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

September 21, 2021

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

RE: Notice of Exempt Modification // Site: SALISBURY CT (ATC: 370630)
52 Library Street Salisbury, CT 06068
N 41.9809 // W 73.4184

Dear Ms. Bachman,

Cellco Partnership d/b/a Verizon Wireless currently maintains 12 antennas at the 91-ft level on the existing 119 ft Monopole Tower, located at 87 Monce Road Burlington CT. The tower is owned by American Tower. The property is also owned by the Town of Salisbury. The tower was approved by the Council in 2005. Verizon Wireless now intends to remove 6 antennas and install 9 new ones for the LTE (3700 MHz) replacements for its 5G upgrade. Additionally, Verizon Wireless will install 6 new Remote Radio Heads (RRHs), remove 12 Coax Cables, install 1 OVP and 2 Hybrid Cables; altogether updating leased equipment rights, as reflected by the final configuration outlined in the structural analysis and proposed hereby.

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

The planned modifications to the facility fall squarely within those activities explicitly provided for in R.C.S.A. § 16-50j-72(b)(2). Enclosed to accommodate this filing are construction drawings dated September 1, 2021, by CLS Engineering, PLLC., a structural analysis dated April 29, 2021, by A.T. Engineering Service, PLLC., and a structural mount analysis by Maser Consulting Connecticut dated July 21, 2021, and radio frequency (RF) analysis table showing worst-case RF emission calculation by Verizon Wireless RF Design Engineering.

1. The proposed modifications will not result in an increase in the height of the existing structure.

2. The proposed modifications will not require the extension of the site boundary.

3. The proposed modifications will not increase noise levels at the facility by six decibels or more, or to levels that exceed state and local criteria.

4. The operation of the new antennas will not increase radio frequency emissions at the facility to a level at or above the Federal Communications Commission safety standard.

5. The proposed modifications will not cause a change or alteration in the physical or environmental characteristics of the site.

6. The existing structure and its foundation can support the proposed loading, as shown in the attached structural analysis by A.T. Engineering Service, PLLC., dated April 29, 2021, and a structural mount analysis by Maser Consulting Connecticut, dated July 21, 2021, pursuant to certain conditions defined therein. Design and engineering is fully illustrated within final construction drawings, signed and stamped dated September 1, 2021.

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

Sincerely,

MJ Umali

_____

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Attachments
cc: Curtis G. Rand, First Selectman– Chief Elected Official and property owner
Abby Conroy, Land Use Administrator- as P&Z official
American Tower Corporation - as tower owner

DOCKET NO. 306 – Wireless *EDGE* Fairfield Group LLC application for a Certificate of Environmental Compatibility and Public Need for the construction, maintenance, and operation of a cellular telecommunications facility located at 52 Library Street, Salisbury, Connecticut.	}	Connecticut
	}	Siting
	}	Council

November 17, 2005

Decision and Order

Pursuant to the foregoing Findings of Fact and Opinion, the Connecticut Siting Council (Council) finds that the effects associated with the construction, operation, and maintenance of a telecommunications facility including effects on the natural environment; ecological integrity and balance; public health and safety; scenic, historic, and recreational values; forests and parks; air and water purity; and fish and wildlife are not disproportionate either alone or cumulatively with other effects when compared to need, are not in conflict with the policies of the State concerning such effects, and are not sufficient reason to deny the application and therefore directs that a Certificate of Environmental Compatibility and Pubic Need, as provided by General Statutes § 16-50k, be issued to Wireless *EDGE* Fairfield Group LLC for the construction, maintenance and operation of a wireless telecommunications facility to be located at 52 Library Street in Salisbury, Connecticut.

The facility shall be constructed, operated, and maintained substantially as specified in the Council's record in this matter, and subject to the following conditions:

1. The tower shall be designed as a monopole and shall be constructed no taller than 150 feet above ground level to provide telecommunications services to both public and private entities. Cingular's antennas to be mounted on the monopole shall be installed using a T-arm configuration.

2. The tower shall be designed and constructed in such a manner as to be able to accommodate a future extension. Any such extension must be approved by the Council as a petition for declaratory ruling, or other administrative procedure as deemed appropriate by the Council.

3. The Certificate Holder shall prepare a Development and Management (D&M) Plan for this site in compliance with Sections 16-50j-75 through 16-50j-77 of the Regulations of Connecticut State Agencies. The D&M Plan shall be served on the Town of Salisbury and all parties and intervenors, as listed in the service list, and submitted to and approved by the Council prior to the commencement of facility construction and shall include:

    a) a final site plan(s) of site development to include specifications for the tower, tower foundation, antennas mountings, equipment building, access road, utility line, and landscaping; and

b) construction plans for site clearing, water drainage, and erosion and sedimentation control consistent with the 2002 Connecticut Guidelines for Soil Erosion and Sediment Control, as amended.

4. The Certificate Holder shall, prior to the commencement of operation, provide the Council worst-case modeling of electromagnetic radio frequency power density of all proposed entities' antennas at the closest point of uncontrolled access to the tower base, consistent with Federal Communications Commission, Office of Engineering and Technology, Bulletin No. 65, August 1997. The Certificate Holder shall ensure a recalculated report of electromagnetic radio frequency power density is submitted to the Council in the event other carriers locate at this facility or if circumstances in operation cause a change in power density above the levels calculated and provided pursuant to this Decision and Order.

5. Upon the establishment of any new State or federal radio frequency standards applicable to frequencies of this facility, the facility granted herein shall be brought into compliance with such standards.

6. The Certificate Holder shall permit public or private entities to share space on the proposed tower for fair consideration, or shall provide any requesting entity with specific legal, technical, environmental, or economic reasons precluding such tower sharing.

7. The Certificate Holder shall provide reasonable space on the tower for no compensation for any municipal antennas, provided such antennas are compatible with the structural integrity of the tower.

8. If the facility authorized herein is not fully constructed and providing wireless services within eighteen months from the date of the mailing of the Council's Findings of Fact, Opinion, and Decision and Order (collectively called "Final Decision"), this Decision and Order shall be void, and the Certificate Holder shall dismantle the tower and remove all associated equipment or reapply for any continued or new use to the Council before any such use is made. The time between the filing and resolution of any appeals of the Council's Final Decision shall not be counted in calculating this deadline.

9. If the facility ceases to provide wireless services for a period of one year, this Decision and Order shall be void, and the Certificate Holder shall dismantle the tower and remove all associated equipment or reapply for any continued or new use to the Council before any such use is made.

10. Any antenna that becomes obsolete and ceases to function shall be removed within 60 days after such antennas become obsolete and cease to function.

11. Any request for extension of the time periods referred to in Conditions 8 and 9 shall be filed with the Council not later than sixty days prior to the expiration date of this Certificate and shall be served on all parties and intervenors and the Town of Salisbury, as listed in the service list. Any proposed modifications to this Decision and Order shall likewise be so served.

12. In accordance with Section 16-50j-77 of the Regulations of Connecticut State Agencies, the Certificate Holder shall provide the Council with written notice two weeks prior to the commencement of construction activities. In addition, the Certificate Holder shall provide the Council with written notice of the completion of site construction and the commencement of site operation.

Pursuant to General Statutes § 16-50p, we hereby direct that a copy of the Findings of Fact, Opinion, and Decision and Order be served on each person listed below, and notice of issuance shall be published in the Litchfield County Times and in the Lakeville Journal.

By this Decision and Order, the Council disposes of the legal rights, duties, and privileges of each party named or admitted to the proceeding in accordance with Section 16-50j-17 of the Regulations of Connecticut State Agencies.

The parties and intervenors to this proceeding are:

Status Granted	Status Holder (name, address & phone number)	Representative (name, address & phone number)
Applicant	Wireless Edge Fairfield Group, LLC 270 North Avenue New Rochelle, NY 10801	Julie Donaldson Kohler, Esq. Cohen & Wolf, P.C. 1115 Broad Street Bridgeport, CT 06604 (203) 368-0211 (203) 394-9901 - fax jkohler@cohenandwolf.com
Intervenor (approved 7/20/05)	New Cingular Wireless PCS, LLC	Christopher B. Fisher, Esq. Cuddy & Feder LLP 90 Maple Avenue White Plains, NY 10601 (914) 761-1300 (914) 761-6405 Fax
Intervenor (approved 8/24/05)	Berkshire-Litchfield Environmental Council (BLEC) P.O. Box 552 Lakeville, CT 06039	Send correspondence to: B. Blake Levitt, Trustee 355 Lake Road New Preston, CT 06777 (860) 868-7437 (860) 868-6010 blakelevit.com

UPS CampusShip: View/Print Label

1. **Ensure there are no other shipping or tracking labels attached to your package.** Select the Print button on the print dialog box that appears. Note: If your browser does not support this function select Print from the File menu to print the label.

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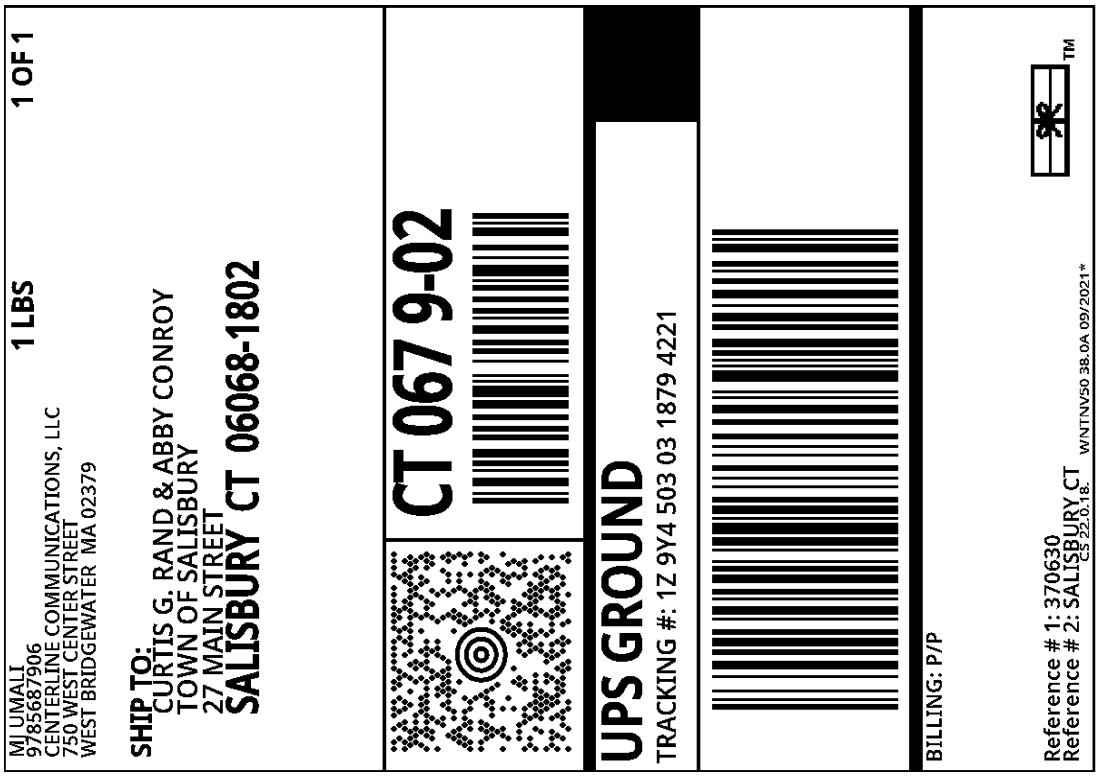

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CURTIS G. RAND & ABBY CONROY
27 MAIN STREET
SALISBURY, CT 060681802 US

AMERICAN TOWER®
CORPORATION

Structural Analysis Report

Structure	:	**148.5 ft Monopole**
ATC Site Name	:	**SALISBURY CT, CT**
ATC Asset Number	:	**370630**
Engineering Number	:	**13668812_C3_01**
Proposed Carrier	:	**VERIZON WIRELESS**
Carrier Site Name	:	**SALISBURY CT**
Carrier Site Number	:	**468684**
Site Location	:	**52 Library St.** **Salisbury, CT 06068-0000** **41.980900,-73.418400**
County	:	**Litchfield**
Date	:	**April 29, 2021**
Max Usage	:	**27%**
Result	:	**Pass**

Prepared By:
Pedro Morales Mendoza
Engineer Intern

Reviewed By:

Authorized by "EOR"
30 Apr 2021 10:44:07 cosign

COA: PEC.0001553

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Table of Contents

Introduction

The purpose of this report is to summarize results of a structural analysis performed on the 148.5 ft monopole to reflect the change in loading by VERIZON WIRELESS.

Supporting Documents

Tower Drawings	PJF Job #29206-0003, dated January 9, 2006
Foundation Drawing	PJF Job #29206-0003, dated January 9, 2006
Geotechnical Report	JGI Eastern, Inc. Project #05463G, dated August 11, 2005

Analysis

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

Basic Wind Speed:	113 mph (3-Second Gust)
Basic Wind Speed w/ Ice:	40 mph (3-Second Gust) w/ 1" radial ice concurrent
Code:	ANSI/TIA-222-H / 2015 IBC / 2018 Connecticut State Building Code
Exposure Category:	B
Risk Category:	II
Topographic Factor Procedure:	Method 1
Topographic Category:	1
Crest Height (H):	0 ft
Spectral Response:	Ss = 0.17, S_1 = 0.05
Site Class:	D - Stiff Soil

Conclusion

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

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

Existing and Reserved Equipment

Elev.[1] (ft)	Qty	Antenna	Mount Type	Lines	Carrier
156.0	1	RFS Celwave PD220	Flush	(1) 1/2" Coax	TOWN OF SALISBURY
150.0	1	RFS Celwave PD220	Flush	-	SALISBURY VOLUNTEER AMBULANCE SERVICE, INC.
146.0	-	-	Empty T-Arm	-	OTHER
144.0	3	Ericsson Radio 8843 - B2 + B66A	T-Arm	(2) 0.39" (10mm) Fiber Trunk (2) 0.78" (19.7mm) 8 AWG 6 (3) 0.96" (24.3mm) Cable (6) 1 5/8" Coax (6) 1/2" Coax (2) 2" conduit	AT&T MOBILITY
	3	Ericsson RRUS 4449 B5, B12			
	3	Ericsson RRUS 4478 B14			
	1	Raycap DC9-48-60-24-8C-EV			
	3	Powerwave Allgon 7770.00			
	1	Raycap DC6-48-60-18-8F(32.8 lbs)			
	6	Powerwave Allgon LGP21401			
	2	CCI DMP65R-BU4D			
	1	CCI OPA65R-BU6D			
	1	CCI DMP65R-BU6DA			
	2	CCI OPA65R-BU4DA-K			
134.0	6	Antel LPA-80080/6CF ___	T-Arm	(6) 1 5/8" Coax	VERIZON WIRELESS
123.0	3	Ericsson Radio 4449 B71 B85A	T-Arm w/ Support Rails	(2) 1 1/4" (1.25"-31.8mm) Fiber (1) 1 5/8" Hybriflex	T-MOBILE
	3	RFS APX16DWV-16DWVS-E-A20			
	3	Ericsson RRUS 11 B4			
	3	Ericsson RRUS 11 B2			
	3	RFS APXVAALL24 43-U-NA20			

Equipment to be Removed

Elev.[1] (ft)	Qty	Antenna	Mount Type	Lines	Carrier
134.0	3	Antel BXA-70063/6CF_	-	(12) 1 5/8" Coax	VERIZON WIRELESS
	3	Antel BXA-185085/12CF ___			

Proposed Equipment

Elev.[1] (ft)	Qty	Antenna	Mount Type	Lines	Carrier
134.0	3	Samsung B2/B66A RRH-BR049	T-Arm	(2) 1 5/8" Hybriflex	VERIZON WIRELESS
	3	Samsung B5/B13 RRH-BR04C			
	1	Raycap RVZDC-6627-PF-48			
	3	Samsung MT6407-77A			
	6	JMA Wireless MX06FRO660-03			

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

Install proposed coax inside the pole shaft.

Structure Usages

Structural Component	Controlling Usage	Pass/Fail
Anchor Bolts	21%	Pass
Shaft	25%	Pass
Base Plate	15%	Pass

Foundations

Reaction Component	Original Design Reactions	Factored Design Reactions*	Analysis Reactions	% of Design
Moment (Kips-Ft)	7,150.0	9,652.5	2,251.3	23%
Shear (Kips)	62.0	83.7	22.4	27%
* The design reactions are factored by 1.35 per ANSI/TIA-222-H, Sec. 15.6.2				

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

Deflection and Sway*

Antenna Elevation (ft)	Antenna	Carrier	Deflection (ft)	Sway (Rotation) (°)
134.0	Samsung B2/B66A RRH-BR049	VERIZON WIRELESS	0.394	0.362
	Samsung B5/B13 RRH-BR04C			
	Raycap RVZDC-6627-PF-48			
	Samsung MT6407-77A			
	JMA Wireless MX06FRO660-03			

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

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Standard Conditions

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

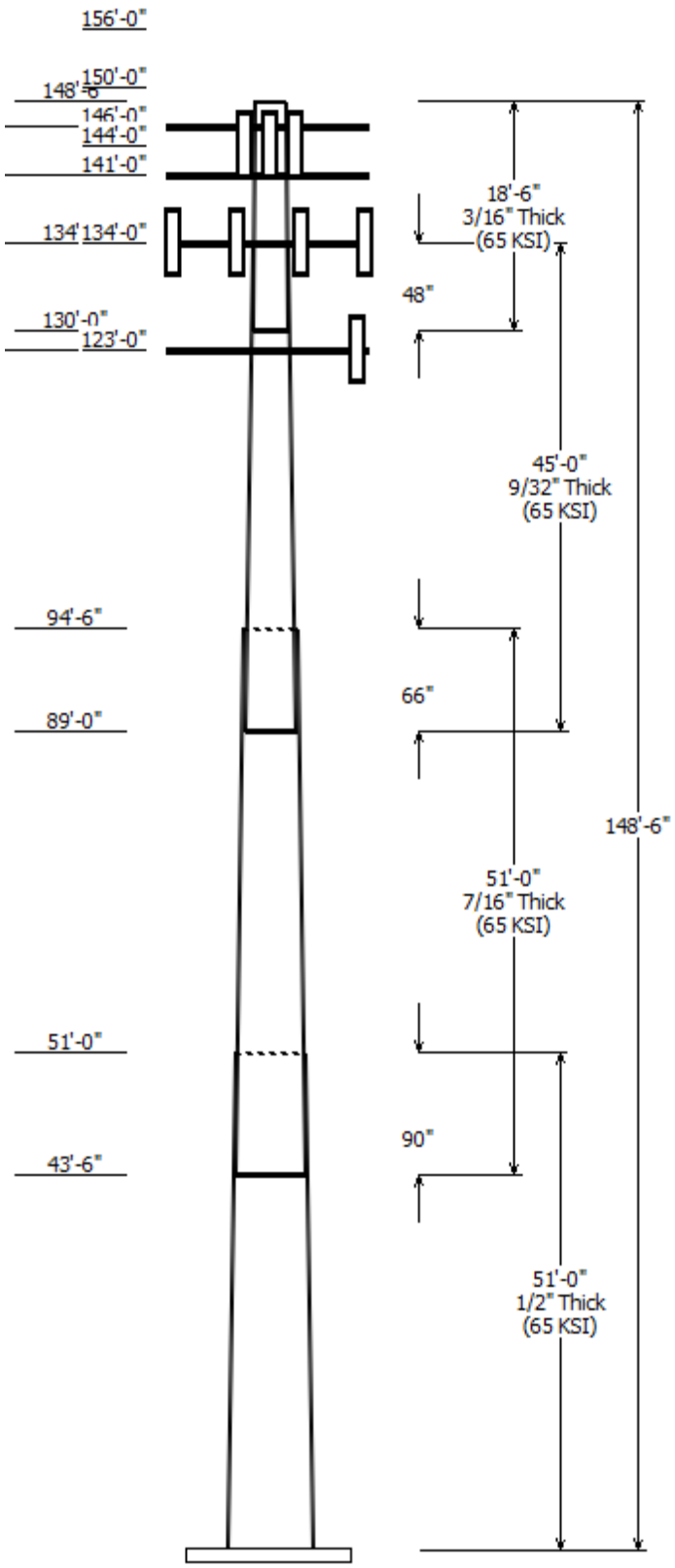
- Information supplied by the client regarding antenna, mounts and feed line loading
- Information from drawings, design and analysis documents, and field notes in the possession of A.T. Engineering Service, PLLC

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

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

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

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



Job Information

Client :	VERIZON WIRELESS		
Pole :	370630	Code:	ANSI/TIA-222-H
Location :	SALISBURY CT, CT		
Description :	149 ft Monopole	Risk Category :	II
Shape :	18 Sides	Exposure :	B
Height :	148.50 (ft)	Topo Method :	Method 1
Base Elev (ft):	0.00	Topographic Category :	1
Taper:	0.340018 (in/ft)		

Sections Properties

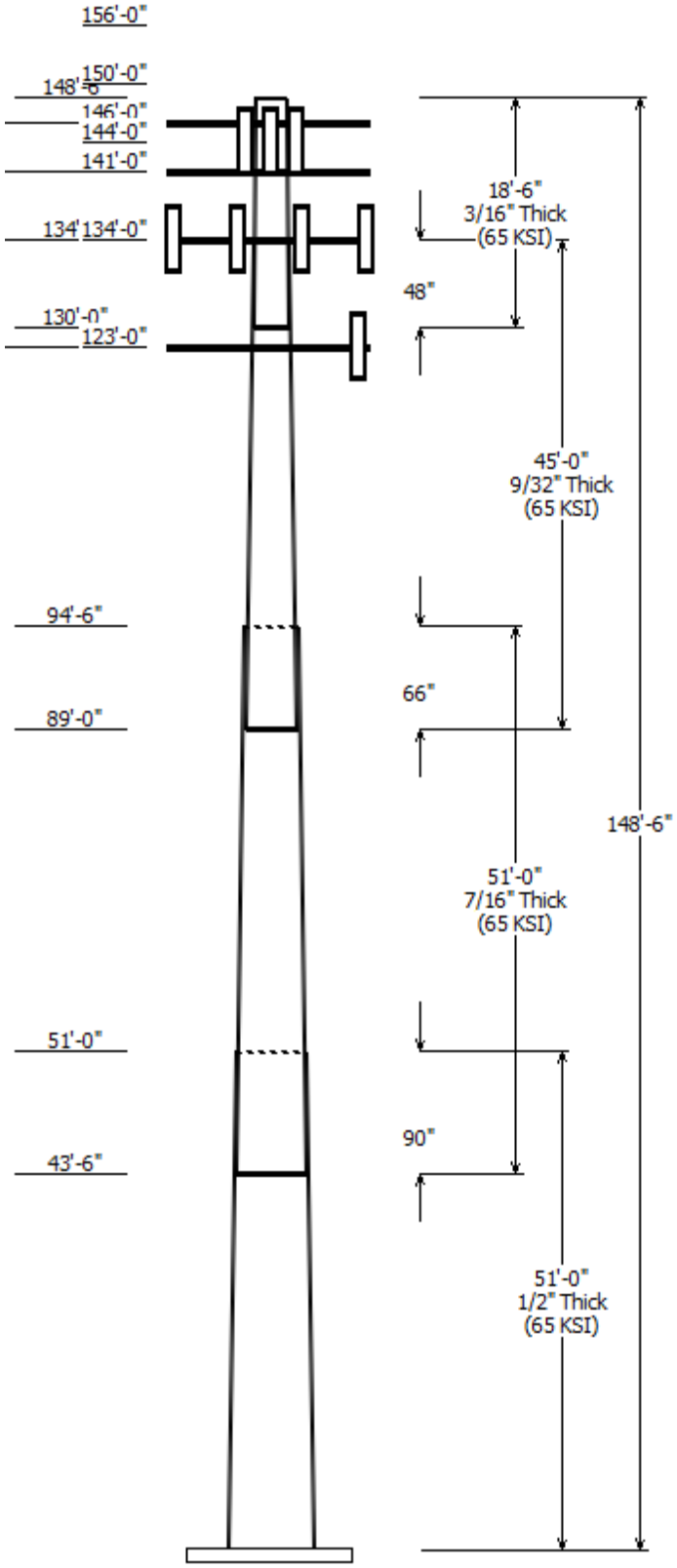
Shaft Section	Length (ft)	Diameter (in) Accross Flats Top	Bottom	Thick (in)	Joint Type	Overlap Length (in)	Shape	Steel Grade (ksi)
1	51.000	55.73	73.08	0.500		0.000	18 Sides	65
2	51.000	41.82	59.16	0.438	Slip Joint	90.000	18 Sides	65
3	45.000	28.95	44.25	0.281	Slip Joint	66.000	18 Sides	65
4	18.500	24.40	30.69	0.188	Slip Joint	48.000	18 Sides	65

Discrete Appurtenance

Attach Elev (ft)	Force Elev (ft)	Qty	Description
156.000	156.000	1	RFS Celwave PD220
150.000	150.000	1	RFS Celwave PD220
146.000	146.000	4	Flat T-Arm
144.000	144.000	1	CCI DMP65R-BU6DA
144.000	144.000	2	CCI OPA65R-BU4DA-K
144.000	144.000	2	CCI DMP65R-BU4D
144.000	144.000	1	CCI OPA65R-BU6D
144.000	144.000	3	Powerwave Allgon 7770.00
144.000	144.000	1	Raycap DC9-48-60-24-8C-EV
144.000	144.000	3	Ericsson RRUS 4478 B14
144.000	144.000	3	Ericsson RRUS 4449 B5, B12
144.000	144.000	3	Ericsson Radio 8843 - B2 + B66
144.000	144.000	1	Raycap DC6-48-60-18-8F(32.8 lb
144.000	144.000	6	Powerwave Allgon LGP21401
141.000	141.000	3	Flat T-Arm
134.000	134.750	3	Round T-Arm
134.000	134.000	6	Antel LPA-80080/6CF ___
134.000	134.000	6	JMA Wireless MX06FRO660-03
134.000	134.000	3	Samsung MT6407-77A
134.000	134.000	1	Raycap RVZDC-6627-PF-48
134.000	134.000	3	Samsung B5/B13 RRH-BR04C
134.000	134.000	3	Samsung B2/B66A RRH-BR049
123.000	123.000	3	Round T-Arm w/ Support Rails
123.000	123.000	3	RFS APXVAALL24 43-U-NA20
123.000	123.000	3	RFS APX16DWV-16DWVS-E-A20
123.000	123.000	3	Ericsson RRUS 11 B2
123.000	123.000	3	Ericsson RRUS 11 B4
123.000	123.000	3	Ericsson Radio 4449 B71 B85A

Linear Appurtenance

Elev (ft) From	To	Description	Exposed To Wind
0.000	123.0	1 1/4" (1.25"-	No
0.000	123.0	1 5/8" Hybriflex	No
0.000	134.0	1 5/8" Coax	No
0.000	134.0	1 5/8" Hybriflex	No
0.000	144.0	0.39" (10mm)	No
0.000	144.0	0.78" (19.7mm) 8	No
0.000	144.0	0.96" (24.3mm)	No
0.000	144.0	1 5/8" Coax	No



0.000	144.0	1/2" Coax	No
0.000	144.0	2" conduit	No
0.000	156.0	1/2" Coax	No

Load Cases

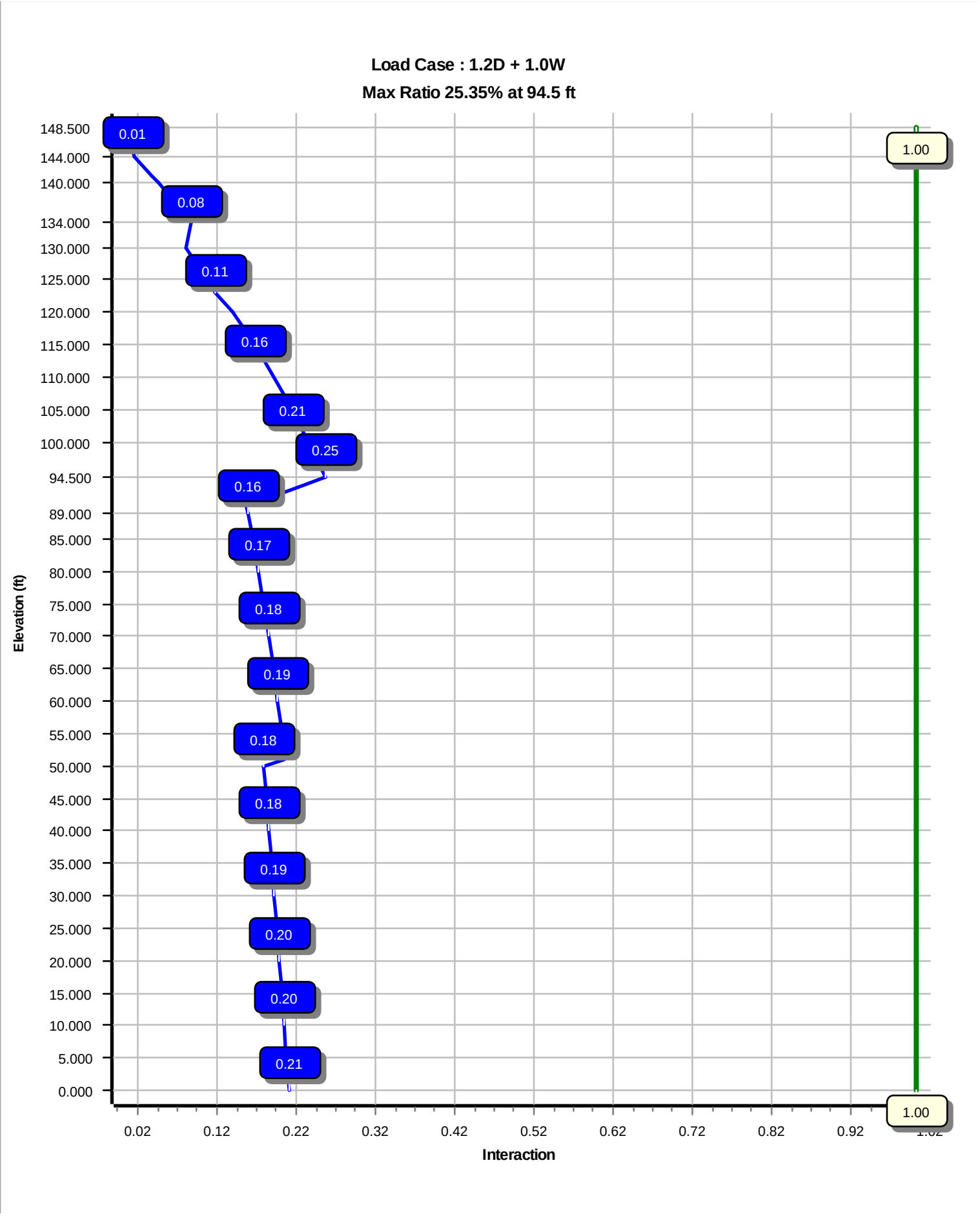
1.2D + 1.0W	113 mph with No Ice
0.9D + 1.0W	113 mph with No Ice (Reduced DL)
1.2D + 1.0Di + 1.0Wi	40 mph with 1.00 in Radial Ice
1.2D + 1.0Ev + 1.0Eh	Seismic
0.9D - 1.0Ev + 1.0Eh	Seismic (Reduced DL)
1.0D + 1.0W	Serviceability 60 mph

Reactions

Load Case	Moment (kip-ft)	Shear (kip)	Axial (kip)
1.2D + 1.0W	2251.34	22.41	56.13
0.9D + 1.0W	2243.17	22.40	42.10
1.2D + 1.0Di + 1.0Wi	408.79	4.24	72.13
1.2D + 1.0Ev + 1.0Eh	218.02	2.08	55.23
0.9D - 1.0Ev + 1.0Eh	217.13	2.08	38.65
1.0D + 1.0W	566.47	5.65	46.78

Dish Deflections

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


Load Case : 1.2D + 1.0W
Max Ratio 25.35% at 94.5 ft
148.500
144.000
140.000
134.000
130.000
125.000
120.000
115.000
110.000
105.000
100.000
94.500
89.000
85.000
80.000
75.000
70.000
65.000
60.000
55.000
50.000
45.000
40.000
35.000
30.000
25.000
20.000
15.000
10.000
5.000
0.000
Elevation (ft)
0.01
0.08
0.11
0.16
0.21
0.25
0.16
0.17
0.18
0.19
0.18
0.18
0.19
0.20
0.20
0.21
1.00
1.00
0.02
0.12
0.22
0.32
0.42
0.52
0.62
0.72
0.82
0.92
Interaction

Site Number: 370630 **Code:** ANSI/TIA-222-H

Site Name: SALISBURY CT, CT **Engineering Number:**13668812_C3_01 **4/30/2021 2:48:59 PM**

Customer: VERIZON WIRELESS

Analysis Parameters

Location :	Litchfield County, CT	**Height (ft) :**	148.5
Code :	ANSI/TIA-222-H	**Base Diameter (in) :**	73.08
Shape :	18 Sides	**Top Diameter (in) :**	24.40
Pole Type :	Taper	**Taper (in/ft) :**	0.340
Pole Manfacturer :	PennSummit Tub	**Rotation (deg) :**	0.00
Kd (non-service) :	0.95	**Ke :**	0.98

Ice & Wind Parameters

Exposure Category:	B	**Design Wind Speed Without Ice:**	113 mph
Risk Category:	II	**Design Wind Speed With Ice:**	40 mph
Topographic Factor Procedure:	Method 1	**Operational Wind Speed:**	60 mph
Topographic Category:	1	**Design Ice Thickness:**	1.00 in
Crest Height:	0 ft	**HMSL:**	667.00 ft

Seismic Parameters

Analysis Method: Equivalent Lateral Force Method

Site Class: D - Stiff Soil

Period Based on Rayleigh Method (sec): 1.29

T_L (sec):	6	**p:**	1	**C_s:**	0.044
S_s:	0.166	**S_1:**	0.054	**C_s Max:**	0.044
F_a:	1.600	**F_v:**	2.400	**C_s Min:**	0.030
S_{ds}:	0.177	**S_{d1}:**	0.086		

Load Cases

1.2D + 1.0W	113 mph with No Ice
0.9D + 1.0W	113 mph with No Ice (Reduced DL)
1.2D + 1.0Di + 1.0Wi	40 mph with 1.00 in Radial Ice
1.2D + 1.0Ev + 1.0Eh	Seismic
0.9D - 1.0Ev + 1.0Eh	Seismic (Reduced DL)
1.0D + 1.0W	Serviceability 60 mph

Shaft Section Properties

Sect Info	Length (ft)	Thick (in)	Fy (ksi)	Joint Type	Slip Joint Len (in)	Weight (lb)	Bottom Dia (in)	Bottom Elev (ft)	Bottom Area (in²)	Bottom Ix (in⁴)	Bottom W/t Ratio	Bottom D/t Ratio	Top Dia (in)	Top Elev (ft)	Top Area (in²)	Top Ix (in⁴)	Top W/t Ratio	Top D/t Ratio	Taper (in/ft)
1-18	51.000	0.5000	65		0.00	17,601	73.08	0.00	115.18	76659.4	24.36	146.16	55.73	51.00	87.66	33795.1	18.25	111.48	0.340018
2-18	51.000	0.4375	65	Slip	90.00	12,062	59.16	43.50	81.55	35532.9	22.43	135.23	41.82	94.50	57.47	12435.9	15.45	95.60	0.340018
3-18	45.000	0.2813	65	Slip	66.00	4,966	44.25	89.00	39.26	9592.3	26.33	157.33	28.95	134.00	25.60	2659.4	16.74	102.93	0.340018
4-18	18.500	0.1875	65	Slip	48.00	1,025	30.69	130.00	18.15	2133.9	27.45	163.68	24.40	148.50	14.41	1067.2	21.54	130.13	0.340018
				Shaft Weight		35,654													

Discrete Appurtenance Properties

Attach Elev (ft)	Description	Qty	Ka	Vert Ecc (ft)	No Ice Weight (lb)	No Ice EPAa (sf)	No Ice Orientation Factor	Ice Weight (lb)	Ice EPAa (sf)	Ice Orientation Factor
156.00	RFS Celwave PD220	1	1.00	0.000	25.00	5.400	1.00	118.06	10.033	1.00
150.00	RFS Celwave PD220	1	1.00	0.000	25.00	5.400	1.00	118.06	10.033	1.00
146.00	Flat T-Arm	4	0.75	0.000	250.00	12.900	0.67	389.19	18.347	0.67
144.00	Powerwave Allgon LGP21401	6	0.80	0.000	14.10	1.104	0.50	30.68	1.578	0.50
144.00	Raycap DC6-48-60-18-8F(32.8	1	0.80	0.000	32.80	1.470	1.00	73.80	1.934	1.00
144.00	Ericsson Radio 8843 - B2 + B66A	3	0.80	0.000	71.90	1.650	0.50	112.85	2.213	0.50
144.00	Ericsson RRUS 4449 B5, B12	3	0.80	0.000	71.00	1.969	0.50	113.83	2.589	0.50
144.00	Ericsson RRUS 4478 B14	3	0.80	0.000	59.40	2.021	0.67	100.19	2.648	0.67
144.00	Raycap DC9-48-60-24-8C-EV	1	0.80	0.000	16.00	4.788	1.00	101.80	5.766	1.00
144.00	Powerwave Allgon 7770.00	3	0.80	0.000	35.00	5.508	0.65	117.88	6.191	0.65
144.00	CCI DMP65R-BU4D	2	0.80	0.000	67.90	8.280	0.62	187.93	9.626	0.62
144.00	CCI OPA65R-BU4DA-K	2	0.80	0.000	52.50	8.435	0.72	174.33	9.790	0.72
144.00	CCI DMP65R-BU6DA	1	0.80	0.000	79.40	12.709	0.72	250.61	14.563	0.72
144.00	CCI OPA65R-BU6D	1	0.80	0.000	63.20	12.871	1.00	236.90	14.730	1.00
141.00	Flat T-Arm	3	0.75	0.000	250.00	12.900	0.67	388.71	18.328	0.67
134.00	Samsung B2/B66A RRH-BR049	3	0.80	0.000	84.40	1.875	0.50	126.48	2.470	0.50
134.00	Samsung B5/B13 RRH-BR04C	3	0.80	0.000	70.30	1.875	0.50	108.03	2.470	0.50
134.00	Raycap RVZDC-6627-PF-48	1	0.80	0.000	32.00	3.781	1.00	104.33	4.653	1.00
134.00	Samsung MT6407-77A	3	0.80	0.000	81.60	4.709	0.61	148.83	5.711	0.61
134.00	Antel LPA-80080/6CF ___	6	0.80	0.000	21.00	8.628	0.62	140.84	5.078	0.62
134.00	Round T-Arm	3	0.75	0.750	250.00	9.700	0.67	387.84	15.137	0.67
134.00	JMA Wireless MX06FRO660-03	6	0.80	0.000	60.00	9.872	0.71	218.13	11.682	0.71
123.00	Ericsson Radio 4449 B71 B85A	3	0.80	0.000	75.00	1.650	0.50	114.34	2.206	0.50
123.00	Ericsson RRUS 11 B4	3	0.80	0.000	50.70	2.791	0.67	98.06	3.508	0.67
123.00	Ericsson RRUS 11 B2	3	0.80	0.000	50.70	2.791	0.67	98.06	3.508	0.67
123.00	RFS APX16DWV-16DWVS-E-A20	3	0.80	0.000	40.70	6.586	0.60	117.11	8.003	0.60
123.00	Round T-Arm w/ Support Rails	3	0.75	0.000	400.00	14.400	0.67	618.73	22.406	0.67
123.00	RFS APXVAALL24 43-U-NA20	3	0.80	0.000	122.80	20.243	0.63	377.58	22.669	0.63
Totals	Num Loadings:28	78			7,225.30			14,708.29		

Linear Appurtenance Properties

Load Case Azimuth (deg) :

Elev From (ft)	Elev To (ft)	Qty	Description	Coax Dia (in)	Coax Wt (lb/ft)	Flat	Max Coax / Row	Dist Between Rows (in)	Dist Between Cols (in)	Azimuth (deg)	Dist From Face (in)	Exposed To Wind	Carrier
0.00	156.00	1	1/2" Coax	0.63	0.15	N	0	0.00	0.00	0	0.00	N	TOWN OF
0.00	144.00	2	0.39" (10mm) Fiber	0.39	0.06	N	0	0.00	0.00	0	0.00	N	AT&T MOBILITY
0.00	144.00	2	0.78" (19.7mm) 8 AWG	0.78	0.59	N	0	0.00	0.00	0	0.00	N	AT&T MOBILITY
0.00	144.00	3	0.96" (24.3mm) Cable	0.96	0.88	N	0	0.00	0.00	0	0.00	N	AT&T MOBILITY
0.00	144.00	6	1 5/8" Coax	1.98	0.82	N	0	0.00	0.00	0	0.00	N	AT&T MOBILITY
0.00	144.00	6	1/2" Coax	0.63	0.15	N	0	0.00	0.00	0	0.00	N	AT&T MOBILITY
0.00	144.00	2	2" conduit	2.38	3.65	N	0	0.00	0.00	0	0.00	N	AT&T MOBILITY

0.00	134.00	6	1 5/8" Coax	1.98	0.82	N	0	0.00	0.00	0	0.00	N	VERIZON WIRELESS
0.00	134.00	2	1 5/8" Hybriflex	1.98	1.30	N	0	0.00	0.00	0	0.00	N	VERIZON WIRELESS
0.00	123.00	2	1 1/4" (1.25"- 31.8mm)	1.25	1.05	N	0	0.00	0.00	0	0.00	N	T-MOBILE
0.00	123.00	1	1 5/8" Hybriflex	1.98	1.30	N	0	0.00	0.00	0	0.00	N	T-MOBILE

Segment Properties (Max Len : 5. ft)

Seg Top Elev (ft)	Description	Thick (in)	Flat Dia (in)	Area (in^2)	Ix (in^4)	W/t Ratio	D/t Ratio	F'y (ksi)	S (in^3)	Z (in^3)	Weight (lb)
0.00		0.5000	73.080	115.180	76,659.4	24.36	146.16	72.7	2066.	0.0	0.0
5.00		0.5000	71.380	112.482	71,397.6	23.76	142.76	73.5	1970.	0.0	1,936.7
10.00		0.5000	69.680	109.784	66,382.4	23.16	139.36	74.2	1876.	0.0	1,890.8
15.00		0.5000	67.980	107.086	61,607.6	22.56	135.96	74.9	1785.	0.0	1,844.9
20.00		0.5000	66.280	104.389	57,067.5	21.96	132.56	75.6	1695.	0.0	1,799.0
25.00		0.5000	64.580	101.691	52,756.1	21.36	129.16	76.3	1609.	0.0	1,753.1
30.00		0.5000	62.879	98.993	48,667.6	20.76	125.76	77.0	1524.	0.0	1,707.2
35.00		0.5000	61.179	96.295	44,795.9	20.16	122.36	77.7	1442.	0.0	1,661.3
40.00		0.5000	59.479	93.597	41,135.2	19.56	118.96	78.4	1362.	0.0	1,615.4
43.50	Bot - Section 2	0.5000	58.289	91.708	38,695.0	19.15	116.58	78.9	1307.	0.0	1,103.5
45.00		0.5000	57.779	90.899	37,679.5	18.97	115.56	79.1	1284.	0.0	880.4
50.00		0.5000	56.079	88.201	34,423.1	18.37	112.16	79.8	1209.	0.0	2,878.9
51.00	Top - Section 1	0.4375	56.614	78.005	31,102.0	21.41	129.40	76.2	1082.	0.0	565.4
55.00		0.4375	55.254	76.117	28,897.3	20.86	126.29	76.9	1030.	0.0	1,048.9
60.00		0.4375	53.554	73.756	26,291.2	20.17	122.41	77.7	966.9	0.0	1,275.0
65.00		0.4375	51.854	71.395	23,846.6	19.49	118.52	78.5	905.8	0.0	1,234.8
70.00		0.4375	50.154	69.035	21,558.5	18.80	114.64	79.3	846.6	0.0	1,194.6
75.00		0.4375	48.454	66.674	19,421.6	18.12	110.75	80.1	789.5	0.0	1,154.5
80.00		0.4375	46.754	64.313	17,430.8	17.43	106.87	80.9	734.3	0.0	1,114.3
85.00		0.4375	45.054	61.953	15,581.0	16.75	102.98	81.7	681.2	0.0	1,074.1
89.00	Bot - Section 3	0.4375	43.693	60.064	14,199.1	16.20	99.87	82.3	640.1	0.0	830.4
90.00		0.4375	43.353	59.592	13,866.9	16.06	99.09	82.5	630.0	0.0	336.7
94.50	Top - Section 2	0.2813	42.386	37.592	8,419.8	25.16	150.68	71.8	391.3	0.0	1,482.3
95.00		0.2813	42.216	37.440	8,318.3	25.05	150.07	71.9	388.1	0.0	63.8
100.0		0.2813	40.516	35.922	7,347.0	23.99	144.03	73.2	357.2	0.0	624.1
105.0		0.2813	38.816	34.404	6,454.5	22.92	137.99	74.4	327.5	0.0	598.3
110.0		0.2813	37.116	32.886	5,637.3	21.85	131.94	75.7	299.2	0.0	572.4
115.0		0.2813	35.416	31.368	4,892.2	20.79	125.90	76.9	272.1	0.0	546.6
120.0		0.2813	33.716	29.851	4,215.9	19.72	119.86	78.2	246.3	0.0	520.8
123.0		0.2813	32.695	28.940	3,841.7	19.08	116.23	79.0	231.4	0.0	300.1
125.0		0.2813	32.015	28.333	3,604.9	18.66	113.81	79.5	221.8	0.0	194.9
130.0	Bot - Section 4	0.2813	30.315	26.815	3,056.0	17.59	107.77	80.7	198.6	0.0	469.1
134.0	Top - Section 3	0.1875	29.330	17.343	1,861.0	26.17	156.43	70.6	125.0	0.0	598.3
135.0		0.1875	28.990	17.141	1,796.6	25.85	154.61	71.0	122.1	0.0	58.7
140.0		0.1875	27.290	16.129	1,496.9	24.25	145.55	72.9	108.0	0.0	283.0
141.0		0.1875	26.950	15.927	1,441.2	23.93	143.73	73.3	105.3	0.0	54.5
144.0		0.1875	25.930	15.320	1,282.6	22.97	138.29	74.4	97.4	0.0	159.5
145.0		0.1875	25.590	15.117	1,232.5	22.65	136.48	74.8	94.9	0.0	51.8
146.0		0.1875	25.250	14.915	1,183.6	22.33	134.67	75.1	92.3	0.0	51.1
148.5		0.1875	24.400	14.409	1,067.2	21.54	130.13	76.1	86.2	0.0	124.7
											35,654.0

Load Case: 1.2D + 1.0W — 113 mph with No Ice — 19 Iterations

Gust Response Factor :1.10
Dead Load Factor :1.20
Wind Load Factor :1.00

Applied Segment Forces Summary

		Shaft Forces		Discrete Forces				Linear Forces		Sum of Forces			
Seg Elev (ft)	Description	Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Torsion MY (lb-ft)	Moment MZ (lb)
0.00		260.4	0.0					0.0	0.0	260.4	0.0	0.0	0.0
5.00		514.6	2,324.1					0.0	168.8	514.6	2,492.8	0.0	0.0
10.00		502.3	2,269.0					0.0	168.8	502.3	2,437.8	0.0	0.0
15.00		490.1	2,213.9					0.0	168.8	490.1	2,382.7	0.0	0.0
20.00		477.8	2,158.8					0.0	168.8	477.8	2,327.6	0.0	0.0
25.00		465.6	2,103.7					0.0	168.8	465.6	2,272.5	0.0	0.0
30.00		458.7	2,048.6					0.0	168.8	458.7	2,217.4	0.0	0.0
35.00		460.9	1,993.6					0.0	168.8	460.9	2,162.3	0.0	0.0
40.00		395.4	1,938.5					0.0	168.8	395.4	2,107.3	0.0	0.0
43.50	Bot - Section 2	234.7	1,324.2					0.0	118.1	234.7	1,442.3	0.0	0.0
45.00		309.0	1,056.5					0.0	50.6	309.0	1,107.2	0.0	0.0
50.00		285.3	3,454.7					0.0	168.8	285.3	3,623.4	0.0	0.0
51.00	Top - Section 1	237.5	678.5					0.0	33.8	237.5	712.3	0.0	0.0
55.00		426.3	1,258.7					0.0	135.0	426.3	1,393.7	0.0	0.0
60.00		470.9	1,530.0					0.0	168.8	470.9	1,698.7	0.0	0.0
65.00		466.5	1,481.8					0.0	168.8	466.5	1,650.5	0.0	0.0
70.00		460.9	1,433.6					0.0	168.8	460.9	1,602.3	0.0	0.0
75.00		454.1	1,385.4					0.0	168.8	454.1	1,554.1	0.0	0.0
80.00		446.3	1,337.2					0.0	168.8	446.3	1,505.9	0.0	0.0
85.00		394.7	1,289.0					0.0	168.8	394.7	1,457.7	0.0	0.0
89.00	Bot - Section 3	217.1	996.5					0.0	135.0	217.1	1,131.5	0.0	0.0
90.00		236.6	404.0					0.0	33.8	236.6	437.8	0.0	0.0
94.50	Top - Section 2	214.3	1,778.8					0.0	151.9	214.3	1,930.7	0.0	0.0
95.00		230.2	76.6					0.0	16.9	230.2	93.5	0.0	0.0
100.00		412.3	748.9					0.0	168.8	412.3	917.7	0.0	0.0
105.00		400.5	717.9					0.0	168.8	400.5	886.7	0.0	0.0
110.00		388.1	686.9					0.0	168.8	388.1	855.7	0.0	0.0
115.00		375.1	655.9					0.0	168.8	375.1	824.7	0.0	0.0
120.00		291.4	624.9					0.0	168.8	291.4	793.7	0.0	0.0
123.00	Appurtenance(s)	177.2	360.1	2,543.5	0.0	0.0	2,663.6	0.0	101.3	2,720.7	3,125.0	0.0	0.0
125.00		240.0	233.9					0.0	59.4	240.0	293.2	0.0	0.0
130.00	Bot - Section 4	302.3	563.0					0.0	148.4	302.3	711.3	0.0	0.0
134.00	Top - Section 3	164.6	717.9	3,166.5	0.0	393.5	2,372.3	0.0	118.7	3,331.1	3,208.9	0.0	0.0
135.00		189.1	70.4					0.0	20.7	189.1	91.1	0.0	0.0
140.00		187.3	339.6					0.0	103.3	187.3	442.9	0.0	0.0
141.00	Appurtenance(s)	119.7	65.4	706.9	0.0	0.0	900.0	0.0	20.7	826.7	986.1	0.0	0.0
144.00	Appurtenance(s)	118.5	191.4	2,171.9	0.0	0.0	1,474.4	0.0	62.0	2,290.3	1,727.8	0.0	0.0
145.00		57.9	62.1					0.0	0.2	57.9	62.3	0.0	0.0
146.00	Appurtenance(s)	99.3	61.3	952.0	0.0	0.0	1,200.0	0.0	0.2	1,051.3	1,261.5	0.0	0.0
148.50		70.5	149.7					0.0	0.5	70.5	150.1	0.0	0.0
								Totals:		22,244.7	56,080.8	0.00	0.00

Load Case: 1.2D + 1.0W — 113 mph with No Ice — 19 Iterations

Gust Response Factor :1.10
Dead Load Factor :1.20
Wind Load Factor :1.00

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-56.13	-22.41	0.00	-2,251.34	0.00	2,251.34	7,541.17	2,021.41	13,251.2	11,272.6	0.00	0.00	0.207
5.00	-53.62	-21.93	0.00	-2,139.31	0.00	2,139.31	7,435.91	1,974.07	12,637.7	10,853.2	0.02	-0.04	0.204
10.00	-51.17	-21.46	0.00	-2,029.67	0.00	2,029.67	7,327.23	1,926.72	12,038.8	10,436.2	0.09	-0.08	0.202
15.00	-48.77	-21.00	0.00	-1,922.36	0.00	1,922.36	7,215.13	1,879.37	11,454.4	10,022.2	0.20	-0.12	0.199
20.00	-46.43	-20.55	0.00	-1,817.35	0.00	1,817.35	7,099.60	1,832.02	10,884.6	9,611.47	0.35	-0.17	0.196
25.00	-44.15	-20.12	0.00	-1,714.57	0.00	1,714.57	6,980.64	1,784.67	10,329.3	9,204.34	0.55	-0.21	0.193
30.00	-41.91	-19.68	0.00	-1,613.99	0.00	1,613.99	6,858.27	1,737.32	9,788.59	8,801.20	0.80	-0.26	0.190
35.00	-39.74	-19.24	0.00	-1,515.59	0.00	1,515.59	6,732.46	1,689.97	9,262.37	8,402.42	1.09	-0.30	0.186
40.00	-37.62	-18.86	0.00	-1,419.38	0.00	1,419.38	6,603.24	1,642.62	8,750.69	8,008.36	1.43	-0.35	0.183
43.50	-36.17	-18.63	0.00	-1,353.37	0.00	1,353.37	6,510.74	1,609.48	8,401.16	7,735.51	1.70	-0.38	0.181
45.00	-35.06	-18.34	0.00	-1,325.42	0.00	1,325.42	6,470.58	1,595.27	8,253.54	7,619.37	1.82	-0.40	0.180
50.00	-31.43	-18.04	0.00	-1,233.74	0.00	1,233.74	6,334.51	1,547.93	7,770.93	7,235.83	2.27	-0.45	0.176
51.00	-30.71	-17.81	0.00	-1,215.71	0.00	1,215.71	5,351.19	1,369.00	6,946.29	6,185.72	2.36	-0.46	0.202
55.00	-29.30	-17.40	0.00	-1,144.47	0.00	1,144.47	5,265.80	1,335.85	6,614.05	5,938.51	2.76	-0.50	0.198
60.00	-27.59	-16.94	0.00	-1,057.49	0.00	1,057.49	5,155.98	1,294.42	6,210.21	5,632.89	3.31	-0.55	0.193
65.00	-25.93	-16.48	0.00	-972.82	0.00	972.82	5,042.74	1,252.99	5,819.08	5,331.40	3.92	-0.60	0.188
70.00	-24.32	-16.02	0.00	-890.43	0.00	890.43	4,926.07	1,211.56	5,440.67	5,034.40	4.58	-0.66	0.182
75.00	-22.76	-15.57	0.00	-810.32	0.00	810.32	4,805.98	1,170.13	5,074.99	4,742.24	5.30	-0.72	0.176
80.00	-21.24	-15.13	0.00	-732.46	0.00	732.46	4,682.46	1,128.70	4,722.02	4,455.30	6.08	-0.77	0.169
85.00	-19.77	-14.73	0.00	-656.82	0.00	656.82	4,555.52	1,087.27	4,381.78	4,173.92	6.92	-0.83	0.162
89.00	-18.64	-14.51	0.00	-597.90	0.00	597.90	4,451.50	1,054.13	4,118.74	3,953.08	7.64	-0.88	0.156
90.00	-18.20	-14.27	0.00	-583.40	0.00	583.40	4,425.16	1,045.84	4,054.25	3,898.48	7.82	-0.89	0.154
94.50	-16.26	-14.04	0.00	-519.17	0.00	519.17	2,429.52	659.73	2,508.88	2,107.23	8.68	-0.94	0.254
95.00	-16.16	-13.82	0.00	-512.16	0.00	512.16	2,423.93	657.07	2,488.66	2,093.84	8.78	-0.94	0.252
100.00	-15.23	-13.41	0.00	-443.08	0.00	443.08	2,366.19	630.43	2,290.98	1,960.54	9.82	-1.03	0.233
105.00	-14.34	-13.01	0.00	-376.03	0.00	376.03	2,305.01	603.79	2,101.48	1,828.59	10.94	-1.10	0.212
110.00	-13.47	-12.62	0.00	-310.97	0.00	310.97	2,240.42	577.15	1,920.16	1,698.37	12.13	-1.18	0.190
115.00	-12.64	-12.25	0.00	-247.85	0.00	247.85	2,172.39	550.52	1,747.02	1,570.22	13.41	-1.25	0.164
120.00	-11.85	-11.95	0.00	-186.62	0.00	186.62	2,100.95	523.88	1,582.06	1,444.51	14.76	-1.31	0.135
123.00	-8.78	-9.16	0.00	-150.78	0.00	150.78	2,056.44	507.89	1,487.01	1,370.41	15.59	-1.35	0.115
125.00	-8.49	-8.92	0.00	-132.46	0.00	132.46	2,026.08	497.24	1,425.28	1,321.61	16.16	-1.37	0.105
130.00	-7.78	-8.60	0.00	-87.87	0.00	87.87	1,947.78	470.60	1,276.68	1,201.87	17.62	-1.41	0.077
134.00	-4.65	-5.19	0.00	-53.07	0.00	53.07	1,102.25	304.37	801.14	661.88	18.82	-1.44	0.085
135.00	-4.56	-5.00	0.00	-47.88	0.00	47.88	1,095.19	300.82	782.56	649.92	19.12	-1.44	0.078
140.00	-4.13	-4.81	0.00	-22.86	0.00	22.86	1,057.85	283.06	692.91	590.46	20.65	-1.47	0.043
141.00	-3.16	-3.95	0.00	-18.06	0.00	18.06	1,049.97	279.51	675.64	578.66	20.96	-1.48	0.034
144.00	-1.49	-1.62	0.00	-6.19	0.00	6.19	1,025.50	268.86	625.12	543.49	21.89	-1.48	0.013
145.00	-1.43	-1.56	0.00	-4.57	0.00	4.57	1,017.07	265.31	608.72	531.85	22.20	-1.48	0.010
146.00	-0.20	-0.48	0.00	-3.01	0.00	3.01	1,008.51	261.75	592.53	520.26	22.52	-1.49	0.006
148.50	0.00	-0.47	0.00	-1.82	0.00	1.82	986.50	252.88	553.02	491.52	23.29	-1.49	0.004

Load Case: 0.9D + 1.0W — 113 mph with No Ice (Reduced DL) — 19 Iterations

Gust Response Factor :1.10
Dead Load Factor :0.90
Wind Load Factor :1.00

Applied Segment Forces Summary

		Shaft Forces		Discrete Forces				Linear Forces		Sum of Forces			
Seg Elev (ft)	Description	Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Torsion MY (lb-ft)	Moment MZ (lb)
0.00		260.4	0.0					0.0	0.0	260.4	0.0	0.0	0.0
5.00		514.6	1,743.0					0.0	126.6	514.6	1,869.6	0.0	0.0
10.00		502.3	1,701.7					0.0	126.6	502.3	1,828.3	0.0	0.0
15.00		490.1	1,660.4					0.0	126.6	490.1	1,787.0	0.0	0.0
20.00		477.8	1,619.1					0.0	126.6	477.8	1,745.7	0.0	0.0
25.00		465.6	1,577.8					0.0	126.6	465.6	1,704.4	0.0	0.0
30.00		458.7	1,536.5					0.0	126.6	458.7	1,663.1	0.0	0.0
35.00		460.9	1,495.2					0.0	126.6	460.9	1,621.8	0.0	0.0
40.00		395.4	1,453.9					0.0	126.6	395.4	1,580.4	0.0	0.0
43.50	Bot - Section 2	234.7	993.1					0.0	88.6	234.7	1,081.7	0.0	0.0
45.00		309.0	792.4					0.0	38.0	309.0	830.4	0.0	0.0
50.00		285.3	2,591.0					0.0	126.6	285.3	2,717.6	0.0	0.0
51.00	Top - Section 1	237.5	508.9					0.0	25.3	237.5	534.2	0.0	0.0
55.00		426.3	944.0					0.0	101.3	426.3	1,045.3	0.0	0.0
60.00		470.9	1,147.5					0.0	126.6	470.9	1,274.1	0.0	0.0
65.00		466.5	1,111.3					0.0	126.6	466.5	1,237.9	0.0	0.0
70.00		460.9	1,075.2					0.0	126.6	460.9	1,201.8	0.0	0.0
75.00		454.1	1,039.0					0.0	126.6	454.1	1,165.6	0.0	0.0
80.00		446.3	1,002.9					0.0	126.6	446.3	1,129.5	0.0	0.0
85.00		394.7	966.7					0.0	126.6	394.7	1,093.3	0.0	0.0
89.00	Bot - Section 3	217.1	747.4					0.0	101.3	217.1	848.6	0.0	0.0
90.00		236.6	303.0					0.0	25.3	236.6	328.3	0.0	0.0
94.50	Top - Section 2	214.3	1,334.1					0.0	113.9	214.3	1,448.0	0.0	0.0
95.00		230.2	57.4					0.0	12.7	230.2	70.1	0.0	0.0
100.00		412.3	561.7					0.0	126.6	412.3	688.3	0.0	0.0
105.00		400.5	538.4					0.0	126.6	400.5	665.0	0.0	0.0
110.00		388.1	515.2					0.0	126.6	388.1	641.8	0.0	0.0
115.00		375.1	491.9					0.0	126.6	375.1	618.5	0.0	0.0
120.00		291.4	468.7					0.0	126.6	291.4	595.3	0.0	0.0
123.00	Appurtenance(s)	177.2	270.1	2,543.5	0.0	0.0	1,997.7	0.0	76.0	2,720.7	2,343.7	0.0	0.0
125.00		240.0	175.4					0.0	44.5	240.0	219.9	0.0	0.0
130.00	Bot - Section 4	302.3	422.2					0.0	111.3	302.3	533.5	0.0	0.0
134.00	Top - Section 3	164.6	538.5	3,166.5	0.0	393.5	1,779.2	0.0	89.0	3,331.1	2,406.7	0.0	0.0
135.00		189.1	52.8					0.0	15.5	189.1	68.3	0.0	0.0
140.00		187.3	254.7					0.0	77.4	187.3	332.2	0.0	0.0
141.00	Appurtenance(s)	119.7	49.1	706.9	0.0	0.0	675.0	0.0	15.5	826.7	739.6	0.0	0.0
144.00	Appurtenance(s)	118.5	143.5	2,171.9	0.0	0.0	1,105.8	0.0	46.5	2,290.3	1,295.8	0.0	0.0
145.00		57.9	46.6					0.0	0.1	57.9	46.7	0.0	0.0
146.00	Appurtenance(s)	99.3	46.0	952.0	0.0	0.0	900.0	0.0	0.1	1,051.3	946.1	0.0	0.0
148.50		70.5	112.3					0.0	0.3	70.5	112.6	0.0	0.0
								Totals:		22,244.7	42,060.6	0.00	0.00

Load Case: 0.9D + 1.0W — 113 mph with No Ice (Reduced DL) — 19 Iterations

Gust Response Factor :1.10
Dead Load Factor :0.90
Wind Load Factor :1.00

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-42.10	-22.40	0.00	-2,243.17	0.00	2,243.17	7,541.17	2,021.41	13,251.2	11,272.6	0.00	0.00	0.205
5.00	-40.21	-21.91	0.00	-2,131.17	0.00	2,131.17	7,435.91	1,974.07	12,637.7	10,853.2	0.02	-0.04	0.202
10.00	-38.37	-21.44	0.00	-2,021.60	0.00	2,021.60	7,327.23	1,926.72	12,038.8	10,436.2	0.09	-0.08	0.199
15.00	-36.57	-20.97	0.00	-1,914.41	0.00	1,914.41	7,215.13	1,879.37	11,454.4	10,022.2	0.20	-0.12	0.196
20.00	-34.81	-20.52	0.00	-1,809.56	0.00	1,809.56	7,099.60	1,832.02	10,884.6	9,611.47	0.35	-0.17	0.193
25.00	-33.09	-20.07	0.00	-1,706.98	0.00	1,706.98	6,980.64	1,784.67	10,329.3	9,204.34	0.55	-0.21	0.190
30.00	-31.41	-19.63	0.00	-1,606.63	0.00	1,606.63	6,858.27	1,737.32	9,788.59	8,801.20	0.79	-0.26	0.187
35.00	-29.78	-19.18	0.00	-1,508.48	0.00	1,508.48	6,732.46	1,689.97	9,262.37	8,402.42	1.09	-0.30	0.184
40.00	-28.19	-18.80	0.00	-1,412.56	0.00	1,412.56	6,603.24	1,642.62	8,750.69	8,008.36	1.43	-0.35	0.181
43.50	-27.10	-18.57	0.00	-1,346.76	0.00	1,346.76	6,510.74	1,609.48	8,401.16	7,735.51	1.70	-0.38	0.178
45.00	-26.26	-18.27	0.00	-1,318.91	0.00	1,318.91	6,470.58	1,595.27	8,253.54	7,619.37	1.82	-0.40	0.177
50.00	-23.54	-17.98	0.00	-1,227.56	0.00	1,227.56	6,334.51	1,547.93	7,770.93	7,235.83	2.26	-0.44	0.174
51.00	-23.00	-17.74	0.00	-1,209.59	0.00	1,209.59	5,351.19	1,369.00	6,946.29	6,185.72	2.35	-0.45	0.200
55.00	-21.94	-17.33	0.00	-1,138.61	0.00	1,138.61	5,265.80	1,335.85	6,614.05	5,938.51	2.75	-0.49	0.196
60.00	-20.65	-16.86	0.00	-1,051.97	0.00	1,051.97	5,155.98	1,294.42	6,210.21	5,632.89	3.30	-0.55	0.191
65.00	-19.40	-16.40	0.00	-967.65	0.00	967.65	5,042.74	1,252.99	5,819.08	5,331.40	3.90	-0.60	0.186
70.00	-18.19	-15.95	0.00	-885.63	0.00	885.63	4,926.07	1,211.56	5,440.67	5,034.40	4.56	-0.66	0.180
75.00	-17.02	-15.50	0.00	-805.89	0.00	805.89	4,805.98	1,170.13	5,074.99	4,742.24	5.28	-0.71	0.174
80.00	-15.88	-15.05	0.00	-728.41	0.00	728.41	4,682.46	1,128.70	4,722.02	4,455.30	6.06	-0.77	0.167
85.00	-14.78	-14.65	0.00	-653.16	0.00	653.16	4,555.52	1,087.27	4,381.78	4,173.92	6.89	-0.83	0.160
89.00	-13.93	-14.43	0.00	-594.54	0.00	594.54	4,451.50	1,054.13	4,118.74	3,953.08	7.60	-0.87	0.154
90.00	-13.59	-14.20	0.00	-580.11	0.00	580.11	4,425.16	1,045.84	4,054.25	3,898.48	7.79	-0.88	0.152
94.50	-12.14	-13.97	0.00	-516.22	0.00	516.22	2,429.52	659.73	2,508.88	2,107.23	8.64	-0.93	0.250
95.00	-12.07	-13.74	0.00	-509.23	0.00	509.23	2,423.93	657.07	2,488.66	2,093.84	8.74	-0.94	0.249
100.00	-11.37	-13.34	0.00	-440.51	0.00	440.51	2,366.19	630.43	2,290.98	1,960.54	9.77	-1.02	0.230
105.00	-10.69	-12.94	0.00	-373.83	0.00	373.83	2,305.01	603.79	2,101.48	1,828.59	10.88	-1.10	0.210
110.00	-10.04	-12.55	0.00	-309.14	0.00	309.14	2,240.42	577.15	1,920.16	1,698.37	12.08	-1.17	0.187
115.00	-9.42	-12.17	0.00	-246.39	0.00	246.39	2,172.39	550.52	1,747.02	1,570.22	13.35	-1.24	0.162
120.00	-8.82	-11.88	0.00	-185.53	0.00	185.53	2,100.95	523.88	1,582.06	1,444.51	14.69	-1.31	0.133
123.00	-6.53	-9.10	0.00	-149.90	0.00	149.90	2,056.44	507.89	1,487.01	1,370.41	15.52	-1.34	0.113
125.00	-6.31	-8.86	0.00	-131.69	0.00	131.69	2,026.08	497.24	1,425.28	1,321.61	16.09	-1.36	0.103
130.00	-5.78	-8.55	0.00	-87.37	0.00	87.37	1,947.78	470.60	1,276.68	1,201.87	17.54	-1.41	0.076
134.00	-3.46	-5.16	0.00	-52.77	0.00	52.77	1,102.25	304.37	801.14	661.88	18.73	-1.43	0.083
135.00	-3.39	-4.97	0.00	-47.61	0.00	47.61	1,095.19	300.82	782.56	649.92	19.03	-1.44	0.077
140.00	-3.06	-4.78	0.00	-22.75	0.00	22.75	1,057.85	283.06	692.91	590.46	20.55	-1.46	0.042
141.00	-2.35	-3.93	0.00	-17.97	0.00	17.97	1,049.97	279.51	675.64	578.66	20.86	-1.47	0.033
144.00	-1.11	-1.61	0.00	-6.17	0.00	6.17	1,025.50	268.86	625.12	543.49	21.79	-1.48	0.012
145.00	-1.06	-1.55	0.00	-4.56	0.00	4.56	1,017.07	265.31	608.72	531.85	22.09	-1.48	0.010
146.00	-0.15	-0.48	0.00	-3.01	0.00	3.01	1,008.51	261.75	592.53	520.26	22.40	-1.48	0.006
148.50	0.00	-0.47	0.00	-1.82	0.00	1.82	986.50	252.88	553.02	491.52	23.18	-1.48	0.004

Load Case: 1.2D + 1.0Di + 1.0Wi 40 mph with 1.00 in Radial Ice 18 Iterations

Gust Response Factor :1.10 Ice Dead Load Factor :1.00
Dead Load Factor :1.20 Ice Importance Factor :1.00
Wind Load Factor :1.00

Applied Segment Forces Summary

Seg Elev (ft)	Description	Shaft Forces Wind FX (lb)	Shaft Forces Dead Load (lb)	Discrete Forces Wind FX (lb)	Discrete Forces Torsion MY (lb-ft)	Discrete Forces Moment MZ (lb-ft)	Discrete Forces Dead Load (lb)	Linear Forces Wind FX (lb)	Linear Forces Dead Load (lb)	Sum of Forces Wind FX (lb)	Sum of Forces Dead Load (lb)	Sum of Forces Torsion MY (lb-ft)	Sum of Forces Moment MZ (lb)
0.00		54.8	0.0					0.0	0.0	54.8	0.0	0.0	0.0
5.00		108.4	2,673.3					0.0	168.8	108.4	2,842.1	0.0	0.0
10.00		106.1	2,650.1					0.0	168.8	106.1	2,818.9	0.0	0.0
15.00		103.6	2,605.6					0.0	168.8	103.6	2,774.3	0.0	0.0
20.00		101.2	2,554.1					0.0	168.8	101.2	2,722.8	0.0	0.0
25.00		98.7	2,498.9					0.0	168.8	98.7	2,667.7	0.0	0.0
30.00		97.4	2,441.5					0.0	168.8	97.4	2,610.3	0.0	0.0
35.00		98.0	2,382.5					0.0	168.8	98.0	2,551.3	0.0	0.0
40.00		84.2	2,322.3					0.0	168.8	84.2	2,491.1	0.0	0.0
43.50	Bot - Section 2	50.0	1,590.5					0.0	118.1	50.0	1,708.6	0.0	0.0
45.00		65.9	1,172.1					0.0	50.6	65.9	1,222.7	0.0	0.0
50.00		60.9	3,831.4					0.0	168.8	60.9	4,000.2	0.0	0.0
51.00	Top - Section 1	50.7	753.9					0.0	33.8	50.7	787.7	0.0	0.0
55.00		91.1	1,554.5					0.0	135.0	91.1	1,689.6	0.0	0.0
60.00		100.8	1,891.6					0.0	168.8	100.8	2,060.4	0.0	0.0
65.00		100.0	1,835.1					0.0	168.8	100.0	2,003.9	0.0	0.0
70.00		98.9	1,778.3					0.0	168.8	98.9	1,947.1	0.0	0.0
75.00		97.7	1,721.1					0.0	168.8	97.7	1,889.9	0.0	0.0
80.00		96.2	1,663.6					0.0	168.8	96.2	1,832.4	0.0	0.0
85.00		85.2	1,605.8					0.0	168.8	85.2	1,774.6	0.0	0.0
89.00	Bot - Section 3	46.9	1,243.8					0.0	135.0	46.9	1,378.8	0.0	0.0
90.00		51.2	466.3					0.0	33.8	51.2	500.1	0.0	0.0
94.50	Top - Section 2	46.4	2,050.5					0.0	151.9	46.4	2,202.4	0.0	0.0
95.00		49.9	106.8					0.0	16.9	49.9	123.6	0.0	0.0
100.00		89.5	1,039.5					0.0	168.8	89.5	1,208.3	0.0	0.0
105.00		87.2	998.1					0.0	168.8	87.2	1,166.9	0.0	0.0
110.00		84.7	956.5					0.0	168.8	84.7	1,125.3	0.0	0.0
115.00		82.1	914.7					0.0	168.8	82.1	1,083.5	0.0	0.0
120.00		64.0	872.8					0.0	168.8	64.0	1,041.6	0.0	0.0
123.00	Appurtenance(s)	39.0	504.9	409.6	0.0	0.0	4,769.3	0.0	101.3	448.6	5,375.5	0.0	0.0
125.00		53.0	328.7					0.0	59.4	53.0	388.0	0.0	0.0
130.00	Bot - Section 4	66.8	788.5					0.0	148.4	66.8	936.9	0.0	0.0
134.00	Top - Section 3	36.5	893.4	430.0	0.0	77.0	4,558.8	0.0	118.7	466.5	5,570.9	0.0	0.0
135.00		42.1	113.9					0.0	20.7	42.1	134.5	0.0	0.0
140.00		41.7	545.1					0.0	103.3	41.7	648.3	0.0	0.0
141.00	Appurtenance(s)	26.8	106.1	125.8	0.0	0.0	1,226.1	0.0	20.7	152.6	1,352.9	0.0	0.0
144.00	Appurtenance(s)	26.5	309.2	323.6	0.0	0.0	2,843.2	0.0	62.0	350.2	3,214.3	0.0	0.0
145.00		13.0	101.0					0.0	0.2	13.0	101.2	0.0	0.0
146.00	Appurtenance(s)	22.3	99.7	169.7	0.0	0.0	1,636.8	0.0	0.2	192.0	1,736.6	0.0	0.0
148.50		15.9	242.6					0.0	0.5	15.9	243.1	0.0	0.0
								Totals:		4,193.97	71,928.3	0.00	0.00

Load Case: 1.2D + 1.0Di + 1.0Wi — 40 mph with 1.00 in Radial Ice — 18 Iterations

Gust Response Factor :1.10 Ice Dead Load Factor :1.00
Dead Load Factor :1.20 Ice Importance Factor :1.00
Wind Load Factor :1.00

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-72.13	-4.24	0.00	-408.79	0.00	408.79	7,541.17	2,021.41	13,251.2	11,272.6	0.00	0.00	0.046
5.00	-69.29	-4.14	0.00	-387.61	0.00	387.61	7,435.91	1,974.07	12,637.7	10,853.2	0.00	-0.01	0.045
10.00	-66.47	-4.04	0.00	-366.92	0.00	366.92	7,327.23	1,926.72	12,038.8	10,436.2	0.02	-0.01	0.044
15.00	-63.70	-3.94	0.00	-346.72	0.00	346.72	7,215.13	1,879.37	11,454.4	10,022.2	0.04	-0.02	0.043
20.00	-60.97	-3.85	0.00	-327.01	0.00	327.01	7,099.60	1,832.02	10,884.6	9,611.47	0.06	-0.03	0.043
25.00	-58.31	-3.76	0.00	-307.76	0.00	307.76	6,980.64	1,784.67	10,329.3	9,204.34	0.10	-0.04	0.042
30.00	-55.69	-3.67	0.00	-288.98	0.00	288.98	6,858.27	1,737.32	9,788.59	8,801.20	0.14	-0.05	0.041
35.00	-53.14	-3.57	0.00	-270.65	0.00	270.65	6,732.46	1,689.97	9,262.37	8,402.42	0.20	-0.05	0.040
40.00	-50.65	-3.49	0.00	-252.78	0.00	252.78	6,603.24	1,642.62	8,750.69	8,008.36	0.26	-0.06	0.039
43.50	-48.94	-3.44	0.00	-240.56	0.00	240.56	6,510.74	1,609.48	8,401.16	7,735.51	0.31	-0.07	0.039
45.00	-47.72	-3.38	0.00	-235.39	0.00	235.39	6,470.58	1,595.27	8,253.54	7,619.37	0.33	-0.07	0.038
50.00	-43.72	-3.32	0.00	-218.49	0.00	218.49	6,334.51	1,547.93	7,770.93	7,235.83	0.41	-0.08	0.037
51.00	-42.93	-3.27	0.00	-215.17	0.00	215.17	5,351.19	1,369.00	6,946.29	6,185.72	0.43	-0.08	0.043
55.00	-41.24	-3.18	0.00	-202.09	0.00	202.09	5,265.80	1,335.85	6,614.05	5,938.51	0.50	-0.09	0.042
60.00	-39.18	-3.09	0.00	-186.17	0.00	186.17	5,155.98	1,294.42	6,210.21	5,632.89	0.60	-0.10	0.041
65.00	-37.18	-2.99	0.00	-170.74	0.00	170.74	5,042.74	1,252.99	5,819.08	5,331.40	0.70	-0.11	0.039
70.00	-35.23	-2.89	0.00	-155.80	0.00	155.80	4,926.07	1,211.56	5,440.67	5,034.40	0.82	-0.12	0.038
75.00	-33.34	-2.80	0.00	-141.34	0.00	141.34	4,805.98	1,170.13	5,074.99	4,742.24	0.95	-0.13	0.037
80.00	-31.51	-2.70	0.00	-127.37	0.00	127.37	4,682.46	1,128.70	4,722.02	4,455.30	1.09	-0.14	0.035
85.00	-29.73	-2.62	0.00	-113.86	0.00	113.86	4,555.52	1,087.27	4,381.78	4,173.92	1.24	-0.15	0.034
89.00	-28.35	-2.57	0.00	-103.40	0.00	103.40	4,451.50	1,054.13	4,118.74	3,953.08	1.37	-0.16	0.033
90.00	-27.85	-2.52	0.00	-100.83	0.00	100.83	4,425.16	1,045.84	4,054.25	3,898.48	1.40	-0.16	0.032
94.50	-25.65	-2.47	0.00	-89.50	0.00	89.50	2,429.52	659.73	2,508.88	2,107.23	1.55	-0.17	0.053
95.00	-25.53	-2.42	0.00	-88.27	0.00	88.27	2,423.93	657.07	2,488.66	2,093.84	1.57	-0.17	0.053
100.00	-24.32	-2.33	0.00	-76.17	0.00	76.17	2,366.19	630.43	2,290.98	1,960.54	1.75	-0.18	0.049
105.00	-23.15	-2.25	0.00	-64.50	0.00	64.50	2,305.01	603.79	2,101.48	1,828.59	1.95	-0.19	0.045
110.00	-22.03	-2.16	0.00	-53.26	0.00	53.26	2,240.42	577.15	1,920.16	1,698.37	2.16	-0.21	0.041
115.00	-20.94	-2.08	0.00	-42.45	0.00	42.45	2,172.39	550.52	1,747.02	1,570.22	2.38	-0.22	0.037
120.00	-19.90	-2.02	0.00	-32.04	0.00	32.04	2,100.95	523.88	1,582.06	1,444.51	2.62	-0.23	0.032
123.00	-14.53	-1.55	0.00	-25.99	0.00	25.99	2,056.44	507.89	1,487.01	1,370.41	2.77	-0.24	0.026
125.00	-14.14	-1.49	0.00	-22.89	0.00	22.89	2,026.08	497.24	1,425.28	1,321.61	2.87	-0.24	0.024
130.00	-13.20	-1.42	0.00	-15.42	0.00	15.42	1,947.78	470.60	1,276.68	1,201.87	3.12	-0.25	0.020
134.00	-7.63	-0.93	0.00	-9.65	0.00	9.65	1,102.25	304.37	801.14	661.88	3.33	-0.25	0.022
135.00	-7.50	-0.89	0.00	-8.71	0.00	8.71	1,095.19	300.82	782.56	649.92	3.39	-0.25	0.020
140.00	-6.85	-0.85	0.00	-4.25	0.00	4.25	1,057.85	283.06	692.91	590.46	3.65	-0.26	0.014
141.00	-5.50	-0.69	0.00	-3.40	0.00	3.40	1,049.97	279.51	675.64	578.66	3.71	-0.26	0.011
144.00	-2.29	-0.32	0.00	-1.34	0.00	1.34	1,025.50	268.86	625.12	543.49	3.87	-0.26	0.005
145.00	-2.18	-0.31	0.00	-1.01	0.00	1.01	1,017.07	265.31	608.72	531.85	3.93	-0.26	0.004
146.00	-0.45	-0.11	0.00	-0.70	0.00	0.70	1,008.51	261.75	592.53	520.26	3.98	-0.26	0.002
148.50	0.00	-0.11	0.00	-0.42	0.00	0.42	986.50	252.88	553.02	491.52	4.12	-0.26	0.001

Load Case: 1.0D + 1.0W Serviceability 60 mph 18 Iterations

Gust Response Factor :1.10
Dead Load Factor :1.00
Wind Load Factor :1.00

Applied Segment Forces Summary

		Shaft Forces		Discrete Forces				Linear Forces		Sum of Forces			
Seg Elev (ft)	Description	Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Torsion MY (lb-ft)	Moment MZ (lb)
0.00		65.7	0.0					0.0	0.0	65.7	0.0	0.0	0.0
5.00		129.8	1,936.7					0.0	140.7	129.8	2,077.4	0.0	0.0
10.00		126.7	1,890.8					0.0	140.7	126.7	2,031.5	0.0	0.0
15.00		123.6	1,844.9					0.0	140.7	123.6	1,985.6	0.0	0.0
20.00		120.5	1,799.0					0.0	140.7	120.5	1,939.7	0.0	0.0
25.00		117.4	1,753.1					0.0	140.7	117.4	1,893.8	0.0	0.0
30.00		115.7	1,707.2					0.0	140.7	115.7	1,847.9	0.0	0.0
35.00		116.3	1,661.3					0.0	140.7	116.3	1,801.9	0.0	0.0
40.00		99.7	1,615.4					0.0	140.7	99.7	1,756.0	0.0	0.0
43.50	Bot - Section 2	59.2	1,103.5					0.0	98.5	59.2	1,201.9	0.0	0.0
45.00		78.0	880.4					0.0	42.2	78.0	922.6	0.0	0.0
50.00		72.0	2,878.9					0.0	140.7	72.0	3,019.5	0.0	0.0
51.00	Top - Section 1	59.9	565.4					0.0	28.1	59.9	593.6	0.0	0.0
55.00		107.5	1,048.9					0.0	112.5	107.5	1,161.4	0.0	0.0
60.00		118.8	1,275.0					0.0	140.7	118.8	1,415.6	0.0	0.0
65.00		117.7	1,234.8					0.0	140.7	117.7	1,375.4	0.0	0.0
70.00		116.3	1,194.6					0.0	140.7	116.3	1,335.3	0.0	0.0
75.00		114.5	1,154.5					0.0	140.7	114.5	1,295.1	0.0	0.0
80.00		112.6	1,114.3					0.0	140.7	112.6	1,255.0	0.0	0.0
85.00		99.6	1,074.1					0.0	140.7	99.6	1,214.8	0.0	0.0
89.00	Bot - Section 3	54.8	830.4					0.0	112.5	54.8	942.9	0.0	0.0
90.00		59.7	336.7					0.0	28.1	59.7	364.8	0.0	0.0
94.50	Top - Section 2	54.1	1,482.3					0.0	126.6	54.1	1,608.9	0.0	0.0
95.00		58.1	63.8					0.0	14.1	58.1	77.9	0.0	0.0
100.00		104.0	624.1					0.0	140.7	104.0	764.7	0.0	0.0
105.00		101.0	598.3					0.0	140.7	101.0	738.9	0.0	0.0
110.00		97.9	572.4					0.0	140.7	97.9	713.1	0.0	0.0
115.00		94.6	546.6					0.0	140.7	94.6	687.3	0.0	0.0
120.00		73.5	520.8					0.0	140.7	73.5	661.4	0.0	0.0
123.00	Appurtenance(s)	44.7	300.1	641.6	0.0	0.0	2,219.7	0.0	84.4	686.3	2,604.2	0.0	0.0
125.00		60.5	194.9					0.0	49.5	60.5	244.3	0.0	0.0
130.00	Bot - Section 4	76.2	469.1					0.0	123.7	76.2	592.8	0.0	0.0
134.00	Top - Section 3	41.5	598.3	798.8	0.0	99.3	1,976.9	0.0	98.9	840.3	2,674.1	0.0	0.0
135.00		47.7	58.7					0.0	17.2	47.7	75.9	0.0	0.0
140.00		47.2	283.0					0.0	86.0	47.2	369.1	0.0	0.0
141.00	Appurtenance(s)	30.2	54.5	178.3	0.0	0.0	750.0	0.0	17.2	208.5	821.7	0.0	0.0
144.00	Appurtenance(s)	29.9	159.5	547.9	0.0	0.0	1,228.7	0.0	51.6	577.8	1,439.8	0.0	0.0
145.00		14.6	51.8					0.0	0.2	14.6	51.9	0.0	0.0
146.00	Appurtenance(s)	25.1	51.1	240.1	0.0	0.0	1,000.0	0.0	0.2	265.2	1,051.2	0.0	0.0
148.50		17.8	124.7					0.0	0.4	17.8	125.1	0.0	0.0
								Totals:		5,611.35	46,734.0	0.00	0.00

Load Case: 1.0D + 1.0W Serviceability 60 mph 18 Iterations

Gust Response Factor :1.10
Dead Load Factor :1.00
Wind Load Factor :1.00

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-46.78	-5.65	0.00	-566.47	0.00	566.47	7,541.17	2,021.41	13,251.2	11,272.6	0.00	0.00	0.056
5.00	-44.71	-5.53	0.00	-538.21	0.00	538.21	7,435.91	1,974.07	12,637.7	10,853.2	0.01	-0.01	0.056
10.00	-42.67	-5.41	0.00	-510.57	0.00	510.57	7,327.23	1,926.72	12,038.8	10,436.2	0.02	-0.02	0.055
15.00	-40.69	-5.29	0.00	-483.53	0.00	483.53	7,215.13	1,879.37	11,454.4	10,022.2	0.05	-0.03	0.054
20.00	-38.75	-5.18	0.00	-457.07	0.00	457.07	7,099.60	1,832.02	10,884.6	9,611.47	0.09	-0.04	0.053
25.00	-36.85	-5.07	0.00	-431.18	0.00	431.18	6,980.64	1,784.67	10,329.3	9,204.34	0.14	-0.05	0.052
30.00	-35.00	-4.96	0.00	-405.85	0.00	405.85	6,858.27	1,737.32	9,788.59	8,801.20	0.20	-0.06	0.051
35.00	-33.20	-4.84	0.00	-381.08	0.00	381.08	6,732.46	1,689.97	9,262.37	8,402.42	0.27	-0.08	0.050
40.00	-31.44	-4.75	0.00	-356.86	0.00	356.86	6,603.24	1,642.62	8,750.69	8,008.36	0.36	-0.09	0.049
43.50	-30.24	-4.69	0.00	-340.25	0.00	340.25	6,510.74	1,609.48	8,401.16	7,735.51	0.43	-0.10	0.049
45.00	-29.32	-4.61	0.00	-333.22	0.00	333.22	6,470.58	1,595.27	8,253.54	7,619.37	0.46	-0.10	0.048
50.00	-26.30	-4.54	0.00	-310.15	0.00	310.15	6,334.51	1,547.93	7,770.93	7,235.83	0.57	-0.11	0.047
51.00	-25.70	-4.48	0.00	-305.61	0.00	305.61	5,351.19	1,369.00	6,946.29	6,185.72	0.59	-0.11	0.054
55.00	-24.54	-4.38	0.00	-287.69	0.00	287.69	5,265.80	1,335.85	6,614.05	5,938.51	0.69	-0.12	0.053
60.00	-23.12	-4.26	0.00	-265.81	0.00	265.81	5,155.98	1,294.42	6,210.21	5,632.89	0.83	-0.14	0.052
65.00	-21.75	-4.14	0.00	-244.51	0.00	244.51	5,042.74	1,252.99	5,819.08	5,331.40	0.98	-0.15	0.050
70.00	-20.41	-4.03	0.00	-223.79	0.00	223.79	4,926.07	1,211.56	5,440.67	5,034.40	1.15	-0.17	0.049
75.00	-19.12	-3.91	0.00	-203.65	0.00	203.65	4,805.98	1,170.13	5,074.99	4,742.24	1.33	-0.18	0.047
80.00	-17.86	-3.80	0.00	-184.08	0.00	184.08	4,682.46	1,128.70	4,722.02	4,455.30	1.53	-0.19	0.045
85.00	-16.65	-3.70	0.00	-165.06	0.00	165.06	4,555.52	1,087.27	4,381.78	4,173.92	1.74	-0.21	0.043
89.00	-15.70	-3.65	0.00	-150.25	0.00	150.25	4,451.50	1,054.13	4,118.74	3,953.08	1.92	-0.22	0.042
90.00	-15.34	-3.59	0.00	-146.61	0.00	146.61	4,425.16	1,045.84	4,054.25	3,898.48	1.97	-0.22	0.041
94.50	-13.73	-3.53	0.00	-130.47	0.00	130.47	2,429.52	659.73	2,508.88	2,107.23	2.18	-0.24	0.068
95.00	-13.65	-3.47	0.00	-128.70	0.00	128.70	2,423.93	657.07	2,488.66	2,093.84	2.21	-0.24	0.067
100.00	-12.89	-3.37	0.00	-111.34	0.00	111.34	2,366.19	630.43	2,290.98	1,960.54	2.47	-0.26	0.062
105.00	-12.15	-3.27	0.00	-94.49	0.00	94.49	2,305.01	603.79	2,101.48	1,828.59	2.75	-0.28	0.057
110.00	-11.43	-3.17	0.00	-78.14	0.00	78.14	2,240.42	577.15	1,920.16	1,698.37	3.05	-0.30	0.051
115.00	-10.74	-3.08	0.00	-62.28	0.00	62.28	2,172.39	550.52	1,747.02	1,570.22	3.37	-0.31	0.045
120.00	-10.08	-3.00	0.00	-46.89	0.00	46.89	2,100.95	523.88	1,582.06	1,444.51	3.71	-0.33	0.037
123.00	-7.48	-2.30	0.00	-37.89	0.00	37.89	2,056.44	507.89	1,487.01	1,370.41	3.92	-0.34	0.031
125.00	-7.24	-2.24	0.00	-33.29	0.00	33.29	2,026.08	497.24	1,425.28	1,321.61	4.06	-0.34	0.029
130.00	-6.65	-2.16	0.00	-22.08	0.00	22.08	1,947.78	470.60	1,276.68	1,201.87	4.43	-0.36	0.022
134.00	-3.98	-1.30	0.00	-13.34	0.00	13.34	1,102.25	304.37	801.14	661.88	4.73	-0.36	0.024
135.00	-3.90	-1.26	0.00	-12.03	0.00	12.03	1,095.19	300.82	782.56	649.92	4.81	-0.36	0.022
140.00	-3.53	-1.21	0.00	-5.75	0.00	5.75	1,057.85	283.06	692.91	590.46	5.19	-0.37	0.013
141.00	-2.71	-0.99	0.00	-4.54	0.00	4.54	1,049.97	279.51	675.64	578.66	5.27	-0.37	0.010
144.00	-1.28	-0.41	0.00	-1.56	0.00	1.56	1,025.50	268.86	625.12	543.49	5.50	-0.37	0.004
145.00	-1.22	-0.39	0.00	-1.15	0.00	1.15	1,017.07	265.31	608.72	531.85	5.58	-0.37	0.003
146.00	-0.17	-0.12	0.00	-0.76	0.00	0.76	1,008.51	261.75	592.53	520.26	5.66	-0.37	0.002
148.50	0.00	-0.12	0.00	-0.46	0.00	0.46	986.50	252.88	553.02	491.52	5.86	-0.37	0.001

Equivalent Lateral Forces Method Analysis

Spectral Response Acceleration for Short Period (S_S):	0.17	
Spectral Response Acceleration at 1.0 Second Period (S_1):	0.05	
Long-Period Transition Period (T_L):	6	
Importance Factor (I_E):	1.00	
Site Coefficient F_a:	1.60	
Site Coeffiecient F_v:	2.40	
Response Modification Coefficient (R):	1.50	
Design Spectral Response Acceleration at Short Period (S_{ds}):	0.18	
Design Spectral Response Acceleration at 1.0 Second Period (S_{d1}):	0.09	
Seismic Response Coefficient (C_s):	0.04	
Upper Limit C_s	0.04	
Lower Limit C_s	0.03	
Period based on Rayleigh Method (sec):	1.29	
Redundancy Factor (p):	1.00	
Seismic Force Distribution Exponent (k):	1.40	
Total Unfactored Dead Load:	46.78	k
Seismic Base Shear (E):	2.08	k

Load Case 1.2D + 1.0Ev + 1.0Eh **Seismic**

Segment	Height Above Base (ft)	Weight (lb)	W_z (lb-ft)	C_{vx}	Horizontal Force (lb)	Vertical Force (lb)
39	147.25	125	134	0.007	15	155
38	145.50	51	54	0.003	6	63
37	144.50	52	54	0.003	6	64
36	142.50	211	216	0.011	24	261
35	140.50	72	72	0.004	8	89
34	137.50	369	359	0.019	39	456
33	134.50	76	72	0.004	8	94
32	132.00	697	640	0.034	70	861
31	127.50	593	519	0.027	57	732
30	124.00	244	206	0.011	22	302
29	121.50	384	314	0.016	34	475
28	117.50	661	516	0.027	56	817
27	112.50	687	505	0.026	55	849
26	107.50	713	492	0.026	54	881
25	102.50	739	477	0.025	52	913
24	97.50	765	460	0.024	50	945
23	94.75	78	45	0.002	5	96
22	92.25	1,609	896	0.047	98	1,988
21	89.50	365	195	0.010	21	451
20	87.00	943	484	0.025	53	1,165
19	82.50	1,215	579	0.030	63	1,501
18	77.50	1,255	548	0.029	60	1,550
17	72.50	1,295	515	0.027	56	1,600
16	67.50	1,335	480	0.025	52	1,650
15	62.50	1,375	444	0.023	48	1,699

14	57.50	1,416	407	0.021	44	1,749
13	53.00	1,161	298	0.016	32	1,435
12	50.50	594	142	0.007	16	733
11	47.50	3,020	665	0.035	72	3,730
10	44.25	923	184	0.010	20	1,140
9	41.75	1,202	221	0.012	24	1,485
8	37.50	1,756	278	0.015	30	2,169
7	32.50	1,802	233	0.012	25	2,226
6	27.50	1,848	190	0.010	21	2,283
5	22.50	1,894	147	0.008	16	2,340
4	17.50	1,940	106	0.006	12	2,396
3	12.50	1,986	68	0.004	7	2,453
2	7.50	2,031	34	0.002	4	2,510
1	2.50	2,077	7	0.000	1	2,566
RFS Celwave PD220	148.50	25	27	0.001	3	31
RFS Celwave PD220	148.50	25	27	0.001	3	31
Flat T-Arm	146.00	1,000	1,057	0.055	115	1,235
Powerwave Allgon LGP	144.00	85	88	0.005	10	105
Raycap DC6-48-60-18-	144.00	33	34	0.002	4	41
Ericsson Radio 8843	144.00	216	224	0.012	24	266
Ericsson RRUS 4449 B	144.00	213	221	0.012	24	263
Ericsson RRUS 4478 B	144.00	178	185	0.010	20	220
Raycap DC9-48-60-24-	144.00	16	17	0.001	2	20
Powerwave Allgon 777	144.00	105	109	0.006	12	130
CCI DMP65R-BU4D	144.00	136	141	0.007	15	168
CCI OPA65R-BU4DA-K	144.00	105	109	0.006	12	130
CCI DMP65R-BU6DA	144.00	79	82	0.004	9	98
CCI OPA65R-BU6D	144.00	63	66	0.003	7	78
Flat T-Arm	141.00	750	755	0.040	82	927
Samsung B2/B66A RRH-	134.00	253	237	0.012	26	313
Samsung B5/B13 RRH-B	134.00	211	198	0.010	22	261
Raycap RVZDC-6627-PF	134.00	32	30	0.002	3	40
Samsung MT6407-77A	134.00	245	230	0.012	25	302
Antel LPA-80080/6CF	134.00	126	118	0.006	13	156
Round T-Arm	134.00	750	703	0.037	77	927
JMA Wireless MX06FRO	134.00	360	338	0.018	37	445
Ericsson Radio 4449	123.00	225	187	0.010	20	278
Ericsson RRUS 11 B4	123.00	152	127	0.007	14	188
Ericsson RRUS 11 B2	123.00	152	127	0.007	14	188
RFS APX16DWV-16DWVS-	123.00	122	102	0.005	11	151
Round T-Arm w/ Suppo	123.00	1,200	999	0.052	109	1,482
RFS APXVAALL24 43-U-	123.00	368	307	0.016	33	455
		46,784	19,095	1.000	2,082	57,798

Load Case 0.9D - 1.0Ev + 1.0Eh **Seismic (Reduced DL)**

Segment	Height Above Base (ft)	Weight (lb)	W_z (lb-ft)	C_{vx}	Horizontal Force (lb)	Vertical Force (lb)
39	147.25	125	134	0.007	15	108
38	145.50	51	54	0.003	6	44
37	144.50	52	54	0.003	6	45
36	142.50	211	216	0.011	24	183
35	140.50	72	72	0.004	8	62
34	137.50	369	359	0.019	39	319
33	134.50	76	72	0.004	8	66
32	132.00	697	640	0.034	70	603
31	127.50	593	519	0.027	57	513
30	124.00	244	206	0.011	22	211
29	121.50	384	314	0.016	34	332
28	117.50	661	516	0.027	56	572
27	112.50	687	505	0.026	55	594

26	107.50	713	492	0.026	54	617
25	102.50	739	477	0.025	52	639
24	97.50	765	460	0.024	50	661
23	94.75	78	45	0.002	5	67
22	92.25	1,609	896	0.047	98	1,391
21	89.50	365	195	0.010	21	315
20	87.00	943	484	0.025	53	815
19	82.50	1,215	579	0.030	63	1,050
18	77.50	1,255	548	0.029	60	1,085
17	72.50	1,295	515	0.027	56	1,120
16	67.50	1,335	480	0.025	52	1,154
15	62.50	1,375	444	0.023	48	1,189
14	57.50	1,416	407	0.021	44	1,224
13	53.00	1,161	298	0.016	32	1,004
12	50.50	594	142	0.007	16	513
11	47.50	3,020	665	0.035	72	2,611
10	44.25	923	184	0.010	20	798
9	41.75	1,202	221	0.012	24	1,039
8	37.50	1,756	278	0.015	30	1,518
7	32.50	1,802	233	0.012	25	1,558
6	27.50	1,848	190	0.010	21	1,598
5	22.50	1,894	147	0.008	16	1,637
4	17.50	1,940	106	0.006	12	1,677
3	12.50	1,986	68	0.004	7	1,717
2	7.50	2,031	34	0.002	4	1,756
1	2.50	2,077	7	0.000	1	1,796
RFS Celwave PD220	148.50	25	27	0.001	3	22
RFS Celwave PD220	148.50	25	27	0.001	3	22
Flat T-Arm	146.00	1,000	1,057	0.055	115	865
Powerwave Allgon LGP	144.00	85	88	0.005	10	73
Raycap DC6-48-60-18-	144.00	33	34	0.002	4	28
Ericsson Radio 8843	144.00	216	224	0.012	24	186
Ericsson RRUS 4449 B	144.00	213	221	0.012	24	184
Ericsson RRUS 4478 B	144.00	178	185	0.010	20	154
Raycap DC9-48-60-24-	144.00	16	17	0.001	2	14
Powerwave Allgon 777	144.00	105	109	0.006	12	91
CCI DMP65R-BU4D	144.00	136	141	0.007	15	117
CCI OPA65R-BU4DA-K	144.00	105	109	0.006	12	91
CCI DMP65R-BU6DA	144.00	79	82	0.004	9	69
CCI OPA65R-BU6D	144.00	63	66	0.003	7	55
Flat T-Arm	141.00	750	755	0.040	82	648
Samsung B2/B66A RRH-	134.00	253	237	0.012	26	219
Samsung B5/B13 RRH-B	134.00	211	198	0.010	22	182
Raycap RVZDC-6627-PF	134.00	32	30	0.002	3	28
Samsung MT6407-77A	134.00	245	230	0.012	25	212
Antel LPA-80080/6CF	134.00	126	118	0.006	13	109
Round T-Arm	134.00	750	703	0.037	77	648
JMA Wireless MX06FRO	134.00	360	338	0.018	37	311
Ericsson Radio 4449	123.00	225	187	0.010	20	195
Ericsson RRUS 11 B4	123.00	152	127	0.007	14	132
Ericsson RRUS 11 B2	123.00	152	127	0.007	14	132
RFS APX16DWV-16DWVS-	123.00	122	102	0.005	11	106
Round T-Arm w/ Suppo	123.00	1,200	999	0.052	109	1,038
RFS APXVAALL24 43-U-	123.00	368	307	0.016	33	319
		46,784	19,095	1.000	2,082	40,449

Load Case 1.2D + 1.0Ev + 1.0Eh **Seismic**

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-55.23	-2.08	0.00	-218.02	0.00	218.02	7,541.17	2,021.41	13,251.2	11,272.6	0.00	0.00	0.027
5.00	-52.72	-2.08	0.00	-207.61	0.00	207.61	7,435.91	1,974.07	12,637.7	10,853.2	0.00	0.00	0.026
10.00	-50.27	-2.08	0.00	-197.20	0.00	197.20	7,327.23	1,926.72	12,038.8	10,436.2	0.01	-0.01	0.026
15.00	-47.87	-2.07	0.00	-186.81	0.00	186.81	7,215.13	1,879.37	11,454.4	10,022.2	0.02	-0.01	0.025
20.00	-45.53	-2.06	0.00	-176.46	0.00	176.46	7,099.60	1,832.02	10,884.6	9,611.47	0.03	-0.02	0.025
25.00	-43.25	-2.04	0.00	-166.18	0.00	166.18	6,980.64	1,784.67	10,329.3	9,204.34	0.05	-0.02	0.024
30.00	-41.02	-2.02	0.00	-155.99	0.00	155.99	6,858.27	1,737.32	9,788.59	8,801.20	0.08	-0.02	0.024
35.00	-38.85	-1.99	0.00	-145.91	0.00	145.91	6,732.46	1,689.97	9,262.37	8,402.42	0.11	-0.03	0.023
40.00	-37.37	-1.96	0.00	-135.98	0.00	135.98	6,603.24	1,642.62	8,750.69	8,008.36	0.14	-0.03	0.023
43.50	-36.23	-1.95	0.00	-129.10	0.00	129.10	6,510.74	1,609.48	8,401.16	7,735.51	0.17	-0.04	0.022
45.00	-32.50	-1.87	0.00	-126.19	0.00	126.19	6,470.58	1,595.27	8,253.54	7,619.37	0.18	-0.04	0.022
50.00	-31.76	-1.86	0.00	-116.83	0.00	116.83	6,334.51	1,547.93	7,770.93	7,235.83	0.22	-0.04	0.021
51.00	-30.33	-1.83	0.00	-114.97	0.00	114.97	5,351.19	1,369.00	6,946.29	6,185.72	0.23	-0.04	0.024
55.00	-28.58	-1.78	0.00	-107.67	0.00	107.67	5,265.80	1,335.85	6,614.05	5,938.51	0.27	-0.05	0.024
60.00	-26.88	-1.73	0.00	-98.76	0.00	98.76	5,155.98	1,294.42	6,210.21	5,632.89	0.32	-0.05	0.023
65.00	-25.23	-1.68	0.00	-90.09	0.00	90.09	5,042.74	1,252.99	5,819.08	5,331.40	0.38	-0.06	0.022
70.00	-23.63	-1.63	0.00	-81.68	0.00	81.68	4,926.07	1,211.56	5,440.67	5,034.40	0.44	-0.06	0.021
75.00	-22.08	-1.57	0.00	-73.55	0.00	73.55	4,805.98	1,170.13	5,074.99	4,742.24	0.51	-0.07	0.020
80.00	-20.58	-1.50	0.00	-65.72	0.00	65.72	4,682.46	1,128.70	4,722.02	4,455.30	0.58	-0.07	0.019
85.00	-19.42	-1.45	0.00	-58.20	0.00	58.20	4,555.52	1,087.27	4,381.78	4,173.92	0.66	-0.08	0.018
89.00	-18.96	-1.43	0.00	-52.39	0.00	52.39	4,451.50	1,054.13	4,118.74	3,953.08	0.73	-0.08	0.018
90.00	-16.98	-1.33	0.00	-50.96	0.00	50.96	4,425.16	1,045.84	4,054.25	3,898.48	0.75	-0.08	0.017
94.50	-16.88	-1.33	0.00	-44.97	0.00	44.97	2,429.52	659.73	2,508.88	2,107.23	0.83	-0.09	0.028
95.00	-15.94	-1.28	0.00	-44.31	0.00	44.31	2,423.93	657.07	2,488.66	2,093.84	0.84	-0.09	0.028
100.00	-15.02	-1.22	0.00	-37.93	0.00	37.93	2,366.19	630.43	2,290.98	1,960.54	0.94	-0.10	0.026
105.00	-14.14	-1.17	0.00	-31.81	0.00	31.81	2,305.01	603.79	2,101.48	1,828.59	1.04	-0.10	0.024
110.00	-13.29	-1.12	0.00	-25.96	0.00	25.96	2,240.42	577.15	1,920.16	1,698.37	1.15	-0.11	0.021
115.00	-12.48	-1.06	0.00	-20.38	0.00	20.38	2,172.39	550.52	1,747.02	1,570.22	1.27	-0.11	0.019
120.00	-12.00	-1.02	0.00	-15.09	0.00	15.09	2,100.95	523.88	1,582.06	1,444.51	1.39	-0.12	0.016
123.00	-8.96	-0.79	0.00	-12.02	0.00	12.02	2,056.44	507.89	1,487.01	1,370.41	1.46	-0.12	0.013
125.00	-8.22	-0.74	0.00	-10.43	0.00	10.43	2,026.08	497.24	1,425.28	1,321.61	1.52	-0.12	0.012
130.00	-7.36	-0.67	0.00	-6.74	0.00	6.74	1,947.78	470.60	1,276.68	1,201.87	1.65	-0.13	0.009
134.00	-4.83	-0.45	0.00	-4.08	0.00	4.08	1,102.25	304.37	801.14	661.88	1.76	-0.13	0.011
135.00	-4.37	-0.41	0.00	-3.63	0.00	3.63	1,095.19	300.82	782.56	649.92	1.78	-0.13	0.010
140.00	-4.28	-0.40	0.00	-1.58	0.00	1.58	1,057.85	283.06	692.91	590.46	1.92	-0.13	0.007
141.00	-3.10	-0.29	0.00	-1.18	0.00	1.18	1,049.97	279.51	675.64	578.66	1.95	-0.13	0.005
144.00	-1.51	-0.15	0.00	-0.30	0.00	0.30	1,025.50	268.86	625.12	543.49	2.03	-0.13	0.002
145.00	-1.45	-0.14	0.00	-0.15	0.00	0.15	1,017.07	265.31	608.72	531.85	2.06	-0.13	0.002
146.00	-0.06	-0.01	0.00	-0.02	0.00	0.02	1,008.51	261.75	592.53	520.26	2.09	-0.13	0.000
148.50	0.00	-0.01	0.00	0.00	0.00	0.00	986.50	252.88	553.02	491.52	2.16	-0.13	0.000

Load Case 0.9D - 1.0Ev + 1.0Eh **Seismic (Reduced DL)**

Calculated Forces

Seg Elev (ft)	Pu FY (-) (kips)	Vu FX (-) (kips)	Tu MY (ft-kips)	Mu MZ (ft-kips)	Mu MX (ft-kips)	Resultant Moment (ft-kips)	phi Pn (kips)	phi Vn (kips)	phi Tn (ft-kips)	phi Mn (ft-kips)	Total Deflect (in)	Rotation (deg)	Ratio
0.00	-38.65	-2.08	0.00	-217.13	0.00	217.13	7,541.17	2,021.41	13,251.2	11,272.6	0.00	0.00	0.024
5.00	-36.90	-2.08	0.00	-206.72	0.00	206.72	7,435.91	1,974.07	12,637.7	10,853.2	0.00	0.00	0.024
10.00	-35.18	-2.08	0.00	-196.32	0.00	196.32	7,327.23	1,926.72	12,038.8	10,436.2	0.01	-0.01	0.024
15.00	-33.50	-2.07	0.00	-185.94	0.00	185.94	7,215.13	1,879.37	11,454.4	10,022.2	0.02	-0.01	0.023
20.00	-31.86	-2.05	0.00	-175.61	0.00	175.61	7,099.60	1,832.02	10,884.6	9,611.47	0.03	-0.02	0.023
25.00	-30.27	-2.03	0.00	-165.35	0.00	165.35	6,980.64	1,784.67	10,329.3	9,204.34	0.05	-0.02	0.022
30.00	-28.71	-2.01	0.00	-155.19	0.00	155.19	6,858.27	1,737.32	9,788.59	8,801.20	0.08	-0.02	0.022
35.00	-27.19	-1.98	0.00	-145.14	0.00	145.14	6,732.46	1,689.97	9,262.37	8,402.42	0.11	-0.03	0.021
40.00	-26.15	-1.96	0.00	-135.24	0.00	135.24	6,603.24	1,642.62	8,750.69	8,008.36	0.14	-0.03	0.021
43.50	-25.35	-1.94	0.00	-128.39	0.00	128.39	6,510.74	1,609.48	8,401.16	7,735.51	0.16	-0.04	0.020
45.00	-22.74	-1.86	0.00	-125.48	0.00	125.48	6,470.58	1,595.27	8,253.54	7,619.37	0.18	-0.04	0.020
50.00	-22.23	-1.85	0.00	-116.16	0.00	116.16	6,334.51	1,547.93	7,770.93	7,235.83	0.22	-0.04	0.020
51.00	-21.23	-1.82	0.00	-114.31	0.00	114.31	5,351.19	1,369.00	6,946.29	6,185.72	0.23	-0.04	0.022
55.00	-20.00	-1.77	0.00	-107.04	0.00	107.04	5,265.80	1,335.85	6,614.05	5,938.51	0.27	-0.05	0.022
60.00	-18.81	-1.73	0.00	-98.17	0.00	98.17	5,155.98	1,294.42	6,210.21	5,632.89	0.32	-0.05	0.021
65.00	-17.66	-1.67	0.00	-89.54	0.00	89.54	5,042.74	1,252.99	5,819.08	5,331.40	0.38	-0.06	0.020
70.00	-16.54	-1.62	0.00	-81.17	0.00	81.17	4,926.07	1,211.56	5,440.67	5,034.40	0.44	-0.06	0.019
75.00	-15.45	-1.56	0.00	-73.08	0.00	73.08	4,805.98	1,170.13	5,074.99	4,742.24	0.51	-0.07	0.019
80.00	-14.40	-1.50	0.00	-65.29	0.00	65.29	4,682.46	1,128.70	4,722.02	4,455.30	0.58	-0.07	0.018
85.00	-13.59	-1.44	0.00	-57.81	0.00	57.81	4,555.52	1,087.27	4,381.78	4,173.92	0.66	-0.08	0.017
89.00	-13.27	-1.42	0.00	-52.04	0.00	52.04	4,451.50	1,054.13	4,118.74	3,953.08	0.73	-0.08	0.016
90.00	-11.88	-1.32	0.00	-50.61	0.00	50.61	4,425.16	1,045.84	4,054.25	3,898.48	0.74	-0.08	0.016
94.50	-11.81	-1.32	0.00	-44.66	0.00	44.66	2,429.52	659.73	2,508.88	2,107.23	0.83	-0.09	0.026
95.00	-11.15	-1.27	0.00	-44.00	0.00	44.00	2,423.93	657.07	2,488.66	2,093.84	0.83	-0.09	0.026
100.00	-10.51	-1.22	0.00	-37.66	0.00	37.66	2,366.19	630.43	2,290.98	1,960.54	0.93	-0.09	0.024
105.00	-9.90	-1.16	0.00	-31.58	0.00	31.58	2,305.01	603.79	2,101.48	1,828.59	1.03	-0.10	0.022
110.00	-9.30	-1.11	0.00	-25.77	0.00	25.77	2,240.42	577.15	1,920.16	1,698.37	1.14	-0.11	0.019
115.00	-8.73	-1.05	0.00	-20.23	0.00	20.23	2,172.39	550.52	1,747.02	1,570.22	1.26	-0.11	0.017
120.00	-8.40	-1.02	0.00	-14.98	0.00	14.98	2,100.95	523.88	1,582.06	1,444.51	1.38	-0.12	0.014
123.00	-6.27	-0.79	0.00	-11.93	0.00	11.93	2,056.44	507.89	1,487.01	1,370.41	1.46	-0.12	0.012
125.00	-5.76	-0.73	0.00	-10.35	0.00	10.35	2,026.08	497.24	1,425.28	1,321.61	1.51	-0.12	0.011
130.00	-5.15	-0.66	0.00	-6.69	0.00	6.69	1,947.78	470.60	1,276.68	1,201.87	1.64	-0.13	0.008
134.00	-3.38	-0.45	0.00	-4.05	0.00	4.05	1,102.25	304.37	801.14	661.88	1.75	-0.13	0.009
135.00	-3.06	-0.41	0.00	-3.60	0.00	3.60	1,095.19	300.82	782.56	649.92	1.77	-0.13	0.008
140.00	-3.00	-0.40	0.00	-1.57	0.00	1.57	1,057.85	283.06	692.91	590.46	1.91	-0.13	0.005
141.00	-2.17	-0.29	0.00	-1.17	0.00	1.17	1,049.97	279.51	675.64	578.66	1.94	-0.13	0.004
144.00	-1.06	-0.14	0.00	-0.30	0.00	0.30	1,025.50	268.86	625.12	543.49	2.02	-0.13	0.002
145.00	-1.02	-0.14	0.00	-0.15	0.00	0.15	1,017.07	265.31	608.72	531.85	2.05	-0.13	0.001
146.00	-0.04	-0.01	0.00	-0.01	0.00	0.01	1,008.51	261.75	592.53	520.26	2.07	-0.13	0.000
148.50	0.00	-0.01	0.00	0.00	0.00	0.00	986.50	252.88	553.02	491.52	2.14	-0.13	0.000

Analysis Summary

	Reactions						Max Usage	
Load Case	Shear FX (kips)	Shear FZ (kips)	Axial FY (kips)	Moment MX (ft-kips)	Moment MY (ft-kips)	Moment MZ (ft-kips)	Elev (ft)	Interaction Ratio
1.2D + 1.0W	22.41	0.00	56.13	0.00	0.00	2251.34	94.50	0.25
0.9D + 1.0W	22.40	0.00	42.10	0.00	0.00	2243.17	94.50	0.25
1.2D + 1.0Di + 1.0Wi	4.24	0.00	72.13	0.00	0.00	408.79	94.50	0.05
1.2D + 1.0Ev + 1.0Eh	2.08	0.00	55.23	0.00	0.00	218.02	94.50	0.03
0.9D - 1.0Ev + 1.0Eh	2.08	0.00	38.65	0.00	0.00	217.13	94.50	0.03
1.0D + 1.0W	5.65	0.00	46.78	0.00	0.00	566.47	94.50	0.07

Base Plate & Anchor Rod Analysis

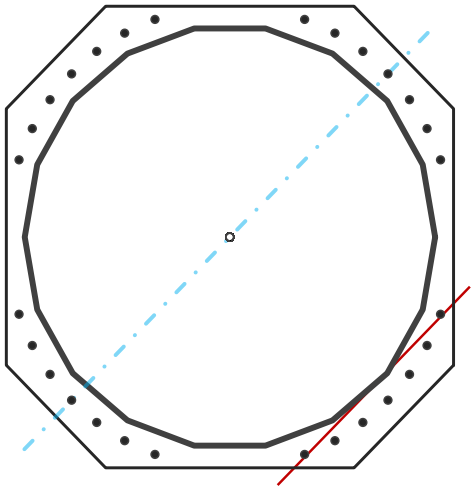
Pole Dimensions		
Number of Sides	18	-
Diameter	73.08	in
Thickness	1/2	in
Orientation Offset	0	°

Base Reactions		
Moment, Mu	2,251.3	k-ft
Axial, Pu	56.1	k
Shear, Vu	22.4	k
Neutral Axis	225	°

Report Capacities		
Component	Capacity	Result
Base Plate	15%	Pass
Anchor Rods	21%	Pass
Dwyidag	-	-

Base Plate		
Shape	Square	-
Width	81	in
Thickness	3 1/4	in
Grade	A572-50	
Yield Strength, Fy	50	ksi
Tensile Strength, Fu	65	ksi
Clip	18	in
Orientation Offset	0	°
Anchor Rod Detail	d	η=0.5
Clear Distance	3	in
Applied Moment, Mu	735.6	k
Bending Stress, ϕMn	4913.1	k

Original Anchor Rods		
Arrangement	Cluster	-
Quantity	28	-
Diameter, ø	2 1/4	in
Bolt Circle	81	in
Grade	A615-75	
Yield Strength, Fy	75	ksi
Tensile Strength, Fu	100	ksi
Spacing	6.0	in
Orientation Offset	0	°
Applied Force, Pu	49.6	k
Anchor Rods, ϕPn	243.6	k



Calculations for Monopole Base Plate & Anchor Rod Analysis

Reaction Distribution

Reaction	Shear Vu	Moment Mu	Factor
-	k	k-ft	-
Base Forces	22.4	2251.3	1.00
Anchor Rod Forces	22.4	2251.3	1.00
Additional Bolt (Grp1) Forces	0.0	0.0	0.00
Additional Bolt (Grp2) Forces	0.0	0.0	0.00
Dywidag Forces	0.0	0.0	0.00
Stiffener Forces	0.0	0.0	0.00

Geometric Properties

Section	Gross Area	Net Area	Individual Inertia	Threads per Inch	Moment of Inertia
-	in^2	in^2	in^4	#	in^4
Pole	113.4305	6.3017	0.5269		74701.41
Bolt	3.9761	3.2477	0.8393	4.5	74601.82
Bolt1	0.0000	0.0000	0.0000	0	0.00
Bolt2	0.0000	0.0000	0.0000	0	0.00
Dywidag	0.0000	0.0000	0.0000		0.00
Stiffener	0.0000	0.0000	0.0000		0.00

Base Plate		
Shape	Square	-
Width, W	81	in
Thickness, t	3.25	in
Yield Strength, Fy	50	ksi
Tensile Strength, Fu	65	ksi
Base Plate Chord	34.933	in
Detail Type	d	-
Detail Factor	0.50	-
Clear Distance	3	-

Anchor Rods		
Anchor Rod Quantity, N	28	-
Rod Diameter, d	2.25	in
Bolt Circle, BC	81	in
Yield Strength, Fy	75	ksi
Tensile Strength, Fu	100	ksi
Applied Axial, Pu	49.6	k
Applied Shear, Vu	0.2	k
Compressive Capacity, ϕPn	243.6	k
Tensile Capacity, ϕRnt	0.204	OK
Interaction Capacity	0.205	OK

External Base Plate		
Chord Length AA	41.346	in
Additional AA	0.000	in
Section Modulus, Z	109.180	in^3
Applied Moment, Mu	735.6	k-ft
Bending Capacity, ϕMn	4913.1	k-ft
Capacity, Mu/ϕMn	0.150	OK
Chord Length AB	40.217	in
Additional AB	0.000	in
Section Modulus, Z	106.198	in^3
Applied Moment, Mu	598.4	k-ft
Bending Capacity, ϕMn	4778.9	k-ft
Capacity, Mu/ϕMn	0.125	OK
Bend Line Length	0.000	in
Additional Bend Line	0.000	in
Section Modulus, Z	0.000	in^3
Applied Moment, Mu	0.0	k-ft
Bending Capacity, ϕMn	0.0	k-ft
Capacity, Mu/ϕMn		

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

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Post-Mod Antenna Mount Analysis Report and PMI Requirements

Mount Fix

SMART Tool Project #: 10086073
Maser Consulting Connecticut Project #: 21777481A

July 21, 2021

Site Information	*Site ID:*	*468684-VZW / SALISBURY CT*
	Site Name:	*SALISBURY CT*
	Carrier Name:	*Verizon Wireless*
	Address:	*52 Library St* *Salisbury, Connecticut 06068* *Litchfield County*
	Latitude:	*41.980844°*
	Longitude:	*-73.418422°*
Structure Information	*Tower Type:*	*148-Ft Monopole*
	Mount Type:	*12.58-Ft T-Arm*

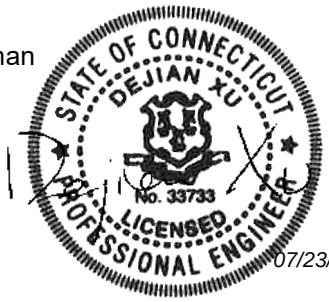
FUZE ID # 16272053

Analysis Results

T-Arm: **48.8% Pass**

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

Report Prepared By: Cody Sherman



07/23/2021

Executive Summary:

The objective of this report is to summarize the analysis results of the antenna support mount including the proposed modifications at the subject facility for the final wireless telecommunications configuration, per the applicable codes and standards.

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

Sources of Information:

Document Type	Remarks
Radio Frequency Data Sheet (RFDS)	*Verizon RFDS, Site ID: 324813, dated April 5, 2021*
Mount Mapping Report	*Structural Components, Site ID: 16272053 dated June 15, 2021*
Previous Mount Analysis	*Maser Consulting Connecticut Project #: 21777481A, dated July 9, 2021*
Mount Modification Drawings	*Maser Consulting Connecticut Project #: 21777481A, dated July 21, 2021*

Analysis Criteria:

Codes and Standards:	ANSI/TIA-222-H	
Wind Parameters:	Basic Wind Speed (Ultimate 3-sec. Gust), V_{ULT}:	113 mph
	Ice Wind Speed (3-sec. Gust):	40 mph
	Design Ice Thickness:	1.00 in
	Risk Category:	II
	Exposure Category:	C
	Topographic Category:	1
	Topographic Feature Considered:	N/A
	Topographic Method:	N/A
	Ground Elevation Factor, K_e:	0.976
Seismic Parameters:	S_S:	0.166
	S_1:	0.054
Maintenance Parameters:	Wind Speed (3-sec. Gust):	30 mph
	Maintenance Live Load, Lv:	250 lbs.
	Maintenance Live Load, Lm:	500 lbs.
Analysis Software:	RISA-3D (V17)	

Final Loading Configuration:

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

Mount Elevation (ft)	Equipment Elevation (ft)	Quantity	Manufacturer	Model	Status
132.00	134.00	6	Antel	LPA-80080/6CF	Retained
		6	JMA Wireless	MX06FRO660-03	Added
		3	Samsung	MT6407-77A	
		3	Samsung	B2/B66A RRH-BR049	
		3	Samsung	B5/B13 RRH-BR04C	
		1	Raycap	RVZDC-6627-PF-48	

The recent mount mapping did not report existing OVP units. However, it is acceptable to install up to any three (3) of the OVP model numbers listed below as required at any location other than the mount face without affecting the structural capacity of the mount. If OVP units are installed on the mount face, a mount re-analysis may be required.

Model Number	Ports	AKA
DB-B1-6C-12AB-0Z	6	OVP-6
RVZDC-6627-PF-48	12	OVP-12

Standard Conditions:

1. All engineering services are performed on the basis that the information provided to Maser Consulting Connecticut and used in this analysis is current and correct. The existing equipment loading has been applied at locations determined from the supplied documentation. Any deviation from the loading locations specified in this report shall be communicated to Maser Consulting Connecticut to verify deviation will not adversely impact the analysis.

2. Mounts are assumed to have been properly fabricated, installed and maintained in good condition, twist free and plumb in accordance with its original design and manufacturer's specifications.

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

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

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

4. All member connections are assumed to have been designed to meet or exceed the load carrying capacity of the connected member unless otherwise specified in this report.

5. The mount was checked up to, and including, the bolts that fasten it to the mount collar/attachment and threaded rod connections in collar members if applicable. Local deformation and interaction between the mount collar/attachment and the supporting tower structure are outside the scope of this analysis.

6. All services are performed, results obtained, and recommendations made in accordance with generally accepted engineering principles and practices. Maser Consulting Connecticut is not responsible for the conclusion, opinions, and recommendations made by others based on the information supplied.

7. Structural Steel Grades have been assumed as follows, if applicable, unless otherwise noted in this analysis:
   - Channel, Solid Round, Angle, Plate — ASTM A36 (Gr. 36)
   - HSS (Rectangular) — ASTM 500 (Gr. B-46)
   - Pipe — ASTM A53 (Gr. B-35)
   - Threaded Rod — F1554 (Gr. 36)
   - Bolts — ASTM A325

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

Analysis Results:

Component	Utilization %	Pass/Fail
Proposed Face Horizontal	*32.0%*	*Pass*
Proposed Standoff Horizontal	*42.0%*	*Pass*
OVP Pipe	*14.0%*	*Pass*
Antenna Pipe	*31.0%*	*Pass*
Face Horizontal	*30.0%*	*Pass*
HSS Standoff	*33.0%*	*Pass*
Connection Check	*48.8%*	*Pass*

Structure Rating – *(Controlling Utilization of all Components)*	**48.8%**

Recommendation:

The existing mounts will be **SUFFICIENT** for the final loading after the proposed modifications are successfully completed.

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

Attachments:

1. Mount Photos
2. Mount Mapping Report (for reference only)
3. Analysis Calculations
4. **Contractor Required PMI Report Deliverables**
5. Antenna Placement Diagrams
6. TIA Adoption and Wind Speed Usage Letter


06/15/2021 10:14

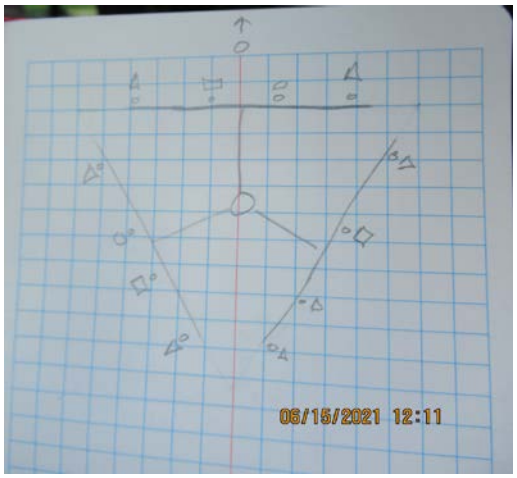

06/15/2021 11:20

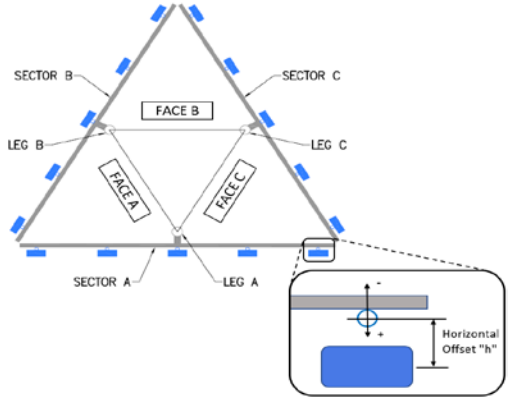
V4.0 Updated on 3-31-2021

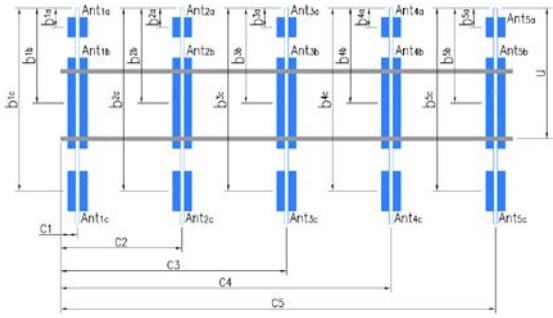
Antenna Mount Mapping Form (PATENT PENDING)

FCC #

Tower Owner:	ATC	**Mapping Date:**	6/15/2021
Site Name:	Salisbury CT	**Tower Type:**	Monopole
Site Number or ID:	16272053	**Tower Height (Ft.):**	148
Mapping Contractor:	Structural Components	**Mount Elevation (Ft.):**	134







Antenna Layout (Looking Out From Tower)

Mount Pipe Configuration and Geometries [Unit = Inches]

Sector / Position	Mount Pipe Size & Length	Vertical Offset Dimension "u"	Horizontal Offset "C1, C2, C3, etc."	Sector / Position	Mount Pipe Size & Length	Vertical Offset Dimension "u"	Horizontal Offset "C1, C2, C3, etc."
A1	2-3/8 x 0.154 x 72	54.00	4.00	C1	2-3/8 x 0.154 x 72	54.00	5.00
A2	2-3/8 x 0.154 x 72	54.00	64.50	C2	2-3/8 x 0.154 x 72	54.00	65.00
A3	2-3/8 x 0.154 x 72	54.00	119.00	C3	2-3/8 x 0.154 x 72	54.00	119.50
A4	2-3/8 x 0.154 x 72	54.00	145.00	C4	2-3/8 x 0.154 x 72	54.00	145.50
A5				C5			
A6				C6			
B1	2-3/8 x 0.154 x 72	54.00	4.00	D1			
B2	2-3/8 x 0.154 x 72	54.00	63.00	D2			
B3	2-3/8 x 0.154 x 72	54.00	118.00	D3			
B4	2-3/8 x 0.154 x 72	54.00	144.00	D4			
B5				D5			
B6				D6			

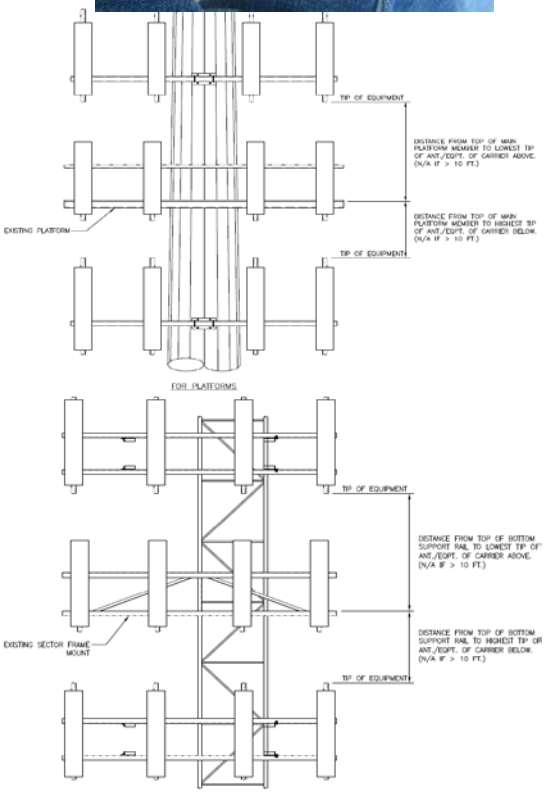
Distance between bottom rail and mount CL elevation (dim d). Unit is inches. See 'Mount Elev Ref' tab for details. :	0.00
Distance from top of bottom support rail to lowest tip of ant./eqpt. of Carrier above. (N/A if > 10 ft.) :	114
Distance from top of bottom support rail to highest tip of ant./eqpt. of Carrier below. (N/A if > 10 ft.) :	65
Please enter additional infomation or comments below.	
Tower Face Width at Mount Elev. (ft.):	Tower Leg Size or Pole Shaft Diameter at Mount Elev. (in.): 29.36
For T-Arms/Platforms on monopoles, report the weld size from the main standoff to the plate bolting into the collar mount.	0.5

	Enter antenna model. If not labeled, enter "Unknown".						Mounting Locations [Units are inches and degrees]			Photos of antennas
Ants. Items	Antenna Models if Known	Width (in.)	Depth (in.)	Height (in.)	Coax Size and Qty	Antenna Center-line (Ft.)	Vertical Distances"b_{1a}, b_{2a}, b_{3a}, b_{1b}...." (Inches)	Horiz. Offset "h" (Use "-" if Ant. is behind)	Antenna Azimuth (Degrees)	Photo Numbers
Sector A										
Ant_{1a}										
Ant_{1b}	LPA-80080/6CF EDIN	14.00	5.50	70.00	(1)1-5/8t	135.5	36.00	16.00	0.00	8
Ant_{1c}										
Ant_{2a}										
Ant_{2b}	BXA-70063-6CF-EDIN	11.00	5.00	71.00	(2)1-5/8t	135.375	37.50	9.00	340.00	8
Ant_{2c}										
Ant_{3a}										
Ant_{3b}	BSA-185085/12CF EDI	6.00	4.00	72.00	(2)1-5/8t	135.5	36.00	8.00	0.00	8
Ant_{3c}										
Ant_{4a}										
Ant_{4b}	LPA-80080/6CF EDIN	14.00	5.50	70.00	(1)1-5/8t	135.25	39.00	16.00	0.00	8
Ant_{4c}										
Ant_{5a}										
Ant_{5b}										
Ant_{5c}										
Ant on Standoff										
Ant on Standoff										
Ant on Tower										
Ant on Tower										

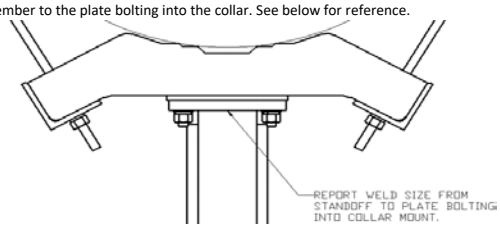
Mount Azimuth (Degree) for Each Sector				Tower Leg Azimuth (Degree) for Each Sector	
Sector A:	0.00	Deg	Leg A:		Deg
Sector B:	120.00	Deg	Leg B:		Deg
Sector C:	240.00	Deg	Leg C:		Deg
Sector D:		Deg	Leg D:		Deg

Climbing Facility Information			
Location:	120.00	Deg	Sector B
Climbing Facility	Corrosion Type:		Good condition.
	Access:		Climbing path was unobstructed.
	Condition:		Good condition.

Please



For T-Arms/Platforms on monopoles, record the weld size from the main standoff member to the plate bolting into the collar. See below for reference.



Sector B										
Ant_{1a}										
Ant_{1b}	LPA-80080/6CF EDIN	14.00	5.50	70.00	(1)1-5/8tx	135.5	36.00	12.00	120.00	13
Ant_{1c}										
Ant_{2a}										
Ant_{2b}	BXA-70063-6CF-EDIN	11.00	5.00	71.00	(2)1-5/8tx	135.375	37.50	9.00	130.00	13
Ant_{2c}										
Ant_{3a}										
Ant_{3b}	BSA-185085/12CF EDI	6.00	4.00	72.00	(2)1-5/8tx	135.5	36.00	8.00	120.00	13
Ant_{3c}										
Ant_{4a}										
Ant_{4b}	LPA-80080/6CF EDIN	14.00	5.50	70.00		135.583	35.00	12.00	120.00	13
Ant_{4c}										
Ant_{5a}										
Ant_{5b}										
Ant_{5c}										
Ant on Standoff										
Ant on Standoff										
Ant on Tower										
Ant on Tower										
Sector C										
Ant_{1a}										
Ant_{1b}	LPA-80080/6CF EDIN	14.00	5.50	70.00	(1)1-5/8tx	135.5	36.00	14.00	240.00	17
Ant_{1c}										
Ant_{2a}										
Ant_{2b}	BXA-70063-6CF-EDIN	11.00	5.00	71.00	(2)1-5/8tx	135.542	35.50	9.00	240.00	17
Ant_{2c}										
Ant_{3a}										
Ant_{3b}	BSA-185085/12CF EDI	6.00	4.00	72.00	(2)1-5/8tx	135.5	36.00	8.00	240.00	17
Ant_{3c}										
Ant_{4a}										
Ant_{4b}	LPA-80080/6CF EDIN	14.00	5.50	70.00	(1)1-5/8tx	135.5	36.00	14.00	240.00	17
Ant_{4c}										
Ant_{5a}										
Ant_{5b}										
Ant_{5c}										
Ant on Standoff										
Ant on Standoff										
Ant on Tower										
Ant on Tower										
Sector D										
Ant_{1a}										
Ant_{1b}										
Ant_{1c}										
Ant_{2a}										
Ant_{2b}										
Ant_{2c}										
Ant_{3a}										
Ant_{3b}										
Ant_{3c}										
Ant_{4a}										
Ant_{4b}										
Ant_{4c}										
Ant_{5a}										
Ant_{5b}										
Ant_{5c}										
Ant on Standoff										
Ant on Standoff										
Ant on Tower										
Ant on Tower										

Observed Safety and Structural Issues During the Mount Mapping		
Issue #	Description of Issue	Photo #
1		
2		
3		
4		
5		
6		
7		
8		

Observed Obstructions to Tower Lighting System					
If the tower lighting system is being obstructed by the carrier's equipment (for example: a light nested by the antennas), please provide photos and fill in the information below.					Photo #
Description of Obstruction:					
Type of Light:		Photo #		Additional Comments:	
Lighting Technology:		Photo #			
Elevation (AGL) at base of light (Ft.):		Photo #			
Is a service loop available?		Photo #			
Is beacon installed on an extension?		Photo #			

Mapping Notes
1. Please report any visible structural or safety issues observed on the antenna mounts (Damaged members, loose connections, tilting mounts, safety climb issues, etc.)
2. If the thickness of the existing pipes or tubing can't be obtained from a general tool (such as Caliper), please use an ultrasonic measurement tool (thickness gauge) to measure the thickness.
3. Please create all required detail sketches of the mounts and insert them into the "Sketches" tab.
4. Please measure and enter the bolt sizes and types under the Members Box in the spreadsheet of the mount type.
5. Take and label the photos of the tower, mounts, connections, antennas and all measurements. Minimum 50 photos are required.
6. Please measure and report the size and length of all existing antenna mounting pipes.
7. Please measure and report the antenna information for all sectors.
8. Don't delete or rearrange any sheet or contents of any sheet from this mapping form.

Standard Conditions
1. Obvious safety and structural issues/deficiencies noticed at the time of the mount mapping are to be reported in this mapping. However, this mount mapping is not a condition assessment of the mount.

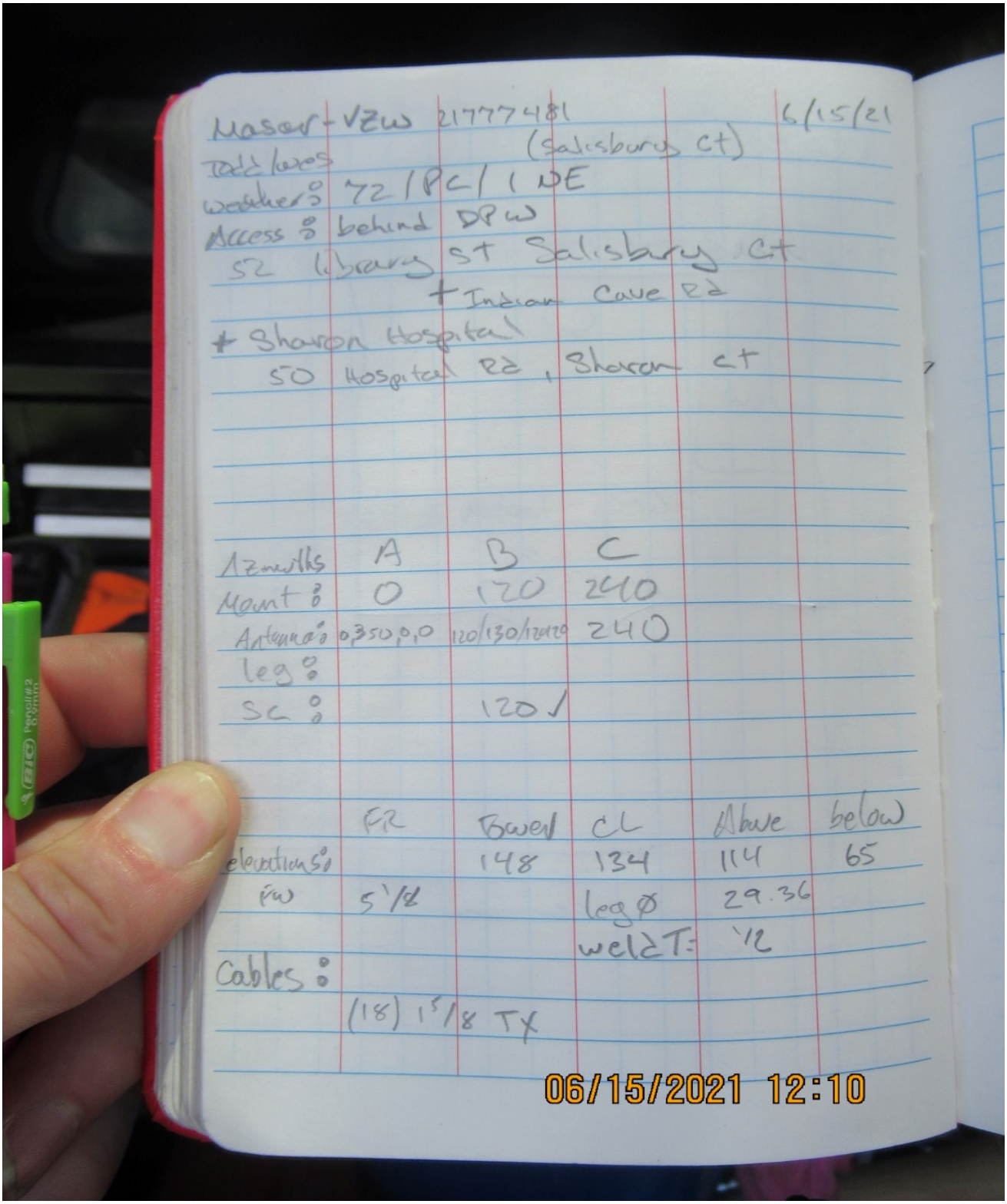
V4.0 Updated on 3-31-2021

Antenna Mount Mapping Form (PATENT PENDING)

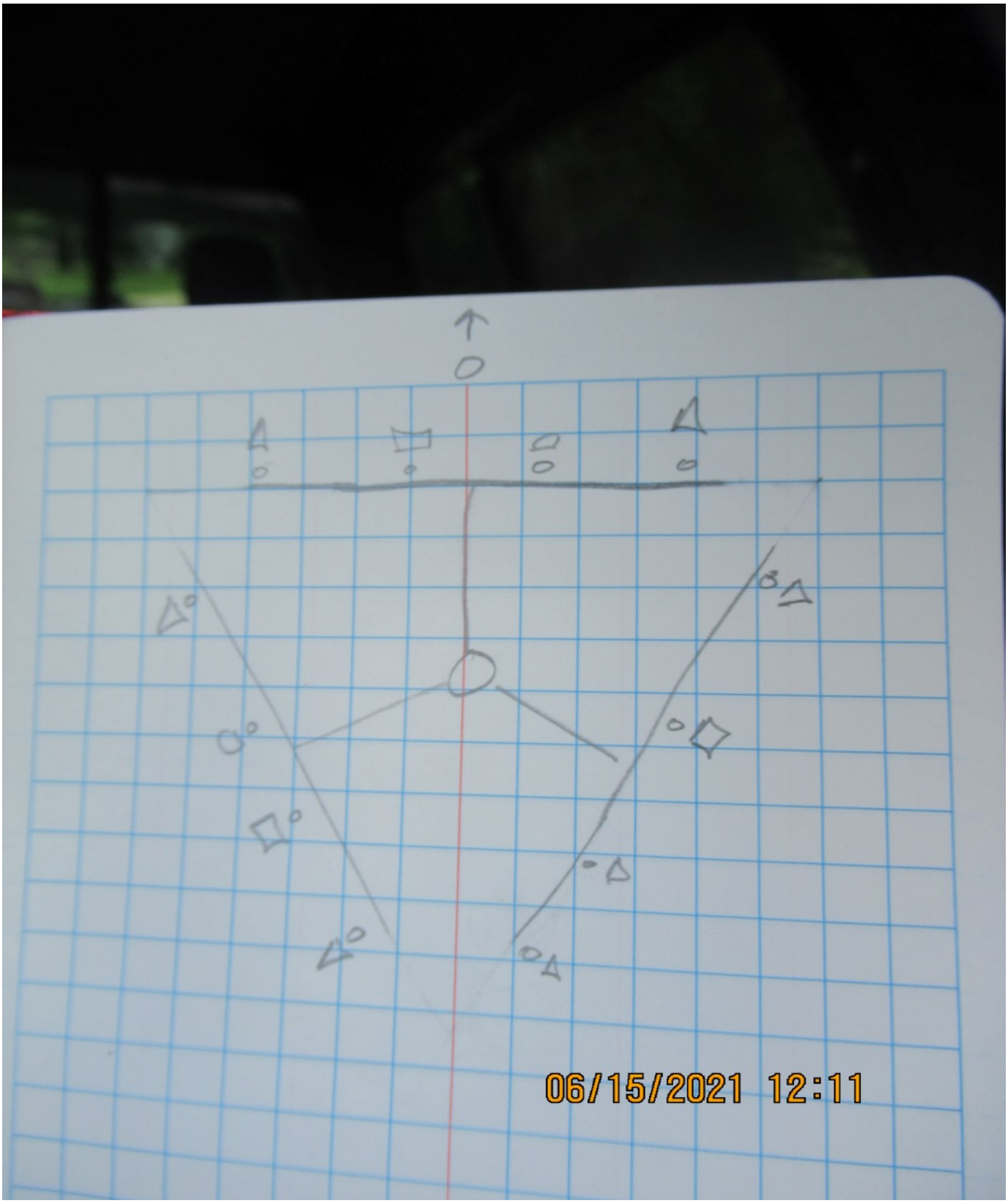
FCC #

Tower Owner:	ATC	**Mapping Date:**	6/15/2021
Site Name:	Salisbury CT	**Tower Type:**	Monopole
Site Number or ID:	16272053	**Tower Height (Ft.):**	148
Mapping Contractor:	Structural Components	**Mount Elevation (Ft.):**	134

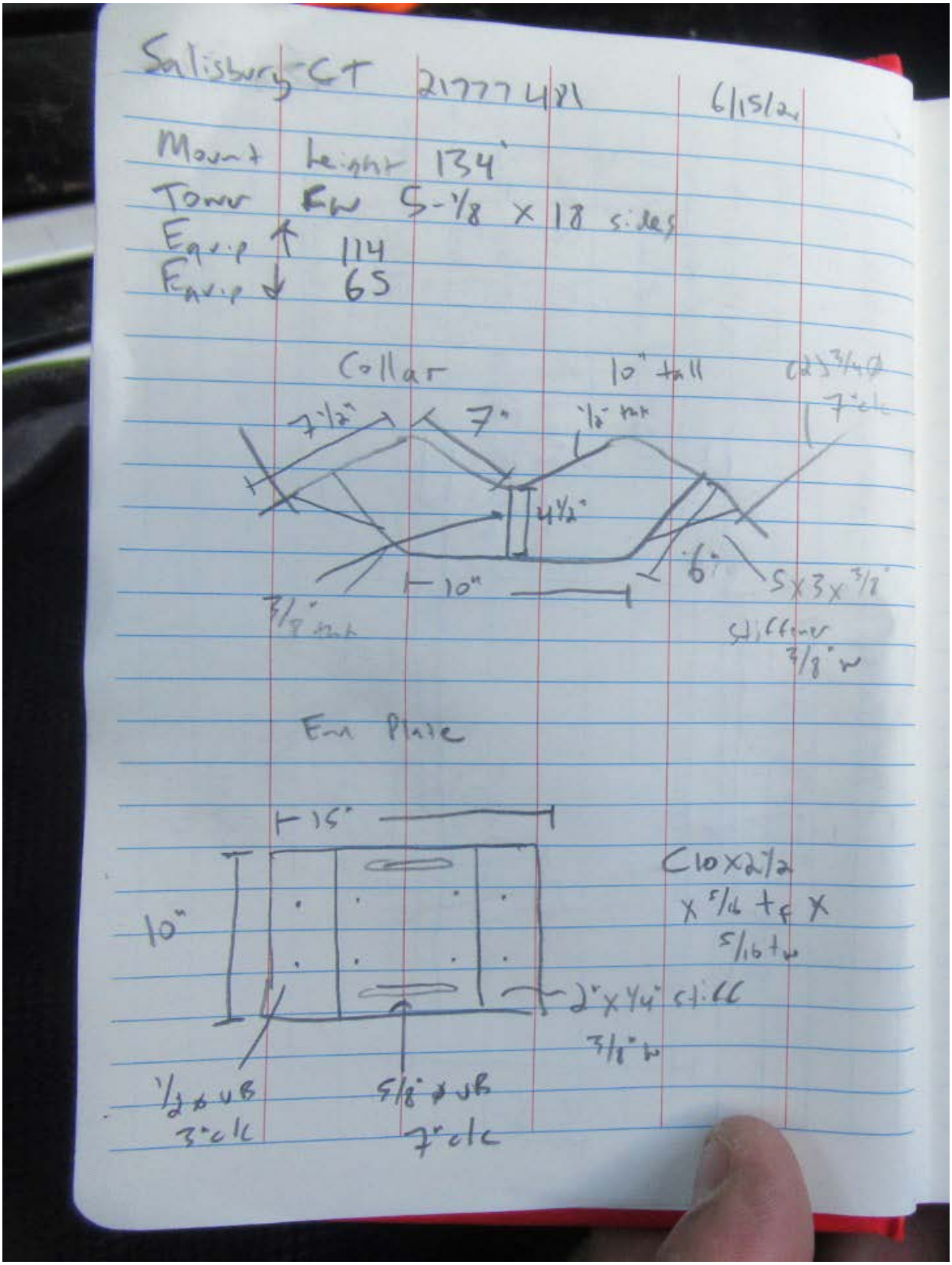
Please Insert Sketches of the Antenna Mount



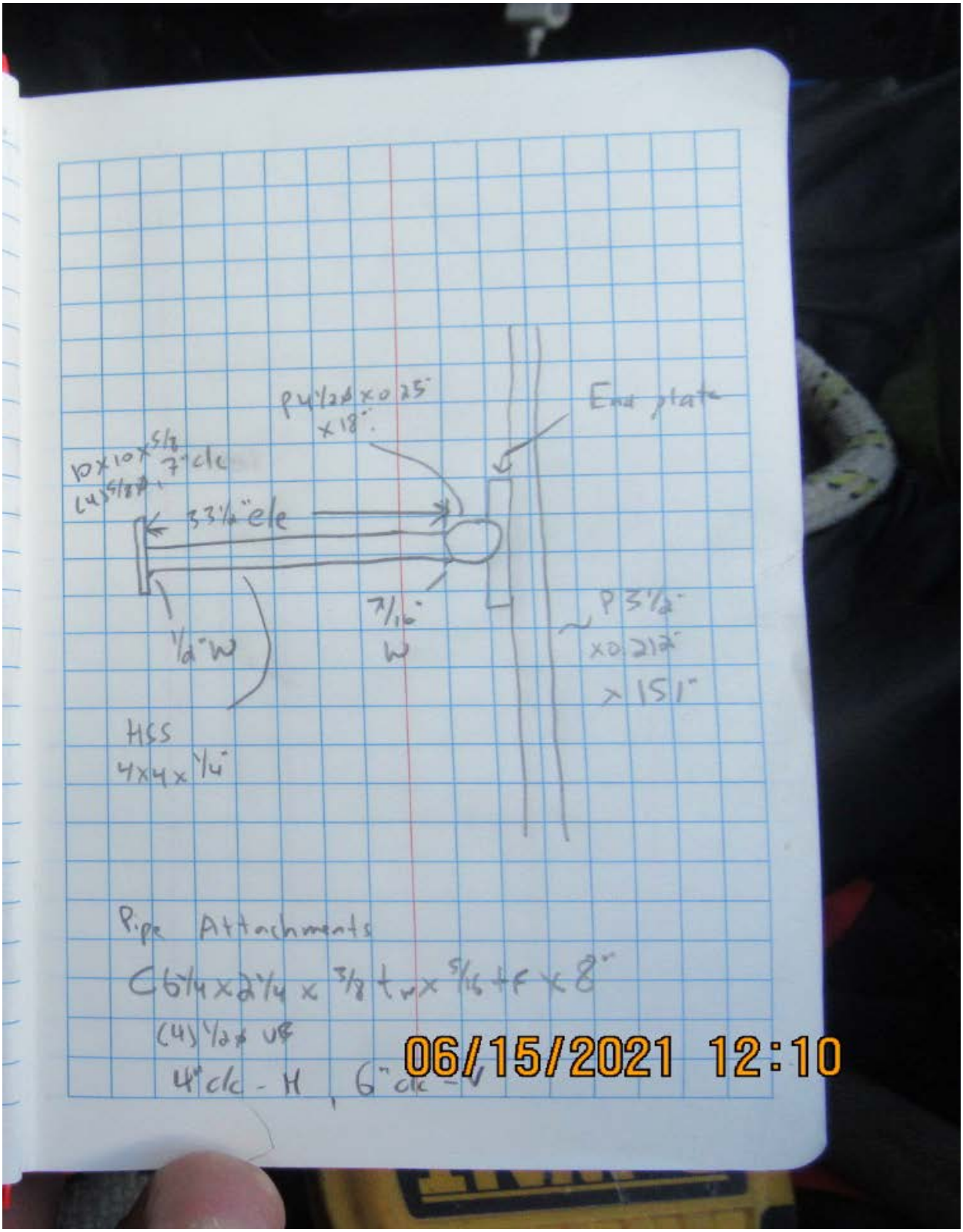
Please Insert Sketches of the Antenna Mount, cont'd

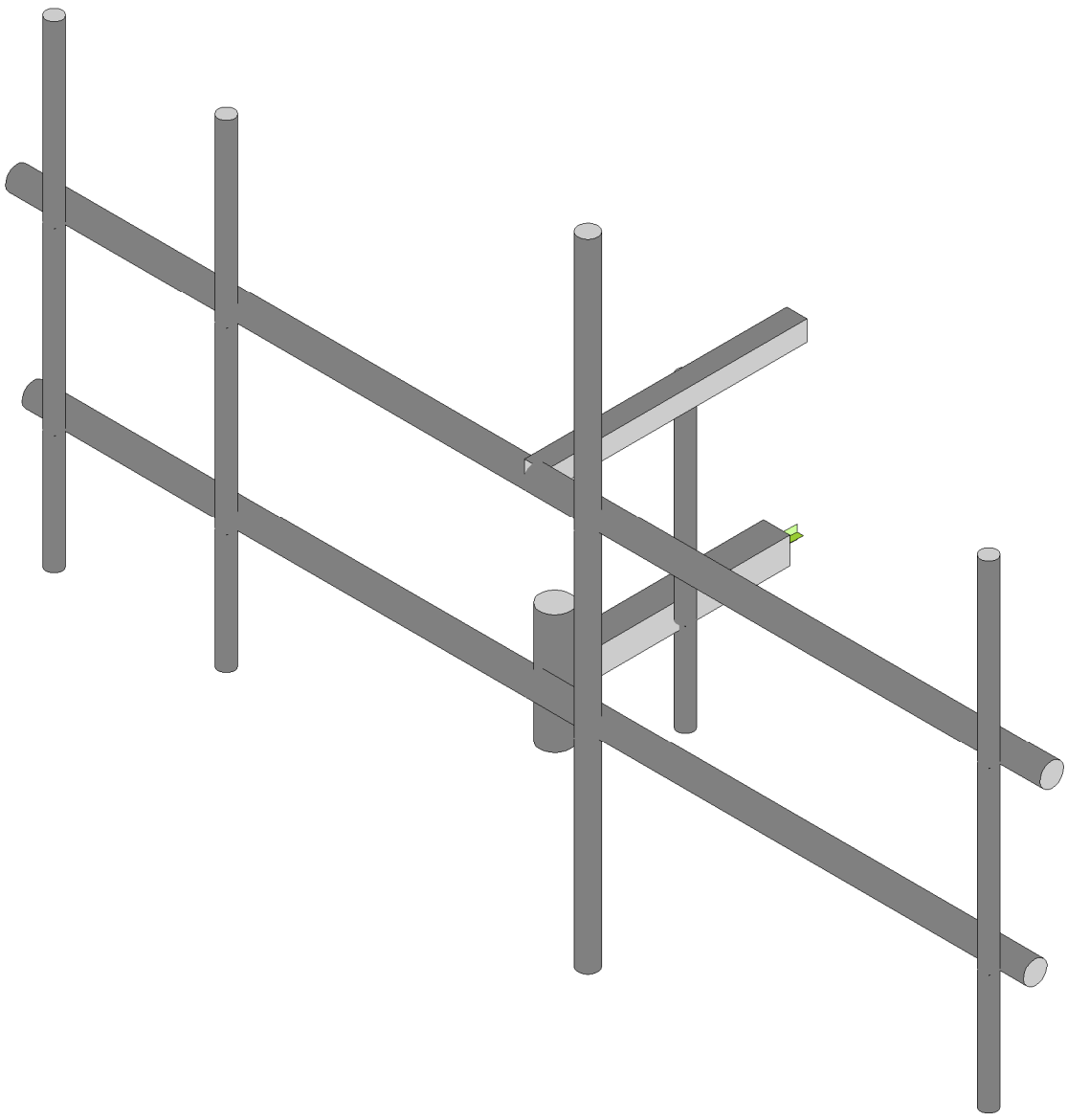


Please Insert Sketches of the Antenna Mount, cont'd



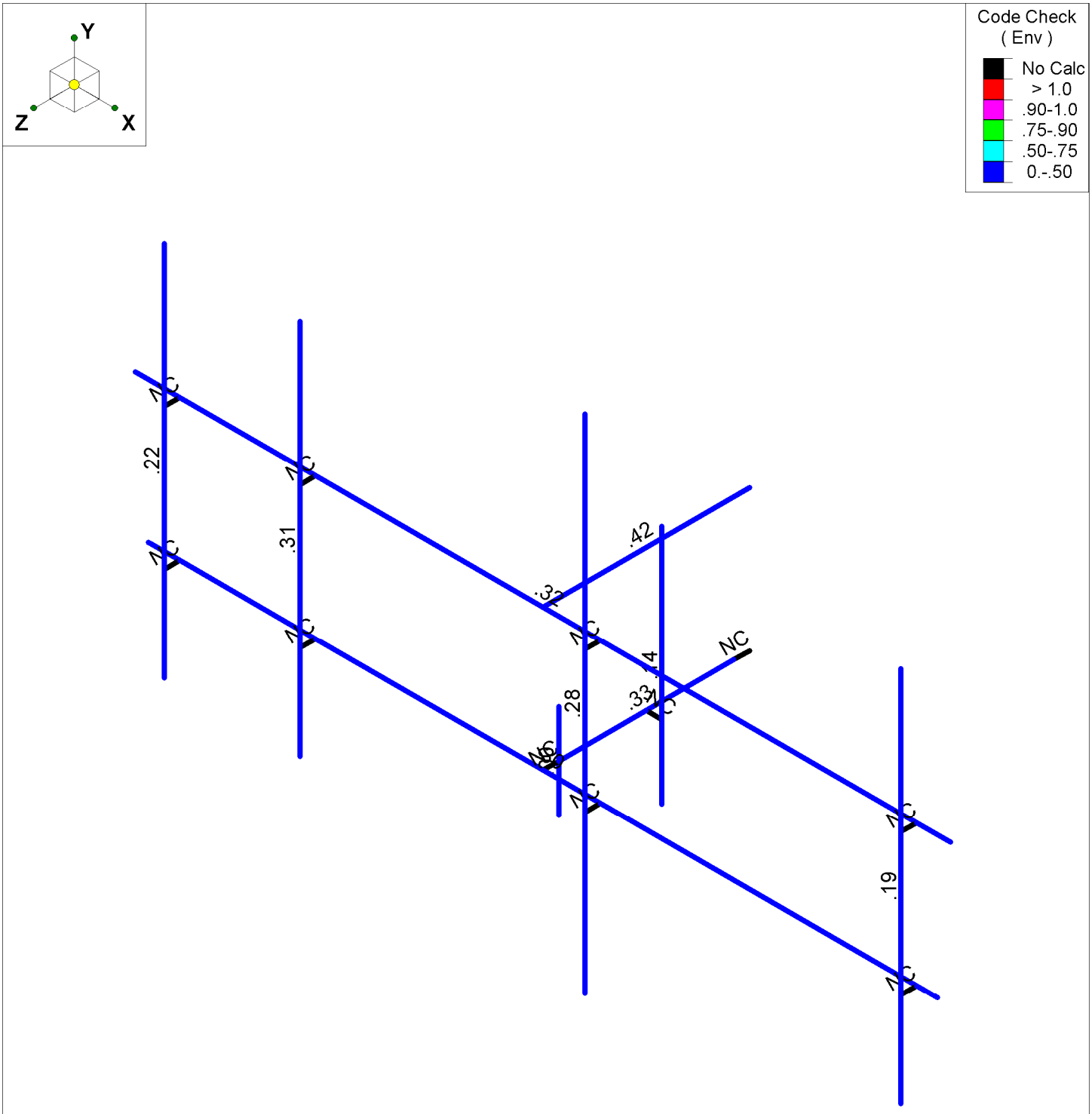
Please Insert Sketches of the Antenna Mount, cont'd





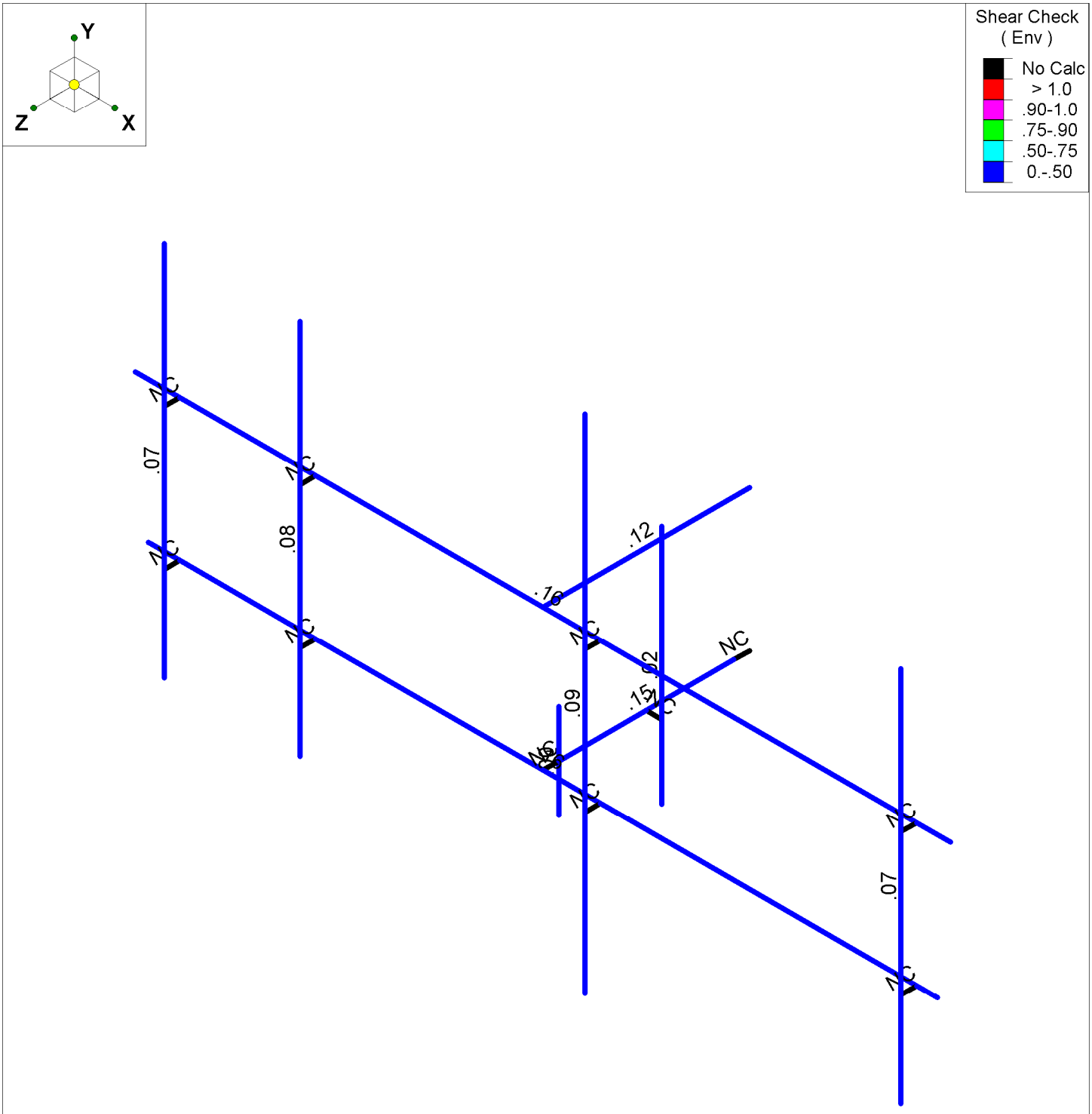
Envelope Only Solution

Maser Consulting	468684-VZW_MT_LOT_SectorA_H	SK - 1
DC		July 19, 2021 at 11:02 PM
		468684-VZW_MT_LOT_A_H.r3d



Member Code Checks Displayed (Enveloped)
Envelope Only Solution

Maser Consulting	468684-VZW_MT_LOT_SectorA_H	SK - 2
DC		July 19, 2021 at 11:02 PM
		468684-VZW_MT_LOT_A_H.r3d



Member Shear Checks Displayed (Enveloped)
Envelope Only Solution

Maser Consulting	468684-VZW_MT_LOT_SectorA_H	SK - 3
DC		July 19, 2021 at 11:02 PM
		468684-VZW_MT_LOT_A_H.r3d

Basic Load Cases

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distributed	Area(Me...	Surface(...
1	Antenna D	None					39			
2	Antenna Di	None					39			
3	Antenna Wo (0 Deg)	None					39			
4	Antenna Wo (30 Deg)	None					39			
5	Antenna Wo (60 Deg)	None					39			
6	Antenna Wo (90 Deg)	None					39			
7	Antenna Wo (120 Deg)	None					39			
8	Antenna Wo (150 Deg)	None					39			
9	Antenna Wo (180 Deg)	None					39			
10	Antenna Wo (210 Deg)	None					39			
11	Antenna Wo (240 Deg)	None					39			
12	Antenna Wo (270 Deg)	None					39			
13	Antenna Wo (300 Deg)	None					39			
14	Antenna Wo (330 Deg)	None					39			
15	Antenna Wi (0 Deg)	None					39			
16	Antenna Wi (30 Deg)	None					39			
17	Antenna Wi (60 Deg)	None					39			
18	Antenna Wi (90 Deg)	None					39			
19	Antenna Wi (120 Deg)	None					39			
20	Antenna Wi (150 Deg)	None					39			
21	Antenna Wi (180 Deg)	None					39			
22	Antenna Wi (210 Deg)	None					39			
23	Antenna Wi (240 Deg)	None					39			
24	Antenna Wi (270 Deg)	None					39			
25	Antenna Wi (300 Deg)	None					39			
26	Antenna Wi (330 Deg)	None					39			
27	Antenna Wm (0 Deg)	None					39			
28	Antenna Wm (30 Deg)	None					39			
29	Antenna Wm (60 Deg)	None					39			
30	Antenna Wm (90 Deg)	None					39			
31	Antenna Wm (120 Deg)	None					39			
32	Antenna Wm (150 Deg)	None					39			
33	Antenna Wm (180 Deg)	None					39			
34	Antenna Wm (210 Deg)	None					39			
35	Antenna Wm (240 Deg)	None					39			
36	Antenna Wm (270 Deg)	None					39			
37	Antenna Wm (300 Deg)	None					39			
38	Antenna Wm (330 Deg)	None					39			
39	Structure D	None		-1						
40	Structure Di	None						10		
41	Structure Wo (0 Deg)	None						20		
42	Structure Wo (30 Deg)	None						20		
43	Structure Wo (60 Deg)	None						20		
44	Structure Wo (90 Deg)	None						20		
45	Structure Wo (120 Deg)	None						20		
46	Structure Wo (150 Deg)	None						20		
47	Structure Wo (180 Deg)	None						20		
48	Structure Wo (210 Deg)	None						20		
49	Structure Wo (240 Deg)	None						20		
50	Structure Wo (270 Deg)	None						20		
51	Structure Wo (300 Deg)	None						20		
52	Structure Wo (330 Deg)	None						20		
53	Structure Wi (0 Deg)	None						20		

Basic Load Cases (Continued)

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distributed	Area(Me...	Surface(...
54	Structure Wi (30 Deg)	None						20		
55	Structure Wi (60 Deg)	None						20		
56	Structure Wi (90 Deg)	None						20		
57	Structure Wi (120 Deg)	None						20		
58	Structure Wi (150 Deg)	None						20		
59	Structure Wi (180 Deg)	None						20		
60	Structure Wi (210 Deg)	None						20		
61	Structure Wi (240 Deg)	None						20		
62	Structure Wi (270 Deg)	None						20		
63	Structure Wi (300 Deg)	None						20		
64	Structure Wi (330 Deg)	None						20		
65	Structure Wm (0 Deg)	None						20		
66	Structure Wm (30 Deg)	None						20		
67	Structure Wm (60 Deg)	None						20		
68	Structure Wm (90 Deg)	None						20		
69	Structure Wm (120 Deg)	None						20		
70	Structure Wm (150 Deg)	None						20		
71	Structure Wm (180 Deg)	None						20		
72	Structure Wm (210 Deg)	None						20		
73	Structure Wm (240 Deg)	None						20		
74	Structure Wm (270 Deg)	None						20		
75	Structure Wm (300 Deg)	None						20		
76	Structure Wm (330 Deg)	None						20		
77	Lm1	None					1			
78	Lm2	None					1			
79	Lv1	None					1			
80	Lv2	None					1			

Load Combinations

	Description	S...	PDelta	S...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...
1	1.2D+1.0Wo (0 Deg)	Yes	Y		1	1.2	39	1.2	3	1	41	1																
2	1.2D+1.0Wo (30 Deg)	Yes	Y		1	1.2	39	1.2	4	1	42	1																
3	1.2D+1.0Wo (60 Deg)	Yes	Y		1	1.2	39	1.2	5	1	43	1																
4	1.2D+1.0Wo (90 Deg)	Yes	Y		1	1.2	39	1.2	6	1	44	1																
5	1.2D+1.0Wo (120 Deg)	Yes	Y		1	1.2	39	1.2	7	1	45	1																
6	1.2D+1.0Wo (150 Deg)	Yes	Y		1	1.2	39	1.2	8	1	46	1																
7	1.2D+1.0Wo (180 Deg)	Yes	Y		1	1.2	39	1.2	9	1	47	1																
8	1.2D+1.0Wo (210 Deg)	Yes	Y		1	1.2	39	1.2	10	1	48	1																
9	1.2D+1.0Wo (240 Deg)	Yes	Y		1	1.2	39	1.2	11	1	49	1																
10	1.2D+1.0Wo (270 Deg)	Yes	Y		1	1.2	39	1.2	12	1	50	1																
11	1.2D+1.0Wo (300 Deg)	Yes	Y		1	1.2	39	1.2	13	1	51	1																
12	1.2D+1.0Wo (330 Deg)	Yes	Y		1	1.2	39	1.2	14	1	52	1																
13	1.2D + 1.0Di + 1.0Wi (0 ...	Yes	Y		1	1.2	39	1.2	2	1	40	1	15	1	53	1												
14	1.2D + 1.0Di + 1.0Wi (30...	Yes	Y		1	1.2	39	1.2	2	1	40	1	16	1	54	1												
15	1.2D + 1.0Di + 1.0Wi (60...	Yes	Y		1	1.2	39	1.2	2	1	40	1	17	1	55	1												
16	1.2D + 1.0Di + 1.0Wi (90...	Yes	Y		1	1.2	39	1.2	2	1	40	1	18	1	56	1												
17	1.2D + 1.0Di + 1.0Wi (12...	Yes	Y		1	1.2	39	1.2	2	1	40	1	19	1	57	1												
18	1.2D + 1.0Di + 1.0Wi (15...	Yes	Y		1	1.2	39	1.2	2	1	40	1	20	1	58	1												
19	1.2D + 1.0Di + 1.0Wi (18...	Yes	Y		1	1.2	39	1.2	2	1	40	1	21	1	59	1												
20	1.2D + 1.0Di + 1.0Wi (21...	Yes	Y		1	1.2	39	1.2	2	1	40	1	22	1	60	1												
21	1.2D + 1.0Di + 1.0Wi (24...	Yes	Y		1	1.2	39	1.2	2	1	40	1	23	1	61	1												
22	1.2D + 1.0Di + 1.0Wi (27...	Yes	Y		1	1.2	39	1.2	2	1	40	1	24	1	62	1												
23	1.2D + 1.0Di + 1.0Wi (30...	Yes	Y		1	1.2	39	1.2	2	1	40	1	25	1	63	1												
24	1.2D + 1.0Di + 1.0Wi (33...	Yes	Y		1	1.2	39	1.2	2	1	40	1	26	1	64	1												
25	1.2D + 1.5Lm1 + 1.0Wm...	Yes	Y		1	1.2	39	1.2	77	1.5	27	1	65	1														

Load Combinations (Continued)

	Description	S...	PDelta	S...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...	B...	Fa...
26	1.2D + 1.5Lm1 + 1.0Wm...	Yes	Y		1	1.2	39	1.2	77	1.5	28	1	66	1										
27	1.2D + 1.5Lm1 + 1.0Wm...	Yes	Y		1	1.2	39	1.2	77	1.5	29	1	67	1										
28	1.2D + 1.5Lm1 + 1.0Wm...	Yes	Y		1	1.2	39	1.2	77	1.5	30	1	68	1										
29	1.2D + 1.5Lm1 + 1.0Wm...	Yes	Y		1	1.2	39	1.2	77	1.5	31	1	69	1										
30	1.2D + 1.5Lm1 + 1.0Wm...	Yes	Y		1	1.2	39	1.2	77	1.5	32	1	70	1										
31	1.2D + 1.5Lm1 + 1.0Wm...	Yes	Y		1	1.2	39	1.2	77	1.5	33	1	71	1										
32	1.2D + 1.5Lm1 + 1.0Wm...	Yes	Y		1	1.2	39	1.2	77	1.5	34	1	72	1										
33	1.2D + 1.5Lm1 + 1.0Wm...	Yes	Y		1	1.2	39	1.2	77	1.5	35	1	73	1										
34	1.2D + 1.5Lm1 + 1.0Wm...	Yes	Y		1	1.2	39	1.2	77	1.5	36	1	74	1										
35	1.2D + 1.5Lm1 + 1.0Wm...	Yes	Y		1	1.2	39	1.2	77	1.5	37	1	75	1										
36	1.2D + 1.5Lm1 + 1.0Wm...	Yes	Y		1	1.2	39	1.2	77	1.5	38	1	76	1										
37	1.2D + 1.5Lm2 + 1.0Wm...	Yes	Y		1	1.2	39	1.2	78	1.5	27	1	65	1										
38	1.2D + 1.5Lm2 + 1.0Wm...	Yes	Y		1	1.2	39	1.2	78	1.5	28	1	66	1										
39	1.2D + 1.5Lm2 + 1.0Wm...	Yes	Y		1	1.2	39	1.2	78	1.5	29	1	67	1										
40	1.2D + 1.5Lm2 + 1.0Wm...	Yes	Y		1	1.2	39	1.2	78	1.5	30	1	68	1										
41	1.2D + 1.5Lm2 + 1.0Wm...	Yes	Y		1	1.2	39	1.2	78	1.5	31	1	69	1										
42	1.2D + 1.5Lm2 + 1.0Wm...	Yes	Y		1	1.2	39	1.2	78	1.5	32	1	70	1										
43	1.2D + 1.5Lm2 + 1.0Wm...	Yes	Y		1	1.2	39	1.2	78	1.5	33	1	71	1										
44	1.2D + 1.5Lm2 + 1.0Wm...	Yes	Y		1	1.2	39	1.2	78	1.5	34	1	72	1										
45	1.2D + 1.5Lm2 + 1.0Wm...	Yes	Y		1	1.2	39	1.2	78	1.5	35	1	73	1										
46	1.2D + 1.5Lm2 + 1.0Wm...	Yes	Y		1	1.2	39	1.2	78	1.5	36	1	74	1										
47	1.2D + 1.5Lm2 + 1.0Wm...	Yes	Y		1	1.2	39	1.2	78	1.5	37	1	75	1										
48	1.2D + 1.5Lm2 + 1.0Wm...	Yes	Y		1	1.2	39	1.2	78	1.5	38	1	76	1										
49	1.2D + 1.5Lv1	Yes	Y		1	1.2	39	1.2	79	1.5														
50	1.2D + 1.5Lv2	Yes	Y		1	1.2	39	1.2	80	1.5														
51	1.4D	Yes	Y		1	1.4	39	1.4																

Joint Coordinates and Temperatures

	Label	X [ft]	Y [ft]	Z [ft]	Temp [F]	Detach From Diap...
1	N1	0	0	0	0	
2	N2	0	0	.25	0	
3	N3	0	0	3.041667	0	
4	N4	0	.75	3.041667	0	
5	N5	0	-.75	3.041667	0	
6	N6	0	0	3.291667	0	
7	N7	6.291667	0	3.291667	0	
8	N8	-6.291667	0	3.291667	0	
9	N9	5.958333	0	3.291667	0	
10	N10	0.916667	0	3.291667	0	
11	N11	-3.625	0	3.291667	0	
12	N12	-5.791667	0	3.291667	0	
13	N13	5.958333	0	3.541667	0	
14	N14	0.916667	0	3.541667	0	
15	N15	-3.625	0	3.541667	0	
16	N16	-5.791667	0	3.541667	0	
17	N17	5.958333	4.5	3.541667	0	
18	N18	0.916667	5.5	3.541667	0	
19	N19	-3.625	4.5	3.541667	0	
20	N20	-5.791667	4.5	3.541667	0	
21	N21	5.958333	-1.5	3.541667	0	
22	N22	0.916667	-2.5	3.541667	0	
23	N23	-3.625	-1.5	3.541667	0	
24	N24	-5.791667	-1.5	3.541667	0	
25	N25	0	0	1.645833	0	
26	N26	.25	0	1.645833	0	

Joint Coordinates and Temperatures (Continued)

	Label	X [ft]	Y [ft]	Z [ft]	Temp [F]	Detach From Diap...
27	N27	.25	2.666667	1.645833	0	
28	N28	.25	-1.166667	1.645833	0	
29	N29	6.5	2.25	3.291667	0	
30	N30	-6.5	2.25	3.291667	0	
31	N31	5.958333	2.25	3.291667	0	
32	N32	0.916667	2.25	3.291667	0	
33	N33	-3.625	2.25	3.291667	0	
34	N34	-5.791667	2.25	3.291667	0	
35	N35	5.958333	2.25	3.541667	0	
36	N36	0.916667	2.25	3.541667	0	
37	N37	-3.625	2.25	3.541667	0	
38	N38	-5.791667	2.25	3.541667	0	
39	N39	0	2.25	0	0	
40	N40	0	2.25	3.291667	0	

Hot Rolled Steel Section Sets

	Label	Shape	Type	Design List	Material	Design ...	A [in2]	Iyy [in4]	Izz [in4]	J [in4]
1	Antenna Pipe	PIPE_2.0	Column	Pipe	A53 Gr. B	Typical	1.02	.627	.627	1.25
2	Tieback	PIPE_2.0	Beam	Pipe	A53 Gr. B	Typical	1.02	.627	.627	1.25
3	Mast Pipe	PIPE_4.0	Beam	Pipe	A53 Gr. B	Typical	2.96	6.82	6.82	13.6
4	HSS Standoff	HSS4X4X4	Beam	Tube	A500 Gr. B 46	Typical	3.37	7.8	7.8	12.8
5	Face Horizontal	PIPE_3.0	Beam	Pipe	A36 Gr.36	Typical	2.07	2.85	2.85	5.69
6	OVP Pipe	PIPE_2.0	Beam	Pipe	A36 Gr.36	Typical	1.02	.627	.627	1.25
7	Secondary Horizonal	PIPE_3.0	Beam	Pipe	A36 Gr.36	Typical	2.07	2.85	2.85	5.69
8	T-Arm Kit	HSS3X3X4	Beam	Tube	A500 Gr. B 46	Typical	2.44	3.02	3.02	5.08
9	Replacement Pipe	PIPE_2.5	Column	Pipe	A53 Gr. B	Typical	1.61	1.45	1.45	2.89

Hot Rolled Steel Properties

	Label	E [ksi]	G [ksi]	Nu	Therm (/1...	Density[k/ft^3]	Yield[ksi]	Ry	Fu[ksi]	Rt
1	A36 Gr.36	29000	11154	.3	.65	.49	36	1.5	58	1.2
2	A53 Gr. B	29000	11154	.3	.65	.49	35	1.5	60	1.2
3	A572 Gr.50	29000	11154	.3	.65	.49	50	1.1	65	1.1
4	A992	29000	11154	.3	.65	.49	50	1.1	65	1.1
5	A500 Gr. B 42	29000	11154	.3	.65	.49	42	1.4	58	1.3
6	A500 Gr. B 46	29000	11154	.3	.65	.49	46	1.4	58	1.3

Member Primary Data

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
1	M1	N2	N3			HSS Standoff	Beam	Tube	A500 Gr. ...	Typical
2	M2	N2	N1			RIGID	None	None	RIGID	Typical
3	M3	N4	N5			Mast Pipe	Beam	Pipe	A53 Gr. B	Typical
4	M4	N3	N6			RIGID	None	None	RIGID	Typical
5	M5	N8	N7			Face Horizontal	Beam	Pipe	A36 Gr.36	Typical
6	M6	N12	N16			RIGID	None	None	RIGID	Typical
7	M7	N11	N15			RIGID	None	None	RIGID	Typical
8	M8	N10	N14			RIGID	None	None	RIGID	Typical
9	M9	N9	N13			RIGID	None	None	RIGID	Typical
10	MP1A	N17	N21			Antenna Pipe	Column	Pipe	A53 Gr. B	Typical
11	MP2A	N18	N22			Replacement ...	Column	Pipe	A53 Gr. B	Typical
12	MP3A	N19	N23			Antenna Pipe	Column	Pipe	A53 Gr. B	Typical
13	MP4A	N20	N24			Antenna Pipe	Column	Pipe	A53 Gr. B	Typical
14	M14	N27	N28			OVP Pipe	Beam	Pipe	A36 Gr.36	Typical

Member Primary Data (Continued)

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
15	M15	N25	N26			RIGID	None	None	RIGID	Typical
16	M16	N34	N38			RIGID	None	None	RIGID	Typical
17	M17	N33	N37			RIGID	None	None	RIGID	Typical
18	M18	N32	N36			RIGID	None	None	RIGID	Typical
19	M19	N31	N35			RIGID	None	None	RIGID	Typical
20	M20	N30	N29			Secondary Hor...	Beam	Pipe	A36 Gr.36	Typical
21	M21	N39	N40			T-Arm Kit	Beam	Tube	A500 Gr. ...	Typical

Member Advanced Data

	Label	I Release	J Release	I Offset[in]	J Offset[in]	T/C Only	Physical	Defl Rat...	Analysis ...	Inactive	Seismic...
1	M1						Yes				None
2	M2						Yes	** NA **			None
3	M3						Yes				None
4	M4	OOOOXO					Yes	** NA **			None
5	M5						Yes				None
6	M6						Yes	** NA **			None
7	M7						Yes	** NA **			None
8	M8						Yes	** NA **			None
9	M9						Yes	** NA **			None
10	MP1A						Yes	** NA **			None
11	MP2A						Yes	** NA **			None
12	MP3A						Yes	** NA **			None
13	MP4A						Yes	** NA **			None
14	M14						Yes				None
15	M15						Yes	** NA **			None
16	M16						Yes	** NA **			None
17	M17						Yes	** NA **			None
18	M18						Yes	** NA **			None
19	M19						Yes	** NA **			None
20	M20						Yes	Default			None
21	M21						Yes				None

Member Point Loads (BLC 1 : Antenna D)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	Y	-10.5	.25
2	MP1A	My	-.005	.25
3	MP1A	Mz	0	.25
4	MP1A	Y	-10.5	5.75
5	MP1A	My	-.005	5.75
6	MP1A	Mz	0	5.75
7	MP4A	Y	-10.5	.25
8	MP4A	My	-.005	.25
9	MP4A	Mz	0	.25
10	MP4A	Y	-10.5	5.75
11	MP4A	My	-.005	5.75
12	MP4A	Mz	0	5.75
13	MP2A	Y	-23	1.25
14	MP2A	My	-.011	1.25
15	MP2A	Mz	.015	1.25
16	MP2A	Y	-23	6.75
17	MP2A	My	-.011	6.75
18	MP2A	Mz	.015	6.75
19	MP2A	Y	-23	1.25
20	MP2A	My	-.011	1.25

Member Point Loads (BLC 1 : Antenna D) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
21	MP2A	Mz	-.015	1.25
22	MP2A	Y	-23	6.75
23	MP2A	My	-.011	6.75
24	MP2A	Mz	-.015	6.75
25	MP3A	Y	-43.55	2
26	MP3A	My	-.022	2
27	MP3A	Mz	0	2
28	MP3A	Y	-43.55	4
29	MP3A	My	-.022	4
30	MP3A	Mz	0	4
31	MP2A	Y	-84.4	2
32	MP2A	My	.042	2
33	MP2A	Mz	0	2
34	MP3A	Y	-70.3	2
35	MP3A	My	.035	2
36	MP3A	Mz	0	2
37	M14	Y	-32	1
38	M14	My	0	1
39	M14	Mz	0	1

Member Point Loads (BLC 2 : Antenna Di)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	Y	-58.18	.25
2	MP1A	My	-.029	.25
3	MP1A	Mz	0	.25
4	MP1A	Y	-58.18	5.75
5	MP1A	My	-.029	5.75
6	MP1A	Mz	0	5.75
7	MP4A	Y	-58.18	.25
8	MP4A	My	-.029	.25
9	MP4A	Mz	0	.25
10	MP4A	Y	-58.18	5.75
11	MP4A	My	-.029	5.75
12	MP4A	Mz	0	5.75
13	MP2A	Y	-82.055	1.25
14	MP2A	My	-.041	1.25
15	MP2A	Mz	.055	1.25
16	MP2A	Y	-82.055	6.75
17	MP2A	My	-.041	6.75
18	MP2A	Mz	.055	6.75
19	MP2A	Y	-82.055	1.25
20	MP2A	My	-.041	1.25
21	MP2A	Mz	-.055	1.25
22	MP2A	Y	-82.055	6.75
23	MP2A	My	-.041	6.75
24	MP2A	Mz	-.055	6.75
25	MP3A	Y	-35.431	2
26	MP3A	My	-.018	2
27	MP3A	Mz	0	2
28	MP3A	Y	-35.431	4
29	MP3A	My	-.018	4
30	MP3A	Mz	0	4
31	MP2A	Y	-44.667	2
32	MP2A	My	.022	2
33	MP2A	Mz	0	2
34	MP3A	Y	-40.168	2

Member Point Loads (BLC 2 : Antenna Di) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
35	MP3A	My	.02	2
36	MP3A	Mz	0	2
37	M14	Y	-87.471	1
38	M14	My	0	1
39	M14	Mz	0	1

Member Point Loads (BLC 3 : Antenna Wo (0 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	0	.25
2	MP1A	Z	-79.255	.25
3	MP1A	Mx	0	.25
4	MP1A	X	0	5.75
5	MP1A	Z	-79.255	5.75
6	MP1A	Mx	0	5.75
7	MP4A	X	0	.25
8	MP4A	Z	-79.255	.25
9	MP4A	Mx	0	.25
10	MP4A	X	0	5.75
11	MP4A	Z	-79.255	5.75
12	MP4A	Mx	0	5.75
13	MP2A	X	0	1.25
14	MP2A	Z	-180.657	1.25
15	MP2A	Mx	-.12	1.25
16	MP2A	X	0	6.75
17	MP2A	Z	-180.657	6.75
18	MP2A	Mx	-.12	6.75
19	MP2A	X	0	1.25
20	MP2A	Z	-180.657	1.25
21	MP2A	Mx	.12	1.25
22	MP2A	X	0	6.75
23	MP2A	Z	-180.657	6.75
24	MP2A	Mx	.12	6.75
25	MP3A	X	0	2
26	MP3A	Z	-86.027	2
27	MP3A	Mx	0	2
28	MP3A	X	0	4
29	MP3A	Z	-86.027	4
30	MP3A	Mx	0	4
31	MP2A	X	0	2
32	MP2A	Z	-68.456	2
33	MP2A	Mx	0	2
34	MP3A	X	0	2
35	MP3A	Z	-68.456	2
36	MP3A	Mx	0	2
37	M14	X	0	1
38	M14	Z	-147.563	1
39	M14	Mx	0	1

Member Point Loads (BLC 4 : Antenna Wo (30 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	49.462	.25
2	MP1A	Z	-85.67	.25
3	MP1A	Mx	-.025	.25
4	MP1A	X	49.462	5.75
5	MP1A	Z	-85.67	5.75
6	MP1A	Mx	-.025	5.75

Member Point Loads (BLC 4 : Antenna Wo (30 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
7	MP4A	X	49.462	.25
8	MP4A	Z	-85.67	.25
9	MP4A	Mx	-.025	.25
10	MP4A	X	49.462	5.75
11	MP4A	Z	-85.67	5.75
12	MP4A	Mx	-.025	5.75
13	MP2A	X	84.535	1.25
14	MP2A	Z	-146.419	1.25
15	MP2A	Mx	-.14	1.25
16	MP2A	X	84.535	6.75
17	MP2A	Z	-146.419	6.75
18	MP2A	Mx	-.14	6.75
19	MP2A	X	84.535	1.25
20	MP2A	Z	-146.419	1.25
21	MP2A	Mx	.055	1.25
22	MP2A	X	84.535	6.75
23	MP2A	Z	-146.419	6.75
24	MP2A	Mx	.055	6.75
25	MP3A	X	36.47	2
26	MP3A	Z	-63.168	2
27	MP3A	Mx	-.018	2
28	MP3A	X	36.47	4
29	MP3A	Z	-63.168	4
30	MP3A	Mx	-.018	4
31	MP2A	X	31.391	2
32	MP2A	Z	-54.37	2
33	MP2A	Mx	.016	2
34	MP3A	X	30.304	2
35	MP3A	Z	-52.488	2
36	MP3A	Mx	.015	2
37	M14	X	72.252	1
38	M14	Z	-125.144	1
39	M14	Mx	0	1

Member Point Loads (BLC 5 : Antenna Wo (60 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	119.738	.25
2	MP1A	Z	-69.131	.25
3	MP1A	Mx	-.06	.25
4	MP1A	X	119.738	5.75
5	MP1A	Z	-69.131	5.75
6	MP1A	Mx	-.06	5.75
7	MP4A	X	119.738	.25
8	MP4A	Z	-69.131	.25
9	MP4A	Mx	-.06	.25
10	MP4A	X	119.738	5.75
11	MP4A	Z	-69.131	5.75
12	MP4A	Mx	-.06	5.75
13	MP2A	X	126.351	1.25
14	MP2A	Z	-72.949	1.25
15	MP2A	Mx	-.112	1.25
16	MP2A	X	126.351	6.75
17	MP2A	Z	-72.949	6.75
18	MP2A	Mx	-.112	6.75
19	MP2A	X	126.351	1.25
20	MP2A	Z	-72.949	1.25

Member Point Loads (BLC 5 : Antenna Wo (60 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
21	MP2A	Mx	-.015	1.25
22	MP2A	X	126.351	6.75
23	MP2A	Z	-72.949	6.75
24	MP2A	Mx	-.015	6.75
25	MP3A	X	40.501	2
26	MP3A	Z	-23.383	2
27	MP3A	Mx	-.02	2
28	MP3A	X	40.501	4
29	MP3A	Z	-23.383	4
30	MP3A	Mx	-.02	4
31	MP2A	X	44.542	2
32	MP2A	Z	-25.717	2
33	MP2A	Mx	.022	2
34	MP3A	X	38.895	2
35	MP3A	Z	-22.456	2
36	MP3A	Mx	.019	2
37	M14	X	110.807	1
38	M14	Z	-63.975	1
39	M14	Mx	0	1

Member Point Loads (BLC 6 : Antenna Wo (90 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	157.93	.25
2	MP1A	Z	0	.25
3	MP1A	Mx	-.079	.25
4	MP1A	X	157.93	5.75
5	MP1A	Z	0	5.75
6	MP1A	Mx	-.079	5.75
7	MP4A	X	157.93	.25
8	MP4A	Z	0	.25
9	MP4A	Mx	-.079	.25
10	MP4A	X	157.93	5.75
11	MP4A	Z	0	5.75
12	MP4A	Mx	-.079	5.75
13	MP2A	X	134.311	1.25
14	MP2A	Z	0	1.25
15	MP2A	Mx	-.067	1.25
16	MP2A	X	134.311	6.75
17	MP2A	Z	0	6.75
18	MP2A	Mx	-.067	6.75
19	MP2A	X	134.311	1.25
20	MP2A	Z	0	1.25
21	MP2A	Mx	-.067	1.25
22	MP2A	X	134.311	6.75
23	MP2A	Z	0	6.75
24	MP2A	Mx	-.067	6.75
25	MP3A	X	33.679	2
26	MP3A	Z	0	2
27	MP3A	Mx	-.017	2
28	MP3A	X	33.679	4
29	MP3A	Z	0	4
30	MP3A	Mx	-.017	4
31	MP2A	X	45.759	2
32	MP2A	Z	0	2
33	MP2A	Mx	.023	2
34	MP3A	X	37.065	2

Member Point Loads (BLC 6 : Antenna Wo (90 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
35	MP3A	Z	0	2
36	MP3A	Mx	.019	2
37	M14	X	114.453	1
38	M14	Z	0	1
39	M14	Mx	0	1

Member Point Loads (BLC 7 : Antenna Wo (120 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	119.738	.25
2	MP1A	Z	69.131	.25
3	MP1A	Mx	-.06	.25
4	MP1A	X	119.738	5.75
5	MP1A	Z	69.131	5.75
6	MP1A	Mx	-.06	5.75
7	MP4A	X	119.738	.25
8	MP4A	Z	69.131	.25
9	MP4A	Mx	-.06	.25
10	MP4A	X	119.738	5.75
11	MP4A	Z	69.131	5.75
12	MP4A	Mx	-.06	5.75
13	MP2A	X	126.351	1.25
14	MP2A	Z	72.949	1.25
15	MP2A	Mx	-.015	1.25
16	MP2A	X	126.351	6.75
17	MP2A	Z	72.949	6.75
18	MP2A	Mx	-.015	6.75
19	MP2A	X	126.351	1.25
20	MP2A	Z	72.949	1.25
21	MP2A	Mx	-.112	1.25
22	MP2A	X	126.351	6.75
23	MP2A	Z	72.949	6.75
24	MP2A	Mx	-.112	6.75
25	MP3A	X	40.501	2
26	MP3A	Z	23.383	2
27	MP3A	Mx	-.02	2
28	MP3A	X	40.501	4
29	MP3A	Z	23.383	4
30	MP3A	Mx	-.02	4
31	MP2A	X	44.542	2
32	MP2A	Z	25.717	2
33	MP2A	Mx	.022	2
34	MP3A	X	38.895	2
35	MP3A	Z	22.456	2
36	MP3A	Mx	.019	2
37	M14	X	101.769	1
38	M14	Z	58.756	1
39	M14	Mx	0	1

Member Point Loads (BLC 8 : Antenna Wo (150 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	49.462	.25
2	MP1A	Z	85.67	.25
3	MP1A	Mx	-.025	.25
4	MP1A	X	49.462	5.75
5	MP1A	Z	85.67	5.75
6	MP1A	Mx	-.025	5.75

Member Point Loads (BLC 8 : Antenna Wo (150 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
7	MP4A	X	49.462	.25
8	MP4A	Z	85.67	.25
9	MP4A	Mx	-.025	.25
10	MP4A	X	49.462	5.75
11	MP4A	Z	85.67	5.75
12	MP4A	Mx	-.025	5.75
13	MP2A	X	84.535	1.25
14	MP2A	Z	146.419	1.25
15	MP2A	Mx	.055	1.25
16	MP2A	X	84.535	6.75
17	MP2A	Z	146.419	6.75
18	MP2A	Mx	.055	6.75
19	MP2A	X	84.535	1.25
20	MP2A	Z	146.419	1.25
21	MP2A	Mx	-.14	1.25
22	MP2A	X	84.535	6.75
23	MP2A	Z	146.419	6.75
24	MP2A	Mx	-.14	6.75
25	MP3A	X	36.47	2
26	MP3A	Z	63.168	2
27	MP3A	Mx	-.018	2
28	MP3A	X	36.47	4
29	MP3A	Z	63.168	4
30	MP3A	Mx	-.018	4
31	MP2A	X	31.391	2
32	MP2A	Z	54.37	2
33	MP2A	Mx	.016	2
34	MP3A	X	30.304	2
35	MP3A	Z	52.488	2
36	MP3A	Mx	.015	2
37	M14	X	67.034	1
38	M14	Z	116.106	1
39	M14	Mx	0	1

Member Point Loads (BLC 9 : Antenna Wo (180 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	0	.25
2	MP1A	Z	79.255	.25
3	MP1A	Mx	0	.25
4	MP1A	X	0	5.75
5	MP1A	Z	79.255	5.75
6	MP1A	Mx	0	5.75
7	MP4A	X	0	.25
8	MP4A	Z	79.255	.25
9	MP4A	Mx	0	.25
10	MP4A	X	0	5.75
11	MP4A	Z	79.255	5.75
12	MP4A	Mx	0	5.75
13	MP2A	X	0	1.25
14	MP2A	Z	180.657	1.25
15	MP2A	Mx	.12	1.25
16	MP2A	X	0	6.75
17	MP2A	Z	180.657	6.75
18	MP2A	Mx	.12	6.75
19	MP2A	X	0	1.25
20	MP2A	Z	180.657	1.25

Member Point Loads (BLC 9 : Antenna Wo (180 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
21	MP2A	Mx	-.12	1.25
22	MP2A	X	0	6.75
23	MP2A	Z	180.657	6.75
24	MP2A	Mx	-.12	6.75
25	MP3A	X	0	2
26	MP3A	Z	86.027	2
27	MP3A	Mx	0	2
28	MP3A	X	0	4
29	MP3A	Z	86.027	4
30	MP3A	Mx	0	4
31	MP2A	X	0	2
32	MP2A	Z	68.456	2
33	MP2A	Mx	0	2
34	MP3A	X	0	2
35	MP3A	Z	68.456	2
36	MP3A	Mx	0	2
37	M14	X	0	1
38	M14	Z	147.563	1
39	M14	Mx	0	1

Member Point Loads (BLC 10 : Antenna Wo (210 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	-49.462	.25
2	MP1A	Z	85.67	.25
3	MP1A	Mx	.025	.25
4	MP1A	X	-49.462	5.75
5	MP1A	Z	85.67	5.75
6	MP1A	Mx	.025	5.75
7	MP4A	X	-49.462	.25
8	MP4A	Z	85.67	.25
9	MP4A	Mx	.025	.25
10	MP4A	X	-49.462	5.75
11	MP4A	Z	85.67	5.75
12	MP4A	Mx	.025	5.75
13	MP2A	X	-84.535	1.25
14	MP2A	Z	146.419	1.25
15	MP2A	Mx	.14	1.25
16	MP2A	X	-84.535	6.75
17	MP2A	Z	146.419	6.75
18	MP2A	Mx	.14	6.75
19	MP2A	X	-84.535	1.25
20	MP2A	Z	146.419	1.25
21	MP2A	Mx	-.055	1.25
22	MP2A	X	-84.535	6.75
23	MP2A	Z	146.419	6.75
24	MP2A	Mx	-.055	6.75
25	MP3A	X	-36.47	2
26	MP3A	Z	63.168	2
27	MP3A	Mx	.018	2
28	MP3A	X	-36.47	4
29	MP3A	Z	63.168	4
30	MP3A	Mx	.018	4
31	MP2A	X	-31.391	2
32	MP2A	Z	54.37	2
33	MP2A	Mx	-.016	2
34	MP3A	X	-30.304	2

Member Point Loads (BLC 10 : Antenna Wo (210 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
35	MP3A	Z	52.488	2
36	MP3A	Mx	-.015	2
37	M14	X	-72.252	1
38	M14	Z	125.144	1
39	M14	Mx	0	1

Member Point Loads (BLC 11 : Antenna Wo (240 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	-119.738	.25
2	MP1A	Z	69.131	.25
3	MP1A	Mx	.06	.25
4	MP1A	X	-119.738	5.75
5	MP1A	Z	69.131	5.75
6	MP1A	Mx	.06	5.75
7	MP4A	X	-119.738	.25
8	MP4A	Z	69.131	.25
9	MP4A	Mx	.06	.25
10	MP4A	X	-119.738	5.75
11	MP4A	Z	69.131	5.75
12	MP4A	Mx	.06	5.75
13	MP2A	X	-126.351	1.25
14	MP2A	Z	72.949	1.25
15	MP2A	Mx	.112	1.25
16	MP2A	X	-126.351	6.75
17	MP2A	Z	72.949	6.75
18	MP2A	Mx	.112	6.75
19	MP2A	X	-126.351	1.25
20	MP2A	Z	72.949	1.25
21	MP2A	Mx	.015	1.25
22	MP2A	X	-126.351	6.75
23	MP2A	Z	72.949	6.75
24	MP2A	Mx	.015	6.75
25	MP3A	X	-40.501	2
26	MP3A	Z	23.383	2
27	MP3A	Mx	.02	2
28	MP3A	X	-40.501	4
29	MP3A	Z	23.383	4
30	MP3A	Mx	.02	4
31	MP2A	X	-44.542	2
32	MP2A	Z	25.717	2
33	MP2A	Mx	-.022	2
34	MP3A	X	-38.895	2
35	MP3A	Z	22.456	2
36	MP3A	Mx	-.019	2
37	M14	X	-110.807	1
38	M14	Z	63.975	1
39	M14	Mx	0	1

Member Point Loads (BLC 12 : Antenna Wo (270 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	-157.93	.25
2	MP1A	Z	0	.25
3	MP1A	Mx	.079	.25
4	MP1A	X	-157.93	5.75
5	MP1A	Z	0	5.75
6	MP1A	Mx	.079	5.75

Member Point Loads (BLC 12 : Antenna Wo (270 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
7	MP4A	X	-157.93	.25
8	MP4A	Z	0	.25
9	MP4A	Mx	.079	.25
10	MP4A	X	-157.93	5.75
11	MP4A	Z	0	5.75
12	MP4A	Mx	.079	5.75
13	MP2A	X	-134.311	1.25
14	MP2A	Z	0	1.25
15	MP2A	Mx	.067	1.25
16	MP2A	X	-134.311	6.75
17	MP2A	Z	0	6.75
18	MP2A	Mx	.067	6.75
19	MP2A	X	-134.311	1.25
20	MP2A	Z	0	1.25
21	MP2A	Mx	.067	1.25
22	MP2A	X	-134.311	6.75
23	MP2A	Z	0	6.75
24	MP2A	Mx	.067	6.75
25	MP3A	X	-33.679	2
26	MP3A	Z	0	2
27	MP3A	Mx	.017	2
28	MP3A	X	-33.679	4
29	MP3A	Z	0	4
30	MP3A	Mx	.017	4
31	MP2A	X	-45.759	2
32	MP2A	Z	0	2
33	MP2A	Mx	-.023	2
34	MP3A	X	-37.065	2
35	MP3A	Z	0	2
36	MP3A	Mx	-.019	2
37	M14	X	-114.453	1
38	M14	Z	0	1
39	M14	Mx	0	1

Member Point Loads (BLC 13 : Antenna Wo (300 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	-119.738	.25
2	MP1A	Z	-69.131	.25
3	MP1A	Mx	.06	.25
4	MP1A	X	-119.738	5.75
5	MP1A	Z	-69.131	5.75
6	MP1A	Mx	.06	5.75
7	MP4A	X	-119.738	.25
8	MP4A	Z	-69.131	.25
9	MP4A	Mx	.06	.25
10	MP4A	X	-119.738	5.75
11	MP4A	Z	-69.131	5.75
12	MP4A	Mx	.06	5.75
13	MP2A	X	-126.351	1.25
14	MP2A	Z	-72.949	1.25
15	MP2A	Mx	.015	1.25
16	MP2A	X	-126.351	6.75
17	MP2A	Z	-72.949	6.75
18	MP2A	Mx	.015	6.75
19	MP2A	X	-126.351	1.25
20	MP2A	Z	-72.949	1.25

Member Point Loads (BLC 13 : Antenna Wo (300 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
21	MP2A	Mx	.112	1.25
22	MP2A	X	-126.351	6.75
23	MP2A	Z	-72.949	6.75
24	MP2A	Mx	.112	6.75
25	MP3A	X	-40.501	2
26	MP3A	Z	-23.383	2
27	MP3A	Mx	.02	2
28	MP3A	X	-40.501	4
29	MP3A	Z	-23.383	4
30	MP3A	Mx	.02	4
31	MP2A	X	-44.542	2
32	MP2A	Z	-25.717	2
33	MP2A	Mx	-.022	2
34	MP3A	X	-38.895	2
35	MP3A	Z	-22.456	2
36	MP3A	Mx	-.019	2
37	M14	X	-101.769	1
38	M14	Z	-58.756	1
39	M14	Mx	0	1

Member Point Loads (BLC 14 : Antenna Wo (330 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	-49.462	.25
2	MP1A	Z	-85.67	.25
3	MP1A	Mx	.025	.25
4	MP1A	X	-49.462	5.75
5	MP1A	Z	-85.67	5.75
6	MP1A	Mx	.025	5.75
7	MP4A	X	-49.462	.25
8	MP4A	Z	-85.67	.25
9	MP4A	Mx	.025	.25
10	MP4A	X	-49.462	5.75
11	MP4A	Z	-85.67	5.75
12	MP4A	Mx	.025	5.75
13	MP2A	X	-84.535	1.25
14	MP2A	Z	-146.419	1.25
15	MP2A	Mx	-.055	1.25
16	MP2A	X	-84.535	6.75
17	MP2A	Z	-146.419	6.75
18	MP2A	Mx	-.055	6.75
19	MP2A	X	-84.535	1.25
20	MP2A	Z	-146.419	1.25
21	MP2A	Mx	.14	1.25
22	MP2A	X	-84.535	6.75
23	MP2A	Z	-146.419	6.75
24	MP2A	Mx	.14	6.75
25	MP3A	X	-36.47	2
26	MP3A	Z	-63.168	2
27	MP3A	Mx	.018	2
28	MP3A	X	-36.47	4
29	MP3A	Z	-63.168	4
30	MP3A	Mx	.018	4
31	MP2A	X	-31.391	2
32	MP2A	Z	-54.37	2
33	MP2A	Mx	-.016	2
34	MP3A	X	-30.304	2

Member Point Loads (BLC 14 : Antenna Wo (330 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
35	MP3A	Z	-52.488	2
36	MP3A	Mx	-.015	2
37	M14	X	-67.034	1
38	M14	Z	-116.106	1
39	M14	Mx	0	1

Member Point Loads (BLC 15 : Antenna Wi (0 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	0	.25
2	MP1A	Z	-11.646	.25
3	MP1A	Mx	0	.25
4	MP1A	X	0	5.75
5	MP1A	Z	-11.646	5.75
6	MP1A	Mx	0	5.75
7	MP4A	X	0	.25
8	MP4A	Z	-11.646	.25
9	MP4A	Mx	0	.25
10	MP4A	X	0	5.75
11	MP4A	Z	-11.646	5.75
12	MP4A	Mx	0	5.75
13	MP2A	X	0	1.25
14	MP2A	Z	-24.675	1.25
15	MP2A	Mx	-.016	1.25
16	MP2A	X	0	6.75
17	MP2A	Z	-24.675	6.75
18	MP2A	Mx	-.016	6.75
19	MP2A	X	0	1.25
20	MP2A	Z	-24.675	1.25
21	MP2A	Mx	.016	1.25
22	MP2A	X	0	6.75
23	MP2A	Z	-24.675	6.75
24	MP2A	Mx	.016	6.75
25	MP3A	X	0	2
26	MP3A	Z	-12.171	2
27	MP3A	Mx	0	2
28	MP3A	X	0	4
29	MP3A	Z	-12.171	4
30	MP3A	Mx	0	4
31	MP2A	X	0	2
32	MP2A	Z	-10.255	2
33	MP2A	Mx	0	2
34	MP3A	X	0	2
35	MP3A	Z	-10.255	2
36	MP3A	Mx	0	2
37	M14	X	0	1
38	M14	Z	-20.942	1
39	M14	Mx	0	1

Member Point Loads (BLC 16 : Antenna Wi (30 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	7.083	.25
2	MP1A	Z	-12.269	.25
3	MP1A	Mx	-.004	.25
4	MP1A	X	7.083	5.75
5	MP1A	Z	-12.269	5.75
6	MP1A	Mx	-.004	5.75

Member Point Loads (BLC 16 : Antenna Wi (30 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
7	MP4A	X	7.083	.25
8	MP4A	Z	-12.269	.25
9	MP4A	Mx	-.004	.25
10	MP4A	X	7.083	5.75
11	MP4A	Z	-12.269	5.75
12	MP4A	Mx	-.004	5.75
13	MP2A	X	11.586	1.25
14	MP2A	Z	-20.068	1.25
15	MP2A	Mx	-.019	1.25
16	MP2A	X	11.586	6.75
17	MP2A	Z	-20.068	6.75
18	MP2A	Mx	-.019	6.75
19	MP2A	X	11.586	1.25
20	MP2A	Z	-20.068	1.25
21	MP2A	Mx	.008	1.25
22	MP2A	X	11.586	6.75
23	MP2A	Z	-20.068	6.75
24	MP2A	Mx	.008	6.75
25	MP3A	X	5.212	2
26	MP3A	Z	-9.027	2
27	MP3A	Mx	-.003	2
28	MP3A	X	5.212	4
29	MP3A	Z	-9.027	4
30	MP3A	Mx	-.003	4
31	MP2A	X	4.737	2
32	MP2A	Z	-8.205	2
33	MP2A	Mx	.002	2
34	MP3A	X	4.589	2
35	MP3A	Z	-7.948	2
36	MP3A	Mx	.002	2
37	M14	X	10.271	1
38	M14	Z	-17.79	1
39	M14	Mx	0	1

Member Point Loads (BLC 17 : Antenna Wi (60 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	16.635	.25
2	MP1A	Z	-9.604	.25
3	MP1A	Mx	-.008	.25
4	MP1A	X	16.635	5.75
5	MP1A	Z	-9.604	5.75
6	MP1A	Mx	-.008	5.75
7	MP4A	X	16.635	.25
8	MP4A	Z	-9.604	.25
9	MP4A	Mx	-.008	.25
10	MP4A	X	16.635	5.75
11	MP4A	Z	-9.604	5.75
12	MP4A	Mx	-.008	5.75
13	MP2A	X	17.466	1.25
14	MP2A	Z	-10.084	1.25
15	MP2A	Mx	-.015	1.25
16	MP2A	X	17.466	6.75
17	MP2A	Z	-10.084	6.75
18	MP2A	Mx	-.015	6.75
19	MP2A	X	17.466	1.25
20	MP2A	Z	-10.084	1.25

Member Point Loads (BLC 17 : Antenna Wi (60 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
21	MP2A	Mx	-.002	1.25
22	MP2A	X	17.466	6.75
23	MP2A	Z	-10.084	6.75
24	MP2A	Mx	-.002	6.75
25	MP3A	X	6.001	2
26	MP3A	Z	-3.465	2
27	MP3A	Mx	-.003	2
28	MP3A	X	6.001	4
29	MP3A	Z	-3.465	4
30	MP3A	Mx	-.003	4
31	MP2A	X	6.853	2
32	MP2A	Z	-3.956	2
33	MP2A	Mx	.003	2
34	MP3A	X	6.082	2
35	MP3A	Z	-3.511	2
36	MP3A	Mx	.003	2
37	M14	X	15.92	1
38	M14	Z	-9.191	1
39	M14	Mx	0	1

Member Point Loads (BLC 18 : Antenna Wi (90 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	21.729	.25
2	MP1A	Z	0	.25
3	MP1A	Mx	-.011	.25
4	MP1A	X	21.729	5.75
5	MP1A	Z	0	5.75
6	MP1A	Mx	-.011	5.75
7	MP4A	X	21.729	.25
8	MP4A	Z	0	.25
9	MP4A	Mx	-.011	.25
10	MP4A	X	21.729	5.75
11	MP4A	Z	0	5.75
12	MP4A	Mx	-.011	5.75
13	MP2A	X	18.665	1.25
14	MP2A	Z	0	1.25
15	MP2A	Mx	-.009	1.25
16	MP2A	X	18.665	6.75
17	MP2A	Z	0	6.75
18	MP2A	Mx	-.009	6.75
19	MP2A	X	18.665	1.25
20	MP2A	Z	0	1.25
21	MP2A	Mx	-.009	1.25
22	MP2A	X	18.665	6.75
23	MP2A	Z	0	6.75
24	MP2A	Mx	-.009	6.75
25	MP3A	X	5.182	2
26	MP3A	Z	0	2
27	MP3A	Mx	-.003	2
28	MP3A	X	5.182	4
29	MP3A	Z	0	4
30	MP3A	Mx	-.003	4
31	MP2A	X	7.132	2
32	MP2A	Z	0	2
33	MP2A	Mx	.004	2
34	MP3A	X	5.945	2

Member Point Loads (BLC 18 : Antenna Wi (90 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
35	MP3A	Z	0	2
36	MP3A	Mx	.003	2
37	M14	X	16.621	1
38	M14	Z	0	1
39	M14	Mx	0	1

Member Point Loads (BLC 19 : Antenna Wi (120 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	16.635	.25
2	MP1A	Z	9.604	.25
3	MP1A	Mx	-.008	.25
4	MP1A	X	16.635	5.75
5	MP1A	Z	9.604	5.75
6	MP1A	Mx	-.008	5.75
7	MP4A	X	16.635	.25
8	MP4A	Z	9.604	.25
9	MP4A	Mx	-.008	.25
10	MP4A	X	16.635	5.75
11	MP4A	Z	9.604	5.75
12	MP4A	Mx	-.008	5.75
13	MP2A	X	17.466	1.25
14	MP2A	Z	10.084	1.25
15	MP2A	Mx	-.002	1.25
16	MP2A	X	17.466	6.75
17	MP2A	Z	10.084	6.75
18	MP2A	Mx	-.002	6.75
19	MP2A	X	17.466	1.25
20	MP2A	Z	10.084	1.25
21	MP2A	Mx	-.015	1.25
22	MP2A	X	17.466	6.75
23	MP2A	Z	10.084	6.75
24	MP2A	Mx	-.015	6.75
25	MP3A	X	6.001	2
26	MP3A	Z	3.465	2
27	MP3A	Mx	-.003	2
28	MP3A	X	6.001	4
29	MP3A	Z	3.465	4
30	MP3A	Mx	-.003	4
31	MP2A	X	6.853	2
32	MP2A	Z	3.956	2
33	MP2A	Mx	.003	2
34	MP3A	X	6.082	2
35	MP3A	Z	3.511	2
36	MP3A	Mx	.003	2
37	M14	X	14.74	1
38	M14	Z	8.51	1
39	M14	Mx	0	1

Member Point Loads (BLC 20 : Antenna Wi (150 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	7.083	.25
2	MP1A	Z	12.269	.25
3	MP1A	Mx	-.004	.25
4	MP1A	X	7.083	5.75
5	MP1A	Z	12.269	5.75
6	MP1A	Mx	-.004	5.75

Member Point Loads (BLC 20 : Antenna Wi (150 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
7	MP4A	X	7.083	.25
8	MP4A	Z	12.269	.25
9	MP4A	Mx	-.004	.25
10	MP4A	X	7.083	5.75
11	MP4A	Z	12.269	5.75
12	MP4A	Mx	-.004	5.75
13	MP2A	X	11.586	1.25
14	MP2A	Z	20.068	1.25
15	MP2A	Mx	.008	1.25
16	MP2A	X	11.586	6.75
17	MP2A	Z	20.068	6.75
18	MP2A	Mx	.008	6.75
19	MP2A	X	11.586	1.25
20	MP2A	Z	20.068	1.25
21	MP2A	Mx	-.019	1.25
22	MP2A	X	11.586	6.75
23	MP2A	Z	20.068	6.75
24	MP2A	Mx	-.019	6.75
25	MP3A	X	5.212	2
26	MP3A	Z	9.027	2
27	MP3A	Mx	-.003	2
28	MP3A	X	5.212	4
29	MP3A	Z	9.027	4
30	MP3A	Mx	-.003	4
31	MP2A	X	4.737	2
32	MP2A	Z	8.205	2
33	MP2A	Mx	.002	2
34	MP3A	X	4.589	2
35	MP3A	Z	7.948	2
36	MP3A	Mx	.002	2
37	M14	X	9.59	1
38	M14	Z	16.611	1
39	M14	Mx	0	1

Member Point Loads (BLC 21 : Antenna Wi (180 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	0	.25
2	MP1A	Z	11.646	.25
3	MP1A	Mx	0	.25
4	MP1A	X	0	5.75
5	MP1A	Z	11.646	5.75
6	MP1A	Mx	0	5.75
7	MP4A	X	0	.25
8	MP4A	Z	11.646	.25
9	MP4A	Mx	0	.25
10	MP4A	X	0	5.75
11	MP4A	Z	11.646	5.75
12	MP4A	Mx	0	5.75
13	MP2A	X	0	1.25
14	MP2A	Z	24.675	1.25
15	MP2A	Mx	.016	1.25
16	MP2A	X	0	6.75
17	MP2A	Z	24.675	6.75
18	MP2A	Mx	.016	6.75
19	MP2A	X	0	1.25
20	MP2A	Z	24.675	1.25

Member Point Loads (BLC 21 : Antenna Wi (180 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
21	MP2A	Mx	-.016	1.25
22	MP2A	X	0	6.75
23	MP2A	Z	24.675	6.75
24	MP2A	Mx	-.016	6.75
25	MP3A	X	0	2
26	MP3A	Z	12.171	2
27	MP3A	Mx	0	2
28	MP3A	X	0	4
29	MP3A	Z	12.171	4
30	MP3A	Mx	0	4
31	MP2A	X	0	2
32	MP2A	Z	10.255	2
33	MP2A	Mx	0	2
34	MP3A	X	0	2
35	MP3A	Z	10.255	2
36	MP3A	Mx	0	2
37	M14	X	0	1
38	M14	Z	20.942	1
39	M14	Mx	0	1

Member Point Loads (BLC 22 : Antenna Wi (210 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	-7.083	.25
2	MP1A	Z	12.269	.25
3	MP1A	Mx	.004	.25
4	MP1A	X	-7.083	5.75
5	MP1A	Z	12.269	5.75
6	MP1A	Mx	.004	5.75
7	MP4A	X	-7.083	.25
8	MP4A	Z	12.269	.25
9	MP4A	Mx	.004	.25
10	MP4A	X	-7.083	5.75
11	MP4A	Z	12.269	5.75
12	MP4A	Mx	.004	5.75
13	MP2A	X	-11.586	1.25
14	MP2A	Z	20.068	1.25
15	MP2A	Mx	.019	1.25
16	MP2A	X	-11.586	6.75
17	MP2A	Z	20.068	6.75
18	MP2A	Mx	.019	6.75
19	MP2A	X	-11.586	1.25
20	MP2A	Z	20.068	1.25
21	MP2A	Mx	-.008	1.25
22	MP2A	X	-11.586	6.75
23	MP2A	Z	20.068	6.75
24	MP2A	Mx	-.008	6.75
25	MP3A	X	-5.212	2
26	MP3A	Z	9.027	2
27	MP3A	Mx	.003	2
28	MP3A	X	-5.212	4
29	MP3A	Z	9.027	4
30	MP3A	Mx	.003	4
31	MP2A	X	-4.737	2
32	MP2A	Z	8.205	2
33	MP2A	Mx	-.002	2
34	MP3A	X	-4.589	2

Member Point Loads (BLC 22 : Antenna Wi (210 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
35	MP3A	Z	7.948	2
36	MP3A	Mx	-.002	2
37	M14	X	-10.271	1
38	M14	Z	17.79	1
39	M14	Mx	0	1

Member Point Loads (BLC 23 : Antenna Wi (240 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	-16.635	.25
2	MP1A	Z	9.604	.25
3	MP1A	Mx	.008	.25
4	MP1A	X	-16.635	5.75
5	MP1A	Z	9.604	5.75
6	MP1A	Mx	.008	5.75
7	MP4A	X	-16.635	.25
8	MP4A	Z	9.604	.25
9	MP4A	Mx	.008	.25
10	MP4A	X	-16.635	5.75
11	MP4A	Z	9.604	5.75
12	MP4A	Mx	.008	5.75
13	MP2A	X	-17.466	1.25
14	MP2A	Z	10.084	1.25
15	MP2A	Mx	.015	1.25
16	MP2A	X	-17.466	6.75
17	MP2A	Z	10.084	6.75
18	MP2A	Mx	.015	6.75
19	MP2A	X	-17.466	1.25
20	MP2A	Z	10.084	1.25
21	MP2A	Mx	.002	1.25
22	MP2A	X	-17.466	6.75
23	MP2A	Z	10.084	6.75
24	MP2A	Mx	.002	6.75
25	MP3A	X	-6.001	2
26	MP3A	Z	3.465	2
27	MP3A	Mx	.003	2
28	MP3A	X	-6.001	4
29	MP3A	Z	3.465	4
30	MP3A	Mx	.003	4
31	MP2A	X	-6.853	2
32	MP2A	Z	3.956	2
33	MP2A	Mx	-.003	2
34	MP3A	X	-6.082	2
35	MP3A	Z	3.511	2
36	MP3A	Mx	-.003	2
37	M14	X	-15.92	1
38	M14	Z	9.191	1
39	M14	Mx	0	1

Member Point Loads (BLC 24 : Antenna Wi (270 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	-21.729	.25
2	MP1A	Z	0	.25
3	MP1A	Mx	.011	.25
4	MP1A	X	-21.729	5.75
5	MP1A	Z	0	5.75
6	MP1A	Mx	.011	5.75

Member Point Loads (BLC 24 : Antenna Wi (270 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
7	MP4A	X	-21.729	.25
8	MP4A	Z	0	.25
9	MP4A	Mx	.011	.25
10	MP4A	X	-21.729	5.75
11	MP4A	Z	0	5.75
12	MP4A	Mx	.011	5.75
13	MP2A	X	-18.665	1.25
14	MP2A	Z	0	1.25
15	MP2A	Mx	.009	1.25
16	MP2A	X	-18.665	6.75
17	MP2A	Z	0	6.75
18	MP2A	Mx	.009	6.75
19	MP2A	X	-18.665	1.25
20	MP2A	Z	0	1.25
21	MP2A	Mx	.009	1.25
22	MP2A	X	-18.665	6.75
23	MP2A	Z	0	6.75
24	MP2A	Mx	.009	6.75
25	MP3A	X	-5.182	2
26	MP3A	Z	0	2
27	MP3A	Mx	.003	2
28	MP3A	X	-5.182	4
29	MP3A	Z	0	4
30	MP3A	Mx	.003	4
31	MP2A	X	-7.132	2
32	MP2A	Z	0	2
33	MP2A	Mx	-.004	2
34	MP3A	X	-5.945	2
35	MP3A	Z	0	2
36	MP3A	Mx	-.003	2
37	M14	X	-16.621	1
38	M14	Z	0	1
39	M14	Mx	0	1

Member Point Loads (BLC 25 : Antenna Wi (300 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	-16.635	.25
2	MP1A	Z	-9.604	.25
3	MP1A	Mx	.008	.25
4	MP1A	X	-16.635	5.75
5	MP1A	Z	-9.604	5.75
6	MP1A	Mx	.008	5.75
7	MP4A	X	-16.635	.25
8	MP4A	Z	-9.604	.25
9	MP4A	Mx	.008	.25
10	MP4A	X	-16.635	5.75
11	MP4A	Z	-9.604	5.75
12	MP4A	Mx	.008	5.75
13	MP2A	X	-17.466	1.25
14	MP2A	Z	-10.084	1.25
15	MP2A	Mx	.002	1.25
16	MP2A	X	-17.466	6.75
17	MP2A	Z	-10.084	6.75
18	MP2A	Mx	.002	6.75
19	MP2A	X	-17.466	1.25
20	MP2A	Z	-10.084	1.25

Member Point Loads (BLC 25 : Antenna Wi (300 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
21	MP2A	Mx	.015	1.25
22	MP2A	X	-17.466	6.75
23	MP2A	Z	-10.084	6.75
24	MP2A	Mx	.015	6.75
25	MP3A	X	-6.001	2
26	MP3A	Z	-3.465	2
27	MP3A	Mx	.003	2
28	MP3A	X	-6.001	4
29	MP3A	Z	-3.465	4
30	MP3A	Mx	.003	4
31	MP2A	X	-6.853	2
32	MP2A	Z	-3.956	2
33	MP2A	Mx	-.003	2
34	MP3A	X	-6.082	2
35	MP3A	Z	-3.511	2
36	MP3A	Mx	-.003	2
37	M14	X	-14.74	1
38	M14	Z	-8.51	1
39	M14	Mx	0	1

Member Point Loads (BLC 26 : Antenna Wi (330 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	-7.083	.25
2	MP1A	Z	-12.269	.25
3	MP1A	Mx	.004	.25
4	MP1A	X	-7.083	5.75
5	MP1A	Z	-12.269	5.75
6	MP1A	Mx	.004	5.75
7	MP4A	X	-7.083	.25
8	MP4A	Z	-12.269	.25
9	MP4A	Mx	.004	.25
10	MP4A	X	-7.083	5.75
11	MP4A	Z	-12.269	5.75
12	MP4A	Mx	.004	5.75
13	MP2A	X	-11.586	1.25
14	MP2A	Z	-20.068	1.25
15	MP2A	Mx	-.008	1.25
16	MP2A	X	-11.586	6.75
17	MP2A	Z	-20.068	6.75
18	MP2A	Mx	-.008	6.75
19	MP2A	X	-11.586	1.25
20	MP2A	Z	-20.068	1.25
21	MP2A	Mx	.019	1.25
22	MP2A	X	-11.586	6.75
23	MP2A	Z	-20.068	6.75
24	MP2A	Mx	.019	6.75
25	MP3A	X	-5.212	2
26	MP3A	Z	-9.027	2
27	MP3A	Mx	.003	2
28	MP3A	X	-5.212	4
29	MP3A	Z	-9.027	4
30	MP3A	Mx	.003	4
31	MP2A	X	-4.737	2
32	MP2A	Z	-8.205	2
33	MP2A	Mx	-.002	2
34	MP3A	X	-4.589	2

Member Point Loads (BLC 26 : Antenna Wi (330 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
35	MP3A	Z	-7.948	2
36	MP3A	Mx	-.002	2
37	M14	X	-9.59	1
38	M14	Z	-16.611	1
39	M14	Mx	0	1

Member Point Loads (BLC 27 : Antenna Wm (0 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	0	.25
2	MP1A	Z	-5.586	.25
3	MP1A	Mx	0	.25
4	MP1A	X	0	5.75
5	MP1A	Z	-5.586	5.75
6	MP1A	Mx	0	5.75
7	MP4A	X	0	.25
8	MP4A	Z	-5.586	.25
9	MP4A	Mx	0	.25
10	MP4A	X	0	5.75
11	MP4A	Z	-5.586	5.75
12	MP4A	Mx	0	5.75
13	MP2A	X	0	1.25
14	MP2A	Z	-12.733	1.25
15	MP2A	Mx	-.008	1.25
16	MP2A	X	0	6.75
17	MP2A	Z	-12.733	6.75
18	MP2A	Mx	-.008	6.75
19	MP2A	X	0	1.25
20	MP2A	Z	-12.733	1.25
21	MP2A	Mx	.008	1.25
22	MP2A	X	0	6.75
23	MP2A	Z	-12.733	6.75
24	MP2A	Mx	.008	6.75
25	MP3A	X	0	2
26	MP3A	Z	-6.063	2
27	MP3A	Mx	0	2
28	MP3A	X	0	4
29	MP3A	Z	-6.063	4
30	MP3A	Mx	0	4
31	MP2A	X	0	2
32	MP2A	Z	-4.825	2
33	MP2A	Mx	0	2
34	MP3A	X	0	2
35	MP3A	Z	-4.825	2
36	MP3A	Mx	0	2
37	M14	X	0	1
38	M14	Z	-10.401	1
39	M14	Mx	0	1

Member Point Loads (BLC 28 : Antenna Wm (30 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	3.486	.25
2	MP1A	Z	-6.038	.25
3	MP1A	Mx	-.002	.25
4	MP1A	X	3.486	5.75
5	MP1A	Z	-6.038	5.75
6	MP1A	Mx	-.002	5.75

Member Point Loads (BLC 28 : Antenna Wm (30 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
7	MP4A	X	3.486	.25
8	MP4A	Z	-6.038	.25
9	MP4A	Mx	-.002	.25
10	MP4A	X	3.486	5.75
11	MP4A	Z	-6.038	5.75
12	MP4A	Mx	-.002	5.75
13	MP2A	X	5.958	1.25
14	MP2A	Z	-10.32	1.25
15	MP2A	Mx	-.01	1.25
16	MP2A	X	5.958	6.75
17	MP2A	Z	-10.32	6.75
18	MP2A	Mx	-.01	6.75
19	MP2A	X	5.958	1.25
20	MP2A	Z	-10.32	1.25
21	MP2A	Mx	.004	1.25
22	MP2A	X	5.958	6.75
23	MP2A	Z	-10.32	6.75
24	MP2A	Mx	.004	6.75
25	MP3A	X	2.571	2
26	MP3A	Z	-4.452	2
27	MP3A	Mx	-.001	2
28	MP3A	X	2.571	4
29	MP3A	Z	-4.452	4
30	MP3A	Mx	-.001	4
31	MP2A	X	2.213	2
32	MP2A	Z	-3.832	2
33	MP2A	Mx	.001	2
34	MP3A	X	2.136	2
35	MP3A	Z	-3.7	2
36	MP3A	Mx	.001	2
37	M14	X	5.093	1
38	M14	Z	-8.821	1
39	M14	Mx	0	1

Member Point Loads (BLC 29 : Antenna Wm (60 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	8.44	.25
2	MP1A	Z	-4.873	.25
3	MP1A	Mx	-.004	.25
4	MP1A	X	8.44	5.75
5	MP1A	Z	-4.873	5.75
6	MP1A	Mx	-.004	5.75
7	MP4A	X	8.44	.25
8	MP4A	Z	-4.873	.25
9	MP4A	Mx	-.004	.25
10	MP4A	X	8.44	5.75
11	MP4A	Z	-4.873	5.75
12	MP4A	Mx	-.004	5.75
13	MP2A	X	8.906	1.25
14	MP2A	Z	-5.142	1.25
15	MP2A	Mx	-.008	1.25
16	MP2A	X	8.906	6.75
17	MP2A	Z	-5.142	6.75
18	MP2A	Mx	-.008	6.75
19	MP2A	X	8.906	1.25
20	MP2A	Z	-5.142	1.25

Member Point Loads (BLC 29 : Antenna Wm (60 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
21	MP2A	Mx	-.001	1.25
22	MP2A	X	8.906	6.75
23	MP2A	Z	-5.142	6.75
24	MP2A	Mx	-.001	6.75
25	MP3A	X	2.855	2
26	MP3A	Z	-1.648	2
27	MP3A	Mx	-.001	2
28	MP3A	X	2.855	4
29	MP3A	Z	-1.648	4
30	MP3A	Mx	-.001	4
31	MP2A	X	3.139	2
32	MP2A	Z	-1.813	2
33	MP2A	Mx	.002	2
34	MP3A	X	2.741	2
35	MP3A	Z	-1.583	2
36	MP3A	Mx	.001	2
37	M14	X	7.81	1
38	M14	Z	-4.509	1
39	M14	Mx	0	1

Member Point Loads (BLC 30 : Antenna Wm (90 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	11.131	.25
2	MP1A	Z	0	.25
3	MP1A	Mx	-.006	.25
4	MP1A	X	11.131	5.75
5	MP1A	Z	0	5.75
6	MP1A	Mx	-.006	5.75
7	MP4A	X	11.131	.25
8	MP4A	Z	0	.25
9	MP4A	Mx	-.006	.25
10	MP4A	X	11.131	5.75
11	MP4A	Z	0	5.75
12	MP4A	Mx	-.006	5.75
13	MP2A	X	9.467	1.25
14	MP2A	Z	0	1.25
15	MP2A	Mx	-.005	1.25
16	MP2A	X	9.467	6.75
17	MP2A	Z	0	6.75
18	MP2A	Mx	-.005	6.75
19	MP2A	X	9.467	1.25
20	MP2A	Z	0	1.25
21	MP2A	Mx	-.005	1.25
22	MP2A	X	9.467	6.75
23	MP2A	Z	0	6.75
24	MP2A	Mx	-.005	6.75
25	MP3A	X	2.374	2
26	MP3A	Z	0	2
27	MP3A	Mx	-.001	2
28	MP3A	X	2.374	4
29	MP3A	Z	0	4
30	MP3A	Mx	-.001	4
31	MP2A	X	3.225	2
32	MP2A	Z	0	2
33	MP2A	Mx	.002	2
34	MP3A	X	2.612	2

Member Point Loads (BLC 30 : Antenna Wm (90 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
35	MP3A	Z	0	2
36	MP3A	Mx	.001	2
37	M14	X	8.067	1
38	M14	Z	0	1
39	M14	Mx	0	1

Member Point Loads (BLC 31 : Antenna Wm (120 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	8.44	.25
2	MP1A	Z	4.873	.25
3	MP1A	Mx	-.004	.25
4	MP1A	X	8.44	5.75
5	MP1A	Z	4.873	5.75
6	MP1A	Mx	-.004	5.75
7	MP4A	X	8.44	.25
8	MP4A	Z	4.873	.25
9	MP4A	Mx	-.004	.25
10	MP4A	X	8.44	5.75
11	MP4A	Z	4.873	5.75
12	MP4A	Mx	-.004	5.75
13	MP2A	X	8.906	1.25
14	MP2A	Z	5.142	1.25
15	MP2A	Mx	-.001	1.25
16	MP2A	X	8.906	6.75
17	MP2A	Z	5.142	6.75
18	MP2A	Mx	-.001	6.75
19	MP2A	X	8.906	1.25
20	MP2A	Z	5.142	1.25
21	MP2A	Mx	-.008	1.25
22	MP2A	X	8.906	6.75
23	MP2A	Z	5.142	6.75
24	MP2A	Mx	-.008	6.75
25	MP3A	X	2.855	2
26	MP3A	Z	1.648	2
27	MP3A	Mx	-.001	2
28	MP3A	X	2.855	4
29	MP3A	Z	1.648	4
30	MP3A	Mx	-.001	4
31	MP2A	X	3.139	2
32	MP2A	Z	1.813	2
33	MP2A	Mx	.002	2
34	MP3A	X	2.741	2
35	MP3A	Z	1.583	2
36	MP3A	Mx	.001	2
37	M14	X	7.173	1
38	M14	Z	4.141	1
39	M14	Mx	0	1

Member Point Loads (BLC 32 : Antenna Wm (150 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	3.486	.25
2	MP1A	Z	6.038	.25
3	MP1A	Mx	-.002	.25
4	MP1A	X	3.486	5.75
5	MP1A	Z	6.038	5.75
6	MP1A	Mx	-.002	5.75

Member Point Loads (BLC 32 : Antenna Wm (150 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
7	MP4A	X	3.486	.25
8	MP4A	Z	6.038	.25
9	MP4A	Mx	-.002	.25
10	MP4A	X	3.486	5.75
11	MP4A	Z	6.038	5.75
12	MP4A	Mx	-.002	5.75
13	MP2A	X	5.958	1.25
14	MP2A	Z	10.32	1.25
15	MP2A	Mx	.004	1.25
16	MP2A	X	5.958	6.75
17	MP2A	Z	10.32	6.75
18	MP2A	Mx	.004	6.75
19	MP2A	X	5.958	1.25
20	MP2A	Z	10.32	1.25
21	MP2A	Mx	-.01	1.25
22	MP2A	X	5.958	6.75
23	MP2A	Z	10.32	6.75
24	MP2A	Mx	-.01	6.75
25	MP3A	X	2.571	2
26	MP3A	Z	4.452	2
27	MP3A	Mx	-.001	2
28	MP3A	X	2.571	4
29	MP3A	Z	4.452	4
30	MP3A	Mx	-.001	4
31	MP2A	X	2.213	2
32	MP2A	Z	3.832	2
33	MP2A	Mx	.001	2
34	MP3A	X	2.136	2
35	MP3A	Z	3.7	2
36	MP3A	Mx	.001	2
37	M14	X	4.725	1
38	M14	Z	8.184	1
39	M14	Mx	0	1

Member Point Loads (BLC 33 : Antenna Wm (180 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	0	.25
2	MP1A	Z	5.586	.25
3	MP1A	Mx	0	.25
4	MP1A	X	0	5.75
5	MP1A	Z	5.586	5.75
6	MP1A	Mx	0	5.75
7	MP4A	X	0	.25
8	MP4A	Z	5.586	.25
9	MP4A	Mx	0	.25
10	MP4A	X	0	5.75
11	MP4A	Z	5.586	5.75
12	MP4A	Mx	0	5.75
13	MP2A	X	0	1.25
14	MP2A	Z	12.733	1.25
15	MP2A	Mx	.008	1.25
16	MP2A	X	0	6.75
17	MP2A	Z	12.733	6.75
18	MP2A	Mx	.008	6.75
19	MP2A	X	0	1.25
20	MP2A	Z	12.733	1.25

Member Point Loads (BLC 33 : Antenna Wm (180 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
21	MP2A	Mx	-.008	1.25
22	MP2A	X	0	6.75
23	MP2A	Z	12.733	6.75
24	MP2A	Mx	-.008	6.75
25	MP3A	X	0	2
26	MP3A	Z	6.063	2
27	MP3A	Mx	0	2
28	MP3A	X	0	4
29	MP3A	Z	6.063	4
30	MP3A	Mx	0	4
31	MP2A	X	0	2
32	MP2A	Z	4.825	2
33	MP2A	Mx	0	2
34	MP3A	X	0	2
35	MP3A	Z	4.825	2
36	MP3A	Mx	0	2
37	M14	X	0	1
38	M14	Z	10.401	1
39	M14	Mx	0	1

Member Point Loads (BLC 34 : Antenna Wm (210 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	-3.486	.25
2	MP1A	Z	6.038	.25
3	MP1A	Mx	.002	.25
4	MP1A	X	-3.486	5.75
5	MP1A	Z	6.038	5.75
6	MP1A	Mx	.002	5.75
7	MP4A	X	-3.486	.25
8	MP4A	Z	6.038	.25
9	MP4A	Mx	.002	.25
10	MP4A	X	-3.486	5.75
11	MP4A	Z	6.038	5.75
12	MP4A	Mx	.002	5.75
13	MP2A	X	-5.958	1.25
14	MP2A	Z	10.32	1.25
15	MP2A	Mx	.01	1.25
16	MP2A	X	-5.958	6.75
17	MP2A	Z	10.32	6.75
18	MP2A	Mx	.01	6.75
19	MP2A	X	-5.958	1.25
20	MP2A	Z	10.32	1.25
21	MP2A	Mx	-.004	1.25
22	MP2A	X	-5.958	6.75
23	MP2A	Z	10.32	6.75
24	MP2A	Mx	-.004	6.75
25	MP3A	X	-2.571	2
26	MP3A	Z	4.452	2
27	MP3A	Mx	.001	2
28	MP3A	X	-2.571	4
29	MP3A	Z	4.452	4
30	MP3A	Mx	.001	4
31	MP2A	X	-2.213	2
32	MP2A	Z	3.832	2
33	MP2A	Mx	-.001	2
34	MP3A	X	-2.136	2

Member Point Loads (BLC 34 : Antenna Wm (210 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
35	MP3A	Z	3.7	2
36	MP3A	Mx	-.001	2
37	M14	X	-5.093	1
38	M14	Z	8.821	1
39	M14	Mx	0	1

Member Point Loads (BLC 35 : Antenna Wm (240 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	-8.44	.25
2	MP1A	Z	4.873	.25
3	MP1A	Mx	.004	.25
4	MP1A	X	-8.44	5.75
5	MP1A	Z	4.873	5.75
6	MP1A	Mx	.004	5.75
7	MP4A	X	-8.44	.25
8	MP4A	Z	4.873	.25
9	MP4A	Mx	.004	.25
10	MP4A	X	-8.44	5.75
11	MP4A	Z	4.873	5.75
12	MP4A	Mx	.004	5.75
13	MP2A	X	-8.906	1.25
14	MP2A	Z	5.142	1.25
15	MP2A	Mx	.008	1.25
16	MP2A	X	-8.906	6.75
17	MP2A	Z	5.142	6.75
18	MP2A	Mx	.008	6.75
19	MP2A	X	-8.906	1.25
20	MP2A	Z	5.142	1.25
21	MP2A	Mx	.001	1.25
22	MP2A	X	-8.906	6.75
23	MP2A	Z	5.142	6.75
24	MP2A	Mx	.001	6.75
25	MP3A	X	-2.855	2
26	MP3A	Z	1.648	2
27	MP3A	Mx	.001	2
28	MP3A	X	-2.855	4
29	MP3A	Z	1.648	4
30	MP3A	Mx	.001	4
31	MP2A	X	-3.139	2
32	MP2A	Z	1.813	2
33	MP2A	Mx	-.002	2
34	MP3A	X	-2.741	2
35	MP3A	Z	1.583	2
36	MP3A	Mx	-.001	2
37	M14	X	-7.81	1
38	M14	Z	4.509	1
39	M14	Mx	0	1

Member Point Loads (BLC 36 : Antenna Wm (270 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	-11.131	.25
2	MP1A	Z	0	.25
3	MP1A	Mx	.006	.25
4	MP1A	X	-11.131	5.75
5	MP1A	Z	0	5.75
6	MP1A	Mx	.006	5.75

Member Point Loads (BLC 36 : Antenna Wm (270 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
7	MP4A	X	-11.131	.25
8	MP4A	Z	0	.25
9	MP4A	Mx	.006	.25
10	MP4A	X	-11.131	5.75
11	MP4A	Z	0	5.75
12	MP4A	Mx	.006	5.75
13	MP2A	X	-9.467	1.25
14	MP2A	Z	0	1.25
15	MP2A	Mx	.005	1.25
16	MP2A	X	-9.467	6.75
17	MP2A	Z	0	6.75
18	MP2A	Mx	.005	6.75
19	MP2A	X	-9.467	1.25
20	MP2A	Z	0	1.25
21	MP2A	Mx	.005	1.25
22	MP2A	X	-9.467	6.75
23	MP2A	Z	0	6.75
24	MP2A	Mx	.005	6.75
25	MP3A	X	-2.374	2
26	MP3A	Z	0	2
27	MP3A	Mx	.001	2
28	MP3A	X	-2.374	4
29	MP3A	Z	0	4
30	MP3A	Mx	.001	4
31	MP2A	X	-3.225	2
32	MP2A	Z	0	2
33	MP2A	Mx	-.002	2
34	MP3A	X	-2.612	2
35	MP3A	Z	0	2
36	MP3A	Mx	-.001	2
37	M14	X	-8.067	1
38	M14	Z	0	1
39	M14	Mx	0	1

Member Point Loads (BLC 37 : Antenna Wm (300 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	-8.44	.25
2	MP1A	Z	-4.873	.25
3	MP1A	Mx	.004	.25
4	MP1A	X	-8.44	5.75
5	MP1A	Z	-4.873	5.75
6	MP1A	Mx	.004	5.75
7	MP4A	X	-8.44	.25
8	MP4A	Z	-4.873	.25
9	MP4A	Mx	.004	.25
10	MP4A	X	-8.44	5.75
11	MP4A	Z	-4.873	5.75
12	MP4A	Mx	.004	5.75
13	MP2A	X	-8.906	1.25
14	MP2A	Z	-5.142	1.25
15	MP2A	Mx	.001	1.25
16	MP2A	X	-8.906	6.75
17	MP2A	Z	-5.142	6.75
18	MP2A	Mx	.001	6.75
19	MP2A	X	-8.906	1.25
20	MP2A	Z	-5.142	1.25

Member Point Loads (BLC 37 : Antenna Wm (300 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
21	MP2A	Mx	.008	1.25
22	MP2A	X	-8.906	6.75
23	MP2A	Z	-5.142	6.75
24	MP2A	Mx	.008	6.75
25	MP3A	X	-2.855	2
26	MP3A	Z	-1.648	2
27	MP3A	Mx	.001	2
28	MP3A	X	-2.855	4
29	MP3A	Z	-1.648	4
30	MP3A	Mx	.001	4
31	MP2A	X	-3.139	2
32	MP2A	Z	-1.813	2
33	MP2A	Mx	-.002	2
34	MP3A	X	-2.741	2
35	MP3A	Z	-1.583	2
36	MP3A	Mx	-.001	2
37	M14	X	-7.173	1
38	M14	Z	-4.141	1
39	M14	Mx	0	1

Member Point Loads (BLC 38 : Antenna Wm (330 Deg))

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP1A	X	-3.486	.25
2	MP1A	Z	-6.038	.25
3	MP1A	Mx	.002	.25
4	MP1A	X	-3.486	5.75
5	MP1A	Z	-6.038	5.75
6	MP1A	Mx	.002	5.75
7	MP4A	X	-3.486	.25
8	MP4A	Z	-6.038	.25
9	MP4A	Mx	.002	.25
10	MP4A	X	-3.486	5.75
11	MP4A	Z	-6.038	5.75
12	MP4A	Mx	.002	5.75
13	MP2A	X	-5.958	1.25
14	MP2A	Z	-10.32	1.25
15	MP2A	Mx	-.004	1.25
16	MP2A	X	-5.958	6.75
17	MP2A	Z	-10.32	6.75
18	MP2A	Mx	-.004	6.75
19	MP2A	X	-5.958	1.25
20	MP2A	Z	-10.32	1.25
21	MP2A	Mx	.01	1.25
22	MP2A	X	-5.958	6.75
23	MP2A	Z	-10.32	6.75
24	MP2A	Mx	.01	6.75
25	MP3A	X	-2.571	2
26	MP3A	Z	-4.452	2
27	MP3A	Mx	.001	2
28	MP3A	X	-2.571	4
29	MP3A	Z	-4.452	4
30	MP3A	Mx	.001	4
31	MP2A	X	-2.213	2
32	MP2A	Z	-3.832	2
33	MP2A	Mx	-.001	2
34	MP3A	X	-2.136	2

Member Point Loads (BLC 38 : Antenna Wm (330 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
35	MP3A	Z	-3.7	2
36	MP3A	Mx	-.001	2
37	M14	X	-4.725	1
38	M14	Z	-8.184	1
39	M14	Mx	0	1

Member Point Loads (BLC 77 : Lm1)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	M8	Y	-500	0

Member Point Loads (BLC 78 : Lm2)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	M7	Y	-500	0

Member Point Loads (BLC 79 : Lv1)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	M5	Y	-250	%50

Member Point Loads (BLC 80 : Lv2)

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	M5	Y	-250	0

Member Distributed Loads (BLC 40 : Structure Di)

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[l...	Start Location[ft,...	End Location[ft,%]
1	M1	Y	-9.551	-9.551	0	%100
2	M3	Y	-7.927	-7.927	0	%100
3	M5	Y	-6.524	-6.524	0	%100
4	MP1A	Y	-4.945	-4.945	0	%100
5	MP2A	Y	-5.647	-5.647	0	%100
6	MP3A	Y	-4.945	-4.945	0	%100
7	MP4A	Y	-4.945	-4.945	0	%100
8	M14	Y	-4.945	-4.945	0	%100
9	M20	Y	-6.524	-6.524	0	%100
10	M21	Y	-7.566	-7.566	0	%100

Member Distributed Loads (BLC 41 : Structure Wo (0 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[l...	Start Location[ft,...	End Location[ft,%]
1	M1	X	0	0	0	%100
2	M1	Z	0	0	0	%100
3	M3	X	0	0	0	%100
4	M3	Z	-9.112	-9.112	0	%100
5	M5	X	0	0	0	%100
6	M5	Z	-12.813	-12.813	0	%100
7	MP1A	X	0	0	0	%100
8	MP1A	Z	-8.694	-8.694	0	%100
9	MP2A	X	0	0	0	%100
10	MP2A	Z	-10.525	-10.525	0	%100
11	MP3A	X	0	0	0	%100
12	MP3A	Z	-8.694	-8.694	0	%100
13	MP4A	X	0	0	0	%100
14	MP4A	Z	-8.694	-8.694	0	%100
15	M14	X	0	0	0	%100
16	M14	Z	-7.788	-7.788	0	%100

Member Distributed Loads (BLC 41 : Structure Wo (0 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[l...	Start Location[ft,...	End Location[ft,%]
17	M20	X	0	0	0	%100
18	M20	Z	-12.813	-12.813	0	%100
19	M21	X	0	0	0	%100
20	M21	Z	0	0	0	%100

Member Distributed Loads (BLC 42 : Structure Wo (30 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[l...	Start Location[ft,...	End Location[ft,%]
1	M1	X	1.414	1.414	0	%100
2	M1	Z	-2.448	-2.448	0	%100
3	M3	X	4.556	4.556	0	%100
4	M3	Z	-7.891	-7.891	0	%100
5	M5	X	4.805	4.805	0	%100
6	M5	Z	-8.322	-8.322	0	%100
7	MP1A	X	4.347	4.347	0	%100
8	MP1A	Z	-7.529	-7.529	0	%100
9	MP2A	X	5.262	5.262	0	%100
10	MP2A	Z	-9.115	-9.115	0	%100
11	MP3A	X	4.347	4.347	0	%100
12	MP3A	Z	-7.529	-7.529	0	%100
13	MP4A	X	4.347	4.347	0	%100
14	MP4A	Z	-7.529	-7.529	0	%100
15	M14	X	3.894	3.894	0	%100
16	M14	Z	-6.744	-6.744	0	%100
17	M20	X	4.805	4.805	0	%100
18	M20	Z	-8.322	-8.322	0	%100
19	M21	X	1.167	1.167	0	%100
20	M21	Z	-2.021	-2.021	0	%100

Member Distributed Loads (BLC 43 : Structure Wo (60 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[l...	Start Location[ft,...	End Location[ft,%]
1	M1	X	7.345	7.345	0	%100
2	M1	Z	-4.241	-4.241	0	%100
3	M3	X	7.891	7.891	0	%100
4	M3	Z	-4.556	-4.556	0	%100
5	M5	X	2.774	2.774	0	%100
6	M5	Z	-1.602	-1.602	0	%100
7	MP1A	X	7.529	7.529	0	%100
8	MP1A	Z	-4.347	-4.347	0	%100
9	MP2A	X	9.115	9.115	0	%100
10	MP2A	Z	-5.262	-5.262	0	%100
11	MP3A	X	7.529	7.529	0	%100
12	MP3A	Z	-4.347	-4.347	0	%100
13	MP4A	X	7.529	7.529	0	%100
14	MP4A	Z	-4.347	-4.347	0	%100
15	M14	X	6.744	6.744	0	%100
16	M14	Z	-3.894	-3.894	0	%100
17	M20	X	2.774	2.774	0	%100
18	M20	Z	-1.602	-1.602	0	%100
19	M21	X	6.063	6.063	0	%100
20	M21	Z	-3.5	-3.5	0	%100

Member Distributed Loads (BLC 44 : Structure Wo (90 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[l...	Start Location[ft,...	End Location[ft,%]
1	M1	X	11.308	11.308	0	%100
2	M1	Z	0	0	0	%100

Member Distributed Loads (BLC 44 : Structure Wo (90 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[l...	Start Location[ft,...	End Location[ft,%]
3	M3	X	9.112	9.112	0	%100
4	M3	Z	0	0	0	%100
5	M5	X	0	0	0	%100
6	M5	Z	0	0	0	%100
7	MP1A	X	8.694	8.694	0	%100
8	MP1A	Z	0	0	0	%100
9	MP2A	X	10.525	10.525	0	%100
10	MP2A	Z	0	0	0	%100
11	MP3A	X	8.694	8.694	0	%100
12	MP3A	Z	0	0	0	%100
13	MP4A	X	8.694	8.694	0	%100
14	MP4A	Z	0	0	0	%100
15	M14	X	7.788	7.788	0	%100
16	M14	Z	0	0	0	%100
17	M20	X	0	0	0	%100
18	M20	Z	0	0	0	%100
19	M21	X	9.334	9.334	0	%100
20	M21	Z	0	0	0	%100

Member Distributed Loads (BLC 45 : Structure Wo (120 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[l...	Start Location[ft,...	End Location[ft,%]
1	M1	X	7.345	7.345	0	%100
2	M1	Z	4.241	4.241	0	%100
3	M3	X	7.891	7.891	0	%100
4	M3	Z	4.556	4.556	0	%100
5	M5	X	2.774	2.774	0	%100
6	M5	Z	1.602	1.602	0	%100
7	MP1A	X	7.529	7.529	0	%100
8	MP1A	Z	4.347	4.347	0	%100
9	MP2A	X	9.115	9.115	0	%100
10	MP2A	Z	5.262	5.262	0	%100
11	MP3A	X	7.529	7.529	0	%100
12	MP3A	Z	4.347	4.347	0	%100
13	MP4A	X	7.529	7.529	0	%100
14	MP4A	Z	4.347	4.347	0	%100
15	M14	X	6.744	6.744	0	%100
16	M14	Z	3.894	3.894	0	%100
17	M20	X	2.774	2.774	0	%100
18	M20	Z	1.602	1.602	0	%100
19	M21	X	6.063	6.063	0	%100
20	M21	Z	3.5	3.5	0	%100

Member Distributed Loads (BLC 46 : Structure Wo (150 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[l...	Start Location[ft,...	End Location[ft,%]
1	M1	X	1.414	1.414	0	%100
2	M1	Z	2.448	2.448	0	%100
3	M3	X	4.556	4.556	0	%100
4	M3	Z	7.891	7.891	0	%100
5	M5	X	4.805	4.805	0	%100
6	M5	Z	8.322	8.322	0	%100
7	MP1A	X	4.347	4.347	0	%100
8	MP1A	Z	7.529	7.529	0	%100
9	MP2A	X	5.262	5.262	0	%100
10	MP2A	Z	9.115	9.115	0	%100
11	MP3A	X	4.347	4.347	0	%100
12	MP3A	Z	7.529	7.529	0	%100

Member Distributed Loads (BLC 46 : Structure Wo (150 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[l...	Start Location[ft,...	End Location[ft,%]
13	MP4A	X	4.347	4.347	0	%100
14	MP4A	Z	7.529	7.529	0	%100
15	M14	X	3.894	3.894	0	%100
16	M14	Z	6.744	6.744	0	%100
17	M20	X	4.805	4.805	0	%100
18	M20	Z	8.322	8.322	0	%100
19	M21	X	1.167	1.167	0	%100
20	M21	Z	2.021	2.021	0	%100

Member Distributed Loads (BLC 47 : Structure Wo (180 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[l...	Start Location[ft,...	End Location[ft,%]
1	M1	X	0	0	0	%100
2	M1	Z	0	0	0	%100
3	M3	X	0	0	0	%100
4	M3	Z	9.112	9.112	0	%100
5	M5	X	0	0	0	%100
6	M5	Z	12.813	12.813	0	%100
7	MP1A	X	0	0	0	%100
8	MP1A	Z	8.694	8.694	0	%100
9	MP2A	X	0	0	0	%100
10	MP2A	Z	10.525	10.525	0	%100
11	MP3A	X	0	0	0	%100
12	MP3A	Z	8.694	8.694	0	%100
13	MP4A	X	0	0	0	%100
14	MP4A	Z	8.694	8.694	0	%100
15	M14	X	0	0	0	%100
16	M14	Z	7.788	7.788	0	%100
17	M20	X	0	0	0	%100
18	M20	Z	12.813	12.813	0	%100
19	M21	X	0	0	0	%100
20	M21	Z	0	0	0	%100

Member Distributed Loads (BLC 48 : Structure Wo (210 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[l...	Start Location[ft,...	End Location[ft,%]
1	M1	X	-1.414	-1.414	0	%100
2	M1	Z	2.448	2.448	0	%100
3	M3	X	-4.556	-4.556	0	%100
4	M3	Z	7.891	7.891	0	%100
5	M5	X	-4.805	-4.805	0	%100
6	M5	Z	8.322	8.322	0	%100
7	MP1A	X	-4.347	-4.347	0	%100
8	MP1A	Z	7.529	7.529	0	%100
9	MP2A	X	-5.262	-5.262	0	%100
10	MP2A	Z	9.115	9.115	0	%100
11	MP3A	X	-4.347	-4.347	0	%100
12	MP3A	Z	7.529	7.529	0	%100
13	MP4A	X	-4.347	-4.347	0	%100
14	MP4A	Z	7.529	7.529	0	%100
15	M14	X	-3.894	-3.894	0	%100
16	M14	Z	6.744	6.744	0	%100
17	M20	X	-4.805	-4.805	0	%100
18	M20	Z	8.322	8.322	0	%100
19	M21	X	-1.167	-1.167	0	%100
20	M21	Z	2.021	2.021	0	%100

Member Distributed Loads (BLC 49 : Structure Wo (240 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[l...	Start Location[ft,...	End Location[ft,%]
1	M1	X	-7.345	-7.345	0	%100
2	M1	Z	4.241	4.241	0	%100
3	M3	X	-7.891	-7.891	0	%100
4	M3	Z	4.556	4.556	0	%100
5	M5	X	-2.774	-2.774	0	%100
6	M5	Z	1.602	1.602	0	%100
7	MP1A	X	-7.529	-7.529	0	%100
8	MP1A	Z	4.347	4.347	0	%100
9	MP2A	X	-9.115	-9.115	0	%100
10	MP2A	Z	5.262	5.262	0	%100
11	MP3A	X	-7.529	-7.529	0	%100
12	MP3A	Z	4.347	4.347	0	%100
13	MP4A	X	-7.529	-7.529	0	%100
14	MP4A	Z	4.347	4.347	0	%100
15	M14	X	-6.744	-6.744	0	%100
16	M14	Z	3.894	3.894	0	%100
17	M20	X	-2.774	-2.774	0	%100
18	M20	Z	1.602	1.602	0	%100
19	M21	X	-6.063	-6.063	0	%100
20	M21	Z	3.5	3.5	0	%100

Member Distributed Loads (BLC 50 : Structure Wo (270 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[l...	Start Location[ft,...	End Location[ft,%]
1	M1	X	-11.308	-11.308	0	%100
2	M1	Z	0	0	0	%100
3	M3	X	-9.112	-9.112	0	%100
4	M3	Z	0	0	0	%100
5	M5	X	0	0	0	%100
6	M5	Z	0	0	0	%100
7	MP1A	X	-8.694	-8.694	0	%100
8	MP1A	Z	0	0	0	%100
9	MP2A	X	-10.525	-10.525	0	%100
10	MP2A	Z	0	0	0	%100
11	MP3A	X	-8.694	-8.694	0	%100
12	MP3A	Z	0	0	0	%100
13	MP4A	X	-8.694	-8.694	0	%100
14	MP4A	Z	0	0	0	%100
15	M14	X	-7.788	-7.788	0	%100
16	M14	Z	0	0	0	%100
17	M20	X	0	0	0	%100
18	M20	Z	0	0	0	%100
19	M21	X	-9.334	-9.334	0	%100
20	M21	Z	0	0	0	%100

Member Distributed Loads (BLC 51 : Structure Wo (300 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[l...	Start Location[ft,...	End Location[ft,%]
1	M1	X	-7.345	-7.345	0	%100
2	M1	Z	-4.241	-4.241	0	%100
3	M3	X	-7.891	-7.891	0	%100
4	M3	Z	-4.556	-4.556	0	%100
5	M5	X	-2.774	-2.774	0	%100
6	M5	Z	-1.602	-1.602	0	%100
7	MP1A	X	-7.529	-7.529	0	%100
8	MP1A	Z	-4.347	-4.347	0	%100
9	MP2A	X	-9.115	-9.115	0	%100
10	MP2A	Z	-5.262	-5.262	0	%100

Member Distributed Loads (BLC 51 : Structure Wo (300 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[l...	Start Location[ft,...	End Location[ft,%]
11	MP3A	X	-7.529	-7.529	0	%100
12	MP3A	Z	-4.347	-4.347	0	%100
13	MP4A	X	-7.529	-7.529	0	%100
14	MP4A	Z	-4.347	-4.347	0	%100
15	M14	X	-6.744	-6.744	0	%100
16	M14	Z	-3.894	-3.894	0	%100
17	M20	X	-2.774	-2.774	0	%100
18	M20	Z	-1.602	-1.602	0	%100
19	M21	X	-6.063	-6.063	0	%100
20	M21	Z	-3.5	-3.5	0	%100

Member Distributed Loads (BLC 52 : Structure Wo (330 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[l...	Start Location[ft,...	End Location[ft,%]
1	M1	X	-1.414	-1.414	0	%100
2	M1	Z	-2.448	-2.448	0	%100
3	M3	X	-4.556	-4.556	0	%100
4	M3	Z	-7.891	-7.891	0	%100
5	M5	X	-4.805	-4.805	0	%100
6	M5	Z	-8.322	-8.322	0	%100
7	MP1A	X	-4.347	-4.347	0	%100
8	MP1A	Z	-7.529	-7.529	0	%100
9	MP2A	X	-5.262	-5.262	0	%100
10	MP2A	Z	-9.115	-9.115	0	%100
11	MP3A	X	-4.347	-4.347	0	%100
12	MP3A	Z	-7.529	-7.529	0	%100
13	MP4A	X	-4.347	-4.347	0	%100
14	MP4A	Z	-7.529	-7.529	0	%100
15	M14	X	-3.894	-3.894	0	%100
16	M14	Z	-6.744	-6.744	0	%100
17	M20	X	-4.805	-4.805	0	%100
18	M20	Z	-8.322	-8.322	0	%100
19	M21	X	-1.167	-1.167	0	%100
20	M21	Z	-2.021	-2.021	0	%100

Member Distributed Loads (BLC 53 : Structure Wi (0 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[l...	Start Location[ft,...	End Location[ft,%]
1	M1	X	0	0	0	%100
2	M1	Z	0	0	0	%100
3	M3	X	0	0	0	%100
4	M3	Z	-1.98	-1.98	0	%100
5	M5	X	0	0	0	%100
6	M5	Z	-2.659	-2.659	0	%100
7	MP1A	X	0	0	0	%100
8	MP1A	Z	-2.143	-2.143	0	%100
9	MP2A	X	0	0	0	%100
10	MP2A	Z	-2.373	-2.373	0	%100
11	MP3A	X	0	0	0	%100
12	MP3A	Z	-2.143	-2.143	0	%100
13	MP4A	X	0	0	0	%100
14	MP4A	Z	-2.143	-2.143	0	%100
15	M14	X	0	0	0	%100
16	M14	Z	-1.932	-1.932	0	%100
17	M20	X	0	0	0	%100
18	M20	Z	-2.659	-2.659	0	%100
19	M21	X	0	0	0	%100
20	M21	Z	0	0	0	%100

Member Distributed Loads (BLC 54 : Structure Wi (30 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[l...	Start Location[ft,...	End Location[ft,%]
1	M1	X	.283	.283	0	%100
2	M1	Z	-.491	-.491	0	%100
3	M3	X	.99	.99	0	%100
4	M3	Z	-1.715	-1.715	0	%100
5	M5	X	.997	.997	0	%100
6	M5	Z	-1.727	-1.727	0	%100
7	MP1A	X	1.072	1.072	0	%100
8	MP1A	Z	-1.856	-1.856	0	%100
9	MP2A	X	1.186	1.186	0	%100
10	MP2A	Z	-2.055	-2.055	0	%100
11	MP3A	X	1.072	1.072	0	%100
12	MP3A	Z	-1.856	-1.856	0	%100
13	MP4A	X	1.072	1.072	0	%100
14	MP4A	Z	-1.856	-1.856	0	%100
15	M14	X	.966	.966	0	%100
16	M14	Z	-1.674	-1.674	0	%100
17	M20	X	.997	.997	0	%100
18	M20	Z	-1.727	-1.727	0	%100
19	M21	X	.259	.259	0	%100
20	M21	Z	-.448	-.448	0	%100

Member Distributed Loads (BLC 55 : Structure Wi (60 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[l...	Start Location[ft,...	End Location[ft,%]
1	M1	X	1.473	1.473	0	%100
2	M1	Z	-.85	-.85	0	%100
3	M3	X	1.715	1.715	0	%100
4	M3	Z	-.99	-.99	0	%100
5	M5	X	.576	.576	0	%100
6	M5	Z	-.332	-.332	0	%100
7	MP1A	X	1.856	1.856	0	%100
8	MP1A	Z	-1.072	-1.072	0	%100
9	MP2A	X	2.055	2.055	0	%100
10	MP2A	Z	-1.186	-1.186	0	%100
11	MP3A	X	1.856	1.856	0	%100
12	MP3A	Z	-1.072	-1.072	0	%100
13	MP4A	X	1.856	1.856	0	%100
14	MP4A	Z	-1.072	-1.072	0	%100
15	M14	X	1.674	1.674	0	%100
16	M14	Z	-.966	-.966	0	%100
17	M20	X	.576	.576	0	%100
18	M20	Z	-.332	-.332	0	%100
19	M21	X	1.345	1.345	0	%100
20	M21	Z	-.777	-.777	0	%100

Member Distributed Loads (BLC 56 : Structure Wi (90 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[l...	Start Location[ft,...	End Location[ft,%]
1	M1	X	2.267	2.267	0	%100
2	M1	Z	0	0	0	%100
3	M3	X	1.98	1.98	0	%100
4	M3	Z	0	0	0	%100
5	M5	X	0	0	0	%100
6	M5	Z	0	0	0	%100
7	MP1A	X	2.143	2.143	0	%100
8	MP1A	Z	0	0	0	%100
9	MP2A	X	2.373	2.373	0	%100
10	MP2A	Z	0	0	0	%100

Member Distributed Loads (BLC 56 : Structure Wi (90 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[l...	Start Location[ft,...	End Location[ft,%]
11	MP3A	X	2.143	2.143	0	%100
12	MP3A	Z	0	0	0	%100
13	MP4A	X	2.143	2.143	0	%100
14	MP4A	Z	0	0	0	%100
15	M14	X	1.932	1.932	0	%100
16	M14	Z	0	0	0	%100
17	M20	X	0	0	0	%100
18	M20	Z	0	0	0	%100
19	M21	X	2.071	2.071	0	%100
20	M21	Z	0	0	0	%100

Member Distributed Loads (BLC 57 : Structure Wi (120 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[l...	Start Location[ft,...	End Location[ft,%]
1	M1	X	1.473	1.473	0	%100
2	M1	Z	.85	.85	0	%100
3	M3	X	1.715	1.715	0	%100
4	M3	Z	.99	.99	0	%100
5	M5	X	.576	.576	0	%100
6	M5	Z	.332	.332	0	%100
7	MP1A	X	1.856	1.856	0	%100
8	MP1A	Z	1.072	1.072	0	%100
9	MP2A	X	2.055	2.055	0	%100
10	MP2A	Z	1.186	1.186	0	%100
11	MP3A	X	1.856	1.856	0	%100
12	MP3A	Z	1.072	1.072	0	%100
13	MP4A	X	1.856	1.856	0	%100
14	MP4A	Z	1.072	1.072	0	%100
15	M14	X	1.674	1.674	0	%100
16	M14	Z	.966	.966	0	%100
17	M20	X	.576	.576	0	%100
18	M20	Z	.332	.332	0	%100
19	M21	X	1.345	1.345	0	%100
20	M21	Z	.777	.777	0	%100

Member Distributed Loads (BLC 58 : Structure Wi (150 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[l...	Start Location[ft,...	End Location[ft,%]
1	M1	X	.283	.283	0	%100
2	M1	Z	.491	.491	0	%100
3	M3	X	.99	.99	0	%100
4	M3	Z	1.715	1.715	0	%100
5	M5	X	.997	.997	0	%100
6	M5	Z	1.727	1.727	0	%100
7	MP1A	X	1.072	1.072	0	%100
8	MP1A	Z	1.856	1.856	0	%100
9	MP2A	X	1.186	1.186	0	%100
10	MP2A	Z	2.055	2.055	0	%100
11	MP3A	X	1.072	1.072	0	%100
12	MP3A	Z	1.856	1.856	0	%100
13	MP4A	X	1.072	1.072	0	%100
14	MP4A	Z	1.856	1.856	0	%100
15	M14	X	.966	.966	0	%100
16	M14	Z	1.674	1.674	0	%100
17	M20	X	.997	.997	0	%100
18	M20	Z	1.727	1.727	0	%100
19	M21	X	.259	.259	0	%100
20	M21	Z	.448	.448	0	%100

Member Distributed Loads (BLC 59 : Structure Wi (180 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[l...	Start Location[ft,...	End Location[ft,%]
1	M1	X	0	0	0	%100
2	M1	Z	0	0	0	%100
3	M3	X	0	0	0	%100
4	M3	Z	1.98	1.98	0	%100
5	M5	X	0	0	0	%100
6	M5	Z	2.659	2.659	0	%100
7	MP1A	X	0	0	0	%100
8	MP1A	Z	2.143	2.143	0	%100
9	MP2A	X	0	0	0	%100
10	MP2A	Z	2.373	2.373	0	%100
11	MP3A	X	0	0	0	%100
12	MP3A	Z	2.143	2.143	0	%100
13	MP4A	X	0	0	0	%100
14	MP4A	Z	2.143	2.143	0	%100
15	M14	X	0	0	0	%100
16	M14	Z	1.932	1.932	0	%100
17	M20	X	0	0	0	%100
18	M20	Z	2.659	2.659	0	%100
19	M21	X	0	0	0	%100
20	M21	Z	0	0	0	%100

Member Distributed Loads (BLC 60 : Structure Wi (210 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[l...	Start Location[ft,...	End Location[ft,%]
1	M1	X	-.283	-.283	0	%100
2	M1	Z	.491	.491	0	%100
3	M3	X	-.99	-.99	0	%100
4	M3	Z	1.715	1.715	0	%100
5	M5	X	-.997	-.997	0	%100
6	M5	Z	1.727	1.727	0	%100
7	MP1A	X	-1.072	-1.072	0	%100
8	MP1A	Z	1.856	1.856	0	%100
9	MP2A	X	-1.186	-1.186	0	%100
10	MP2A	Z	2.055	2.055	0	%100
11	MP3A	X	-1.072	-1.072	0	%100
12	MP3A	Z	1.856	1.856	0	%100
13	MP4A	X	-1.072	-1.072	0	%100
14	MP4A	Z	1.856	1.856	0	%100
15	M14	X	-.966	-.966	0	%100
16	M14	Z	1.674	1.674	0	%100
17	M20	X	-.997	-.997	0	%100
18	M20	Z	1.727	1.727	0	%100
19	M21	X	-.259	-.259	0	%100
20	M21	Z	.448	.448	0	%100

Member Distributed Loads (BLC 61 : Structure Wi (240 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[l...	Start Location[ft,...	End Location[ft,%]
1	M1	X	-1.473	-1.473	0	%100
2	M1	Z	.85	.85	0	%100
3	M3	X	-1.715	-1.715	0	%100
4	M3	Z	.99	.99	0	%100
5	M5	X	-.576	-.576	0	%100
6	M5	Z	.332	.332	0	%100
7	MP1A	X	-1.856	-1.856	0	%100
8	MP1A	Z	1.072	1.072	0	%100
9	MP2A	X	-2.055	-2.055	0	%100
10	MP2A	Z	1.186	1.186	0	%100

Member Distributed Loads (BLC 61 : Structure Wi (240 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[l...	Start Location[ft,...	End Location[ft,%]
11	MP3A	X	-1.856	-1.856	0	%100
12	MP3A	Z	1.072	1.072	0	%100
13	MP4A	X	-1.856	-1.856	0	%100
14	MP4A	Z	1.072	1.072	0	%100
15	M14	X	-1.674	-1.674	0	%100
16	M14	Z	.966	.966	0	%100
17	M20	X	-.576	-.576	0	%100
18	M20	Z	.332	.332	0	%100
19	M21	X	-1.345	-1.345	0	%100
20	M21	Z	.777	.777	0	%100

Member Distributed Loads (BLC 62 : Structure Wi (270 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[l...	Start Location[ft,...	End Location[ft,%]
1	M1	X	-2.267	-2.267	0	%100
2	M1	Z	0	0	0	%100
3	M3	X	-1.98	-1.98	0	%100
4	M3	Z	0	0	0	%100
5	M5	X	0	0	0	%100
6	M5	Z	0	0	0	%100
7	MP1A	X	-2.143	-2.143	0	%100
8	MP1A	Z	0	0	0	%100
9	MP2A	X	-2.373	-2.373	0	%100
10	MP2A	Z	0	0	0	%100
11	MP3A	X	-2.143	-2.143	0	%100
12	MP3A	Z	0	0	0	%100
13	MP4A	X	-2.143	-2.143	0	%100
14	MP4A	Z	0	0	0	%100
15	M14	X	-1.932	-1.932	0	%100
16	M14	Z	0	0	0	%100
17	M20	X	0	0	0	%100
18	M20	Z	0	0	0	%100
19	M21	X	-2.071	-2.071	0	%100
20	M21	Z	0	0	0	%100

Member Distributed Loads (BLC 63 : Structure Wi (300 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[l...	Start Location[ft,...	End Location[ft,%]
1	M1	X	-1.473	-1.473	0	%100
2	M1	Z	-.85	-.85	0	%100
3	M3	X	-1.715	-1.715	0	%100
4	M3	Z	-.99	-.99	0	%100
5	M5	X	-.576	-.576	0	%100
6	M5	Z	-.332	-.332	0	%100
7	MP1A	X	-1.856	-1.856	0	%100
8	MP1A	Z	-1.072	-1.072	0	%100
9	MP2A	X	-2.055	-2.055	0	%100
10	MP2A	Z	-1.186	-1.186	0	%100
11	MP3A	X	-1.856	-1.856	0	%100
12	MP3A	Z	-1.072	-1.072	0	%100
13	MP4A	X	-1.856	-1.856	0	%100
14	MP4A	Z	-1.072	-1.072	0	%100
15	M14	X	-1.674	-1.674	0	%100
16	M14	Z	-.966	-.966	0	%100
17	M20	X	-.576	-.576	0	%100
18	M20	Z	-.332	-.332	0	%100
19	M21	X	-1.345	-1.345	0	%100
20	M21	Z	-.777	-.777	0	%100

Member Distributed Loads (BLC 64 : Structure Wi (330 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[l...	Start Location[ft,...	End Location[ft,%]
1	M1	X	-.283	-.283	0	%100
2	M1	Z	-.491	-.491	0	%100
3	M3	X	-.99	-.99	0	%100
4	M3	Z	-1.715	-1.715	0	%100
5	M5	X	-.997	-.997	0	%100
6	M5	Z	-1.727	-1.727	0	%100
7	MP1A	X	-1.072	-1.072	0	%100
8	MP1A	Z	-1.856	-1.856	0	%100
9	MP2A	X	-1.186	-1.186	0	%100
10	MP2A	Z	-2.055	-2.055	0	%100
11	MP3A	X	-1.072	-1.072	0	%100
12	MP3A	Z	-1.856	-1.856	0	%100
13	MP4A	X	-1.072	-1.072	0	%100
14	MP4A	Z	-1.856	-1.856	0	%100
15	M14	X	-.966	-.966	0	%100
16	M14	Z	-1.674	-1.674	0	%100
17	M20	X	-.997	-.997	0	%100
18	M20	Z	-1.727	-1.727	0	%100
19	M21	X	-.259	-.259	0	%100
20	M21	Z	-.448	-.448	0	%100

Member Distributed Loads (BLC 65 : Structure Wm (0 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[l...	Start Location[ft,...	End Location[ft,%]
1	M1	X	0	0	0	%100
2	M1	Z	0	0	0	%100
3	M3	X	0	0	0	%100
4	M3	Z	-.642	-.642	0	%100
5	M5	X	0	0	0	%100
6	M5	Z	-.903	-.903	0	%100
7	MP1A	X	0	0	0	%100
8	MP1A	Z	-.613	-.613	0	%100
9	MP2A	X	0	0	0	%100
10	MP2A	Z	-.742	-.742	0	%100
11	MP3A	X	0	0	0	%100
12	MP3A	Z	-.613	-.613	0	%100
13	MP4A	X	0	0	0	%100
14	MP4A	Z	-.613	-.613	0	%100
15	M14	X	0	0	0	%100
16	M14	Z	-.549	-.549	0	%100
17	M20	X	0	0	0	%100
18	M20	Z	-.903	-.903	0	%100
19	M21	X	0	0	0	%100
20	M21	Z	0	0	0	%100

Member Distributed Loads (BLC 66 : Structure Wm (30 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[l...	Start Location[ft,...	End Location[ft,%]
1	M1	X	.1	.1	0	%100
2	M1	Z	-.173	-.173	0	%100
3	M3	X	.321	.321	0	%100
4	M3	Z	-.556	-.556	0	%100
5	M5	X	.339	.339	0	%100
6	M5	Z	-.587	-.587	0	%100
7	MP1A	X	.306	.306	0	%100
8	MP1A	Z	-.531	-.531	0	%100
9	MP2A	X	.371	.371	0	%100
10	MP2A	Z	-.642	-.642	0	%100

Member Distributed Loads (BLC 66 : Structure Wm (30 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[l...	Start Location[ft,...	End Location[ft,%]
11	MP3A	X	.306	.306	0	%100
12	MP3A	Z	-.531	-.531	0	%100
13	MP4A	X	.306	.306	0	%100
14	MP4A	Z	-.531	-.531	0	%100
15	M14	X	.274	.274	0	%100
16	M14	Z	-.475	-.475	0	%100
17	M20	X	.339	.339	0	%100
18	M20	Z	-.587	-.587	0	%100
19	M21	X	.082	.082	0	%100
20	M21	Z	-.142	-.142	0	%100

Member Distributed Loads (BLC 67 : Structure Wm (60 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[l...	Start Location[ft,...	End Location[ft,%]
1	M1	X	.518	.518	0	%100
2	M1	Z	-.299	-.299	0	%100
3	M3	X	.556	.556	0	%100
4	M3	Z	-.321	-.321	0	%100
5	M5	X	.196	.196	0	%100
6	M5	Z	-.113	-.113	0	%100
7	MP1A	X	.531	.531	0	%100
8	MP1A	Z	-.306	-.306	0	%100
9	MP2A	X	.642	.642	0	%100
10	MP2A	Z	-.371	-.371	0	%100
11	MP3A	X	.531	.531	0	%100
12	MP3A	Z	-.306	-.306	0	%100
13	MP4A	X	.531	.531	0	%100
14	MP4A	Z	-.306	-.306	0	%100
15	M14	X	.475	.475	0	%100
16	M14	Z	-.274	-.274	0	%100
17	M20	X	.196	.196	0	%100
18	M20	Z	-.113	-.113	0	%100
19	M21	X	.427	.427	0	%100
20	M21	Z	-.247	-.247	0	%100

Member Distributed Loads (BLC 68 : Structure Wm (90 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[l...	Start Location[ft,...	End Location[ft,%]
1	M1	X	.797	.797	0	%100
2	M1	Z	0	0	0	%100
3	M3	X	.642	.642	0	%100
4	M3	Z	0	0	0	%100
5	M5	X	0	0	0	%100
6	M5	Z	0	0	0	%100
7	MP1A	X	.613	.613	0	%100
8	MP1A	Z	0	0	0	%100
9	MP2A	X	.742	.742	0	%100
10	MP2A	Z	0	0	0	%100
11	MP3A	X	.613	.613	0	%100
12	MP3A	Z	0	0	0	%100
13	MP4A	X	.613	.613	0	%100
14	MP4A	Z	0	0	0	%100
15	M14	X	.549	.549	0	%100
16	M14	Z	0	0	0	%100
17	M20	X	0	0	0	%100
18	M20	Z	0	0	0	%100
19	M21	X	.658	.658	0	%100
20	M21	Z	0	0	0	%100

Member Distributed Loads (BLC 69 : Structure Wm (120 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[l...	Start Location[ft,...	End Location[ft,%]
1	M1	X	.518	.518	0	%100
2	M1	Z	.299	.299	0	%100
3	M3	X	.556	.556	0	%100
4	M3	Z	.321	.321	0	%100
5	M5	X	.196	.196	0	%100
6	M5	Z	.113	.113	0	%100
7	MP1A	X	.531	.531	0	%100
8	MP1A	Z	.306	.306	0	%100
9	MP2A	X	.642	.642	0	%100
10	MP2A	Z	.371	.371	0	%100
11	MP3A	X	.531	.531	0	%100
12	MP3A	Z	.306	.306	0	%100
13	MP4A	X	.531	.531	0	%100
14	MP4A	Z	.306	.306	0	%100
15	M14	X	.475	.475	0	%100
16	M14	Z	.274	.274	0	%100
17	M20	X	.196	.196	0	%100
18	M20	Z	.113	.113	0	%100
19	M21	X	.427	.427	0	%100
20	M21	Z	.247	.247	0	%100

Member Distributed Loads (BLC 70 : Structure Wm (150 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[l...	Start Location[ft,...	End Location[ft,%]
1	M1	X	.1	.1	0	%100
2	M1	Z	.173	.173	0	%100
3	M3	X	.321	.321	0	%100
4	M3	Z	.556	.556	0	%100
5	M5	X	.339	.339	0	%100
6	M5	Z	.587	.587	0	%100
7	MP1A	X	.306	.306	0	%100
8	MP1A	Z	.531	.531	0	%100
9	MP2A	X	.371	.371	0	%100
10	MP2A	Z	.642	.642	0	%100
11	MP3A	X	.306	.306	0	%100
12	MP3A	Z	.531	.531	0	%100
13	MP4A	X	.306	.306	0	%100
14	MP4A	Z	.531	.531	0	%100
15	M14	X	.274	.274	0	%100
16	M14	Z	.475	.475	0	%100
17	M20	X	.339	.339	0	%100
18	M20	Z	.587	.587	0	%100
19	M21	X	.082	.082	0	%100
20	M21	Z	.142	.142	0	%100

Member Distributed Loads (BLC 71 : Structure Wm (180 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[l...	Start Location[ft,...	End Location[ft,%]
1	M1	X	0	0	0	%100
2	M1	Z	0	0	0	%100
3	M3	X	0	0	0	%100
4	M3	Z	.642	.642	0	%100
5	M5	X	0	0	0	%100
6	M5	Z	.903	.903	0	%100
7	MP1A	X	0	0	0	%100
8	MP1A	Z	.613	.613	0	%100
9	MP2A	X	0	0	0	%100
10	MP2A	Z	.742	.742	0	%100

Member Distributed Loads (BLC 71 : Structure Wm (180 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[l...	Start Location[ft,...	End Location[ft,%]
11	MP3A	X	0	0	0	%100
12	MP3A	Z	.613	.613	0	%100
13	MP4A	X	0	0	0	%100
14	MP4A	Z	.613	.613	0	%100
15	M14	X	0	0	0	%100
16	M14	Z	.549	.549	0	%100
17	M20	X	0	0	0	%100
18	M20	Z	.903	.903	0	%100
19	M21	X	0	0	0	%100
20	M21	Z	0	0	0	%100

Member Distributed Loads (BLC 72 : Structure Wm (210 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[l...	Start Location[ft,...	End Location[ft,%]
1	M1	X	-.1	-.1	0	%100
2	M1	Z	.173	.173	0	%100
3	M3	X	-.321	-.321	0	%100
4	M3	Z	.556	.556	0	%100
5	M5	X	-.339	-.339	0	%100
6	M5	Z	.587	.587	0	%100
7	MP1A	X	-.306	-.306	0	%100
8	MP1A	Z	.531	.531	0	%100
9	MP2A	X	-.371	-.371	0	%100
10	MP2A	Z	.642	.642	0	%100
11	MP3A	X	-.306	-.306	0	%100
12	MP3A	Z	.531	.531	0	%100
13	MP4A	X	-.306	-.306	0	%100
14	MP4A	Z	.531	.531	0	%100
15	M14	X	-.274	-.274	0	%100
16	M14	Z	.475	.475	0	%100
17	M20	X	-.339	-.339	0	%100
18	M20	Z	.587	.587	0	%100
19	M21	X	-.082	-.082	0	%100
20	M21	Z	.142	.142	0	%100

Member Distributed Loads (BLC 73 : Structure Wm (240 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[l...	Start Location[ft,...	End Location[ft,%]
1	M1	X	-.518	-.518	0	%100
2	M1	Z	.299	.299	0	%100
3	M3	X	-.556	-.556	0	%100
4	M3	Z	.321	.321	0	%100
5	M5	X	-.196	-.196	0	%100
6	M5	Z	.113	.113	0	%100
7	MP1A	X	-.531	-.531	0	%100
8	MP1A	Z	.306	.306	0	%100
9	MP2A	X	-.642	-.642	0	%100
10	MP2A	Z	.371	.371	0	%100
11	MP3A	X	-.531	-.531	0	%100
12	MP3A	Z	.306	.306	0	%100
13	MP4A	X	-.531	-.531	0	%100
14	MP4A	Z	.306	.306	0	%100
15	M14	X	-.475	-.475	0	%100
16	M14	Z	.274	.274	0	%100
17	M20	X	-.196	-.196	0	%100
18	M20	Z	.113	.113	0	%100
19	M21	X	-.427	-.427	0	%100
20	M21	Z	.247	.247	0	%100

Member Distributed Loads (BLC 74 : Structure Wm (270 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[l...	Start Location[ft,...	End Location[ft,%]
1	M1	X	-.797	-.797	0	%100
2	M1	Z	0	0	0	%100
3	M3	X	-.642	-.642	0	%100
4	M3	Z	0	0	0	%100
5	M5	X	0	0	0	%100
6	M5	Z	0	0	0	%100
7	MP1A	X	-.613	-.613	0	%100
8	MP1A	Z	0	0	0	%100
9	MP2A	X	-.742	-.742	0	%100
10	MP2A	Z	0	0	0	%100
11	MP3A	X	-.613	-.613	0	%100
12	MP3A	Z	0	0	0	%100
13	MP4A	X	-.613	-.613	0	%100
14	MP4A	Z	0	0	0	%100
15	M14	X	-.549	-.549	0	%100
16	M14	Z	0	0	0	%100
17	M20	X	0	0	0	%100
18	M20	Z	0	0	0	%100
19	M21	X	-.658	-.658	0	%100
20	M21	Z	0	0	0	%100

Member Distributed Loads (BLC 75 : Structure Wm (300 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[l...	Start Location[ft,...	End Location[ft,%]
1	M1	X	-.518	-.518	0	%100
2	M1	Z	-.299	-.299	0	%100
3	M3	X	-.556	-.556	0	%100
4	M3	Z	-.321	-.321	0	%100
5	M5	X	-.196	-.196	0	%100
6	M5	Z	-.113	-.113	0	%100
7	MP1A	X	-.531	-.531	0	%100
8	MP1A	Z	-.306	-.306	0	%100
9	MP2A	X	-.642	-.642	0	%100
10	MP2A	Z	-.371	-.371	0	%100
11	MP3A	X	-.531	-.531	0	%100
12	MP3A	Z	-.306	-.306	0	%100
13	MP4A	X	-.531	-.531	0	%100
14	MP4A	Z	-.306	-.306	0	%100
15	M14	X	-.475	-.475	0	%100
16	M14	Z	-.274	-.274	0	%100
17	M20	X	-.196	-.196	0	%100
18	M20	Z	-.113	-.113	0	%100
19	M21	X	-.427	-.427	0	%100
20	M21	Z	-.247	-.247	0	%100

Member Distributed Loads (BLC 76 : Structure Wm (330 Deg))

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[l...	Start Location[ft,...	End Location[ft,%]
1	M1	X	-.1	-.1	0	%100
2	M1	Z	-.173	-.173	0	%100
3	M3	X	-.321	-.321	0	%100
4	M3	Z	-.556	-.556	0	%100
5	M5	X	-.339	-.339	0	%100
6	M5	Z	-.587	-.587	0	%100
7	MP1A	X	-.306	-.306	0	%100
8	MP1A	Z	-.531	-.531	0	%100
9	MP2A	X	-.371	-.371	0	%100
10	MP2A	Z	-.642	-.642	0	%100

Member Distributed Loads (BLC 76 : Structure Wm (330 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,F,ksf]	End Magnitude[l...	Start Location[ft,...	End Location[ft,%]
11	MP3A	X	-.306	-.306	0	%100
12	MP3A	Z	-.531	-.531	0	%100
13	MP4A	X	-.306	-.306	0	%100
14	MP4A	Z	-.531	-.531	0	%100
15	M14	X	-.274	-.274	0	%100
16	M14	Z	-.475	-.475	0	%100
17	M20	X	-.339	-.339	0	%100
18	M20	Z	-.587	-.587	0	%100
19	M21	X	-.082	-.082	0	%100
20	M21	Z	-.142	-.142	0	%100

Member Area Loads

Joint A	Joint B	Joint C	Joint D	Direction	Distribution	Magnitude[ksf]
No Data to Print ...						

Envelope Joint Reactions

	Joint		X [lb]	LC	Y [lb]	LC	Z [lb]	LC	MX [k-ft]	LC	MY [k-ft]	LC	MZ [k-ft]	LC
1	N1	max	1281.223	10	1490.173	18	1186.049	1	-1.076	12	3.654	10	1.035	4
2		min	-1415.178	4	442.797	12	-499.788	7	-3.901	18	-4.061	4	-1.644	46
3	N39	max	498.894	10	691.943	24	922.152	1	-.462	6	2.827	10	.386	4
4		min	-364.939	4	113.893	6	-1608.419	7	-1.477	24	-2.418	4	-.71	46
5	Totals:	max	1780.117	10	2126.102	22	2108.2	1						
6		min	-1780.117	4	938.467	4	-2108.207	7						

Envelope AISC 15th(360-16): LRFD Steel Code Checks

	Member	Shape	Code Check	Loc[ft]	LC	Shear Check	Loc[ft]	Dir	LC	phi*Pnc [lb]	phi*...	phi*...	phi*...	...	Eqn
1	M1	HSS4X...	.335	0	4	.150	0	y	46	135040.87	1395...	16.1...	16.1...	...	H1-...
2	M3	PIPE_...	.000	.75	10	.000	.75		10	92571.332	93240	10.6...	10.6...	...	H1-...
3	M5	PIPE_...	.301	6.292	47	.164	6.292		20	28046.868	67068	5.913	5.913	...	H1-...
4	MP1A	PIPE_...	.186	2.25	4	.066	2.25		10	20866.733	32130	1.872	1.872	...	H1-...
5	MP2A	PIPE_...	.276	5.5	22	.092	3.25		18	30038.461	50715	3.596	3.596	...	H1-...
6	MP3A	PIPE_...	.308	4.5	40	.078	4.5		17	20866.733	32130	1.872	1.872	...	H1-...
7	MP4A	PIPE_...	.224	4.5	50	.066	2.25		10	20866.733	32130	1.872	1.872	...	H1-...
8	M14	PIPE_...	.140	2.635	7	.017	2.635		7	27570.415	33048	1.925	1.925	1	H1-...
9	M20	PIPE_...	.322	6.5	6	.160	6.5		1	26448.09	67068	5.913	5.913	...	H1-...
10	M21	HSS3X...	.417	0	10	.117	0	y	46	92803.195	1010...	8.556	8.556	...	H1-...

Client:	Verizon Wireless	Date:	7/19/2021
Site Name:	Salisbury		
Project No.	21777481A		
Title:	Antenna Mount Fix	Page:	1

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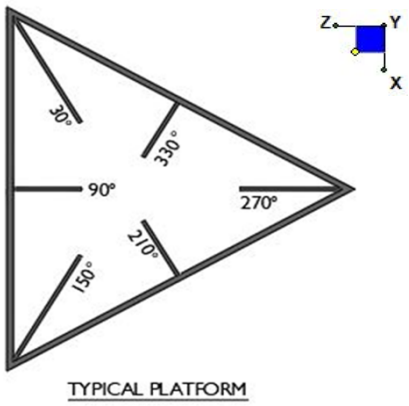
I. Mount-to-Tower Connection Check - Proposed

RISA Model Data

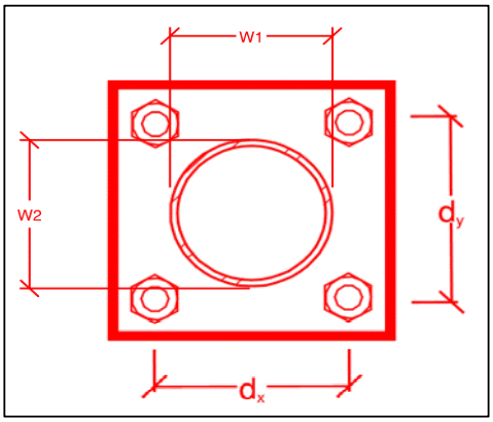
Nodes *(labeled per RISA)*	Orientation *(per graphic of typical platform)*
N39	90



TYPICAL PLATFORM

Tower Connection Bolt Checks

Any moment resistance?:	yes
Bolt Quantity per Reaction:	4
d_x (in) *(Delta X of typ. bolt config. sketch)* :	6
d_y (in) *(Delta Y of typ. bolt config. sketch)* :	6
Bolt Type:	A325N
Bolt Diameter (in):	0.625
Required Tensile Strength (kips):	12.1
Required Shear Strength (kips):	3.6
Tensile Strength / bolt (kips):	20.7
Shear Strength / bolt (kips):	12.4
Tensile Capacity Overall:	**14.6%***
Shear Capacity Overall:	**7.2%**



**Note: Tension reduction not required if tension or shear capacity < 30%*

Tower Connection Plate and Weld Check

Connecting Standoff Member Shape:	Rect
Plate Width (in):	8.25
Plate Height (in):	8.25
W1 (in):	3
W2 (in):	3
Fy (ksi, plate):	50
t_{Plate} (in):	0.75
Weld Size (1/16 in):	5
Phi*Rn (kip/in):	6.96
Required Weld Strength (kip/in):	2.99
Plate Bending Capacity:	**21.0%**
Weld Capacity:	**43.0%**

Max Plate Bending Strengths

Mu_{xx} *(kip-in)* :	2.2
Phi*Mn_{xx} *(kip-in)* :	52.2
Mu_{yy} *(kip-in)* :	8.7
Phi*Mn_{yy} *(kip-in)* :	52.2

Client:	Verizon Wireless	Date:	7/21/2021
Site Name:	Salisbury		
Project No.	21777481A		
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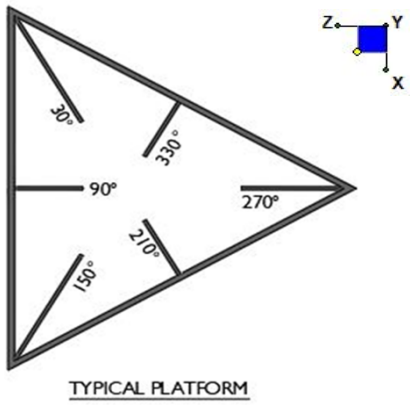
Version 3.1

I. Mount-to-Tower Connection Check

RISA Model Data

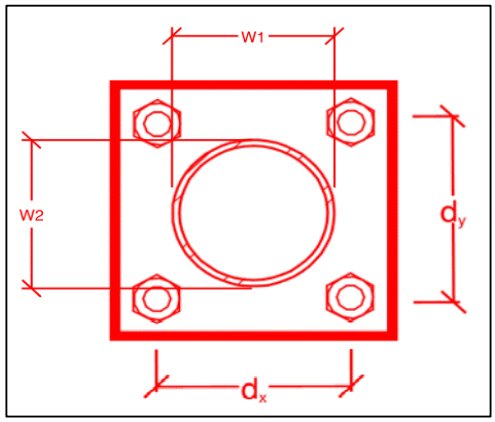
Nodes *(labeled per RISA)*	Orientation *(per graphic of typical platform)*
N1	90



TYPICAL PLATFORM

Tower Connection Bolt Checks

Any moment resistance?:	yes
Bolt Quantity per Reaction:	4
d_x (in) *(Delta X of typ. bolt config. sketch)* :	7
d_y (in) *(Delta Y of typ. bolt config. sketch)* :	7
Bolt Type:	A325N
Bolt Diameter (in):	0.625
Required Tensile Strength (kips):	15.6
Required Shear Strength (kips):	6.8
Tensile Strength / bolt (kips):	20.7
Shear Strength / bolt (kips):	12.4
Tensile Capacity Overall:	**18.8%***
Shear Capacity Overall:	**13.7%**



**Note: Tension reduction not required if tension or shear capacity < 30%*

Tower Connection Plate and Weld Check

Connecting Standoff Member Shape:	Rect
Plate Width (in):	10
Plate Height (in):	10
W1 (in):	4
W2 (in):	4
Fy (ksi, plate):	36
t_{Plate} (in):	0.625
Weld Size (1/16 in):	4
Phi*Rn (kip/in):	5.57
Required Weld Strength (kip/in):	2.58
Plate Bending Capacity:	**48.8%**
Weld Capacity:	**46.4%**

Max Plate Bending Strengths

Mu_{xx} *(kip-in)* :	4.9
$Phi*Mn_{xx}$ *(kip-in)* :	31.6
Mu_{yy} *(kip-in)* :	10.6
$Phi*Mn_{yy}$ *(kip-in)* :	31.6

Mount Desktop – Post Modification Inspection (PMI) Report Requirements

Documents & Photos Required from Contractor – Mount Modification

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

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

Base Requirements:

- Any special photos outside of the standard requirements will be indicated on the drawings
- Provide "as built drawings" showing contractor's name, preparer's signature, and date. Any deviations from the drawings (proposed modification) must be shown.
- Notation that all hardware was properly installed, and the existing hardware was inspected for any issues.
- Verification that loading is as communicated in the modification drawings. NOTE If loading is different than what is conveyed in the modification drawing contact Maser Consulting Connecticut immediately.
- Each photo should be time and date stamped
- Photos should be high resolution and submitted in a Zip File and should be organized in the file structure as depicted in Schedule A attached.
- Contractor shall ensure that the safety climb wire rope is supported and not adversely impacted by the install of the modification components. This may involve the install of wire rope guides, or other items to protect the wire rope.
- The photos in the file structure should be uploaded to **https://pmi.vzwsmart.com** as depicted on the drawings

Photo Requirements:

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

- *Photos taken at Mount Elevation*
    - Photos showing each individual sector before and also after installation of modifications. Each entire sector must be in one photo to show in the inter-connection of members.
        - These photos should also certify that the placement and geometry of the equipment on the mount is as depicted on the sketch and table in the mount analysis
    - Close-up photos of each installed modification per the modification drawings; pictures should also include connection hardware (U-bolts, bolts, nuts, all-threaded rods, etc.)
    - Photos showing the measurements of the installed modification member sizes (i.e. lengths, widths, depths, diameters, thicknesses)
    - Photos showing the elevation or distances of the installed modifications from the appropriate reference locations shown in the modification drawings
    - Photos showing the installed modifications onto the tower with tape drop measurements (if applicable) (i.e. ring/collar mounts, tie-backs, V-bracing kits, etc.); if the existing mount elevation needs to be changed according to the modification drawings, a tape drop measurement shall be provided before the elevation change
    - Photos showing the safety climb wire rope above and below the mount prior to modification.
    - Photos showing the climbing facility and safety climb if present.

Material Certification:

- Materials utilized must be as per specification on the drawings or the equivalent as validated by Maser Consulting Connecticut.
    - If the drawings are as specified on the drawings
        - The contractor should provide the packing list or the materials utilized to perform the mount modification
    - If an equivalent is utilized
        - It is required that the Maser Consulting Connecticut certification of such is included in the contractor submission package. There may be an additional charge for this certification if the equivalent submission doesn't meet specifications as prescribed in the drawings.
- The contractor must certify that the materials meet these specifications by one of these methods.

☐ The Material utilized was as specified on the Maser Consulting Connecticut Mount Modification Drawings and included in the Material certification folder is a packing list or invoice for these materials

☐ The material utilized was an "equivalent" and included as part of the contractor submission is the Maser Consulting Connecticut certification, invoices, or specifications validating accepted status

Certifying Individual: Company _____

Name _____

Signature _____

Antenna & equipment placement and Geometry Confirmation:

- The contractor must certify that the antenna & equipment placement and geometry is in accordance with the antenna placement diagrams as included in this mount analysis.

☐ The contractor certifies that the photos support and the equipment on the mount is as depicted on the antenna placement diagrams as included in this mount analysis.

☐ The contractor notes that the equipment on the mount is not in accordance with the antenna placement diagrams and has accordingly marked up the diagrams or provided a diagram outlining the differences.

Certifying Individual: Company _____

Name _____

Signature _____

Special Instructions / Validation as required from the MA or Mod Drawings:

Issue:

Contractor shall install the proposed OVP on a new 48" long P2.0 STD Pipe, connected to the standoff horizontal of the Alpha sector with new crossover plates (Site Pro 1 Part #: SQCXK-4, or EOR approved equal). Contractor shall replace the existing mount pipe in position 2 of each sector (considered left to right from behind panels) with a new 96" long P2.5 STD pipe, connected to the existing face horizontal with new crossover plates (Site Pro 1 Part #: SP219-H, or EOR equal) and to the new face horizontal with new crossover plates (VZWSmart-MSK2). Contractor shall install new safety climb wire rope guides to the existing and proposed collar mount assemblies.

Response:

Schedule A – Photo & Document File Structure

- VzW Site Number / Name
  - Base & “During Installation” Photos
  - Pre-Installation Photos
    - Alpha
    - Beta
    - Gamma
    - Ground Level
    - Tape Drop
  - Post-Installation Photos
    - Alpha
    - Beta
    - Gamma
    - Ground Level
    - Tape Drop
    - Photos of climbing facility and safety climb – If Present
  - Certifications – Submission of this document including certifications
  - Specific Required Additional Photos

Structure: 468684-VZW - SALISBURY CT

Sector: **A**

Structure Type: Monopole

Mount Elev: 132.00

10050469

7/19/2021

Page: 1

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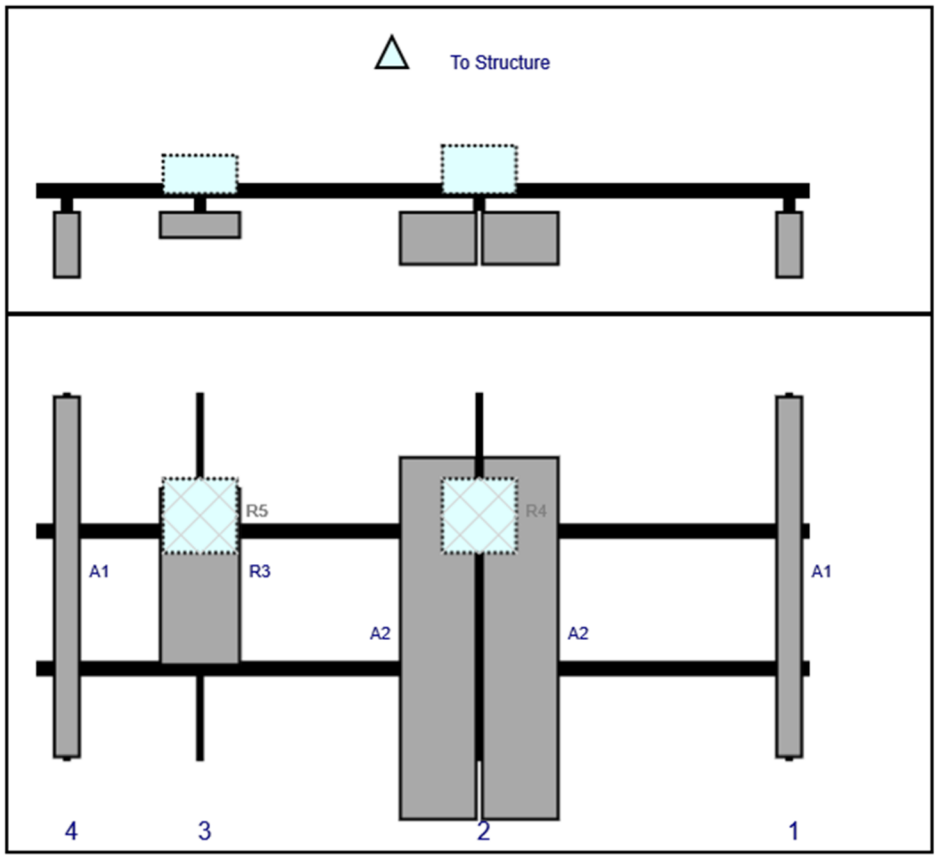
Plan View

Front View
Looking at Structure



Ref#	Model	Height (in)	Width (in)	H Dist Frm L.	Pipe #	Pipe Pos V	Ant Pos	C. Ant Frm T.	Ant H Off	Status	Validation
A1	LPA-80080/6CF	70.9	5.5	147	1	a	Front	36	0	Retained	06/15/2021
A2	MX06FRO660-03	71.3	15.4	86.5	2	a	Front	48	8	Added	
A2	MX06FRO660-03	71.3	15.4	86.5	2	b	Front	48	-8	Added	
R4	B2/B66A RRH-BR049 (RFV01U-D1A)	15	15	86.5	2	a	Behind	24	0	Added	
R3	MT6407-77A	35.1	16.1	32	3	a	Front	36	0	Added	
R5	B5/B13 RRH-BR04C (RFV01U-D2A)	15	15	32	3	a	Behind	24	0	Added	
A1	LPA-80080/6CF	70.9	5.5	6	4	a	Front	36	0	Retained	06/15/2021

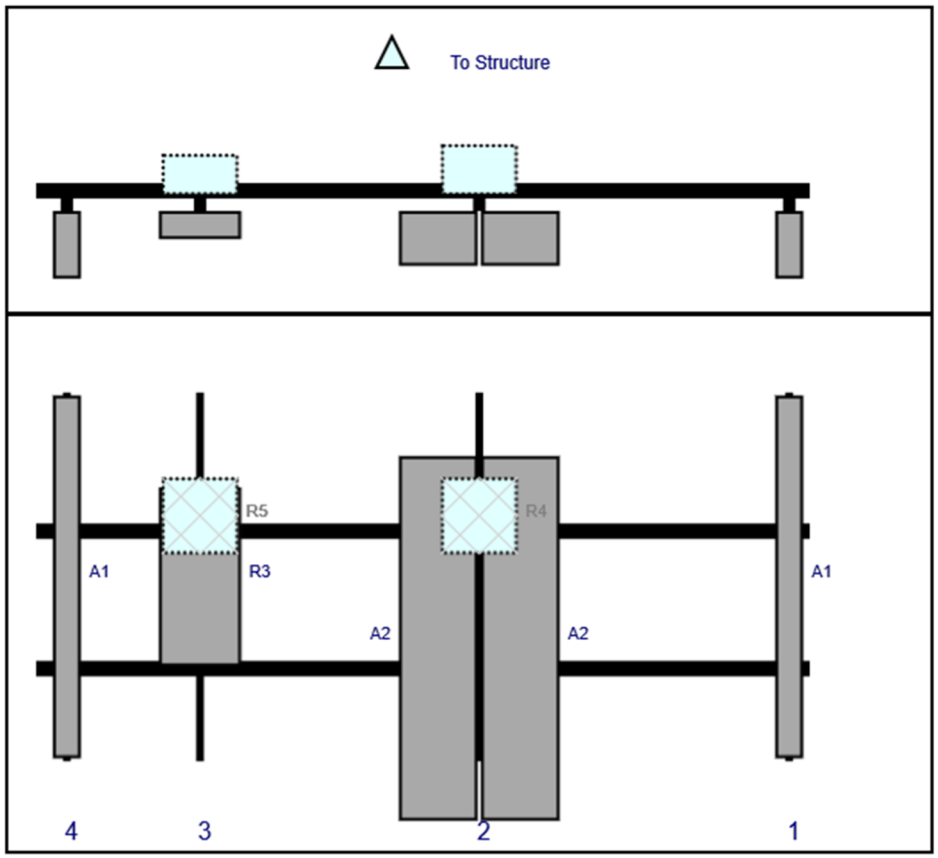
Structure: 468684-VZW - SALISBURY CT

Sector:	B		7/19/2021
Structure Type:	Monopole	10050469	
Mount Elev:	132.00		Page: 2

MASER CONSULTING — CONNECTICUT —

Plan View

Front View
Looking at Structure



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A2	MX06FRO660-03	71.3	15.4	86.5	2	b	Front	48	-8	Added	
R4	B2/B66A RRH-BR049 (RFV01U-D1A)	15	15	86.5	2	a	Behind	24	0	Added	
R3	MT6407-77A	35.1	16.1	32	3	a	Front	36	0	Added	
R5	B5/B13 RRH-BR04C (RFV01U-D2A)	15	15	32	3	a	Behind	24	0	Added	
A1	LPA-80080/6CF	70.9	5.5	6	4	a	Front	36	0	Retained	06/15/2021

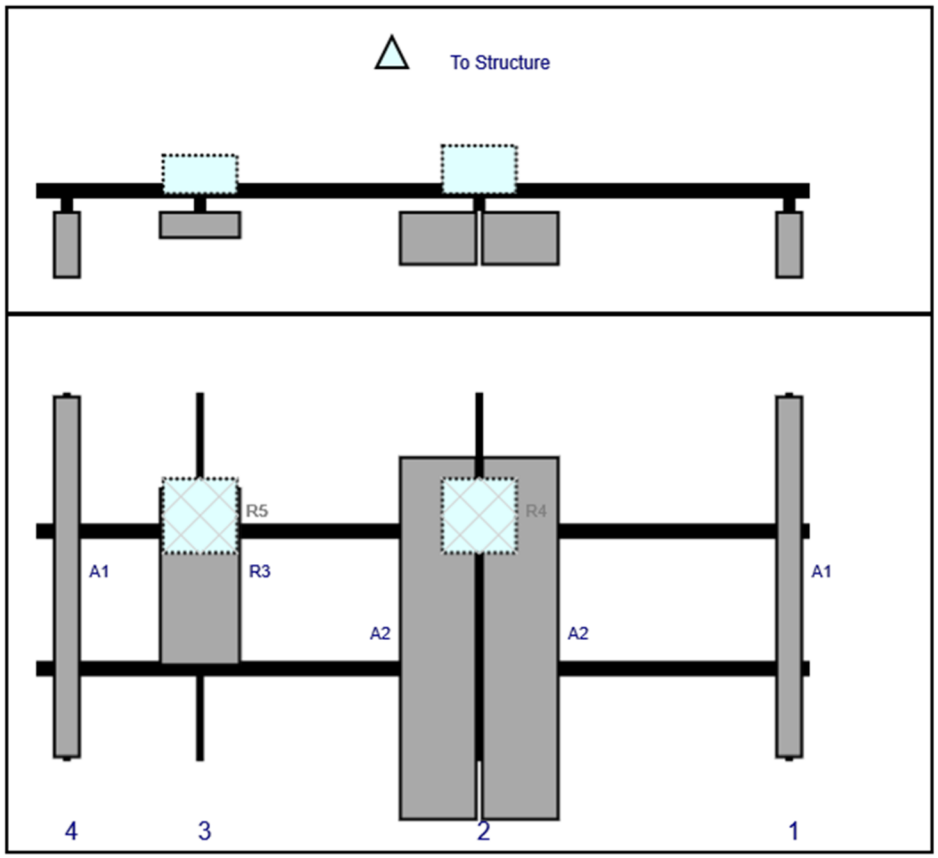
Structure: 468684-VZW - SALISBURY CT

Sector:	C		7/19/2021
Structure Type:	Monopole	10050469	
Mount Elev:	132.00		Page: 3

MASER CONSULTING CONNECTICUT

Plan View

Front View
Looking at Structure



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R5	B5/B13 RRH-BR04C (RFV01U-D2A)	15	15	32	3	a	Behind	24	0	Added	
A1	LPA-80080/6CF	70.9	5.5	6	4	a	Front	36	0	Retained	06/15/2021

MASER CONSULTING
— CONNECTICUT—

Maser Consulting Connecticut

Subject	TIA-222-H Adoption and Wind Speed Usage	
Site Information	*Site ID:*	*468684-VZW / SALISBURY CT*
	Site Name:	*SALISBURY CT*
	Carrier Name:	*Verizon Wireless*
	Address:	*52 Library ST* *Salisbury, Connecticut 06068* *Litchfield County*
	Latitude:	*41.980844°*
	Longitude:	*-73.418422°*
Structure Information	*Tower Type:*	*148-Ft Self Support*
	Mount Type:	*12.58-Ft T-Arm*
	FUZE ID # 16272053	

To Whom It May Concern,

We respectfully submit the above referenced Antenna Mount Structural Analysis report in conformance with ANSI/TIA-222-H, Structural Standard for Antenna Supporting Structures and Antennas and Small Wind Turbine Support Structures.

The 2015 International Building Code states that, in Section 3108, telecommunication towers shall be designed and constructed in accordance with the provisions of TIA-222. The TIA-222-H is the latest revision of the TIA-222 Standard, effective as of January 01, 2018.

As with all ANSI standards and engineering best practice is to apply the most current revision of the standard. This ensures the engineer is applying all updates. As an example, the TIA-222-H standard includes updates to bring it in line with the latest AISC and ACI standards and it also incorporates the latest wind speed maps by ASCE 7 based on updated studies of the wind data.

The TIA-222-H standard clarifies these specific requirements for the antenna mount analysis such as modeling methods, seismic analysis, 30-degree increment wind directions and maintenance loading. Therefore, it is our opinion that TIA-222-H is the most appropriate standard for antenna mount structural analysis and is acceptable for use at this site to ensure the engineer is taking into account the most current engineering standard available.

Sincerely,

Dejian Xu

Dejian Xu, PE
Technical Manager

verizon

MOUNT MODIFICATION DRAWINGS
EXISTING 12.58' T-ARM

TOWER OWNER: AMERICAN TOWER CORPORATION
TOWER OWNER SITE NUMBER: 370630

CARRIER SITE NAME: SALISBURY CT
CARRIER SITE NUMBER: 468684
FUZE ID: 16272053

52 LIBRARY ST.
SALISBURY, CT 06068
LITCHFIELD COUNTY

LATITUDE: 41.980844° N
LONGITUDE: 73.418422° W

DESIGN CRITERIA

WIND LOADS

BASIC WIND SPEED (3 SECOND GUST), V = 113 MPH
EXPOSURE CATEGORY C
TOPOGRAPHIC CATEGORY 1
MEAN BASE ELEVATION (AMSL) = 666.77'

ICE LOADS

ICE WIND SPEED (3 SECOND GUST), V = 40 MPH
ICE THICKNESS = 1.00 IN

SEISMIC LOADS

SEISMIC DESIGN CATEGORY B
SHORT TERM MCER GROUND MOTION, S_S = .166
LONG TERM MCER GROUND MOTION, S_1 = .054

PROJECT INFORMATION

APPLICANT/LESSEE

COMPANY:	VERIZON WIRELESS

CLIENT REPRESENTATIVE

COMPANY:	VERIZON WIRELESS
ADDRESS:	118 FLANDERS ROAD, THIRD FLOOR
CITY, STATE, ZIP:	WESTBOROUGH, MA 01581
CONTACT:	ANDREW CANDIELLO
EMAIL:	ANDREW.CANDIELLO@VERIZONWIRELESS.COM

PROJECT MANAGER

COMPANY:	MASER CONSULTING CONNECTICUT
CONTACT:	PETER ALBANO
PHONE:	856-797-0412
E-MAIL:	PETER.ALBANO@COLLIERSENGINEERING.COM

CONTRACTOR PMI REQUIREMENTS

PMI LOCATION:	HTTPS://PMI.VZWSMART.COM
SMART TOOL PROJECT #:	10086073
VZW LOCATION CODE (PSLC):	468684
ANALYSIS DATE:	7/21/2021

PMI REQUIREMENTS EMBEDDED WITHIN MOUNT MODIFICATION REPORT

SHEET INDEX

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0	7/21/2021	ISSUED FOR CONSTRUCTION	MSG	DX

STATE OF CONNECTICUT
DEJIAN XU
No. 33733
LICENSED
PROFESSIONAL ENGINEER
07/23/2021

MASER CONSULTING CONNECTICUT
C.O.A. #: JPC.0000131

IT IS A VIOLATION OF LAW FOR ANY PERSON, UNLESS THEY ARE ACTING UNDER THE DIRECTION OF THE RESPONSIBLE LICENSED PROFESSIONAL ENGINEER, TO ALTER THIS DOCUMENT.

SITE NAME:

SALISBURY CT
468684

52 LIBRARY ST.
SALISBURY, CT 06068
LITCHFIELD COUNTY

MT. LAUREL OFFICE
2000 Midlantic Drive
Suite 100
Mount Laurel, NJ 08054

Phone: 856.797.0412
Fax: 856.722.1120

SHEET TITLE :
TITLE SHEET

SHEET NUMBER :
ST-1

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION.

BILL OF MATERIALS

SECTION 1 - VZWSMART KITS

QUANTITY	MANUFACTURER	PART NUMBER	DESCRIPTION	NOTES	UNIT WEIGHT	WEIGHT
3	VZWSMART	VZWSMART-SFK4	T-ARM KIT	CONTRACTOR TO VERIFY THE LENGTH REQUIRED AND TRIM AS NECESSARY IN ACCORDANCE WITH THE 'STRUCTURAL STEEL' NOTES ON SHEET SGN-1. CONNECT OTHER END OF T-ARM KIT TO MONOPOLE COLLAR MOUNT ASSEMBLY (PART #: VZWSMART-PLK7).	106	318
1		VZWSMART-PLK7	MONOPOLE COLLAR MOUNT ASSEMBLY		150	150
12		VZWSMART-MSK2	CROSSOVER PLATE		15	180

SECTION 2 - OTHER REQUIRED PARTS

QUANTITY	MANUFACTURER	PART NUMBER	DESCRIPTION	NOTES	UNIT WEIGHT	WEIGHT
3	-	-	156" LONG, P3.0 STD	GALVANIZED; RADIO AND/OR TME POSITIONS SHALL BE ADJUSTED VERTICALLY AS NEEDED IN ORDER TO ACHIEVE INSTALLATION OF HORIZONTAL AS SHOWN. EOR SHALL BE NOTIFIED IF EQUIPMENT NEEDS TO BE RELOCATED TO ANOTHER MOUNT PIPE. CONNECT NEW HORIZONTAL TO ALL EXISTING AND PROPOSED VERTICAL MOUNT PIPES WITH CROSSOVER PLATES (PART #: VZWSMART-MSK2).	233	699
3	-	-	96" LONG, P2.5 STD	GALVANIZED; CONNECT NEW MOUNT PIPE TO EXISTING HORIZONTAL WITH PIPE MOUNT ASSEMBLY (SITE PRO 1 PART #:SP219-H OR EOR APPROVED EQUAL, CONTACT MASER CONSULTING CONNECTICUT FOR APPROVAL OF SUBSTITUTION).	106	318
1	-	-	48" LONG, P2.0 STD	GALVANIZED; CONNECT NEW OVP PIPE TO EXISTING STANDOFF HORIZONTAL WITH CROSSOVER PLATES (PART #: SITE PRO 1 - SQCX4-K, OR EOR APPROVED EQUAL, CONTACT MASER CONSULTING CONNECTICUT FOR APPROVAL OF SUBSTITUTION).	33	33
3	SITE PRO 1	SP219-H	PIPE MOUNT ASSEMBLY	OR EOR APPROVED EQUAL, CONTACT MASER CONSULTING CONNECTICUT FOR APPROVAL OF SUBSTITUTION.	13	39
1	SITE PRO 1	SQCX4-K	CROSSOVER PLATE KIT W/ SQUARE U-BOLTS AND STD. U-BOLTS	OR EOR APPROVED EQUAL, CONTACT MASER CONSULTING FOR APPROVAL OF SUBSTITUTION	12	12
					TOTAL:	1749

VZWSMART KITS - APPROVED VENDORS

COMMSCOPE	
CONTACT	SALVADOR ANGUIANO
PHONE	(817) 304-7492
EMAIL	SALVADOR.ANGUIANO@COMMSCOPE.COM
WEBSITE	WWW.COMMSCOPE.COM
METROSITE FABRICATORS, LLC	
CONTACT	KENT RAMEY
PHONE	(706) 335-7045 (O), (706) 982-9788 (M)
EMAIL	KENT@METROSITELLC.COM
WEBSITE	METROSITEFABRICATORS.COM
PERFECTVISION	
CONTACT	WIRELESS SALES
PHONE	(844) 887-6723
EMAIL	WWW.PERFECT-VISION.COM
WEBSITE	WIRELESSSALES@PERFECT-VISION.COM
SABRE INDUSTRIES, INC.	
CONTACT	ANGIE WELCH
PHONE	(866) 428-6937
EMAIL	AKWELCH@SABREINDUSTRIES.COM
WEBSITE	WWW.SABRESITESOLUTIONS.COM
SITE PRO 1	
CONTACT	PAULA BOSWELL
PHONE	(972) 236-9843
EMAIL	PAULA.BOSWELL@VALMONT.COM
WEBSITE	WWW.SITEPRO1.COM

NOTES:

1. THE MANUFACTURERS LISTED ARE THE APPROVED VENDORS FOR THE VZW MOUNT KITS. EACH MANUFACTURER WILL BE AWARE OF WHICH KITS HAVE BEEN THROUGH THE VZW APPROVAL PROCESS AND THEY ARE IN TURN APPROVED TO SELL. PLEASE NOTE THAT THE MATERIAL UTILIZED ON THE MOUNT MODIFICATIONS WILL BE REVIEWED AS A PART OF THE DESKTOP PMI COMPLETED BY THE SMART TOOL VENDOR. IT WILL BE REQUIRED THAT THE VZW KITS SPECIFIED ARE UTILIZED IN THE MODIFICATIONS.

2. ALL MATERIALS REQUIRED FOR THE DESIGNED MODIFICATIONS BUT NOT LISTED IN THIS SHEET ARE ASSUMED TO BE PROVIDED BY THE CONTRACTOR.

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SCALE : AS SHOWN

JOB NUMBER : 21777481A

REV	DATE	DESCRIPTION	DRAWN BY	CHECKED BY
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0	7/21/2021	ISSUED FOR CONSTRUCTION	MSG	DX

STATE OF CONNECTICUT
DEJIAN XU
No. 33733
LICENSED PROFESSIONAL ENGINEER

07/23/2021

MASER CONSULTING CONNECTICUT
C.O.A. #: JPC.0000131

SITE NAME:

SALISBURY CT
468684

52 LIBRARY ST.
SALISBURY, CT 06068
LITCHFIELD COUNTY

MT. LAUREL OFFICE
2000 Midlantic Drive
Suite 100
Mount Laurel, NJ 08054

Phone: 856.797.0412
Fax: 856.722.1120

SHEET TITLE : BILL OF MATERIALS

SHEET NUMBER : SBOM-1

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION.

PROJECT NOTES

1. SEE MODIFICATION NOTES
2. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE CODES, ORDINANCES, LAWS AND REGULATIONS OF ALL MUNICIPALITIES, UTILITY COMPANIES OR OTHER PUBLIC/GOVERNING AUTHORITIES.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND INSPECTIONS THAT MAY BE REQUIRED BY ANY FEDERAL, STATE, COUNTY OR MUNICIPAL AUTHORITIES.
4. THE CONTRACTOR SHALL NOTIFY THE CONSTRUCTION MANAGER, IN WRITING, OF ANY CONFLICTS, ERRORS OR OMISSIONS PRIOR TO THE SUBMISSION OF BIDS OR PERFORMANCE OF WORK.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL EXISTING SITE IMPROVEMENTS PRIOR TO COMMENCING CONSTRUCTION. THE CONTRACTOR SHALL REPAIR ANY DAMAGE AS A RESULT OF CONSTRUCTION OF THIS FACILITY AT THE CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE OWNER.
6. THE SCOPE OF WORK FOR THIS PROJECT SHALL INCLUDE PROVIDING ALL MATERIALS, EQUIPMENT AND LABOR REQUIRED TO COMPLETE THIS PROJECT. ALL EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
7. THE CONTRACTOR SHALL VISIT THE PROJECT SITE PRIOR TO SUBMITTING THE BID TO VERIFY THAT THE PROJECT CAN BE CONSTRUCTED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND CONSTRUCTION DRAWINGS.
8. THE CONTRACTOR SHALL VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS PRIOR TO COMMENCING ANY WORK. ALL DIMENSIONS OF EXISTING CONSTRUCTION SHOWN ON THESE DRAWINGS MUST BE VERIFIED. THE CONTRACTOR SHALL NOTIFY THE CONSTRUCTION MANAGER OF ANY DISCREPANCIES PRIOR TO ORDERING MATERIAL OR PROCEEDING WITH CONSTRUCTION.
9. SINCE THE CELL SITE MAY BE ACTIVE, ALL SAFETY PRECAUTIONS MUST BE TAKEN WHEN WORKING AROUND HIGH LEVELS OF ELECTROMAGNETIC RADIATION. EQUIPMENT SHOULD BE SHUTDOWN PRIOR TO PERFORMING ANY WORK THAT COULD EXPOSE THE WORKERS TO DANGER. PERSONAL RF EXPOSURE MONITORS ARE REQUIRED TO BE WORN TO ALERT OF ANY POTENTIALLY DANGEROUS EXPOSURE LEVELS.
10. NO NOISE, SMOKE, DUST OR ODOR WILL RESULT FROM THIS FACILITY AS TO CAUSE A NUISANCE.
11. THE FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION (NO HANDICAP ACCESS IS REQUIRED).

GENERAL NOTES

1. THESE MODIFICATIONS HAVE BEEN DESIGNED IN ACCORDANCE WITH THE GOVERNING PROVISIONS OF THE TELECOMMUNICATIONS INDUSTRY STANDARD TIA-222-H. MATERIALS AND SERVICES PROVIDED BY THE CONTRACTOR SHALL CONFORM TO THE ABOVE MENTIONED CODES.
2. CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO PREVENT DAMAGE TO EXISTING STRUCTURES. ANY DAMAGE TO EXISTING STRUCTURES AS A RESULT OF THE CONTRACTOR'S WORK OR FROM DAMAGE DUE TO OTHER CAUSES SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE OWNER.
3. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS BEFORE BEGINNING WORK, ORDERING MATERIAL, AND PREPARING OF SHOP DRAWINGS. ANY DISCREPANCIES BETWEEN FIELD CONDITIONS AND THE CONTRACT DOCUMENTS SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ENGINEER. IF THE CONTRACTOR DISCOVERS ANY EXISTING CONDITIONS THAT ARE NOT REPRESENTED ON THESE DRAWINGS, OR ANY CONDITIONS THAT WOULD INTERFERE WITH THE INSTALLATION OF THE MODIFICATIONS, NOTIFY THE ENGINEER IMMEDIATELY.
4. IT IS ASSUMED THAT ANY STRUCTURAL MODIFICATION WORK SPECIFIED ON THESE PLANS WILL BE ACCOMPLISHED BY KNOWLEDGEABLE WORKMEN WITH TOWER CONSTRUCTION EXPERIENCE.
5. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION METHODS, MEANS, TECHNIQUES, SEQUENCES, AND PROCEDURES.
6. ALL CONSTRUCTION MEANS AND METHODS; INCLUDING BUT NOT LIMITED TO, ERECTION PLANS, RIGGING PLANS, CLIMBING PLANS, AND RESCUE PLANS SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR RESPONSIBLE FOR THE EXECUTION OF THE WORK CONTAINED HEREIN AND SHALL MEET ANSI/TIA-322 (LATEST EDITION), OSHA, AND GENERAL INDUSTRY STANDARDS. ALL RIGGING PLANS SHALL ADHERE TO ANSI/TIA-322 (LATEST EDITION) INCLUDING THE REQUIRED INVOLVEMENT OF A QUALIFIED ENGINEER FOR CLASS IV CONSTRUCTION.
7. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR INITIATING, MAINTAINING, AND SUPERVISING ALL SAFETY PROGRAMS IN ACCORDANCE WITH APPLICABLE SAFETY CODES.
8. WORK SHALL ONLY BE PERFORMED DURING CALM DRY DAYS (WINDS LESS THAN 30-MPH). THE STRUCTURE SHOWN ON THE DRAWINGS IS STRUCTURALLY SOUND ONLY IN THE COMPLETED FORM. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE STRENGTH AND STABILITY OF THE STRUCTURE DURING ERECTION. CONTRACTOR SHALL PROVIDE TEMPORARY SUPPORT, SHORING, BRACING AND ANY OTHER STRUCTURAL SYSTEMS AS REQUIRED TO RESIST ALL FORCES THAT MAY OCCUR DURING HANDLING AND ERECTION UNTIL THE STRUCTURE IS FULLY COMPLETED. TEMPORARY SUPPORTS, BRACING AND OTHER STRUCTURAL SYSTEMS REQUIRED DURING CONSTRUCTION SHALL REMAIN THE CONTRACTOR'S PROPERTY AFTER THEIR USE.
9. ALL INSTALLATIONS PERFORMED ON THIS STRUCTURE SHALL BE COMPLETED IN ACCORDANCE WITH THE GOVERNING PROVISIONS OF THE STANDARD FOR INSTALLATION, ALTERATION AND MAINTENANCE OF ANTENNA SUPPORTING STRUCTURES AND ANTENNAS, ANSI/TIA-322.
10. CONTRACTOR SHALL SECURE SITE BACK TO EXISTING CONDITION UNDER SUPERVISION OF OWNER. ALL FENCE, STONE, GEOFABRIC, GROUNDING, AND SURROUNDING GRADE SHALL BE REPLACED AND REPAIRED AS REQUIRED TO ACHIEVE OWNER APPROVAL. POSITIVE DRAINAGE AWAY FROM TOWER SITE SHALL BE MAINTAINED.
11. CONNECTIONS BETWEEN ITEMS SUPPORTED BY THE STRUCTURE AND THE STRUCTURE NOT SPECIFICALLY DETAILED IN THE CONTRACT DOCUMENTS ARE THE RESPONSIBILITY OF THE CONTRACTOR. SUCH CONNECTIONS SHALL BE DESIGNED, COORDINATED AND INSPECTED BY A PROFESSIONAL STRUCTURAL ENGINEER LICENSED IN THE STATE OF THE PROJECT. SUBMIT SIGNED AND SEALED CALCULATIONS DURING SHOP DRAWING REVIEW.
12. DO NOT SCALE DRAWINGS.
13. DO NOT USE THESE DRAWINGS FOR ANY OTHER SITE.
14. ALL MATERIAL UTILIZED FOR THIS PROJECT MUST BE NEW AND FREE OF ANY DEFECTS. ANY MATERIAL SUBSTITUTIONS, INCLUDING BUT NOT LIMITED TO ALTERED SIZE AND/OR STRENGTHS, MUST BE APPROVED BY THE OWNER AND ENGINEER IN WRITING.
15. THE MOUNT UNDER NO CIRCUMSTANCES SHOULD BE USED AS A TIE OFF POINT.

STRUCTURAL STEEL

1. DESIGN, DETAILING, FABRICATION AND ERECTION OF STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING PUBLICATIONS EXCEPT AS SPECIFICALLY INDICATED IN THE CONTRACT DOCUMENTS.
   a. AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) MANUAL OF STEEL CONSTRUCTION (15TH EDITION)
   b. SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS
   c. AISC CODE OF STANDARD PRACTICE
2. STRUCTURAL STEEL SHALL CONFORM TO THE FOLLOWING UNLESS OTHERWISE SHOWN:

CHANNELS, ANGLES, PLATES, ETC.	ASTM A36 (GR 36)
STEEL PIPE	ASTM A53 (GR 35)
BOLTS	ASTM A325
NUTS	ASTM A563
LOCK WASHERS	LOCKING STRUCTURAL GRADE

3. ALL SUBSTITUTIONS PROPOSED BY THE CONTRACTOR SHALL BE APPROVED IN WRITING BY THE ENGINEER. CONTRACTOR SHALL PROVIDE DOCUMENTATION TO ENGINEER FOR VERIFYING THE SUBSTITUTE IS SUITABLE FOR USE AND MEETS ORIGINAL DESIGN CRITERIA. DIFFERENCES FROM THE ORIGINAL DESIGN, INCLUDING MAINTENANCE, REPAIR AND REPLACEMENT, SHALL BE NOTED. ESTIMATES OF COSTS/CREDITS ASSOCIATED WITH THE SUBSTITUTION (INCLUDING RE-DESIGN COSTS AND COSTS TO SUB-CONTRACTORS) SHALL BE PROVIDED TO THE ENGINEER. CONTRACTOR SHALL PROVIDE ADDITIONAL DOCUMENTATION AND/OR SPECIFICATIONS TO THE ENGINEER AS REQUESTED.
4. PROVIDE STRUCTURAL STEEL SHOP DRAWINGS TO ENGINEER FOR APPROVAL PRIOR TO FABRICATION.
   a. SUBMIT SHOP DRAWINGS TO
      PETER.ALBANO@COLLIERSENGINEERING.COM
   b. PROVIDE MASER CONSULTING CONNECTICUT PROJECT # AND MASER CONSULTING CONNECTICUT PROJECT ENGINEER CONTACT IN THE BODY OF THE EMAIL.
5. DRILL NO HOLES IN ANY NEW OR EXISTING STRUCTURAL STEEL MEMBERS OTHER THAN THOSE SHOWN ON STRUCTURAL DRAWINGS WITHOUT THE APPROVAL OF THE ENGINEER OF RECORD.
6. GALVANIZED ASTM A325 BOLTS SHALL NOT BE REUSED.
7. ALL NEW STEEL SHALL BE HOT BE DIPPED GALVANIZED FOR FULL WEATHER PROTECTION. IN ADDITION ALL NEW STEEL SHALL BE PAINTED TO MATCH EXISTING STEEL. CONTRACTOR SHALL OBTAIN WRITTEN PERMISSION TO PROTECT STEEL BY ANY OTHER MEANS.
8. ALL BOLT ASSEMBLIES FOR STRUCTURAL MEMBERS REPRESENTED IN THIS DRAWING REQUIRE LOCKING DEVICES TO BE INSTALLED IN ACCORDANCE WITH TIA-222-H SECTION 4.9.2 REQUIREMENTS.
9. WHERE CONNECTIONS ARE NOT FULLY DETAILED ON THESE DRAWINGS, FABRICATOR SHALL DESIGN CONNECTIONS TO RESIST LOADS AND FORCES WHERE SHOWN ON DRAWINGS AND AS OUTLINED IN SPECIFICATIONS.
10. FOR MEMBERS BEING REPLACED, PROVIDE NEW BOLTS AND MATCH EXISTING SIZE AND GRADE. MAINTAIN AISC REQUIREMENTS FOR MINIMUM BOLT DISTANCE AND SPACING.
11. ALL PROPOSED AND/OR REPLACED BOLTS SHALL BE OF SUFFICIENT LENGTH SUCH THAT THE END OF THE BOLT IS AT LEAST FLUSH WITH THE FACE OF THE NUT. IT IS NOT PERMITTED FOR THE BOLT END TO BE BELOW THE FACE OF THE NUT AFTER TIGHTENING IS COMPLETED.
12. GALVANIZED ASTM A325 BOLTS SHALL NOT BE REUSED.
13. ALL NEW STEEL SHALL BE HOT BE DIPPED GALVANIZED FOR FULL WEATHER PROTECTION. CONTRACTOR SHALL OBTAIN WRITTEN PERMISSION TO PROTECT STEEL BY ANY OTHER MEANS.
14. ALL EXISTING PAINTED/GALVANIZED SURFACES DAMAGED DURING REHAB INCLUDING AREAS UNDER STIFFENER PLATES SHALL BE WIRE BRUSHED CLEAN, REPAIRED BY COLD GALVANIZING (ZINGA OR ZINC COTE), AND REPAINTED TO MATCH THE EXISTING FINISH (IF APPLICABLE).
15. ALL HOLES IN STEEL MEMBERS SHALL BE SIZED 1/16" LARGER THAN THE BOLT DIAMETER. STANDARD HOLES SHALL BE USED UNLESS NOTED OTHERWISE.

WELDING NOTES

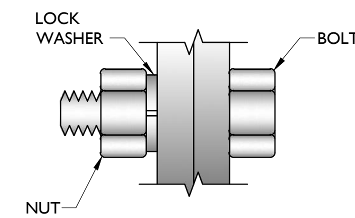
1. ALL WELDING SHALL BE DONE IN ACCORDANCE WITH AWS D1.0 (LATEST EDITION). THIS SHALL INCLUDE A CERTIFIED WELD INSPECTION (CWI) FOR ACCEPTANCE OR REJECTION OF ALL WELDING OPERATIONS, PRE, DURING, AND POST INSTALLATION, USING THE ACCEPTANCE CRITERIA OF AWS D1.1.
2. CONTRACTOR IS RESPONSIBLE FOR COMMISSIONING A THIRD PARTY CERTIFIED WELD INSPECTOR (CWI) THROUGHOUT THE ENTIRETY OF THE PROJECT. A PASSING CWI REPORT SHALL BE PROVIDED TO THE ENGINEER UPON COMPLETION OF THE PROJECT.
3. THE CERTIFIED WELD INSPECTOR SHALL INDICATE, IN A WRITTEN CWI REPORT, THAT ALL WELDING OPERATIONS PRE, DURING, AND POST INSTALLATION WERE CONDUCTED IN ACCORDANCE WITH AWS D1.1 WITH PHOTOGRAPHS AND DOCUMENTATION SUPPORTING THE ACCEPTANCE OR REJECTION OF ALL WELDING. ALL CWI WELD INSPECTION DOCUMENTATION AND PHOTOS SHALL BE SUBMITTED DURING THE PMI.
4. IN CASES WHERE A WELD IS SPECIFIED BETWEEN TWO MEMBERS IN WHICH THERE IS A GAP IN BETWEEN, THE WELD IS TO BE BUILT-UP SUCH THAT THE SIZE OF WELD ON THE MEMBER IS EQUAL TO THAT SHOWN IN THE DRAWINGS.
5. OXY FUEL GAS WELDING OR BRAZING IS STRICTLY PROHIBITED. SPECIFICALLY, NO TORCH CUTTING IS PERMITTED ON SITE. ALL HOLES SHALL BE CUT WITH A GRINDER.
6. CONTRACTOR SHALL EXERCISE CAUTION WHEN WELDING A GALVANIZED SURFACE.

BOLT SCHEDULE (IN.)

BOLT DIAMETER	STANDARD HOLE	SHORT SLOT	MIN. EDGE DISTANCE	SPACING
1/2	9/16	9/16 x 11/16	7/8	1 1/2
5/8	11/16	11/16 x 7/8	1 1/8	1 7/8
3/4	13/16	13/16 x 1	1 1/4	2 1/4
7/8	15/16	15/16 x 1 1/8	1 1/2	2 5/8
1	1 1/16	1 1/16 x 1 5/16	1 3/4	3

WORKABLE GAGES (IN.)

LEG	GAGE
4	2 1/2
3 1/2	2
3	1 3/4
2 1/2	1 3/8
2	1 1/8

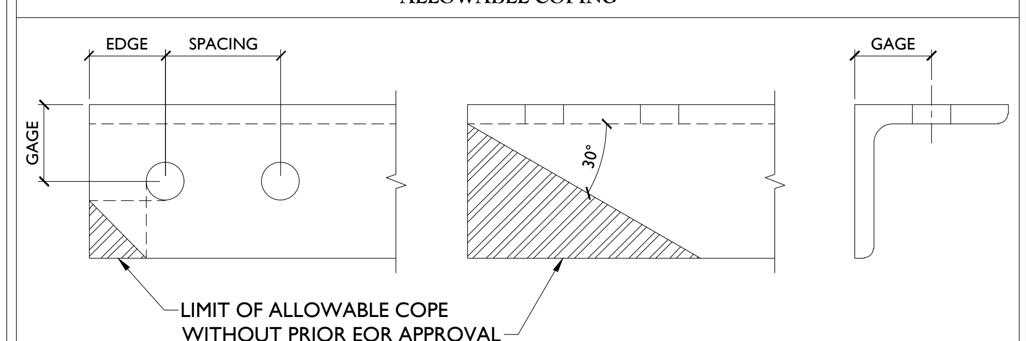


TYP. BOLT ASSEMBLY

NOTES:

1. ALL DIMENSIONS REPRESENTED IN THE ABOVE TABLES ARE AISC MINIMUM REQUIREMENTS. CONTRACTOR SHALL VERIFY EXISTING CONDITIONS IN FIELD AND NOTIFY ENGINEER IF DISTANCES ARE LESS THAN THOSE PROVIDED.
2. THE DIMENSIONS PROVIDED ARE MINIMUM REQUIREMENTS. ACTUAL DIMENSIONS OF PROPOSED MEMBERS WITHIN THESE DRAWINGS MAY VARY FROM THE AISC MINIMUM REQUIREMENTS.
3. SHORT SLOT HOLES SHALL ONLY BE USED WHEN DEPICTED IN THE DRAWINGS
4. MATCH EXISTING GAGES WHEN APPLICABLE, UNLESS MINIMUM EDGE DISTANCES ARE COMPROMISED.

ALLOWABLE COPING



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STATE OF CONNECTICUT
DEJIAN XU
No. 33733
LICENSED PROFESSIONAL ENGINEER
07/23/2021

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C.O.A. #: JPC.0000131

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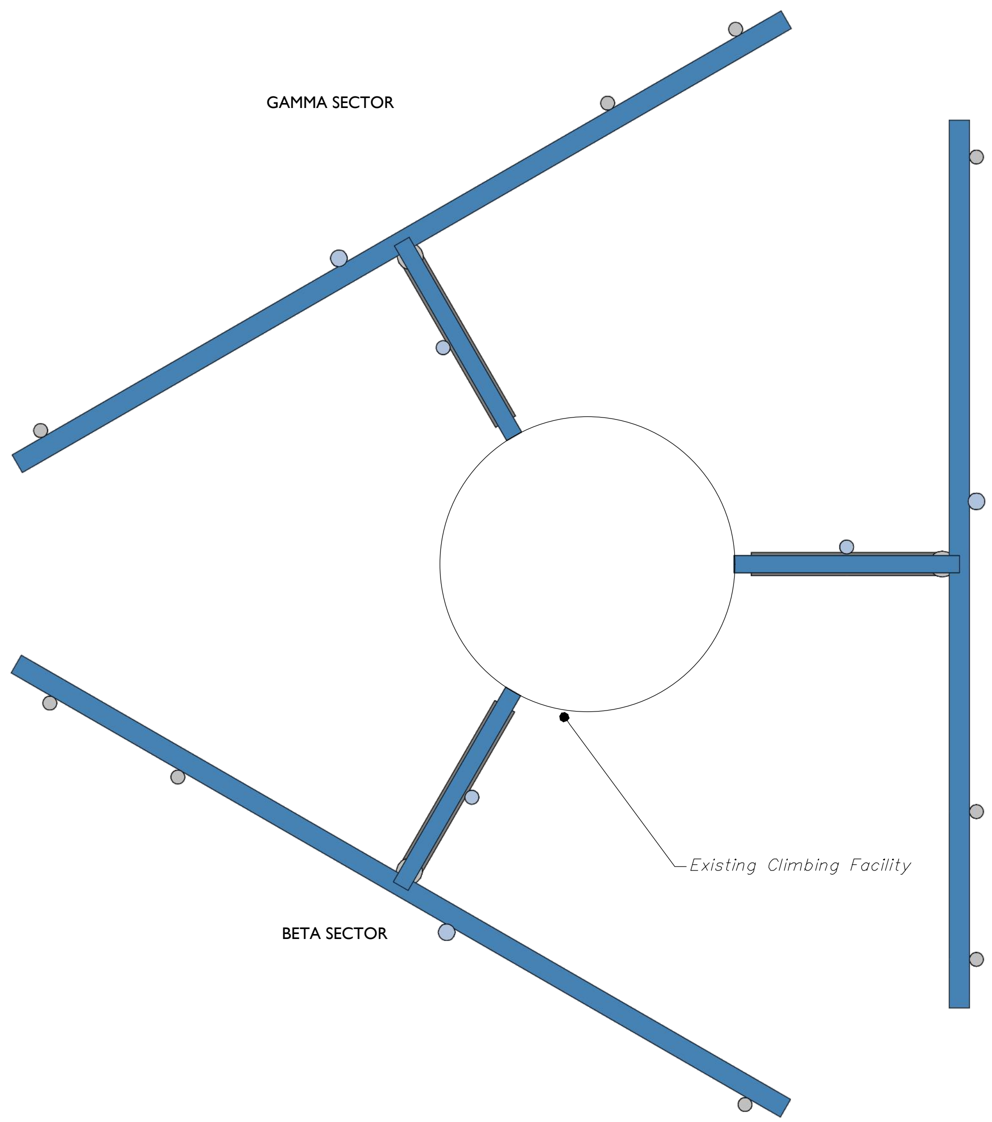
SHEET TITLE : MODIFICATION NOTES

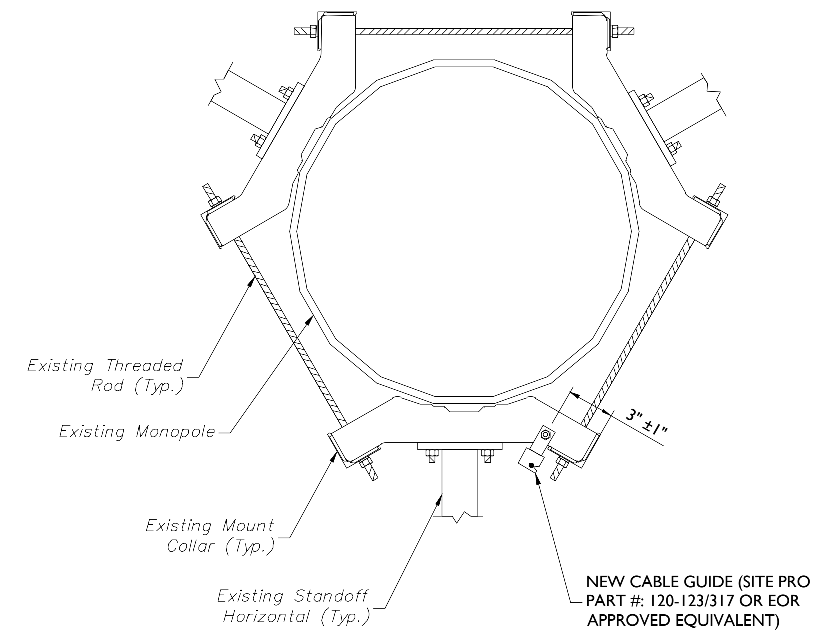
SHEET NUMBER : SGN-1

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION.



1 CLIMBING FACILITY LOCATION

SCALE : N.T.S.



2 CABLE GUIDE COLLAR ATTACHMENT - PLAN VIEW

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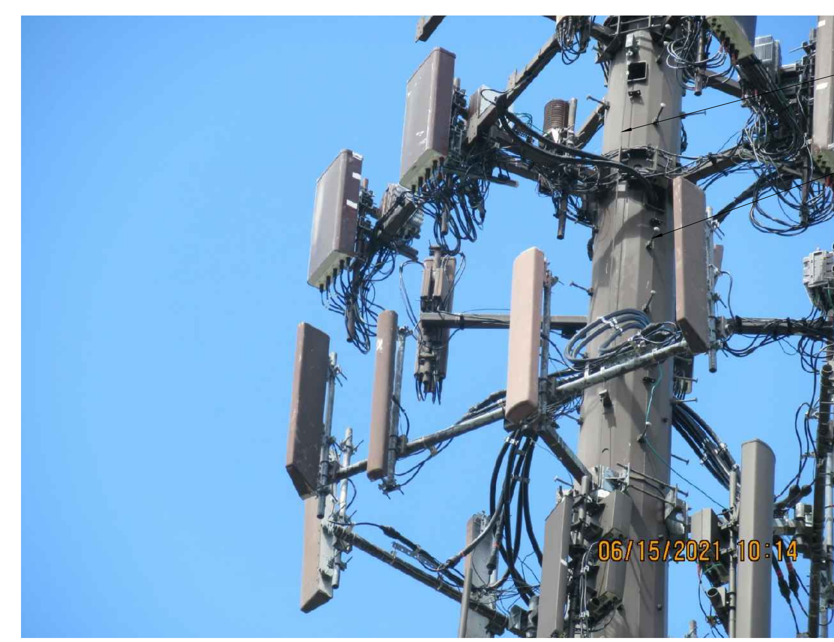

CLIMBING FACILITY PHOTO

STRUCTURAL NOTES:

1. PER THE MOUNT MAPPING COMPLETED BY STRUCTURAL COMPONENTS, LLC ON 6/15/2021, THE SAFETY CLIMB AND CLIMBING FACILITIES UP TO THE VERIZON MOUNT ELEVATION (132'-0") ARE IN GOOD CONDITION. MASER DOES NOT WARRANT THIS INFORMATION.

2. INSTALL SHALL NOT CAUSE HARM TO THE STRUCTURE, CLIMBING FACILITY, SAFETY CLIMB, OR ANY SYSTEM INSTALLED ON THE STRUCTURE. TIMELY NOTICE AND DOCUMENTATION SHALL BE PROVIDED BY CONTRACTORS TO THE EOR (OF STRUCTURAL DESIGN) IF AN OBSTRUCTION WAS REQUIRED TO MEET THE RF SYSTEM DESIGN REQUIREMENTS AND PERFORMANCES.

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SHEET TITLE:
CLIMBING FACILITY DETAIL

SHEET NUMBER:
SCF-1

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LEGEND:

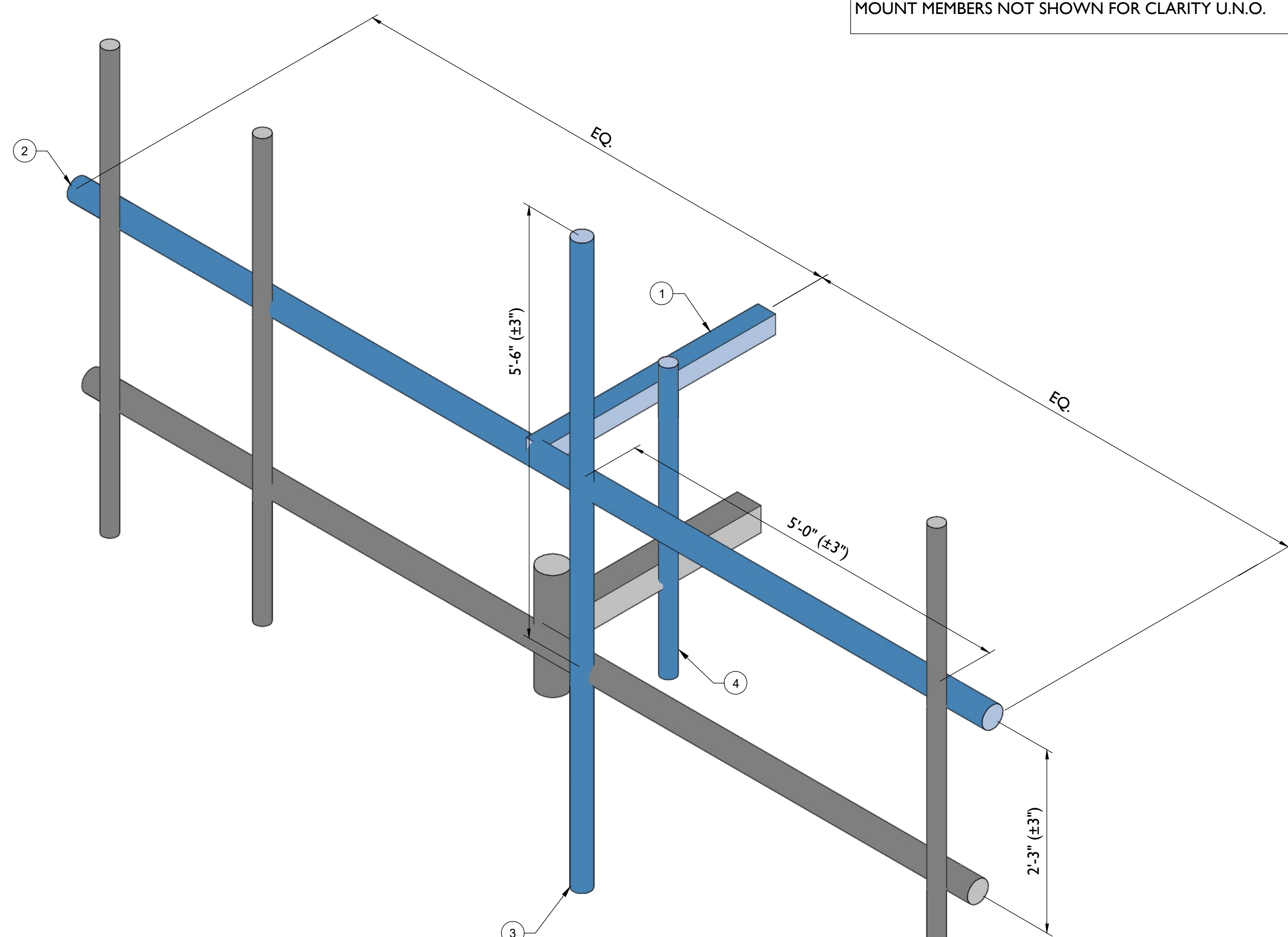
- PROPOSED
- RELOCATED
- EXISTING

MOUNT MODIFICATION SCHEDULE

NO.	ELEVATION	QUANTITY	DESCRIPTION	NOTES
1	132'-0"	3	PROPOSED T-ARM KIT (PART #: VZWSMART-SFK4)	CONTRACTOR TO VERIFY THE LENGTH REQUIRED AND TRIM AS NECESSARY IN ACCORDANCE WITH THE 'STRUCTURAL STEEL' NOTES ON SHEET SGN-1
2		3	156" LONG, P3.0 STD FACE HORIZONTAL	GALVANIZED; RADIO AND/OR TME POSITIONS SHALL BE ADJUSTED VERTICALLY AS NEEDED IN ORDER TO ALLOW INSTALLATION OF HORIZONTAL AS SHOWN. EOR SHALL BE NOTIFIED IF EQUIPMENT NEEDS TO BE RELOCATED TO ANOTHER MOUNT PIPE. CONNECT NEW HORIZONTAL TO ALL EXISTING AND PROPOSED VERTICAL MOUNT PIPES WITH CROSSOVER PLATES (PART #: VZWSMART-MSK2).
3		3	96" LONG, P2.5 STD MOUNT PIPE	GALVANIZED; CONNECT NEW MOUNT PIPE TO EXISTING HORIZONTAL WITH PIPE MOUNT ASSEMBLY (SITE PRO 1 PART #:SP219-H OR EOR APPROVED EQUAL, CONTACT MASER CONSULTING CONNECTICUT FOR APPROVAL OF SUBSTITUTION).
4		1	48" LONG, P2.0 STD OVP PIPE	GALVANIZED; CONNECT NEW OVP PIPE TO EXISTING STANDOFF HORIZONTAL WITH CROSSOVER PLATES (PART #: SITE PRO 1 - SQCX4-K, OR EOR APPROVED EQUAL, CONTACT MASER CONSULTING CONNECTICUT FOR APPROVAL OF SUBSTITUTION).
5				
6				
7				
8				
9				
10				

NOTES.

MOUNT MEMBERS NOT SHOWN FOR CLARITY U.N.O.



1 PROPOSED ISOMETRIC VIEW (TYP. ALL SECTORS)

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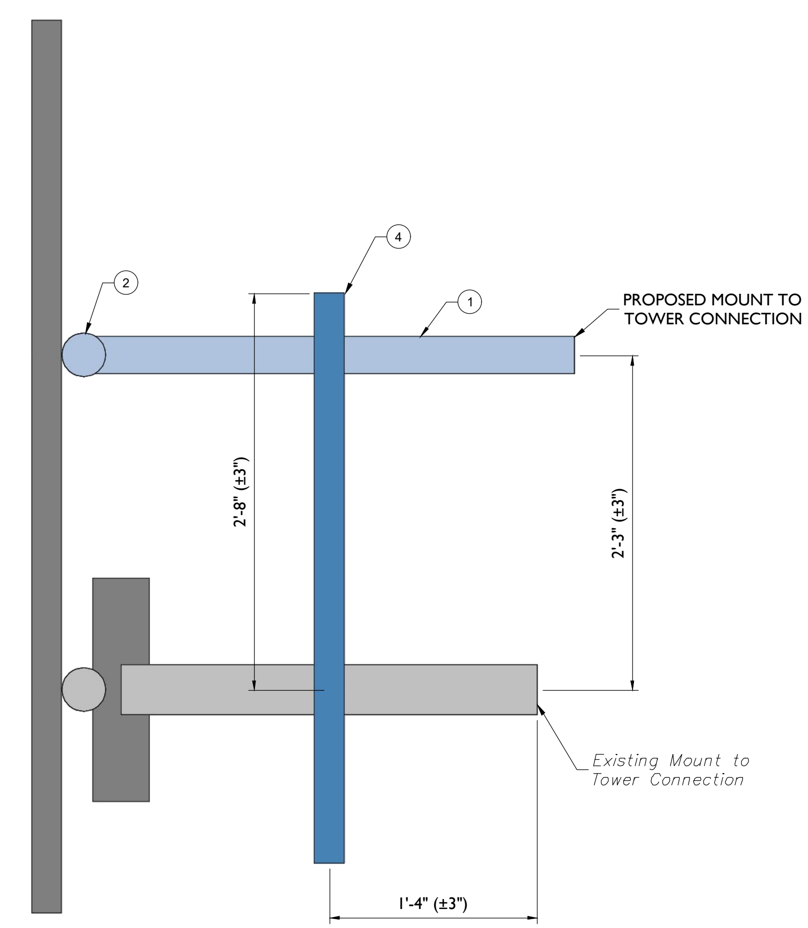

2 PROPOSED SIDE ELEVATION VIEW (TYP. ALL SECTORS)

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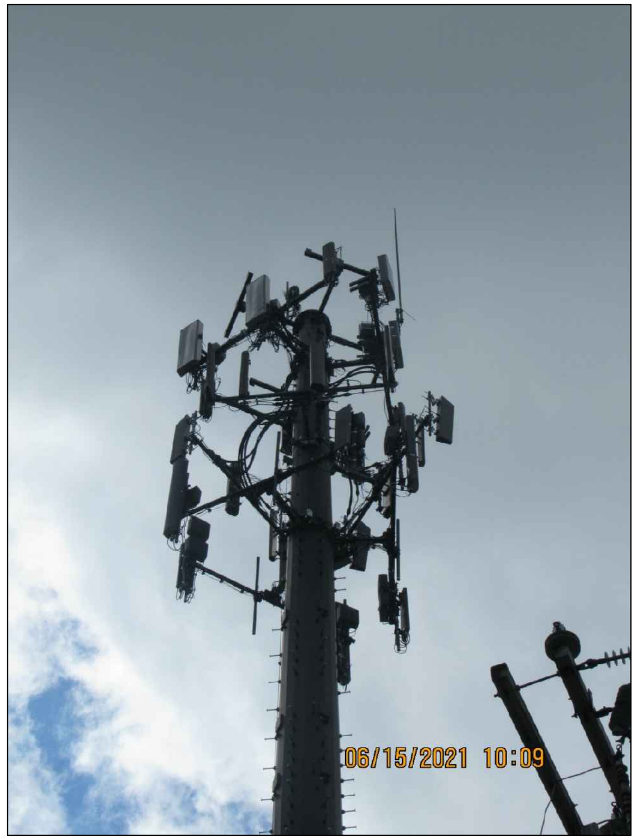
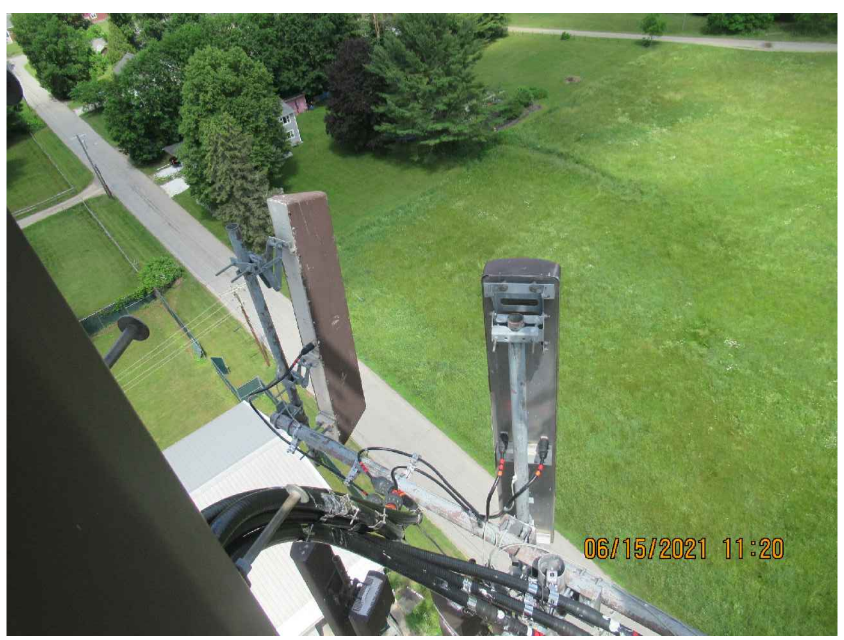
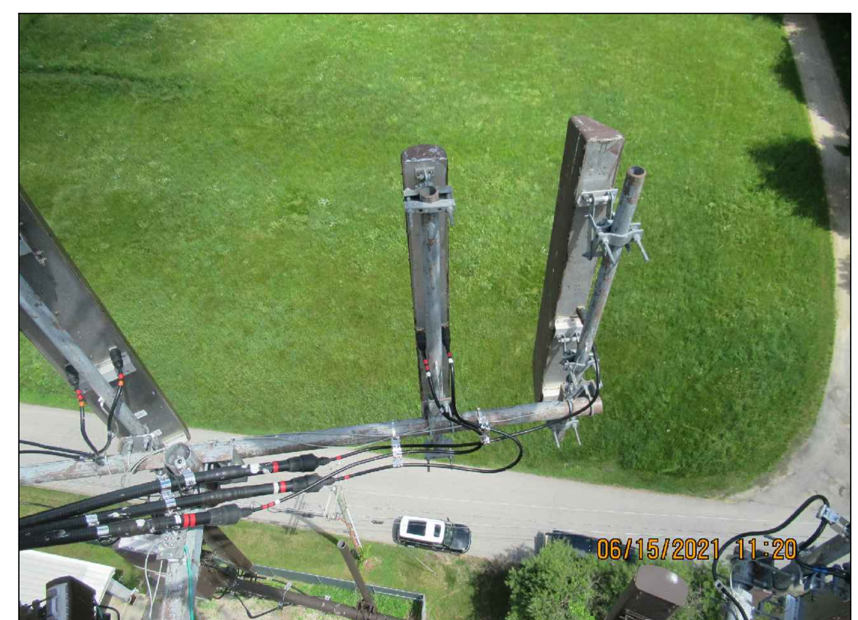


MOUNT PHOTO 1

MOUNT PHOTO 2



MOUNT PHOTO 3



MOUNT PHOTO 4

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MOUNT PHOTOS

SHEET NUMBER :
SS-2

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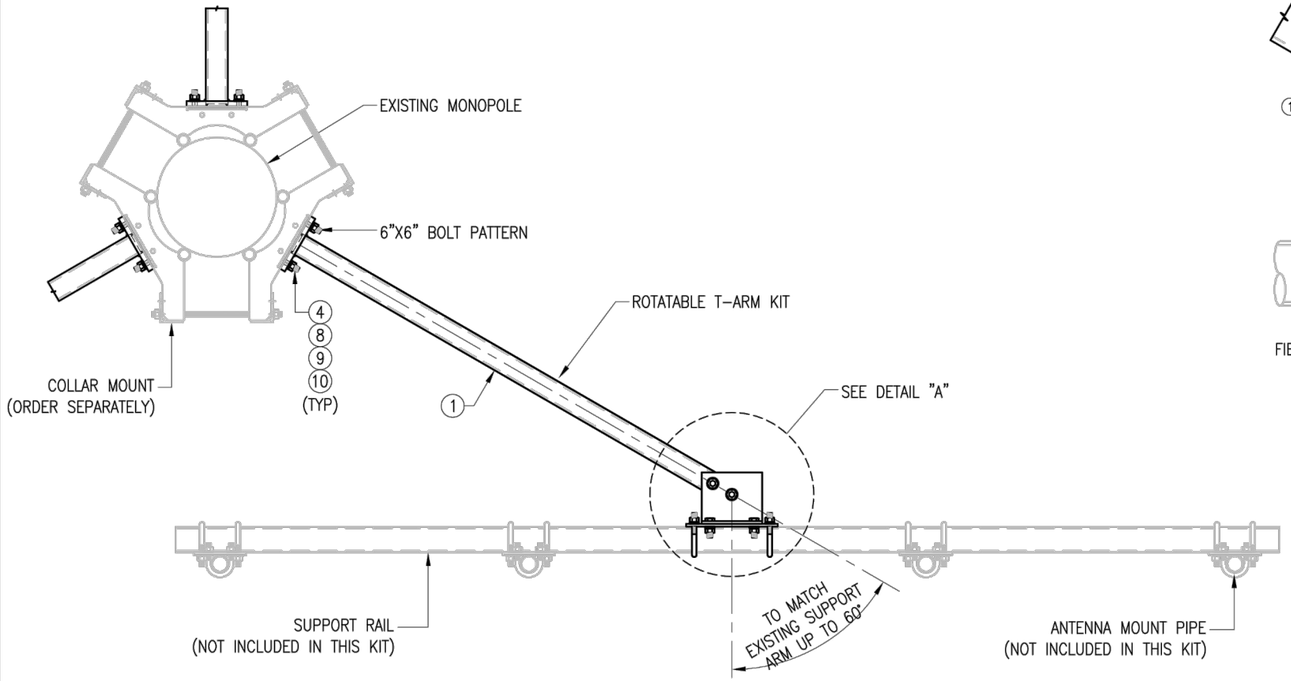
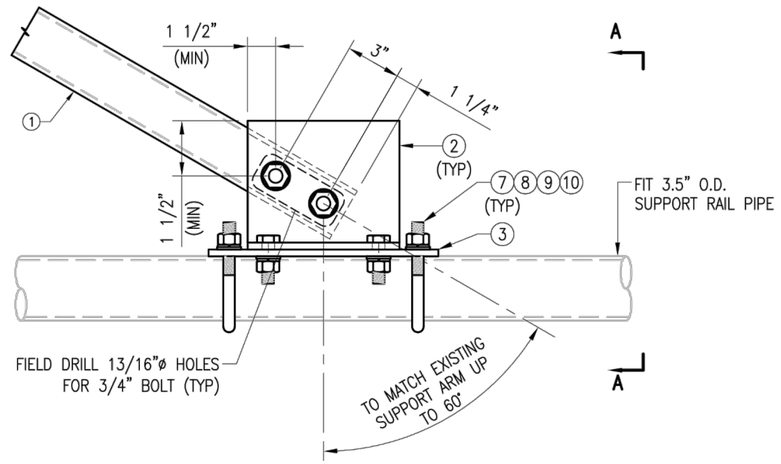
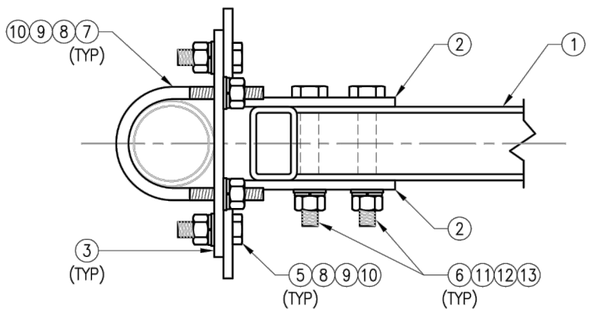


PLAN VIEW
T-ARM KIT



DETAIL "A"



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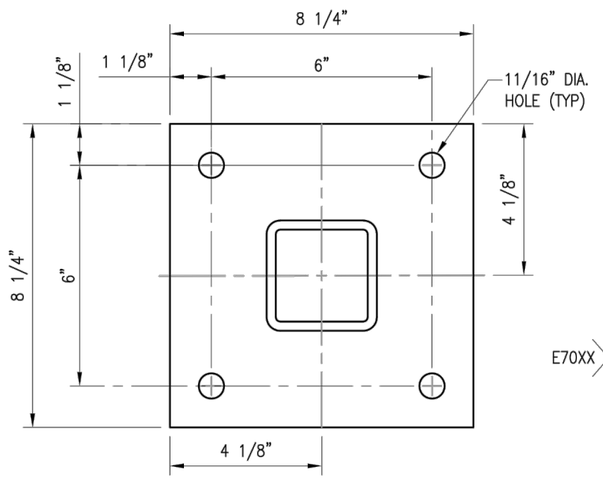
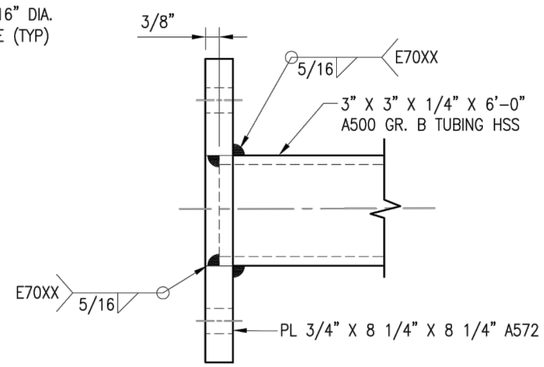


FRONT VIEW



SIDE VIEW

RO-TAW-6 WELDMENT

VZWSMART-SFK4 (T-ARM KIT)					
ITEM NO.	QTY.	PART NO.	DESCRIPTION	SHEET #	WT
1	1	RO-TAW-6	T-ARM WELDMENT	SFK4-F1	71
2	2	BP825-94375	PL 3/8" X 8 1/4" X 9 7/16" A36 BEND PLATE	SFK4-F2	17
3	1	PL375-92512025	PL 3/8" X 9 1/4" X 1'-0 1/2" A36	SFK4-F3	12
4	4	---	BOLT 5/8" X 2 1/4" A325	---	0
5	4	---	BOLT 5/8" X 2" A325	---	0
6	2	---	BOLT 3/4" X 5 1/4" A325	---	0
7	2	MS02-625-3625-600	RU-BOLT 5/8" X 3 5/8" I.W. X 6" I.L. A36 (OR EQUIV.)	RBC-1	3
8	12	FW-625	5/8" HDG USS FLAT WASHER	---	1
9	12	LW-625	5/8" HDG LOCK WASHER	---	0
10	12	NUT-625	5/8" HDG HEX NUT	---	1
11	2	FW-75	3/4" HDG USS FLAT WASHER	---	0
12	2	LW-75	3/4" HDG LOCK WASHER	---	0
13	2	NUT-75	3/4" HDG HEX NUT	---	0
				GALVANIZED WT	106

NOTES:
1. HOT-DIPPED GALVANIZED PER ASTM A123.

VzW SMART Tool© Vendor

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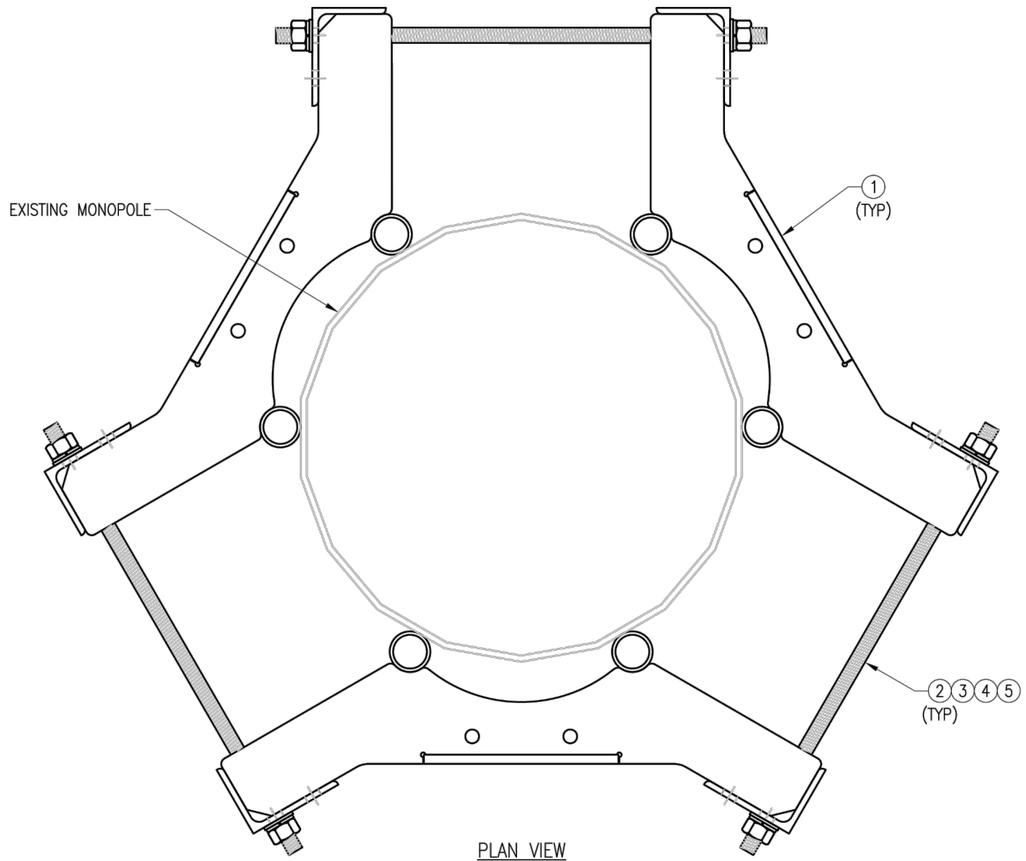
DRAWN BY: BT | CHECKED BY: HMA/KW

REV.	DESCRIPTION	BY	DATE
0	FIRST ISSUE	BT	05/08/20

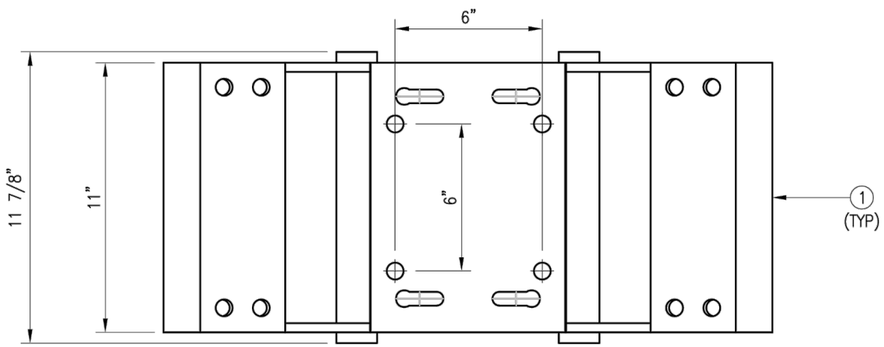
SHEET TITLE:
VZWSMART-SFK4
T-ARM KIT

SHEET NUMBER: VZWSMART-SFK4

REV #: 0



PLAN VIEW
MONOPOLE COLLAR MOUNT ASSEMBLY



FRONT VIEW

NOTES:
1. FIT 12" TO 45" DIA MONOPOLE.
2. HOT-DIPPED GALVANIZED PER ASTM A123.

VZWSMART-PLK7 (MONOPOLE COLLAR MOUNT ASSEMBLY)

ITEM NO.	QTY.	PART NO.	DESCRIPTION	SHEET #	WT
1	3	CM-1245	COLLAR MOUNT ASSEMBLY	PLK7-F1	147
2	6	---	THREADED ROD 5/8" X 4'-0" A193-B7	---	
3	12	FW-625	5/8" HDG USS FLAT WASHER	---	1
4	12	LW-625	5/8" HDG LOCK WASHER	---	0
5	12	NUT-625	5/8" HDG HEX NUT	---	1
				GALVANIZED WT	150

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SMART Tool©
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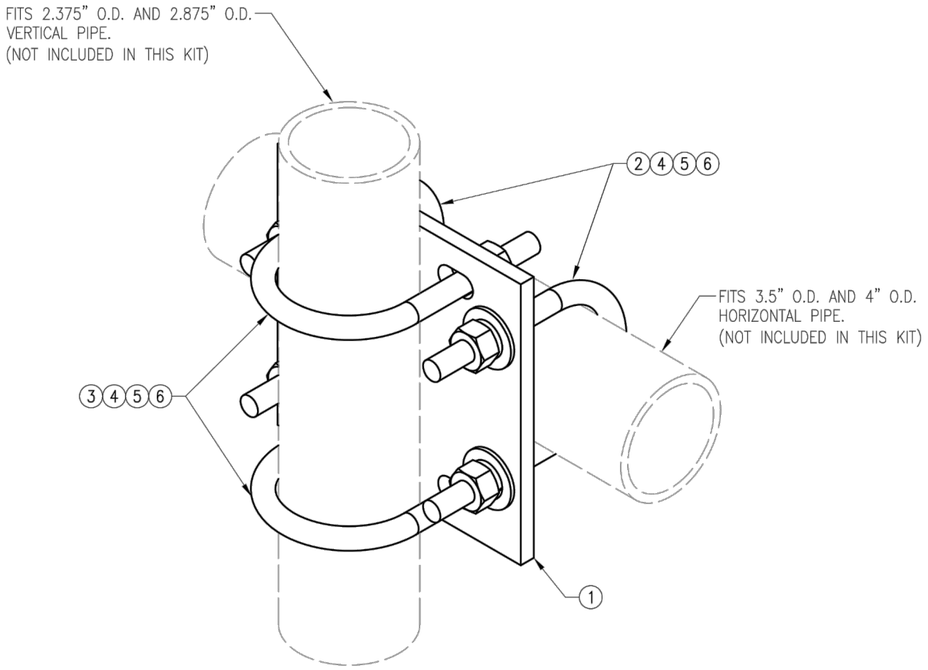
DRAWN BY: BT | CHECKED BY: HMA/KW

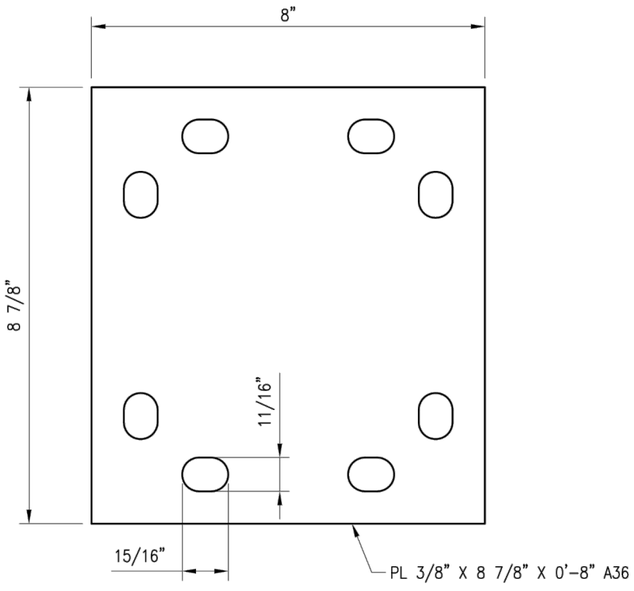
REV.	DESCRIPTION	BY	DATE
0	FIRST ISSUE	BT	05/11/20

SHEET TITLE:
VZWSMART-PLK7
MONOPOLE COLLAR
MOUNT ASSEMBLY

SHEET NUMBER: VZWSMART-PLK7

REV #: 0





PL375-88758

NOTES:
1. HOT-DIPPED GALVANIZED PER ASTM A123.

VZWSMART-MSK2 (CROSSOVER PLATE)

ITEM NO.	QTY.	PART NO.	DESCRIPTION	SHEET #	WT
1	1	PL375-88758	PL 3/8" X 8 3/4" X 0'-8" A36	MSK2-F1	8
2	2	MS02-625-4125-600	RU-BOLT 5/8" X 4 1/8" I.W. X 6" I.L. A36 (OR EQUIV.)	RBC-1	3
3	2	MS02-625-300-500	RU-BOLT 5/8" X 3" I.W. X 5" I.L. A36 (OR EQUIV.)	RBC-1	3
4	8	FW-625	5/8" HDG USS FLAT WASHER	---	1
5	8	LW-625	5/8" HDG LOCK WASHER	---	0
6	8	NUT-625	5/8" HDG HEX NUT	---	1
				GALVANIZED WT	15

VzW
SMART Tool©
Vendor

verizon

DRAWN BY: H.R | CHECKED BY: HMA

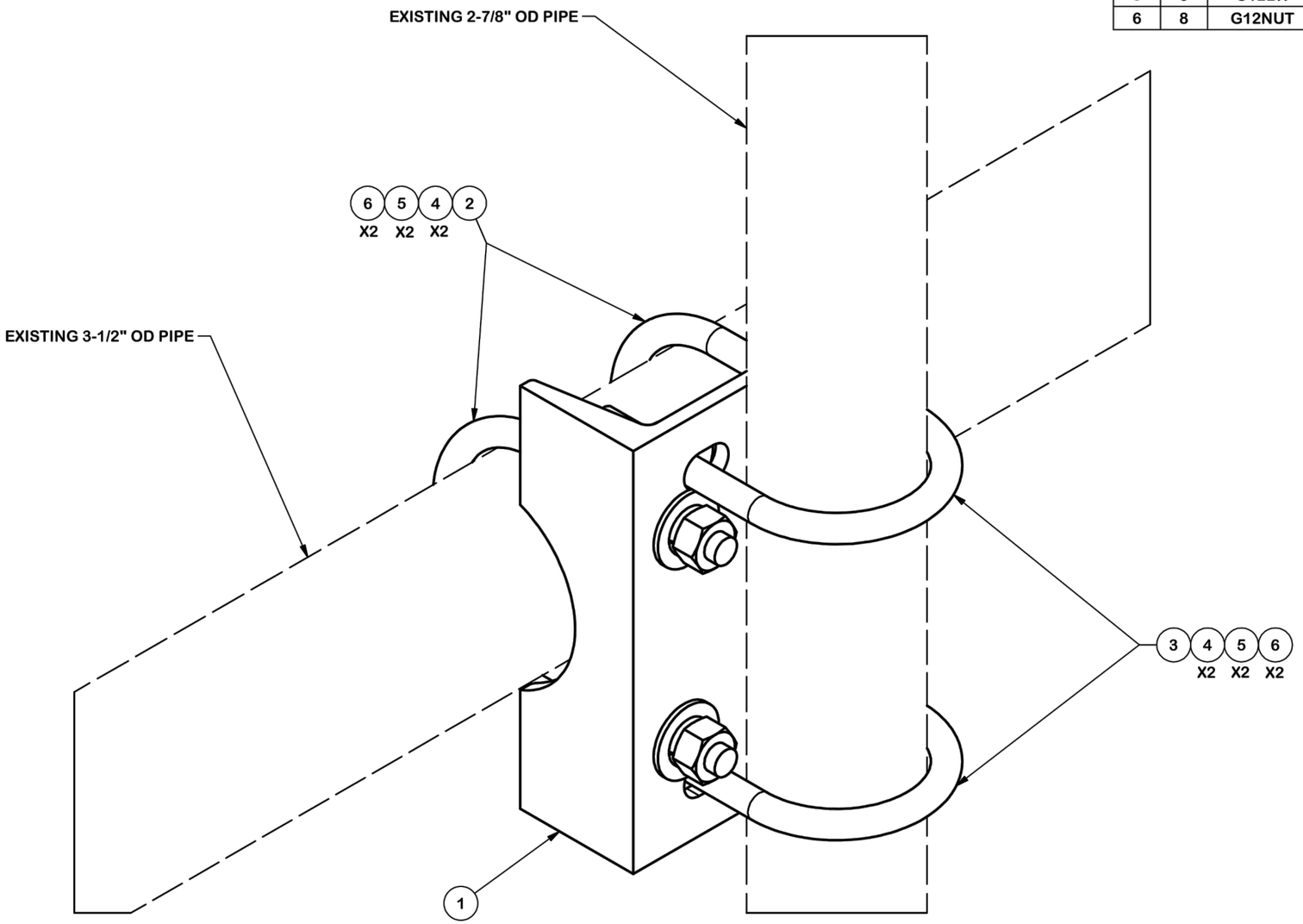
REV.	DESCRIPTION	BY	DATE
0	FIRST ISSUE	H.R	05/08/20

SHEET TITLE:
VZWSMART-MSK2
CROSSOVER PLATE

SHEET NUMBER: VZWSMART-MSK2

REV #: 0

PARTS LIST						
ITEM	QTY	PART NO.	PART DESCRIPTION	LENGTH	UNIT WT.	NET WT.
1	1	X-SP219	SMALL SUPPORT CROSS PLATE	8 1/4 in	8.61	8.61
2	2	X-UB1306	1/2" X 3-5/8" X 6" X 3" U-BOLT (HDG.)		0.66	1.31
3	2	X-UB1300	1/2" X 3" X 5" X 2" U-BOLT (HDG.)		0.66	1.31
4	8	G12FW	1/2" HDG USS FLATWASHER		0.03	0.27
5	8	G12LW	1/2" HDG LOCKWASHER		0.01	0.11
6	8	G12NUT	1/2" HDG HEAVY 2H HEX NUT		0.07	0.57
					TOTAL WT. #	12.61



TOLERANCE NOTES

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

REV	DESCRIPTION OF REVISIONS	CPD	BY	DATE
A	REDRAWN IN INV, UPDATED VIEWS & TABLE		KC8	8-21-2012

REVISION HISTORY

DESCRIPTION
2-7/8" TO 3-1/2"
PIPE MOUNT ASSEMBLY

SITE PRO 1
A valmont COMPANY

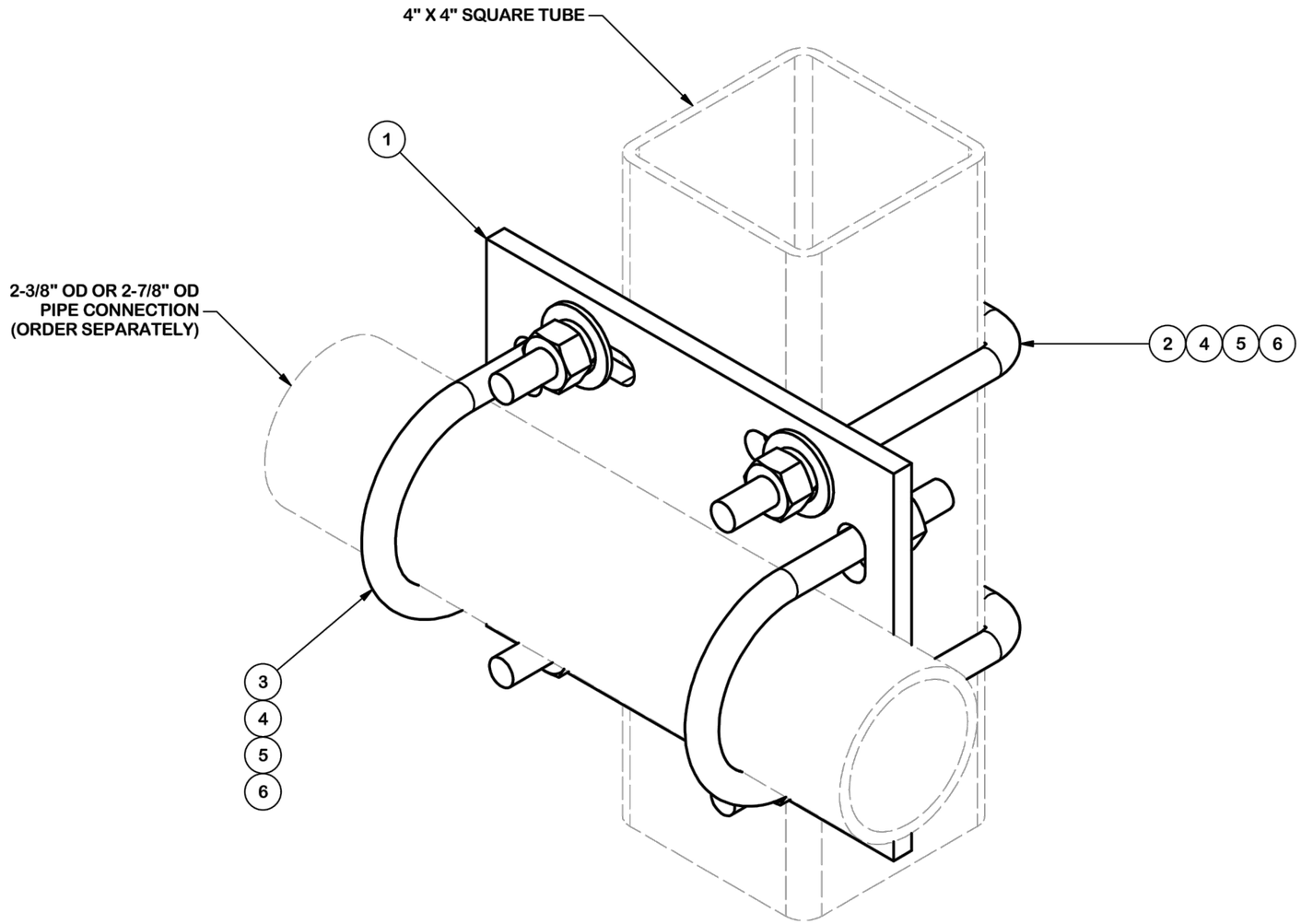
Engineering Support Team:
1-888-753-7446

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

CPD NO.	DRAWN BY	ENG. APPROVAL	PART NO.	PAGE
4518	BMC 6/3/2009		SP219-H	1 OF 1

CLASS	SUB	DRAWING USAGE	CHECKED BY	DWG. NO.
81	01	CUSTOMER	CEK 2/18/2013	SP219-H

PARTS LIST						
ITEM	QTY	PART NO.	PART DESCRIPTION	LENGTH	UNIT WT.	NET WT.
1	1	SCX4	CROSSOVER PLATE	8 1/2 in	6.02	6.02
2	2	X-SUB1418	SQUARE U-BOLT 0.5" DIA. X 4.125" IW X 6" IL X 3" TR		0.98	1.95
3	2	X-UB1212	1/2" X 2-1/2" X 4-1/2" X 2" U-BOLT (HDG.)		0.60	1.19
3	2	X-UB1300	1/2" X 3" X 5" X 2" U-BOLT (HDG.)		0.67	1.34
4	8	G12FW	1/2" HDG USS FLATWASHER	3/32 in	0.03	0.27
5	8	G12LW	1/2" HDG LOCKWASHER	1/8 in	0.01	0.11
6	8	G12NUT	1/2" HDG HEAVY 2H HEX NUT		0.07	0.57
					TOTAL WT. #	11.35



TOLERANCE NOTES

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

DESCRIPTION
CROSSOVER PLATE KIT
W/ SQUARE U-BOLTS AND STD. U-BOLTS

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

CPD NO.	DRAWN BY	ENG. APPROVAL	PART NO.	PAGE
	CSL 9/18/2018	3RD PARTY	SQCX4-K	1 OF 1

CLASS	SUB	DRAWING USAGE	CHECKED BY	DWG. NO.
87	02	CUSTOMER	BMC 11/12/2018	SQCX4-K

Site Name: ***SALISBURY CT***
Cumulative Power Density

Operator	Operating Frequency	Number of Trans.	ERP Per Trans.	Total ERP	Distance to Target	Calculated Power Density	Maximum Permissible Exposure*	Fraction of MPE
	(MHz)		(watts)	(watts)	(feet)	(mW/cm^2)	(mW/cm^2)	(%)
VZW 700	751	4	484	1936	134	0.0039	0.5007	0.77%
VZW CDMA	878.49	2	497	993	134	0.0020	0.5857	0.34%
VZW Cellular	874	4	484	1936	134	0.0039	0.5827	0.67%
VZW PCS	1975	4	1100	4398	134	0.0088	1.0000	0.88%
VZW AWS	2120	4	1208	4833	134	0.0097	1.0000	0.97%
VZW CBAND	3730.08	4	6531	26125	134	0.0523	1.0000	5.23%
Total Percentage of Maximum Permissible Exposure								8.86%

*Guidelines adopted by the FCC on August 1, 1996, 47 CFR Part 1 based on NCRP Report 86, 1986 and generally on ANSI/IEEE C95.1-1992
**Calculation includes a -10 dB Off Beam Antenna Pattern Adjustment pursuant to Attachments B and C of the Siting Council's November 10, 2015 Memorandum for Exempt Modification filings

MHz = Megahertz
mW/cm^2 = milliwatts per square centimeter
ERP = Effective Radiated Power

Absolute worst case maximum values used.

Town of Salisbury

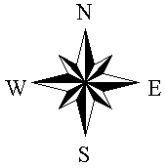
Geographic Information System (GIS)

Date Printed: 9/16/2021

MAP DISCLAIMER - NOTICE OF LIABILITY

This map is for assessment purposes only. It is not for legal description or conveyances. All information is subject to verification by any user. The Town of Salisbury and its mapping contractors assume no legal responsibility for the information contained herein.

Approximate Scale: 1 inch = 94 feet



Town of Salisbury, CT

Property Listing Report

Map Block Lot	Building #	Section #	Account
54-89			98103071

Property Information

Property Location	52 LIBRARY STREET
Owner	SALISBURY TOWN OF
Co-Owner	
Mailing Address	27 MAIN ST SALISBURY CT 06068
Land Use	5-2 VACANT COM
Land Class	C
Zoning Code	C20
Census Tract	

Street Index	7
Acreage	5.13
Utilities	
Lot Setting/Desc	
Additional Info	

Photo

Sketch

Primary Construction Details

Year Built	
Stories	
Building Style	
Building Use	
Building Condition	
Interior Floors 1	
Interior Floors 2	
Total Rooms	
Basement Garages	
Occupancy	
Building Grade	

Bedrooms	
Full Bathrooms	
Half Bathrooms	
Extra Fixtures	
Bath Style	
Kitchen Style	
Roof Style	
Roof Cover	
AC Type	
Fireplaces	

Exterior Walls	
Exterior Walls 2	
Interior Walls	
Interior Walls 2	
Heating Type	
Heating Fuel	
Sq. Ft. Basement	
Fin BSMT Quality	
Extra Kitchens	

Report Created On 9/16/2021

Town of Salisbury, CT

Property Listing Report

Map Block Lot	Building #	Section #	Account
54-89			98103071

Valuation Summary

(Assessed value = 70% of Appraised Value)

Item	Appraised	Assessed
Buildings	0	0
Extras	0	0
Improvements		
Outbuildings	359800	251900
Land	392700	274900
Total	752500	526800

Outbuilding and Extra Features

Type	Description
Work Shop Gd	400 S.F
Shed fair	600 S.F.
Garage	8400 S.F.
Shed aver	2960 S.F.
Garage	1160 S.F.
Shed aver	12420 S.F.
Garage	7260 S.F.

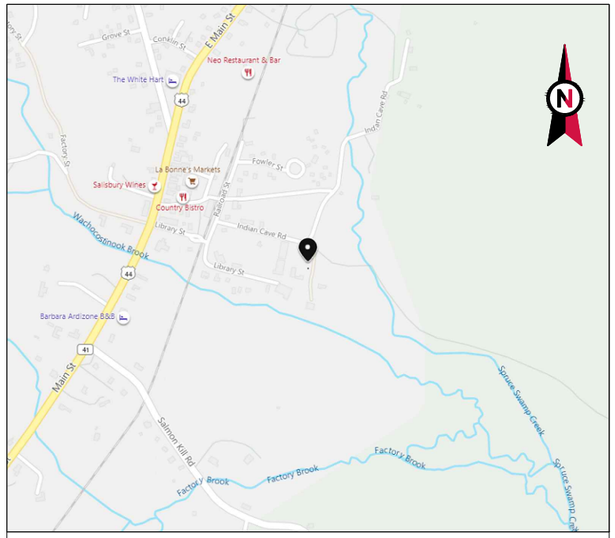
Sub Areas

Subarea Type	Gross Area (sq ft)	Living Area (sq ft)
Total Area		

Sales History

Owner of Record	Book/ Page	Sale Date	Sale Price
SALISBURY TOWN OF	84/ 121	10/31/1961	0

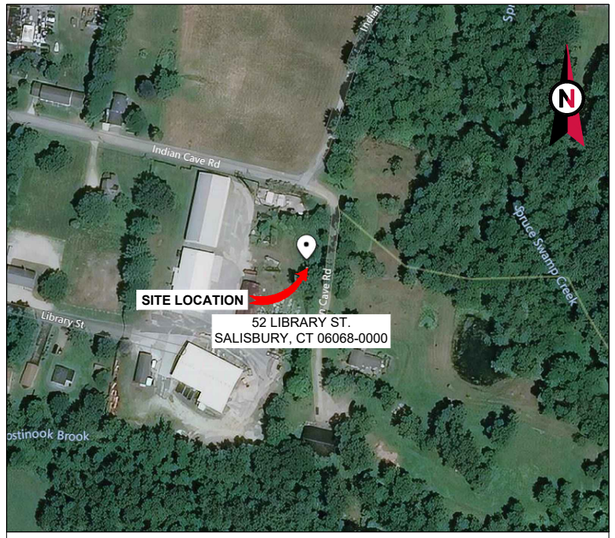
Report Created On 9/16/2021



VICINITY MAP

AMERICAN TOWER®

ATC SITE NAME: SALISBURY CT
ATC SITE NUMBER: 370630
VERIZON SITE NAME: SALISBURY CT
VERIZON SITE NUMBER: 468684
SITE ADDRESS: 52 LIBRARY ST.
SALISBURY, CT 06068-0000



LOCATION MAP

VERIZON
ANTENNA AMENDMENT DRAWINGS

COMPLIANCE CODE

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

1. 2015 INTERNATIONAL BUILDING CODE (IBC)
2. 2017 NATIONAL ELECTRIC CODE (NEC)
3. 2018 CONNECTICUT STATE BUILDING CODE
4. CITY/COUNTY ORDINANCES

UTILITY COMPANIES

POWER COMPANY: DEMAND
PHONE: () -

TELEPHONE COMPANY: AT&T
PHONE: (888) 944-0447

811 Know what's below. Call before you dig.

PROJECT SUMMARY

SITE ADDRESS:

52 LIBRARY ST.

SALISBURY, CT 06068-0000

COUNTY: LITCHFIELD

GEOGRAPHIC COORDINATES:

LATITUDE: 41.98086111

LONGITUDE: -73.41844444

GROUND ELEVATION: 667' AMSL

PROJECT TEAM

TOWER OWNER:

AMERICAN TOWER
10 PRESIDENTIAL WAY
WOBURN, MA 01801

ENGINEER:

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

PROPERTY OWNER:

TOWN OF SALISBURY CT
52 LIBRARY ST. -
SALISBURY - CT - 06068

APPLICANT:

VERIZON

PROJECT DESCRIPTION

THE PROPOSED PROJECT INCLUDES MODIFYING GROUND BASED AND TOWER MOUNTED EQUIPMENT AS INDICATED PER BELOW:

TOWER WORK:
REMOVE (6) ANTENNA(S), AND (12) COAX CABLE(S)

INSTALL (9) ANTENNA(S), (6) RRU(S), (1) OVP(S), AND (2) HYBRID CABLE(S)

EXISTING (6) ANTENNA(S), AND (6) COAX CABLE(S) TO REMAIN

GROUND WORK:
REMOVE (1) RRU

PROJECT NOTES

1. THE FACILITY IS UNMANNED.
2. A TECHNICIAN WILL VISIT THE SITE APPROXIMATELY ONCE A MONTH FOR ROUTINE INSPECTION AND MAINTENANCE.
3. THE PROJECT WILL NOT RESULT IN ANY SIGNIFICANT LAND DISTURBANCE OR EFFECT OF STORM WATER DRAINAGE.
4. NO SANITARY SEWER, POTABLE WATER OR TRASH DISPOSAL IS REQUIRED.
5. HANDICAP ACCESS IS NOT REQUIRED.

PROJECT LOCATION DIRECTIONS

FROM WATERBURY CT TAKE CT-* NORTH TOWARD TORRINGTON. TAKE EXIT 38 CT-254 TOWARD THOMASTON US-6 / CT-109.THURN LEFT ON WATERBURY ROAD CT-254; TURN LEFT ON NORTHFIELD ROAD CT-254; TURN LEFT ON TO EAST ST CT-118; TURN RIGHT ON NORTH ST CT-63; TURN LEFT ON CT-126; TURN RIGHT ON POINT OF ROCKS ROAD CT-126; TURN LEFT ON SALISBURY ROAD US-44 W; TURN LEFT ON ACADEMY STREET; TURN SLIGHT RIGHT; TURN LEFT ON INDIAN CAVE ROAD; SITE IS ON RIGHT

SHEET INDEX

SHEET NO:	DESCRIPTION:	REV:	DATE:	BY:
G-001	TITLE SHEET	0	09/01/21	MH
G-002	GENERAL NOTES	0	09/01/21	MH
C-101	DETAILED SITE PLAN	0	09/01/21	MH
C-102	DETAILED GROUND PLAN	0	09/01/21	MH
C-201	TOWER ELEVATION	0	09/01/21	MH
C-401	ANTENNA INFORMATION & SCHEDULE	0	09/01/21	MH
C-501	CONSTRUCTION DETAILS	0	09/01/21	MH
E-501	GROUNDING DETAILS	0	09/01/21	MH
R-601	SUPPLEMENTAL			
R-602	SUPPLEMENTAL			
R-603	SUPPLEMENTAL			
R-604	SUPPLEMENTAL			
R-605	SUPPLEMENTAL			

AMERICAN TOWER®

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

COA# PEC.001833 EXP. 08/14/2022

REV.	DESCRIPTION	BY	DATE
A	PRELIM	BMB	05/18/21
0	FOR CONSTRUCTION	MH	09/01/21

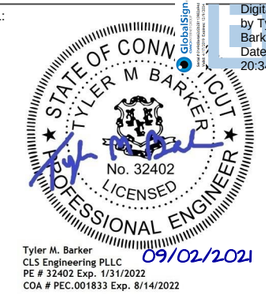
ATC SITE NUMBER:
370630

ATC SITE NAME:
SALISBURY CT

VERIZON SITE NAME:
SALISBURY CT

SITE ADDRESS:
52 LIBRARY ST.
SALISBURY, CT 06068-0000

SEAL:



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

Digitally signed by Tyler M Barker PE
Date: 2021.09.02 20:34:18-04'00'

PE# 32402 EXP: 01/31/2022

verizon

DATE DRAWN:	09/01/21
ATC JOB NO:	13668812_D1
CUSTOMER ID:	SALISBURY CT
CUSTOMER #:	468684

TITLE SHEET

SHEET NUMBER:	REVISION:
G-001	0

GENERAL CONSTRUCTION NOTES:

1. OWNER FURNISHED MATERIALS, VERIZON "THE COMPANY" WILL PROVIDE AND THE CONTRACTOR WILL INSTALL
   - A. BTS EQUIPMENT FRAME (PLATFORM) AND ICEBRIDGE SHELTER (GROUND BUILD/CO-LOCATE ONLY)
   - B. AC/TELCO INTERFACE BOX (PPC)
   - C. ICE BRIDGE (CABLE TRAY WITH COVER) (GROUND BUILD/CO-LOCATE ONLY, GC TO FURNISH AND INSTALL FOR ROOFTOP INSTALLATION)
   - D. TOWERS, MONOPOLES
   - E. TOWER LIGHTING
   - F. GENERATORS & LIQUID PROPANE TANK
   - G. ANTENNA STANDARD BRACKETS, FRAMES AND PIPES FOR MOUNTING
   - H. ANTENNAS (INSTALLED BY OTHERS)
   - I. TRANSMISSION LINE
   - J. TRANSMISSION LINE JUMPERS
   - K. TRANSMISSION LINE CONNECTORS WITH WEATHERPROOFING KITS
   - L. TRANSMISSION LINE GROUND KITS
   - M. HANGERS
   - N. HOISTING GRIPS
   - O. BTS EQUIPMENT
2. THE CONTRACTOR IS RESPONSIBLE TO PROVIDE ALL OTHER MATERIALS FOR THE COMPLETE INSTALLATION OF THE SITE INCLUDING, BUT NOT LIMITED TO, SUCH MATERIALS AS FENCING, STRUCTURAL STEEL SUPPORTING SUB-FRAME FOR PLATFORM, ROOFING LABOR AND MATERIALS, GROUNDING RINGS, GROUNDING WIRES, COPPER-CLAD OR XIT CHEMICAL GROUND ROD(S), BUSS BARS, TRANSFORMERS AND DISCONNECT SWITCHES WHERE APPLICABLE, TEMPORARY ELECTRICAL POWER, CONDUIT, LANDSCAPING COMPOUND STONE, CRANES, CORE DRILLING, SLEEPERS AND RUBBER MATTING, REBAR, CONCRETE CAISSONS, PADS AND/OR AUGER MOUNTS, MISCELLANEOUS FASTENERS, CABLE TRAYS, NON-STANDARD ANTENNA FRAMES AND ALL OTHER MATERIAL AND LABOR REQUIRED TO COMPLETE THE JOB ACCORDING TO THE DRAWINGS AND SPECIFICATIONS. IT IS THE POSITION OF VERIZON TO APPLY FOR PERMITTING AND CONTRACTOR RESPONSIBLE FOR PICKUP AND PAYMENT OF REQUIRED PERMITS.
3. ALL WORK SHALL CONFORM TO ALL CURRENT APPLICABLE FEDERAL, STATE, AND LOCAL CODES, INCLUDING ANSI/EIA/TIA-222, AND COMPLY WITH ATC CONSTRUCTION SPECIFICATIONS.
4. CONTRACTOR SHALL CONTACT LOCAL 811 FOR IDENTIFICATION OF UNDERGROUND UTILITIES PRIOR TO START OF CONSTRUCTION.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL REQUIRED INSPECTIONS.
6. ALL DIMENSIONS TO, OF, AND ON EXISTING BUILDINGS, DRAINAGE STRUCTURES, AND SITE IMPROVEMENTS SHALL BE VERIFIED IN FIELD BY CONTRACTOR WITH ALL DISCREPANCIES REPORTED TO THE ENGINEER.
7. DO NOT CHANGE SIZE OR SPACING OF STRUCTURAL ELEMENTS.
8. DETAILS SHOWN ARE TYPICAL; SIMILAR DETAILS APPLY TO SIMILAR CONDITIONS UNLESS OTHERWISE NOTED.
9. THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY WHICH SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
10. CONTRACTOR SHALL BRACE STRUCTURES UNTIL ALL STRUCTURAL ELEMENTS NEEDED FOR STABILITY ARE INSTALLED. THESE ELEMENTS ARE AS FOLLOWS: LATERAL BRACING, ANCHOR BOLTS, ETC.
11. CONTRACTOR SHALL DETERMINE EXACT LOCATION OF EXISTING UTILITIES, GROUNDS DRAINS, DRAIN PIPES, VENTS, ETC. BEFORE COMMENCING WORK.
12. INCORRECTLY FABRICATED, DAMAGED, OR OTHERWISE MISFITTING OR NONCONFORMING MATERIALS OR CONDITIONS SHALL BE REPORTED TO THE VERIZON REP PRIOR TO REMEDIAL OR CORRECTIVE ACTION. ANY SUCH REMEDIAL ACTION SHALL REQUIRE WRITTEN APPROVAL BY THE VERIZON REP PRIOR TO PROCEEDING.
13. EACH CONTRACTOR SHALL COOPERATE WITH THE VERIZON REP, AND COORDINATE HIS WORK WITH THE WORK OF OTHERS.
14. CONTRACTOR SHALL REPAIR ANY DAMAGE CAUSED BY CONSTRUCTION OF THIS PROJECT TO MATCH EXISTING PRE-CONSTRUCTION CONDITIONS TO THE SATISFACTION OF THE VERIZON CONSTRUCTION MANAGER.
15. ALL CABLE/CONDUIT ENTRY/EXIT PORTS SHALL BE WEATHERPROOFED DURING INSTALLATION USING A SILICONE SEALANT.
16. WHERE EXISTING CONDITIONS DO NOT MATCH THOSE SHOWN IN THIS PLAN SET, CONTRACTOR SHALL NOTIFY THE VERIZON REP AND ENGINEER OF RECORD IMMEDIATELY.
17. CONTRACTOR SHALL ENSURE ALL SUBCONTRACTORS ARE PROVIDED WITH A COMPLETE AND CURRENT SET OF DRAWINGS AND SPECIFICATIONS FOR THIS PROJECT.
18. CONTRACTOR SHALL REMOVE ALL RUBBISH AND DEBRIS FROM THE SITE AT THE END OF EACH DAY.
19. CONTRACTOR SHALL COORDINATE WORK SCHEDULE WITH AMERICAN TOWER CORPORATION (ATC) AND TAKE PRECAUTIONS TO MINIMIZE IMPACT AND DISRUPTION OF OTHER OCCUPANTS OF THE FACILITY.
20. CONTRACTOR SHALL FURNISH VERIZON AND AMERICAN TOWER CORPORATION (ATC) WITH A PDF MARKED UP AS-BUILT SET OF DRAWINGS UPON COMPLETION OF WORK.
21. PRIOR TO SUBMISSION OF BID, CONTRACTOR SHALL COORDINATE WITH VERIZON REP TO DETERMINE WHAT, IF ANY, ITEMS WILL BE PROVIDED. ALL ITEMS NOT PROVIDED SHALL BE PROVIDED AND INSTALLED BY THE CONTRACTOR. CONTRACTOR WILL INSTALL ALL ITEMS PROVIDED.
22. PRIOR TO SUBMISSION OF BID, CONTRACTOR SHALL COORDINATE WITH VERIZON REP TO DETERMINE IF ANY PERMITS WILL BE OBTAINED BY CONTRACTOR. ALL REQUIRED PERMITS NOT OBTAINED BY VERIZON MUST BE OBTAINED, AND PAID FOR, BY THE CONTRACTOR.
23. CONTRACTOR SHALL INSTALL ALL SITE SIGNAGE IN ACCORDANCE WITH VERIZON SPECIFICATIONS AND REQUIREMENTS.
24. CONTRACTOR SHALL SUBMIT ALL SHOP DRAWINGS TO VERIZON FOR REVIEW AND APPROVAL PRIOR TO FABRICATION.
25. ALL EQUIPMENT SHALL BE INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS AND LOCATED ACCORDING TO VERIZON SPECIFICATIONS, AND AS SHOWN IN THESE PLANS.
26. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE PROJECT DESCRIBED HEREIN. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ALL THE CONSTRUCTION MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES AND FOR COORDINATING ALL PORTIONS OF THE WORK UNDER THE CONTRACT.
27. CONTRACTOR SHALL NOTIFY VERIZON REP A MINIMUM OF 48 HOURS IN ADVANCE OF POURING CONCRETE OR BACKFILLING ANY UNDERGROUND UTILITIES, FOUNDATIONS OR SEALING ANY WALL, FLOOR OR ROOF PENETRATIONS FOR ENGINEERING REVIEW AND APPROVAL.
28. CONTRACTOR SHALL BE RESPONSIBLE FOR SITE SAFETY INCLUDING COMPLIANCE WITH ALL APPLICABLE OSHA STANDARDS AND RECOMMENDATIONS AND SHALL PROVIDE ALL NECESSARY SAFETY DEVICES INCLUDING PPE AND PPM AND CONSTRUCTION DEVICES SUCH AS WELDING AND FIRE PREVENTION, TEMPORARY SHORING, SCAFFOLDING, TRENCH BOXES/SLOPING, BARRIERS, ETC.
29. THE CONTRACTOR SHALL PROTECT AT HIS OWN EXPENSE, ALL EXISTING FACILITIES AND SUCH OF HIS NEW WORK LIABLE TO INJURY DURING THE CONSTRUCTION PERIOD. ANY DAMAGE CAUSED BY NEGLECT ON THE PART OF THIS CONTRACTOR OR HIS REPRESENTATIVES, OR BY THE ELEMENTS DUE TO NEGLECT ON THE PART OF THIS CONTRACTOR OR HIS REPRESENTATIVES, EITHER TO THE EXISTING WORK, OR TO HIS WORK OR THE WORK OF ANY OTHER CONTRACTOR, SHALL BE REPAIRED AT HIS EXPENSE TO THE OWNER'S SATISFACTION.
30. ALL WORK SHALL BE INSTALLED IN A FIRST CLASS, NEAT AND WORKMANLIKE MANNER BY MECHANICS SKILLED IN THE TRADE INVOLVED. THE QUALITY OF WORKMANSHIP SHALL BE SUBJECT TO THE APPROVAL OF THE VERIZON REP. ANY WORK FOUND BY THE VERIZON REP TO BE OF INFERIOR QUALITY AND/OR WORKMANSHIP SHALL BE REPLACED AND/OR REWORKED AT CONTRACTOR EXPENSE UNTIL APPROVAL IS OBTAINED.
31. IN ORDER TO ESTABLISH STANDARDS OF QUALITY AND PERFORMANCE, ALL TYPES OF MATERIALS LISTED HEREINAFTER BY MANUFACTURER'S NAMES AND/OR MANUFACTURER'S CATALOG NUMBER SHALL BE PROVIDED BY THESE MANUFACTURERS AS SPECIFIED.
32. VERIZON FURNISHED EQUIPMENT SHALL BE PICKED-UP AT THE VERIZON WAREHOUSE, NO LATER THAN 48HR AFTER BEING NOTIFIED INSURED, STORED, UNCRATE, PROTECTED AND INSTALLED BY THE CONTRACTOR WITH ALL APPURTENANCES REQUIRED TO PLACE THE EQUIPMENT IN OPERATION, READY FOR USE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE EQUIPMENT AFTER PICKING IT UP.
33. VERIZON OR HIS ARCHITECT/ENGINEER RESERVES THE RIGHT TO REJECT ANY EQUIPMENT OR MATERIALS WHICH, IN HIS OWN OPINION ARE NOT IN COMPLIANCE WITH THE CONTRACT DOCUMENTS, EITHER BEFORE OR AFTER INSTALLATION AND THE EQUIPMENT SHALL BE REPLACED WITH EQUIPMENT CONFORMING TO THE REQUIREMENTS OF THE CONTRACT DOCUMENTS BY THE CONTRACTOR AT NO COST TO VERIZON OR THEIR ARCHITECT/ENGINEER.

SPECIAL CONSTRUCTION ANTENNA INSTALLATION NOTES:

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

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

AMERICAN TOWER®

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

COA# PEC.001833 EXP. 08/14/2022

REV.	DESCRIPTION	BY	DATE
A	PRELIM	BMB	05/18/21
0	FOR CONSTRUCTION	MH	09/01/21

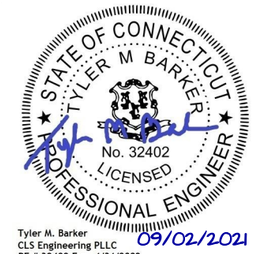
ATC SITE NUMBER:
370630

ATC SITE NAME:
SALISBURY CT

VERIZON SITE NAME:
SALISBURY CT

SITE ADDRESS:
52 LIBRARY ST.
SALISBURY, CT 06068-0000

SEAL:



Tyler M. Barker
CLS Engineering PLLC
PE # 32402 Exp. 1/31/2022
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09/02/2021

PE# 32402 EXP: 01/31/2022

verizon

DATE DRAWN:	09/01/21
ATC JOB NO:	13668812_D1
CUSTOMER ID:	SALISBURY CT
CUSTOMER #:	468684

GENERAL NOTES

SHEET NUMBER:	REVISION:
G-002	0

SITE PLAN NOTES:

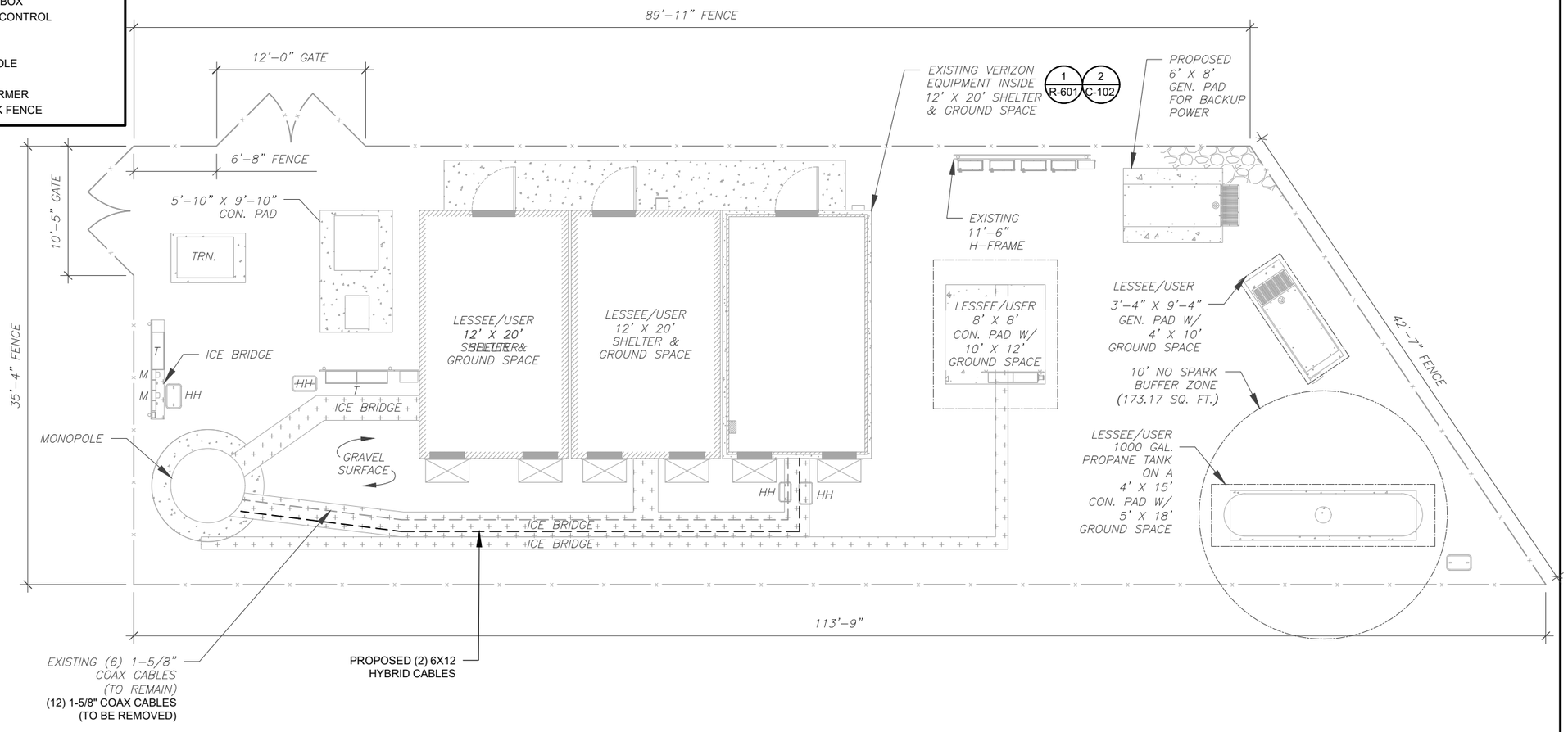
1. THIS SITE PLAN REPRESENTS THE BEST PRESENT KNOWLEDGE AVAILABLE TO THE ENGINEER AT THE TIME OF THIS DESIGN. THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO CONSTRUCTION AND VERIFY ALL EXISTING CONDITIONS RELATED TO THE SCOPE OF WORK FOR THIS PROJECT.
2. ICE BRIDGE, CABLE LADDER, COAX PORT, AND COAX CABLE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

PROPOSED CABLE LENGTH:

1. ESTIMATED LENGTH OF PROPOSED CABLE IS **XXX**. ESTIMATED LENGTH OF CABLE WAS PROVIDED BY CUSTOMER OR CALCULATED BY ADDING THE RAD CENTER AND THE DISTANCE FROM THE SHELTER ENTRY PLATE TO THE TOWER (ALONG THE ICE BRIDGE) AND A SAFETY FACTOR MEASUREMENT OF 15% (OF THE TWO PREVIOUS VALUES), CDS DEFER TO GREATEST CABLE LENGTH.
2. ROUTE PROPOSED CABLES ALONG SAME PATH AS EXISTING CABLES AND IN ACCORDANCE WITH STRUCTURAL ANALYSIS. IF ADEQUATE SPACE EXISTS, ROUTE CABLES THROUGH ENTRY PORT HOLE, UP INSIDE OF MONOPOLE, AND THROUGH EXIT PORT HOLE. IF ROUTING OUTSIDE THE MONOPOLE, ATTACH CABLES USING STAND-OFF ADAPTERS MOUNTED TO TOWER USING STAINLESS STEEL BANDING. ADEQUATELY SECURE CABLES USING EITHER APPROPRIATELY SIZED STAINLESS STEEL SNAP-INS OR MOUNTING HARDWARE AND BRACKETS AS SPECIFIED BY CABLE MANUFACTURER.

LEGEND

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



1 DETAILED SITE PLAN

GRAPHIC SCALE

10 0 5 10

(IN FEET)
1 UNIT = 10 FEET

N

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SEAL:

STATE OF CONNECTICUT
TYLER M BARKER
No. 32402
LICENSED PROFESSIONAL ENGINEER

Tyler M. Barker
CLS Engineering PLLC
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PE# 32402 EXP: 01/31/2022

verizon

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CUSTOMER ID:	SALISBURY CT
CUSTOMER #:	468684

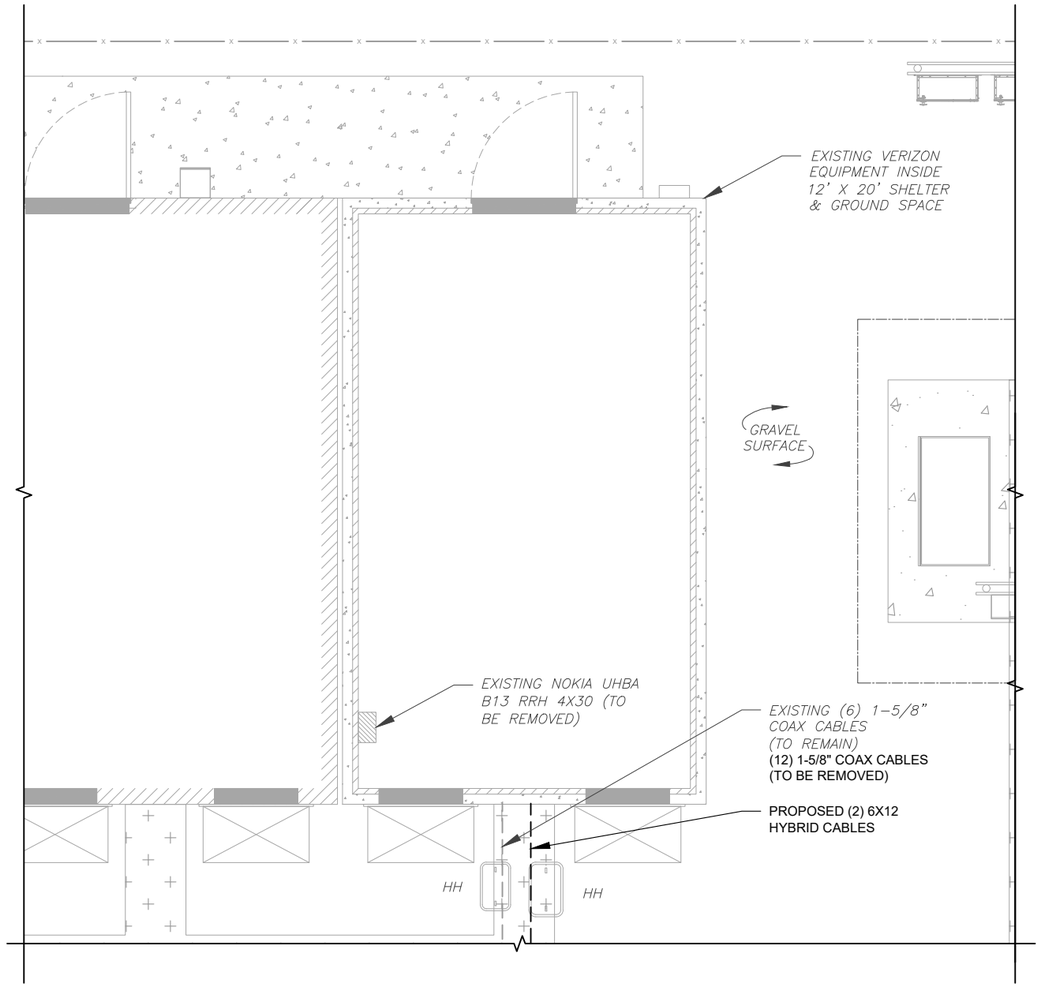
DETAILED SITE PLAN

SHEET NUMBER: C-101

REVISION: 0

SITE PLAN NOTES:

1. CONTRACTOR TO VERIFY THERE IS NO LIVE AAV FIBER RUNNING THROUGH EXISTING DEAD EQUIPMENT. IF SO, THIS WILL NEED TO BE RERUN THROUGH CONDUIT PRIOR TO REMOVING DEAD 2G (6201 CABS) EQUIPMENT.
2. REMOVE EXISTING 2G CABINETS, AND POWER / TELCO WHIPS ASSOCIATED WITH THE DEAD EQUIPMENT IF APPLICABLE.
3. ALL OPEN PORTS NEED TO BE SEALED / WEATHERPROOFED PROPERLY
4. ALL UNNEEDED / EXCESS EQUIPMENT AND GARBAGE TO BE REMOVED FROM EQUIPMENT AREA. DISPOSE OF MATERIALS PROPERLY OFF SITE.

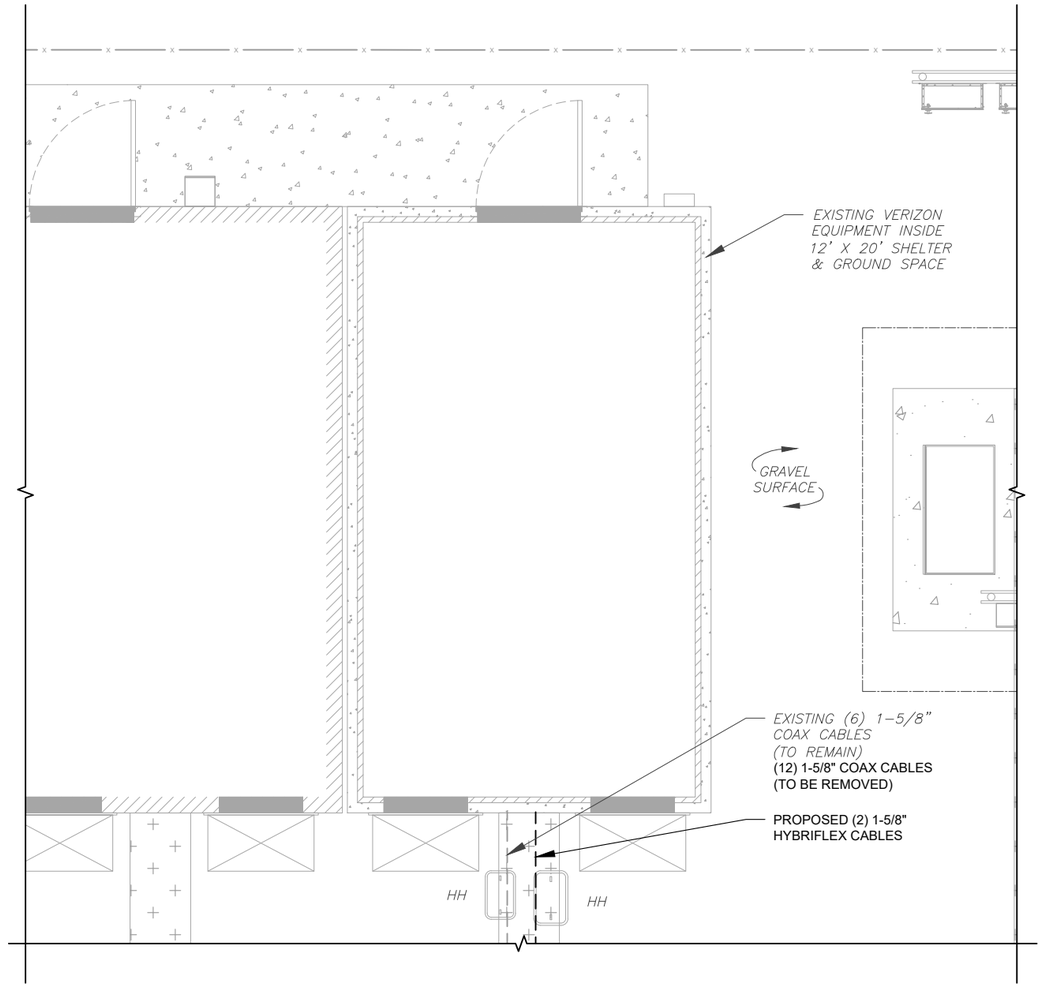


1 EXISTING GROUND EQUIPMENT LAYOUT

0 5' 10'

SCALE: 1"=5' (11X17)
1"=2.5' (22X34)

VERIZON CM APPROVAL REQUIRED BEFORE INSTALLING CABINETS



2 PROPOSED GROUND EQUIPMENT LAYOUT

0 5' 10'

SCALE: 1"=5' (11X17)
1"=2.5' (22X34)

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SEAL:

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CLS Engineering PLLC
PE # 32402 Exp. 1/31/2022
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09/02/2021

PE# 32402 EXP: 01/31/2022

verizon

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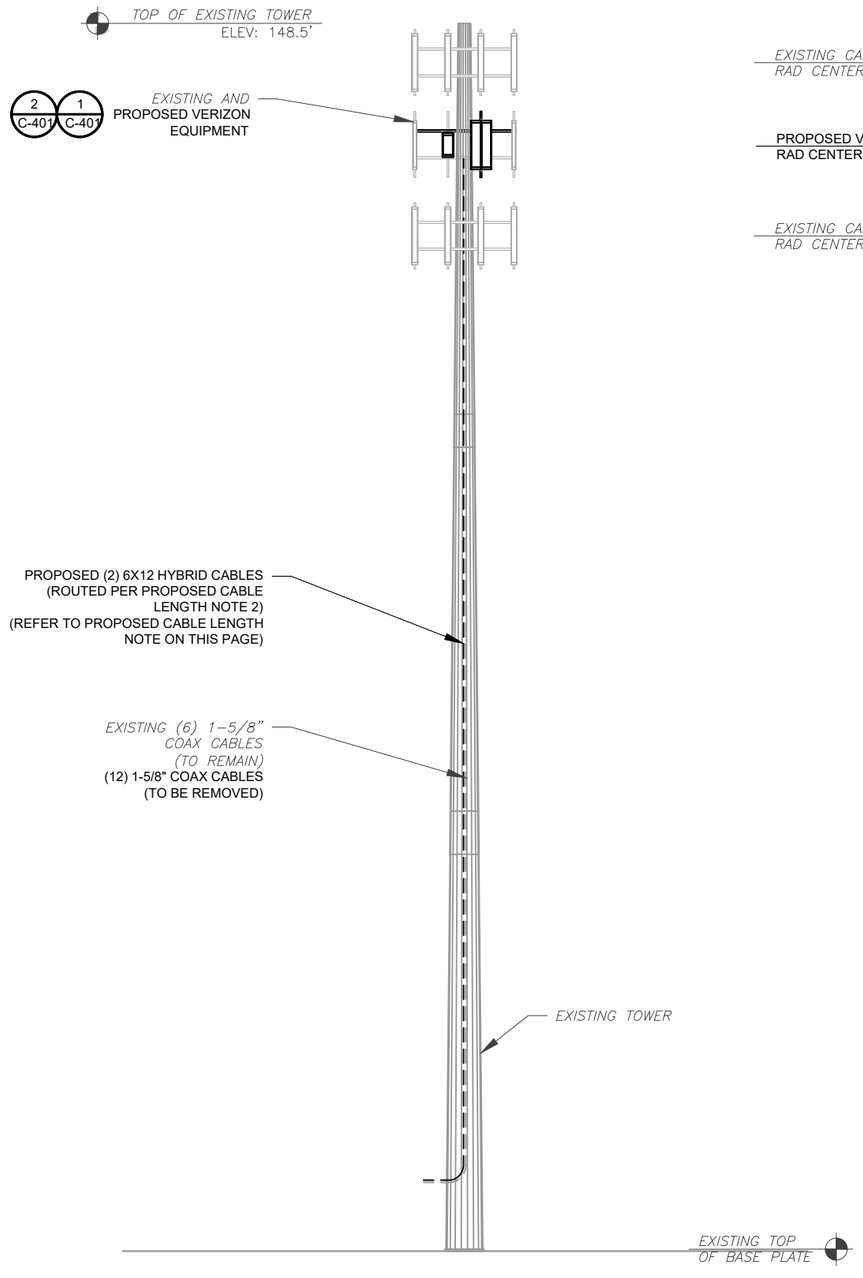
CUSTOMER ID:	SALISBURY CT
CUSTOMER #:	468684

DETAILED GROUND PLAN

SHEET NUMBER:	REVISION:
C-102	0



1 TOWER ELEVATION
SCALE: N.T.S.

PER MOUNT ANALYSIS COMPLETED BY MASER CONSULTING CONNECTICUT, DATED JULY 23, 2021, THE EXISTING MOUNT MUST BE MODIFIED TO ADEQUATELY SUPPORT THE PROPOSED LOADING. THE MOUNT MODIFICATION PROPOSED IN THE MOUNT ANALYSIS, INCLUDED AT THE END OF THIS PLAN SET, MUST BE INSTALLED PRIOR TO THE INSTALLATION OF THE PROPOSED ANTENNAS AND OTHER EQUIPMENT

TOWER NOTE:

1. IT IS THE CONTRACTOR'S RESPONSIBILITY TO CONFIRM WITH THE PROJECT MANAGER THAT THEY HAVE THE MOST RECENT VERSION OF THE STRUCTURAL ANALYSIS BEFORE COMMENCING WORK. EXISTING AND PROPOSED TOWER APPURTENANCES, MOUNTS, AND ANTENNAS ARE SHOWN BASED ON THE STRUCTURAL ANALYSIS.
2. WHERE APPLICABLE, ALL NEW ANTENNAS, EQUIPMENT, MOUNTS, CABLING, ETC. SHALL BE PAINTED/SOCKED TO MATCH EXISTING EQUIPMENT IN ACCORDANCE WITH FAA, JURISDICTION, AND/OR OTHER LOCAL REQUIREMENTS.
3. ROUTE PROPOSED CABLES ALONG SAME PATH AS EXISTING CABLES AND IN ACCORDANCE WITH STRUCTURAL ANALYSIS. IF ADEQUATE SPACE EXISTS, ROUTE CABLES THROUGH ENTRY PORT HOLE, UP INSIDE OF MONOPOLE, AND THROUGH EXIT PORT HOLE. IF ROUTING OUTSIDE THE MONOPOLE, ATTACH CABLES USING STAND-OFF ADAPTERS MOUNTED TO TOWER USING STAINLESS STEEL BANDING. ADEQUATELY SECURE CABLES USING EITHER APPROPRIATELY SIZED STAINLESS STEEL SNAP-INS OR MOUNTING HARDWARE AND BRACKETS AS SPECIFIED BY CABLE MANUFACTURER.
4. TOWER ELEVATIONS ARE MEASURED FROM TOP OF BASE PLATE TO MATCH STRUCTURAL ANALYSIS. ELEVATIONS DO NOT REFLECT TRUE ABOVE GROUND LEVEL (A.G.L.)

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SEAL:

STATE OF CONNECTICUT
TYLER M BARKER
No. 32402
LICENSED
PROFESSIONAL ENGINEER

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CLS Engineering PLLC
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09/02/2021

PE# 32402 EXP: 01/31/2022

verizon

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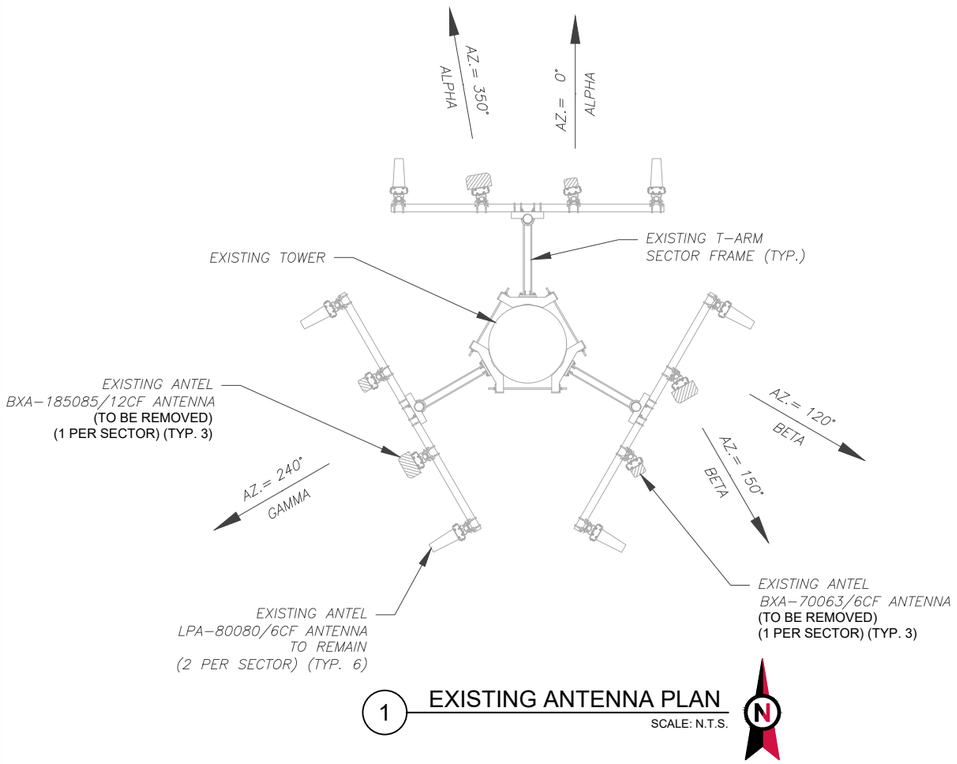
CUSTOMER ID:	SALISBURY CT
CUSTOMER #:	468684

TOWER ELEVATION

SHEET NUMBER: C-201

REVISION: 0

EXISTING CONFIGURATIONS ARE BASED ON RFDS.
CONTRACTOR TO VERIFY EXISTING CONDITIONS.



1 EXISTING ANTENNA PLAN
SCALE: N.T.S.

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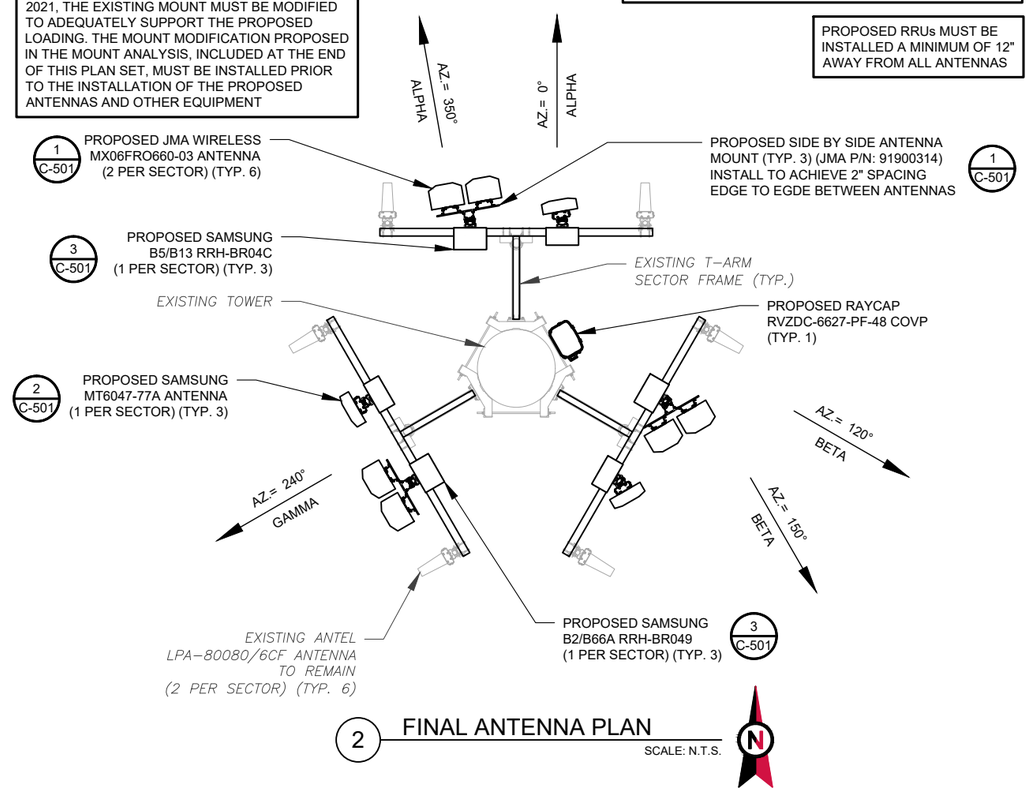
CONTRACTOR SHALL RE-ORIENT ANTENNA MOUNT(s) AS NECESSARY TO ACHIEVE PROPOSED ANTENNA AZIMUTHS

PROPOSED RRUs MUST BE INSTALLED A MINIMUM OF 12" AWAY FROM ALL ANTENNAS



2 FINAL ANTENNA PLAN
SCALE: N.T.S.

EXISTING ANTENNA SCHEDULE

LOCATION			ANTENNA SUMMARY					NON ANTENNA SUMMARY	
SECTOR	RAD	AZ	POS	ANTENNA	BAND	MECH/ELEC D-TILT	STATUS	ADDITIONAL TOWER MOUNTED EQUIPMENT	STATUS
ALPHA	134'	0°	A1	ANTEL LPA-80080/6CF	CDMA 850	4/0	RMN	-	-
		350°	A2	ANTEL BXA-185085/12CF	-	0/0	RMV	-	-
		350°	A3	ANTEL BXA-70063/6CF	LTE 700	0/0	RMV	-	-
		0°	A4	ANTEL LPA-80080/6CF	CDMA 850	4/0	RMN	-	-
BETA	134'	120°	B1	ANTEL LPA-80080/6CF	CDMA 850	0/0	RMN	-	-
		150°	B2	ANTEL BXA-185085/12CF	-	0/0	RMV	-	-
		150°	B3	ANTEL BXA-70063/6CF	LTE 700	0/2	RMV	-	-
		120°	B4	ANTEL LPA-80080/6CF	CDMA 850	0/0	RMN	-	-
GAMMA	134'	240°	C1	ANTEL LPA-80080/6CF	CDMA 850	4/0	RMN	-	-
			C2	ANTEL BXA-185085/12CF	-	0/0	RMV	-	-
			C3	ANTEL BXA-70063/6CF	LTE 700	0/0	RMV	-	-
			C4	ANTEL LPA-80080/6CF	CDMA 850	4/0	RMN	-	-

NOTES

1. CONFIRM WITH VERIZON REP FOR APPLICABLE UPDATES/REVISIONS AND MOST RECENT RFDS FOR NSN CONFIGURATION (CONFIG). GC TO CAP ALL UNUSED PORTS.
2. CONFIRM SPACING OF PROPOSED EQUIP DOES NOT CAUSE TOWER CONFLICTS NOR IMPEDE TOWER CLIMBING PEGS.

STATUS ABBREVIATIONS

RMV: TO BE REMOVED
RMN: TO REMAIN
REL: TO BE RELOCATED
ADD: TO BE ADDED

CABLE LENGTHS FOR JUMPERS

JUNCTION BOX TO RRU: 15'
RRU TO ANTENNA: 10'

FINAL ANTENNA SCHEDULE

LOCATION			ANTENNA SUMMARY					NON ANTENNA SUMMARY	
SECTOR	RAD	AZ	POS	ANTENNA	BAND	MECH/ELEC D-TILT	STATUS	ADDITIONAL TOWER MOUNTED EQUIPMENT	STATUS
ALPHA	134'	0°	A1	ANTEL LPA-80080/6CF	CDMA 850	4/0	RMN	-	-
		350°	A2	(2) JMA WIRELESS MX06FRO660-03	LTE 700/ LTE 850/ LTE 1900/ LTE AWS	0/4	ADD	SAMSUNG B2/B66A RRH-BR049	ADD
		350°	A3	SAMSUNG MT6047-77A	5G L-SUB6	0/6	ADD	SAMSUNG B5/B13 RRH-BR04C	ADD
		0°	A4	ANTEL LPA-80080/6CF	CDMA 850	4/0	RMN	-	-
BETA	134'	120°	B1	ANTEL LPA-80080/6CF	CDMA 850	4/0	RMN	-	-
		150°	B2	(2) JMA WIRELESS MX06FRO660-03	LTE 700/ LTE 850/ LTE 1900/ LTE AWS	0/4	ADD	SAMSUNG B2/B66A RRH-BR049	ADD
		150°	B3	SAMSUNG MT6047-77A	5G L-SUB6	0/6	ADD	SAMSUNG B5/B13 RRH-BR04C	ADD
		120°	B4	ANTEL LPA-80080/6CF	CDMA 850	4/0	RMN	-	-
GAMMA	134'	240°	C1	ANTEL LPA-80080/6CF	CDMA 850	4/0	RMN	-	-
			C2	(2) JMA WIRELESS MX06FRO660-03	LTE 700/ LTE 850/ LTE 1900/ LTE AWS	0/4	ADD	SAMSUNG B2/B66A RRH-BR049	ADD
			C3	SAMSUNG MT6047-77A	5G L-SUB6	0/6	ADD	SAMSUNG B5/B13 RRH-BR04C	ADD
			C4	ANTEL LPA-80080/6CF	CDMA 850	4/0	RMN	-	-

EXISTING FIBER DISTRIBUTION/OVP BOX		EXISTING CABLING SUMMARY		
MODEL NUMBER	STATUS	COAX	HYBRID	STATUS
-	-	(6) 1-5/8"	-	RMN
-	-	(12) 1-5/8"	-	RMV

FINAL FIBER DISTRIBUTION / OVP BOX		FINAL CABLING SUMMARY		
MODEL NUMBER	STATUS	COAX	HYBRID	STATUS
RAYCAP RVZDC-6627-PF-48	ADD	(6) 1-5/8"	-	RMN
-	-	-	(2) 6X12 HCS	ADD

3 EQUIPMENT SCHEDULES

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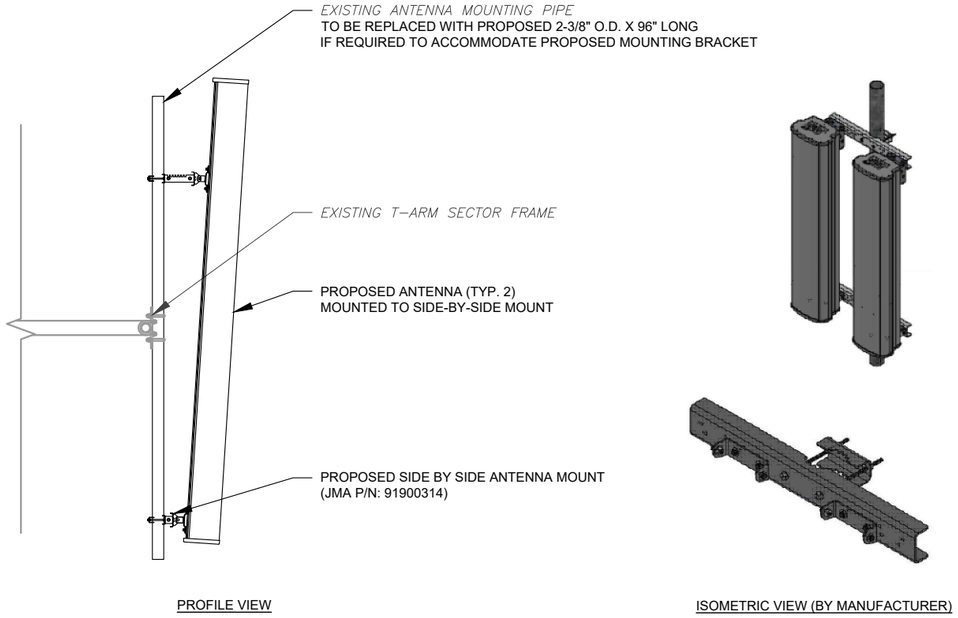
CUSTOMER #:	468684

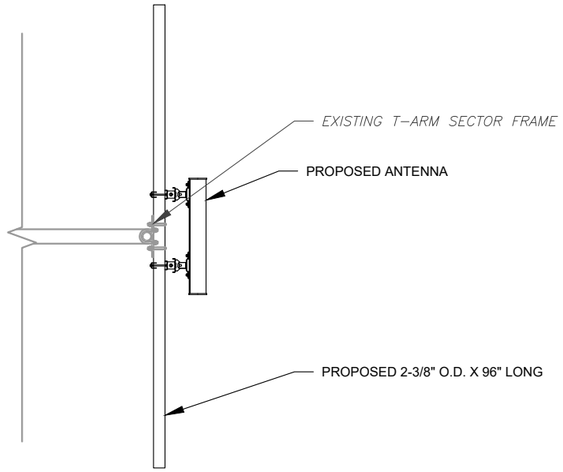
ANTENNA INFORMATION & SCHEDULE

SHEET NUMBER:	REVISION:
C-401	0



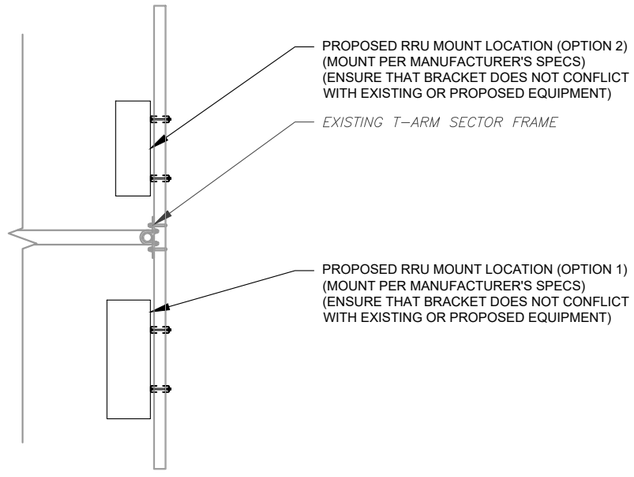
1 PROPOSED SIDE-BY-SIDE MOUNT

SCALE: NOT TO SCALE



2 PROPOSED 5G ANTENNA MOUNTING DETAIL - TYPICAL

SCALE: N.T.S.



3 PROPOSED RRU MOUNTING DETAIL - TYPICAL

SCALE: N.T.S.

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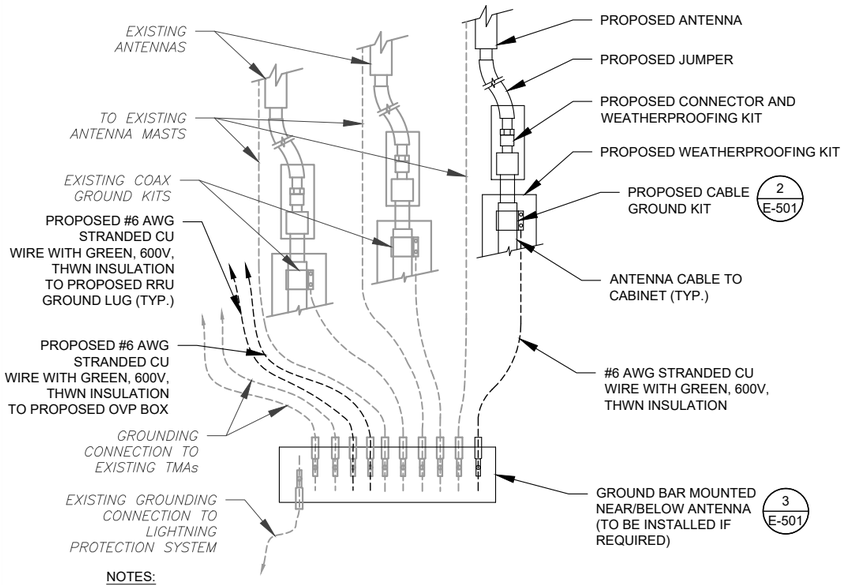
CONSTRUCTION DETAILS

SHEET NUMBER:	REVISION:
C-501	0

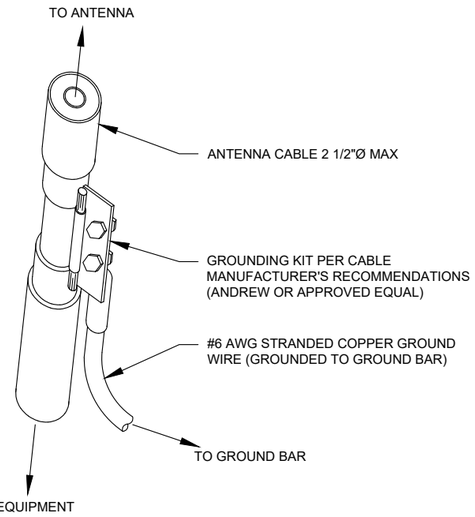


NOTES:

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

1 TYPICAL ANTENNA GROUNDING DIAGRAM

SCALE: N.T.S.

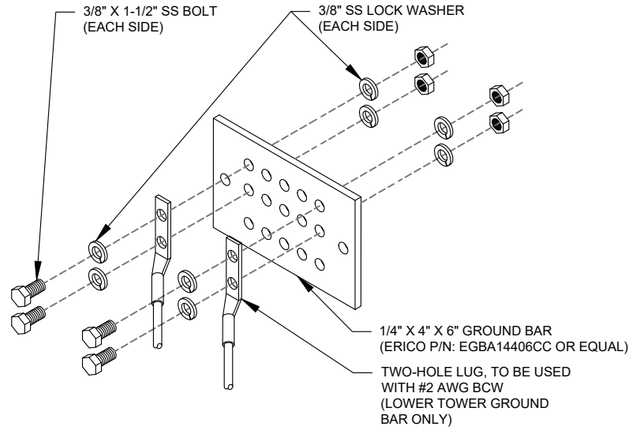


GROUND KIT NOTES:

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

2 CABLE GROUND KIT CONNECTION DETAIL

SCALE: N.T.S.



GROUND BAR NOTES:

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

3 TOWER GROUND BAR DETAIL

SCALE: N.T.S.

AMERICAN TOWER®

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

COA# PEC.001833 EXP. 08/14/2022

REV.	DESCRIPTION	BY	DATE
A	PRELIM	BMB	05/18/21
0	FOR CONSTRUCTION	MH	09/01/21

ATC SITE NUMBER:
370630

ATC SITE NAME:
SALISBURY CT

VERIZON SITE NAME:
SALISBURY CT

SITE ADDRESS:
52 LIBRARY ST.
SALISBURY, CT 06068-0000

SEAL:

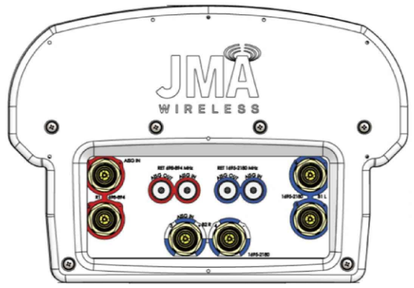
PE# 32402 EXP: 01/31/2022

verizon

DATE DRAWN:	09/01/21
ATC JOB NO:	13668812_D1
CUSTOMER ID:	SALISBURY CT
CUSTOMER #:	468684

GROUNDING DETAILS

SHEET NUMBER:	REVISION:
E-501	0



- Port 1 & 2 are for low band (698-896 MHz).
- Port 3,4,5, & 6 are for high band (1695-2360 MHz).
- Antenna Smart Bias Tee (SBT) is through port 1 for low band and port 3 for high band.
- AISG cable is only needed when drawn in the diagrams below, if it is not drawn then SBT is enough to control all RET motors.
- Not all SBT ports are needed to control RET, only green port connection to green port will control RET.

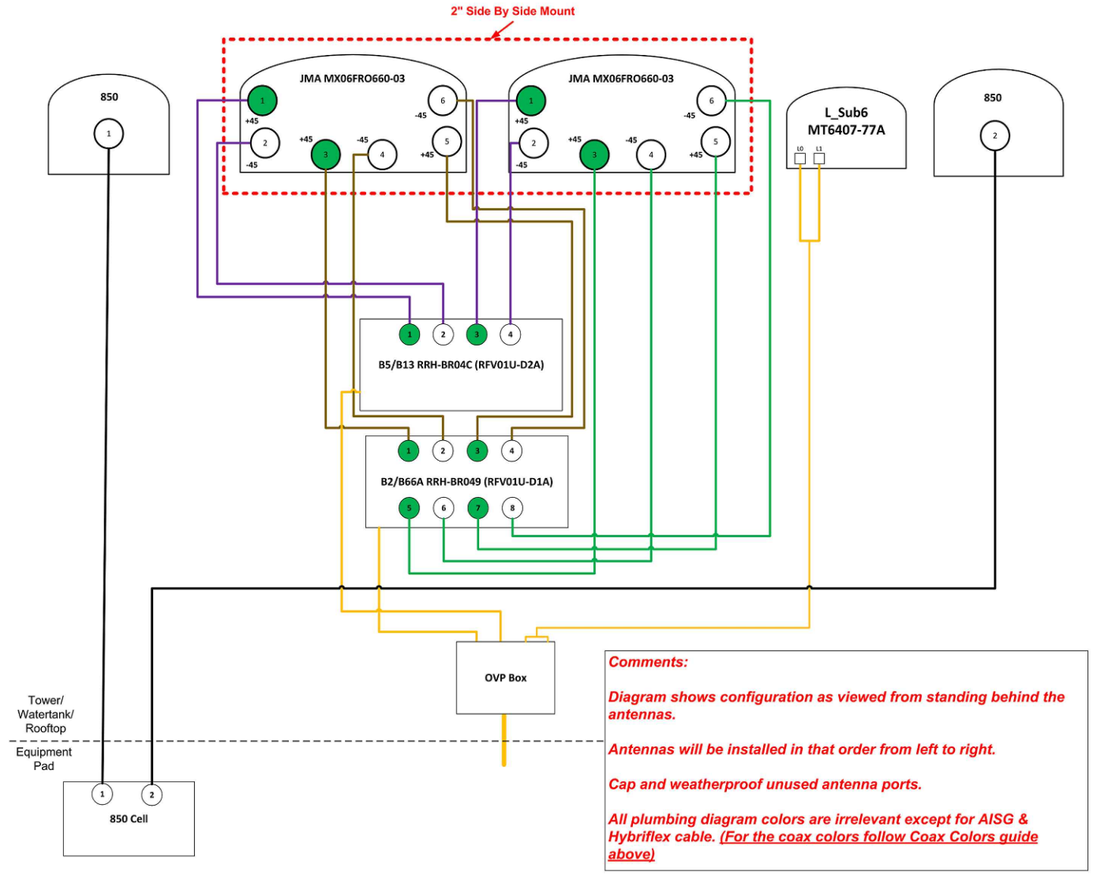
RET DC signal pass for RET
(Port that will control RET)

DC signal capable Port

AISG Cable

RET DC signal pass for RET
(Port that will control RET)

Hybriflex cables



Comments:

Diagram shows configuration as viewed from standing behind the antennas.

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

Cap and weatherproof unused antenna ports.

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

1 ANTENNA CONFIGURATION

SCALE: NOT TO SCALE

NOTE: THIS SHEET CREATED BY OTHERS AND PROVIDED BY REQUEST OF CUSTOMER WITHOUT EDIT.

SUPPLEMENTAL

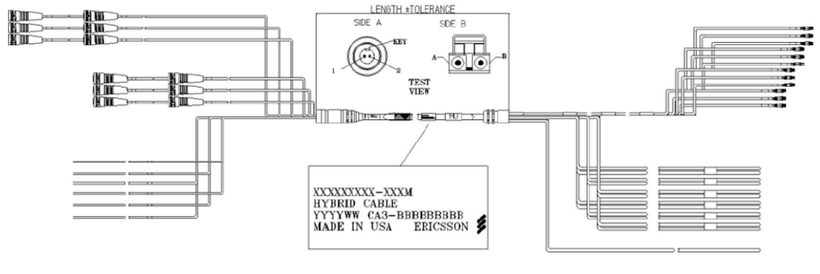
SHEET NUMBER: R-601

REVISION:

HCS 6 X 12

ERICSSON HYBRID CABLE, 6 DC PAIRS + 12 OPTICAL PAIRS

UL APPROVED



6 x 12 Weight and diameter		
	6 AWG DC wires	4 AWG DC wires
Weight (kg/m)	2.5 (+/- 0.1)	3.6 (+/- 0.1)
Weight (lb/ft)	1.7 (+/- 0.1)	2.4 (+/- 0.1)
Diameter (mm)	35 (+/- 2.0 mm)	42 (+/- 2.0 mm)
Diameter (in)	1.38 (+/- 0.1")	1.66 (+/- 0.1")
Coax standard diameter equivalent	1 3/8"	1 5/8"

Ericsson Commercial In Confidence

Specification

Numbers of power pairs / fiber pairs		6/12
Material		plastic PPE black
Pulling force	radio end	2000 N (short-term during installation)
Temperature range	operation installtion	–40 ℃ to +75 ℃ –25 ℃ to +65℃
Cable retention force at enclosure	fiber break-out cable power break-out cable hybrid cable	500 N 500 N 2000 N
Ingress protection	radio end base station	IP 68 IP 65 (with protection tube)
IK class		IK 10
Flammability		UL94-V0
UV resistant		ISO 4892-2
Salt mist, IEC 61300-2-26		96 h
Vibration, IEC 61300-2-1		10 – 500 Hz / 10 g
Shock, IEC 61300-2-9		100 g

Hybrid cable specifications (standard cable)

Hybrid cable specification	
Jacket material	Heat, moisture, and sunlight resistant polyvinyl chloride (PVC) jacket
Temperature range	-40℉ to + 158℉ (-40℃ to + 75℃)
Operating voltage	48VDC
Rated voltage	0,6kV/1kV (1.2kV)
Cable shielding	copper foil > 100% coverage
Fiber optic	4.8 mm loose-tube cable with up to 24 fibers single mode
Flame retardant	IEC 60332-1-2:2004
UV resistant	Yes, according IEC 68-2-5
UL approved	Yes

Ratings

UL/NEC Type TC-ER-OF (Tray Cable For Exposed Runs)
c(UL) T90 NYLON TC-ER FT4, UL 1685 (UL 1581) Vertical Tray Flame Test (70,000 BTU/hr)
Conductors: ASTM B 3, ASTM B 8
Drain Wire: ASTM B 8, ASTM B 33
Insulation: ICEA S-95-658 (NEMA WC 70), UL 83 for Type THHN/THWN wires
Jacket: ICEA S-95-658 (NEMA WC 70), UL 1277
Fiber: IEC60793-2

Environmental Data

Sealing: IP68 (10m)
Temperature Range: -40 to +65C (UL/NEC Rating -25C, Cold Bend Tested To -40C)
Minimum Recommended Installation Temp: -10C
Cable Is Resistant to Sunlight (UV), Moisture, and Corrosive Agents.
Cable is suitable for use in duct, conduits, aerial, cable trays, and direct burial installations.

HCS 6 x12, data sheet rev A

www.ericsson.com

SUPPLEMENTAL

SHEET NUMBER: R-602

REVISION:

Maser Consulting Connecticut
2000 Midlantic Drive, Suite 100
Mt. Laurel, NJ 08054
(856) 797-0412
peter.albano@colliersengineering.com

Post-Mod Antenna Mount Analysis Report and PMI Requirements

Mount Fix

SMART Tool Project #: 10086073
Maser Consulting Connecticut Project #: 21777481A

July 21, 2021

Site Information

Site ID:	*468684-VZW / SALISBURY CT*
Site Name:	*SALISBURY CT*
Carrier Name:	*Verizon Wireless*
Address:	*52 Library St* *Salisbury, Connecticut 06068* *Litchfield County*
Latitude:	*41.980844°*
Longitude:	*-73.418422°*

Structure Information

Tower Type:	*148-Ft Monopole*
Mount Type:	*12.58-Ft T-Arm*

FUZE ID # 16272053

Analysis Results

T-Arm: **48.8% Pass**

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

Report Prepared By: Cody Sherman

STATE OF CONNECTICUT · DEJIAN XU · No. 33733 · LICENSED PROFESSIONAL ENGINEER

07/23/2021

7. Structural Steel Grades have been assumed as follows, if applicable, unless otherwise noted in this analysis:
   - Channel, Solid Round, Angle, Plate — ASTM A36 (Gr. 36)
   - HSS (Rectangular) — ASTM 500 (Gr. B-46)
   - Pipe — ASTM A53 (Gr. B-35)
   - Threaded Rod — F1554 (Gr. 36)
   - Bolts — ASTM A325

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

Analysis Results:

Component	Utilization %	Pass/Fail
Proposed Face Horizontal	*32.0%*	*Pass*
Proposed Standoff Horizontal	*42.0%*	*Pass*
OVP Pipe	*14.0%*	*Pass*
Antenna Pipe	*31.0%*	*Pass*
Face Horizontal	*30.0%*	*Pass*
HSS Standoff	*33.0%*	*Pass*
Connection Check	*48.8%*	*Pass*

Structure Rating – *(Controlling Utilization of all Components)*	**48.8%**

Recommendation:

The existing mounts will be **SUFFICIENT** for the final loading after the proposed modifications are successfully completed.

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

Attachments:

1. Mount Photos
2. Mount Mapping Report (for reference only)
3. Analysis Calculations
4. **Contractor Required PMI Report Deliverables**
5. Antenna Placement Diagrams
6. TIA Adoption and Wind Speed Usage Letter

SUPPLEMENTAL

SHEET NUMBER: R-603

REVISION:

verizon

MOUNT MODIFICATION DRAWINGS
EXISTING 12.58' T-ARM

TOWER OWNER: AMERICAN TOWER CORPORATION
TOWER OWNER SITE NUMBER: 370630

CARRIER SITE NAME: SALISBURY CT
CARRIER SITE NUMBER: 468684
FUZE ID: 16272053

52 LIBRARY ST.
SALISBURY, CT 06068
LITCHFIELD COUNTY

LATITUDE: 41.980844° N
LONGITUDE: 73.418422° W

DESIGN CRITERIA

WIND LOADS

BASIC WIND SPEED (3 SECOND GUST), V = 113 MPH
EXPOSURE CATEGORY C
TOPOGRAPHIC CATEGORY 1
MEAN BASE ELEVATION (AMSL) = 666.77'

ICE LOADS

ICE WIND SPEED (3 SECOND GUST), V = 40 MPH
ICE THICKNESS = 1.00 IN

SEISMIC LOADS

SEISMIC DESIGN CATEGORY B
SHORT TERM MCER GROUND MOTION, S_S = .166
LONG TERM MCER GROUND MOTION, S_1 = .054

PROJECT INFORMATION

APPLICANT/LESSEE

COMPANY: VERIZON WIRELESS

CLIENT REPRESENTATIVE

COMPANY: VERIZON WIRELESS
ADDRESS: 118 FLANDERS ROAD, THIRD FLOOR
CITY, STATE, ZIP: WESTBOROUGH, MA 01581
CONTACT: ANDREW CANDIELLO
EMAIL: ANDREW.CANDIELLO@VERIZONWIRELESS.COM

PROJECT MANAGER

COMPANY: MASER CONSULTING CONNECTICUT
CONTACT: PETER ALBANO
PHONE: 856-797-0412
E-MAIL: PETER.ALBANO@COLLIERSENGINEERING.COM

CONTRACTOR PMI REQUIREMENTS

PMI LOCATION: HTTPS://PMI.VZWSMART.COM
SMART TOOL PROJECT #: 10086073
VZW LOCATION CODE (PSLC): 468684
ANALYSIS DATE: 7/21/2021

PMI REQUIREMENTS EMBEDDED WITHIN MOUNT MODIFICATION REPORT

SHEET INDEX

SHEET	DESCRIPTION
ST-1	TITLE SHEET
SBOM-1	BILL OF MATERIALS
SGN-1	GENERAL NOTES
SCF-1	CLIMBING FACILITY DETAIL
SS-1	MODIFICATION DETAILS
SS-2	MOUNT PHOTOS
	SPECIFICATION SHEETS

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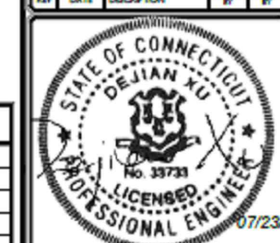

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SHEET TITLE: TITLE SHEET

SHEET NUMBER: ST-1

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION.

SUPPLEMENTAL

SHEET NUMBER:	REVISION:
R-604	

LEGEND:

PROPOSED

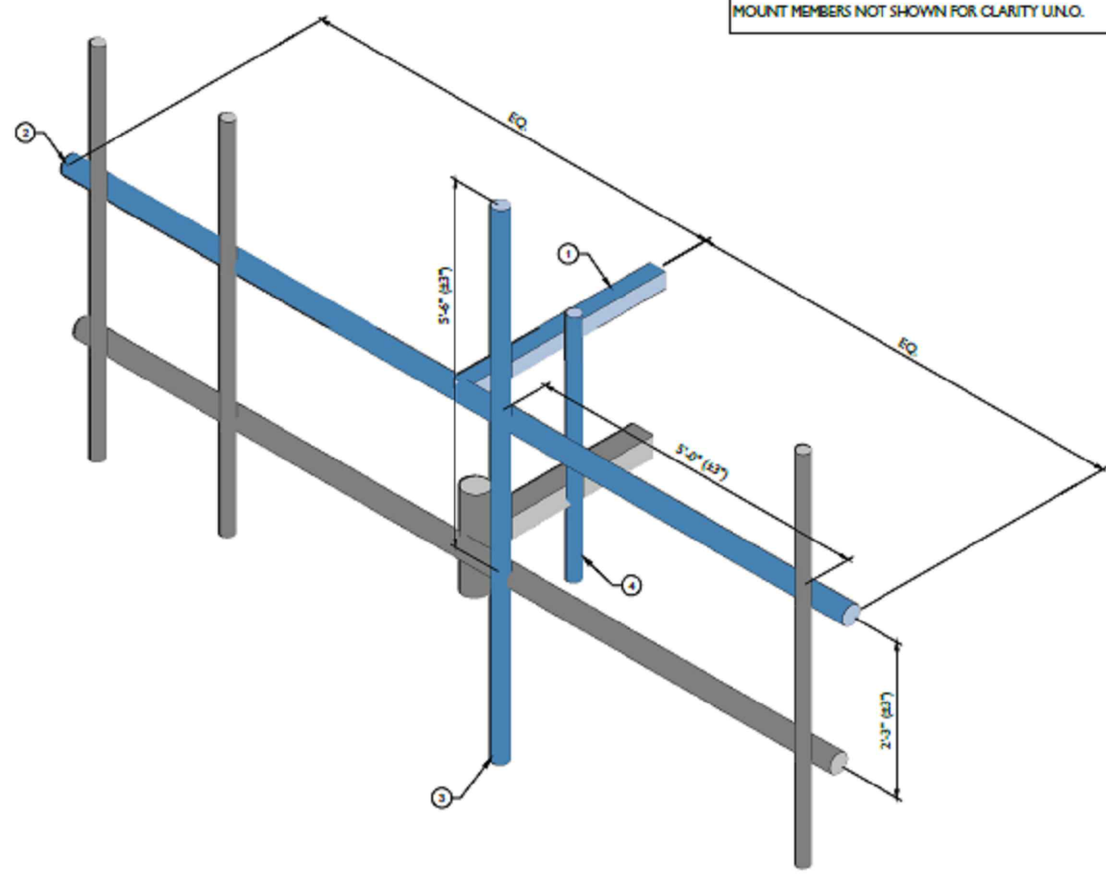
RELOCATED

EXISTING

MOUNT MODIFICATION SCHEDULE				
NO.	ELEVATION	QUANTITY	DESCRIPTION	NOTES
1	132'-0"	3	PROPOSED T-ARM KIT (PART #: VZWSMART-SFK4)	CONTRACTOR TO VERIFY THE LENGTH REQUIRED AND TRIM AS NECESSARY IN ACCORDANCE WITH THE 'STRUCTURAL STEEL' NOTES ON SHEET SGN-1
2		3	156" LONG, P3.0 STD FACE HORIZONTAL	GALVANIZED; RADIO AND/OR TME POSITIONS SHALL BE ADJUSTED VERTICALLY AS NEEDED IN ORDER TO ACHIEVE INSTALLATION OF HORIZONTAL AS SHOWN. EOR SHALL BE NOTIFIED IF EQUIPMENT NEEDS TO BE RELOCATED TO ANOTHER MOUNT PIPE. CONNECT NEW HORIZONTAL TO ALL EXISTING AND PROPOSED VERTICAL MOUNT PIPES WITH CROSSOVER PLATES (PART #: VZWSMART-MSK2).
3		3	96" LONG, P2.5 STD MOUNT PIPE	GALVANIZED; CONNECT NEW MOUNT PIPE TO EXISTING HORIZONTAL WITH PIPE MOUNT ASSEMBLY (SITE PRO 1 PART #:SP219-H OR EOR APPROVED EQUAL, CONTACT MASER CONSULTING CONNECTICUT FOR APPROVAL OF SUBSTITUTION).
4		1	48" LONG, P2.0 STD OVP PIPE	GALVANIZED; CONNECT NEW OVP PIPE TO EXISTING STANDOFF HORIZONTAL WITH CROSSOVER PLATES (PART #: SITE PRO 1 - SQCX4-K, OR EOR APPROVED EQUAL, CONTACT MASER CONSULTING CONNECTICUT FOR APPROVAL OF SUBSTITUTION).
5				
6				
7				
8				
9				
10				

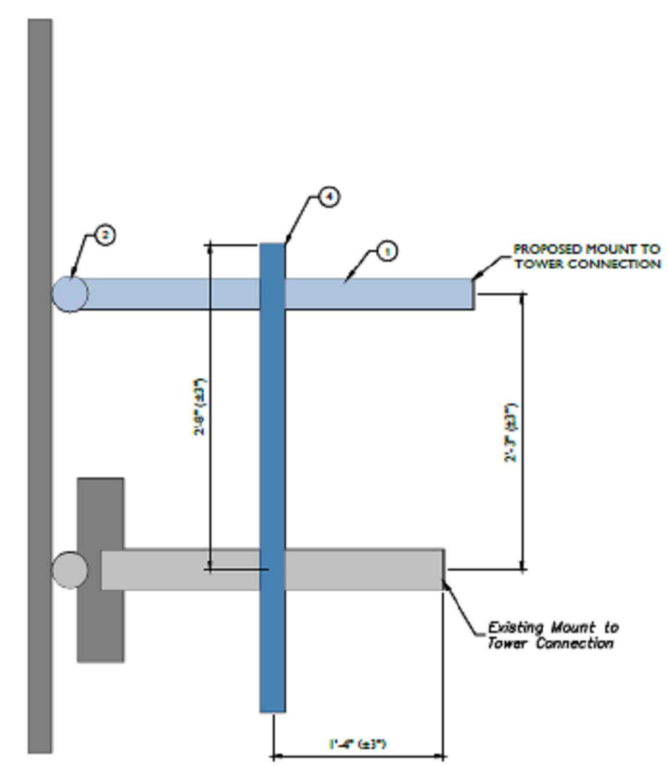
NOTES:

MOUNT MEMBERS NOT SHOWN FOR CLARITY U.N.O.



1 PROPOSED ISOMETRIC VIEW (TYP. ALL SECTORS)

SCALE : N.T.S.



2 PROPOSED SIDE ELEVATION VIEW (TYP. ALL SECTORS)

SCALE : N.T.S.

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07/23/202

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SS-1

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SUPPLEMENTAL

SHEET NUMBER: R-605

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