



October 25, 2019

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

Re: Notice of Exempt Modification – Antenna and RRU Add
Property Address: 10 Ashpohtag Road, Norfolk, CT 06058
Applicant: AT&T Mobility, LLC

Dear Ms. Bachman:

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

AT&T currently maintains a wireless telecommunications facility consisting of nine (9) wireless telecommunication antennas at an antenna center line height of 137-feet on an existing 148-foot monopole, owned by SBA at 8051 Congress Ave, Boca Raton, FL, 33487. AT&T now intends to remove three (3) 4' Kathrein 7770 Panel Antennas, and three (3) 6' KMW AM-X-CD-16-65-00T-RET Panel Antennas, each currently installed in position [3 + 4], all sectors. Swap these for three (3) 6' CCI HPA-65R-BU6AA Panel Antennas and three (3) 6' CCI DMP65R-BU6DA Panel Antennas, each to be installed in position [3 + 4], all sectors. In addition, AT&T intends to remove six (6) RRUS-11 installed in position [3] all sectors, add one (1) RRUS-8843 B2/B66A and (1) RRUs 4449 B5/B12 in position [3 + 4], all sectors, for a total of six (6) new RRUs. AT&T is also proposing to add (1) Raycap Squid, as well as one (1) fiber line and (2) DC Power Cables to their equipment configuration. All the changes will take place on the existing antenna mount with mount mods incorporated.

Attached is a summary of the planned modifications including power density calculations reflecting the change in AT&T's operations at the site. Also included is documentation of the structural sufficiency of the tower to accommodate the revised antenna configuration.

Please accept this letter pursuant to Regulation of Connecticut State Agencies §16-50j-73, for construction that constitutes an exempt modification pursuant to R.C.S.A. § 16-50j-72(b) (2). In accordance with R.C.S.A., a copy of this letter is being sent to James Clarke – Building Official, Town of Norfolk, CT at PO Box 552, Norfolk, CT 06058 and Matthew T. Riiska – First Selectman, Town of Norfolk, CT at PO Box 592, Norfolk, CT 06058. A copy of this letter is being sent to the property owner, Kevin Gundlach at 10 Ashpohtag Road, Norfolk, CT 06058 and to the tower company, SBA at 8051 Congress Ave, Boca Raton, FL, 33487.

The following is a list of subsequent decisions by the Connecticut Siting Council:

- **EM-CING-098-060210** - New Cingular Wireless PCS, LLC notice of intent to modify an existing telecommunications facility located at 10 Ashpohtag Road, Norfolk, Connecticut.
- **EM-CING-098-121205** – New Cingular Wireless PCS, LLC notice of intent to modify an existing telecommunications facility located at 10 Ashpohtag Road, Norfolk, Connecticut.

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

1. The proposed modifications will not result in an increase in the height of the existing tower. AT&T's replacement antennas will be installed at the 105-foot level of the 147-foot self-support tower.



2. The proposed modifications will not involve any changes to ground-mounted equipment and, therefore, will not require an extension of the site boundary.
3. The proposed modifications will not increase the noise levels at the facility by six decibels or more, or to levels that exceed state and local criteria.
4. The operation of the modified facility will not increase radio frequency (RF) emissions at the facility to a level at or above the Federal Communications Commission (FCC) safety standard. A cumulative worst-case RF emissions calculation for AT&T's modified facility is provided in the RF Emissions Compliance Report, included in Tab 2.
5. The proposed modifications will not cause a change or alteration in the physical or environmental characteristics of the site.
6. The tower and its foundation can support AT&T's proposed modifications. (See Structural Analysis Report included in Tab 3).

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

Sincerely,

Kristina Cottone

CC w/enclosures:
James Clarke – Building Official, Town of Norfolk, CT
Matthew T. Riiska – First Selectman, Town of Norfolk, CT
Kevin Gundlach– Property Owner
SBA – Tower Company



Summary

ParcelId 1140
Account Number 000171
Location Address 10 ASHPOHTAG RD
Map-Block-Lot 8-14/34 /

Use Class/Description 1-1 RESIDENTIAL LOT
Assessing Neighborhood 3A
Census Tract 3081
Acreage 13.01
Utilities



Owner

GUNDLACH KEVIN C
 10 ASHPOHTAG RD
 NORFOLK, CT 06058

Current Appraised Value

	2018	2017	2016	2015
+ Building Value	\$72,260	\$72,260	\$72,260	\$72,260
+ XF Value	\$3,250	\$3,250	\$3,250	\$3,250
+ OB Value	\$936,800	\$936,800	\$936,800	\$936,800
+ Land Value	\$87,230	\$141,660	\$141,660	\$141,660
+ Special Land Value				
+ Total Appraised Value	\$1,099,540	\$1,153,970	\$1,153,970	\$1,153,970
+ Net Appraised Value	\$1,099,540	\$1,153,970	\$1,153,970	\$1,153,970
+ Current Assessment	\$769,680	\$807,780	\$807,780	\$807,780

Assessment History

	2018	2017	2016	2015
+ Building Value	\$52,860	\$52,860	\$52,860	\$52,860
+ OB/Misc	\$655,760	\$655,760	\$655,760	\$655,760
+ Land	\$61,060	\$99,160	\$99,160	\$99,160
+ Total Assessment	\$769,680	\$807,780	\$807,780	\$807,780

Land

Use	Class	Zoning	Area	Value
1-1 RESIDENTIAL LOT	R	RU	2 AC	\$52,000
1-2 EXCESS LAND	R	RU	11.01 AC	\$35,230

Building Data

Building # 1
Style Ranch
Actual Year Built 1988
Effective Year Built 1996
Living Area 1248
Stories 1
Grade C
Exterior Wall Vinyl Siding
Interior Wall Drywall/Sheet
Fireplaces
Roof Cover Asphalt
Roof Structure Gable/Hip
Floor Type Hardwood
Heat Type Forced Air-Duc
Fuel Type Oil
AC None
Bdrms/Ful Bth/Hlf Bth/Ttl Rm 3/2/0/6
Basement Sq. Ft. 1248

Building Sub Areas

Code	Description	Living Area	Gross Area	Effective Area
BAS	First Floor	1248	1248	1248
UBM	Basement, Unfinished	0	1248	250
	Totals	1248	2496	1498

Out Buildings\Extra Features

Description	Sub Description	Area	Year Built	Value
FIREPLACE C		1UNITS	1996	\$1,250
BASEMENT GAR		2UNITS	1996	\$2,000
EX FRAME		360S.F.	2007	\$32,400
8' FENCE		400L.F.	2008	\$4,400
CELL TOWER C		1UNITS	2007	\$900,000

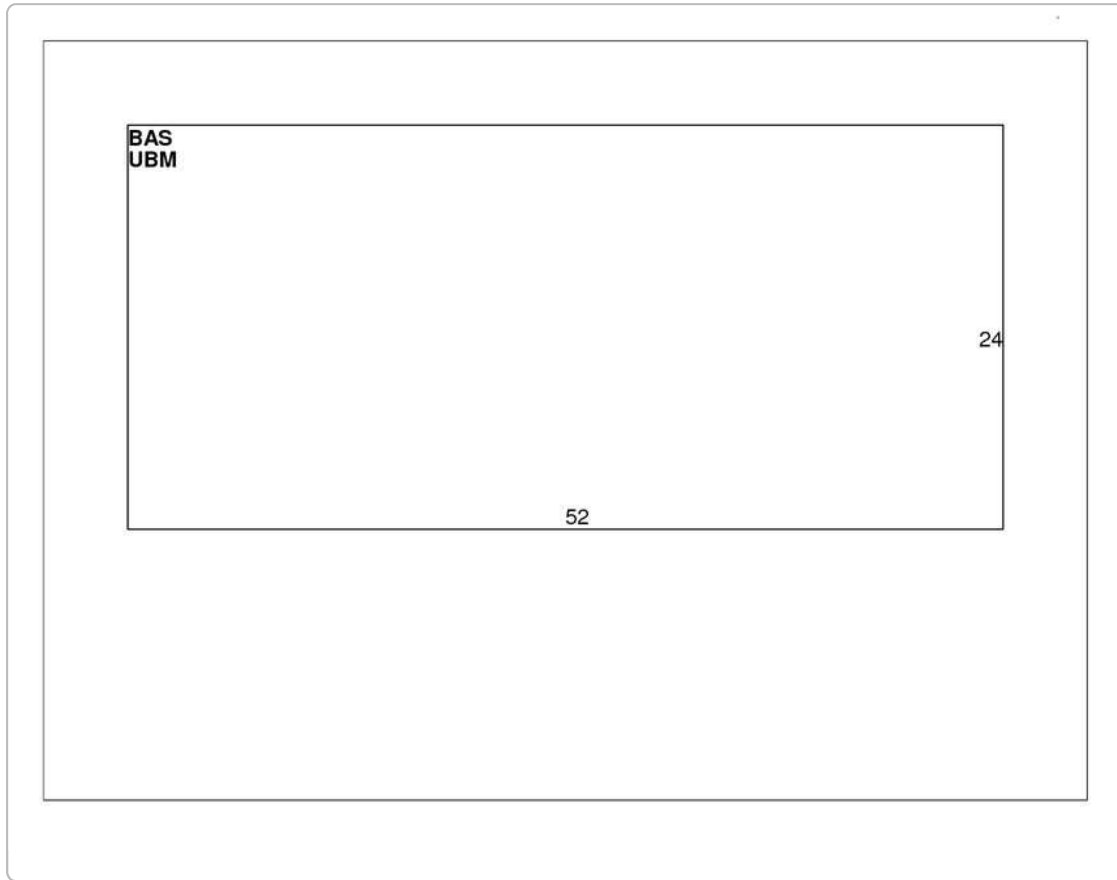
Sales History

Sales Date	Type of Document	Grantee	Vacant/Improved	Book/Page	Amount
02-21-2018		GUNDLACH KEVIN C	Improved	122/ 392	\$115,000
09-29-2016		STOP SIGN REALTY LLC	Improved	120/ 638	\$42,000
08-29-2014		ASHNER HELEN	Improved	118/ 115	\$55,000
08-05-2014		FEDERAL NATIONAL MORTGAGE ASSOC	Improved	118/ 4	\$0
08-05-2014		ONE WEST BANK FSB	Improved	118/ 1	\$0
10-23-2012		FEDERAL NATIONAL MORTGAGE ASSOC	Improved	115/ 573	\$0
10-23-2012		ONEWEST BANK FSB	Improved	115/ 570	\$0
09-13-2006		CAMMILLETTI LOUIS	Improved	105/ 178	\$0
05-22-2006		CAMMILLETTI LOUIS ET AL	Vacant	104/ 228	\$0
12-29-2004		CAMMILLETTI LOUIS	Vacant	100/ 195	\$0
12-19-2001		CAMMILLETTI LOUIS	Vacant	91/ 457	\$0
12-19-2001		GRISWOLD SANDRA M	Vacant	91/ 455	\$0
08-20-2001		CAMMILLETTI LOUIS	Vacant	90/ 616	\$0
02-18-1982		CAMMILLETTI LOUIS + NORMA AVIS	Improved	61/ 657	\$0

Permit Information

Permit ID	Issue Date	Type	Description	Amount	Inspection Date	% Complete	Date Complete	Comments
18-254E	10-15-2018	EL	Electric	\$1,000		0		
18-217E	07-17-2018	CM	Commercial	\$20,000		0		NEW ANTENNAS
532 E	10-04-2013	EL	Electric	\$5,000		0		
278 E	09-02-2013	EL	Electric	\$12,000		0		Install 6 new antennas
278-E	09-25-2012	RE	Remodel	\$12,000		0	09-25-2012	ANTENNAS
	08-02-2007		BLDG/ANTENNAS	\$170,000		0		12X30 SHELTER
7614-B	09-13-2004	NC	CELL TOWER	\$126,400		0		

Sketch



Photos



No data available for the following modules: Commercial Building.

The Town of Norfolk Assessor makes every effort to produce the most accurate information possible. No warranties, expressed or implied are provided for the data herein, its use or interpretation. The assessment information is from the last certified tax roll. All other data is subject to change.

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GEO SPATIAL

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sbsite.com

Structural Analysis Report

Client: AT&T

Client Site ID / Name: CTL01181 / Norfolk - Ashpohtag Road
 AppID : 123124, v2

SBA Site Name: Cammilletti Property
 SBA Site ID: CT46144-A
 148 ft Monopole
 10 Ashpohtag Rd
 Norfolk, CT 06058
 Lat: 42.002694, Long: -73.221388

Project number: CT46144-ATT-092519

Analysis Results

Tower	60.7%	[Pass]
Foundation	38.0%	[Pass]

Client mount modification / replacement

Net change in tower stress due to mount Modification / replacement	N/A
--	-----

Prepared by:

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October 2, 2019



Prepared in compliance with:

- ANSI/TIA/EIA 222-G Structural Standard for Antennas and Antenna Supporting Structures
- 2015 International Building Code (IBC)

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Executive Summary

The enclosed structural analysis was performed for AT&T on October 2, 2019 to verify the structural capacity of the 148 ft Monopole located at 10 Ashpohtag Rd, Norfolk, CT 06058 to support the proposed antenna, transmission lines and mounting equipment in addition to those currently installed. The following documents were used to determine the geotechnical characteristics, foundation data, tower geometry and member sizes/type:

Table 1 List of Documents Used

Item	Document
Tower design/drawings	EEl Project #12865, dated 08/30/04
Foundation drawings	EEl Project #12865, dated 08/30/04
Geotechnical report	Dr. Clarence Welti, PE Geotechnical Report for Proposed Sprint Site CT33XC590, dated 08/17/04
Modification drawings	Vertical Solutions Project #121779, dated 10/02/12
Latest SA	TES, Project # 55006, Dated 06/25/2018

The analysis was performed in accordance with the following requirements:

Table 2 Code Related Data

Jurisdiction (State/County/City)	Connecticut/Litchfield/Norfolk
Governing Codes	ANSI/TIA/EIA 222-G, 2015 IBC
Basic Wind Speed	89.0 mph (3-Sec. Gust)
Wind Speed with Ice	40 mph (3-Sec. Gust)
Ice Thickness	0.75"
Structural Class	II
Exposure Category	B
Topographic Category	1
Crest Height	0 ft

"This structural analysis is based upon the tower being classified as a class II; however, if a different classification is required subsequent to the date hereof, the tower classification will be changed to meet such requirement and a new structural analysis will be run."

The SBA Communications Corporation verifies that the 148 ft Monopole located at 10 Ashpohtag Rd, Norfolk, CT 06058 is **Sufficient** to support the proposed loadings for AT&T in addition to those currently existing based on standards set forth in governing building codes and dependent on AT&T satisfying all Installation Requirements provided herein. The analysis performed assumes the site information provided is accurate and the tower/foundation has been properly designed, manufactured, installed and maintained. Additional details regarding the assumptions and limitations are provided within the Assumptions and Limitations section of this report.

Assumptions

This analysis was completed based on the following assumptions:

- Tower has been properly maintained
- Tower erection was in accordance to manufacturer drawings
- Leg flanges have been properly designed by manufacturer to not be a limiting reaction
- Welds have been properly designed and installed by manufacturer to not be a limiting reaction
- Foundation was constructed in accordance to manufacturer drawings
- Foundation does not have structural damage
- Bolts have been properly tightened according to manufacturer specifications
- Appurtenance, mount and transmission line sizes and weights are best estimates using the TES database and manufacturer information

Limitations

The computer generated analysis performed by the TES software is limited to theoretical capacities of the towers structural members and does not account for any missing or damaged members or connections. The tower and foundation are assumed to have been properly designed, fabricated, installed and maintained, barring any conflicting findings from the most recent inspection. All leg flanges, welds and bolts are assumed to be designed by the manufacturer in such a way that these are not limiting reactions.

SBA Communications Corporation has used its due diligence to verify the information provided to perform this analysis. It is unreasonable to perform a more detailed inspection of a tower and its components. This report is not a condition assessment of the tower or foundation.

Installation Requirements

This analysis was performed under the assumption that AT&T will place the proposed equipment and feed lines at a height of 137 ft and in accordance with the coax layout shown. RRUs are to be installed on existing mounts behind tenant's antennas unless otherwise noted. No equipment is to be installed directly in the climbing path. All equipment is to be installed per mount manufacturer specifications. In case site conditions do not allow for the required installation parameters to be met AT&T must notify SBA Communications Corporation engineers for approval of an alternative placement.

Appurtenance Loading

Existing Loading:

The existing antenna and feed line information was obtained from the Site Summary and/or previous Structural Analysis. SBA Communications Corporation uses due diligence to ensure reasonably accurate information has been recorded. The existing loadings are shown in Table 3.

Table 3 Existing Appurtenances

Items	Elevation (ft)	Qty.	Antenna Descriptions	Mount Type & Qty.	Transmission Lines	Owner
1	145.0	2	RFS APXVTM14-C-I20 - Panel	(3) T-Arm w/ (1) Sitepro PRK-1245 & (1) handrail kit	(4) 1-1/4" Fiber	Sprint Nextel
2		2	Commscope NNVV-65B-R4 - Panel			
3		4	RFS ACU-A20-N RET			
4		2	ALU 1900 Mhz			
5		4	ALU 800 Mhz			
6		2	ALU TD-RRH8x20-25			
7		2	ALU 800 Mhz Filter			
11	137.0	6	Powerwave - 7770 - Panel	Low Profile Platform	(12) 1 5/8" (1) 3" Conduit (2) 3/4" DC Power* (1) 7/16" Fiber*	AT&T
12		3	KMW - AM-X-CD-16-65-00T-RET - Panel			
13		1	Raycap - DC6-48-60-18-8F - SP			
15		6	Powerwave - LGP 21401 - TMA			
16		6	Powerwave - LGP-13519 - Diplexer			
17	6	Ericsson - RRUS-11 - RRU				
18	127.0	3	Antel - BXA-171085-12BF - Panel	Low Profile Platform	(12) 1 5/8"	Verizon
19		6	Antel - LPA 80080/6CF - Panel			
20		2	Antel - BXA-70040-6CF - Panel			
21		1	Antel - BXA-70063-6CF - Panel			
22		6	RFS - FD9R6004/2C-3L - Diplexer			

* Inside 3" Conduit

Proposed Loading:

Information pertaining to proposed antennas and transmission lines were based upon the APP ID 123124, v2 from AT&T and is listed in Table 4.

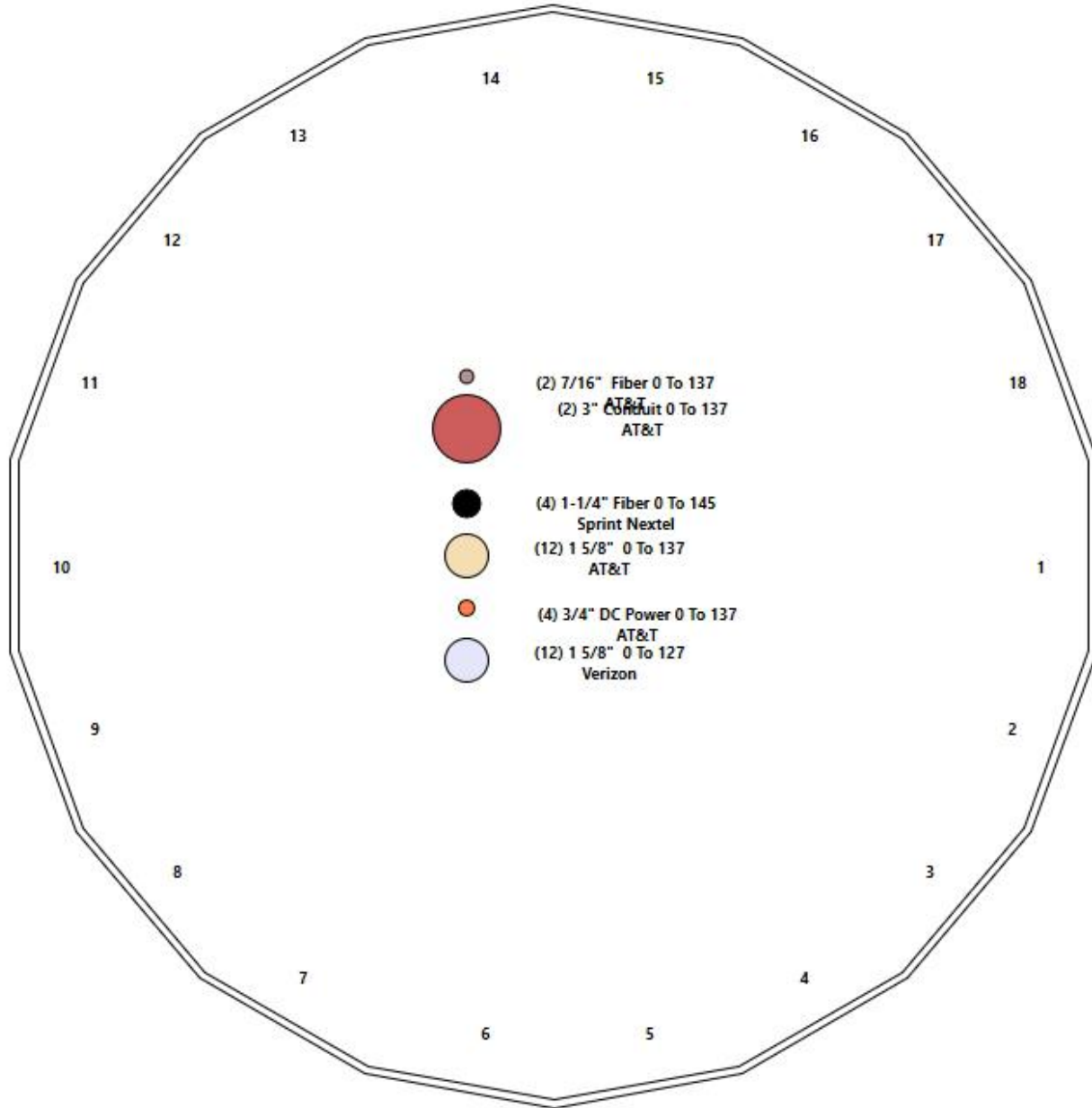
Table 4 Proposed Appurtenances

Items	Elevation (ft)	Qty.	Antenna Descriptions	Mount Type & Qty.	Transmission Lines	Owner
8	137.0	3	HPA-65R-BU6AA - Panel	Low Profile Platform	(12) 1 5/8" (2) 3" Conduit (4) 3/4" DC Power* (2) 7/16" Fiber*	AT&T
9		3	DMP65R-BU6DA - Panel			
10		3	RRUS 4449 B5/B12			
11		3	Powerwave - 7770 - Panel			
13		2	Raycap - DC6-48-60-18-8F - SP			
14		3	RRUS 8843 B2 B66A			
15		6	Powerwave - LGP 21401 - TMA			

* Inside 3" Conduit

Note: AT&T loading includes FirstNET equipment

Coax Layout



Results

Tower

The results of the structural analysis performed with the TES software are shown below. Table 5 shows the most critical member elements and the percentage of the force in the member with respect to the member capacity. Capacities of up to 105% are considered acceptable. The foundation reactions obtained from TES are shown in Table 6. These reactions are used for the analysis of the foundation systems. Additional information for the tower analysis is provided within the Appendix.

Table 5 Tower Analysis Summary

	Pole shafts	Anchor Bolts	Base Plate
Max. Usage:	50.5%	38.6%	60.7%
Pass/Fail	Pass	Pass	Pass

Table 6 Tower Base Reactions

	Moment (Kip-Ft)	Shear (Kips)	Axial (Kips)
Analysis Reactions	1803.3	16.5	34.0

Foundation System

The results of the foundation based on the geotechnical report and foundation mapping or design drawings are shown below in Table 7. Additional information for the foundation analysis is provided within the Appendix.

Table 7 Foundation Analysis Summary

Structural Component	% capacity	Analysis Result
Foundation	38.0%	[Pass]

Appendix

Usage Diagram - Max Ratio 50.52% at 110.0ft

Structure: CT46144-A
Site Name: Cammilletti Property
Height: 148.34 (ft)
Base Elev: 0.000 (ft)

Code: EIA/TIA-222-G
Exposure: B
Gh: 1.1

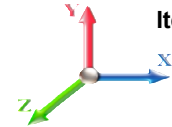
9/25/2019



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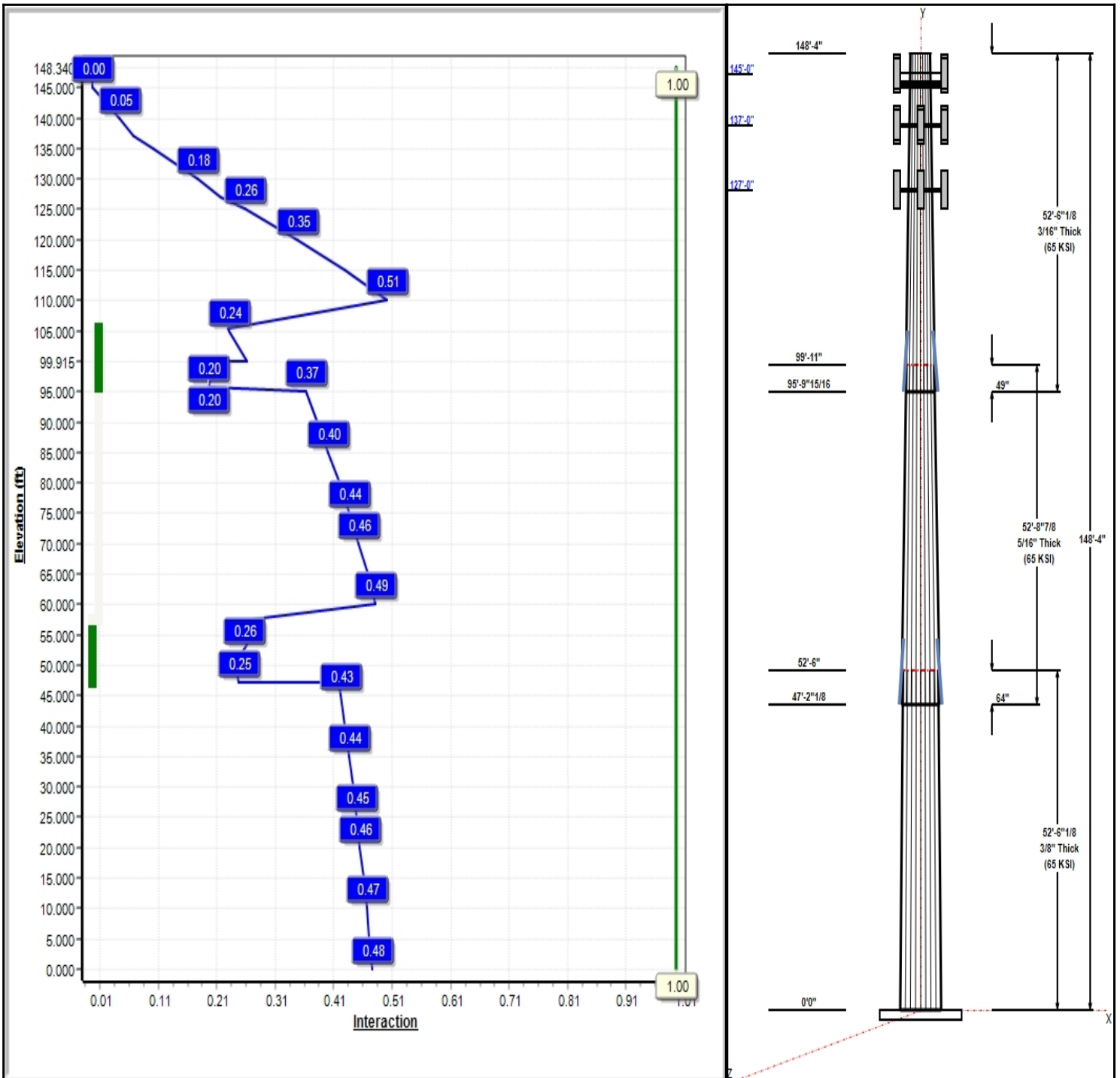
Dead Load Factor: 1.20
Wind Load Factor: 1.60

Load Case : 1.2D + 1.6W 89 mph Wind



Iterations: 25

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Structure: CT46144-A

Type: Tapered **Base Shape:** 18 Sided **9/25/2019**
Site Name: Cammilletti Property **Taper:** 0.20898
Height: 148.34 (ft)
Base Elev: 0.00 (ft) **Page:** 1



Shaft Properties

Seq	Length (ft)	Top (in)	Bottom (in)	Thick (in)	Joint Type	Taper	Grade (ksi)
1	52.51	37.03	48.00	0.375		0.20898	65
2	52.74	27.74	38.77	0.313	Slip	0.20898	65
3	52.51	18.00	28.97	0.188	Slip	0.20898	65

Discrete Appurtenances

Attach Elev (ft)	Force Elev (ft)	Qty	Description	Carrier
145.00	145.00	3	T-Arm w/ Mods	Sprint Nextel
145.00	145.00	2	RFS APXVTM14-C-I20	Sprint Nextel
145.00	145.00	2	Commscope	Sprint Nextel
145.00	145.00	4	RFS ACU-A20-N RET	Sprint Nextel
145.00	145.00	2	ALU 1900 Mhz	Sprint Nextel
145.00	145.00	4	ALU 800 Mhz	Sprint Nextel
145.00	145.00	2	ALU TD-RRH8x20-25	Sprint Nextel
145.00	145.00	2	ALU 800 Mhz Filter	Sprint Nextel
137.00	137.00	3	HPA-65R-BU6AA	AT&T
137.00	137.00	3	DMP65R-BU6DA	AT&T
137.00	137.00	3	RRUS 4449 B5/B12	AT&T
137.00	137.00	1	Low Profile	AT&T
137.00	137.00	3	Powerwave - 7770	AT&T
137.00	137.00	2	Raycap - DC6-48-60-18-8F	AT&T
137.00	137.00	3	RRUS 8843 B2 B66A	AT&T
137.00	137.00	6	Powerwave - LGP 21401 -	AT&T
127.00	127.00	1	Low Profile	Verizon
127.00	127.00	3	Antel - BXA-171085-12BF	Verizon
127.00	127.00	6	Antel - LPA 80080/6CF	Verizon
127.00	127.00	2	Antel - BXA-70040-6CF	Verizon
127.00	127.00	1	Antel - BXA-70063-6CF	Verizon
127.00	127.00	6	RFS - FD9R6004/2C-3L -	Verizon

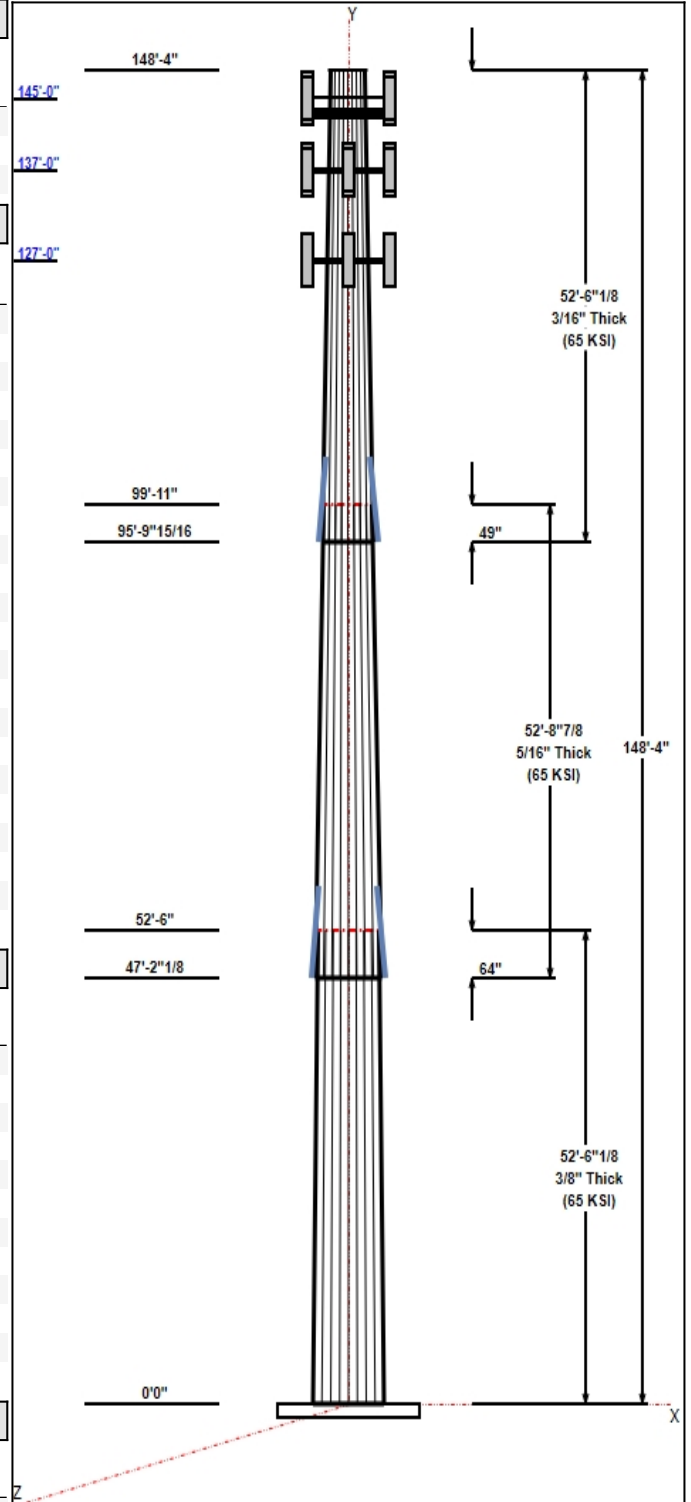
Linear Appurtenances

Elev From (ft)	Elev To (ft)	Placement	Description	Carrier
0.00	145.00	Inside	1-1/4" Fiber	Sprint Nextel
0.00	137.00	Inside	1 5/8" Coax	AT&T
0.00	137.00	Inside	3" Conduit	AT&T
0.00	137.00	Inside	3/4" DC Power	AT&T
0.00	137.00	Inside	7/16" Fiber	AT&T
0.00	127.00	Inside	1 5/8" Coax	Verizon
95.80	105.30	Outside	1.5" Reinforcing plate	
95.80	105.30	Outside	1.5" Reinforcing plate	
95.80	105.30	Outside	1.5" Reinforcing plate	
47.20	57.50	Outside	1.5" Reinforcing plate	
47.20	57.50	Outside	1.5" Reinforcing plate	
47.20	57.50	Outside	1.5" Reinforcing plate	

Anchor Bolts

Qty	Specifications	Grade (ksi)	Arrangement
16	2.25" 18J	75.0	Radial

Base Plate



Structure: CT46144-A

Type: Tapered **Base Shape:** 18 Sided 9/25/2019
Site Name: Cammilletti Property **Taper:** 0.20898
Height: 148.34 (ft)
Base Elev: 0.00 (ft) Page: 2



Thickness (in)	Specifications (in)	Grade (ksi)	Geometry
2.0000	63.0	60.0	Round

Reactions

Load Case	Moment (FT-Kips)	Shear (Kips)	Axial (Kips)
1.2D + 1.6W 89 mph Wind	1803.3	16.5	34.0
0.9D + 1.6W 89 mph Wind	1782.1	16.5	25.5
1.2D + 1.0Di + 1.0Wi 40 mph Wind	382.8	3.6	52.2
1.2D + 1.0E	161.4	1.4	34.0
0.9D + 1.0E	159.4	1.4	25.5
1.0D + 1.0W 60 mph Wind	508.6	4.7	28.3

Shaft Properties

Structure: CT46144-A	Code: EIA/TIA-222-G	9/25/2019
Site Name: Cammilletti Property	Exposure: B	
Height: 148.34 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II
		Page: 1



Sec. No.	Shape	Length (ft)	Thick (in)	Fy (ksi)	Joint Type	Overlap (in)	Weight (lb)
1	18	52.510	0.3750	65		0.00	8,961
2	18	52.740	0.3125	65	Slip	64.02	5,864
3	18	52.512	0.1875	65	Slip	49.05	2,478
Total Shaft Weight:							17,303

Bottom

Top

Sec. No.	Dia (in)	Elev (ft)	Area (sqin)	Ix (in^4)	W/t Ratio	D/t Ratio	Dia (in)	Elev (ft)	Area (sqin)	Ix (in^4)	W/t Ratio	D/t Ratio	Taper
1	48.00	0.00	56.68	16243.54	21.16	128.00	37.03	52.51	43.62	7403.73	16.00	98.74	0.208979
2	38.77	47.18	38.14	7125.48	20.46	124.05	27.74	99.92	27.21	2586.91	14.24	88.78	0.208979
3	28.97	95.83	17.13	1793.54	25.84	154.53	18.00	148.34	10.60	424.93	15.52	96.00	0.208979

Additional Steel

Elev From (ft)	Elev To (ft)	Qty	Description	Fy (ksi)	Fu (ksi)	Offset (in)	Intermediate Connectors		Termination Connectors			
							Spacing (in)	Description	Spacing (in)	Lower Qty	Upper Qty	
47.20	57.50	3	PLT 6"x1.5"(31mm hole)	50	65	0.00	AJM20&sleeve	24.00	AJM20&sleeve	3.00	11	10
95.80	105.3	3	PLT 4.5x1.5(31mm Hole)	50	65	0.00	AJM20&sleeve	24.00	AJM20&sleeve	3.00	8	6

Load Summary

Structure: CT46144-A	Code: EIA/TIA-222-G	9/25/2019
Site Name: Cammilletti Property	Exposure: B	
Height: 148.34 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Page: 2

Discrete Appurtenances

No.	Elev (ft)	Description	Qty	No Ice			Ice			Hor. Ecc. (ft)	Vert Ecc (ft)
				Weight (lb)	CaAa (sf)	CaAa Factor	Weight (lb)	CaAa (sf)	CaAa Factor		
1	145.00	T-Arm w/ Mods	3	450.00	14.00	0.75	800.64	21.013	0.75	0.00	0.00
2	145.00	RFS APXVTM14-C-I20	2	56.20	6.34	0.77	215.96	7.449	0.77	0.00	0.00
3	145.00	Commscope NNVV-65B-R4	2	84.70	12.27	0.74	396.13	13.721	0.74	0.00	0.00
4	145.00	RFS ACU-A20-N RET	4	1.04	0.14	0.79	5.49	0.436	0.79	0.00	0.00
5	145.00	ALU 1900 Mhz	2	60.00	2.77	0.99	143.15	4.034	0.99	0.00	0.00
6	145.00	ALU 800 Mhz	4	53.00	2.49	0.92	126.71	3.630	0.92	0.00	0.00
7	145.00	ALU TD-RRH8x20-25	2	70.00	4.05	0.69	180.01	4.860	0.69	0.00	0.00
8	145.00	ALU 800 Mhz Filter	2	11.00	1.58	0.69	29.59	2.478	0.69	0.00	0.00
9	137.00	HPA-65R-BU6AA	3	43.00	7.86	0.88	239.86	9.932	0.89	0.00	0.00
10	137.00	DMP65R-BU6DA	3	79.40	12.71	0.72	358.27	14.477	0.73	0.00	0.00
11	137.00	RRUS 4449 B5/B12	3	73.00	1.64	0.90	136.78	2.342	0.90	0.00	0.00
12	137.00	Low Profile Platform-Round	1	1500.00	22.00	1.00	2797.10	39.502	1.00	0.00	0.00
13	137.00	Powerwave - 7770	3	35.00	5.50	0.77	168.77	6.546	0.80	0.00	0.00
14	137.00	Raycap - DC6-48-60-18-8F - SP	2	31.80	0.92	1.00	93.07	1.354	1.00	0.00	0.00
15	137.00	RRUS 8843 B2 B66A	3	72.00	1.64	0.91	137.30	2.363	0.92	0.00	0.00
16	137.00	Powerwave - LGP 21401 - TMA	6	14.10	1.29	0.50	38.88	2.118	0.50	0.00	0.00
17	127.00	Low Profile Platform-Round	1	1500.00	22.00	1.00	2787.31	39.370	1.00	0.00	0.00
18	127.00	Antel - BXA-171085-12BF	3	15.00	4.74	0.88	108.37	7.051	0.90	0.00	0.00
19	127.00	Antel - LPA 80080/6CF	6	21.00	4.33	1.50	79.82	5.498	1.40	0.00	0.00
20	127.00	Antel - BXA-70040-6CF	2	38.00	14.40	0.70	322.09	17.188	0.72	0.00	0.00
21	127.00	Antel - BXA-70063-6CF	1	17.00	7.57	0.78	162.85	10.288	0.80	0.00	0.00
22	127.00	RFS - FD9R6004/2C-3L - Diplexer	6	3.10	0.37	0.50	10.99	0.818	0.50	0.00	0.00
Totals:			64	6,467.96			15,664.22				

Linear Appurtenances

Bottom Elev. (ft)	Top Elev. (ft)	Description	Exposed Width	Exposed
0.00	145.00	(4) 1-1/4" Fiber	0.00	Inside
0.00	137.00	(12) 1 5/8" Coax	0.00	Inside
0.00	137.00	(2) 3" Conduit	0.00	Inside
0.00	137.00	(4) 3/4" DC Power	0.00	Inside
0.00	137.00	(2) 7/16" Fiber	0.00	Inside
0.00	127.00	(12) 1 5/8" Coax	0.00	Inside
95.80	105.30	(1) 1.5" Reinforcing plate	1.50	Outside
95.80	105.30	(1) 1.5" Reinforcing plate	1.50	Outside
95.80	105.30	(1) 1.5" Reinforcing plate	1.50	Outside
47.20	57.50	(1) 1.5" Reinforcing plate	1.50	Outside
47.20	57.50	(1) 1.5" Reinforcing plate	1.50	Outside
47.20	57.50	(1) 1.5" Reinforcing plate	1.50	Outside

Shaft Section Properties

Structure: CT46144-A	Code: EIA/TIA-222-G	9/25/2019
Site Name: Cammilletti Property	Exposure: B	
Height: 148.34 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Increment Length: 5 (ft)

Elev (ft)	Description	Thick (in)	Flat		Ix (in^4)	W/t Ratio	D/t Ratio	Fy (ksi)	Fb (ksi)	Weight (lb)	Additional Reinforcing			
			Dia (in)	Area (in^2)							Area (in^2)	Ixp (in^4)	Iyp (in^4)	Weight (lb)
0.00		0.3750	48.000	56.684	16243.5	21.16	128.00	65	77	0.0				
5.00		0.3750	46.955	55.440	15197.7	20.67	125.21	65	77	953.8				
10.00		0.3750	45.910	54.196	14197.7	20.18	122.43	65	78	932.7				
15.00		0.3750	44.865	52.953	13242.6	19.69	119.64	65	78	911.5				
20.00		0.3750	43.820	51.709	12331.3	19.19	116.85	65	79	890.4				
25.00		0.3750	42.776	50.465	11462.8	18.70	114.07	65	79	869.2				
30.00		0.3750	41.731	49.222	10636.0	18.21	111.28	65	80	848.0				
35.00		0.3750	40.686	47.978	9850.0	17.72	108.50	65	81	826.9				
40.00		0.3750	39.641	46.734	9103.7	17.23	105.71	65	81	805.7				
45.00		0.3750	38.596	45.491	8396.1	16.74	102.92	65	82	784.6				
47.18	Bot - Section 2	0.3750	38.141	44.950	8100.1	16.52	101.71	65	82	334.7				
47.20	RB1	0.3750	38.136	44.944	8096.8	16.52	101.70	65	82	7.0	27.00	5513.8	5513.8	2.3
50.00		0.3750	37.551	44.247	7726.2	16.25	100.14	65	82	785.5	27.00	5355.9	5355.9	257.2
52.51	Top - Section 1	0.3125	37.651	37.034	6523.5	19.83	120.48	65	78	693.8	27.00	5216.4	5216.4	230.6
55.00		0.3125	37.131	36.518	6254.6	19.54	118.82	65	78	311.6	27.00	5079.8	5079.8	228.8
57.50	RT1	0.3125	36.609	36.000	5992.1	19.25	117.15	65	79	308.5	27.00	4944.4	4944.4	229.7
60.00		0.3125	36.086	35.482	5737.0	18.95	115.48	65	79	304.0				
65.00		0.3125	35.041	34.445	5248.9	18.36	112.13	65	80	594.9				
70.00		0.3125	33.996	33.409	4789.2	17.77	108.79	65	80	577.2				
75.00		0.3125	32.952	32.373	4357.2	17.18	105.44	65	81	559.6				
80.00		0.3125	31.907	31.336	3952.0	16.59	102.10	65	82	542.0				
85.00		0.3125	30.862	30.300	3572.7	16.00	98.76	65	83	524.3				
90.00		0.3125	29.817	29.264	3218.5	15.41	95.41	65	83	506.7				
95.00		0.3125	28.772	28.227	2888.5	14.82	92.07	65	83	489.1				
95.80	RB2	0.3125	28.605	28.061	2837.9	14.73	91.54	65	83	76.6	20.25	2313.1	2313.1	55.1
95.83	Bot - Section 3	0.3125	28.599	28.056	2836.2	14.73	91.52	65	83	2.6	20.25	2312.2	2312.2	1.9
99.92	Top - Section 2	0.1875	28.120	16.623	1638.6	25.03	149.97	65	72	619.1	20.25	2239.7	2239.7	281.7
100.00		0.1875	28.102	16.612	1635.5	25.02	149.88	65	72	4.8	20.25	2237.1	2237.1	5.8
105.00		0.1875	27.057	15.990	1458.6	24.03	144.30	65	73	277.3	20.25	2083.2	2083.2	344.5
105.30	RT2	0.1875	26.994	15.953	1448.4	23.98	143.97	65	73	16.3	20.25	2074.2	2074.2	20.7
110.00		0.1875	26.012	15.368	1295.0	23.05	138.73	65	74	250.5				
115.00		0.1875	24.967	14.747	1144.0	22.07	133.16	65	75	256.2				
120.00		0.1875	23.922	14.125	1005.3	21.09	127.59	65	77	245.6				
125.00		0.1875	22.878	13.503	878.3	20.10	122.01	65	78	235.0				
127.00		0.1875	22.460	13.254	830.7	19.71	119.78	65	78	91.0				
130.00		0.1875	21.833	12.881	762.5	19.12	116.44	65	79	133.4				
135.00		0.1875	20.788	12.259	657.3	18.14	110.87	65	80	213.9				
137.00		0.1875	20.370	12.011	618.1	17.75	108.64	65	81	82.6				
140.00		0.1875	19.743	11.637	562.3	17.16	105.30	65	81	120.7				
145.00		0.1875	18.698	11.016	476.9	16.17	99.72	65	82	192.7				
148.34		0.1875	18.000	10.600	424.9	15.52	96.00	65	83	122.8				
Total Weight										17302.8				
											1658.3			

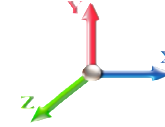
Wind Loading - Shaft

Structure: CT46144-A	Code: EIA/TIA-222-G	9/25/2019
Site Name: Cammilletti Property	Exposure: B	
Height: 148.34 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II
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Load Case: 1.2D + 1.6W 89 mph Wind

Dead Load Factor 1.20
Wind Load Factor 1.60



Iterations 25

Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		1.00	0.70	13.485	14.83	302.45	0.650	0.000	0.00	0.000	0.00	0.0	0.0	0.0
5.00		1.00	0.70	13.485	14.83	295.86	0.650	0.000	5.00	20.087	13.06	309.9	0.0	1144.6
10.00		1.00	0.70	13.485	14.83	289.28	0.650	0.000	5.00	19.645	12.77	303.1	0.0	1119.2
15.00		1.00	0.70	13.485	14.83	282.69	0.650	0.000	5.00	19.203	12.48	296.2	0.0	1093.8
20.00		1.00	0.70	13.485	14.83	276.11	0.650	0.000	5.00	18.761	12.19	289.4	0.0	1068.4
25.00		1.00	0.70	13.485	14.83	269.53	0.650	0.000	5.00	18.319	11.91	282.6	0.0	1043.0
30.00		1.00	0.70	13.496	14.85	263.05	0.650	0.000	5.00	17.877	11.62	276.0	0.0	1017.6
35.00		1.00	0.73	14.104	15.51	262.18	0.650	0.000	5.00	17.435	11.33	281.3	0.0	992.2
40.00		1.00	0.76	14.652	16.12	260.36	0.650	0.000	5.00	16.993	11.05	284.8	0.0	966.9
45.00		1.00	0.79	15.154	16.67	257.80	0.650	0.000	5.00	16.551	10.76	286.9	0.0	941.5
47.18	Bot - Section 2	1.00	0.80	15.360	16.90	256.49	0.650	0.000	2.18	7.062	4.59	124.1	0.0	401.6
47.20	RB1	1.00	0.80	15.362	16.90	256.47	0.650	0.000	0.02	0.081	0.05	1.4	0.0	8.4
50.00		1.00	0.81	15.617	17.18	254.63	0.683 *	0.000	2.80	9.114	6.23	171.2	0.0	942.6
52.51	Top - Section 1	1.00	0.82	15.837	17.42	252.83	0.687 *	0.000	2.51	8.053	5.53	154.1	0.0	832.5
55.00		1.00	0.83	16.048	17.65	255.23	0.686 *	0.000	2.49	7.878	5.41	152.7	0.0	373.9
57.50	RT1	1.00	0.84	16.253	17.88	253.24	0.689 *	0.000	2.50	7.800	5.38	153.8	0.0	370.1
60.00		1.00	0.85	16.452	18.10	251.15	0.650	0.000	2.50	7.689	5.00	144.7	0.0	364.9
65.00		1.00	0.87	16.833	18.52	246.68	0.650	0.000	5.00	15.047	9.78	289.7	0.0	713.8
70.00		1.00	0.89	17.193	18.91	241.88	0.650	0.000	5.00	14.605	9.49	287.3	0.0	692.7
75.00		1.00	0.91	17.535	19.29	236.76	0.650	0.000	5.00	14.163	9.21	284.1	0.0	671.5
80.00		1.00	0.93	17.861	19.65	231.38	0.650	0.000	5.00	13.721	8.92	280.4	0.0	650.4
85.00		1.00	0.94	18.173	19.99	225.75	0.650	0.000	5.00	13.278	8.63	276.1	0.0	629.2
90.00		1.00	0.96	18.473	20.32	219.89	0.650	0.000	5.00	12.836	8.34	271.3	0.0	608.0
95.00		1.00	0.97	18.760	20.64	213.83	0.650	0.000	5.00	12.394	8.06	266.0	0.0	586.9
95.80	RB2	1.00	0.98	18.805	20.69	212.84	0.650	0.000	0.80	1.942	1.26	41.8	0.0	91.9
95.83	Bot - Section 3	1.00	0.98	18.807	20.69	212.81	0.757 *	0.000	0.03	0.067	0.05	1.7	0.0	3.2
99.92	Top - Section 2	1.00	0.99	19.033	20.94	207.69	0.762 *	0.000	4.09	9.874	7.52	251.9	0.0	742.9
100.00		1.00	0.99	19.037	20.94	210.39	0.762 *	0.000	0.08	0.202	0.15	5.2	0.0	5.8
105.00		1.00	1.00	19.304	21.23	203.98	0.768 *	0.000	5.00	11.669	8.97	304.6	0.0	332.8
105.30	RT2	1.00	1.00	19.320	21.25	203.59	0.775 *	0.000	0.30	0.686	0.53	18.1	0.0	19.6
110.00		1.00	1.02	19.563	21.52	197.41	0.650	0.000	4.70	10.541	6.85	235.9	0.0	300.6
115.00		1.00	1.03	19.813	21.79	190.69	0.650	0.000	5.00	10.785	7.01	244.4	0.0	307.4
120.00		1.00	1.04	20.055	22.06	183.82	0.650	0.000	5.00	10.343	6.72	237.3	0.0	294.7
125.00		1.00	1.05	20.290	22.32	176.82	0.650	0.000	5.00	9.900	6.44	229.8	0.0	282.0
127.00	Appurtenance(s)	1.00	1.06	20.383	22.42	173.99	0.650	0.000	2.00	3.836	2.49	89.5	0.0	109.3
130.00		1.00	1.07	20.519	22.57	169.70	0.650	0.000	3.00	5.622	3.65	132.0	0.0	160.1
135.00		1.00	1.08	20.742	22.82	162.45	0.650	0.000	5.00	9.016	5.86	213.9	0.0	256.6
137.00	Appurtenance(s)	1.00	1.08	20.829	22.91	159.52	0.650	0.000	2.00	3.483	2.26	83.0	0.0	99.1
140.00		1.00	1.09	20.958	23.05	155.09	0.650	0.000	3.00	5.091	3.31	122.1	0.0	144.8
145.00	Appurtenance(s)	1.00	1.10	21.169	23.29	147.62	0.650	0.000	5.00	8.132	5.29	196.9	0.0	231.3
148.34		1.00	1.11	21.308	23.44	142.57	0.650	0.000	3.34	5.186	3.37	126.4	0.0	147.4
Totals:								148.34			8,001.6	20,763.3		

* Cf Adjusted by Linear Load Ra Effect

Discrete Appurtenance Forces

Structure: CT46144-A	Code: EIA/TIA-222-G	9/25/2019
Site Name: Cammilletti Property	Exposure: B	
Height: 148.34 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 1.2D + 1.6W 89 mph Wind

Dead Load Factor 1.20
Wind Load Factor 1.60



Iterations 25

No.	Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	CaAa x Ka	Ka	Total CaAa (sf)	Dead Load (lb)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)	
1	145.00	RFS ACU-A20-N RET	4	21.169	23.286	0.63	0.80	0.35	4.99	0.000	0.000	13.19	0.00	0.00	
2	145.00	T-Arm w/ Mods	3	21.169	23.286	0.56	0.75	23.63	1620.00	0.000	0.000	880.22	0.00	0.00	
3	145.00	RFS APXVTM14-C-I20	2	21.169	23.286	0.62	0.80	7.81	134.88	0.000	0.000	291.02	0.00	0.00	
4	145.00	Commscope	2	21.169	23.286	0.59	0.80	14.53	203.28	0.000	0.000	541.27	0.00	0.00	
5	145.00	ALU 800 Mhz Filter	2	21.169	23.286	0.55	0.80	1.74	26.40	0.000	0.000	64.99	0.00	0.00	
6	145.00	ALU 1900 Mhz	2	21.169	23.286	0.79	0.80	4.39	144.00	0.000	0.000	163.48	0.00	0.00	
7	145.00	ALU 800 Mhz	4	21.169	23.286	0.74	0.80	7.33	254.40	0.000	0.000	273.12	0.00	0.00	
8	145.00	ALU TD-RRH8x20-25	2	21.169	23.286	0.55	0.80	4.47	168.00	0.000	0.000	166.59	0.00	0.00	
9	137.00	Powerwave - LGP 21401 -	6	20.829	22.912	0.40	0.80	3.10	101.52	0.000	0.000	113.50	0.00	0.00	
10	137.00	RRUS 8843 B2 B66A	3	20.829	22.912	0.73	0.80	3.58	259.20	0.000	0.000	131.30	0.00	0.00	
11	137.00	Raycap -	2	20.829	22.912	0.80	0.80	1.47	76.32	0.000	0.000	53.96	0.00	0.00	
12	137.00	Powerwave - 7770	3	20.829	22.912	0.61	0.80	10.11	126.00	0.000	0.000	370.66	0.00	0.00	
13	137.00	Low Profile	1	20.829	22.912	1.00	1.00	22.00	1800.00	0.000	0.000	806.49	0.00	0.00	
14	137.00	RRUS 4449 B5/B12	3	20.829	22.912	0.72	0.80	3.54	262.80	0.000	0.000	129.86	0.00	0.00	
15	137.00	DMP65R-BU6DA	3	20.829	22.912	0.58	0.80	21.96	285.84	0.000	0.000	805.13	0.00	0.00	
16	137.00	HPA-65R-BU6AA	3	20.829	22.912	0.70	0.80	16.60	154.80	0.000	0.000	608.55	0.00	0.00	
17	127.00	RFS - FD9R6004/2C-3L -	6	20.383	22.421	0.40	0.80	0.89	22.32	0.000	0.000	31.86	0.00	0.00	
18	127.00	Antel - BXA-70063-6CF	1	20.383	22.421	0.62	0.80	4.69	20.40	0.000	0.000	168.37	0.00	0.00	
19	127.00	Antel - BXA-70040-6CF	2	20.383	22.421	0.56	0.80	16.10	91.20	0.000	0.000	577.74	0.00	0.00	
20	127.00	Antel - LPA 80080/6CF	6	20.383	22.421	1.20	0.80	31.13	151.20	0.000	0.000	1116.90	0.00	0.00	
21	127.00	Antel - BXA-171085-12BF	3	20.383	22.421	0.70	0.80	9.98	54.00	0.000	0.000	357.90	0.00	0.00	
22	127.00	Low Profile	1	20.383	22.421	1.00	1.00	22.00	1800.00	0.000	0.000	789.22	0.00	0.00	
Totals:									7,761.55						8,455.31

Total Applied Force Summary

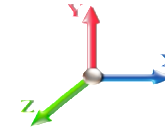
Structure: CT46144-A	Code: EIA/TIA-222-G	9/25/2019
Site Name: Cammilletti Property	Exposure: B	
Height: 148.34 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 1.2D + 1.6W 89 mph Wind

Dead Load Factor 1.20
Wind Load Factor 1.60



Iterations 25

Elev (ft)	Description	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00		0.00	0.00	0.00	0.00
5.00		309.88	1348.09	0.00	0.00
10.00		303.06	1322.70	0.00	0.00
15.00		296.24	1297.31	0.00	0.00
20.00		289.42	1271.92	0.00	0.00
25.00		282.60	1246.53	0.00	0.00
30.00		276.01	1221.14	0.00	0.00
35.00		281.31	1195.74	0.00	0.00
40.00		284.84	1170.35	0.00	0.00
45.00		286.92	1144.96	0.00	0.00
47.18		124.09	490.17	0.00	0.00
47.20		1.43	9.44	0.00	0.00
50.00		171.19	1056.52	0.00	0.00
52.51		154.14	934.69	0.00	0.00
55.00		152.67	475.26	0.00	0.00
57.50		153.81	471.89	0.00	0.00
60.00		144.72	466.60	0.00	0.00
65.00		289.75	917.34	0.00	0.00
70.00		287.25	896.18	0.00	0.00
75.00		284.10	875.02	0.00	0.00
80.00		280.36	853.86	0.00	0.00
85.00		276.06	832.70	0.00	0.00
90.00		271.27	811.54	0.00	0.00
95.00		266.00	790.38	0.00	0.00
95.80		41.78	124.50	0.00	0.00
95.83		1.68	4.30	0.00	0.00
99.92		251.94	909.24	0.00	0.00
100.00		5.15	9.21	0.00	0.00
105.00		304.61	536.31	0.00	0.00
105.30		18.07	31.77	0.00	0.00
110.00		235.90	491.84	0.00	0.00
115.00		244.44	510.92	0.00	0.00
120.00		237.29	498.22	0.00	0.00
125.00		229.81	485.53	0.00	0.00
127.00	(19) attachments	3131.44	2329.78	0.00	0.00
130.00		131.97	237.25	0.00	0.00
135.00		213.94	385.26	0.00	0.00
137.00	(24) attachments	3102.44	3217.03	0.00	0.00
140.00		122.07	158.58	0.00	0.00
145.00	(21) attachments	2590.81	2810.10	0.00	0.00
148.34		126.41	147.40	0.00	0.00
Totals:		16,456.90	33,987.56	0.00	0.00

Linear Appurtenance Segment Forces (Factored)

Structure: CT46144-A	Code: EIA/TIA-222-G	9/25/2019
Site Name: Cammilletti Property	Exposure: B	
Height: 148.34 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 1.2D + 1.6W 89 mph Wind

Dead Load Factor 1.20
Wind Load Factor 1.60



Iterations 25

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
50.00	1.5" Reinforcing plate	Yes	2.80	0.000	1.50	0.35	0.00	0.117	1.051	15.617	0.00	0.00
50.00	1.5" Reinforcing plate	Yes	2.80	0.000	1.50	0.35	0.00	0.117	1.051	15.617	0.00	0.00
50.00	1.5" Reinforcing plate	Yes	2.80	0.000	1.50	0.35	0.00	0.117	1.051	15.617	0.00	0.00
52.51	1.5" Reinforcing plate	Yes	2.51	0.000	1.50	0.31	0.00	0.119	1.057	15.837	0.00	0.00
52.51	1.5" Reinforcing plate	Yes	2.51	0.000	1.50	0.31	0.00	0.119	1.057	15.837	0.00	0.00
52.51	1.5" Reinforcing plate	Yes	2.51	0.000	1.50	0.31	0.00	0.119	1.057	15.837	0.00	0.00
55.00	1.5" Reinforcing plate	Yes	2.49	0.000	1.50	0.31	0.00	0.119	1.056	16.048	0.00	0.00
55.00	1.5" Reinforcing plate	Yes	2.49	0.000	1.50	0.31	0.00	0.119	1.056	16.048	0.00	0.00
55.00	1.5" Reinforcing plate	Yes	2.49	0.000	1.50	0.31	0.00	0.119	1.056	16.048	0.00	0.00
57.50	1.5" Reinforcing plate	Yes	2.50	0.000	1.50	0.31	0.00	0.120	1.061	16.253	0.00	0.00
57.50	1.5" Reinforcing plate	Yes	2.50	0.000	1.50	0.31	0.00	0.120	1.061	16.253	0.00	0.00
57.50	1.5" Reinforcing plate	Yes	2.50	0.000	1.50	0.31	0.00	0.120	1.061	16.253	0.00	0.00
95.83	1.5" Reinforcing plate	Yes	0.03	0.000	1.50	0.00	0.00	0.155	1.165	18.807	0.00	0.00
95.83	1.5" Reinforcing plate	Yes	0.03	0.000	1.50	0.00	0.00	0.155	1.165	18.807	0.00	0.00
95.83	1.5" Reinforcing plate	Yes	0.03	0.000	1.50	0.00	0.00	0.155	1.165	18.807	0.00	0.00
99.92	1.5" Reinforcing plate	Yes	4.09	0.000	1.50	0.51	0.00	0.157	1.172	19.033	0.00	0.00
99.92	1.5" Reinforcing plate	Yes	4.09	0.000	1.50	0.51	0.00	0.157	1.172	19.033	0.00	0.00
99.92	1.5" Reinforcing plate	Yes	4.09	0.000	1.50	0.51	0.00	0.157	1.172	19.033	0.00	0.00
100.00	1.5" Reinforcing plate	Yes	0.08	0.000	1.50	0.01	0.00	0.158	1.173	19.037	0.00	0.00
100.00	1.5" Reinforcing plate	Yes	0.08	0.000	1.50	0.01	0.00	0.158	1.173	19.037	0.00	0.00
100.00	1.5" Reinforcing plate	Yes	0.08	0.000	1.50	0.01	0.00	0.158	1.173	19.037	0.00	0.00
105.00	1.5" Reinforcing plate	Yes	5.00	0.000	1.50	0.63	0.00	0.161	1.182	19.304	0.00	0.00
105.00	1.5" Reinforcing plate	Yes	5.00	0.000	1.50	0.63	0.00	0.161	1.182	19.304	0.00	0.00
105.00	1.5" Reinforcing plate	Yes	5.00	0.000	1.50	0.63	0.00	0.161	1.182	19.304	0.00	0.00
105.30	1.5" Reinforcing plate	Yes	0.30	0.000	1.50	0.04	0.00	0.164	1.192	19.320	0.00	0.00
105.30	1.5" Reinforcing plate	Yes	0.30	0.000	1.50	0.04	0.00	0.164	1.192	19.320	0.00	0.00
105.30	1.5" Reinforcing plate	Yes	0.30	0.000	1.50	0.04	0.00	0.164	1.192	19.320	0.00	0.00
Totals:											0.0	0.0

Calculated Forces

Structure: CT46144-A	Code: EIA/TIA-222-G	9/25/2019
Site Name: Cammilletti Property	Exposure: B	
Height: 148.34 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Load Case: 1.2D + 1.6W 89 mph Wind	Iterations 25
Dead Load Factor 1.20	
Wind Load Factor 1.60	

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-33.96	-16.50	0.00	-1803.2	0.00	1803.27	3903.36	1951.68	7638.46	3824.91	0.00	0.000	0.000	0.480
5.00	-32.57	-16.28	0.00	-1720.7	0.00	1720.76	3846.55	1923.28	7360.85	3685.90	0.08	-0.154	0.000	0.475
10.00	-31.21	-16.06	0.00	-1639.3	0.00	1639.37	3788.45	1894.23	7085.75	3548.14	0.33	-0.312	0.000	0.470
15.00	-29.87	-15.84	0.00	-1559.0	0.00	1559.08	3729.06	1864.53	6813.30	3411.72	0.74	-0.472	0.000	0.465
20.00	-28.55	-15.62	0.00	-1479.9	0.00	1479.90	3668.37	1834.19	6543.69	3276.71	1.32	-0.635	0.000	0.459
25.00	-27.27	-15.40	0.00	-1401.8	0.00	1401.81	3606.39	1803.19	6277.08	3143.21	2.08	-0.801	0.000	0.454
30.00	-26.00	-15.18	0.00	-1324.8	0.00	1324.82	3543.11	1771.56	6013.64	3011.29	3.01	-0.970	0.000	0.447
35.00	-24.77	-14.95	0.00	-1248.9	0.00	1248.91	3478.55	1739.27	5753.54	2881.05	4.11	-1.143	0.000	0.441
40.00	-23.56	-14.72	0.00	-1174.1	0.00	1174.15	3412.68	1706.34	5496.94	2752.56	5.40	-1.317	0.000	0.434
45.00	-22.39	-14.45	0.00	-1100.5	0.00	1100.57	3345.53	1672.76	5244.01	2625.90	6.88	-1.495	0.000	0.426
47.18	-21.89	-14.33	0.00	-1069.1	0.00	1069.14	3315.91	1657.95	5135.17	2571.40	7.58	-1.575	0.000	0.422
47.20	-21.88	-14.34	0.00	-1068.7	0.00	1068.78	3315.57	1657.78	5133.93	2570.78	7.59	-1.576	0.000	0.252
50.00	-20.81	-14.16	0.00	-1028.6	0.00	1028.63	3277.08	1638.54	4994.93	2501.18	8.53	-1.637	0.000	0.247
52.51	-19.87	-14.00	0.00	-993.09	0.00	993.09	2602.21	1301.11	3990.47	1998.20	9.41	-1.693	0.000	0.261
55.00	-19.38	-13.85	0.00	-958.24	0.00	958.24	2577.30	1288.65	3896.73	1951.26	10.30	-1.747	0.000	0.275
57.50	-18.90	-13.70	0.00	-923.61	0.00	923.61	2551.96	1275.98	3803.21	1904.43	11.23	-1.806	0.000	0.270
57.50	-18.90	-13.70	0.00	-923.61	0.00	923.61	2551.96	1275.98	3803.21	1904.43	11.23	-1.806	0.000	0.270
60.00	-18.41	-13.59	0.00	-889.36	0.00	889.36	2526.30	1263.15	3710.31	1857.91	12.20	-1.865	0.000	0.486
65.00	-17.45	-13.33	0.00	-821.43	0.00	821.43	2474.01	1237.00	3526.46	1765.85	14.26	-2.078	0.000	0.472
70.00	-16.52	-13.07	0.00	-754.78	0.00	754.78	2420.42	1210.21	3345.35	1675.16	16.55	-2.291	0.000	0.458
75.00	-15.61	-12.81	0.00	-689.43	0.00	689.43	2365.54	1182.77	3167.14	1585.93	19.07	-2.506	0.000	0.441
80.00	-14.72	-12.54	0.00	-625.39	0.00	625.39	2309.37	1154.68	2992.01	1498.23	21.81	-2.720	0.000	0.424
85.00	-13.86	-12.28	0.00	-562.67	0.00	562.67	2251.13	1125.57	2819.16	1411.68	24.77	-2.934	0.000	0.405
90.00	-13.02	-12.01	0.00	-501.28	0.00	501.28	2174.14	1087.07	2628.67	1316.29	27.95	-3.146	0.000	0.387
95.00	-12.22	-11.73	0.00	-441.21	0.00	441.21	2097.14	1048.57	2444.84	1224.23	31.36	-3.354	0.000	0.366
95.80	-12.09	-11.68	0.00	-431.83	0.00	431.83	2084.82	1042.41	2416.04	1209.82	31.92	-3.389	0.000	0.200
95.83	-12.08	-11.69	0.00	-431.51	0.00	431.51	2084.39	1042.20	2415.05	1209.32	31.94	-3.389	0.000	0.200
99.92	-11.18	-11.39	0.00	-383.72	0.00	383.72	1076.50	538.25	1236.95	619.40	34.88	-3.481	0.000	0.214
100.00	-11.16	-11.40	0.00	-382.76	0.00	382.76	1076.11	538.05	1235.71	618.78	34.95	-3.483	0.000	0.266
105.00	-10.63	-11.08	0.00	-325.75	0.00	325.75	1052.46	526.23	1163.02	582.37	38.66	-3.613	0.000	0.235
105.30	-10.58	-11.07	0.00	-322.43	0.00	322.43	1051.00	525.50	1158.68	580.20	38.89	-3.621	0.000	0.233
105.30	-10.58	-11.07	0.00	-322.43	0.00	322.43	1051.00	525.50	1158.68	580.20	38.89	-3.621	0.000	0.233
110.00	-10.07	-10.84	0.00	-270.41	0.00	270.41	1027.52	513.76	1090.99	546.31	42.51	-3.734	0.000	0.505
115.00	-9.53	-10.60	0.00	-216.23	0.00	216.23	1001.28	500.64	1019.81	510.66	46.57	-4.001	0.000	0.433
120.00	-9.01	-10.36	0.00	-163.24	0.00	163.24	973.75	486.88	949.64	475.53	50.88	-4.237	0.000	0.353
125.00	-8.52	-10.11	0.00	-111.43	0.00	111.43	944.93	472.47	880.64	440.98	55.43	-4.431	0.000	0.262
127.00	-6.44	-6.82	0.00	-91.21	0.00	91.21	933.04	466.52	853.41	427.34	57.30	-4.497	0.000	0.221
130.00	-6.20	-6.68	0.00	-70.75	0.00	70.75	914.81	457.41	812.99	407.10	60.15	-4.580	0.000	0.181
135.00	-5.83	-6.44	0.00	-37.36	0.00	37.36	883.40	441.70	746.85	373.98	65.00	-4.681	0.000	0.107
137.00	-2.87	-3.09	0.00	-24.48	0.00	24.48	870.48	435.24	720.86	360.97	66.96	-4.708	0.000	0.071
140.00	-2.72	-2.95	0.00	-15.22	0.00	15.22	850.70	425.35	682.40	341.71	69.93	-4.735	0.000	0.048
145.00	-0.14	-0.14	0.00	-0.46	0.00	0.46	816.70	408.35	619.79	310.35	74.90	-4.755	0.000	0.002
148.34	0.00	-0.13	0.00	0.00	0.00	0.00	787.55	393.77	574.90	287.88	78.22	-4.755	0.000	0.000

Wind Loading - Shaft

Structure: CT46144-A	Code: EIA/TIA-222-G	9/25/2019
Site Name: Cammilletti Property	Exposure: B	
Height: 148.34 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II

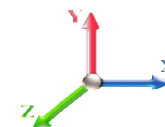


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Load Case: 0.9D + 1.6W 89 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.60



Iterations 25

Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		1.00	0.70	13.485	14.83	302.45	0.650	0.000	0.00	0.000	0.00	0.0	0.0	0.0
5.00		1.00	0.70	13.485	14.83	295.86	0.650	0.000	5.00	20.087	13.06	309.9	0.0	858.4
10.00		1.00	0.70	13.485	14.83	289.28	0.650	0.000	5.00	19.645	12.77	303.1	0.0	839.4
15.00		1.00	0.70	13.485	14.83	282.69	0.650	0.000	5.00	19.203	12.48	296.2	0.0	820.4
20.00		1.00	0.70	13.485	14.83	276.11	0.650	0.000	5.00	18.761	12.19	289.4	0.0	801.3
25.00		1.00	0.70	13.485	14.83	269.53	0.650	0.000	5.00	18.319	11.91	282.6	0.0	782.3
30.00		1.00	0.70	13.496	14.85	263.05	0.650	0.000	5.00	17.877	11.62	276.0	0.0	763.2
35.00		1.00	0.73	14.104	15.51	262.18	0.650	0.000	5.00	17.435	11.33	281.3	0.0	744.2
40.00		1.00	0.76	14.652	16.12	260.36	0.650	0.000	5.00	16.993	11.05	284.8	0.0	725.1
45.00		1.00	0.79	15.154	16.67	257.80	0.650	0.000	5.00	16.551	10.76	286.9	0.0	706.1
47.18	Bot - Section 2	1.00	0.80	15.360	16.90	256.49	0.650	0.000	2.18	7.062	4.59	124.1	0.0	301.2
47.20	RB1	1.00	0.80	15.362	16.90	256.47	0.650	0.000	0.02	0.081	0.05	1.4	0.0	6.3
50.00		1.00	0.81	15.617	17.18	254.63	0.683 *	0.000	2.80	9.114	6.23	171.2	0.0	706.9
52.51	Top - Section 1	1.00	0.82	15.837	17.42	252.83	0.687 *	0.000	2.51	8.053	5.53	154.1	0.0	624.4
55.00		1.00	0.83	16.048	17.65	255.23	0.686 *	0.000	2.49	7.878	5.41	152.7	0.0	280.4
57.50	RT1	1.00	0.84	16.253	17.88	253.24	0.689 *	0.000	2.50	7.800	5.38	153.8	0.0	277.6
60.00		1.00	0.85	16.452	18.10	251.15	0.650	0.000	2.50	7.689	5.00	144.7	0.0	273.6
65.00		1.00	0.87	16.833	18.52	246.68	0.650	0.000	5.00	15.047	9.78	289.7	0.0	535.4
70.00		1.00	0.89	17.193	18.91	241.88	0.650	0.000	5.00	14.605	9.49	287.3	0.0	519.5
75.00		1.00	0.91	17.535	19.29	236.76	0.650	0.000	5.00	14.163	9.21	284.1	0.0	503.6
80.00		1.00	0.93	17.861	19.65	231.38	0.650	0.000	5.00	13.721	8.92	280.4	0.0	487.8
85.00		1.00	0.94	18.173	19.99	225.75	0.650	0.000	5.00	13.278	8.63	276.1	0.0	471.9
90.00		1.00	0.96	18.473	20.32	219.89	0.650	0.000	5.00	12.836	8.34	271.3	0.0	456.0
95.00		1.00	0.97	18.760	20.64	213.83	0.650	0.000	5.00	12.394	8.06	266.0	0.0	440.2
95.80	RB2	1.00	0.98	18.805	20.69	212.84	0.650	0.000	0.80	1.942	1.26	41.8	0.0	69.0
95.83	Bot - Section 3	1.00	0.98	18.807	20.69	212.81	0.757 *	0.000	0.03	0.067	0.05	1.7	0.0	2.4
99.92	Top - Section 2	1.00	0.99	19.033	20.94	207.69	0.762 *	0.000	4.09	9.874	7.52	251.9	0.0	557.2
100.00		1.00	0.99	19.037	20.94	210.39	0.762 *	0.000	0.08	0.202	0.15	5.2	0.0	4.3
105.00		1.00	1.00	19.304	21.23	203.98	0.768 *	0.000	5.00	11.669	8.97	304.6	0.0	249.6
105.30	RT2	1.00	1.00	19.320	21.25	203.59	0.775 *	0.000	0.30	0.686	0.53	18.1	0.0	14.7
110.00		1.00	1.02	19.563	21.52	197.41	0.650	0.000	4.70	10.541	6.85	235.9	0.0	225.4
115.00		1.00	1.03	19.813	21.79	190.69	0.650	0.000	5.00	10.785	7.01	244.4	0.0	230.6
120.00		1.00	1.04	20.055	22.06	183.82	0.650	0.000	5.00	10.343	6.72	237.3	0.0	221.0
125.00		1.00	1.05	20.290	22.32	176.82	0.650	0.000	5.00	9.900	6.44	229.8	0.0	211.5
127.00	Appurtenance(s)	1.00	1.06	20.383	22.42	173.99	0.650	0.000	2.00	3.836	2.49	89.5	0.0	81.9
130.00		1.00	1.07	20.519	22.57	169.70	0.650	0.000	3.00	5.622	3.65	132.0	0.0	120.1
135.00		1.00	1.08	20.742	22.82	162.45	0.650	0.000	5.00	9.016	5.86	213.9	0.0	192.5
137.00	Appurtenance(s)	1.00	1.08	20.829	22.91	159.52	0.650	0.000	2.00	3.483	2.26	83.0	0.0	74.3
140.00		1.00	1.09	20.958	23.05	155.09	0.650	0.000	3.00	5.091	3.31	122.1	0.0	108.6
145.00	Appurtenance(s)	1.00	1.10	21.169	23.29	147.62	0.650	0.000	5.00	8.132	5.29	196.9	0.0	173.4
148.34		1.00	1.11	21.308	23.44	142.57	0.650	0.000	3.34	5.186	3.37	126.4	0.0	110.6

* Cf Adjusted by Linear Load Ra Effect

Totals: **148.34** **8,001.6** **15,572.5**

Discrete Appurtenance Forces

Structure: CT46144-A	Code: EIA/TIA-222-G	9/25/2019
Site Name: Cammilletti Property	Exposure: B	
Height: 148.34 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II

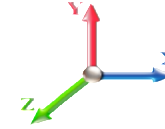


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Load Case: 0.9D + 1.6W 89 mph Wind

Dead Load Factor 0.90

Wind Load Factor 1.60



Iterations 25

No.	Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	CaAa x Ka	Ka	Total CaAa (sf)	Dead Load (lb)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)	
1	145.00	RFS ACU-A20-N RET	4	21.169	23.286	0.63	0.80	0.35	3.74	0.000	0.000	13.19	0.00	0.00	
2	145.00	T-Arm w/ Mods	3	21.169	23.286	0.56	0.75	23.63	1215.00	0.000	0.000	880.22	0.00	0.00	
3	145.00	RFS APXVTM14-C-I20	2	21.169	23.286	0.62	0.80	7.81	101.16	0.000	0.000	291.02	0.00	0.00	
4	145.00	Commscope	2	21.169	23.286	0.59	0.80	14.53	152.46	0.000	0.000	541.27	0.00	0.00	
5	145.00	ALU 800 Mhz Filter	2	21.169	23.286	0.55	0.80	1.74	19.80	0.000	0.000	64.99	0.00	0.00	
6	145.00	ALU 1900 Mhz	2	21.169	23.286	0.79	0.80	4.39	108.00	0.000	0.000	163.48	0.00	0.00	
7	145.00	ALU 800 Mhz	4	21.169	23.286	0.74	0.80	7.33	190.80	0.000	0.000	273.12	0.00	0.00	
8	145.00	ALU TD-RRH8x20-25	2	21.169	23.286	0.55	0.80	4.47	126.00	0.000	0.000	166.59	0.00	0.00	
9	137.00	Powerwave - LGP 21401 -	6	20.829	22.912	0.40	0.80	3.10	76.14	0.000	0.000	113.50	0.00	0.00	
10	137.00	RRUS 8843 B2 B66A	3	20.829	22.912	0.73	0.80	3.58	194.40	0.000	0.000	131.30	0.00	0.00	
11	137.00	Raycap -	2	20.829	22.912	0.80	0.80	1.47	57.24	0.000	0.000	53.96	0.00	0.00	
12	137.00	Powerwave - 7770	3	20.829	22.912	0.61	0.80	10.11	94.50	0.000	0.000	370.66	0.00	0.00	
13	137.00	Low Profile	1	20.829	22.912	1.00	1.00	22.00	1350.00	0.000	0.000	806.49	0.00	0.00	
14	137.00	RRUS 4449 B5/B12	3	20.829	22.912	0.72	0.80	3.54	197.10	0.000	0.000	129.86	0.00	0.00	
15	137.00	DMP65R-BU6DA	3	20.829	22.912	0.58	0.80	21.96	214.38	0.000	0.000	805.13	0.00	0.00	
16	137.00	HPA-65R-BU6AA	3	20.829	22.912	0.70	0.80	16.60	116.10	0.000	0.000	608.55	0.00	0.00	
17	127.00	RFS - FD9R6004/2C-3L -	6	20.383	22.421	0.40	0.80	0.89	16.74	0.000	0.000	31.86	0.00	0.00	
18	127.00	Antel - BXA-70063-6CF	1	20.383	22.421	0.62	0.80	4.69	15.30	0.000	0.000	168.37	0.00	0.00	
19	127.00	Antel - BXA-70040-6CF	2	20.383	22.421	0.56	0.80	16.10	68.40	0.000	0.000	577.74	0.00	0.00	
20	127.00	Antel - LPA 80080/6CF	6	20.383	22.421	1.20	0.80	31.13	113.40	0.000	0.000	1116.90	0.00	0.00	
21	127.00	Antel - BXA-171085-12BF	3	20.383	22.421	0.70	0.80	9.98	40.50	0.000	0.000	357.90	0.00	0.00	
22	127.00	Low Profile	1	20.383	22.421	1.00	1.00	22.00	1350.00	0.000	0.000	789.22	0.00	0.00	
Totals:									5,821.16						8,455.31

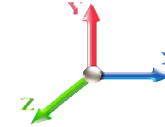
Total Applied Force Summary

Structure: CT46144-A	Code: EIA/TIA-222-G	9/25/2019
Site Name: Cammilletti Property	Exposure: B	
Height: 148.34 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II
		Page: 11



Load Case: 0.9D + 1.6W 89 mph Wind

Dead Load Factor 0.90
Wind Load Factor 1.60



Iterations 25

Elev (ft)	Description	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00		0.00	0.00	0.00	0.00
5.00		309.88	1011.07	0.00	0.00
10.00		303.06	992.02	0.00	0.00
15.00		296.24	972.98	0.00	0.00
20.00		289.42	953.94	0.00	0.00
25.00		282.60	934.90	0.00	0.00
30.00		276.01	915.85	0.00	0.00
35.00		281.31	896.81	0.00	0.00
40.00		284.84	877.77	0.00	0.00
45.00		286.92	858.72	0.00	0.00
47.18		124.09	367.63	0.00	0.00
47.20		1.43	7.08	0.00	0.00
50.00		171.19	792.39	0.00	0.00
52.51		154.14	701.02	0.00	0.00
55.00		152.67	356.45	0.00	0.00
57.50		153.81	353.92	0.00	0.00
60.00		144.72	349.95	0.00	0.00
65.00		289.75	688.00	0.00	0.00
70.00		287.25	672.13	0.00	0.00
75.00		284.10	656.26	0.00	0.00
80.00		280.36	640.39	0.00	0.00
85.00		276.06	624.52	0.00	0.00
90.00		271.27	608.66	0.00	0.00
95.00		266.00	592.79	0.00	0.00
95.80		41.78	93.37	0.00	0.00
95.83		1.68	3.22	0.00	0.00
99.92		251.94	681.93	0.00	0.00
100.00		5.15	6.91	0.00	0.00
105.00		304.61	402.23	0.00	0.00
105.30		18.07	23.83	0.00	0.00
110.00		235.90	368.88	0.00	0.00
115.00		244.44	383.19	0.00	0.00
120.00		237.29	373.67	0.00	0.00
125.00		229.81	364.15	0.00	0.00
127.00	(19) attachments	3131.44	1747.33	0.00	0.00
130.00		131.97	177.94	0.00	0.00
135.00		213.94	288.94	0.00	0.00
137.00	(24) attachments	3102.44	2412.77	0.00	0.00
140.00		122.07	118.94	0.00	0.00
145.00	(21) attachments	2590.81	2107.57	0.00	0.00
148.34		126.41	110.55	0.00	0.00
Totals:		16,456.90	25,490.67	0.00	0.00

Linear Appurtenance Segment Forces (Factored)

Structure: CT46144-A	Code: EIA/TIA-222-G	9/25/2019
Site Name: Cammilletti Property	Exposure: B	
Height: 148.34 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 0.9D + 1.6W 89 mph Wind

Dead Load Factor 0.90
Wind Load Factor 1.60



Iterations 25

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
50.00	1.5" Reinforcing plate	Yes	2.80	0.000	1.50	0.35	0.00	0.117	1.051	15.617	0.00	0.00
50.00	1.5" Reinforcing plate	Yes	2.80	0.000	1.50	0.35	0.00	0.117	1.051	15.617	0.00	0.00
50.00	1.5" Reinforcing plate	Yes	2.80	0.000	1.50	0.35	0.00	0.117	1.051	15.617	0.00	0.00
52.51	1.5" Reinforcing plate	Yes	2.51	0.000	1.50	0.31	0.00	0.119	1.057	15.837	0.00	0.00
52.51	1.5" Reinforcing plate	Yes	2.51	0.000	1.50	0.31	0.00	0.119	1.057	15.837	0.00	0.00
52.51	1.5" Reinforcing plate	Yes	2.51	0.000	1.50	0.31	0.00	0.119	1.057	15.837	0.00	0.00
55.00	1.5" Reinforcing plate	Yes	2.49	0.000	1.50	0.31	0.00	0.119	1.056	16.048	0.00	0.00
55.00	1.5" Reinforcing plate	Yes	2.49	0.000	1.50	0.31	0.00	0.119	1.056	16.048	0.00	0.00
55.00	1.5" Reinforcing plate	Yes	2.49	0.000	1.50	0.31	0.00	0.119	1.056	16.048	0.00	0.00
57.50	1.5" Reinforcing plate	Yes	2.50	0.000	1.50	0.31	0.00	0.120	1.061	16.253	0.00	0.00
57.50	1.5" Reinforcing plate	Yes	2.50	0.000	1.50	0.31	0.00	0.120	1.061	16.253	0.00	0.00
57.50	1.5" Reinforcing plate	Yes	2.50	0.000	1.50	0.31	0.00	0.120	1.061	16.253	0.00	0.00
95.83	1.5" Reinforcing plate	Yes	0.03	0.000	1.50	0.00	0.00	0.155	1.165	18.807	0.00	0.00
95.83	1.5" Reinforcing plate	Yes	0.03	0.000	1.50	0.00	0.00	0.155	1.165	18.807	0.00	0.00
95.83	1.5" Reinforcing plate	Yes	0.03	0.000	1.50	0.00	0.00	0.155	1.165	18.807	0.00	0.00
99.92	1.5" Reinforcing plate	Yes	4.09	0.000	1.50	0.51	0.00	0.157	1.172	19.033	0.00	0.00
99.92	1.5" Reinforcing plate	Yes	4.09	0.000	1.50	0.51	0.00	0.157	1.172	19.033	0.00	0.00
99.92	1.5" Reinforcing plate	Yes	4.09	0.000	1.50	0.51	0.00	0.157	1.172	19.033	0.00	0.00
100.00	1.5" Reinforcing plate	Yes	0.08	0.000	1.50	0.01	0.00	0.158	1.173	19.037	0.00	0.00
100.00	1.5" Reinforcing plate	Yes	0.08	0.000	1.50	0.01	0.00	0.158	1.173	19.037	0.00	0.00
100.00	1.5" Reinforcing plate	Yes	0.08	0.000	1.50	0.01	0.00	0.158	1.173	19.037	0.00	0.00
105.00	1.5" Reinforcing plate	Yes	5.00	0.000	1.50	0.63	0.00	0.161	1.182	19.304	0.00	0.00
105.00	1.5" Reinforcing plate	Yes	5.00	0.000	1.50	0.63	0.00	0.161	1.182	19.304	0.00	0.00
105.00	1.5" Reinforcing plate	Yes	5.00	0.000	1.50	0.63	0.00	0.161	1.182	19.304	0.00	0.00
105.30	1.5" Reinforcing plate	Yes	0.30	0.000	1.50	0.04	0.00	0.164	1.192	19.320	0.00	0.00
105.30	1.5" Reinforcing plate	Yes	0.30	0.000	1.50	0.04	0.00	0.164	1.192	19.320	0.00	0.00
105.30	1.5" Reinforcing plate	Yes	0.30	0.000	1.50	0.04	0.00	0.164	1.192	19.320	0.00	0.00
Totals:											0.0	0.0

Calculated Forces

Structure: CT46144-A	Code: EIA/TIA-222-G	9/25/2019
Site Name: Cammilletti Property	Exposure: B	
Height: 148.34 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Load Case: 0.9D + 1.6W 89 mph Wind	Iterations 25
Dead Load Factor 0.90	
Wind Load Factor 1.60	

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-25.47	-16.49	0.00	-1782.1	0.00	1782.14	3903.36	1951.68	7638.46	3824.91	0.00	0.000	0.000	0.473
5.00	-24.41	-16.24	0.00	-1699.6	0.00	1699.69	3846.55	1923.28	7360.85	3685.90	0.08	-0.152	0.000	0.468
10.00	-23.38	-16.00	0.00	-1618.4	0.00	1618.47	3788.45	1894.23	7085.75	3548.14	0.32	-0.308	0.000	0.462
15.00	-22.36	-15.76	0.00	-1538.4	0.00	1538.46	3729.06	1864.53	6813.30	3411.72	0.73	-0.466	0.000	0.457
20.00	-21.37	-15.52	0.00	-1459.6	0.00	1459.65	3668.37	1834.19	6543.69	3276.71	1.31	-0.627	0.000	0.451
25.00	-20.39	-15.29	0.00	-1382.0	0.00	1382.03	3606.39	1803.19	6277.08	3143.21	2.05	-0.791	0.000	0.445
30.00	-19.44	-15.06	0.00	-1305.5	0.00	1305.59	3543.11	1771.56	6013.64	3011.29	2.97	-0.958	0.000	0.439
35.00	-18.50	-14.81	0.00	-1230.3	0.00	1230.32	3478.55	1739.27	5753.54	2881.05	4.06	-1.127	0.000	0.432
40.00	-17.59	-14.56	0.00	-1156.2	0.00	1156.25	3412.68	1706.34	5496.94	2752.56	5.33	-1.300	0.000	0.425
45.00	-16.70	-14.29	0.00	-1083.4	0.00	1083.44	3345.53	1672.76	5244.01	2625.90	6.79	-1.475	0.000	0.418
47.18	-16.33	-14.17	0.00	-1052.3	0.00	1052.35	3315.91	1657.95	5135.17	2571.40	7.48	-1.553	0.000	0.414
47.20	-16.32	-14.18	0.00	-1052.0	0.00	1052.00	3315.57	1657.78	5133.93	2570.78	7.49	-1.554	0.000	0.247
50.00	-15.51	-14.00	0.00	-1012.3	0.00	1012.30	3277.08	1638.54	4994.93	2501.18	8.42	-1.615	0.000	0.242
52.51	-14.81	-13.84	0.00	-977.16	0.00	977.16	2602.21	1301.11	3990.47	1998.20	9.28	-1.669	0.000	0.256
55.00	-14.44	-13.69	0.00	-942.70	0.00	942.70	2577.30	1288.65	3896.73	1951.26	10.16	-1.723	0.000	0.270
57.50	-14.08	-13.54	0.00	-908.48	0.00	908.48	2551.96	1275.98	3803.21	1904.43	11.08	-1.781	0.000	0.265
57.50	-14.08	-13.54	0.00	-908.48	0.00	908.48	2551.96	1275.98	3803.21	1904.43	11.08	-1.781	0.000	0.265
60.00	-13.70	-13.42	0.00	-874.63	0.00	874.63	2526.30	1263.15	3710.31	1857.91	12.03	-1.839	0.000	0.476
65.00	-12.97	-13.15	0.00	-807.55	0.00	807.55	2474.01	1237.00	3526.46	1765.85	14.07	-2.047	0.000	0.463
70.00	-12.27	-12.88	0.00	-741.79	0.00	741.79	2420.42	1210.21	3345.35	1675.16	16.32	-2.257	0.000	0.448
75.00	-11.58	-12.62	0.00	-677.37	0.00	677.37	2365.54	1182.77	3167.14	1585.93	18.80	-2.468	0.000	0.432
80.00	-10.90	-12.35	0.00	-614.29	0.00	614.29	2309.37	1154.68	2992.01	1498.23	21.50	-2.679	0.000	0.415
85.00	-10.25	-12.08	0.00	-552.56	0.00	552.56	2251.13	1125.57	2819.16	1411.68	24.42	-2.889	0.000	0.396
90.00	-9.61	-11.81	0.00	-492.17	0.00	492.17	2174.14	1087.07	2628.67	1316.29	27.55	-3.097	0.000	0.378
95.00	-9.01	-11.53	0.00	-433.12	0.00	433.12	2097.14	1048.57	2444.84	1224.23	30.90	-3.301	0.000	0.358
95.80	-8.92	-11.49	0.00	-423.89	0.00	423.89	2084.82	1042.41	2416.04	1209.82	31.46	-3.335	0.000	0.196
95.83	-8.91	-11.49	0.00	-423.57	0.00	423.57	2084.39	1042.20	2415.05	1209.32	31.48	-3.336	0.000	0.196
99.92	-8.23	-11.21	0.00	-376.60	0.00	376.60	1076.50	538.25	1236.95	619.40	34.37	-3.426	0.000	0.210
100.00	-8.21	-11.21	0.00	-375.65	0.00	375.65	1076.11	538.05	1235.71	618.78	34.43	-3.428	0.000	0.260
105.00	-7.82	-10.89	0.00	-319.60	0.00	319.60	1052.46	526.23	1163.02	582.37	38.09	-3.556	0.000	0.230
105.30	-7.78	-10.88	0.00	-316.34	0.00	316.34	1051.00	525.50	1158.68	580.20	38.32	-3.563	0.000	0.228
105.30	-7.78	-10.88	0.00	-316.34	0.00	316.34	1051.00	525.50	1158.68	580.20	38.32	-3.563	0.000	0.228
110.00	-7.39	-10.65	0.00	-265.20	0.00	265.20	1027.52	513.76	1090.99	546.31	41.88	-3.674	0.000	0.493
115.00	-6.98	-10.41	0.00	-211.98	0.00	211.98	1001.28	500.64	1019.81	510.66	45.87	-3.936	0.000	0.423
120.00	-6.59	-10.17	0.00	-159.95	0.00	159.95	973.75	486.88	949.64	475.53	50.12	-4.167	0.000	0.344
125.00	-6.22	-9.92	0.00	-109.11	0.00	109.11	944.93	472.47	880.64	440.98	54.58	-4.357	0.000	0.254
127.00	-4.71	-6.67	0.00	-89.26	0.00	89.26	933.04	466.52	853.41	427.34	56.42	-4.422	0.000	0.214
130.00	-4.53	-6.54	0.00	-69.24	0.00	69.24	914.81	457.41	812.99	407.10	59.23	-4.503	0.000	0.175
135.00	-4.26	-6.30	0.00	-36.56	0.00	36.56	883.40	441.70	746.85	373.98	64.00	-4.602	0.000	0.103
137.00	-2.10	-3.02	0.00	-23.95	0.00	23.95	870.48	435.24	720.86	360.97	65.93	-4.628	0.000	0.069
140.00	-1.99	-2.89	0.00	-14.89	0.00	14.89	850.70	425.35	682.40	341.71	68.84	-4.655	0.000	0.046
145.00	-0.10	-0.13	0.00	-0.45	0.00	0.45	816.70	408.35	619.79	310.35	73.73	-4.674	0.000	0.002
148.34	0.00	-0.13	0.00	0.00	0.00	0.00	787.55	393.77	574.90	287.88	76.99	-4.675	0.000	0.000

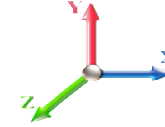
Wind Loading - Shaft

Structure: CT46144-A	Code: EIA/TIA-222-G	9/25/2019
Site Name: Cammilletti Property	Exposure: B	
Height: 148.34 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II
		Page: 14



Load Case: 1.2D + 1.0Di + 1.0Wi 40 mph Wind

Dead Load Factor 1.20
Wind Load Factor 1.00



Iterations 24

Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		1.00	0.70	2.724	3.00	0.00	1.200	0.000	0.00	0.000	0.00	0.0	0.0	0.0
5.00		1.00	0.70	2.724	3.00	0.00	1.200	1.242	5.00	21.123	25.35	75.9	375.0	1519.6
10.00		1.00	0.70	2.724	3.00	0.00	1.200	1.331	5.00	20.755	24.91	74.6	393.9	1513.1
15.00		1.00	0.70	2.724	3.00	0.00	1.200	1.386	5.00	20.359	24.43	73.2	401.6	1495.4
20.00		1.00	0.70	2.724	3.00	0.00	1.200	1.427	5.00	19.950	23.94	71.7	404.4	1472.8
25.00		1.00	0.70	2.724	3.00	0.00	1.200	1.459	5.00	19.535	23.44	70.2	404.2	1447.2
30.00		1.00	0.70	2.726	3.00	0.00	1.200	1.486	5.00	19.115	22.94	68.8	402.2	1419.8
35.00		1.00	0.73	2.849	3.13	0.00	1.200	1.509	5.00	18.692	22.43	70.3	398.8	1391.0
40.00		1.00	0.76	2.960	3.26	0.00	1.200	1.529	5.00	18.267	21.92	71.4	394.3	1361.1
45.00		1.00	0.79	3.061	3.37	0.00	1.200	1.547	5.00	17.840	21.41	72.1	389.0	1330.5
47.18	Bot - Section 2	1.00	0.80	3.103	3.41	0.00	1.200	1.555	2.18	7.626	9.15	31.2	168.1	569.8
47.20	RB1	1.00	0.80	3.103	3.41	0.00	1.200	1.555	0.02	0.088	0.11	0.4	1.9	10.4
50.00		1.00	0.81	3.155	3.47	0.00	1.262 *	1.564	2.80	9.844	12.42	43.1	217.9	1160.5
52.51	Top - Section 1	1.00	0.82	3.199	3.52	0.00	1.268 *	1.571	2.51	8.710	11.04	38.9	193.8	1026.3
55.00		1.00	0.83	3.242	3.57	0.00	1.267 *	1.579	2.49	8.534	10.81	38.5	190.6	564.5
57.50	RT1	1.00	0.84	3.283	3.61	0.00	1.273 *	1.586	2.50	8.460	10.77	38.9	189.6	559.8
60.00		1.00	0.85	3.323	3.66	0.00	1.200	1.592	2.50	8.353	10.02	36.6	187.9	552.7
65.00		1.00	0.87	3.400	3.74	0.00	1.200	1.605	5.00	16.385	19.66	73.5	368.4	1082.2
70.00		1.00	0.89	3.473	3.82	0.00	1.200	1.617	5.00	15.952	19.14	73.1	360.7	1053.3
75.00		1.00	0.91	3.542	3.90	0.00	1.200	1.628	5.00	15.520	18.62	72.6	352.6	1024.1
80.00		1.00	0.93	3.608	3.97	0.00	1.200	1.639	5.00	15.086	18.10	71.8	344.3	994.6
85.00		1.00	0.94	3.671	4.04	0.00	1.200	1.649	5.00	14.653	17.58	71.0	335.7	964.9
90.00		1.00	0.96	3.731	4.10	0.00	1.200	1.658	5.00	14.218	17.06	70.0	326.8	934.9
95.00		1.00	0.97	3.789	4.17	0.00	1.200	1.667	5.00	13.784	16.54	68.9	317.8	904.7
95.80	RB2	1.00	0.98	3.799	4.18	0.00	1.200	1.669	0.80	2.165	2.60	10.9	50.6	142.5
95.83	Bot - Section 3	1.00	0.98	3.799	4.18	0.00	1.398 *	1.669	0.03	0.075	0.10	0.4	1.7	4.9
99.92	Top - Section 2	1.00	0.99	3.844	4.23	0.00	1.406 *	1.676	4.09	11.015	15.49	65.5	255.6	998.4
100.00		1.00	0.99	3.845	4.23	0.00	1.408 *	1.676	0.08	0.225	0.32	1.3	5.3	11.1
105.00		1.00	1.00	3.899	4.29	0.00	1.418 *	1.684	5.00	13.072	18.54	79.5	303.0	635.9
105.30	RT2	1.00	1.00	3.903	4.29	0.00	1.430 *	1.685	0.30	0.770	1.10	4.7	18.1	37.7
110.00		1.00	1.02	3.952	4.35	0.00	1.200	1.692	4.70	11.866	14.24	61.9	275.9	576.4
115.00		1.00	1.03	4.002	4.40	0.00	1.200	1.699	5.00	12.201	14.64	64.5	283.7	591.1
120.00		1.00	1.04	4.051	4.46	0.00	1.200	1.707	5.00	11.765	14.12	62.9	273.8	568.6
125.00		1.00	1.05	4.099	4.51	0.00	1.200	1.714	5.00	11.328	13.59	61.3	263.8	545.8
127.00	Appurtenance(s)	1.00	1.06	4.117	4.53	0.00	1.200	1.716	2.00	4.409	5.29	24.0	103.9	213.2
130.00		1.00	1.07	4.145	4.56	0.00	1.200	1.720	3.00	6.482	7.78	35.5	152.2	312.3
135.00		1.00	1.08	4.190	4.61	0.00	1.200	1.727	5.00	10.455	12.55	57.8	243.4	500.0
137.00	Appurtenance(s)	1.00	1.08	4.207	4.63	0.00	1.200	1.729	2.00	4.059	4.87	22.5	95.7	194.8
140.00		1.00	1.09	4.233	4.66	0.00	1.200	1.733	3.00	5.958	7.15	33.3	139.8	284.6
145.00	Appurtenance(s)	1.00	1.10	4.276	4.70	0.00	1.200	1.739	5.00	9.581	11.50	54.1	222.5	453.7
148.34		1.00	1.11	4.304	4.73	0.00	1.200	1.743	3.34	6.156	7.39	35.0	143.9	291.3
								Totals:	148.34			2,052.0		30,715.7

* Cf Adjusted by Linear Load Ra Effect

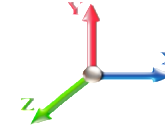
Discrete Appurtenance Forces

Structure: CT46144-A	Code: EIA/TIA-222-G	9/25/2019
Site Name: Cammilletti Property	Exposure: B	
Height: 148.34 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II
		Page: 15



Load Case: 1.2D + 1.0Di + 1.0Wi 40 mph Wind

Dead Load Factor 1.20
Wind Load Factor 1.00



Iterations 24

No.	Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	CaAa x Ka	Ka	Total CaAa (sf)	Dead Load (lb)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)	
1	145.00	RFS ACU-A20-N RET	4	4.276	4.704	0.63	0.80	1.10	17.76	0.000	0.000	5.18	0.00	0.00	
2	145.00	T-Arm w/ Mods	3	4.276	4.704	0.56	0.75	35.46	2371.93	0.000	0.000	166.79	0.00	0.00	
3	145.00	RFS APXVTM14-C-I20	2	4.276	4.704	0.62	0.80	9.18	454.40	0.000	0.000	43.17	0.00	0.00	
4	145.00	Commscope	2	4.276	4.704	0.59	0.80	16.25	709.15	0.000	0.000	76.42	0.00	0.00	
5	145.00	ALU 800 Mhz Filter	2	4.276	4.704	0.55	0.80	2.74	19.98	0.000	0.000	12.87	0.00	0.00	
6	145.00	ALU 1900 Mhz	2	4.276	4.704	0.79	0.80	6.39	262.51	0.000	0.000	30.06	0.00	0.00	
7	145.00	ALU 800 Mhz	4	4.276	4.704	0.74	0.80	10.69	464.84	0.000	0.000	50.27	0.00	0.00	
8	145.00	ALU TD-RRH8x20-25	2	4.276	4.704	0.55	0.80	5.37	388.02	0.000	0.000	25.24	0.00	0.00	
9	137.00	Powerwave - LGP 21401 -	6	4.207	4.628	0.40	0.80	5.08	207.57	0.000	0.000	23.53	0.00	0.00	
10	137.00	RRUS 8843 B2 B66A	3	4.207	4.628	0.74	0.80	5.22	655.80	0.000	0.000	24.14	0.00	0.00	
11	137.00	Raycap -	2	4.207	4.628	0.80	0.80	2.17	163.45	0.000	0.000	10.03	0.00	0.00	
12	137.00	Powerwave - 7770	3	4.207	4.628	0.64	0.80	12.51	632.32	0.000	0.000	57.88	0.00	0.00	
13	137.00	Low Profile	1	4.207	4.628	1.00	1.00	39.50	2797.10	0.000	0.000	182.82	0.00	0.00	
14	137.00	RRUS 4449 B5/B12	3	4.207	4.628	0.72	0.80	5.06	657.85	0.000	0.000	23.41	0.00	0.00	
15	137.00	DMP65R-BU6DA	3	4.207	4.628	0.58	0.80	25.36	1035.45	0.000	0.000	117.39	0.00	0.00	
16	137.00	HPA-65R-BU6AA	3	4.207	4.628	0.71	0.80	21.21	549.19	0.000	0.000	98.18	0.00	0.00	
17	127.00	RFS - FD9R6004/2C-3L -	6	4.117	4.529	0.40	0.80	1.96	55.88	0.000	0.000	8.89	0.00	0.00	
18	127.00	Antel - BXA-70063-6CF	1	4.117	4.529	0.64	0.80	6.60	123.75	0.000	0.000	29.89	0.00	0.00	
19	127.00	Antel - BXA-70040-6CF	2	4.117	4.529	0.57	0.80	19.75	493.77	0.000	0.000	89.43	0.00	0.00	
20	127.00	Antel - LPA 80080/6CF	6	4.117	4.529	1.12	0.80	37.03	630.15	0.000	0.000	167.70	0.00	0.00	
21	127.00	Antel - BXA-171085-12BF	3	4.117	4.529	0.72	0.80	15.16	252.50	0.000	0.000	68.67	0.00	0.00	
22	127.00	Low Profile	1	4.117	4.529	1.00	1.00	39.37	2787.31	0.000	0.000	178.30	0.00	0.00	
Totals:									15,730.67						1,490.24

Total Applied Force Summary

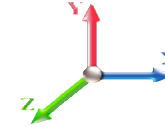
Structure: CT46144-A	Code: EIA/TIA-222-G	9/25/2019
Site Name: Cammilletti Property	Exposure: B	
Height: 148.34 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 1.2D + 1.0Di + 1.0Wi 40 mph Wind

Dead Load Factor 1.20
Wind Load Factor 1.00



Iterations 24

Elev (ft)	Description	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00		0.00	0.00	0.00	0.00
5.00		75.95	1723.08	0.00	0.00
10.00		74.62	1716.62	0.00	0.00
15.00		73.20	1698.93	0.00	0.00
20.00		71.73	1676.27	0.00	0.00
25.00		70.24	1650.74	0.00	0.00
30.00		68.79	1623.30	0.00	0.00
35.00		70.29	1594.50	0.00	0.00
40.00		71.37	1564.64	0.00	0.00
45.00		72.08	1533.97	0.00	0.00
47.18		31.23	658.31	0.00	0.00
47.20		0.36	11.39	0.00	0.00
50.00		43.09	1316.45	0.00	0.00
52.51		38.86	1166.39	0.00	0.00
55.00		38.54	703.75	0.00	0.00
57.50		38.89	699.86	0.00	0.00
60.00		36.64	654.48	0.00	0.00
65.00		73.54	1285.73	0.00	0.00
70.00		73.13	1256.84	0.00	0.00
75.00		72.56	1227.63	0.00	0.00
80.00		71.85	1198.13	0.00	0.00
85.00		71.00	1168.37	0.00	0.00
90.00		70.03	1138.37	0.00	0.00
95.00		68.95	1108.16	0.00	0.00
95.80		10.85	175.11	0.00	0.00
95.83		0.44	6.51	0.00	0.00
99.92		65.51	1233.15	0.00	0.00
100.00		1.34	15.93	0.00	0.00
105.00		79.53	923.62	0.00	0.00
105.30		4.73	54.98	0.00	0.00
110.00		61.89	767.70	0.00	0.00
115.00		64.45	794.64	0.00	0.00
120.00		62.91	772.06	0.00	0.00
125.00		61.29	749.34	0.00	0.00
127.00	(19) attachments	566.84	4637.92	0.00	0.00
130.00		35.46	389.44	0.00	0.00
135.00		57.82	628.63	0.00	0.00
137.00	(24) attachments	559.92	6944.97	0.00	0.00
140.00		33.29	298.37	0.00	0.00
145.00	(21) attachments	464.07	5165.20	0.00	0.00
148.34		34.98	291.29	0.00	0.00
Totals:		3,542.25	52,224.74	0.00	0.00

Linear Appurtenance Segment Forces (Factored)

Structure: CT46144-A	Code: EIA/TIA-222-G	9/25/2019
Site Name: Cammilletti Property	Exposure: B	
Height: 148.34 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II
		Page: 17

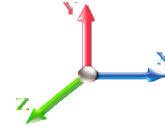


Load Case: 1.2D + 1.0Di + 1.0Wi 40 mph Wind

Iterations 24

Dead Load Factor 1.20

Wind Load Factor 1.00



Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
50.00	1.5" Reinforcing plate	Yes	2.80	0.000	1.50	1.08	0.00	0.117	1.051	3.155	0.00	14.00
50.00	1.5" Reinforcing plate	Yes	2.80	0.000	1.50	1.08	0.00	0.117	1.051	3.155	0.00	14.00
50.00	1.5" Reinforcing plate	Yes	2.80	0.000	1.50	1.08	0.00	0.117	1.051	3.155	0.00	14.00
52.51	1.5" Reinforcing plate	Yes	2.51	0.000	1.50	0.97	0.00	0.119	1.057	3.199	0.00	12.64
52.51	1.5" Reinforcing plate	Yes	2.51	0.000	1.50	0.97	0.00	0.119	1.057	3.199	0.00	12.64
52.51	1.5" Reinforcing plate	Yes	2.51	0.000	1.50	0.97	0.00	0.119	1.057	3.199	0.00	12.64
55.00	1.5" Reinforcing plate	Yes	2.49	0.000	1.50	0.97	0.00	0.119	1.056	3.242	0.00	12.63
55.00	1.5" Reinforcing plate	Yes	2.49	0.000	1.50	0.97	0.00	0.119	1.056	3.242	0.00	12.63
55.00	1.5" Reinforcing plate	Yes	2.49	0.000	1.50	0.97	0.00	0.119	1.056	3.242	0.00	12.63
57.50	1.5" Reinforcing plate	Yes	2.50	0.000	1.50	0.97	0.00	0.120	1.061	3.283	0.00	12.77
57.50	1.5" Reinforcing plate	Yes	2.50	0.000	1.50	0.97	0.00	0.120	1.061	3.283	0.00	12.77
57.50	1.5" Reinforcing plate	Yes	2.50	0.000	1.50	0.97	0.00	0.120	1.061	3.283	0.00	12.77
95.83	1.5" Reinforcing plate	Yes	0.03	0.000	1.50	0.01	0.00	0.155	1.165	3.799	0.00	0.15
95.83	1.5" Reinforcing plate	Yes	0.03	0.000	1.50	0.01	0.00	0.155	1.165	3.799	0.00	0.15
95.83	1.5" Reinforcing plate	Yes	0.03	0.000	1.50	0.01	0.00	0.155	1.165	3.799	0.00	0.15
99.92	1.5" Reinforcing plate	Yes	4.09	0.000	1.50	1.65	0.00	0.157	1.172	3.844	0.00	22.78
99.92	1.5" Reinforcing plate	Yes	4.09	0.000	1.50	1.65	0.00	0.157	1.172	3.844	0.00	22.78
99.92	1.5" Reinforcing plate	Yes	4.09	0.000	1.50	1.65	0.00	0.157	1.172	3.844	0.00	22.78
100.00	1.5" Reinforcing plate	Yes	0.08	0.000	1.50	0.03	0.00	0.158	1.173	3.845	0.00	0.47
100.00	1.5" Reinforcing plate	Yes	0.08	0.000	1.50	0.03	0.00	0.158	1.173	3.845	0.00	0.47
100.00	1.5" Reinforcing plate	Yes	0.08	0.000	1.50	0.03	0.00	0.158	1.173	3.845	0.00	0.47
105.00	1.5" Reinforcing plate	Yes	5.00	0.000	1.50	2.03	0.00	0.161	1.182	3.899	0.00	28.09
105.00	1.5" Reinforcing plate	Yes	5.00	0.000	1.50	2.03	0.00	0.161	1.182	3.899	0.00	28.09
105.00	1.5" Reinforcing plate	Yes	5.00	0.000	1.50	2.03	0.00	0.161	1.182	3.899	0.00	28.09
105.30	1.5" Reinforcing plate	Yes	0.30	0.000	1.50	0.12	0.00	0.164	1.192	3.903	0.00	1.69
105.30	1.5" Reinforcing plate	Yes	0.30	0.000	1.50	0.12	0.00	0.164	1.192	3.903	0.00	1.69
105.30	1.5" Reinforcing plate	Yes	0.30	0.000	1.50	0.12	0.00	0.164	1.192	3.903	0.00	1.69
Totals:											0.0	315.7

Calculated Forces

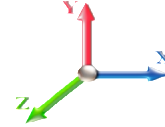
Structure: CT46144-A	Code: EIA/TIA-222-G	9/25/2019
Site Name: Cammilletti Property	Exposure: B	
Height: 148.34 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



Load Case: 1.2D + 1.0Di + 1.0Wi 40 mph Wind

Iterations 24

Dead Load Factor 1.20
Wind Load Factor 1.00



Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-52.22	-3.56	0.00	-382.82	0.00	382.82	3903.36	1951.68	7638.46	3824.91	0.00	0.000	0.000	0.113
5.00	-50.50	-3.51	0.00	-365.04	0.00	365.04	3846.55	1923.28	7360.85	3685.90	0.02	-0.033	0.000	0.112
10.00	-48.78	-3.46	0.00	-347.50	0.00	347.50	3788.45	1894.23	7085.75	3548.14	0.07	-0.066	0.000	0.111
15.00	-47.08	-3.41	0.00	-330.19	0.00	330.19	3729.06	1864.53	6813.30	3411.72	0.16	-0.100	0.000	0.109
20.00	-45.40	-3.37	0.00	-313.12	0.00	313.12	3668.37	1834.19	6543.69	3276.71	0.28	-0.135	0.000	0.108
25.00	-43.75	-3.32	0.00	-296.28	0.00	296.28	3606.39	1803.19	6277.08	3143.21	0.44	-0.170	0.000	0.106
30.00	-42.12	-3.27	0.00	-279.69	0.00	279.69	3543.11	1771.56	6013.64	3011.29	0.64	-0.205	0.000	0.105
35.00	-40.53	-3.22	0.00	-263.33	0.00	263.33	3478.55	1739.27	5753.54	2881.05	0.87	-0.242	0.000	0.103
40.00	-38.96	-3.17	0.00	-247.23	0.00	247.23	3412.68	1706.34	5496.94	2752.56	1.14	-0.279	0.000	0.101
45.00	-37.43	-3.11	0.00	-231.39	0.00	231.39	3345.53	1672.76	5244.01	2625.90	1.46	-0.316	0.000	0.099
47.18	-36.77	-3.08	0.00	-224.63	0.00	224.63	3315.91	1657.95	5135.17	2571.40	1.60	-0.333	0.000	0.098
47.20	-36.76	-3.08	0.00	-224.56	0.00	224.56	3315.57	1657.78	5133.93	2570.78	1.61	-0.333	0.000	0.059
50.00	-35.44	-3.04	0.00	-215.93	0.00	215.93	3277.08	1638.54	4994.93	2501.18	1.81	-0.346	0.000	0.058
52.51	-34.27	-3.00	0.00	-208.31	0.00	208.31	2602.21	1301.11	3990.47	1998.20	1.99	-0.358	0.000	0.061
55.00	-33.57	-2.96	0.00	-200.85	0.00	200.85	2577.30	1288.65	3896.73	1951.26	2.18	-0.369	0.000	0.064
57.50	-32.87	-2.92	0.00	-193.45	0.00	193.45	2551.96	1275.98	3803.21	1904.43	2.38	-0.381	0.000	0.063
57.50	-32.87	-2.92	0.00	-193.45	0.00	193.45	2551.96	1275.98	3803.21	1904.43	2.38	-0.381	0.000	0.063
60.00	-32.21	-2.90	0.00	-186.14	0.00	186.14	2526.30	1263.15	3710.31	1857.91	2.58	-0.394	0.000	0.113
65.00	-30.92	-2.84	0.00	-171.64	0.00	171.64	2474.01	1237.00	3526.46	1765.85	3.02	-0.438	0.000	0.110
70.00	-29.67	-2.78	0.00	-157.43	0.00	157.43	2420.42	1210.21	3345.35	1675.16	3.50	-0.483	0.000	0.106
75.00	-28.44	-2.72	0.00	-143.53	0.00	143.53	2365.54	1182.77	3167.14	1585.93	4.03	-0.527	0.000	0.103
80.00	-27.24	-2.66	0.00	-129.93	0.00	129.93	2309.37	1154.68	2992.01	1498.23	4.60	-0.572	0.000	0.099
85.00	-26.07	-2.59	0.00	-116.65	0.00	116.65	2251.13	1125.57	2819.16	1411.68	5.23	-0.616	0.000	0.094
90.00	-24.93	-2.53	0.00	-103.67	0.00	103.67	2174.14	1087.07	2628.67	1316.29	5.90	-0.660	0.000	0.090
95.00	-23.82	-2.46	0.00	-91.02	0.00	91.02	2097.14	1048.57	2444.84	1224.23	6.61	-0.703	0.000	0.086
95.80	-23.65	-2.45	0.00	-89.05	0.00	89.05	2084.82	1042.41	2416.04	1209.82	6.73	-0.710	0.000	0.047
95.83	-23.64	-2.45	0.00	-88.99	0.00	88.99	2084.39	1042.20	2415.05	1209.32	6.73	-0.711	0.000	0.047
99.92	-22.41	-2.37	0.00	-78.97	0.00	78.97	1076.50	538.25	1236.95	619.40	7.35	-0.729	0.000	0.051
100.00	-22.39	-2.38	0.00	-78.77	0.00	78.77	1076.11	538.05	1235.71	618.78	7.36	-0.730	0.000	0.063
105.00	-21.47	-2.29	0.00	-66.88	0.00	66.88	1052.46	526.23	1163.02	582.37	8.14	-0.757	0.000	0.056
105.30	-21.41	-2.29	0.00	-66.19	0.00	66.19	1051.00	525.50	1158.68	580.20	8.19	-0.758	0.000	0.056
105.30	-21.41	-2.29	0.00	-66.19	0.00	66.19	1051.00	525.50	1158.68	580.20	8.19	-0.758	0.000	0.056
110.00	-20.64	-2.23	0.00	-55.43	0.00	55.43	1027.52	513.76	1090.99	546.31	8.95	-0.781	0.000	0.122
115.00	-19.85	-2.17	0.00	-44.27	0.00	44.27	1001.28	500.64	1019.81	510.66	9.80	-0.836	0.000	0.107
120.00	-19.07	-2.12	0.00	-33.39	0.00	33.39	973.75	486.88	949.64	475.53	10.70	-0.884	0.000	0.090
125.00	-18.32	-2.05	0.00	-22.82	0.00	22.82	944.93	472.47	880.64	440.98	11.65	-0.924	0.000	0.071
127.00	-13.70	-1.41	0.00	-18.72	0.00	18.72	933.04	466.52	853.41	427.34	12.04	-0.938	0.000	0.058
130.00	-13.31	-1.37	0.00	-14.48	0.00	14.48	914.81	457.41	812.99	407.10	12.63	-0.955	0.000	0.050
135.00	-12.68	-1.31	0.00	-7.61	0.00	7.61	883.40	441.70	746.85	373.98	13.65	-0.975	0.000	0.035
137.00	-5.74	-0.63	0.00	-4.99	0.00	4.99	870.48	435.24	720.86	360.97	14.06	-0.981	0.000	0.020
140.00	-5.45	-0.59	0.00	-3.10	0.00	3.10	850.70	425.35	682.40	341.71	14.67	-0.986	0.000	0.015
145.00	-0.29	-0.04	0.00	-0.13	0.00	0.13	816.70	408.35	619.79	310.35	15.71	-0.990	0.000	0.001
148.34	0.00	-0.03	0.00	0.00	0.00	0.00	787.55	393.77	574.90	287.88	16.40	-0.990	0.000	0.000

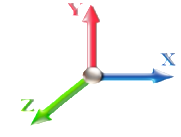
Seismic Segment Forces (Factored)

Structure: CT46144-A	Code: EIA/TIA-222-G	9/25/2019
Site Name: Cammilletti Property	Exposure: B	
Height: 148.34 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 1.2D + 1.0E				Iterations 23
Gust Response Factor	1.10	Sds	0.19	Ss 0.17
Dead Load Factor	1.20	Seismic Load Factor	1.00	S1 0.07
Wind Load Factor	0.00	Structure Frequency (f1)	0.34	SA 0.04
				Seismic Importance Factor 1.00



Top Elev (ft)	Description	Wz (lb)	a	b	c	Lateral Fs (lb)	R: 1.50
0.00		0.00	0.00	0.00	0.00	0.00	
5.00		953.83	0.00	0.03	0.02	16.68	
10.00		932.67	0.01	0.05	0.03	23.73	
15.00		911.51	0.02	0.06	0.04	26.78	
20.00		890.35	0.03	0.07	0.04	27.96	
25.00		869.19	0.05	0.07	0.04	28.32	
30.00		848.03	0.08	0.07	0.04	28.38	
35.00		826.87	0.11	0.07	0.04	28.36	
40.00		805.71	0.14	0.07	0.03	28.27	
45.00		784.56	0.17	0.07	0.03	27.94	
47.18	Bot - Section 2	334.70	0.19	0.06	0.02	11.94	
47.20	RB1	7.02	0.19	0.06	0.02	0.25	
50.00		785.47	0.21	0.06	0.02	27.88	
52.51	Top - Section 1	693.78	0.24	0.06	0.02	24.29	
55.00		311.60	0.26	0.05	0.02	10.64	
57.50	RT1	308.45	0.28	0.05	0.01	10.12	
60.00		304.05	0.31	0.04	0.01	9.39	
65.00		594.87	0.36	0.03	0.01	14.89	
70.00		577.23	0.42	0.01	0.01	9.33	
75.00		559.60	0.48	-0.01	0.01	2.59	
80.00		541.97	0.55	-0.03	0.01	-4.44	
85.00		524.34	0.62	-0.06	0.02	-10.56	
90.00		506.70	0.70	-0.09	0.03	-14.74	
95.00		489.07	0.78	-0.11	0.05	-16.48	
95.80	RB2	76.62	0.79	-0.11	0.05	-2.60	
95.83	Bot - Section 3	2.64	0.79	-0.11	0.05	-0.09	
99.92	Top - Section 2	619.07	0.86	-0.12	0.07	-20.64	
100.00		4.80	0.86	-0.12	0.07	-0.16	
105.00		277.35	0.95	-0.12	0.11	-7.70	
105.30	RT2	16.30	0.95	-0.12	0.11	-0.44	
110.00		250.46	1.04	-0.10	0.15	-4.29	
115.00		256.19	1.14	-0.05	0.21	-0.36	
120.00		245.61	1.24	0.04	0.28	4.74	
125.00		235.03	1.34	0.18	0.37	10.60	
127.00	Appurtenance(s)	1873.6	1.39	0.26	0.42	106.50	
130.00		133.40	1.45	0.39	0.49	10.14	
135.00		213.87	1.57	0.68	0.62	23.99	
137.00	Appurtenance(s)	2637.9	1.61	0.82	0.69	338.00	
140.00		120.70	1.68	1.06	0.79	18.55	
145.00	Appurtenance(s)	2322.6	1.81	1.57	0.99	466.02	
148.34		122.84	1.89	1.98	1.14	28.88	
Totals:		23,770.8				1,282.7	Total Wind: 16,456.9

Seismic Base Shear is Less Than 50% of Wind Force - An Analysis is NOT Required

Calculated Forces

Structure: CT46144-A	Code: EIA/TIA-222-G	9/25/2019
Site Name: Cammilletti Property	Exposure: B	
Height: 148.34 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 1.2D + 1.0E

Iterations 23

Gust Response Factor 1.10	Sds 0.19		Ss 0.17
Dead Load Factor 1.20	Seismic Load Factor 1.00		S1 0.07
Wind Load Factor 0.00	Structure Frequency (f1) 0.34	SA 0.04	Seismic Importance Factor 1.00

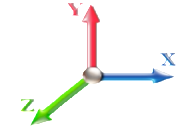
Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-33.99	-1.37	0.00	-161.40	0.00	161.40	3903.36	1951.68	7638.46	3824.91	0.00	0.00	0.00	0.051
5.00	-32.64	-1.36	0.00	-154.56	0.00	154.56	3846.55	1923.28	7360.85	3685.90	0.01	-0.01	0.050	
10.00	-31.32	-1.34	0.00	-147.76	0.00	147.76	3788.45	1894.23	7085.75	3548.14	0.03	-0.03	0.050	
15.00	-30.02	-1.32	0.00	-141.04	0.00	141.04	3729.06	1864.53	6813.30	3411.72	0.07	-0.04	0.049	
20.00	-28.75	-1.30	0.00	-134.43	0.00	134.43	3668.37	1834.19	6543.69	3276.71	0.12	-0.06	0.049	
25.00	-27.50	-1.28	0.00	-127.92	0.00	127.92	3606.39	1803.19	6277.08	3143.21	0.19	-0.07	0.048	
30.00	-26.28	-1.26	0.00	-121.52	0.00	121.52	3543.11	1771.56	6013.64	3011.29	0.27	-0.09	0.048	
35.00	-25.08	-1.23	0.00	-115.24	0.00	115.24	3478.55	1739.27	5753.54	2881.05	0.37	-0.10	0.047	
40.00	-23.91	-1.21	0.00	-109.08	0.00	109.08	3412.68	1706.34	5496.94	2752.56	0.49	-0.12	0.047	
45.00	-22.77	-1.18	0.00	-103.03	0.00	103.03	3345.53	1672.76	5244.01	2625.90	0.62	-0.14	0.046	
47.18	-22.28	-1.17	0.00	-100.46	0.00	100.46	3315.91	1657.95	5135.17	2571.40	0.69	-0.14	0.046	
47.20	-22.27	-1.17	0.00	-100.43	0.00	100.43	3315.57	1657.78	5133.93	2570.78	0.69	-0.14	0.027	
50.00	-21.21	-1.14	0.00	-97.14	0.00	97.14	3277.08	1638.54	4994.93	2501.18	0.77	-0.15	0.027	
52.51	-20.27	-1.12	0.00	-94.27	0.00	94.27	2602.21	1301.11	3990.47	1998.20	0.85	-0.16	0.028	
55.00	-19.80	-1.11	0.00	-91.48	0.00	91.48	2577.30	1288.65	3896.73	1951.26	0.94	-0.16	0.030	
57.50	-19.33	-1.10	0.00	-88.71	0.00	88.71	2551.96	1275.98	3803.21	1904.43	1.02	-0.17	0.030	
57.50	-19.33	-1.10	0.00	-88.71	0.00	88.71	2551.96	1275.98	3803.21	1904.43	1.02	-0.17	0.030	
60.00	-18.86	-1.09	0.00	-85.96	0.00	85.96	2526.30	1263.15	3710.31	1857.91	1.11	-0.17	0.054	
65.00	-17.94	-1.08	0.00	-80.50	0.00	80.50	2474.01	1237.00	3526.46	1765.85	1.30	-0.19	0.053	
70.00	-17.05	-1.08	0.00	-75.09	0.00	75.09	2420.42	1210.21	3345.35	1675.16	1.51	-0.21	0.052	
75.00	-16.17	-1.08	0.00	-69.71	0.00	69.71	2365.54	1182.77	3167.14	1585.93	1.75	-0.23	0.051	
80.00	-15.32	-1.08	0.00	-64.33	0.00	64.33	2309.37	1154.68	2992.01	1498.23	2.01	-0.26	0.050	
85.00	-14.48	-1.08	0.00	-58.93	0.00	58.93	2251.13	1125.57	2819.16	1411.68	2.29	-0.28	0.048	
90.00	-13.67	-1.08	0.00	-53.53	0.00	53.53	2174.14	1087.07	2628.67	1316.29	2.59	-0.30	0.047	
95.00	-12.88	-1.08	0.00	-48.13	0.00	48.13	2097.14	1048.57	2444.84	1224.23	2.92	-0.32	0.045	
95.80	-12.76	-1.08	0.00	-47.26	0.00	47.26	2084.82	1042.41	2416.04	1209.82	2.97	-0.33	0.025	
95.83	-12.75	-1.08	0.00	-47.23	0.00	47.23	2084.39	1042.20	2415.05	1209.32	2.98	-0.33	0.025	
99.92	-11.84	-1.08	0.00	-42.82	0.00	42.82	1076.50	538.25	1236.95	619.40	3.26	-0.34	0.027	
100.00	-11.83	-1.08	0.00	-42.73	0.00	42.73	1076.11	538.05	1235.71	618.78	3.27	-0.34	0.034	
105.00	-11.30	-1.08	0.00	-37.33	0.00	37.33	1052.46	526.23	1163.02	582.37	3.63	-0.35	0.031	
105.30	-11.27	-1.08	0.00	-37.01	0.00	37.01	1051.00	525.50	1158.68	580.20	3.65	-0.35	0.031	
105.30	-11.27	-1.08	0.00	-37.01	0.00	37.01	1051.00	525.50	1158.68	580.20	3.65	-0.35	0.031	
110.00	-10.77	-1.08	0.00	-31.95	0.00	31.95	1027.52	513.76	1090.99	546.31	4.00	-0.37	0.069	
115.00	-10.26	-1.08	0.00	-26.55	0.00	26.55	1001.28	500.64	1019.81	510.66	4.41	-0.40	0.062	
120.00	-9.76	-1.08	0.00	-21.15	0.00	21.15	973.75	486.88	949.64	475.53	4.84	-0.43	0.054	
125.00	-9.28	-1.07	0.00	-15.76	0.00	15.76	944.93	472.47	880.64	440.98	5.30	-0.45	0.046	
127.00	-6.95	-0.94	0.00	-13.62	0.00	13.62	933.04	466.52	853.41	427.34	5.50	-0.46	0.039	
130.00	-6.71	-0.93	0.00	-10.80	0.00	10.80	914.81	457.41	812.99	407.10	5.79	-0.48	0.034	
135.00	-6.33	-0.91	0.00	-6.14	0.00	6.14	883.40	441.70	746.85	373.98	6.30	-0.49	0.024	
137.00	-3.11	-0.54	0.00	-4.33	0.00	4.33	870.48	435.24	720.86	360.97	6.51	-0.50	0.016	
140.00	-2.95	-0.52	0.00	-2.70	0.00	2.70	850.70	425.35	682.40	341.71	6.82	-0.50	0.011	
145.00	-0.15	-0.03	0.00	-0.10	0.00	0.10	816.70	408.35	619.79	310.35	7.35	-0.51	0.001	
148.34	0.00	-0.03	0.00	0.00	0.00	0.00	787.55	393.77	574.90	287.88	7.70	-0.51	0.000	

Seismic Segment Forces (Factored)

Structure: CT46144-A	Code: EIA/TIA-222-G	9/25/2019
Site Name: Cammilletti Property	Exposure: B	
Height: 148.34 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II
		Page: 21



Load Case: 0.9D + 1.0E		Iterations 23
Gust Response Factor	1.10	Sds 0.19
Dead Load Factor	0.90	Ss 0.17
Wind Load Factor	0.00	S1 0.07
Seismic Load Factor	1.00	SA 0.04
Structure Frequency (f1)	0.34	Seismic Importance Factor 1.00



Top Elev (ft)	Description	Wz (lb)	a	b	c	Lateral Fs (lb)	R: 1.50
0.00		0.00	0.00	0.00	0.00	0.00	
5.00		953.83	0.00	0.03	0.02	16.68	
10.00		932.67	0.01	0.05	0.03	23.73	
15.00		911.51	0.02	0.06	0.04	26.78	
20.00		890.35	0.03	0.07	0.04	27.96	
25.00		869.19	0.05	0.07	0.04	28.32	
30.00		848.03	0.08	0.07	0.04	28.38	
35.00		826.87	0.11	0.07	0.04	28.36	
40.00		805.71	0.14	0.07	0.03	28.27	
45.00		784.56	0.17	0.07	0.03	27.94	
47.18	Bot - Section 2	334.70	0.19	0.06	0.02	11.94	
47.20	RB1	7.02	0.19	0.06	0.02	0.25	
50.00		785.47	0.21	0.06	0.02	27.88	
52.51	Top - Section 1	693.78	0.24	0.06	0.02	24.29	
55.00		311.60	0.26	0.05	0.02	10.64	
57.50	RT1	308.45	0.28	0.05	0.01	10.12	
60.00		304.05	0.31	0.04	0.01	9.39	
65.00		594.87	0.36	0.03	0.01	14.89	
70.00		577.23	0.42	0.01	0.01	9.33	
75.00		559.60	0.48	-0.01	0.01	2.59	
80.00		541.97	0.55	-0.03	0.01	-4.44	
85.00		524.34	0.62	-0.06	0.02	-10.56	
90.00		506.70	0.70	-0.09	0.03	-14.74	
95.00		489.07	0.78	-0.11	0.05	-16.48	
95.80	RB2	76.62	0.79	-0.11	0.05	-2.60	
95.83	Bot - Section 3	2.64	0.79	-0.11	0.05	-0.09	
99.92	Top - Section 2	619.07	0.86	-0.12	0.07	-20.64	
100.00		4.80	0.86	-0.12	0.07	-0.16	
105.00		277.35	0.95	-0.12	0.11	-7.70	
105.30	RT2	16.30	0.95	-0.12	0.11	-0.44	
110.00		250.46	1.04	-0.10	0.15	-4.29	
115.00		256.19	1.14	-0.05	0.21	-0.36	
120.00		245.61	1.24	0.04	0.28	4.74	
125.00		235.03	1.34	0.18	0.37	10.60	
127.00	Appurtenance(s)	1873.6	1.39	0.26	0.42	106.50	
130.00		133.40	1.45	0.39	0.49	10.14	
135.00		213.87	1.57	0.68	0.62	23.99	
137.00	Appurtenance(s)	2637.9	1.61	0.82	0.69	338.00	
140.00		120.70	1.68	1.06	0.79	18.55	
145.00	Appurtenance(s)	2322.6	1.81	1.57	0.99	466.02	
148.34		122.84	1.89	1.98	1.14	28.88	
Totals:		23,770.8				1,282.7	Total Wind: 16,456.9

Seismic Base Shear is Less Than 50% of Wind Force - An Analysis is NOT Required

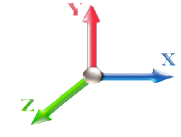
Calculated Forces

Structure: CT46144-A	Code: EIA/TIA-222-G	9/25/2019
Site Name: Cammilletti Property	Exposure: B	
Height: 148.34 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 0.9D + 1.0E		Iterations 23
Gust Response Factor 1.10	Sds 0.19	Ss 0.17
Dead Load Factor 0.90	Seismic Load Factor 1.00	S1 0.07
Wind Load Factor 0.00	Structure Frequency (f1) 0.34	SA 0.04
	Seismic Importance Factor 1.00	



Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-25.49	-1.37	0.00	-159.38	0.00	159.38	3903.36	1951.68	7638.46	3824.91	0.00	0.00	0.00	0.048
5.00	-24.48	-1.36	0.00	-152.54	0.00	152.54	3846.55	1923.28	7360.85	3685.90	0.01	-0.01	0.048	
10.00	-23.49	-1.34	0.00	-145.76	0.00	145.76	3788.45	1894.23	7085.75	3548.14	0.03	-0.03	0.047	
15.00	-22.51	-1.32	0.00	-139.07	0.00	139.07	3729.06	1864.53	6813.30	3411.72	0.07	-0.04	0.047	
20.00	-21.56	-1.29	0.00	-132.49	0.00	132.49	3668.37	1834.19	6543.69	3276.71	0.12	-0.06	0.046	
25.00	-20.62	-1.27	0.00	-126.02	0.00	126.02	3606.39	1803.19	6277.08	3143.21	0.18	-0.07	0.046	
30.00	-19.71	-1.24	0.00	-119.67	0.00	119.67	3543.11	1771.56	6013.64	3011.29	0.27	-0.09	0.045	
35.00	-18.81	-1.22	0.00	-113.45	0.00	113.45	3478.55	1739.27	5753.54	2881.05	0.37	-0.10	0.045	
40.00	-17.93	-1.20	0.00	-107.35	0.00	107.35	3412.68	1706.34	5496.94	2752.56	0.48	-0.12	0.044	
45.00	-17.07	-1.17	0.00	-101.37	0.00	101.37	3345.53	1672.76	5244.01	2625.90	0.61	-0.13	0.044	
47.18	-16.71	-1.16	0.00	-98.83	0.00	98.83	3315.91	1657.95	5135.17	2571.40	0.68	-0.14	0.043	
47.20	-16.70	-1.16	0.00	-98.80	0.00	98.80	3315.57	1657.78	5133.93	2570.78	0.68	-0.14	0.026	
50.00	-15.91	-1.13	0.00	-95.56	0.00	95.56	3277.08	1638.54	4994.93	2501.18	0.76	-0.15	0.026	
52.51	-15.21	-1.10	0.00	-92.72	0.00	92.72	2602.21	1301.11	3990.47	1998.20	0.84	-0.15	0.027	
55.00	-14.85	-1.09	0.00	-89.97	0.00	89.97	2577.30	1288.65	3896.73	1951.26	0.92	-0.16	0.029	
57.50	-14.50	-1.08	0.00	-87.23	0.00	87.23	2551.96	1275.98	3803.21	1904.43	1.01	-0.16	0.028	
57.50	-14.50	-1.08	0.00	-87.23	0.00	87.23	2551.96	1275.98	3803.21	1904.43	1.01	-0.16	0.028	
60.00	-14.14	-1.08	0.00	-84.52	0.00	84.52	2526.30	1263.15	3710.31	1857.91	1.09	-0.17	0.051	
65.00	-13.46	-1.07	0.00	-79.13	0.00	79.13	2474.01	1237.00	3526.46	1765.85	1.28	-0.19	0.050	
70.00	-12.78	-1.06	0.00	-73.81	0.00	73.81	2420.42	1210.21	3345.35	1675.16	1.49	-0.21	0.049	
75.00	-12.13	-1.06	0.00	-68.51	0.00	68.51	2365.54	1182.77	3167.14	1585.93	1.72	-0.23	0.048	
80.00	-11.49	-1.06	0.00	-63.22	0.00	63.22	2309.37	1154.68	2992.01	1498.23	1.98	-0.25	0.047	
85.00	-10.86	-1.06	0.00	-57.93	0.00	57.93	2251.13	1125.57	2819.16	1411.68	2.25	-0.27	0.046	
90.00	-10.25	-1.06	0.00	-52.62	0.00	52.62	2174.14	1087.07	2628.67	1316.29	2.55	-0.30	0.045	
95.00	-9.66	-1.06	0.00	-47.31	0.00	47.31	2097.14	1048.57	2444.84	1224.23	2.87	-0.32	0.043	
95.80	-9.57	-1.06	0.00	-46.46	0.00	46.46	2084.82	1042.41	2416.04	1209.82	2.93	-0.32	0.024	
95.83	-9.56	-1.06	0.00	-46.43	0.00	46.43	2084.39	1042.20	2415.05	1209.32	2.93	-0.32	0.024	
99.92	-8.88	-1.06	0.00	-42.10	0.00	42.10	1076.50	538.25	1236.95	619.40	3.21	-0.33	0.026	
100.00	-8.87	-1.06	0.00	-42.01	0.00	42.01	1076.11	538.05	1235.71	618.78	3.22	-0.33	0.032	
105.00	-8.47	-1.06	0.00	-36.71	0.00	36.71	1052.46	526.23	1163.02	582.37	3.57	-0.35	0.030	
105.30	-8.45	-1.06	0.00	-36.39	0.00	36.39	1051.00	525.50	1158.68	580.20	3.59	-0.35	0.029	
105.30	-8.45	-1.06	0.00	-36.39	0.00	36.39	1051.00	525.50	1158.68	580.20	3.59	-0.35	0.029	
110.00	-8.08	-1.06	0.00	-31.41	0.00	31.41	1027.52	513.76	1090.99	546.31	3.94	-0.36	0.065	
115.00	-7.69	-1.06	0.00	-26.11	0.00	26.11	1001.28	500.64	1019.81	510.66	4.34	-0.39	0.059	
120.00	-7.32	-1.06	0.00	-20.80	0.00	20.80	973.75	486.88	949.64	475.53	4.77	-0.42	0.051	
125.00	-6.96	-1.05	0.00	-15.51	0.00	15.51	944.93	472.47	880.64	440.98	5.22	-0.45	0.043	
127.00	-5.21	-0.93	0.00	-13.42	0.00	13.42	933.04	466.52	853.41	427.34	5.41	-0.46	0.037	
130.00	-5.03	-0.92	0.00	-10.64	0.00	10.64	914.81	457.41	812.99	407.10	5.70	-0.47	0.032	
135.00	-4.74	-0.89	0.00	-6.05	0.00	6.05	883.40	441.70	746.85	373.98	6.20	-0.48	0.022	
137.00	-2.33	-0.53	0.00	-4.27	0.00	4.27	870.48	435.24	720.86	360.97	6.41	-0.49	0.015	
140.00	-2.21	-0.51	0.00	-2.67	0.00	2.67	850.70	425.35	682.40	341.71	6.72	-0.49	0.010	
145.00	-0.11	-0.03	0.00	-0.10	0.00	0.10	816.70	408.35	619.79	310.35	7.23	-0.50	0.000	
148.34	0.00	-0.03	0.00	0.00	0.00	0.00	787.55	393.77	574.90	287.88	7.58	-0.50	0.000	

Wind Loading - Shaft

Structure: CT46144-A	Code: EIA/TIA-222-G	9/25/2019
Site Name: Cammilletti Property	Exposure: B	
Height: 148.34 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II

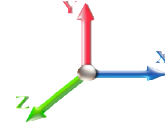


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Load Case: 1.0D + 1.0W 60 mph Wind

Iterations 24

Dead Load Factor 1.00
Wind Load Factor 1.00



Elev (ft)	Description	Kzt	Kz	qz (psf)	qzGh (psf)	C (mph-ft)	Cf	Ice Thick (in)	Tributary (ft)	Aa (sf)	CfAa (sf)	Wind Force X (lb)	Dead Load Ice (lb)	Tot Dead Load (lb)
0.00		1.00	0.70	6.129	6.74	203.90	0.650	0.000	0.00	0.000	0.00	0.0	0.0	0.0
5.00		1.00	0.70	6.129	6.74	199.46	0.650	0.000	5.00	20.087	13.06	88.0	0.0	953.8
10.00		1.00	0.70	6.129	6.74	195.02	0.650	0.000	5.00	19.645	12.77	86.1	0.0	932.7
15.00		1.00	0.70	6.129	6.74	190.58	0.650	0.000	5.00	19.203	12.48	84.1	0.0	911.5
20.00		1.00	0.70	6.129	6.74	186.14	0.650	0.000	5.00	18.761	12.19	82.2	0.0	890.4
25.00		1.00	0.70	6.129	6.74	181.70	0.650	0.000	5.00	18.319	11.91	80.3	0.0	869.2
30.00		1.00	0.70	6.134	6.75	177.34	0.650	0.000	5.00	17.877	11.62	78.4	0.0	848.0
35.00		1.00	0.73	6.410	7.05	176.75	0.650	0.000	5.00	17.435	11.33	79.9	0.0	826.9
40.00		1.00	0.76	6.659	7.33	175.53	0.650	0.000	5.00	16.993	11.05	80.9	0.0	805.7
45.00		1.00	0.79	6.887	7.58	173.80	0.650	0.000	5.00	16.551	10.76	81.5	0.0	784.6
47.18	Bot - Section 2	1.00	0.80	6.981	7.68	172.91	0.650	0.000	2.18	7.062	4.59	35.2	0.0	334.7
47.20	RB1	1.00	0.80	6.982	7.68	172.90	0.650	0.000	0.02	0.081	0.05	0.4	0.0	7.0
50.00		1.00	0.81	7.098	7.81	171.66	0.683 *	0.000	2.80	9.114	6.23	48.6	0.0	785.5
52.51	Top - Section 1	1.00	0.82	7.198	7.92	170.45	0.687 *	0.000	2.51	8.053	5.53	43.8	0.0	693.8
55.00		1.00	0.83	7.294	8.02	172.07	0.686 *	0.000	2.49	7.878	5.41	43.4	0.0	311.6
57.50	RT1	1.00	0.84	7.387	8.13	170.73	0.689 *	0.000	2.50	7.800	5.38	43.7	0.0	308.5
60.00		1.00	0.85	7.477	8.22	169.32	0.650	0.000	2.50	7.689	5.00	41.1	0.0	304.0
65.00		1.00	0.87	7.650	8.42	166.30	0.650	0.000	5.00	15.047	9.78	82.3	0.0	594.9
70.00		1.00	0.89	7.814	8.60	163.06	0.650	0.000	5.00	14.605	9.49	81.6	0.0	577.2
75.00		1.00	0.91	7.969	8.77	159.62	0.650	0.000	5.00	14.163	9.21	80.7	0.0	559.6
80.00		1.00	0.93	8.118	8.93	155.99	0.650	0.000	5.00	13.721	8.92	79.6	0.0	542.0
85.00		1.00	0.94	8.260	9.09	152.19	0.650	0.000	5.00	13.278	8.63	78.4	0.0	524.3
90.00		1.00	0.96	8.396	9.24	148.24	0.650	0.000	5.00	12.836	8.34	77.1	0.0	506.7
95.00		1.00	0.97	8.526	9.38	144.16	0.650	0.000	5.00	12.394	8.06	75.6	0.0	489.1
95.80	RB2	1.00	0.98	8.547	9.40	143.49	0.650	0.000	0.80	1.942	1.26	11.9	0.0	76.6
95.83	Bot - Section 3	1.00	0.98	8.547	9.40	143.47	0.757 *	0.000	0.03	0.067	0.05	0.5	0.0	2.6
99.92	Top - Section 2	1.00	0.99	8.650	9.52	140.02	0.762 *	0.000	4.09	9.874	7.52	71.6	0.0	619.1
100.00		1.00	0.99	8.652	9.52	141.84	0.762 *	0.000	0.08	0.202	0.15	1.5	0.0	4.8
105.00		1.00	1.00	8.774	9.65	137.52	0.768 *	0.000	5.00	11.669	8.97	86.5	0.0	277.3
105.30	RT2	1.00	1.00	8.781	9.66	137.25	0.775 *	0.000	0.30	0.686	0.53	5.1	0.0	16.3
110.00		1.00	1.02	8.891	9.78	133.09	0.650	0.000	4.70	10.541	6.85	67.0	0.0	250.5
115.00		1.00	1.03	9.005	9.91	128.56	0.650	0.000	5.00	10.785	7.01	69.4	0.0	256.2
120.00		1.00	1.04	9.115	10.03	123.93	0.650	0.000	5.00	10.343	6.72	67.4	0.0	245.6
125.00		1.00	1.05	9.222	10.14	119.21	0.650	0.000	5.00	9.900	6.44	65.3	0.0	235.0
127.00	Appurtenance(s)	1.00	1.06	9.264	10.19	117.29	0.650	0.000	2.00	3.836	2.49	25.4	0.0	91.0
130.00		1.00	1.07	9.326	10.26	114.40	0.650	0.000	3.00	5.622	3.65	37.5	0.0	133.4
135.00		1.00	1.08	9.427	10.37	109.52	0.650	0.000	5.00	9.016	5.86	60.8	0.0	213.9
137.00	Appurtenance(s)	1.00	1.08	9.466	10.41	107.54	0.650	0.000	2.00	3.483	2.26	23.6	0.0	82.6
140.00		1.00	1.09	9.525	10.48	104.55	0.650	0.000	3.00	5.091	3.31	34.7	0.0	120.7
145.00	Appurtenance(s)	1.00	1.10	9.621	10.58	99.52	0.650	0.000	5.00	8.132	5.29	55.9	0.0	192.7
148.34		1.00	1.11	9.684	10.65	96.11	0.650	0.000	3.34	5.186	3.37	35.9	0.0	122.8
Totals:								148.34			2,272.9	17,302.8		

* Cf Adjusted by Linear Load Ra Effect

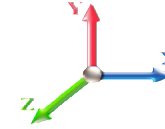
Discrete Appurtenance Forces

Structure: CT46144-A	Code: EIA/TIA-222-G	9/25/2019
Site Name: Cammilletti Property	Exposure: B	
Height: 148.34 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II
		Page: 24



Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00
Wind Load Factor 1.00



Iterations 24

No.	Elev (ft)	Description	Qty	qz (psf)	qzGh (psf)	CaAa x Ka	Ka	Total CaAa (sf)	Dead Load (lb)	Horiz Ecc (ft)	Vert Ecc (ft)	Wind FX (lb)	Mom Y (lb-ft)	Mom Z (lb-ft)
1	145.00	RFS ACU-A20-N RET	4	9.621	10.583	0.63	0.80	0.35	4.16	0.000	0.000	3.75	0.00	0.00
2	145.00	T-Arm w/ Mods	3	9.621	10.583	0.56	0.75	23.63	1350.00	0.000	0.000	250.03	0.00	0.00
3	145.00	RFS APXVTM14-C-I20	2	9.621	10.583	0.62	0.80	7.81	112.40	0.000	0.000	82.67	0.00	0.00
4	145.00	Commscope	2	9.621	10.583	0.59	0.80	14.53	169.40	0.000	0.000	153.75	0.00	0.00
5	145.00	ALU 800 Mhz Filter	2	9.621	10.583	0.55	0.80	1.74	22.00	0.000	0.000	18.46	0.00	0.00
6	145.00	ALU 1900 Mhz	2	9.621	10.583	0.79	0.80	4.39	120.00	0.000	0.000	46.44	0.00	0.00
7	145.00	ALU 800 Mhz	4	9.621	10.583	0.74	0.80	7.33	212.00	0.000	0.000	77.58	0.00	0.00
8	145.00	ALU TD-RRH8x20-25	2	9.621	10.583	0.55	0.80	4.47	140.00	0.000	0.000	47.32	0.00	0.00
9	137.00	Powerwave - LGP 21401 -	6	9.466	10.413	0.40	0.80	3.10	84.60	0.000	0.000	32.24	0.00	0.00
10	137.00	RRUS 8843 B2 B66A	3	9.466	10.413	0.73	0.80	3.58	216.00	0.000	0.000	37.30	0.00	0.00
11	137.00	Raycap -	2	9.466	10.413	0.80	0.80	1.47	63.60	0.000	0.000	15.33	0.00	0.00
12	137.00	Powerwave - 7770	3	9.466	10.413	0.61	0.80	10.11	105.00	0.000	0.000	105.29	0.00	0.00
13	137.00	Low Profile	1	9.466	10.413	1.00	1.00	22.00	1500.00	0.000	0.000	229.09	0.00	0.00
14	137.00	RRUS 4449 B5/B12	3	9.466	10.413	0.72	0.80	3.54	219.00	0.000	0.000	36.89	0.00	0.00
15	137.00	DMP65R-BU6DA	3	9.466	10.413	0.58	0.80	21.96	238.20	0.000	0.000	228.70	0.00	0.00
16	137.00	HPA-65R-BU6AA	3	9.466	10.413	0.70	0.80	16.60	129.00	0.000	0.000	172.86	0.00	0.00
17	127.00	RFS - FD9R6004/2C-3L -	6	9.264	10.190	0.40	0.80	0.89	18.60	0.000	0.000	9.05	0.00	0.00
18	127.00	Antel - BXA-70063-6CF	1	9.264	10.190	0.62	0.80	4.69	17.00	0.000	0.000	47.83	0.00	0.00
19	127.00	Antel - BXA-70040-6CF	2	9.264	10.190	0.56	0.80	16.10	76.00	0.000	0.000	164.11	0.00	0.00
20	127.00	Antel - LPA 80080/6CF	6	9.264	10.190	1.20	0.80	31.13	126.00	0.000	0.000	317.26	0.00	0.00
21	127.00	Antel - BXA-171085-12BF	3	9.264	10.190	0.70	0.80	9.98	45.00	0.000	0.000	101.66	0.00	0.00
22	127.00	Low Profile	1	9.264	10.190	1.00	1.00	22.00	1500.00	0.000	0.000	224.18	0.00	0.00
Totals:									6,467.96			2,401.77		

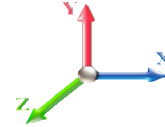
Total Applied Force Summary

Structure: CT46144-A	Code: EIA/TIA-222-G	9/25/2019
Site Name: Cammilletti Property	Exposure: B	
Height: 148.34 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II
		Page: 25



Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00
Wind Load Factor 1.00



Iterations 24

Elev (ft)	Description	Lateral FX (-) (lb)	Axial FY (-) (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)
0.00		0.00	0.00	0.00	0.00
5.00		88.02	1123.41	0.00	0.00
10.00		86.09	1102.25	0.00	0.00
15.00		84.15	1081.09	0.00	0.00
20.00		82.21	1059.93	0.00	0.00
25.00		80.27	1038.77	0.00	0.00
30.00		78.40	1017.61	0.00	0.00
35.00		79.91	996.45	0.00	0.00
40.00		80.91	975.29	0.00	0.00
45.00		81.50	954.14	0.00	0.00
47.18		35.25	408.48	0.00	0.00
47.20		0.41	7.86	0.00	0.00
50.00		48.63	880.44	0.00	0.00
52.51		43.78	778.91	0.00	0.00
55.00		43.37	396.05	0.00	0.00
57.50		43.69	393.24	0.00	0.00
60.00		41.11	388.84	0.00	0.00
65.00		82.30	764.45	0.00	0.00
70.00		81.60	746.81	0.00	0.00
75.00		80.70	729.18	0.00	0.00
80.00		79.64	711.55	0.00	0.00
85.00		78.42	693.92	0.00	0.00
90.00		77.05	676.28	0.00	0.00
95.00		75.56	658.65	0.00	0.00
95.80		11.87	103.75	0.00	0.00
95.83		0.48	3.58	0.00	0.00
99.92		71.57	757.70	0.00	0.00
100.00		1.46	7.67	0.00	0.00
105.00		86.53	446.93	0.00	0.00
105.30		5.13	26.48	0.00	0.00
110.00		67.01	409.87	0.00	0.00
115.00		69.43	425.77	0.00	0.00
120.00		67.40	415.19	0.00	0.00
125.00		65.28	404.61	0.00	0.00
127.00	(19) attachments	889.50	1941.48	0.00	0.00
130.00		37.49	197.71	0.00	0.00
135.00		60.77	321.05	0.00	0.00
137.00	(24) attachments	881.26	2680.86	0.00	0.00
140.00		34.68	132.15	0.00	0.00
145.00	(21) attachments	735.93	2341.75	0.00	0.00
148.34		35.91	122.84	0.00	0.00
Totals:		4,674.67	28,322.97	0.00	0.00

Linear Appurtenance Segment Forces (Factored)

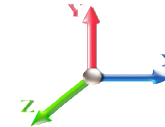
Structure: CT46144-A	Code: EIA/TIA-222-G	9/25/2019
Site Name: Cammilletti Property	Exposure: B	
Height: 148.34 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II



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Load Case: 1.0D + 1.0W 60 mph Wind

Dead Load Factor 1.00
Wind Load Factor 1.00



Iterations 24

Top Elev (ft)	Description	Wind Exposed	Length (ft)	Ca	Exposed Width (in)	Area (sqft)	CaAa (sqft)	Ra	Cf Adjust Factor	qz (psf)	F X (lb)	Dead Load (lb)
50.00	1.5" Reinforcing plate	Yes	2.80	0.000	1.50	0.35	0.00	0.117	1.051	7.098	0.00	0.00
50.00	1.5" Reinforcing plate	Yes	2.80	0.000	1.50	0.35	0.00	0.117	1.051	7.098	0.00	0.00
50.00	1.5" Reinforcing plate	Yes	2.80	0.000	1.50	0.35	0.00	0.117	1.051	7.098	0.00	0.00
52.51	1.5" Reinforcing plate	Yes	2.51	0.000	1.50	0.31	0.00	0.119	1.057	7.198	0.00	0.00
52.51	1.5" Reinforcing plate	Yes	2.51	0.000	1.50	0.31	0.00	0.119	1.057	7.198	0.00	0.00
52.51	1.5" Reinforcing plate	Yes	2.51	0.000	1.50	0.31	0.00	0.119	1.057	7.198	0.00	0.00
55.00	1.5" Reinforcing plate	Yes	2.49	0.000	1.50	0.31	0.00	0.119	1.056	7.294	0.00	0.00
55.00	1.5" Reinforcing plate	Yes	2.49	0.000	1.50	0.31	0.00	0.119	1.056	7.294	0.00	0.00
55.00	1.5" Reinforcing plate	Yes	2.49	0.000	1.50	0.31	0.00	0.119	1.056	7.294	0.00	0.00
57.50	1.5" Reinforcing plate	Yes	2.50	0.000	1.50	0.31	0.00	0.120	1.061	7.387	0.00	0.00
57.50	1.5" Reinforcing plate	Yes	2.50	0.000	1.50	0.31	0.00	0.120	1.061	7.387	0.00	0.00
57.50	1.5" Reinforcing plate	Yes	2.50	0.000	1.50	0.31	0.00	0.120	1.061	7.387	0.00	0.00
95.83	1.5" Reinforcing plate	Yes	0.03	0.000	1.50	0.00	0.00	0.155	1.165	8.547	0.00	0.00
95.83	1.5" Reinforcing plate	Yes	0.03	0.000	1.50	0.00	0.00	0.155	1.165	8.547	0.00	0.00
95.83	1.5" Reinforcing plate	Yes	0.03	0.000	1.50	0.00	0.00	0.155	1.165	8.547	0.00	0.00
99.92	1.5" Reinforcing plate	Yes	4.09	0.000	1.50	0.51	0.00	0.157	1.172	8.650	0.00	0.00
99.92	1.5" Reinforcing plate	Yes	4.09	0.000	1.50	0.51	0.00	0.157	1.172	8.650	0.00	0.00
99.92	1.5" Reinforcing plate	Yes	4.09	0.000	1.50	0.51	0.00	0.157	1.172	8.650	0.00	0.00
100.00	1.5" Reinforcing plate	Yes	0.08	0.000	1.50	0.01	0.00	0.158	1.173	8.652	0.00	0.00
100.00	1.5" Reinforcing plate	Yes	0.08	0.000	1.50	0.01	0.00	0.158	1.173	8.652	0.00	0.00
100.00	1.5" Reinforcing plate	Yes	0.08	0.000	1.50	0.01	0.00	0.158	1.173	8.652	0.00	0.00
105.00	1.5" Reinforcing plate	Yes	5.00	0.000	1.50	0.63	0.00	0.161	1.182	8.774	0.00	0.00
105.00	1.5" Reinforcing plate	Yes	5.00	0.000	1.50	0.63	0.00	0.161	1.182	8.774	0.00	0.00
105.00	1.5" Reinforcing plate	Yes	5.00	0.000	1.50	0.63	0.00	0.161	1.182	8.774	0.00	0.00
105.30	1.5" Reinforcing plate	Yes	0.30	0.000	1.50	0.04	0.00	0.164	1.192	8.781	0.00	0.00
105.30	1.5" Reinforcing plate	Yes	0.30	0.000	1.50	0.04	0.00	0.164	1.192	8.781	0.00	0.00
105.30	1.5" Reinforcing plate	Yes	0.30	0.000	1.50	0.04	0.00	0.164	1.192	8.781	0.00	0.00
Totals:											0.0	0.0

Calculated Forces

Structure: CT46144-A	Code: EIA/TIA-222-G	9/25/2019
Site Name: Cammilletti Property	Exposure: B	
Height: 148.34 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II

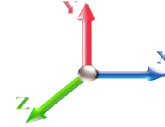


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Load Case: 1.0D + 1.0W 60 mph Wind

Iterations 24

Dead Load Factor 1.00
Wind Load Factor 1.00



Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation Sway (deg)	Rotation Twist (deg)	Stress Ratio
0.00	-28.32	-4.68	0.00	-508.59	0.00	508.59	3903.36	1951.68	7638.46	3824.91	0.00	0.000	0.000	0.140
5.00	-27.19	-4.62	0.00	-485.16	0.00	485.16	3846.55	1923.28	7360.85	3685.90	0.02	-0.044	0.000	0.139
10.00	-26.09	-4.55	0.00	-462.08	0.00	462.08	3788.45	1894.23	7085.75	3548.14	0.09	-0.088	0.000	0.137
15.00	-25.00	-4.48	0.00	-439.33	0.00	439.33	3729.06	1864.53	6813.30	3411.72	0.21	-0.133	0.000	0.135
20.00	-23.94	-4.42	0.00	-416.91	0.00	416.91	3668.37	1834.19	6543.69	3276.71	0.37	-0.179	0.000	0.134
25.00	-22.90	-4.35	0.00	-394.82	0.00	394.82	3606.39	1803.19	6277.08	3143.21	0.59	-0.226	0.000	0.132
30.00	-21.88	-4.29	0.00	-373.05	0.00	373.05	3543.11	1771.56	6013.64	3011.29	0.85	-0.273	0.000	0.130
35.00	-20.88	-4.22	0.00	-351.61	0.00	351.61	3478.55	1739.27	5753.54	2881.05	1.16	-0.322	0.000	0.128
40.00	-19.90	-4.15	0.00	-330.51	0.00	330.51	3412.68	1706.34	5496.94	2752.56	1.52	-0.371	0.000	0.126
45.00	-18.94	-4.08	0.00	-309.75	0.00	309.75	3345.53	1672.76	5244.01	2625.90	1.94	-0.421	0.000	0.124
47.18	-18.53	-4.04	0.00	-300.88	0.00	300.88	3315.91	1657.95	5135.17	2571.40	2.14	-0.444	0.000	0.123
47.20	-18.53	-4.04	0.00	-300.78	0.00	300.78	3315.57	1657.78	5133.93	2570.78	2.14	-0.444	0.000	0.073
50.00	-17.65	-3.99	0.00	-289.46	0.00	289.46	3277.08	1638.54	4994.93	2501.18	2.40	-0.461	0.000	0.072
52.51	-16.87	-3.95	0.00	-279.44	0.00	279.44	2602.21	1301.11	3990.47	1998.20	2.65	-0.477	0.000	0.076
55.00	-16.47	-3.91	0.00	-269.61	0.00	269.61	2577.30	1288.65	3896.73	1951.26	2.90	-0.492	0.000	0.080
57.50	-16.07	-3.86	0.00	-259.85	0.00	259.85	2551.96	1275.98	3803.21	1904.43	3.17	-0.509	0.000	0.078
57.50	-16.07	-3.86	0.00	-259.85	0.00	259.85	2551.96	1275.98	3803.21	1904.43	3.17	-0.509	0.000	0.078
60.00	-15.68	-3.83	0.00	-250.19	0.00	250.19	2526.30	1263.15	3710.31	1857.91	3.44	-0.525	0.000	0.141
65.00	-14.92	-3.75	0.00	-231.05	0.00	231.05	2474.01	1237.00	3526.46	1765.85	4.02	-0.585	0.000	0.137
70.00	-14.17	-3.68	0.00	-212.28	0.00	212.28	2420.42	1210.21	3345.35	1675.16	4.66	-0.645	0.000	0.133
75.00	-13.43	-3.60	0.00	-193.88	0.00	193.88	2365.54	1182.77	3167.14	1585.93	5.37	-0.705	0.000	0.128
80.00	-12.72	-3.53	0.00	-175.86	0.00	175.86	2309.37	1154.68	2992.01	1498.23	6.14	-0.766	0.000	0.123
85.00	-12.02	-3.45	0.00	-158.21	0.00	158.21	2251.13	1125.57	2819.16	1411.68	6.98	-0.826	0.000	0.117
90.00	-11.35	-3.38	0.00	-140.94	0.00	140.94	2174.14	1087.07	2628.67	1316.29	7.87	-0.885	0.000	0.112
95.00	-10.69	-3.30	0.00	-124.05	0.00	124.05	2097.14	1048.57	2444.84	1224.23	8.83	-0.944	0.000	0.106
95.80	-10.58	-3.29	0.00	-121.41	0.00	121.41	2084.82	1042.41	2416.04	1209.82	8.99	-0.954	0.000	0.058
95.83	-10.58	-3.29	0.00	-121.32	0.00	121.32	2084.39	1042.20	2415.05	1209.32	9.00	-0.954	0.000	0.058
99.92	-9.82	-3.21	0.00	-107.88	0.00	107.88	1076.50	538.25	1236.95	619.40	9.83	-0.980	0.000	0.062
100.00	-9.81	-3.21	0.00	-107.61	0.00	107.61	1076.11	538.05	1235.71	618.78	9.84	-0.980	0.000	0.078
105.00	-9.37	-3.12	0.00	-91.57	0.00	91.57	1052.46	526.23	1163.02	582.37	10.89	-1.017	0.000	0.069
105.30	-9.34	-3.11	0.00	-90.64	0.00	90.64	1051.00	525.50	1158.68	580.20	10.95	-1.019	0.000	0.068
105.30	-9.34	-3.11	0.00	-90.64	0.00	90.64	1051.00	525.50	1158.68	580.20	10.95	-1.019	0.000	0.068
110.00	-8.93	-3.05	0.00	-76.01	0.00	76.01	1027.52	513.76	1090.99	546.31	11.97	-1.051	0.000	0.148
115.00	-8.50	-2.98	0.00	-60.77	0.00	60.77	1001.28	500.64	1019.81	510.66	13.12	-1.126	0.000	0.128
120.00	-8.08	-2.91	0.00	-45.87	0.00	45.87	973.75	486.88	949.64	475.53	14.33	-1.192	0.000	0.105
125.00	-7.68	-2.84	0.00	-31.30	0.00	31.30	944.93	472.47	880.64	440.98	15.61	-1.247	0.000	0.079
127.00	-5.76	-1.91	0.00	-25.61	0.00	25.61	933.04	466.52	853.41	427.34	16.14	-1.265	0.000	0.066
130.00	-5.56	-1.88	0.00	-19.87	0.00	19.87	914.81	457.41	812.99	407.10	16.94	-1.289	0.000	0.055
135.00	-5.24	-1.81	0.00	-10.49	0.00	10.49	883.40	441.70	746.85	373.98	18.31	-1.317	0.000	0.034
137.00	-2.58	-0.87	0.00	-6.87	0.00	6.87	870.48	435.24	720.86	360.97	18.86	-1.324	0.000	0.022
140.00	-2.45	-0.83	0.00	-4.27	0.00	4.27	850.70	425.35	682.40	341.71	19.69	-1.332	0.000	0.015
145.00	-0.12	-0.04	0.00	-0.13	0.00	0.13	816.70	408.35	619.79	310.35	21.09	-1.338	0.000	0.001
148.34	0.00	-0.04	0.00	0.00	0.00	0.00	787.55	393.77	574.90	287.88	22.03	-1.338	0.000	0.000

Final Analysis Summary

Structure: CT46144-A	Code: EIA/TIA-222-G	9/25/2019
Site Name: Cammilletti Property	Exposure: B	
Height: 148.34 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II
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Reactions

Load Case	Shear FX (kips)	Shear FZ (kips)	Axial FY (kips)	Moment MX (ft-kips)	Moment MY (ft-kips)	Moment MZ (ft-kips)
1.2D + 1.6W 89 mph Wind	16.5	0.00	33.96	0.00	0.00	1803.27
0.9D + 1.6W 89 mph Wind	16.5	0.00	25.47	0.00	0.00	1782.14
1.2D + 1.0Di + 1.0Wi 40 mph Wind	3.6	0.00	52.22	0.00	0.00	382.82
1.2D + 1.0E	1.4	0.00	33.99	0.00	0.00	161.40
0.9D + 1.0E	1.4	0.00	25.49	0.00	0.00	159.38
1.0D + 1.0W 60 mph Wind	4.7	0.00	28.32	0.00	0.00	508.59

Max Stresses

Load Case	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (-) (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Elev (ft)	Stress Ratio
1.2D + 1.6W 89 mph Wind	-10.07	-10.84	0.00	-270.41	0.00	-270.41	1027.52	513.76	1090.99	546.31	110.00	0.505
0.9D + 1.6W 89 mph Wind	-7.39	-10.65	0.00	-265.20	0.00	-265.20	1027.52	513.76	1090.99	546.31	110.00	0.493
1.2D + 1.0Di + 1.0Wi 40 mph Wind	-20.64	-2.23	0.00	-55.43	0.00	-55.43	1027.52	513.76	1090.99	546.31	110.00	0.122
1.2D + 1.0E	-10.77	-1.08	0.00	-31.95	0.00	-31.95	1027.52	513.76	1090.99	546.31	110.00	0.069
0.9D + 1.0E	-8.08	-1.06	0.00	-31.41	0.00	-31.41	1027.52	513.76	1090.99	546.31	110.00	0.065
1.0D + 1.0W 60 mph Wind	-8.93	-3.05	0.00	-76.01	0.00	-76.01	1027.52	513.76	1090.99	546.31	110.00	0.148

Additional Steel Summary


Elev From (ft)	Elev To (ft)	Member	Intermediate Connectors			Lower Termination				Upper Termination				Max Member			
			VQ/I (lb/in)	Vu (kips)	phi Vn (kips)	MQ/I (kips)	phi Vn (kips)	Num Req'd	Num Actual	MQ/I (kips)	phi Vn (kips)	Num Req'd	Num Actual	Pu (kips)	phi Pn (kips)	phi Tn (kips)	Ratio
47.2	57.5	(3) PLT-6"x1.5"(31mm hole)	214.8	5.16	37.1	170.7	37.1	5	11	173.8	37.1	5	10	176.36	382.9	349.54	0.505
95.8	105.3	(3) PLT-4.5x1.5(31mm Hole)	-302.2	-7.25	37.1	102.2	37.1	3	8	105.6	37.1	3	6	118.50	287.2	239.85	0.494

Base Plate Summary

Structure: CT46144-A	Code: EIA/TIA-222-G	9/25/2019
Site Name: Cammilletti Property	Exposure: B	
Height: 148.34 (ft)	Crest Height: 0.00	
Base Elev: 0.000 (ft)	Site Class: D - Stiff Soil	
Gh: 1.1	Topography: 1	Struct Class: II
		Page: 29



Reactions	Base Plate	Anchor Bolts
Original Design	Yield (ksi): 60.00	Bolt Circle: 57.00
Moment (kip-ft): 2300.40	Width (in): 63.00	Number Bolts: 16.00
Axial (kip): 21.20	Style: Round	Bolt Type: 2.25" 18J
Shear (kip): 22.00	Polygon Sides: 0.00	Bolt Diameter (in): 2.25
Analysis	Clip Length (in): 0.00	Yield (ksi): 75.00
Moment (kip-ft): 1803.27	Effective Len (in): 13.49	Ultimate (ksi): 100.00
Axial (kip): 52.22	Moment (kip-in): 441.78	Arrangement: Radial
Shear (kip): 16.50	Allow Stress (ksi): 81.00	Cluster Dist (in): 0.00
	Applied Stress (ksi): 0.00	Start Angle (deg): 0.00
Moment Design %: 78.39	Stress Ratio: 0.61	Compression
		Force (kip): 98.17
		Allowable (kip): 260.00
		Ratio: 0.39
		Tension
		Force (kip): 91.65
		Allowable (kip): 260.00
		Ratio: 0.36

	Monopole Mat Foundation Design			<i>Date</i>
				9/25/2019
	Customer Name:	AT&T	EIA/TIA Standard:	EIA-222-G
	Site Name:		Structure Height (Ft.):	148.34
	Site Number:	CT46144-A	Engineer Name:	D. Yohannes
Engr. Number:		Engineer Login ID:		

Foundation Info Obtained from:

Drawings/Calculations
Monopole
Analysis

Structure Type:

Analysis or Design?

Base Reactions (Factored):

Axial Load (Kips):	34.0	Shear Force (Kips):	16.5
Uplift Force (Kips):	0.0	Moment (Kips-ft):	1803.3

Allowable overstress %: 5.0%

Foundation Geometries:

Diameter of Pier (ft.):	6.5	Depth of Base BG (ft.):	6.5
Pier Height A. G. (ft.):	1.00	Thickness of Pad (ft):	3.00
Length of Pad (ft.):	22.5	Width of Pad (ft.):	22.5

Final Length of pad (ft)	22.5	Final width of pad (ft):	22.5
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Material Properties and Rebar Info:

Concrete Strength (psi):	4000	Steel Elastic Modulus:	29000	ksi
Vertical bar yield (ksi)	60	Tie steel yield (ksi):	60	
Vertical Rebar Size #:	8	Tie / Stirrup Size #:	4	
Qty. of Vertical Rebars:	40	Tie Spacing (in):	12.0	
Pad Rebar Yield (Ksi):	60	Pad Steel Rebar Size (#):	8	
Concrete Cover (in.):	3	Unit Weight of Concrete:	150.0	pcf

Rebar at the bottom of the concrete pad:

Qty. of Rebar in Pad (L):	32	Qty. of Rebar in Pad (W):	32
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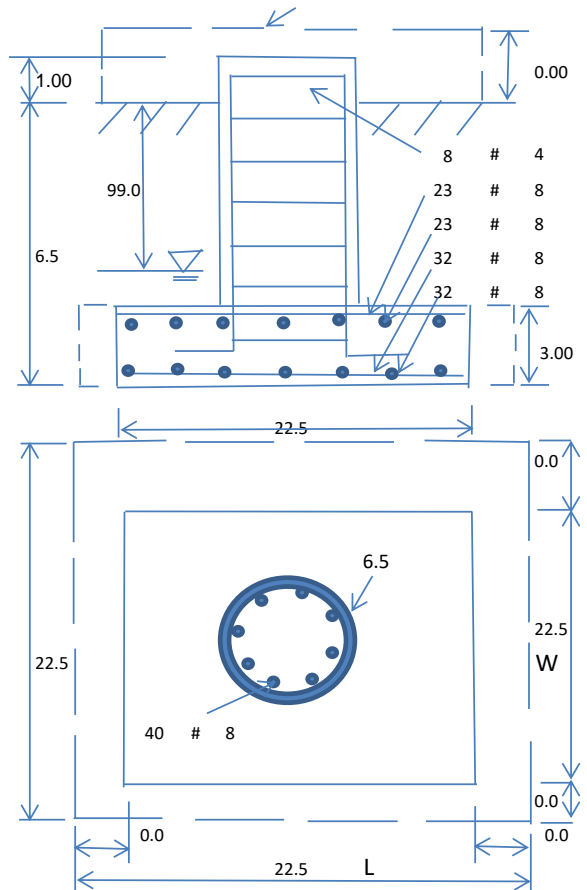
Rebar at the top of the concrete pad:

Qty. of Rebar in Pad (L):	23	Qty. of Rebar in Pad (W):	23
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Apply 1.35 factor for e/w Per G: 1.35

Soil Design Parameters:

Soil Unit Weight (pcf):	135.0	Soil Buoyant Weight:	50.0	Pcf	
Water Table B.G.S. (ft):	99.0	Unit Weight of Water:	62.4	pcf	Angle from Top of Pad: 30
Ultimate Bearing Pressure (psf):	12000	Ultimate Skin Friction:		Psf	Angle from Bottm of Pad: 25
Consider Friction for O.T.M. (Y/N):	No	Consider Friction for bearing (Y/N):	No		Angle from Bottm of Pad: 25
Consider soil hor. resist. for OTM.:	No	Reduction factor on the maximum soil bearing pressure:	1.00		



Foundation Analysis and Design:

Uplift Strength Reduction Factor:	0.75	Compression Strength Reduction Factor:	0.75
Total Dry Soil Volume (cu. Ft.):	1655.73	Total Dry Soil Weight (Kips):	223.52
Total Buoyant Soil Volume (cu. Ft.):	0.00	Total Buoyant Soil Weight (Kips):	0.00
Total Effective Soil Weight (Kips):	223.52	Weight from the Concrete Block at Top (K):	0.00
Total Dry Concrete Volume (cu. Ft.):	1668.07	Total Dry Concrete Weight (Kips):	250.21
Total Buoyant Concrete Volume (cu. Ft.):	0.00	Total Buoyant Concrete Weight (Kips):	0.00
Total Effective Concrete Weight (Kips):	250.21	Total Vertical Load on Base (Kips):	507.70

Check Soil Capacities:

Calculated Maxium Net Soil Pressure under the base (psf):	1864	<	Allowable Factored Soil Bearing (psf):	9000	0.21	OK!
Allowable Foundation Overturning Resistance (kips-ft.):	5178.6	>	Design Factored Momont (kips-ft):	1927	0.37	OK!
Factor of Safety Against Overturning (O. R. Moment/Design Moment):	2.69					OK!

Load/
Capacity
Ratio

Check the capacities of Reinforcing Concrete:

Strength reduction factor (Flexure and axial tension):	0.90	Strength reduction factor (Shear):	0.75
Strength reduction factor (Axial compression):	0.65	Wind Load Factor on Concrete Design:	1.00

Load/
Capacity
Ratio**(1) Concrete Pier:**

Vertical Steel Rebar Area (sq. in./each):	0.79	Tie / Stirrup Area (sq. in./each):	0.20		
Calculated Moment Capacity (Mn,Kips-Ft):	4910.3	> Design Factored Moment (Mu, Kips-Ft)	1877.6	0.38	OK!
Calculated Shear Capacity (Kips):	578.1	> Design Factored Shear (Kips):	16.5	0.03	OK!
Calculated Tension Capacity (Tn, Kips):	1706.4	> Design Factored Tension (Tu Kips):	0.0	0.00	OK!
Calculated Compression Capacity (Pn, Kips):	8392.3	> Design Factored Axial Load (Pu Kips):	34.0	0.00	OK!
Moment & Axial Strength Combination:	0.38	OK! Check Tie Spacing (Design/Required):		1	OK!
Pier Reinforcement Ratio:	0.007	Reinforcement Ratio is satisfied per ACI			

(2).Concrete Pad:

One-Way Design Shear Capacity (L-Direction, Kips):	832.5	> One-Way Factored Shear (L-D. Kips):	134.9	0.16	OK!
One-Way Design Shear Capacity (W-Direction, Kips):	832.5	> One-Way Factored Shear (W-D., Kips)	134.9	0.16	OK!
One-Way Design Shear Capacity (Corner-Corner. Kips):	736.4	> One-Way Factored Shear (C-C, Kips):	127.4	0.17	OK!
Lower Steel Pad Reinforcement Ratio (L-Direct.):	0.0029	OK! Lower Steel Pad Reinf. Ratio (W-Direc	0.0029		
Lower Steel Pad Moment Capacity (L-Direction. Kips-ft):	3603.2	> Moment at Bottom (L-Dir. K-Ft):	698.8	0.19	OK!
Lower Steel Pad Moment Capacity (W-Direction. Kips-ft):	3603.2	> Moment at Bottom (W-Dir. K-Ft):	698.8	0.19	OK!
Lower Steel Pad Moment Capacity (Corner-Corner,K-ft):	5061.6	> Moment at Bottom (C-C Dir. K-Ft):	988.2	0.20	OK!
Upper Steel Pad Reinforcement Ratio (L-Direct.):	0.0021	OK! Upper Steel Reinf. Ratio (W-Dir.):	0.0021		
Upper Steel Pad Moment Capacity (L-Direc. Kips-ft):	2608.8	> Moment at the top (L-Dir K-Ft):	296.6	0.11	OK!
Upper Steel Pad Moment Capacity (W-Direc. Kips-ft):	2608.8	> Moment at the top (W-Dir K-Ft):	296.6	0.11	OK!
Upper Steel Pad Moment Capacity (Corner-Corner. K-ft):	3671.8	> Moment at the top (C-C Dir. K-Ft):	278.6	0.08	OK!

(3).Check Punching Shear Capacity due to Moment in the Pier:

Moment transferred by punching shear:	721.3	k-ft.	Max. factored shear stress $v_{u,CD}$:	1.7	Psi
Max. factored shear stress $v_{u,AB}$:	6.4	Psi	Factored shear Strength ϕv_n :	189.7	Psi
Max. factored shear stress v_u :	6.4	Psi	Check Usage of Punching Shear Capacity:	0.03	OK!



Non-Ionizing Radiation Report

Compiled For: Smartlink on behalf of AT&T

Site Name: Norfolk-Ashpohtag Road

Site FA: 10113178

Site ID: CTL01181

10 Ashpohtag Road, Norfolk, CT 06058

Latitude: 41.0026889 Longitude: -73.2213931

Structure Type: Monopole

Report Date: October 8, 2019



Status: AT&T will be compliant with FCC rules on RF Exposure with the signage recommendation in section 4 of this report.

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1. Executive Summary:

Smartlink on behalf of AT&T has contracted Infinigy Solutions, LLC to determine whether the site Norfolk Ashpohtag Road located at 10 Ashpohtag Road in Norfolk, CT Will Be Compliant with all Federal Communications Commission (FCC) rules and regulations for radio frequency (RF) exposure as indicated in **47CFR§1.1310**.

The report incorporates a theoretical RF field analysis in accordance with the FCC Rules and Regulations for all individuals classified as “Occupational or Controlled” and “General Public or Uncontrolled” (see Appendix A and B).

This document and the conclusions herein are based on information provided by Smartlink on behalf of AT&T.

As a result of the analysis, **AT&T Will Be Compliant with FCC rules with the installation of signage recommended in section 4.**

Engineering assumptions were made regarding the collation operator(s). The assumptions were made based upon typical deployment configurations and practices of the operator(s).

All Carriers, All Bands Cumulative Exposure %		
Uncontrolled / General Population	Exposure values at the site (mW/cm ²)	0.0269
	% Exposure	3.43%
Controlled / Occupational	Exposure values at the site (mW/cm ²)	0.0269
	% Exposure	0.72%

2. Site Summary:

Site Information	
Site Name: Norfolk Ashpohtag Road	
Site Address: 10 Ashpohtag Road, Norfolk, CT 06058	
Site Type: Monopole	
Compliance Status	Will Be Compliant
Mitigation Required	No
Signage Required	Yes
Barriers Required	No
Access Locked	No
Area Controlled or Uncontrolled	Uncontrolled

3. Site Compliance

This report also incorporates overview of the site information:

- Antenna Inventory Table
- Calculation Tables showing exposure for each carrier transmit frequency
- Total exposure for all carriers existing and proposed at ground level considering the centerline of all antennas and horizontal distance from the tower.
- Maximum Effective Radiated Power Assumed as Worst Case for Calculations used in this study
- Calculations based on flat ground around base of the structure

4. Site Compliance Recommendations

Infinigy recommends the following upon the installation of antennas at the site:

Base of tower

Caution 2 sign.

Note: The above signage recommendation is moot if there is an existing caution 2 sign at the base of the tower.

5. Antenna Inventory Table

Ant ID	Sector	Operator	Antenna manufacturer	Antenna Model	Operating Frequency	Rad Ctr (Ft)	Total ERP Power (Watts)
1a	Alpha	AT&T	Powerwave	7770	850	137	1302
2a	Alpha	AT&T	CCI	HPA-65R-BUU-H6	700	137	2951
2b	Alpha	AT&T	CCI	HPA-65R-BUU-H6	1900	137	3837
3a	Alpha	AT&T	CCI	DMP65R-BU6DA	700	137	1476
3b	Alpha	AT&T	CCI	DMP65R-BU6DA	850	137	1000
3c	Alpha	AT&T	CCI	DMP65R-BU6DA	2100	137	3837
3d	Alpha	AT&T	CCI	DMP65R-BU6DA	850	137	1000
4a	Beta	AT&T	Powerwave	7770	850	137	1302
4b	Beta	AT&T	Powerwave	7770	1900	137	1717
5a	Beta	AT&T	CCI	HPA-65R-BUU-H6	700	137	2951
5b	Beta	AT&T	CCI	HPA-65R-BUU-H6	1900	137	3837
6a	Beta	AT&T	CCI	DMP65R-BU6DA	700	137	1476
6b	Beta	AT&T	CCI	DMP65R-BU6DA	850	137	1000
6c	Beta	AT&T	CCI	DMP65R-BU6DA	2100	137	3837
6d	Beta	AT&T	CCI	DMP65R-BU6DA	850	137	1000
7a	Gamma	AT&T	Powerwave	7770	850	137	1302
7b	Gamma	AT&T	Powerwave	7770	1900	137	1717
8a	Gamma	AT&T	CCI	HPA-65R-BUU-H6	700	137	2951
8b	Gamma	AT&T	CCI	HPA-65R-BUU-H6	1900	137	3837
9a	Gamma	AT&T	CCI	DMP65R-BU6DA	700	137	1476
9b	Gamma	AT&T	CCI	DMP65R-BU6DA	850	137	1000
9c	Gamma	AT&T	CCI	DMP65R-BU6DA	2100	137	3837
9d	Gamma	AT&T	CCI	DMP65R-BU6DA	850	137	1000
10	Alpha	Verizon Wireless	Antel	LPA-80080/6CF	850	127	1532
11	Alpha	Verizon Wireless	Antel	LPA-80080/6CF	850	127	1532

Ant ID	Sector	Operator	Antenna manufacturer	Antenna Model	Operating Frequency	Rad Ctr (Ft)	Total ERP Power (Watts)
12a	Alpha	Verizon Wireless	Commscope	BXA-171085-12CF	1900	127	3308
12b	Alpha	Verizon Wireless	Commscope	BXA-171085-12CF	2100	127	3208
13	Alpha	Verizon Wireless	Antel	BXA 63/6CF	700	127	1797
12	Beta	Verizon Wireless	Antel	LPA-80080/6CF	850	127	1532
13	Beta	Verizon Wireless	Antel	LPA-80080/6CF	850	127	1532
14a	Beta	Verizon Wireless	Commscope	BXA-171085-12CF	1900	127	3308
14b	Beta	Verizon Wireless	Commscope	BXA-171085-12CF	2100	127	3208
15	Beta	Verizon Wireless	Antel	BXA 63/6CF	700	127	1797
16	Gamma	Verizon Wireless	Antel	LPA-80080/6CF	850	127	1532
17	Gamma	Verizon Wireless	Antel	LPA-80080/6CF	850	127	1532
18a	Gamma	Verizon Wireless	Commscope	BXA-171085-12CF	1900	127	3308
18b	Gamma	Verizon Wireless	Commscope	BXA-171085-12CF	2100	127	3208
19	Gamma	Verizon Wireless	Antel	BXA 63/6CF	700	127	1797
20	Alpha	Sprint	RFS	APX16DW-16DWS	1900	145.5	2185
21a	Alpha	Sprint	Commscope	NNVV-65B-R4	850	145.5	1054
21b	Alpha	Sprint	RFS	NNVV-65B-R4	2500	145.5	1789
22	Gamma	Sprint	RFS	APX16DW-16DWS	1900	145.5	2185
23a	Gamma	Sprint	Commscope	NNVV-65B-R4	850	145.5	1054
23b	Gamma	Sprint	RFS	NNVV-65B-R4	2500	145.5	1789

6. RF Guidelines

To ensure safety of company workers, the following points need to be taken into consideration and implemented at wireless sites in accordance with the Carriers policies:

- a) **Worksite:** Any employee at the site should avoid working directly in front of the antenna or in areas predicted to exceed general population exposure limits by 100%. Workers should insist that the transmitters be switched off during the work period.

- b) **RF Safety Training and Awareness:** All employees working in areas exceeding the general population limits should have a basic awareness of RF safety measures. Videos, classroom lectures and online courses are all appropriate training methods on these topics.

- c) **Site Access:** Restricting access to transmitting antenna locations is one of the most important elements of RF safety. This can be done with:
 - Locked doors/gates/ladder access
 - Alarmed doors
 - Restrictive barriers

- d) **Three-foot Buffer:** There is an inverse relationship between the strength of the field and the distance from the antenna. The RF field diminishes with distance from the antenna. Workers should maintain a three-foot distance from the antennas.

- e) **Antennas:** Workers should always assume that the antenna is transmitting and should never stop right in front of the antenna. If someone must pass by an antenna, he/she should move quickly, thus reducing RF exposure.

Attachment 1: AT&T Exposure Analysis

AT&T 700 MHz LTE		
Uncontrolled / General Population	FCC's exposure limits (mW/cm ²)	0.5
	Exposure values at the site (mW/cm ²)	0.0038
	% Exposure	0.76%
Controlled / Occupational	FCC's Exposure limits(mW/cm ²)	2.3
	Exposure values at the site (mW/cm ²)	0.0038
	% Exposure	0.17%

AT&T 850 MHz UMTS		
Uncontrolled / General Population	FCC's exposure limits (mW/cm ²)	0.6
	Exposure values at the site (mW/cm ²)	0.0011
	% Exposure	0.19%
Controlled / Occupational	FCC's Exposure limits(mW/cm ²)	2.8
	Exposure values at the site (mW/cm ²)	0.0011
	% Exposure	0.04%

AT&T 850 MHz LTE		
Uncontrolled / General Population	FCC's exposure limits (mW/cm ²)	0.6
	Exposure values at the site (mW/cm ²)	0.0009
	% Exposure	0.14%
Controlled / Occupational	FCC's Exposure limits(mW/cm ²)	2.8
	Exposure values at the site (mW/cm ²)	0.0009
	% Exposure	0.03%

AT&T 850 MHz 5G		
Uncontrolled / General Population	FCC's exposure limits (mW/cm ²)	0.6
	Exposure values at the site (mW/cm ²)	0.0009
	% Exposure	0.14%
Controlled / Occupational	FCC's Exposure limits(mW/cm ²)	2.8
	Exposure values at the site (mW/cm ²)	0.0009
	% Exposure	0.03%

AT&T 1900 MHz LTE		
Uncontrolled / General Population	FCC's exposure limits (mW/cm ²)	1.0
	Exposure values at the site (mW/cm ²)	0.0033
	% Exposure	0.33%
Controlled / Occupational	FCC's Exposure limits(mW/cm ²)	5.0
	Exposure values at the site (mW/cm ²)	0.0033
	% Exposure	0.07%

AT&T 1900 MHz UMTS		
Uncontrolled / General Population	FCC's exposure limits (mW/cm ²)	1.0
	Exposure values at the site (mW/cm ²)	0.0015
	% Exposure	0.15%
Controlled / Occupational	FCC's Exposure limits(mW/cm ²)	5.0
	Exposure values at the site (mW/cm ²)	0.0015
	% Exposure	0.03%

AT&T 2100 MHz LTE		
Uncontrolled / General Population	FCC's exposure limits (mW/cm ²)	1.0
	Exposure values at the site (mW/cm ²)	0.0033
	% Exposure	0.33%
Controlled / Occupational	FCC's Exposure limits(mW/cm ²)	5.0
	Exposure values at the site (mW/cm ²)	0.0033
	% Exposure	0.07%

Attachment 2: Verizon Wireless Exposure Analysis

Verizon Wireless 700 MHz LTE		
Uncontrolled / General Population	FCC's exposure limits (mW/cm ²)	0.5
	Exposure values at the site (mW/cm ²)	0.0018
	% Exposure	0.35%
Controlled / Occupational	FCC's Exposure limits(mW/cm ²)	2.3
	Exposure values at the site (mW/cm ²)	0.0018
	% Exposure	0.08%

Verizon Wireless 850 MHz CDMA		
Uncontrolled / General Population	FCC's exposure limits (mW/cm ²)	0.6
	Exposure values at the site (mW/cm ²)	0.0015
	% Exposure	0.25%
Controlled / Occupational	FCC's Exposure limits(mW/cm ²)	2.8
	Exposure values at the site (mW/cm ²)	0.0015
	% Exposure	0.05%

Verizon Wireless 850 MHz LTE		
Uncontrolled / General Population	FCC's exposure limits (mW/cm ²)	0.6
	Exposure values at the site (mW/cm ²)	0.0015
	% Exposure	0.25%
Controlled / Occupational	FCC's Exposure limits(mW/cm ²)	2.8
	Exposure values at the site (mW/cm ²)	0.0015
	% Exposure	0.05%

Verizon Wireless 1900 MHz LTE		
Uncontrolled / General Population	FCC's exposure limits (mW/cm ²)	1.0
	Exposure values at the site (mW/cm ²)	0.0033
	% Exposure	0.33%
Controlled / Occupational	FCC's Exposure limits(mW/cm ²)	5.0
	Exposure values at the site (mW/cm ²)	0.0033
	% Exposure	0.07%

Verizon Wireless 2100 MHz LTE		
Uncontrolled / General Population	FCC's exposure limits (mW/cm ²)	1.0
	Exposure values at the site (mW/cm ²)	0.0032
	% Exposure	0.32%
Controlled / Occupational	FCC's Exposure limits(mW/cm ²)	5.0
	Exposure values at the site (mW/cm ²)	0.0032
	% Exposure	0.06%

Attachment 3: Sprint Exposure Analysis

Sprint 862 MHz LTE		
Uncontrolled / General Population	FCC's exposure limits (mW/cm ²)	0.6
	Exposure values at the site (mW/cm ²)	0.0005
	% Exposure	0.09%
Controlled / Occupational	FCC's Exposure limits(mW/cm ²)	2.8
	Exposure values at the site (mW/cm ²)	0.0005
	% Exposure	0.0193%

Sprint 1900 MHz LTE		
Uncontrolled / General Population	FCC's exposure limits (mW/cm ²)	1.0
	Exposure values at the site (mW/cm ²)	0.0011
	% Exposure	0.11%
Controlled / Occupational	FCC's Exposure limits(mW/cm ²)	5.0
	Exposure values at the site (mW/cm ²)	0.0011
	% Exposure	0.0224%

Sprint 2500 MHz LTE		
Uncontrolled / General Population	FCC's exposure limits (mW/cm ²)	1.0
	Exposure values at the site (mW/cm ²)	0.0009
	% Exposure	0.09%
Controlled / Occupational	FCC's Exposure limits(mW/cm ²)	5.0
	Exposure values at the site (mW/cm ²)	0.0009
	% Exposure	0.0183%

Attachment 4: Combined Exposure Analysis for each Carrier

AT&T All Bands		
Uncontrolled / General Population	Exposure values at the site (mW/cm ²)	0.0147
	% Exposure	1.89%
Controlled / Occupational	Exposure values at the site (mW/cm ²)	0.0147
	% Exposure	0.40%

Verizon Wireless All Bands		
Uncontrolled / General Population	Exposure values at the site (mW/cm ²)	0.0097
	% Exposure	1.25%
Controlled / Occupational	Exposure values at the site (mW/cm ²)	0.0097
	% Exposure	0.26%

Sprint All Bands		
Uncontrolled / General Population	Exposure values at the site (mW/cm ²)	0.0026
	% Exposure	0.29%
Controlled / Occupational	Exposure values at the site (mW/cm ²)	0.0026
	% Exposure	0.06%

7. Appendix A: FCC Guidelines

FCC Policies

The Federal Communications Commission (FCC) in 1996 implemented regulations and policies for analysis of RF propagation to evaluate RF emissions. All the analysis and results of this report are compared with FCC's (Federal Communications Commission) rules to determine whether a site is compliant for Occupational/Controlled or General Public/Uncontrolled exposure. All the analysis of RF propagation is done in terms of a percentage. The limits primarily indicate the power density and are generally expressed in terms of milliwatts per centimeter square, mW/cm².

FCC guidelines incorporate two separate tiers of exposure limits that are dependent on the scenario/ situation in which that exposure takes place or the status of the individuals who are subjected to that exposure. The decision as to which tier is applied to a scenario is based on the following definitions:

Occupational / Controlled

These limits apply in situations when someone is exposed to RF energy through his/her occupation, is fully aware of the harmful effects of the RF exposure and has an ability to exercise control over this exposure. Occupational / controlled exposure limits also apply when exposure is of a transient nature as a result of incidental passage through a location where exposure levels may be above general population/uncontrolled limits (see below), as long as the exposed person has been made fully aware of the potential for exposure and can exercise control over his or her exposure by leaving the area or by some other appropriate means. limits for Occupational/Controlled exposure can be found on Table 1(A).

General Population / Uncontrolled

These limits apply to situations in which the general public may be exposed or in which persons who are exposed because of their employment may not be made fully aware of the potential for exposure or cannot exercise control over their exposure to RF. Therefore, members of the general public would always be considered under this category, for example, in the case of a telecommunications tower that exposes people in a nearby residential area. Exposure limits for General Population/Uncontrolled can be found on Table 1(B).

Table 1. LIMITS FOR MAXIMUM PERMISSIBLE EXPOSURE (MPE)

(A) Limits for Occupational/Controlled Exposure

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

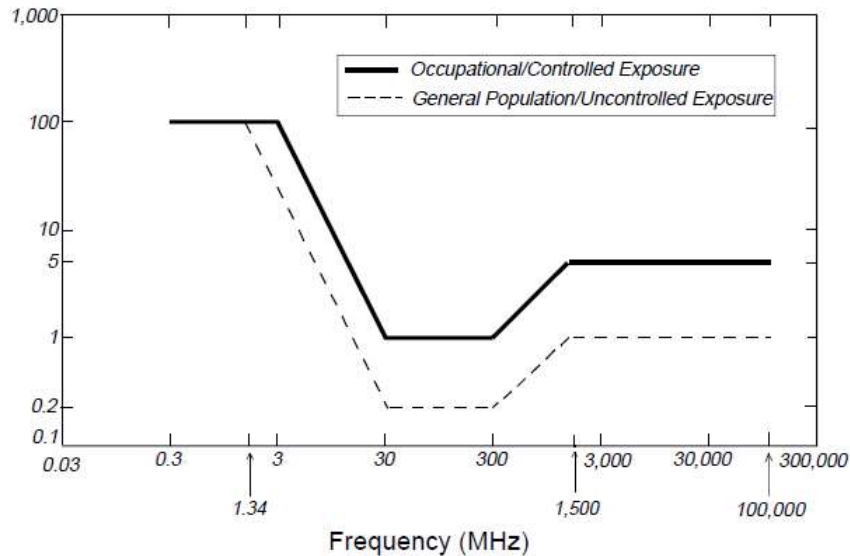
(B) Limits for General Population/Uncontrolled Exposure

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

f = frequency in MHz

*Plane-wave equivalent power density

Figure 1. FCC Limits for Maximum Permissible Exposure (MPE)
Plane-wave Equivalent Power Density



OSHA Statement:

The objective of the OSHA Act is to ensure the safety and health of the working men and women by enforcing certain standards. The act also assists and encourages the states in their efforts to ensure safe and healthy working conditions through means of research, information, education and training in the field of occupational safety and health and for other purposes.

According to OSHA Act section 5, important duties to be considered are:

(a) Each employer

- 1) Shall furnish to each of his employees' employment and a place of employment which are free from recognized hazards that are causing or are likely to cause death or serious harm to his employees
- 2) Shall comply with occupational safety and health standards promulgated under this act.

(b) Each employee shall comply with occupational safety and health standards and all rules, regulations, and orders issued pursuant to this Act which are applicable to his own actions and conduct.

8. Appendix B: Preparer Certification

I, Tim Harris, preparer of this report, certify that I am fully trained and aware of the rules and regulations of both the Federal Communications Commission and the Occupational Safety and Health Administration regarding Human Exposure to Radio Frequency Radiation. In addition, I have been trained in 1) RF safety and 2) RF modeling using RoofView modeling software.

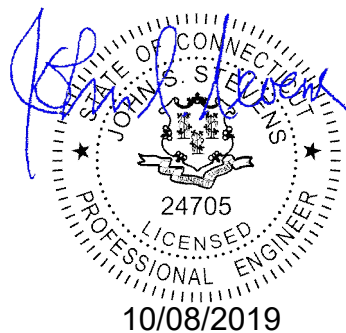
I certify that the information contained in this report is true and correct to the best of my knowledge.

Timothy A. Harris

10/8/2019

Signature

Date





October 24, 2019

Dear Kristina Cottone:

The following is in response to your request for proof of delivery on your item with the tracking number:
9510 8100 1966 9295 3223 03.

Item Details

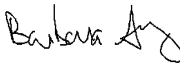
Status:	Delivered
Status Date / Time:	October 24, 2019, 12:08 pm
Location:	NORFOLK, CT 06058
Postal Product:	Priority Mail®
Extra Services:	Insured Signature Confirmation™
Actual Recipient Name:	B GOMEZ

Note: Actual Recipient Name may vary if the intended recipient is not available at the time of delivery.

Shipment Details

Weight:	15.0oz
----------------	--------

Recipient Signature

Signature of Recipient:	 Barbara Gomez
Address of Recipient:	Box 592 06058

Note: Scanned image may reflect a different destination address due to Intended Recipient's delivery instructions on file.

Thank you for selecting the United States Postal Service® for your mailing needs. If you require additional assistance, please contact your local Post Office™ or a Postal representative at 1-800-222-1811.

Sincerely,
United States Postal Service®
475 L'Enfant Plaza SW
Washington, D.C. 20260-0004



October 24, 2019

Dear Kristina Cottone:

The following is in response to your request for proof of delivery on your item with the tracking number:
9510 8100 1966 9295 3223 10.

Item Details

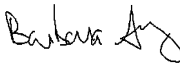
Status: Delivered
Status Date / Time: October 24, 2019, 12:08 pm
Location: NORFOLK, CT 06058
Postal Product: Priority Mail®
Extra Services: Insured
Signature Confirmation™
Actual Recipient Name: B GOMEZ

Note: Actual Recipient Name may vary if the intended recipient is not available at the time of delivery.

Shipment Details

Weight: 15.0oz

Recipient Signature

Signature of Recipient:	 Barbara Gomez
Address of Recipient:	Box 592 06058

Note: Scanned image may reflect a different destination address due to Intended Recipient's delivery instructions on file.

Thank you for selecting the United States Postal Service® for your mailing needs. If you require additional assistance, please contact your local Post Office™ or a Postal representative at 1-800-222-1811.


Sincerely,
United States Postal Service®
475 L'Enfant Plaza SW
Washington, D.C. 20260-0004

Kristina Cottone

From: TrackingUpdates@fedex.com
Sent: Thursday, October 24, 2019 3:25 PM
To: Kristina Cottone
Subject: FedEx Shipment 776734886752 Delivered

Your package has been delivered


Tracking # [776734886752](#)

Ship date: Wed, 10/23/2019	Delivery date: Thu, 10/24/2019 3:24 pm
Kristina Cottone Smartlink LLC NORTH BILLERICA, MA 01862 US	 Kevin Gundlach KEVIN GUNDLACH 10 ASHPOHTAG RD NORFOLK, CT 06058100410 US
Delivered	

Shipment Facts

Our records indicate that the following package has been delivered.

Tracking number:	776734886752
Status:	Delivered: 10/24/2019 3:24 PM Signed for By: Signature Not Req
Reference:	CTL01181 - Norfolk
Signed for by:	Signature Not Req
Service type:	FedEx Ground
Packaging type:	Package
Number of pieces:	1
Weight:	1.00 lb.
Standard transit:	10/24/2019

 Please do not respond to this message. This email was sent from an unattended mailbox. This report was generated at approximately 2:24 PM CDT on 10/24/2019.

All weights are estimated.

To track the latest status of your shipment, click on the tracking number above.

Kristina Cottone

From: TrackingUpdates@fedex.com
Sent: Monday, October 28, 2019 2:50 PM
To: Kristina Cottone
Subject: FedEx Shipment 776734930178 Delivered

Your package has been delivered

Tracking # 776734930178


Ship date: Wed, 10/23/2019	Delivery date: Mon, 10/28/2019
Kristina Cottone Smartlink LLC NORTH BILLERICA, MA 01862 US	Carla Shorter SBA COMMUNICATIONS CORP. 8051 CONGRESS AVE BOCA RATON, FL 33487131099 US


Delivered

Shipment Facts

Our records indicate that the following package has been delivered.

Tracking number:	776734930178
Status:	Delivered: 10/28/2019
Reference:	CTL01181 Norfolk
Service type:	FedEx Ground
Packaging type:	Package
Number of pieces:	1
Weight:	1.00 lb.
Standard transit:	10/28/2019

 Please do not respond to this message. This email was sent from an unattended mailbox. This report was generated at approximately 1:49 PM CDT on 10/28/2019.

All weights are estimated.

To track the latest status of your shipment, click on the tracking number above.

Standard transit is the date the package should be delivered by, based on the selected service, destination, and ship date. Limitations and exceptions may apply. Please see the FedEx Service Guide for terms and conditions of service, including the FedEx Money-Back Guarantee, or contact your FedEx Customer Support representative.

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SHEET INDEX

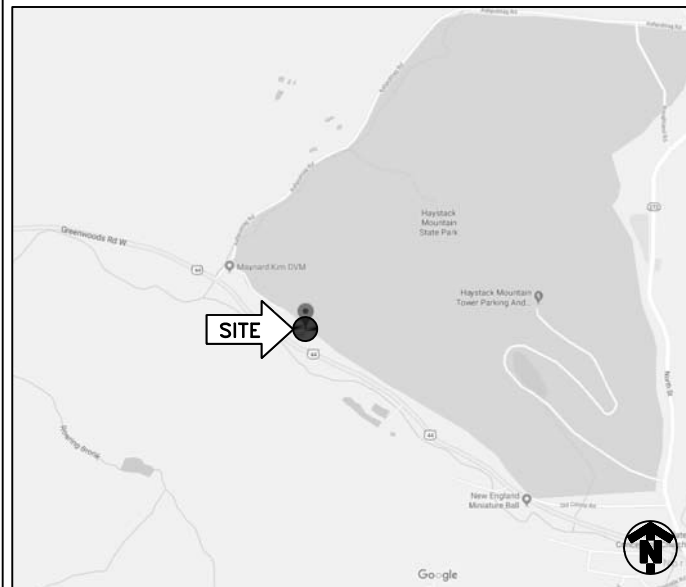
NO.	DESCRIPTION
T1	TITLE SHEET
C1	GENERAL NOTES
C2	OVERALL SITE PLAN
C2A	ENLARGED SITE PLAN
C3	ELEVATION VIEW
C4	ANTENNA ORIENTATION PLAN
C5	EQUIPMENT DETAILS
C6	PLUMBING DIAGRAM
C7	GROUNDING DETAILS

DRIVING DIRECTIONS

FROM 550 COCHITUATE RD.:

GET ON I-90 WEST/MASSACHUSETTS TURNPIKE. HEAD NORTHEAST TOWARD LEGGATT MCCALL CONN. TURN LEFT ONTO LEGGATT MCCALL CONN. CONTINUE ONTO BURR STREET. TURN LEFT ONTO COCHITUATE ROAD. USE THE RIGHT LANE TO TAKE THE RAMP TO I-90 EAST/MASSPIKE WEST/SPRINGFIELD/BOSTON. KEEP LEFT AT THE FORK, FOLLOW SIGNS FOR I-90 WEST/MASSACHUSETTS TURNPIKE/WORCESTER/SPRINGFIELD AND MERGE ONTO I-90 WEST/MASSACHUSETTS TURNPIKE. FOLLOW I-90 WEST/MASSACHUSETTS TURNPIKE TO WESTFIELD. TAKE EXIT 3 I-90 WEST/MASSACHUSETTS TURNPIKE. MERGE ONTO I-90 WEST/MASSACHUSETTS TURNPIKE. TAKE EXIT 3 TOWARD US-202/MA-10/WESTFIELD/NORTHAMPTON. TAKE GRANVILLE ROAD, OLD WESTFIELD ROAD, MA-57 WEST, MA-8 SOUTH, ... AND US-44 WEST TO YOUR DESTINATION IN NORFOLK. TURN RIGHT ONTO MA-10 SOUTH/US-202 SOUTH/SOUTHAMPTON ROAD (SIGNS FOR SOUTH 202/WESTFIELD). TURN RIGHT ONTO FRANKLIN STREET. CONTINUE ONTO RUSSELL ROAD. TURN LEFT ONTO LLOYDS HILL ROAD. TURN RIGHT ONTO WESTERN AVE. TURN LEFT ONTO BROADWAY. TURN RIGHT ONTO GRANVILLE ROAD. TURN RIGHT TO STAY ON GRANVILLE ROAD. SLIGHT RIGHT TO STAY ON GRANVILLE ROAD. CONTINUE ONTO OLD WESTFIELD ROAD. TURN RIGHT ONTO MA-57 WEST. TURN LEFT ONTO MA-8 SOUTH. CONTINUE ONTO CT-8 SOUTH. TURN RIGHT ONTO DEER HILL ROAD. MERGE ONTO SMITH HILL ROAD. CONTINUE STRAIGHT ONTO OLD NORTH ROAD. CONTINUE STRAIGHT ONTO OLD COLEBROOK ROAD. CONTINUE ONTO CT-182 WEST. TURN RIGHT ONTO US-44 WEST. TURN RIGHT ONTO US-44 WEST. SLIGHT LEFT TO STAY ON US-44 WEST. TURN RIGHT ONTO ASHPOHTAG ROAD. TURN RIGHT.

LOCATION MAP



PROJECT
LTE 2C/3C/4C/5C/RETROFIT

SITE NAME
NORFOLK ASHPOHTAG ROAD

CELL SITE ID
CTL01181

FA SITE NUMBER
10113178

PACE ID
MRCTB041477/MRCTB041374/MRCTB041493
MRCTB041714/MRCTB041558

SITE ADDRESS
10 ASHPOHTAG ROAD
NORFOLK, CT 06058

STRUCTURE TYPE
MONOPOLE

PROJECT TEAM



PROJECT MANAGER



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

ENGINEER

SCOPE OF WORK (PER LTE RFDS, DATED 05/24/2019 V1.00):

- HANDICAP ACCESS REQUIREMENTS ARE NOT REQUIRED.
- FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION.
- FACILITY HAS NO PLUMBING OR REFRIGERANTS.
- THIS FACILITY SHALL MEET OR EXCEED ALL FAA AND FCC REGULATORY REQUIREMENTS.
- ALL NEW MATERIAL SHALL BE FURNISHED AND INSTALLED BY CONTRACTOR UNLESS NOTED OTHERWISE. EQUIPMENT, ANTENNAS/RRU AND CABLES FURNISHED BY OWNER AND INSTALLED BY CONTRACTOR.

TOWER

- REMOVE (6) PANEL ANTENNAS
- INSTALL (6) PANEL ANTENNAS
- REMOVE (3) RRUS-11
- INSTALL (3) 4449 B5/B12
- INSTALL (3) 8843 B2/B66A
- INSTALL (1) DC6 SQUID W/ (1) FIBER AND (2) DC CABLES
- UMTS HOME RUN FOR RET
- REMOVE (6) DIPLEXERS

GROUND

- SWAP BB WITH (2) 6630
- ADD IDLe CABLE
- INSTALL (2) B14 4478 W/ SURGE ARRESTORS
- REMOVE (6) DIPLEXERS
- INSTALL (6) DIPLEXERS

PROJECT SUMMARY

SITE NAME:	NORFOLK ASHPOHTAG ROAD	
CELL SITE ID:	CTL01181	
FA SITE #:	10113178	
SITE ADDRESS:	10 ASHPOHTAG ROAD NORFOLK, CT 06058	
COUNTY:	LITCHFIELD	
SITE COORDINATES:		
LATITUDE:	42.0026889° N	(NAD 83)
LONGITUDE:	73.2213931° W	(NAD 83)
RAD CENTER	±137'	(AGL)
LANDLORD:	SBA COMMUNICATIONS	
APPLICANT:	AT&T MOBILITY 550 COCHITUATE RD. FRAMINGHAM, MA 01701	
CLIENT REPRESENTATIVE:	SMARTLINK, LLC 85 RANGEWAY RD., BUILDING 3, SUITE 102 NORTH BILLERICA, MA 01862	
CONTACT:	EDWARD WEISSMAN (917)528-1857	
ENGINEER:	INFINIGY 1033 WATERVLIET SHAKER ROAD ALBANY, NY 12205	
CONTACT:	ALEX WELLER (518) 690-0790	
BUILDING CODE:	2018 CT STATE BUILDING CODE 2015 INTERNATIONAL BUILDING CODE ANSI/TIA-222 G 2015 INTERNATIONAL PLUMBING CODE 2015 INTERNATIONAL MECHANICAL CODE 2015 INTERNATIONAL ENERGY CONSERVATION CODE 2017 NFPA 70	
ELECTRICAL CODE:	NATIONAL ELECTRICAL CODE (LATEST EDITION)	



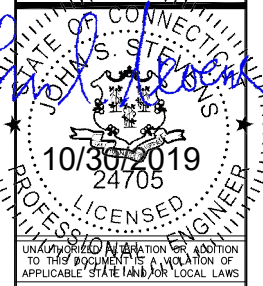
Know what's below. Call before you dig.

TO OBTAIN LOCATION OF PARTICIPANTS UNDERGROUND FACILITIES BEFORE YOU DIG IN CONNECTICUT, CONTACT CALL BEFORE YOU DIG TOLL FREE: 1-800-922-4455 OR www.cbyd.com

CONNECTICUT STATUTE REQUIRES MIN OF 2 WORKING DAYS NOTICE BEFORE YOU EXCAVATE

INFINIGY

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




No.	Submission / Revision	App'd	Date
2	ISSUED FOR PERMIT	ASW	10/30/19
1	ISSUED FOR PERMIT	BMM	09/25/19
0	ISSUED FOR REVIEW	BMM	09/11/19

Drawn: BMM Date: 09/11/19
Designed: ASW Date: 09/11/19
Checked: AD Date: 09/11/19

Project Number: 499-006

Project Title:
NORFOLK ASHPOHTAG ROAD
CTL01181
FA# 10113178
10 ASHPOHTAG ROAD
NORFOLK, CT 06058

Prepared For:



Drawing Scale:
AS NOTED

Date:
10/30/19

CD

TITLE PAGE

Drawing Number
T1

GENERAL NOTES

PART 1 – GENERAL REQUIREMENTS

- 1.1 THE WORK SHALL COMPLY WITH APPLICABLE NATIONAL CODES AND STANDARDS, LATEST EDITION, AND PORTIONS THEREOF, INCLUDED BUT NOT LIMITED TO THE FOLLOWING:
 - A. GR-63-CORE NEBS REQUIREMENTS: PHYSICAL PROTECTION
 - B. GR-78-CORE GENERIC REQUIREMENTS FOR THE PHYSICAL DESIGN AND MANUFACTURE OF TELECOMMUNICATIONS EQUIPMENT.
 - C. NATIONAL FIRE PROTECTION ASSOCIATION CODES AND STANDARDS (NFPA) INCLUDING NFPA 70 (NATIONAL ELECTRICAL CODE – "NEC").
 - D. AND NFPA 101 (LIFE SAFETY CODE).
 - E. AMERICAN SOCIETY FOR TESTING OF MATERIALS (ASTM).
 - F. INSTITUTE OF ELECTRONIC AND ELECTRICAL ENGINEERS (IEEE).
- 1.2 DEFINITIONS:
 - A. WORK: THE SUM OF TASKS AND RESPONSIBILITIES IDENTIFIED IN THE CONTRACT DOCUMENTS.
 - B. COMPANY: AT&T CORPORATION
 - C. ENGINEER: SYNONYMOUS WITH ARCHITECT & ENGINEER AND "A&E". THE DESIGN PROFESSIONAL HAVING PROFESSIONAL RESPONSIBILITY FOR DESIGN OF THE PROJECT.
 - D. CONTRACTOR: CONSTRUCTION CONTRACTOR; CONSTRUCTION VENDOR; INDIVIDUAL OR ENTITY WHO AFTER EXECUTION OF A CONTRACT IS BOUND TO ACCOMPLISH THE WORK.
 - E. THIRD PARTY VENDOR OR AGENCY: A VENDOR OR AGENCY ENGAGED SEPARATELY BY THE COMPANY, A&E, OR CONTRACTOR TO PROVIDE MATERIALS OR TO ACCOMPLISH SPECIFIC TASKS RELATED TO BUT NOT INCLUDED IN THE WORK.
- 1.3 POINT OF CONTACT: COMMUNICATION BETWEEN THE COMPANY AND THE CONTRACTOR SHALL FLOW THROUGH THE SINGLE COMPANY SITE DEVELOPMENT SPECIALIST OR OTHER PROJECT COORDINATOR APPOINTED TO MANAGE THE PROJECT FOR THE COMPANY.
- 1.4 ON-SITE SUPERVISION: THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE RESPONSIBLE FOR CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES, AND PROCEDURES IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL EMPLOY A COMPETENT SUPERINTENDENT WHO SHALL BE IN ATTENDANCE AT THE SITE AT ALL TIMES DURING PERFORMANCE OF THE WORK.
- 1.5 DRAWINGS, SPECIFICATIONS AND DETAILS REQUIRED AT JOBSITE: THE CONSTRUCTION CONTRACTOR SHALL MAINTAIN A FULL SET OF THE CONSTRUCTION DRAWINGS, STANDARD CONSTRUCTION DETAILS FOR WIRELESS SITES, AND THE STANDARD CONSTRUCTION SPECIFICATIONS FOR WIRELESS SITES AT THE JOBSITE FROM MOBILIZATION THROUGH CONSTRUCTION COMPLETION.
 - A. THE JOBSITE DRAWINGS, SPECIFICATIONS AND DETAILS SHALL BE CLEARLY MARKED DAILY IN PENCIL WITH ANY CHANGES IN CONSTRUCTION OVER WHAT IS DEPICTED IN THE DOCUMENTS. AT CONSTRUCTION COMPLETION, THIS JOBSITE MARKUP SET SHALL BE DELIVERED TO THE COMPANY OR COMPANY'S DESIGNATED REPRESENTATIVE TO BE FORWARDED TO THE COMPANY'S A&E VENDOR FOR PRODUCTION OF "AS-BUILT" DRAWINGS.
- 1.6 USE OF JOB SITE: THE CONTRACTOR SHALL CONFINE ALL CONSTRUCTION AND RELATED OPERATIONS INCLUDING STAGING AND STORAGE OF MATERIALS AND EQUIPMENT, PARKING, TEMPORARY FACILITIES, AND WASTE STORAGE TO THE LEASE PARCEL UNLESS OTHERWISE PERMITTED BY THE CONTRACT DOCUMENTS.
- 1.7 NOTICE TO PROCEED:
 - A. NO WORK SHALL COMMENCE PRIOR TO COMPANY'S WRITTEN NOTICE TO PROCEED.
 - B. UPON RECEIVING NOTICE TO PROCEED, CONTRACTOR SHALL FULLY PERFORM ALL WORK NECESSARY TO PROVIDE AT&T WITH AN OPERATIONAL WIRELESS FACILITY.

PART 2 – EXECUTION

- 2.1 TEMPORARY UTILITIES AND FACILITIES: THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TEMPORARY UTILITIES AND FACILITIES NECESSARY EXCEPT AS OTHERWISE INDICATED IN THE CONSTRUCTION DOCUMENTS. TEMPORARY UTILITIES AND FACILITIES INCLUDE, POTABLE WATER, HEAT, HVAC, ELECTRICITY, SANITARY FACILITIES, WASTE DISPOSAL FACILITIES, AND TELEPHONE/COMMUNICATION SERVICES. PROVIDE TEMPORARY UTILITIES AND FACILITIES IN ACCORDANCE WITH OSHA AND THE AUTHORITY HAVING JURISDICTION. CONTRACTOR MAY UTILIZE THE COMPANY ELECTRICAL SERVICE IN THE COMPLETION OF THE WORK WHEN IT BECOMES AVAILABLE. USE OF THE LESSORS OR SITE OWNER'S UTILITIES OR FACILITIES IS EXPRESSLY FORBIDDEN EXCEPT AS OTHERWISE ALLOWED IN THE CONTRACT DOCUMENTS.
- 2.2 ACCESS TO WORK: THE CONTRACTOR SHALL PROVIDE ACCESS TO THE JOB SITE FOR AUTHORIZED COMPANY PERSONNEL AND AUTHORIZED REPRESENTATIVES OF THE ARCHITECT/ENGINEER DURING ALL PHASES OF THE WORK.
- 2.3 TESTING: REQUIREMENTS FOR TESTING BY THIS CONTRACTOR SHALL BE AS INDICATED HERewith, ON THE CONSTRUCTION DRAWINGS, AND IN THE INDIVIDUAL SECTIONS OF THESE SPECIFICATIONS. SHOULD COMPANY CHOOSE TO ENGAGE ANY THIRD-PARTY TO CONDUCT ADDITIONAL TESTING, THE CONTRACTOR SHALL COOPERATE WITH AND PROVIDE A WORK AREA FOR COMPANY'S TEST AGENCY.

- 2.4 COMPANY FURNISHED MATERIAL AND EQUIPMENT: ALL HANDLING, STORAGE AND INSTALLATION OF COMPANY FURNISHED MATERIAL AND EQUIPMENT SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CONTRACT DOCUMENTS AND WITH THE MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS.
 - A. CONTRACTOR SHALL PROCURE ALL OTHER REQUIRED WORK RELATED MATERIALS NOT PROVIDED BY AT&T TO SUCCESSFULLY CONSTRUCT A WIRELESS FACILITY.
- 2.5 DIMENSIONS: VERIFY DIMENSIONS INDICATED ON DRAWINGS WITH FIELD DIMENSIONS BEFORE FABRICATION OR ORDERING OF MATERIALS. DO NOT SCALE DRAWINGS.
- 2.6 EXISTING CONDITIONS: NOTIFY THE COMPANY REPRESENTATIVE OF EXISTING CONDITIONS DIFFERING FROM THOSE INDICATED ON THE DRAWINGS. DO NOT REMOVE OR ALTER STRUCTURAL COMPONENTS WITHOUT PRIOR WRITTEN APPROVAL FROM THE ARCHITECT AND ENGINEER.

PART 3 – RECEIPT OF MATERIAL & EQUIPMENT

- 3.1 RECEIPT OF MATERIAL AND EQUIPMENT: CONTRACTOR IS RESPONSIBLE FOR AT&T PROVIDED MATERIAL AND EQUIPMENT AND UPON RECEIPT SHALL:
 - A. ACCEPT DELIVERIES AS SHIPPED AND TAKE RECEIPT.
 - B. VERIFY COMPLETENESS AND CONDITION OF ALL DELIVERIES.
 - C. TAKE RESPONSIBILITY FOR EQUIPMENT AND PROVIDE INSURANCE PROTECTION AS REQUIRED IN AGREEMENT.
 - D. RECORD ANY DEFECTS OR DAMAGES AND WITHIN TWENTY-FOUR HOURS AFTER RECEIPT, REPORT TO AT&T OR ITS DESIGNATED PROJECT REPRESENTATIVE OF SUCH.
 - E. PROVIDE SECURE AND NECESSARY WEATHER PROTECTED WAREHOUSING.
 - F. COORDINATE SAFE AND SECURE TRANSPORTATION OF MATERIAL AND EQUIPMENT, DELIVERING AND OFF-LOADING FROM CONTRACTOR'S WAREHOUSE TO SITE.

PART 4 – GENERAL REQUIREMENTS FOR CONSTRUCTION

- 4.1 CONTRACTOR SHALL KEEP THE SITE FREE FROM ACCUMULATING WASTE MATERIAL, DEBRIS, AND TRASH. AT THE COMPLETION OF THE WORK, CONTRACTOR SHALL REMOVE FROM THE SITE ALL REMAINING RUBBISH, IMPLEMENTS, TEMPORARY FACILITIES, AND SURPLUS MATERIALS.
- 4.2 EQUIPMENT ROOMS SHALL AT ALL TIMES BE MAINTAINED "BROOM CLEAN" AND CLEAR OF DEBRIS.
- 4.3 CONTRACTOR SHALL TAKE ALL REASONABLE PRECAUTIONS TO DISCOVER AND LOCATE ANY HAZARDOUS CONDITION.
 - A. IN THE EVENT CONTRACTOR ENCOUNTERS ANY HAZARDOUS CONDITION WHICH HAS NOT BEEN ABATED OR OTHERWISE MITIGATED, CONTRACTOR AND ALL OTHER PERSONS SHALL IMMEDIATELY STOP WORK IN THE AFFECTED AREA AND NOTIFY COMPANY IN WRITING. THE WORK IN THE AFFECTED AREA SHALL NOT BE RESUMED EXCEPT BY WRITTEN NOTIFICATION BY COMPANY.
 - B. CONTRACTOR AGREES TO USE CARE WHILE ON THE SITE AND SHALL NOT TAKE ANY ACTION THAT WILL OR MAY RESULT IN OR CAUSE THE HAZARDOUS CONDITION TO BE FURTHER RELEASED IN THE ENVIRONMENT, OR TO FURTHER EXPOSE INDIVIDUALS TO THE HAZARD.
- 4.4 CONTRACTOR'S ACTIVITIES SHALL BE RESTRICTED TO THE PROJECT LIMITS. SHOULD AREAS OUTSIDE THE PROJECT LIMITS BE AFFECTED BY CONTRACTOR'S ACTIVITIES, CONTRACTOR SHALL IMMEDIATELY RETURN THEM TO ORIGINAL CONDITION.
- 4.5 CONDUCT TESTING AS REQUIRED HEREIN.

PART 5 – TESTS AND INSPECTIONS

- 5.1 TESTS AND INSPECTIONS:
 - A. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONSTRUCTION TESTS, INSPECTIONS AND PROJECT DOCUMENTATION.
 - B. CONTRACTOR SHALL COORDINATE TEST AND INSPECTION SCHEDULES WITH COMPANY'S REPRESENTATIVE WHO MUST BE ON SITE TO WITNESS SUCH TESTS AND INSPECTIONS.
 - C. WHEN THE USE OF A THIRD PARTY INDEPENDENT TESTING AGENCY IS REQUIRED, THE AGENCY THAT IS SELECTED MUST PERFORM SUCH WORK ON A REGULAR BASIS IN THE STATE WHERE THE PROJECT IS LOCATED AND HAVE A THOROUGH UNDERSTANDING OF LOCAL AVAILABLE MATERIALS, INCLUDING THE SOIL, ROCK, AND GROUNDWATER CONDITIONS.
 - D. THE THIRD PARTY TESTING AGENCY IS TO BE FAMILIAR WITH THE APPLICABLE REQUIREMENTS FOR THE TESTS TO BE DONE, EQUIPMENT TO BE USED, AND ASSOCIATED HEALTH AND SAFETY ISSUES.
 - E. SITE RESISTANCE TO EARTH TESTING PER EXHIBIT: CELL SITE GROUNDING SYSTEM DESIGN.

- F. ANTENNA AND COAX SWEEP TESTS PER EXHIBIT: ANTENNA TRANSMISSION LINE ACCEPTANCE STANDARDS.
- G. ALL OTHER TESTS REQUIRED BY COMPANY OR JURISDICTION.

PART 6 – TRENCHING AND BACKFILLING

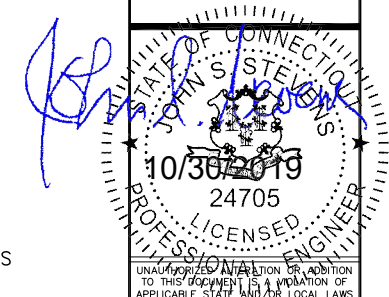
- 6.1 TRENCHING AND BACKFILLING: THE CONTRACTOR SHALL PERFORM ALL EXCAVATION OF EVERY DESCRIPTION AND OF WHATEVER SUBSTANCES ENCOUNTERED, TO THE DEPTHS INDICATED ON THE CONSTRUCTION DRAWINGS OR AS OTHERWISE SPECIFIED.
 - A. PROTECTION OF EXISTING UTILITIES: THE CONTRACTOR SHALL CHECK WITH THE LOCAL UTILITIES AND THE RESPECTIVE UTILITY LOCATOR COMPANIES PRIOR TO STARTING EXCAVATION OPERATIONS IN EACH RESPECTIVE AREA TO ASCERTAIN THE LOCATIONS OF KNOWN UTILITY LINES. THE LOCATIONS, NUMBER AND TYPES OF EXISTING UTILITY LINES DETAILED ON THE CONSTRUCTION DRAWINGS ARE APPROXIMATE AND DO NOT REPRESENT EXACT INFORMATION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING ALL LINES DAMAGED DURING EXCAVATION AND ALL ASSOCIATED OPERATIONS. ALL UTILITY LINES UNCOVERED DURING THE EXCAVATION OPERATIONS, SHALL BE PROTECTED FROM DAMAGE DURING EXCAVATION AND ASSOCIATED OPERATIONS. ALL REPAIRS SHALL BE APPROVED BY THE UTILITY COMPANY.
 - B. HAND DIGGING: UNLESS APPROVED IN WRITING OTHERWISE, ALL DIGGING WITHIN AN EXISTING CELL SITE COMPOUND IS TO BE DONE BY HAND.
 - C. DURING EXCAVATION, MATERIAL SUITABLE FOR BACKFILLING SHALL BE STOCKPILED IN AN ORDERLY MANNER A SUFFICIENT DISTANCE FROM THE BANKS OF THE TRENCH TO AVOID OVERLOADING AND TO PREVENT SLIDES OR CAVE-INS. ALL EXCAVATED MATERIALS NOT REQUIRED OR SUITABLE FOR BACKFILL SHALL BE REMOVED AND DISPOSED OF AT THE CONTRACTOR'S EXPENSE.
 - D. GRADING SHALL BE DONE AS MAY BE NECESSARY TO PREVENT SURFACE WATER FROM FLOWING INTO TRENCHES OR OTHER EXCAVATIONS, AND ANY WATER ACCUMULATING THEREIN SHALL BE REMOVED BY PUMPING OR BY OTHER APPROVED METHOD.
 - E. SHEETING AND SHORING SHALL BE DONE AS NECESSARY FOR THE PROTECTION OF THE WORK AND FOR THE SAFETY OF PERSONNEL. UNLESS OTHERWISE INDICATED, EXCAVATION SHALL BE BY OPEN CUT, EXCEPT THAT SHORT SECTIONS OF A TRENCH MAY BE TUNNELED IF, THE CONDUIT CAN BE SAFELY AND PROPERLY INSTALLED AND BACKFILL CAN BE PROPERLY TAMPED IN SUCH TUNNEL SECTIONS. EARTH EXCAVATION SHALL COMPRISE ALL MATERIALS AND SHALL INCLUDE CLAY, SILT, SAND, MUCK, GRAVEL, HARDPAN, LOOSE SHALE, AND LOOSE STONE.
 - F. TRENCHES SHALL BE OF NECESSARY WIDTH FOR THE PROPER LAYING OF THE CONDUIT OR CABLE, AND THE BANKS SHALL BE AS NEARLY VERTICAL AS PRACTICABLE. THE BOTTOM OF THE TRENCHES SHALL BE ACCURATELY GRADED TO PROVIDE UNIFORM BEARING AND SUPPORT FOR EACH SECTION OF THE CONDUIT OR CABLE ON UNDISTURBED SOIL AT EVERY POINT ALONG ITS ENTIRE LENGTH. EXCEPT WHERE ROCK IS ENCOUNTERED, CARE SHALL BE TAKEN NOT TO EXCAVATE BELOW THE DEPTHS INDICATED. WHERE ROCK EXCAVATIONS ARE NECESSARY, THE ROCK SHALL BE EXCAVATED TO A MINIMUM OVER DEPTH OF 6 INCHES BELOW THE TRENCH DEPTHS INDICATED ON THE CONSTRUCTION DRAWINGS OR SPECIFIED. OVER DEPTHS IN THE ROCK EXCAVATION AND UNAUTHORIZED OVER DEPTHS SHALL BE THOROUGHLY BACK FILLED AND TAMPED TO THE APPROPRIATE GRADE. WHENEVER WET OR OTHERWISE UNSTABLE SOIL THAT IS INCAPABLE OF PROPERLY SUPPORTING THE CONDUIT OR CABLE IS ENCOUNTERED IN THE BOTTOM OF THE TRENCH, SUCH SOLID SHALL BE REMOVED TO A MINIMUM OVER DEPTH OF 6 INCHES AND THE TRENCH BACKFILLED TO THE PROPER GRADE WITH EARTH OF OTHER SUITABLE MATERIAL, AS HEREINAFTER SPECIFIED.
 - G. BACKFILLING OF TRENCHES. TRENCHES SHALL NOT BE BACKFILLED UNTIL ALL SPECIFIED TESTS HAVE BEEN PERFORMED AND ACCEPTED. WHERE COMPACTED BACKFILL IS NOT INDICATED THE TRENCHES SHALL BE CAREFULLY BACKFILLED WITH SELECT MATERIAL SUCH AS EXCAVATED SOILS THAT ARE FREE OF ROOTS, SOD, RUBBISH OR STONES, DEPOSITED IN 6 INCH LAYERS AND THOROUGHLY AND CAREFULLY RAMMED UNTIL THE CONDUIT OR CABLE HAS A COVER OF NOT LESS THAN 1 FOOT. THE REMAINDER OF THE BACKFILL MATERIAL SHALL BE GRANULAR IN NATURE AND SHALL NOT CONTAIN ROOTS, SOD, RUBBING, OR STONES OF 2-1/2 INCH MAXIMUM DIMENSION. BACKFILL SHALL BE CAREFULLY PLACED IN THE TRENCH AND IN 1 FOOT LAYERS AND EACH LAYER TAMPED. SETTLING THE BACKFILL WITH WATER WILL BE PERMITTED. THE SURFACE SHALL BE GRADED TO A REASONABLE UNIFORMITY AND THE MOUNDING OVER THE TRENCHES LEFT IN A UNIFORM AND NEAT CONDITION.

SYMBOL	DESCRIPTION
	CIRCUIT BREAKER
	NON-FUSIBLE DISCONNECT SWITCH
	FUSIBLE DISCONNECT SWITCH
	SURFACE MOUNTED PANEL BOARD
	TRANSFORMER
	KILOWATT HOUR METER
	JUNCTION BOX
	PULL BOX TO NEC/TELCO STANDARDS
-----	UNDERGROUND UTILITIES
	EXOTHERMIC WELD CONNECTION
	MECHANICAL CONNECTION
	GROUND ROD
	GROUND ROD WITH INSPECTION SLEEVE
	GROUND BAR
	120AC DUPLEX RECEPTACLE
	GROUND CONDUCTOR
	DC POWER AND FIBER OPTIC TRUNK CABLES
	DC POWER CABLES
	REPRESENTS DETAIL NUMBER
	REF. DRAWING NUMBER

ABBREVIATIONS

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

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0	ISSUED FOR REVIEW	BMM	09/11/19

Drawn: BMM Date: 09/11/19
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 Checked: AB Date: 09/11/19

Project Number: 499-006

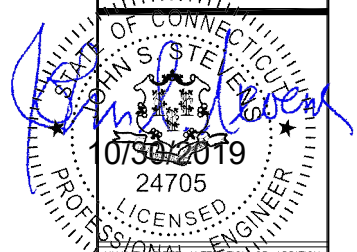
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NORFOLK ASHPHOTTAG ROAD
 CTL01181
 FA# 1013178
 10 ASHPHOTTAG ROAD
 NORFOLK, CT 06058

Prepared For:

Drawing Scale:
 AS NOTED
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 10/30/19

Drawing Title:
GENERAL NOTES

Drawing Number:
C1



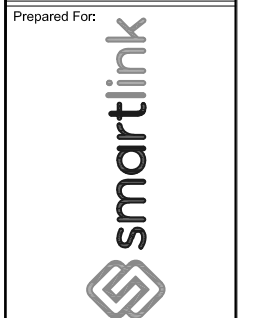
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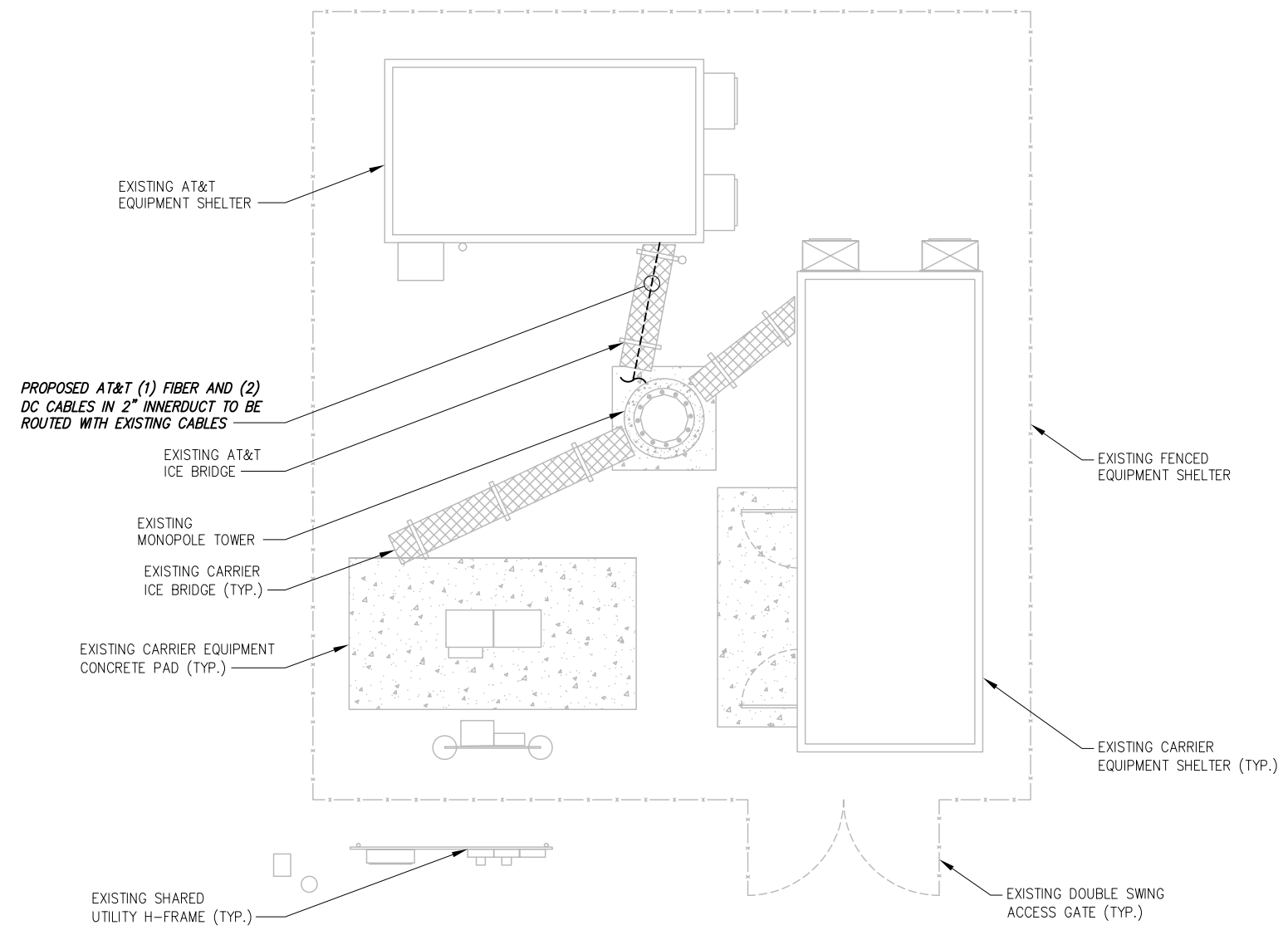


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CD

Drawing Title
**OVERALL
 SITE PLAN**

Drawing Number
C2

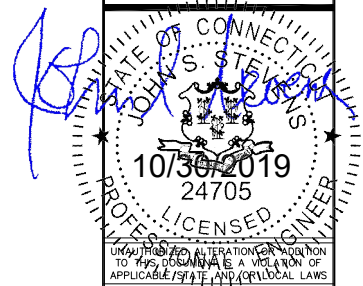


1 SITE PLAN
 SCALE: AS NOTED

GRAPHIC SCALE:

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

BASEMAPPING PREPARED FROM A SITE WALK PERFORMED BY INFINIGY ENGINEERING AND PROVIDED INFORMATION, AND DOES NOT REPRESENT AN ACTUAL FIELD SURVEY.



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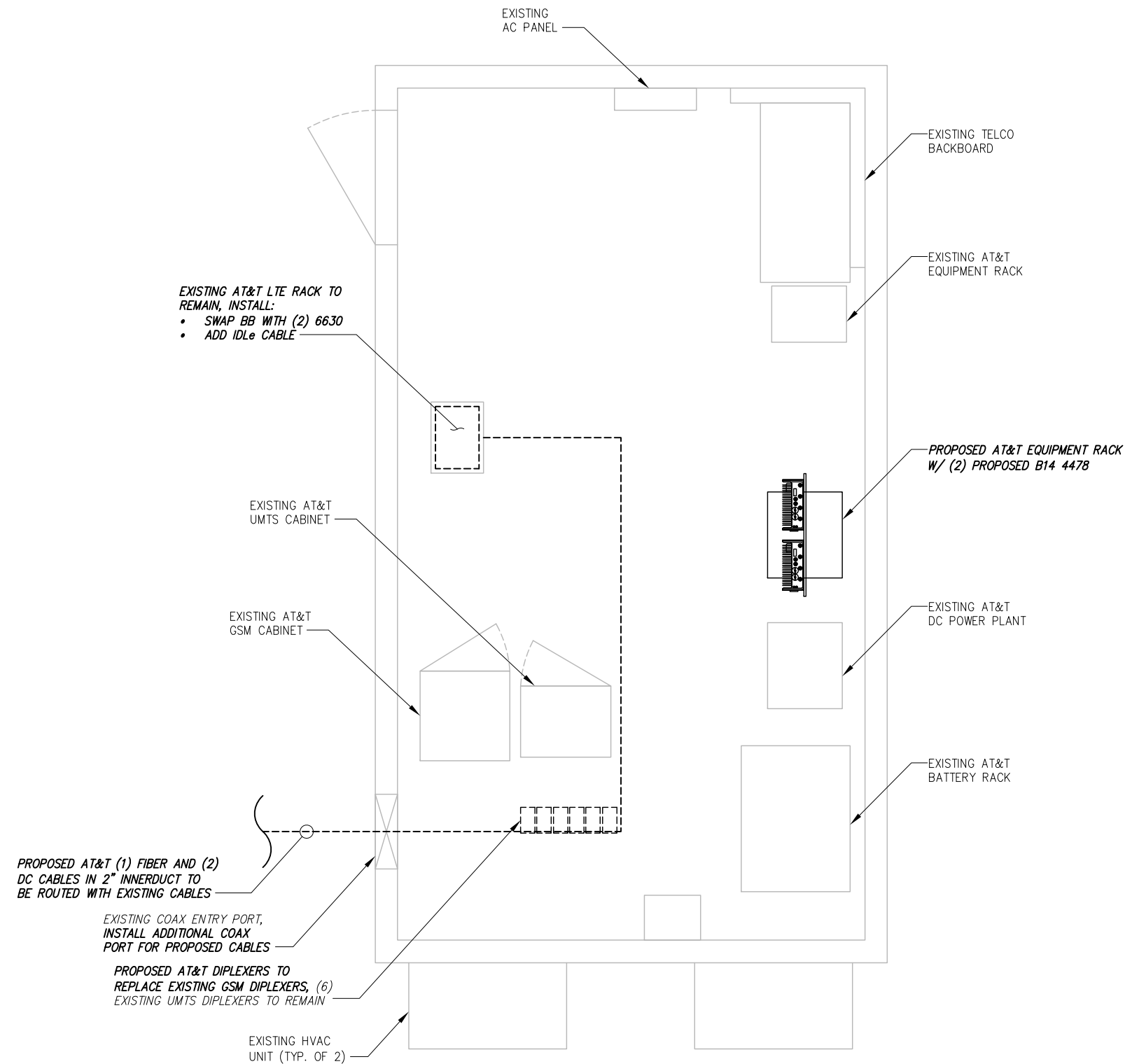
Project Title:
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 ASHPHOTAG ROAD
 CTL01181
 FA# 1013178
 10 ASHPHOTAG ROAD
 NORFOLK, CT 06058



Drawing Scale: AS NOTED
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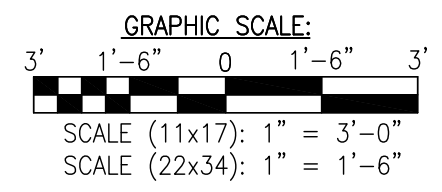
Drawing Title:
ENLARGED SITE PLAN

Drawing Number:
C2A



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2 ENLARGED EQUIPMENT PLAN
 SCALE: AS NOTED

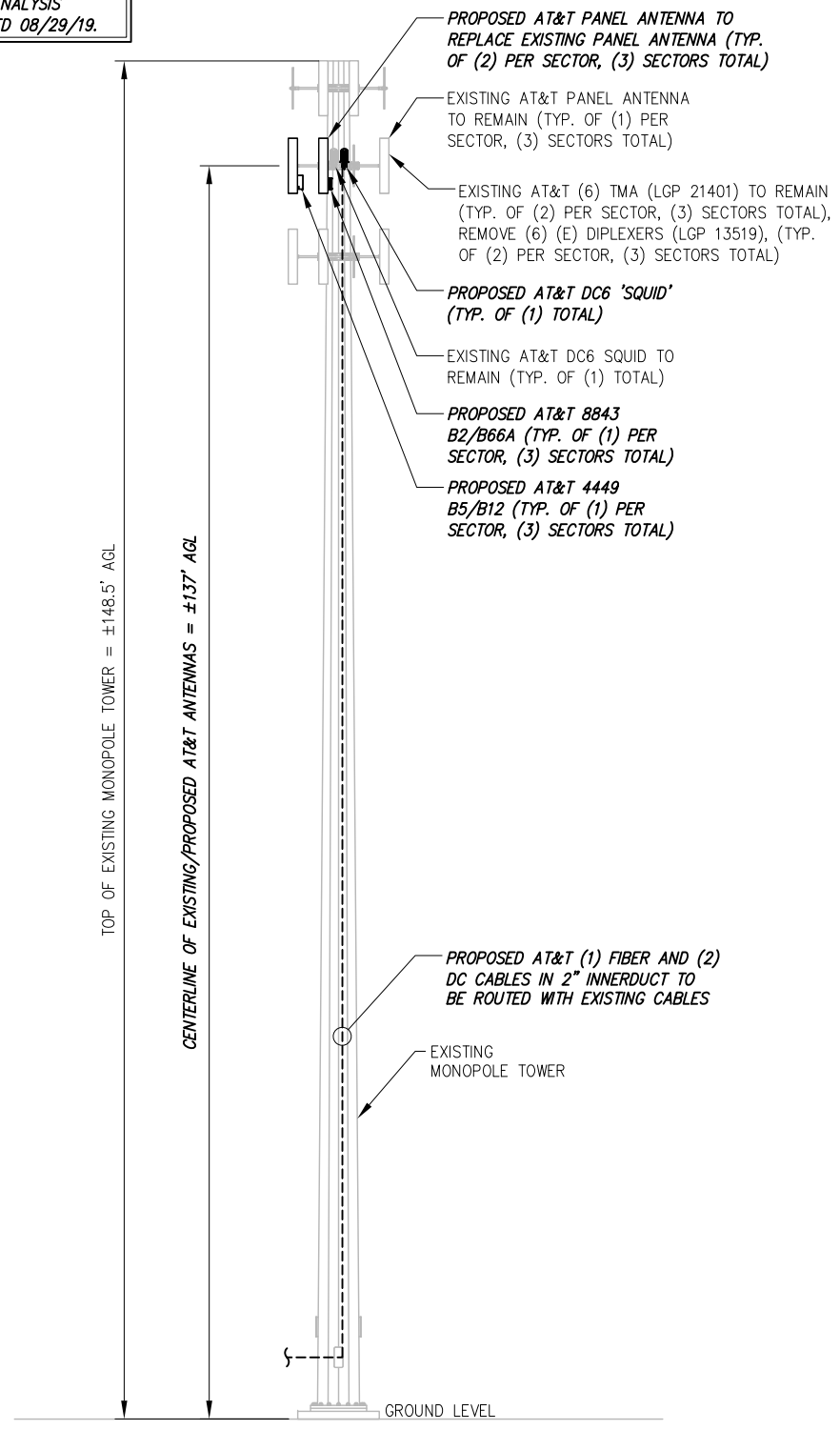


NOTE:

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- FOR ADDITIONAL STRUCTURAL INFORMATION PERTAINING TO THE ANTENNA MOUNT, SEE 'MONT ANALYSIS REPORT' COMPLETED BY INFINIGY, DATED 08/29/19.

NOTE:

- 3' MINIMUM SEPARATION BETWEEN ALL LTE ANTENNAS
- 6' MINIMUM SEPARATION BETWEEN 700 BC/700 DE ANTENNAS



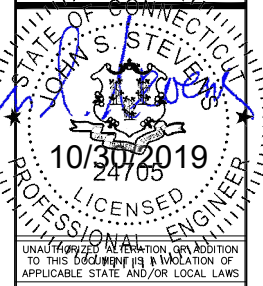
1 ELEVATION VIEW
--- NOT TO SCALE

FINAL ANTENNA CONFIGURATION & CABLE SCHEDULE BASED ON LTE RFDS DATED 05/24/19, V 1.00

SECTOR	ANTENNA POSITION	ANTENNA STATUS & TECHNOLOGY	ANTENNA MANF/MODEL	TMA/DIPLEXER	RRUS	AZIMUTH	ANTENNA CL. HEIGHT	CABLE FEEDER		RAYCAP UNIT
								TYPE	LENGTH	
ALPHA	A-1	(E) UMTS 850/1900	POWERWAVE 7770	(2) (E) LGP21401	--	30°	±137'	(2) (E) 1-5/8" COAX CABLES	±140'	(1) (E) DC6 'SQUID' (1) (P) DC6 'SQUID'
	A-2	--	--	--	--	--	--	--	--	
	A-3	(P) LTE 700/1900	CCI HPA-65R-BU6AA	(2) (P) DBC7108F1V92-1	(1) (P) B14 4478 (GROUND) (1) (P) 8843 B2/B66A	30°	±137'	(2) (E) 1-5/8" COAX CABLES	±140'	
	A-4	(P) LTE 700/850/AWS/5G 850	CCI DMP65R-BU6DA	--	(1) (P) 4449 B5/B12	30°	±137'	(1) (E) FIBER CABLE (2) (E) DC CABLES	--	
BETA	B-1	(E) UMTS 850/1900	POWERWAVE 7770	(2) (E) LGP21401	--	150°	±137'	(2) (E) 1-5/8" COAX CABLES	±140'	(1) (E) DC6 'SQUID' (1) (P) DC6 'SQUID'
	B-2	--	--	--	--	--	--	--	--	
	B-3	(P) LTE 700/1900	CCI HPA-65R-BU6AA	(2) (P) DBC7108F1V92-1	(1) (P) B14 4478 (GROUND) (1) (P) 8843 B2/B66A	150°	±137'	(2) (E) 1-5/8" COAX CABLES	±140'	
	B-4	(P) LTE 700/850/AWS/5G 850	CCI DMP65R-BU6DA	--	(1) (P) 4449 B5/B12	150°	±137'	(1) (P) FIBER CABLE (2) (P) DC CABLES	--	
GAMMA	G-1	(E) UMTS 850/1900	POWERWAVE 7770	(2) (E) LGP21401	--	270°	±137'	(2) (E) 1-5/8" COAX CABLES	±140'	(1) (E) DC6 'SQUID' (1) (P) DC6 'SQUID'
	G-2	--	--	--	--	--	--	--	--	
	G-3	(P) LTE 700/1900	CCI HPA-65R-BU6AA	(2) (P) DBC7108F1V92-1	(1) (P) 8843 B2/B66A	270°	±137'	(2) (E) 1-5/8" COAX CABLES	±140'	
	G-4	(P) LTE 700/850/AWS/5G 850	CCI DMP65R-BU6DA	--	(1) (P) 4449 B5/B12	270°	±137'	SEE A-4 FOR CABLE INFORMATION	--	

2 AT&T ANTENNA SCHEDULE
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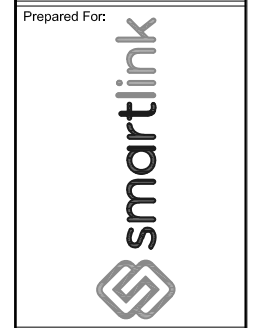
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Project Number: 499-006

Project Title:
NORFOLK ASHPHOHTAG ROAD
CTL01181
FA# 1013178
10 ASHPHOHTAG ROAD
NORFOLK, CT 06058



Drawing Scale: AS NOTED
Date: 10/30/19

CD

Drawing Title:
ELEVATION VIEW

Drawing Number:
C3

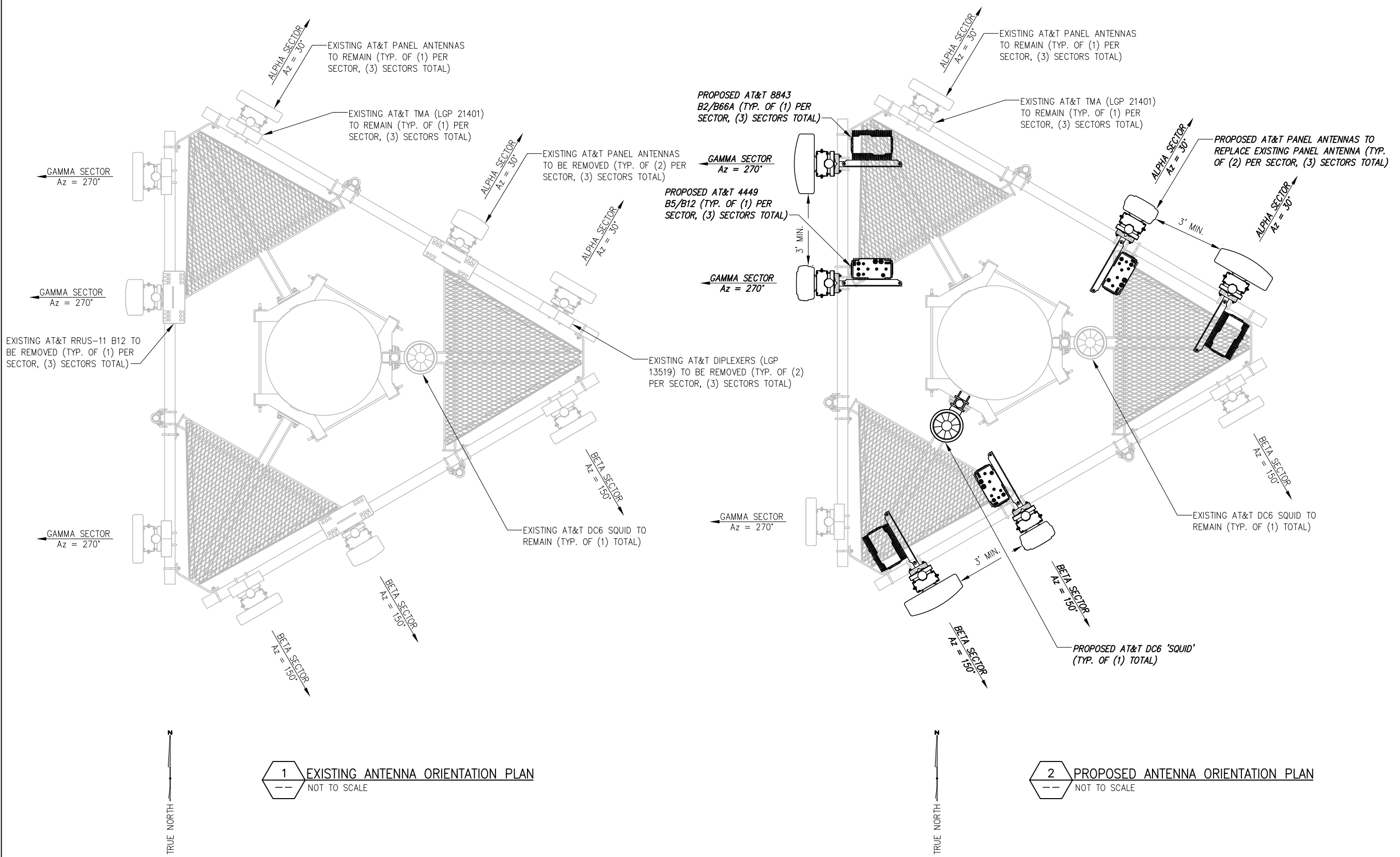
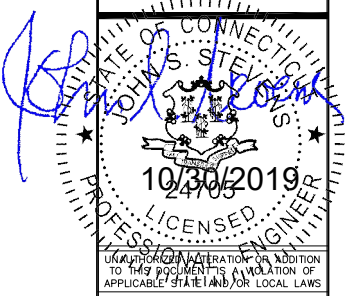
NOTE:

- 3' MINIMUM SEPARATION BETWEEN ALL LTE ANTENNAS
- 6' MINIMUM SEPARATION BETWEEN 700 BC/700 DE ANTENNAS

NOTE:

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- FOR ADDITIONAL STRUCTURAL INFORMATION PERTAINING TO THE ANTENNA MOUNT, SEE 'MONT ANALYSIS REPORT' COMPLETED BY INFINIGY, DATED 08/29/19.

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1 EXISTING ANTENNA ORIENTATION PLAN
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2 PROPOSED ANTENNA ORIENTATION PLAN
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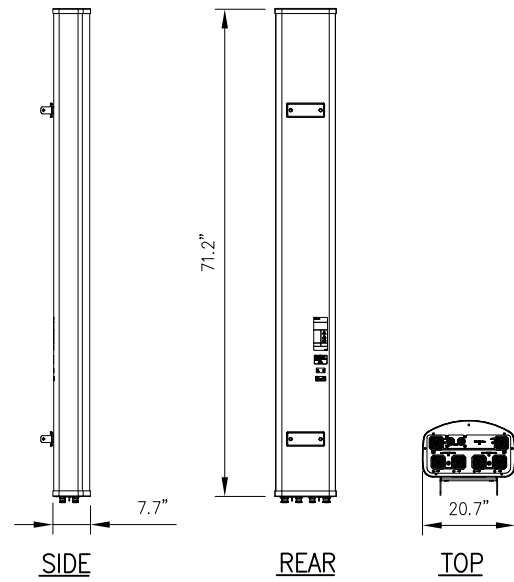
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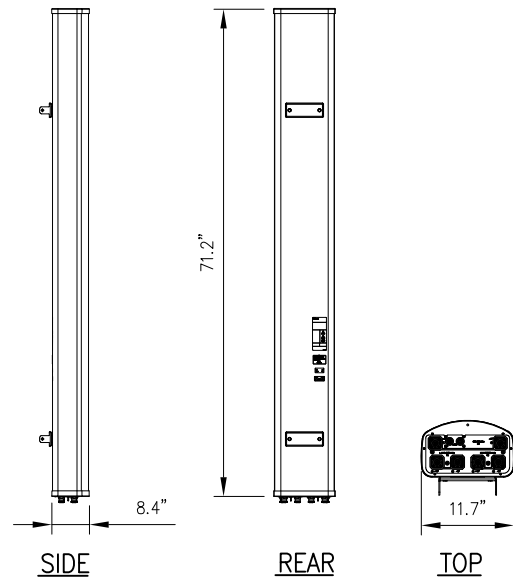
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ANTENNA ORIENTATION PLAN

Drawing Number:
C4



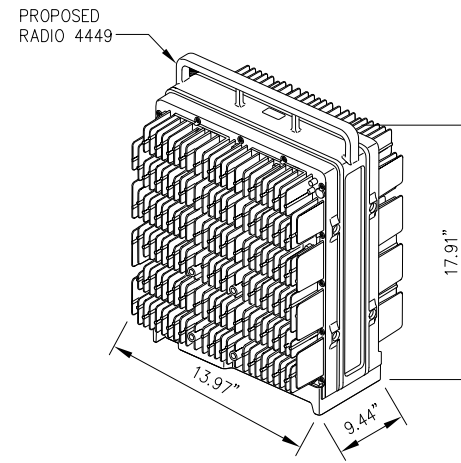
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RADOME MATERIAL:	FIBERGLASS, UV RESISTANT
RADOME COLOR:	LIGHT GRAY
DIMENSIONS, HxWxD:	71.2"x20.7"x7.7"
WEIGHT, W/ PRE-MOUNTED BRACKETS:	79.4 LBS
CONNECTOR:	7-16 DIN FEMALE

1 ANTENNA DETAIL
--- NOT TO SCALE



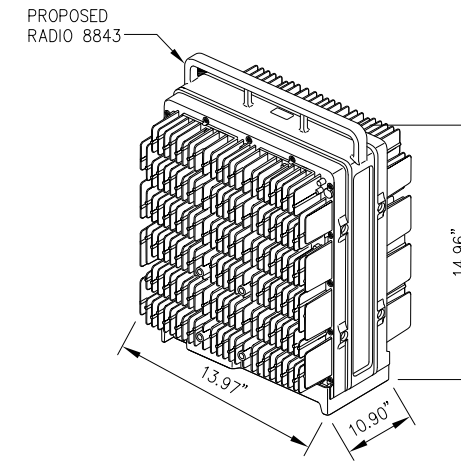
CCI MODEL NO.:	HPA-65R-BU6AA
RADOME MATERIAL:	FIBERGLASS, UV RESISTANT
RADOME COLOR:	LIGHT GRAY
DIMENSIONS, HxWxD:	71.2"x11.7"x8.4"
WEIGHT, W/ PRE-MOUNTED BRACKETS:	43.0 LBS
CONNECTOR:	7-16 DIN FEMALE

2 ANTENNA DETAIL
--- NOT TO SCALE



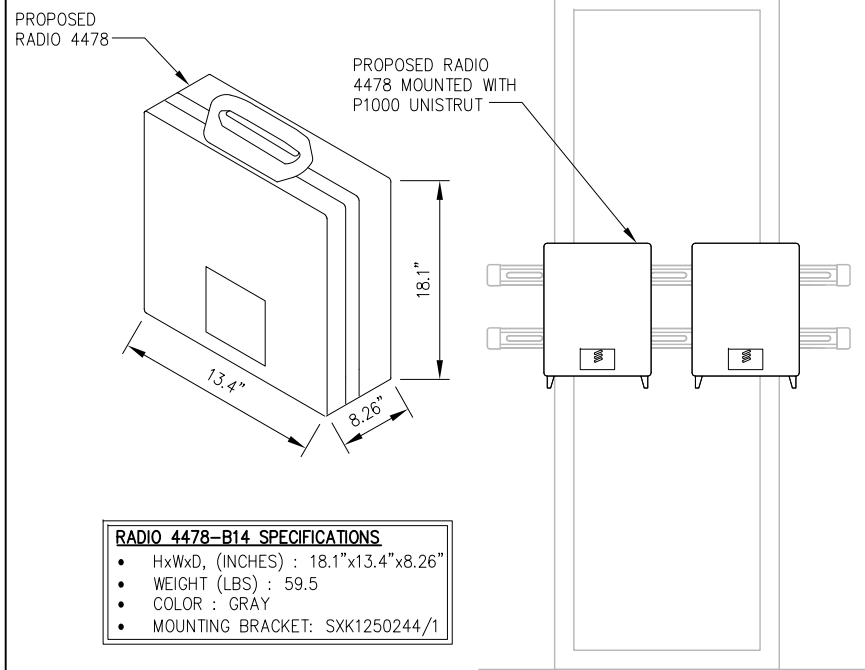
RADIO 4449 SPECIFICATIONS
• HxWxD, (INCHES) : 17.91"x13.97"x9.44"
• WEIGHT (LBS) : 70.54
• COLOR : GRAY

3 ERICSSON RADIO 4449 DETAIL
--- NOT TO SCALE



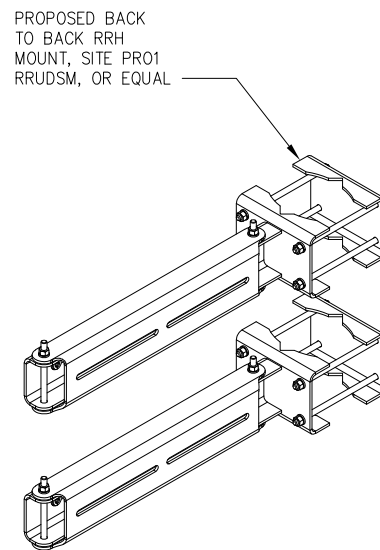
RADIO 8843 SPECIFICATIONS
• HxWxD, (INCHES) : 14.96"x13.97"x10.90"
• WEIGHT (LBS) : 71.87
• COLOR : GRAY

4 ERICSSON RADIO 8843 DETAIL
--- NOT TO SCALE

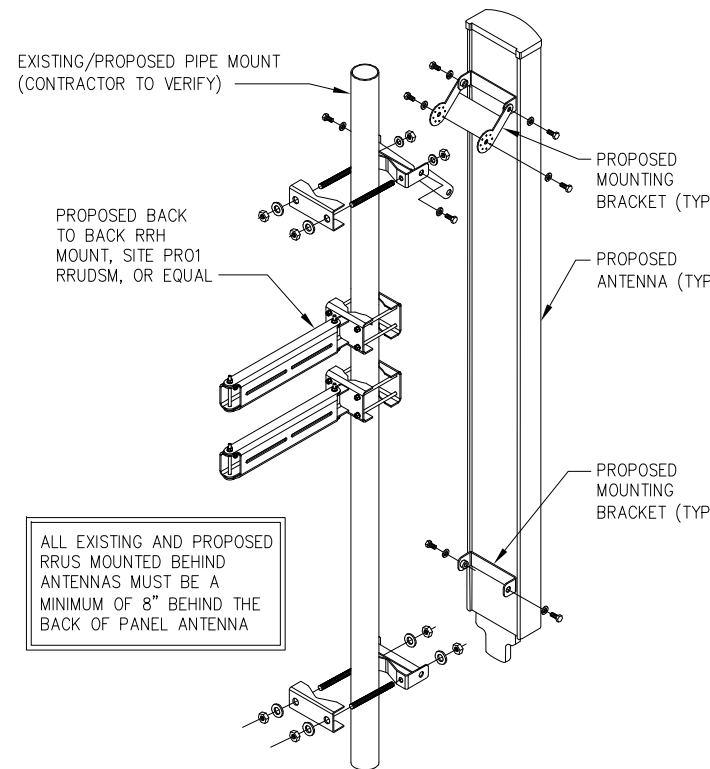


RADIO 4478-B14 SPECIFICATIONS
• HxWxD, (INCHES) : 18.1"x13.4"x8.26"
• WEIGHT (LBS) : 59.5
• COLOR : GRAY
• MOUNTING BRACKET: SXX1250244/1

5 ERICSSON RADIO 4478-B14 DETAIL
--- NOT TO SCALE

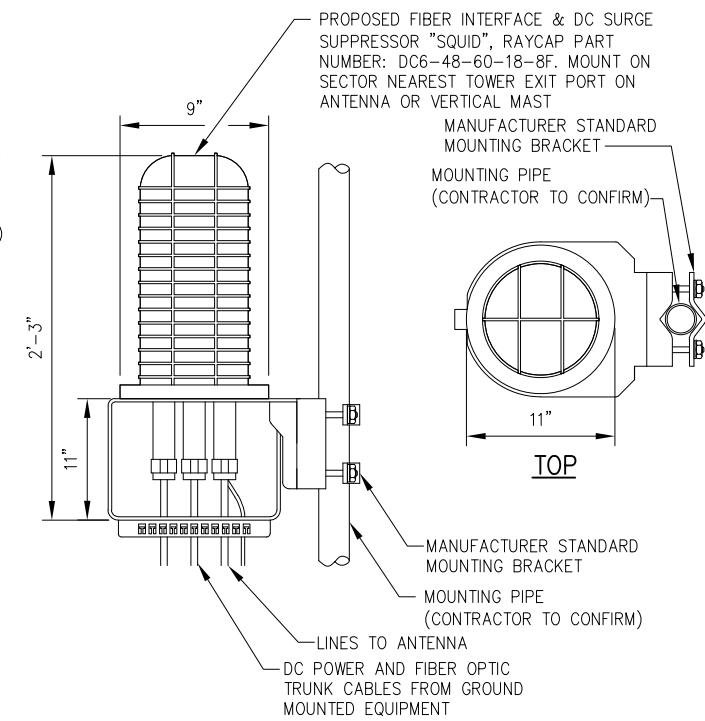


6 BACK TO BACK PIPE MOUNT DETAIL
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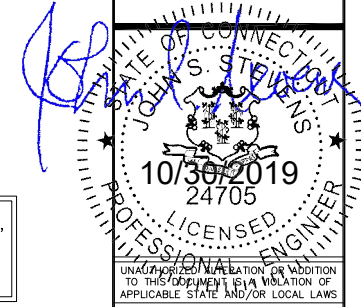


ALL EXISTING AND PROPOSED RRUS MOUNTED BEHIND ANTENNAS MUST BE A MINIMUM OF 8" BEHIND THE BACK OF PANEL ANTENNA

7 ANTENNA MOUNTING DETAIL
--- NOT TO SCALE



8 SQUID DETAIL
--- NOT TO SCALE



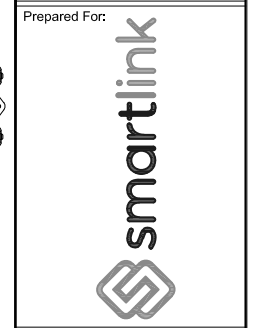
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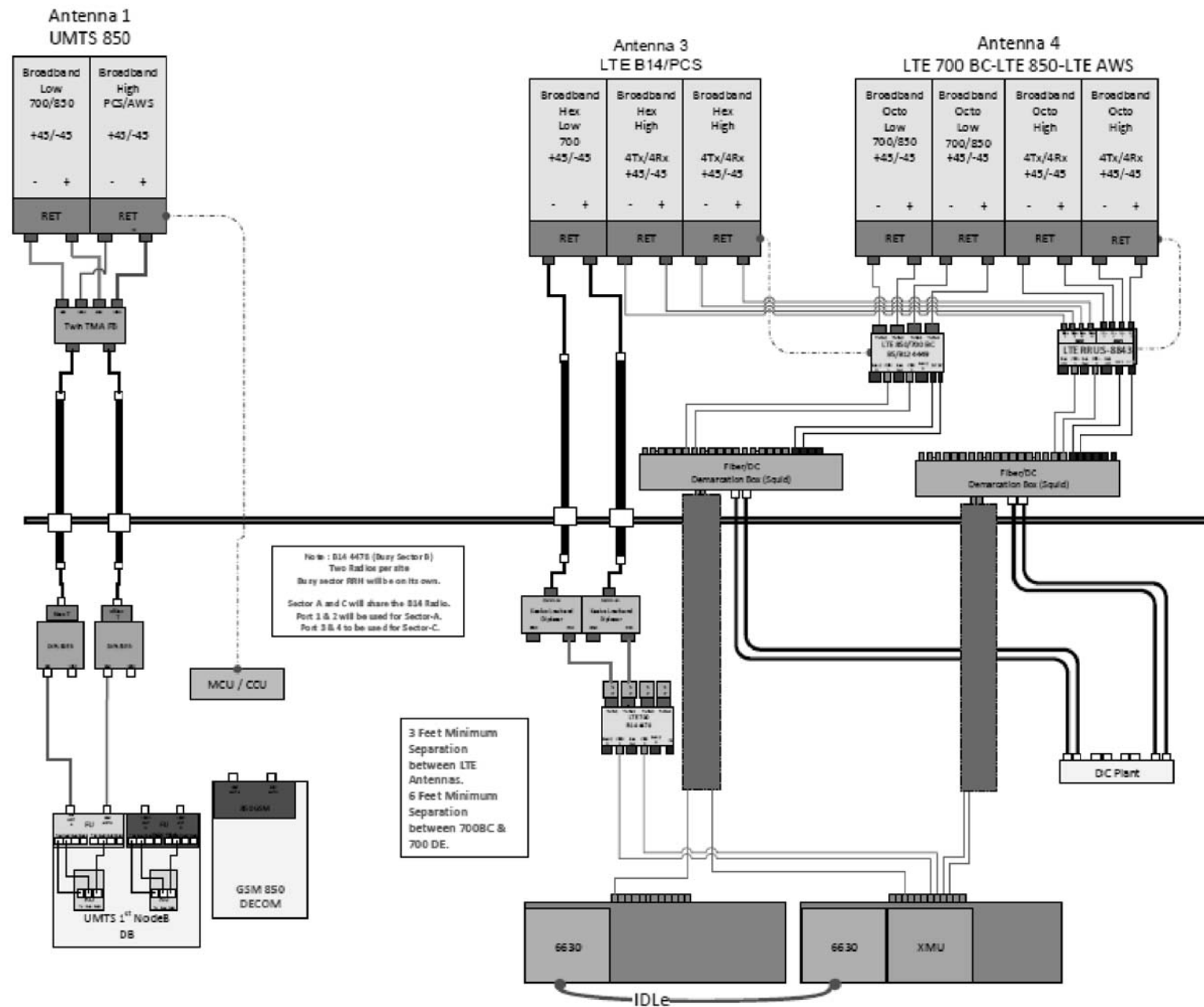
2	ISSUED FOR PERMIT	ASW	10/30/19
1	ISSUED FOR PERMIT	BMM	09/25/19
0	ISSUED FOR REVIEW	BMM	09/11/19
No.	Submittal / Revision	App'd	Date
	BMM		09/11/19
	ASW		09/11/19
	ASW		09/11/19
Project Number: 499-006			

Project Title:
NORFOLK ASHPHOHTAG ROAD
CTL01181
FA# 1013178
10 ASHPHOHTAG ROAD
NORFOLK, CT 06058



Drawing Scale: AS NOTED
Date: 10/30/19
Drawing Title: **EQUIPMENT DETAILS**

Drawing Number: **C5**



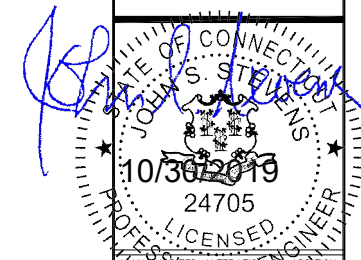
Note: B14 4GTS (Busy Sector B)
Two Radios per site
Busy sector RBH will be on its own.
Sector A and C will share the B14 Radio.
Port 1 & 2 will be used for Sector-A.
Port 3 & 4 to be used for Sector-C.

3 Feet Minimum Separation between LTE Antennas.
6 Feet Minimum Separation between 700BC & 700 DE.

ALPHA/BETA/GAMMA

1 PLUMBING DIAGRAM (FINAL CONFIGURATION)
--- NOT TO SCALE

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Albany, NY 12205
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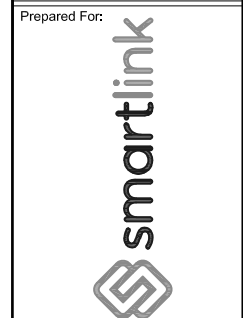
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Drawn: BMM Date: 09/11/19
Designed: ASW Date: 09/11/19
Checked: AD Date: 09/11/19

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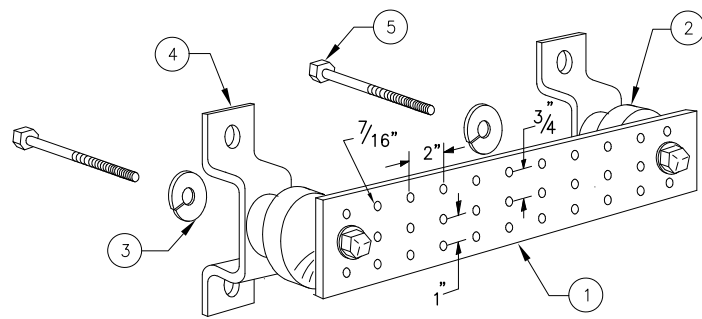


Drawing Scale: AS NOTED
Date: 10/30/19
CD

Drawing Title
PLUMBING DIAGRAM

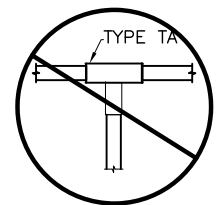
Drawing Number
C6

*BASED ON LTE RFDS,
DATED 05/24/2019, V1.00

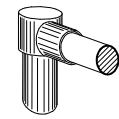


LEGEND

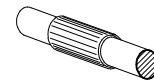
- 1 - SOLID TINNED COPPER GROUND BAR, 1/4"x 4"x 20" MIN., NEWTON INSTRUMENT CO. HOLE CENTERS TO MATCH NEMA DOUBLE LUG CONFIGURATION
- 2 - INSULATORS, NEWTON INSTRUMENT CAT. NO. 3061-4
- 3 - 5/8" LOCKWASHERS, NEWTON INSTRUMENT CO. CAT. NO. 3015-8
- 4 - WALL MOUNTING BRACKET, NEWTON INSTRUMENT CO. CAT NO. A-6056
- 5 - 5/8-11 X 1" H.H.C.S. BOLTS, NEWTON INSTRUMENT CO. CAT NO. 3012-1
- 6 - GROUND BAR SHALL BE SIZED TO ACCOMODATE ALL GROUNDING CONNECTIONS REQUIRED PLUS PROVIDE 50% SPARE CAPACITY
- 7 - GROUND BARS SHALL NEITHER BE FIELD FABRICATED NOR NEW HOLES DRILLED
- 8 - GROUND LUGS SHALL MATCH THE HOLE SPACING ON THE BAR
- 9 - HARDWARE DIAMETER SHALL BE MINIMUM 3/8"



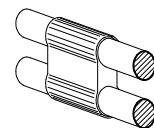
NOT PERMITTED



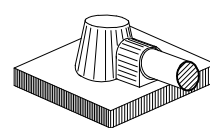
TYPE GR



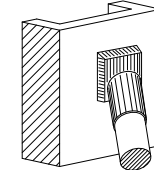
TYPE SV



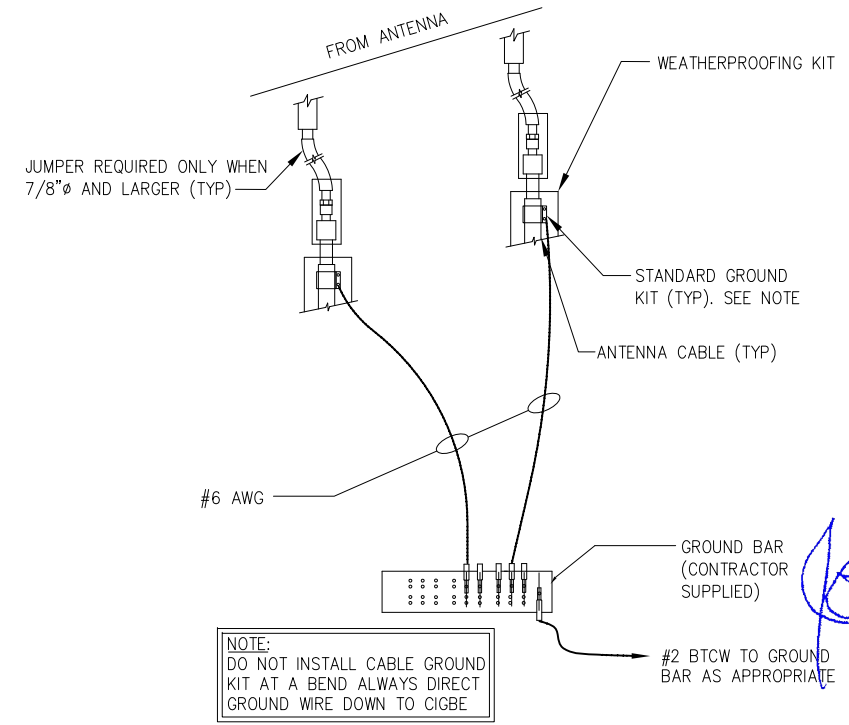
TYPE PH



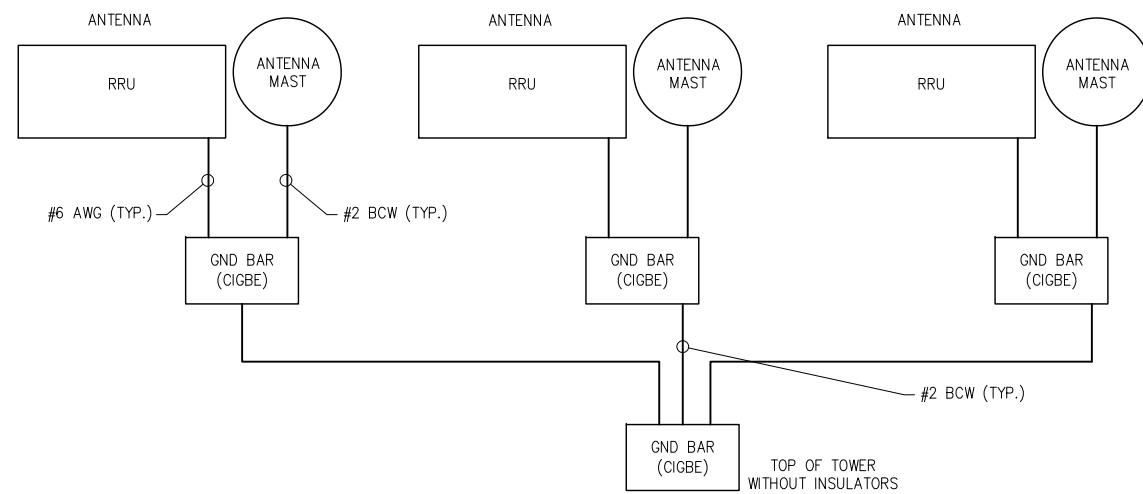
TYPE KA



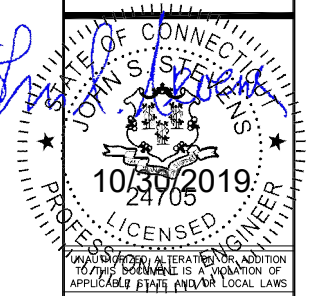
TYPE VS



NOTE:
DO NOT INSTALL CABLE GROUND KIT AT A BEND ALWAYS DIRECT GROUND WIRE DOWN TO CIGBE

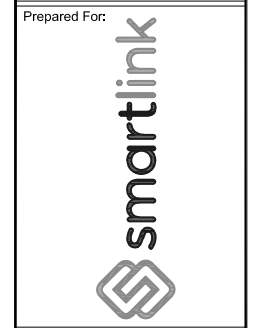


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Drawing Title:
GROUNDING DETAILS

Drawing Number:
C7