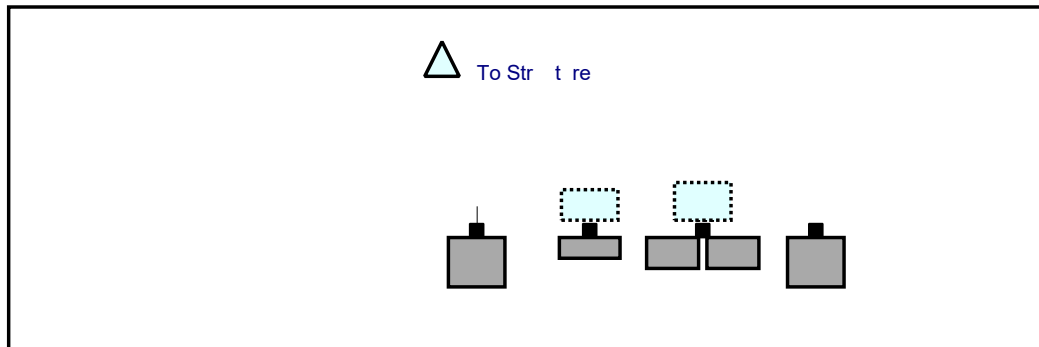
 -  Pre-Installation Photos
 -  Alpha
 -  Beta
 -  Gamma
 -  Ground Level
 -  Tape Drop

 -  Post-Installation Photos
 -  Alpha
 -  Beta
 -  Gamma
 -  Ground Level
 -  Tape Drop
 -  Photos of climbing facility and safety climb – If Present

-  Certifications – Submission of this document including certifications

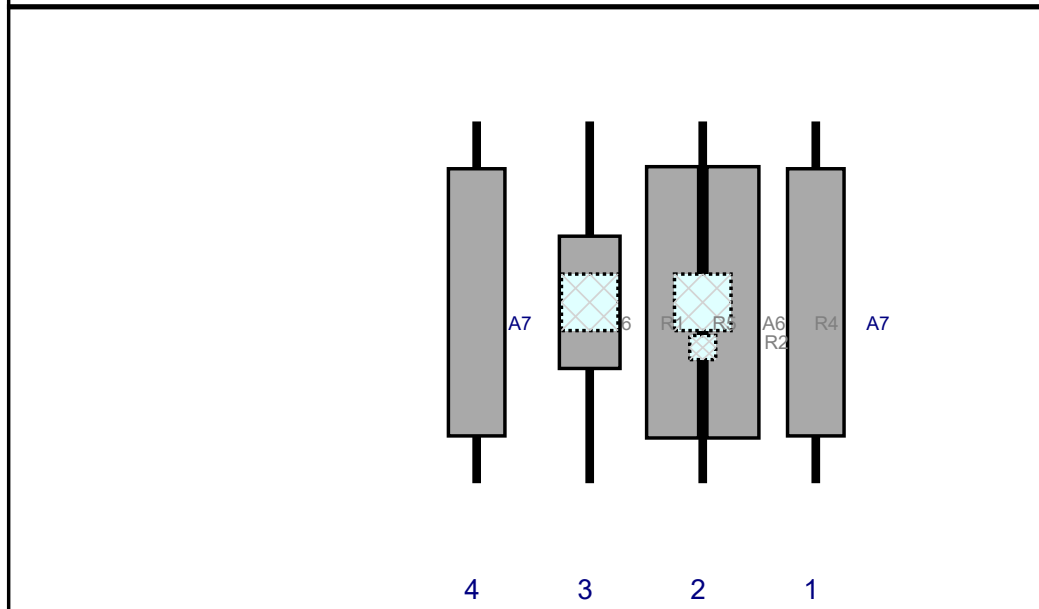
-  Specific Required Additional Photos

Plan View



Front View

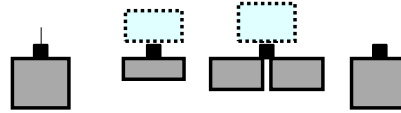
Looking at Structure



Re #	Model	Height (i)	Width (i)	H Dist Fr L.	Pipe #	Pipe Pos V	A t Pos	C. A t Fr T.	A t H O	St t s	V lid tio
A7	LPA-80063/6CF 5	70.9	15	90	1		Fro t	48	0	Ret i ed	
A6	JAHH-65B-R3B	72	13.8	60	2		Fro t	48	8	Ret i ed	
A6	JAHH-65B-R3B	72	13.8	60	2		Fro t	48	-8	Ret i ed	
R2	CBC78T-DS-43-2X	6.4	6.9	60	2		Behi d	60	0	Added	
R4	B2/B66A RRH-BR049	15	15	60	2		Behi d	48	0	Added	
R1	MT6407-77A	35.1	16.1	30	3		Fro t	48	0	Added	
R5	B5/B13 RRH-BR04C	15	15	30	3		Behi d	48	0	Added	
A7	LPA-80063/6CF 5	70.9	15	0	4		Fro t	48	0	Ret i ed	

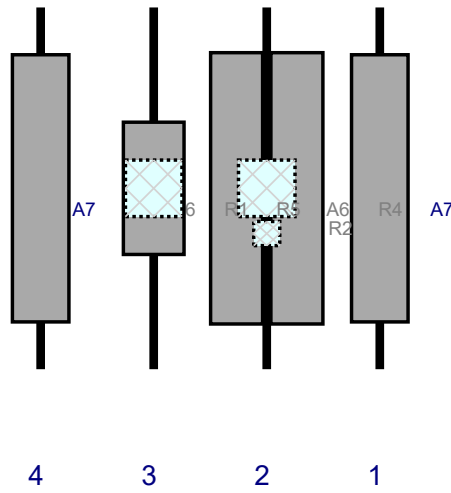
Plan View

△ To Str t re



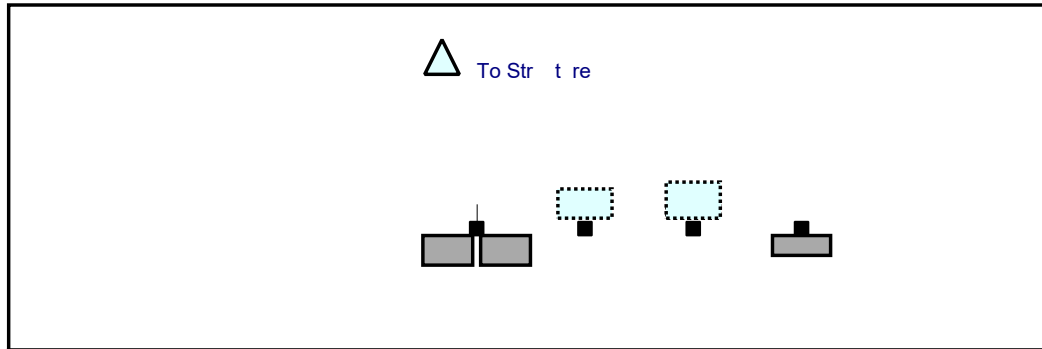
Front View

Lo o i g t Str t re



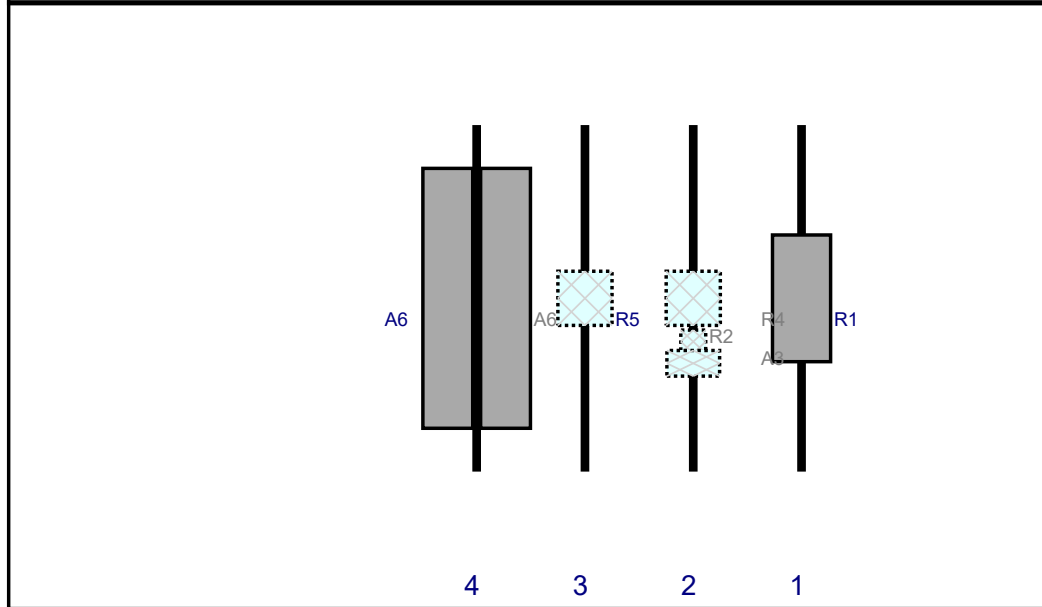
Re #	Model	Height (i)	Width (i)	H Dist Fr L.	Pipe #	Pipe Pos V	A t Pos	C. A t Fr T.	A t H O	St t s	V lid tio
A7	LPA-80063/6CF 5	70.9	15	90	1		Fro t	48	0	Ret i ed	
A6	JAHH-65B-R3B	72	13.8	60	2		Fro t	48	8	Ret i ed	
A6	JAHH-65B-R3B	72	13.8	60	2		Fro t	48	-8	Ret i ed	
R2	CBC78T-DS-43-2X	6.4	6.9	60	2		Behi d	60	0	Added	
R4	B2/B66A RRH-BR049	15	15	60	2		Behi d	48	0	Added	
R1	MT6407-77A	35.1	16.1	30	3		Fro t	48	0	Added	
R5	B5/B13 RRH-BR04C	15	15	30	3		Behi d	48	0	Added	
A7	LPA-80063/6CF 5	70.9	15	0	4		Fro t	48	0	Ret i ed	

Plan View



Front View

Lo o i g t Str t re



Re #	Model	Height (i)	Width (i)	H Dist Fr L.	Pipe #	Pipe Pos V	A t Pos	C. A t Fr T.	A t H O	St t s	V lid tio
R1	MT6407-77A	35.1	16.1	90	1		Fro t	48	0	Added	
R2	CBC78T-DS-43-2X	6.4	6.9	60	2		Behi d	60	0	Added	
A3	CHB626-43-2X	7.1	14.6	60	2		Behi d	66	0	Added	
R4	B2/B66A RRR-BR049	15	15	60	2		Behi d	48	0	Added	
R5	B5/B13 RRR-BR04C	15	15	30	3		Behi d	48	0	Added	
A6	JAHH-65B-R3B	72	13.8	0	4		Fro t	48	8	Ret i ed	
A6	JAHH-65B-R3B	72	13.8	0	4		Fro t	48	-8	Ret i ed	

Site Name: **MOHAWK MTN CT**
 Cumulative Power Density

Operator	Operating Frequency	Number of Trans.	ERP Per Trans.	Total ERP	Distance to Target	Calculated Power Density	Maximum Permissible Exposure*	Fraction of MPE
	(MHz)		(watts)	(watts)	(feet)	(mW/cm ²)	(mW/cm ²)	(%)
VZW 700	751	4	621	2483	46.5	0.0413	0.5007	8.25%
VZW CDMA	878.49	2	497	993	46.5	0.0165	0.5857	2.82%
VZW Cellular	874	4	725	2902	46.5	0.0483	0.5827	8.28%
VZW PCS	1975	4	1525	6100	46.5	0.1015	1.0000	10.15%
VZW AWS	2120	4	1484	5936	46.5	0.0987	1.0000	9.87%
VZW CBAND	3730.08	4	6531	26125	46.5	0.4345	1.0000	43.45%
Total Percentage of Maximum Permissible Exposure								82.82%

*Guidelines adopted by the FCC on August 1, 1996, 47 CFR Part 1 based on NCRP Report 86, 1986 and generally on ANSI/IEEE C95.1-1992

**Calculation includes a -10 dB Off Beam Antenna Pattern Adjustment pursuant to Attachments B and C of the Siting Council's November 10, 2015 Memorandum for Exempt Modification filings

MHz = Megahertz

mW/cm² = milliwatts per square centimeter

ERP = Effective Radiated Power

Absolute worst case maximum values used.



3.
4.

SHEET
#371

OVERHEAD WIRES

MATTATUCK ROAD
BITUMINOUS

LAND OF
THE STATE OF CONNECTICUT

LAND OF
THE STATE OF CONNECTICUT

CGS MONUMENT
M-1000

N 18°-51'-44" E
61.51'

TIE LINE N 71°-51'-30" E
71.00'

CGS MONUMENT
M-1002

TIE LINE N 81°-21'-52" W
114.72'

SHEET
#370

PROPOSED EASEMENT IN FAVOR OF
THE AMERICAN TELEPHONE AND
TELEGRAPH COMPANY
AREA=
6,190 SQ. FT.
0.142 ACRES

PROPOSED SNET CELLULAR BUILD.

PROPOSED CHAIN LINK FENCE

1 PIN TO BE
SET (TYP)

LAND OF
THE STATE OF CONNECTICUT

ANY



TO THE BEST OF MY KNOWLEDGE AND BELIEF THIS MAP IS
SUBSTANTIALLY CORRECT AS NOTED HEREON

MICHAEL G. WILMES LICENSE NO. 14201
TRUE AND VALID COPIES OF THIS MAP OR PLAN MUST BEAR THE
SIGNATURE AND EMBOSSED SEAL OF THE ABOVE NAMED LAND SURVEYOR

TARGET PROPERTY

36 MOHAWK MOUNTAIN RD CORNWALL, CT 06753-

Owner Information

Owner Name: AMERICAN TOWER MGMT INC
Mailing Address: PO BOX 723597 ATLANTA GA 31139-0597 B006
Phone Number:
Owner Occupied Indicator: UNKNOWN
Corporate Owner:
Vesting Codes:
Pending Record Indicator:

Location Information

Legal Description:
County: LITCHFIELD APN: CORN-000004-000001-F000000
Census Tract / Block: 2632.00 Alternate APN: 804122
Township-Range-Sect:
Legal Book - Page:
Legal Lot:
Legal Block:
Market Area:
Neighbor Code:
Subdivision:
Map Reference: /
Tract #:
School District:
Munic / Township: CORNWALL

Owner Transfer Information

Recording / Sale Date:
Document #:
Instrument #:
Book - Page:
Sale Price:
Deed Type:
1st Mtg Document #:

Last Market Sale Information

Recording / Sale Date: /
Sale Price:
Sale Type:
Document #:
Instrument #:
Book - Page:
Deed Type:
Transfer Document #:
New Construction:
Multi / Split Sale:
Cash Down Payment:
Title Company:
Lender:
Seller Name:
1st Mtg Amount / Type: /
1st Mtg Int. Rate / Type: /
1st Mtg Term:
1st Mtg Document #:
1st Mtg Instrument #:
1st Mtg Book - Page:
2nd Mtg Amount / Type: /
2nd Mtg Int. Rate / Type: /
2nd Mtg Term:
Price per SqFt:
Stamps Amount:

Prior Sale Information

Prior Rec / Sale Date: /
Prior Sale Price:
Prior Sale Type:
Prior Doc #:
Prior Instrument #:
Prior Book - Page:
Prior Deed Type:
Prior Lender:
Prior 1stMtg Amount/Type: /
Prior 1stMtg Int. Rate/Type: /
Prior Stamps Amount:

Site Information

Land Use: COMMERCIAL BUILDING Acres:
County Use:
Flood Zone: Lot Area: 1 State Use: COMMERCIAL LAND
Flood Zone Map: Lot Width / Depth: / Site Influence:
Flood Panel Date: Usable Lot: Sewer Type:
Res / Comm Units: Lot Shape: Topography:

# of Buildings:	1	Bldg Width / Depth:	/	Water Type:		
Zoning:		Building Class:		Water District:		
Tax Information						
Total Value:	\$36,300.00	Assessed Year:	2016	Property Tax:	\$556.00	
Land Value:		Improve %:		Tax Area:	210	
Improvement Value:	\$36,300.00	Dist:		Tax Year:	2016	
Total Taxable Value:		Fire Dist:		Tax Exemption:		
Market Value:		Garbage Dist:		Equal Rate:		
		Delinquent Date:		Equal Year:		
Property Characteristics						
Gross Area:		Parking Type:		Construction:		
Living Area:		Garage Area:		Heat Type:		
Tot Adj Area:		Garage 2 Area:		Heat Fuel:		
Above Grade:		Garage Capacity:		Parcel Fuel:		
Ground Floor Area:		Parking Spaces:		Exterior Wall:		
Base / Main Area:	/	Carport:		Interior Wall:		
Upper Area:		Basement Area:		Foundation:		
2nd Floor Area:		Finish Bsmnt Area:		Air Cond:		
3rd Floor Area:		Basement Type:		Roof Type:		
Rentable Area:		Attic Type:		Roof Shape:		
Additional Area:		Porch Type:		Roof Frame:		
Total Rooms:		Porch 1 Area:		Roof Material:		
Bedrooms:		Porch 2 Area:		Floor Type:		
Bath (F/H):	/	Patio Type:		Floor Cover:		
Total Baths / Fixtures:	/	Patio 1 Area:		Style:		
Year Built / Eff:	/	Pool:		Quality:		
Fireplace:		Pool Area:		Condition:		
Fireplace Description:				# of Stories:		
Basement Description:				Other Rooms:		
Other Improvements:						
Bldg Comments:						
Parcel Comments:						
Extra Features						
Description:	Unit:	Size / Qty:	Width:	Depth:	Year Built:	Improvement Value:
L						

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Property Location: 036 TOOMEY RD

MAP ID: F04/ 01/ //

Bldg Name:

State Use: 2-1

Vision ID: 10

Account #98100011

Bldg #: 1 of 1

Sec #: 1 of 1 Card 1 of 1

Print Date: 02/17/2021 11:15

CURRENT OWNER		TOPO.	UTILITIES	STRT./ROAD	LOCATION	CURRENT ASSESSMENT			
AMERICAN TOWER MGMT INC						Description	Code	Appraised Value	Assessed Value
PO BOX 723597						COM OUTBL	2-5	76,800	53,800
ATLANTA, GA 31139		SUPPLEMENTAL DATA							
Additional Owners:									
Other ID: CENSUS TRAC 2632 SURVEY # 662									
GIS ID:		ASSOC PID#			Total		76,800	53,800	

6031
CORNWALL, CT

VISION

RECORD OF OWNERSHIP		BK-VOL/PAGE	SALE DATE	q/u	v/i	SALE PRICE	V.C.	PREVIOUS ASSESSMENTS (HISTORY)								
AMERICAN TOWER MGMT INC		088/811	04/03/2000	Q		221,229	QC	Yr.	Code	Assessed Value	Yr.	Code	Assessed Value	Yr.	Code	Assessed Value
								2020	2-5	53,800	2019	2-5	53,800	2018	2-5	53,800
								Total:		53,800	Total:		53,800	Total:		53,800

EXEMPTIONS				OTHER ASSESSMENTS				
Year	Type	Description	Amount	Code	Description	Number	Amount	Comm. Int.
Total:								

This signature acknowledges a visit by a Data Collector or Assessor

ASSESSING NEIGHBORHOOD				
NBHD/ SUB	NBHD Name	Street Index Name	Tracing	Batch
0001/A				

APPRAISED VALUE SUMMARY

Appraised Bldg. Value (Card)	0
Appraised XF (B) Value (Bldg)	0
Appraised OB (L) Value (Bldg)	76,800
Appraised Land Value (Bldg)	0
Special Land Value	0
Total Appraised Parcel Value	76,800
Valuation Method:	C
Adjustment:	0
Net Total Appraised Parcel Value	76,800

NOTES

BLDGS ONLY ON STATE LAND (E6-3-6)
 POLE ON PERSONAL PROPERTY
 2016 PRICE 2014 IMPROVEMENTS
 2017 CHANGED ADDRESS TO TOOMEY RD
 PREVIOUSLY MOHAWK MOUNTAIN RD

BUILDING PERMIT RECORD										VISIT/ CHANGE HISTORY					
Permit ID	Issue Date	Type	Description	Amount	Insp. Date	% Comp.	Date Comp.	Comments	Date	Type	IS	ID	Cd.	Purpose/Result	
11128	10/06/2014	RE	Remodel	25,000		0		UPGRADE EQUIPMEN							

LAND LINE VALUATION SECTION																					
B #	Use Code	Use Description	Zone	D	Front	Depth	Units	Unit Price	I. Factor	S.A.	Acre Disc	C. Factor	ST. Idx	Adj.	Notes- Adj	Special Pricing		S Adj Fact	Adj. Unit Price	Land Value	
																Spec Use	Spec Calc				
1	2-1V	COMM LND MDL-00					0 SF	0.00	1.0000	0	1.0000	1.00		0.00					.00		0

Total Card Land Units: 0.00 AC Parcel Total Land Area: 0 AC Total Land Value: 0

CONSTRUCTION DETAIL				CONSTRUCTION DETAIL (CONTINUED)			
Element	Cd.	Ch.	Description	Element	Cd.	Ch.	Description
Model	00		Vacant				
MIXED USE							
	<i>Code</i>		<i>Description</i>				<i>Percentage</i>
	2-1V		COMMLND MDL-00				100
COST/MARKET VALUATION							
	Adj. Base Rate:						0.00
	Replace Cost						0
	AYB						
	EYB						0
	Dep Code						
	Remodel Rating						
	Year Remodeled						
	Dep %						
	Functional Obslnc						
	External Obslnc						
	Cost Trend Factor						
	Condition						
	% Complete						
	Overall % Cond						
	Apprais Val						
	Dep % Ovr						0
	Dep Ovr Comment						
	Misc Imp Ovr						0
	Misc Imp Ovr Comment						
	Cost to Cure Ovr						0
	Cost to Cure Ovr Comment						

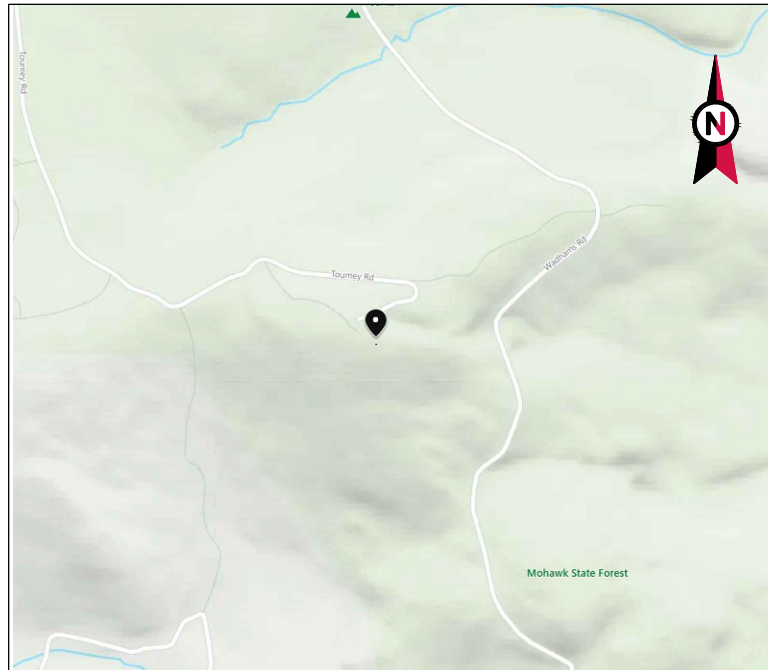
OB-OUTBUILDING & YARD ITEMS(L) / XF-BUILDING EXTRA FEATURES(B)

Code	Description	Sub	Sub Descript	L/B	Units	Unit Price	Yr	Gde	Dp Rt	Cnd	%Cnd	Apr Value
FGR1	GARAGE-AVE			L	946	25.00	0		0		100	23,700
SHP2	WORK SHOP			L	936	30.00	0		0		100	28,100
	TOWER EQUI			L	1	25,000.00	2015				Null	25,000

No Photo On Record

BUILDING SUB-AREA SUMMARY SECTION

Code	Description	Living Area	Gross Area	Eff. Area	Unit Cost	Undeprec. Value
Ttl. Gross Liv/Lease Area:		0	0			

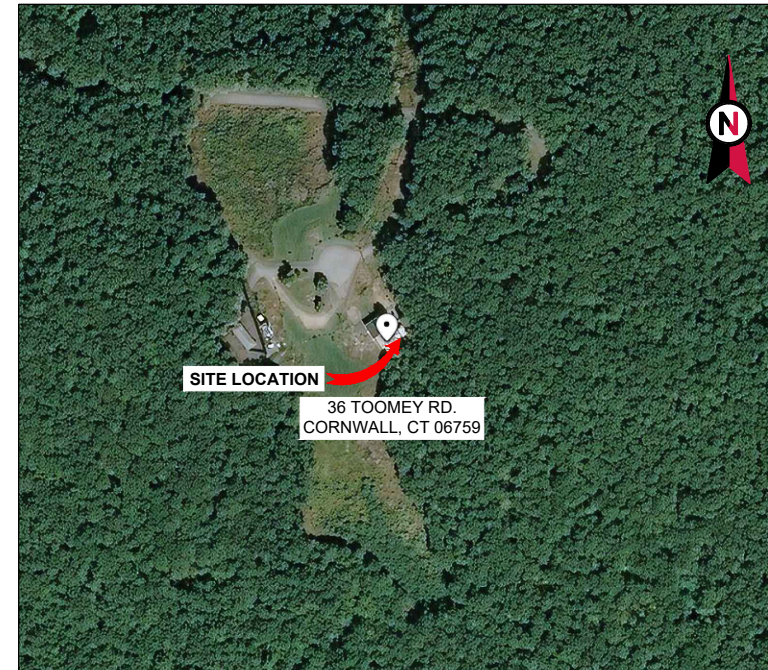


VICINITY MAP



AMERICAN TOWER®

ATC SITE NAME: CORNWALL CT
 ATC SITE NUMBER: 88009
 VERIZON SITE NAME: MOHAWK MTN CT
 VERIZON SITE NUMBER: 468041
 SITE ADDRESS: 36 TOOMEY RD.
 CORNWALL, CT 06759



LOCATION MAP

**VERIZON
 ANTENNA AMENDMENT DRAWINGS**

COMPLIANCE CODE	PROJECT SUMMARY	PROJECT DESCRIPTION	SHEET INDEX					
<p>ALL WORK SHALL BE PERFORMED AND MATERIALS INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNMENT AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THESE CODES.</p> <p>1. 2015 INTERNATIONAL BUILDING CODE (IBC) 2. 2017 NATIONAL ELECTRIC CODE (NEC) 3. 2018 CONNECTICUT STATE BUILDING CODE 4. CITY/COUNTY ORDINANCES</p>	<p><u>SITE ADDRESS:</u> 36 TOOMEY RD. CORNWALL, CT 06759 COUNTY: LITCHFIELD</p> <p><u>GEOGRAPHIC COORDINATES:</u> LATITUDE: 41.82130278 LONGITUDE: -73.29644167 GROUND ELEVATION: 1678' AMSL</p>	<p>THE PROPOSED PROJECT INCLUDES MODIFYING GROUND BASED AND TOWER MOUNTED EQUIPMENT AS INDICATED PER BELOW: REMOVE (8) ANTENNA(s), AND (12) RRRH(s) RELOCATE (5) MOUNT PIPE(s), (2) ANTENNA(s) (1) DUAL ANTENNA MOUNTING BRACKET INSTALL (3) ANTENNA(s), (6) RRRH(s), AND (4) DIPLEXER(s) EXISTING (10) ANTENNA(s), (2) OVP(s), (6) 1-5/8" COAX CABLE(s), AND (2) 1-5/8" FIBER CABLE(s) TO REMAIN</p>	SHEET NO:	DESCRIPTION:	REV:	DATE:	BY:	
	<p>PROJECT TEAM</p> <p><u>TOWER OWNER:</u> AMERICAN TOWER 10 PRESIDENTIAL WAY WOBURN, MA 01801</p> <p><u>ENGINEER:</u> CLS ENGINEERING, PLLC 319 CHAPANOKE RD, SUITE 118 RALEIGH, NC 27603 PH: (405) 348-5460 FAX: (405) 341-4625</p> <p><u>PROPERTY OWNER:</u> PN LL NO VENDOR 36 TOOMEY RD. CORNWALL, CT 06759</p>	<p>AC ELECTRICAL POWER DESIGN TO BE PERFORMED BY OTHERS</p>						
	<p><u>APPLICANT:</u> VERIZON WIRELESS</p>	<p>PROJECT NOTES</p> <p>1. THE FACILITY IS UNMANNED. 2. A TECHNICIAN WILL VISIT THE SITE APPROXIMATELY ONCE A MONTH FOR ROUTINE INSPECTION AND MAINTENANCE. 3. THE PROJECT WILL NOT RESULT IN ANY SIGNIFICANT LAND DISTURBANCE OR EFFECT OF STORM WATER DRAINAGE. 4. NO SANITARY SEWER, POTABLE WATER OR TRASH DISPOSAL IS REQUIRED. 5. HANDICAP ACCESS IS NOT REQUIRED.</p>						
<p>UTILITY COMPANIES</p> <p>POWER COMPANY: EVERSOURCE PHONE: (877) 659-6326</p> <p>TELEPHONE COMPANY: FRONTIER COMMUNICATIONS PHONE: (800) 376-6843</p>		<p>PROJECT LOCATION DIRECTIONS</p> <p>FROM HARTFORD, CT TAKE I-84 WEST TO RT 4 WEST. FOLLOW RT 4 TO GOSHEN, CT. GO PAST THE GOSHEN MOTEL AND TAKE A LEFT ONTO ALLYN ROAD. ALLYN ROAD WILL TURN INTO MOWHAWK MOUNTAIN ROAD WHERE THE STATE FOREST BEGINS. FOLLOW THIS TO THE TOP OF THE MOUNTAIN. ATC TOWER IS THE FIRST ONE ON THE LEFT AT THE TOP.</p>						



CLS ENGINEERING PLLC
 319 CHAPANOKE ROAD, SUITE 118, RALEIGH, NC 27603
 PH: (405)348-5460 FAX: (405)341-4625

COA# PEC.001833 EXP. 08/14/2021

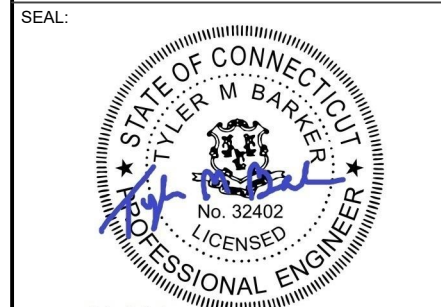
REV.	DESCRIPTION	BY	DATE
A	PRELIM	MH	06/25/21
0	FOR CONSTRUCTION	BMB	07/29/21

ATC SITE NUMBER:
 88009

ATC SITE NAME:
 CORNWALL CT

VERIZON SITE NAME:
 MOHAWK MTN CT

SITE ADDRESS:
 36 TOOMEY RD.
 CORNWALL, CT 06759



SEAL: Tyler M. Barker
 CLS Engineering PLLC
 PE # 32402 Exp. 1/31/2022
 COA # PEC.001833 Exp. 8/14/2022

PE# 32402 EXP: 01/31/2022



DATE DRAWN:	07/29/21
ATC JOB NO:	13668803_D1
CUSTOMER ID:	MOHAWK MTN CT
CUSTOMER #:	468041

TITLE SHEET

SHEET NUMBER:
G-001

REVISION:
0

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GENERAL CONSTRUCTION NOTES:

1. OWNER FURNISHED MATERIALS, VERIZON "THE COMPANY" WILL PROVIDE AND THE CONTRACTOR WILL INSTALL
 - A. BTS EQUIPMENT FRAME (PLATFORM) AND ICEBRIDGE SHELTER (GROUND BUILD/CO-LOCATE ONLY)
 - B. AC/TELCO INTERFACE BOX (PPC)
 - C. ICE BRIDGE (CABLE TRAY WITH COVER) (GROUND BUILD/CO-LOCATE ONLY, GC TO FURNISH AND INSTALL FOR ROOFTOP INSTALLATION)
 - D. TOWERS, MONOPOLES
 - E. TOWER LIGHTING
 - F. GENERATORS & LIQUID PROPANE TANK
 - G. ANTENNA STANDARD BRACKETS, FRAMES AND PIPES FOR MOUNTING
 - H. ANTENNAS (INSTALLED BY OTHERS)
 - I. TRANSMISSION LINE
 - J. TRANSMISSION LINE JUMPERS
 - K. TRANSMISSION LINE CONNECTORS WITH WEATHERPROOFING KITS
 - L. TRANSMISSION LINE GROUND KITS
 - M. HANGERS
 - N. HOISTING GRIPS
 - O. BTS EQUIPMENT
2. THE CONTRACTOR IS RESPONSIBLE TO PROVIDE ALL OTHER MATERIALS FOR THE COMPLETE INSTALLATION OF THE SITE INCLUDING, BUT NOT LIMITED TO, SUCH MATERIALS AS FENCING, STRUCTURAL STEEL SUPPORTING SUB-FRAME FOR PLATFORM, ROOFING LABOR AND MATERIALS, GROUNDING RINGS, GROUNDING WIRES, COPPER-CLAD OR XIT CHEMICAL GROUND ROD(S), BUSS BARS, TRANSFORMERS AND DISCONNECT SWITCHES WHERE APPLICABLE, TEMPORARY ELECTRICAL POWER, CONDUIT, LANDSCAPING COMPOUND STONE, CRANES, CORE DRILLING, SLEEPERS AND RUBBER MATTING, REBAR, CONCRETE CAISSONS, PADS AND/OR AUGER MOUNTS, MISCELLANEOUS FASTENERS, CABLE TRAYS, NON-STANDARD ANTENNA FRAMES AND ALL OTHER MATERIAL AND LABOR REQUIRED TO COMPLETE THE JOB ACCORDING TO THE DRAWINGS AND SPECIFICATIONS. IT IS THE POSITION OF VERIZON TO APPLY FOR PERMITTING AND CONTRACTOR RESPONSIBLE FOR PICKUP AND PAYMENT OF REQUIRED PERMITS.
3. ALL WORK SHALL CONFORM TO ALL CURRENT APPLICABLE FEDERAL, STATE, AND LOCAL CODES, INCLUDING ANSI/EIA/TIA-222, AND COMPLY WITH ATC CONSTRUCTION SPECIFICATIONS.
4. CONTRACTOR SHALL CONTACT LOCAL 811 FOR IDENTIFICATION OF UNDERGROUND UTILITIES PRIOR TO START OF CONSTRUCTION.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL REQUIRED INSPECTIONS.
6. ALL DIMENSIONS TO, OF, AND ON EXISTING BUILDINGS, DRAINAGE STRUCTURES, AND SITE IMPROVEMENTS SHALL BE VERIFIED IN FIELD BY CONTRACTOR WITH ALL DISCREPANCIES REPORTED TO THE ENGINEER.
7. DO NOT CHANGE SIZE OR SPACING OF STRUCTURAL ELEMENTS.
8. DETAILS SHOWN ARE TYPICAL; SIMILAR DETAILS APPLY TO SIMILAR CONDITIONS UNLESS OTHERWISE NOTED.
9. THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY WHICH SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
10. CONTRACTOR SHALL BRACE STRUCTURES UNTIL ALL STRUCTURAL ELEMENTS NEEDED FOR STABILITY ARE INSTALLED. THESE ELEMENTS ARE AS FOLLOWS: LATERAL BRACING, ANCHOR BOLTS, ETC.
11. CONTRACTOR SHALL DETERMINE EXACT LOCATION OF EXISTING UTILITIES, GROUNDS DRAINS, DRAIN PIPES, VENTS, ETC. BEFORE COMMENCING WORK.
12. INCORRECTLY FABRICATED, DAMAGED, OR OTHERWISE MISFITTING OR NONCONFORMING MATERIALS OR CONDITIONS SHALL BE REPORTED TO THE VERIZON REP PRIOR TO REMEDIAL OR CORRECTIVE ACTION. ANY SUCH REMEDIAL ACTION SHALL REQUIRE WRITTEN APPROVAL BY THE VERIZON REP PRIOR TO PROCEEDING.
13. EACH CONTRACTOR SHALL COOPERATE WITH THE VERIZON REP, AND COORDINATE HIS WORK WITH THE WORK OF OTHERS.
14. CONTRACTOR SHALL REPAIR ANY DAMAGE CAUSED BY CONSTRUCTION OF THIS PROJECT TO MATCH EXISTING PRE-CONSTRUCTION CONDITIONS TO THE SATISFACTION OF THE VERIZON CONSTRUCTION MANAGER.
15. ALL CABLE/CONDUIT ENTRY/EXIT PORTS SHALL BE WEATHERPROOFED DURING INSTALLATION USING A SILICONE SEALANT.
16. WHERE EXISTING CONDITIONS DO NOT MATCH THOSE SHOWN IN THIS PLAN SET, CONTRACTOR SHALL NOTIFY THE VERIZON REP AND ENGINEER OF RECORD IMMEDIATELY.
17. CONTRACTOR SHALL ENSURE ALL SUBCONTRACTORS ARE PROVIDED WITH A COMPLETE AND CURRENT SET OF DRAWINGS AND SPECIFICATIONS FOR THIS PROJECT.
18. CONTRACTOR SHALL REMOVE ALL RUBBISH AND DEBRIS FROM THE SITE AT THE END OF EACH DAY.
19. CONTRACTOR SHALL COORDINATE WORK SCHEDULE WITH AMERICAN TOWER CORPORATION (ATC) AND TAKE PRECAUTIONS TO MINIMIZE IMPACT AND DISRUPTION OF OTHER OCCUPANTS OF THE FACILITY.
20. CONTRACTOR SHALL FURNISH VERIZON AND AMERICAN TOWER CORPORATION (ATC) WITH A PDF MARKED UP AS-BUILT SET OF DRAWINGS UPON COMPLETION OF WORK.
21. PRIOR TO SUBMISSION OF BID, CONTRACTOR SHALL COORDINATE WITH VERIZON REP TO DETERMINE WHAT, IF ANY, ITEMS WILL BE PROVIDED. ALL ITEMS NOT PROVIDED SHALL BE PROVIDED AND INSTALLED BY THE CONTRACTOR. CONTRACTOR WILL INSTALL ALL ITEMS PROVIDED.

22. PRIOR TO SUBMISSION OF BID, CONTRACTOR SHALL COORDINATE WITH VERIZON REP TO DETERMINE IF ANY PERMITS WILL BE OBTAINED BY CONTRACTOR. ALL REQUIRED PERMITS NOT OBTAINED BY VERIZON MUST BE OBTAINED, AND PAID FOR, BY THE CONTRACTOR.
23. CONTRACTOR SHALL INSTALL ALL SITE SIGNAGE IN ACCORDANCE WITH VERIZON SPECIFICATIONS AND REQUIREMENTS.
24. CONTRACTOR SHALL SUBMIT ALL SHOP DRAWINGS TO VERIZON FOR REVIEW AND APPROVAL PRIOR TO FABRICATION.
25. ALL EQUIPMENT SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS AND LOCATED ACCORDING TO VERIZON SPECIFICATIONS, AND AS SHOWN IN THESE PLANS.
26. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE PROJECT DESCRIBED HEREIN. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL THE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT.
27. CONTRACTOR SHALL NOTIFY VERIZON REP A MINIMUM OF 48 HOURS IN ADVANCE OF POURING CONCRETE OR BACKFILLING ANY UNDERGROUND UTILITIES, FOUNDATIONS OR SEALING ANY WALL, FLOOR OR ROOF PENETRATIONS FOR ENGINEERING REVIEW AND APPROVAL.
28. CONTRACTOR SHALL BE RESPONSIBLE FOR SITE SAFETY INCLUDING COMPLIANCE WITH ALL APPLICABLE OSHA STANDARDS AND RECOMMENDATIONS AND SHALL PROVIDE ALL NECESSARY SAFETY DEVICES INCLUDING PPE AND PPM AND CONSTRUCTION DEVICES SUCH AS WELDING AND FIRE PREVENTION, TEMPORARY SHORING, SCAFFOLDING, TRENCH BOXES/SLOPING, BARRIERS, ETC.
29. THE CONTRACTOR SHALL PROTECT AT HIS OWN EXPENSE, ALL EXISTING FACILITIES AND SUCH OF HIS NEW WORK LIABLE TO INJURY DURING THE CONSTRUCTION PERIOD. ANY DAMAGE CAUSED BY NEGLIGENCE ON THE PART OF THIS CONTRACTOR OR HIS REPRESENTATIVES, OR BY THE ELEMENTS DUE TO NEGLIGENCE ON THE PART OF THIS CONTRACTOR OR HIS REPRESENTATIVES, EITHER TO THE EXISTING WORK, OR TO HIS WORK OR THE WORK OF ANY OTHER CONTRACTOR, SHALL BE REPAIRED AT HIS EXPENSE TO THE OWNER'S SATISFACTION.
30. ALL WORK SHALL BE INSTALLED IN A FIRST CLASS, NEAT AND WORKMANLIKE MANNER BY MECHANICS SKILLED IN THE TRADE INVOLVED. THE QUALITY OF WORKMANSHIP SHALL BE SUBJECT TO THE APPROVAL OF THE VERIZON REP. ANY WORK FOUND BY THE VERIZON REP TO BE OF INFERIOR QUALITY AND/OR WORKMANSHIP SHALL BE REPLACED AND/OR REWORKED AT CONTRACTOR EXPENSE UNTIL APPROVAL IS OBTAINED.
31. IN ORDER TO ESTABLISH STANDARDS OF QUALITY AND PERFORMANCE, ALL TYPES OF MATERIALS LISTED HEREINAFTER BY MANUFACTURER'S NAMES AND/OR MANUFACTURER'S CATALOG NUMBER SHALL BE PROVIDED BY THESE MANUFACTURERS AS SPECIFIED.
32. VERIZON FURNISHED EQUIPMENT SHALL BE PICKED-UP AT THE VERIZON WAREHOUSE, NO LATER THAN 48HR AFTER BEING NOTIFIED INSURED, STORED, UNCRATE, PROTECTED AND INSTALLED BY THE CONTRACTOR WITH ALL APPURTENANCES REQUIRED TO PLACE THE EQUIPMENT IN OPERATION, READY FOR USE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE EQUIPMENT AFTER PICKING IT UP.
33. VERIZON OR HIS ARCHITECT/ENGINEER RESERVES THE RIGHT TO REJECT ANY EQUIPMENT OR MATERIALS WHICH, IN HIS OWN OPINION ARE NOT IN COMPLIANCE WITH THE CONTRACT DOCUMENTS, EITHER BEFORE OR AFTER INSTALLATION AND THE EQUIPMENT SHALL BE REPLACED WITH EQUIPMENT CONFORMING TO THE REQUIREMENTS OF THE CONTRACT DOCUMENTS BY THE CONTRACTOR AT NO COST TO VERIZON OR THEIR ARCHITECT/ENGINEER.

SPECIAL CONSTRUCTION

ANTENNA INSTALLATION NOTES:

1. WORK INCLUDED:
 - A. ANTENNA AND COAXIAL CABLES ARE FURNISHED BY VERIZON UNDER A SEPARATE CONTRACT. THE CONTRACTOR SHALL ASSIST ANTENNA INSTALLATION CONTRACTOR IN TERMS OF COORDINATION AND SITE ACCESS. ERECTION SUBCONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF PERSONNEL AND
 - B. INSTALL ANTENNA AS INDICATE ON DRAWINGS AND VERIZON SPECIFICATIONS.
 - C. INSTALL GALVANIZED STEEL ANTENNA MOUNTS AS INDICATED ON DRAWINGS
 - D. INSTALL FURNISHED GALVANIZED STEEL OR ALUMINUM WAVEGUIDE.
 - E. CONTRACTOR SHALL PROVIDE FOUR (4) SETS OF SWEEP TESTS USING ANRITZU-PACKARD 8713B RF SCALAR NETWORK ANALYZER. SUBMIT FREQUENCY DOMAIN REFLECTOMETER(FDR) TESTS RESULTS TO THE PROJECT MANAGER. SWEEP TESTS SHALL BE AS PER ATTACHED RFS "MINIMUM FIELD TESTING RECOMMENDED FOR ANTENNA AND HELIAX COAXIAL CABLE SYSTEMS" DATED 10/5/93. TESTING SHALL BE PERFORMED BY AN INDEPENDENT TESTING SERVICE AND BE BOUND AND SUBMITTED WITHIN ONE WEEK OF WORK COMPLETION.
 - F. INSTALL COAXIAL CABLES AND TERMINATING BETWEEN ANTENNAS AND EQUIPMENT PER MANUFACTURER'S RECOMMENDATIONS. WEATHERPROOF ALL CONNECTIONS BETWEEN THE ANTENNA AND EQUIPMENT PER MANUFACTURER'S REQUIREMENTS. TERMINATE ALL COAXIAL CABLE THREE (3) FEET IN EXCESS OF ENTRY PORT LOCATION UNLESS OTHERWISE STATED.
 - G. ANTENNA AND COAXIAL CABLE GROUNDING:
2. ALL EXTERIOR #6 GREEDED GROUND WIRE "DAISY CHAIN" CONNECTIONS ARE TO BE WEATHER SEALED WITH RFS CONNECTORS/SPLICE WEATHERPROOFING KIT #221213 OR EQUAL.
3. ALL COAXIAL CABLE GROUNDING KITS ARE TO BE INSTALLED ON STRAIGHT RUNS OF COAXIAL CABLE (NOT WITHIN BENDS)

ALL DISCREPANCIES FROM WHAT IS SHOWN ON THESE CONSTRUCTION DRAWINGS SHALL BE COMMUNICATED TO ATC ENGINEERING IMMEDIATELY FOR CORRECTION OR RE-DESIGN. FAILURE TO COMMUNICATE DIRECTLY WITH ATC ENGINEERING OR ANY CHANGES FROM THE DESIGN CONDUCTED WITHOUT PRIOR APPROVAL FROM ATC ENGINEERING SHALL BE THE SOLE RESPONSIBILITY OF THE GENERAL CONTRACTOR.



CLS ENGINEERING
PLLC
319 CHAPANOKE ROAD, SUITE 118, RALEIGH, NC 27603
PH: (405)348-5460 FAX: (405)341-4625

COA# PEC.001833 EXP. 08/14/2021

REV.	DESCRIPTION	BY	DATE
A	PRELIM	MH	06/25/21
0	FOR CONSTRUCTION	BMB	07/29/21

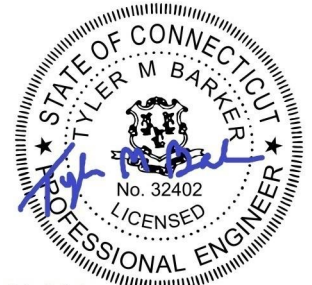
ATC SITE NUMBER:
88009

ATC SITE NAME:
CORNWALL CT

VERIZON SITE NAME:
MOHAWK MTN CT

SITE ADDRESS:
36 TOOMEY RD.
CORNWALL, CT 06759

SEAL:



Tyler M. Barker
CLS Engineering PLLC
PE # 32402 Exp. 1/31/2022
COA # PEC.001833 Exp. 8/14/2022

PE# 32402 EXP: 01/31/2022



DATE DRAWN:	07/29/21
ATC JOB NO:	13668803_D1
CUSTOMER ID:	MOHAWK MTN CT
CUSTOMER #:	468041

GENERAL NOTES

SHEET NUMBER:
G-002

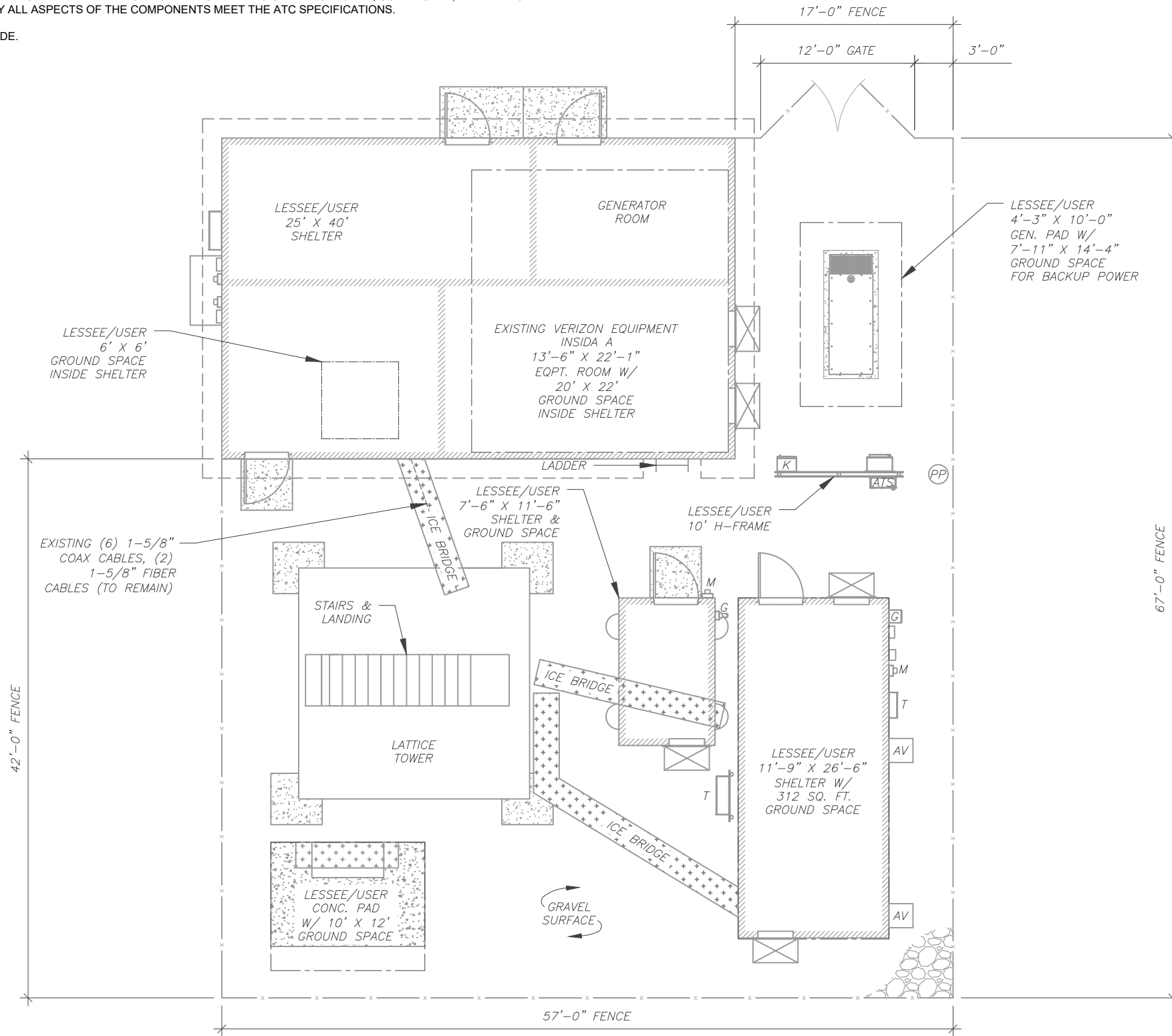
REVISION:
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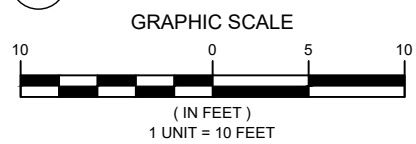
SITE PLAN NOTES:

1. THIS SITE PLAN REPRESENTS THE BEST PRESENT KNOWLEDGE AVAILABLE TO THE ENGINEER AT THE TIME OF THIS DESIGN. THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO CONSTRUCTION AND VERIFY ALL EXISTING CONDITIONS RELATED TO THE SCOPE OF WORK FOR THIS PROJECT.
2. ICE BRIDGE, CABLE LADDER, COAX PORT, AND COAX CABLE ARE SHOWN FOR REFERENCE ONLY. CONTRACTOR SHALL CONFIRM THE EXACT LOCATION OF ALL PROPOSED AND EXISTING EQUIPMENT AND STRUCTURES DEPICTED ON THIS PLAN. BEFORE UTILIZING EXISTING CABLE SUPPORTS, COAX PORTS, INSTALLING NEW PORTS OR ANY OTHER EQUIPMENT, CONTRACTOR SHALL VERIFY ALL ASPECTS OF THE COMPONENTS MEET THE ATC SPECIFICATIONS.
3. THIS PROJECT INCLUDES NO INSTALL OR MODIFICATION AT GRADE.

LEGEND	
⊗	GROUNDING TEST WELL
ATS	AUTOMATIC TRANSFER SWITCH
B	BOLLARD
CSC	CELL SITE CABINET
D	DISCONNECT
E	ELECTRICAL
F	FIBER
GEN	GENERATOR
G	GENERATOR RECEPTACAL
HH, V	HAND HOLE, VAULT
IB	ICE BRIDGE
K	KENTROX BOX
LC	LIGHTING CONTROL
M	METER
PB	PULL BOX
PP	POWER POLE
T	TELCO
TRN	TRANSFORMER
x	CHAINLINK FENCE



1 DETAILED SITE PLAN



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VERIZON SITE NAME:
MOHAWK MTN CT

SITE ADDRESS:
36 TOOMEY RD.
CORNWALL, CT 06759



Tyler M. Barker
 CLS Engineering PLLC
 PE # 32402 Exp. 1/31/2022
 COA # PEC.001833 Exp. 8/14/2022

PE# 32402 EXP: 01/31/2022



DATE DRAWN:	07/29/21
ATC JOB NO:	13668803_D1
CUSTOMER ID:	MOHAWK MTN CT
CUSTOMER #:	468041

DETAILED SITE PLAN

SHEET NUMBER:	REVISION:
C-101	0

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TOP OF EXISTING
HIGHEST APPURTENANCE
ELEV. 83'

TOP OF EXISTING TOWER
ELEV. 65'

2 1
C-401 C-401

EXISTING AND
PROPOSED VERIZON
EQUIPMENT

EXISTING (6) 1-5/8" COAX CABLES,
(2) 1-5/8" FIBER CABLES (TO REMAIN)

EXISTING TOWER

EXISTING CARRIER ANTENNAS
RAD CENTER @ 75'

EXISTING CARRIER ANTENNAS
RAD CENTER @ 74'

EXISTING CARRIER ANTENNAS
RAD CENTER @ 72'

EXISTING CARRIER ANTENNAS
RAD CENTER @ 69'

EXISTING CARRIER ANTENNAS
RAD CENTER @ 65'

EXISTING CARRIER ANTENNAS
RAD CENTER @ 63'

EXISTING CARRIER ANTENNAS
RAD CENTER @ 59'

EXISTING CARRIER ANTENNAS
RAD CENTER @ 57'

PROPOSED VERIZON
RAD CENTER @ 46'

PER MOUNT ANALYSIS COMPLETED BY GPD
ENGINEERING AND ARCHITECTURE
PROFESSIONAL CORPORATION, DATED JUNE 17,
2021, THE EXISTING MOUNT CAN ADEQUATELY
SUPPORT THE PROPOSED LOADING.



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CUSTOMER #:	468041

TOWER ELEVATION

SHEET NUMBER:
C-201

REVISION:
0

1 TOWER ELEVATION
SCALE: N.T.S.

EXISTING TOP
OF BASE PLATE

TOWER NOTE:

- IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONFIRM WITH THE PROJECT MANAGER THAT THEY HAVE THE MOST RECENT VERSION OF THE STRUCTURAL ANALYSIS BEFORE COMMENCING WORK. EXISTING AND PROPOSED TOWER APPURTENANCES, MOUNTS, AND ANTENNAS ARE SHOWN BASED ON THE STRUCTURAL ANALYSIS.
- WHERE APPLICABLE, ALL NEW ANTENNAS, EQUIPMENT, MOUNTS, CABLING, ETC. SHALL BE PAINTED/SOCKED TO MATCH EXISTING EQUIPMENT IN ACCORDANCE WITH FAA, JURISDICTION, AND/OR OTHER LOCAL REQUIREMENTS.
- TOWER ELEVATIONS ARE MEASURED FROM TOP OF BASE PLATE TO MATCH STRUCTURAL ANALYSIS. ELEVATIONS DO NOT REFLECT TRUE ABOVE GROUND LEVEL (A.G.L.)



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 07/29/2021

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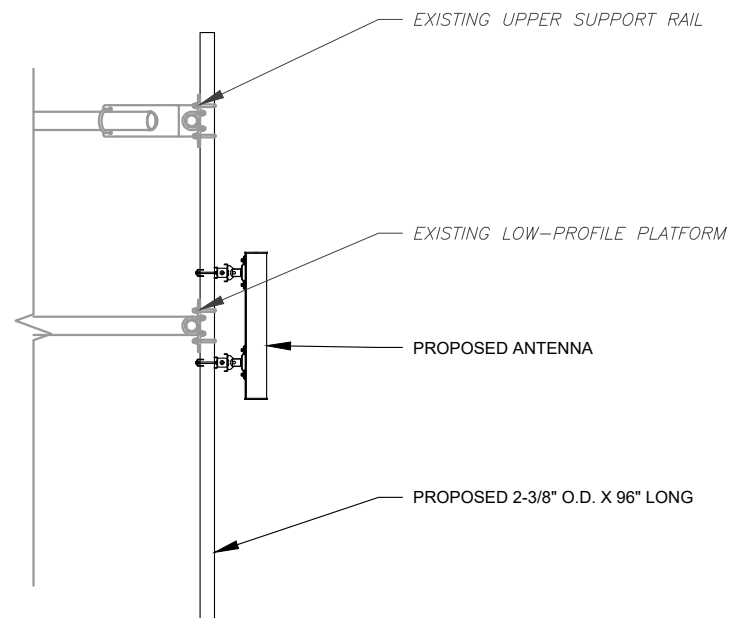


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CUSTOMER ID:	MOHAWK MTN CT
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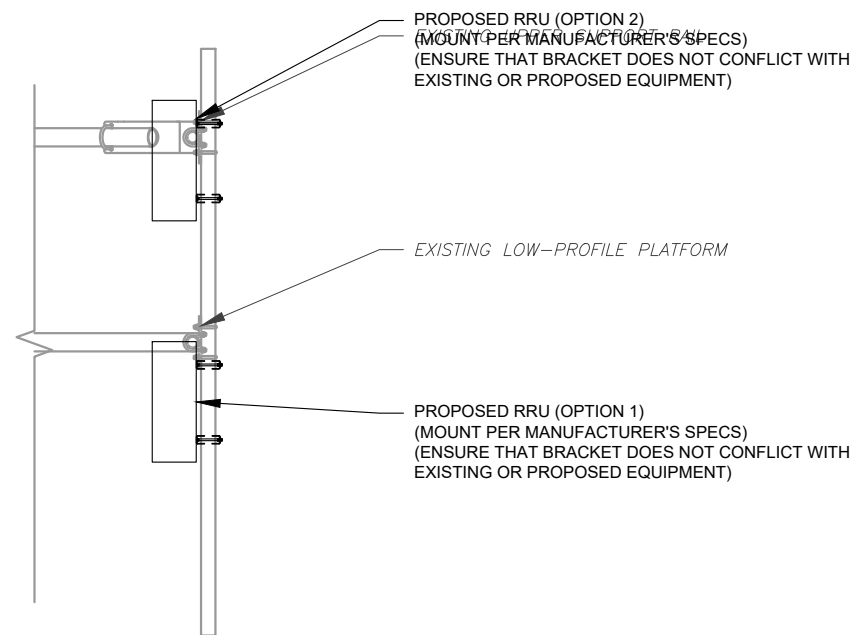
**CONSTRUCTION
 DETAILS**

SHEET NUMBER:
C-501

REVISION:
0

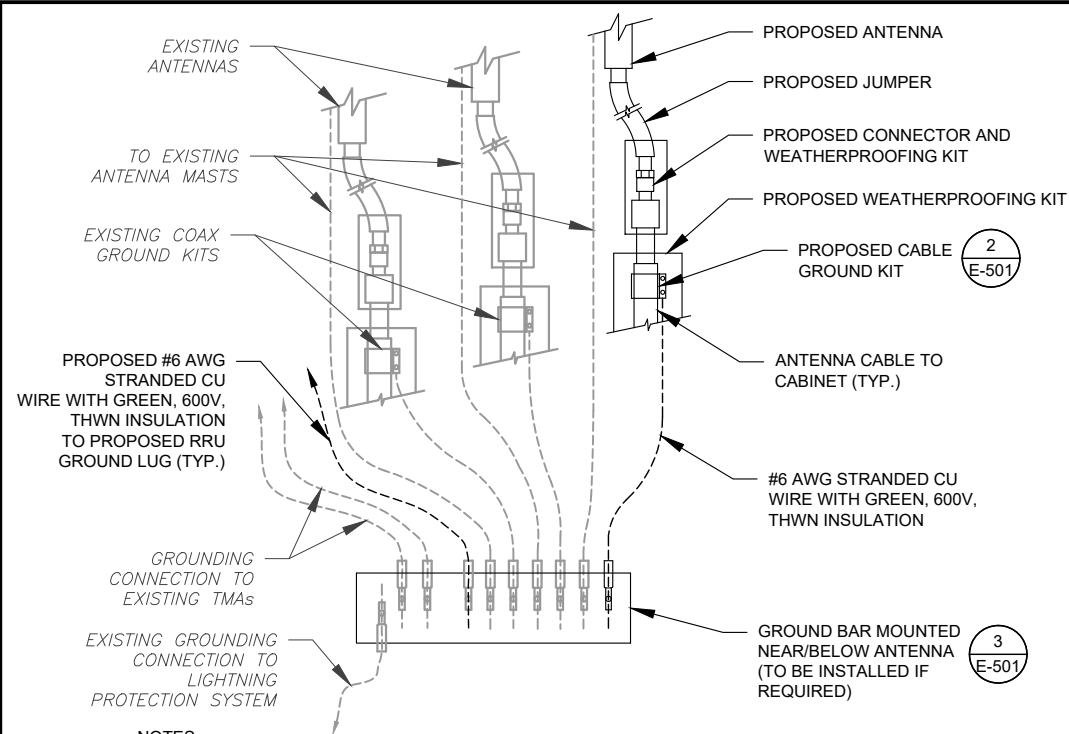


1 PROPOSED 5G ANTENNA MOUNTING DETAIL - TYPICAL
 SCALE: N.T.S.



2 PROPOSED RRU MOUNTING DETAIL - TYPICAL
 SCALE: N.T.S.

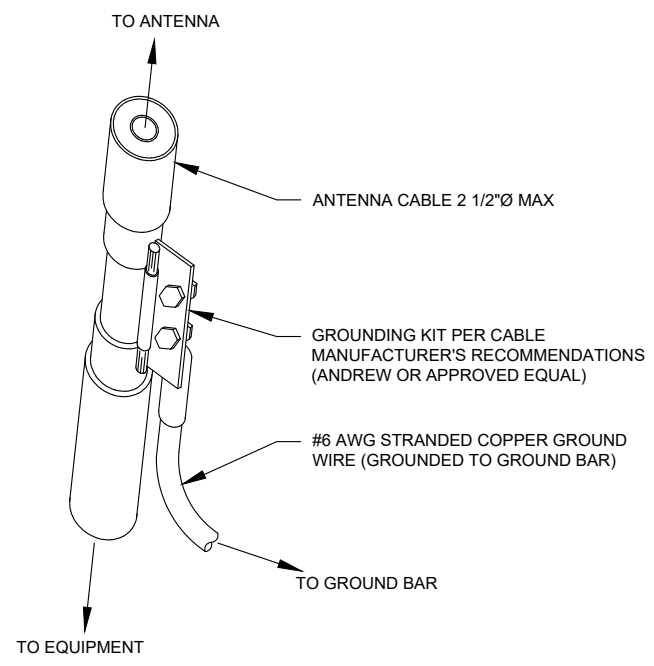
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NOTES:

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

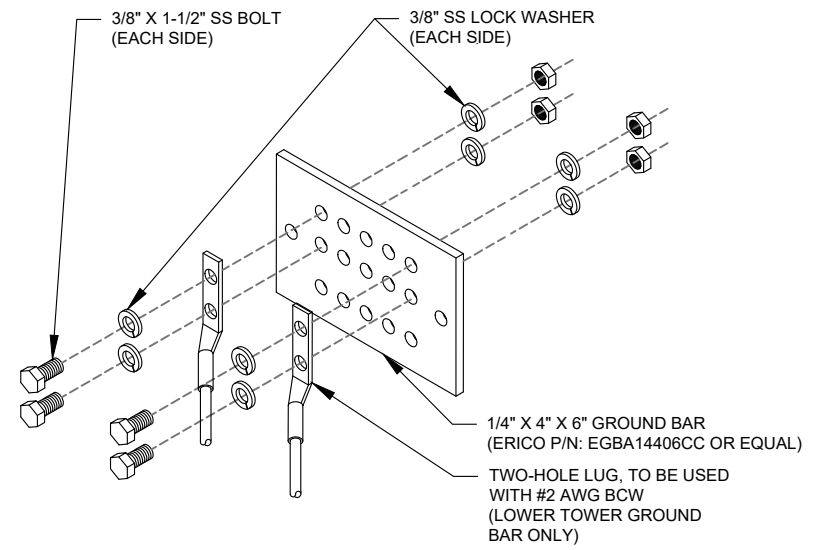
1 TYPICAL ANTENNA GROUNDING DIAGRAM
SCALE: N.T.S.



GROUND KIT NOTES:

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

2 CABLE GROUND KIT CONNECTION DETAIL
SCALE: N.T.S.



GROUND BAR NOTES:

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

3 TOWER GROUND BAR DETAIL
SCALE: N.T.S.



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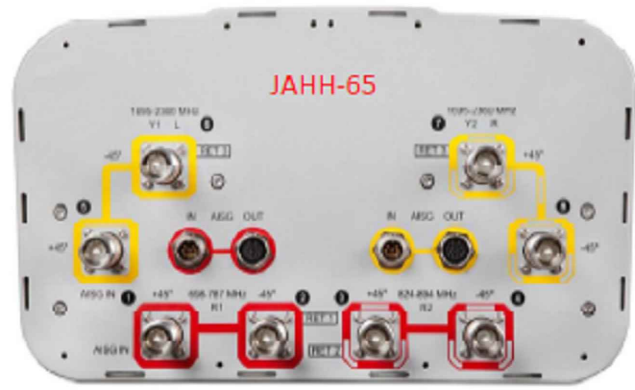


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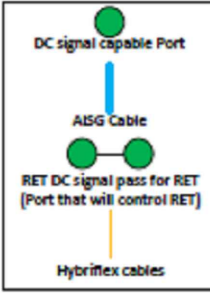
GROUNDING DETAILS

SHEET NUMBER:	REVISION:
E-501	0

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- Port 1 & 2 are for low band (698-787 MHz).
- Port 3 & 4 are for low band (824-894 MHz).
- Port 3,4,5, & 6 are for high band (1695-2360 MHz).
- Antenna Smart Bias Tee (SBT) is through port 1 for low band and port 5 for high band.
- AISG cable is only needed when drawn in the diagrams below, if it is not drawn then SBT is enough to control all RET motors.
- Not all SBT ports are needed to control RET, only green port connection to green port will control RET.



Comments:

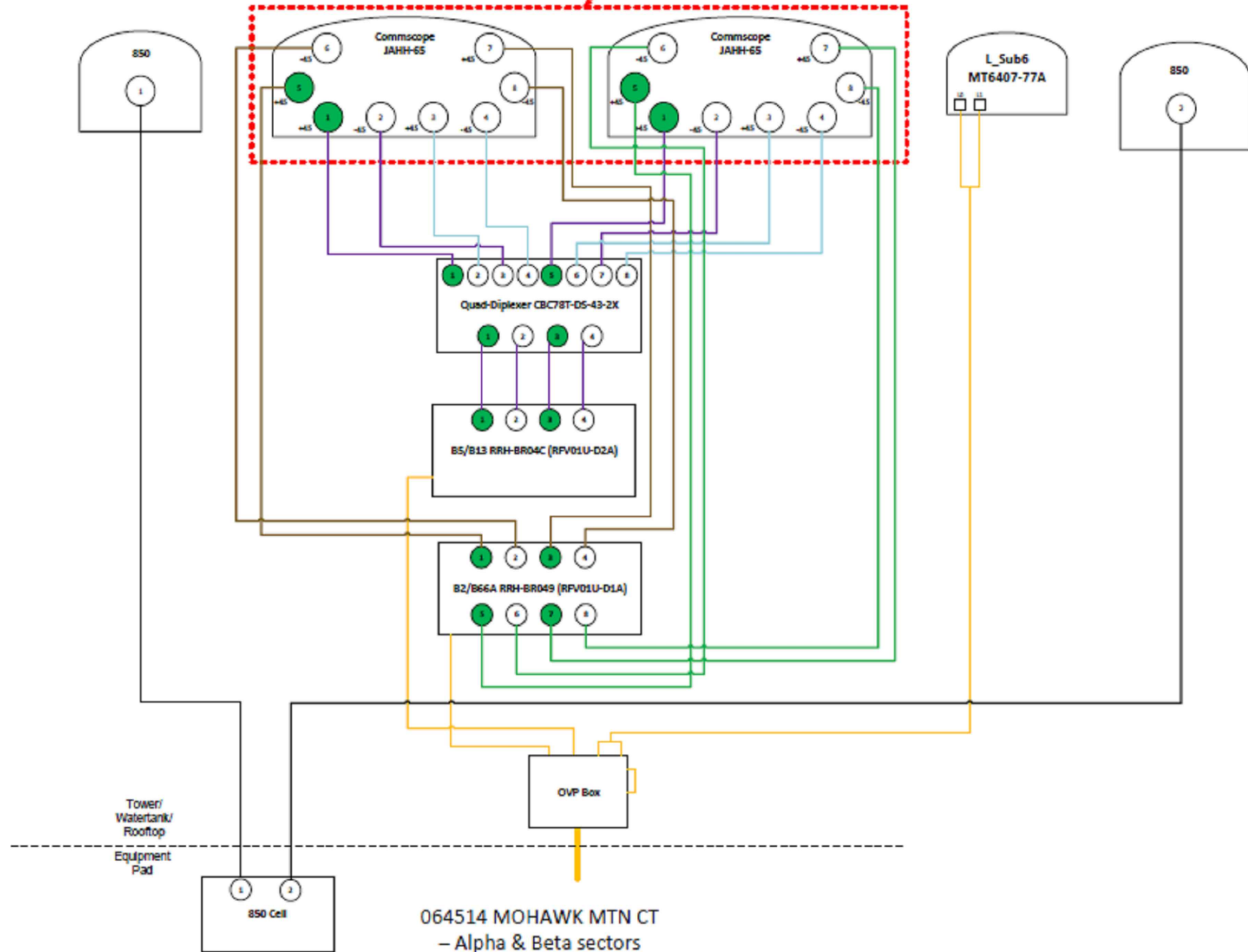
Diagram shows configuration as viewed from standing behind the antennas.

Antennas will be installed in that order from left to right.

Cap and weatherproof unused antenna ports.

All plumbing diagram colors are irrelevant except for AISG & Hybriflex cable. (For the coax colors follow Coax Colors guide above)

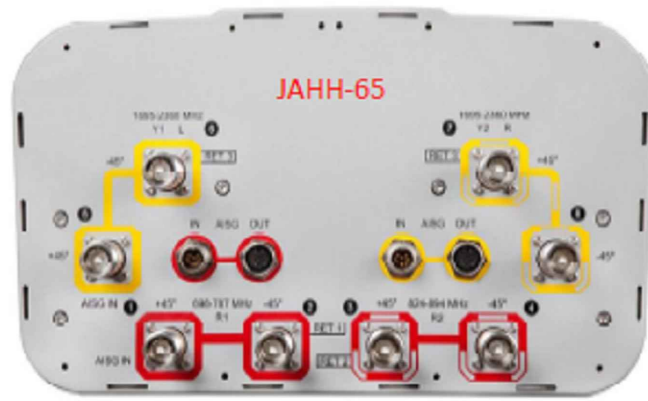
2" Side By Side Mount



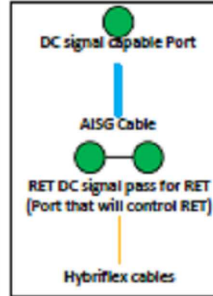
SUPPLEMENTAL

SHEET NUMBER:
R-601

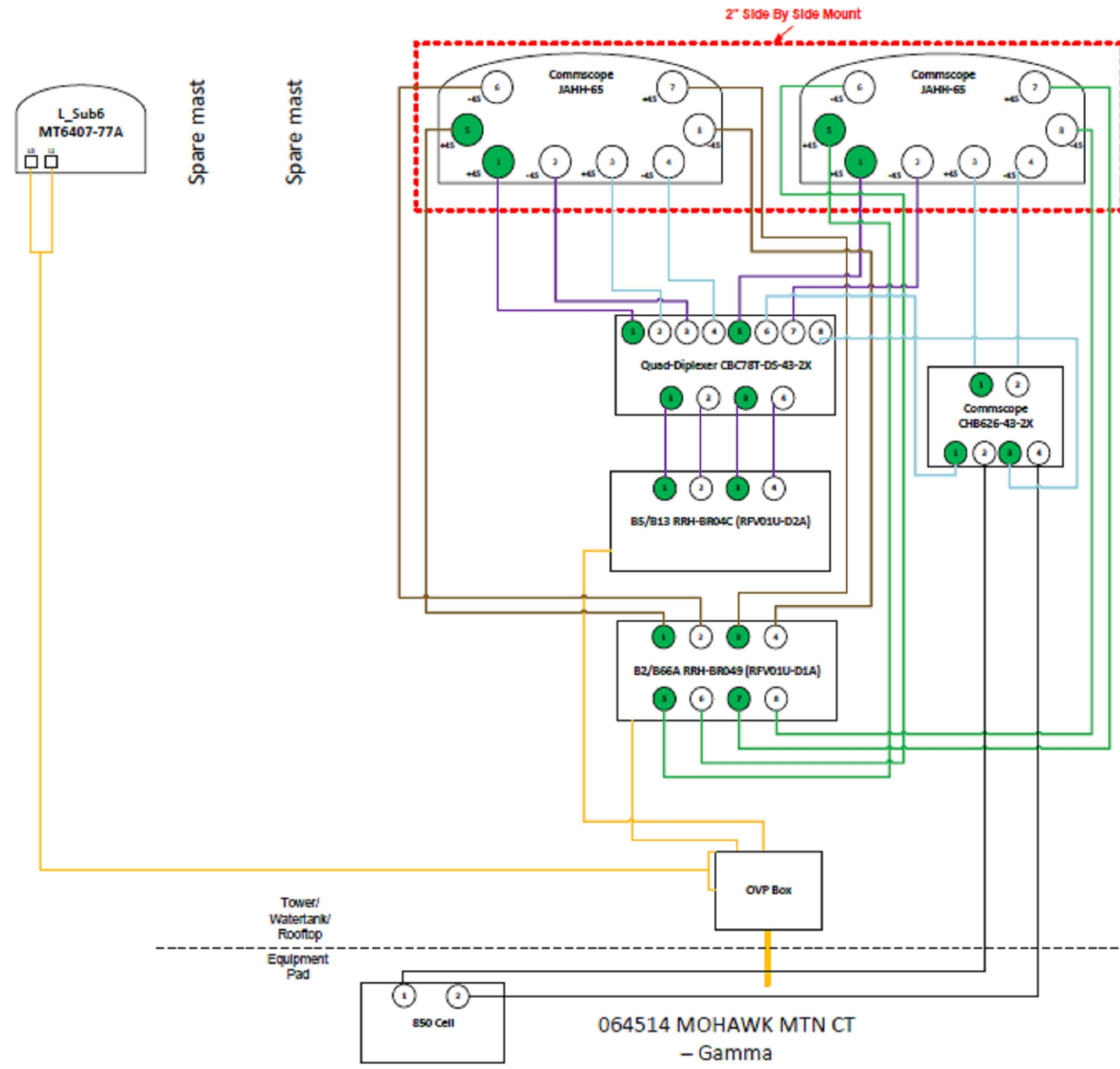
REVISION:
-



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Comments:
 Diagram shows configuration as viewed from standing behind the antennas.
 Antennas will be installed in that order from left to right.
 Cap and weatherproof unused antenna ports.
 All plumbing diagram colors are irrelevant except for AISG & Hybridflex cable. (For the coax colors follow Coax Colors guide above)



SUPPLEMENTAL

SHEET NUMBER: R-602	REVISION: -
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GPD Engineering and Architecture Professional Corporation
520 South Main Street, Suite 2531
Akron, OH 44311

Maser Consulting Contact:
peter.albano@colliersengineering.com



Mount Structural Analysis Report
Pipe Mounts

June 17, 2021
Site ID: 468041-VZW / MOHAWK MTN CT
Page | 4

Antenna Mount Analysis Report and PMI Requirements

Mount Analysis

SMART Tool Project #: 10050479
GPD Project #: 2021740.468041.01
Maser Consulting Project #: 21777486
June 17, 2021

Site Information

Site ID: 468041-VZW / MOHAWK MTN CT
Site Name: MOHAWK MTN CT
Carrier Name: Verizon Wireless
Address: 36 MOHAWK MOUNTAIN RD.
CORNWALL, Connecticut 06753,
Litchfield County
Latitude: 41.821289°
Longitude: -73.296433°

Structure Information

Tower Type: 65-Ft Self Support
Mount Type: Pipe Mounts
FUZE ID #: 16271975

Analysis Results

Pipe Mounts: 85.3% Pass

*****Contractor PMI Requirements:**

Included at the end of this MA report
Available & Submitted via portal at <https://pmi.vzwsmart.com>
Contractor - Please Review Specific Site PMI Requirements Upon Award
Requirements also Noted on Mount Modification Drawings
Requirements may also be Noted on A & E drawings

Report Prepared By: Nick Andrews

Respectfully Submitted By:

Christopher J. Scheks, P.E.
Connecticut #: 0030026



6/17/2021

4. All member connections are assumed to have been designed to meet or exceed the load carrying capacity of the connected member unless otherwise specified in this report.
5. The mount was checked up to, and including, the bolts that fasten it to the mount collar/attachment and threaded rod connections in collar members if applicable. Local deformation and interaction between the mount collar/attachment and the supporting tower structure are outside the scope of this analysis.
6. All services are performed, results obtained, and recommendations made in accordance with generally accepted engineering principles and practices. GPD is not responsible for the conclusion, opinions, and recommendations made by others based on the information supplied.
7. Structural Steel Grades have been assumed as follows, if applicable, unless otherwise noted in this analysis:
 - o Channel, Solid Round, Angle, Plate ASTM A36 (Gr. 36)
 - o HSS (Rectangular) ASTM 500 (Gr. B-46)
 - o Pipe ASTM A53 (Gr. B-35)
 - o Threaded Rod F1554 (Gr. 36)
 - o Bolts ASTM A325

Discrepancies between in-field conditions and the assumptions listed above may render this analysis invalid unless explicitly approved by GPD.

Analysis Results:

Component	Utilization %	Pass/Fail
Mount Pipe P2.0 STD	84.0 %	Pass
Mount Pipe P2.5 STD	85.3 %	Pass
Pipe Mount Connections	61.4 %	Pass

Structure Rating – (Controlling Utilization of all Components)	85.3%
--	-------

Recommendation:

The existing mounts are **SUFFICIENT** for the final loading configuration and do not require modifications.

ANSI/ASSP rigging plan review services compliant with the requirements of ANSI/TIA 322 are available for a Construction Class IV site or other, if required. Separate review fees will apply.

Attachments:

1. Mount Photos
2. Desktop Mount Mapping Report (for reference only)
3. Mount Geometry Verification
4. Analysis Calculations
5. **Contractor Required Post Installation Inspection (PMI) Report Deliverables**
6. Antenna Placement Diagrams

SUPPLEMENTAL

SHEET NUMBER:
R-603

REVISION:

-