

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

August 16, 2021

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

**RE: Notice of Exempt Modification // Site: NORTH BLOOMFIELD CT (ATC: 283562)
1627 Day Hill Road, Bloomfield, CT 06002
N 41.8765 // W 72.7418**

Dear Ms. Bachman:

Cellco Partnership d/b/a Verizon Wireless currently maintains 15 antennas at the 110-ft level on the existing 109-foot monopole tower, located at 1627 Day Hill Road, Bloomfield, CT. The tower is owned by American Tower. The property owner is also American Tower. Verizon Wireless now intends to remove 3 antennas and install 3 new ones for the LTE (3700 MHz) replacements for its 5G upgrade. Additionally, Verizon Wireless will remove 12 Remote Radio Heads (RRHs) and replace them with 6 new ones and install 6 Diplexers; 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 Suzette DeBeatham-Brown, Mayor of Bloomfield, Jose Giner, Director of Planning and Zoning, American Tower, the tower owner and the property owner.

The planned modifications to the facility fall squarely within those activities explicitly provided for in R.C.S.A. § 16-50j-72(b)(2). Enclosed to accommodate this filing are construction drawings dated July 29, 2021, by Dewberry Engineers, INC., a structural analysis dated June 9, 2021, by A. T. Engineering Service, PLLC., and a structural mount analysis by Maser Consulting Connecticut dated June 29, 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 June 9, 2021, and a structural mount analysis by Maser Consulting Connecticut, dated June 29, 2021, pursuant to certain conditions defined therein. Design and engineering are fully illustrated within final construction drawings, signed, and stamped dated July 29, 2021.

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

Sincerely,

MJ Umali

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Centerline Communications, LLC
750 West Center Street, Floor 3
West Bridgewater, MA 02379
Mobile: (978) 568-7906
MUmali@centerlinecommunications.com

Attachments

cc: Suzette DeBeatham-Brown, Mayor of Bloomfield - as chief elected official
Jose Giner, Director of Planning and Zoning - as P&Z official
American Tower Corporation – as the tower owner and the Property Owner

UPS CampusShip: View/Print Label

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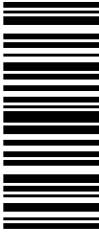


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<p style="text-align: right;">1 LBS</p> <p style="text-align: right;">1 OF 1</p> <p>SHIP TO: SUZETTE DEBEATHAM-BROWN MAYOR OF BLOOMFIELD 800 BLOOMFIELD AVE TOWN HALL BLOOMFIELD CT 06002</p>	<p style="font-size: 2em;">CT 060 9-02</p> 	<p style="font-size: 1.5em;">UPS GROUND</p> <p>TRACKING #: 1Z 9Y4 503 03 1 148 8646</p> 	<p>BILLING: P/P</p> <p>Reference # 1: 283562 Reference # 2: North Bloomfield CT <small>CS 22.0.18 WNTN V50 34.0A 08/2021*</small></p> 
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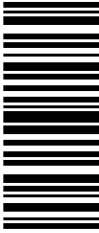
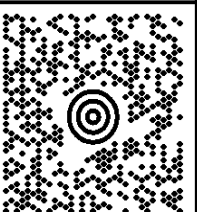
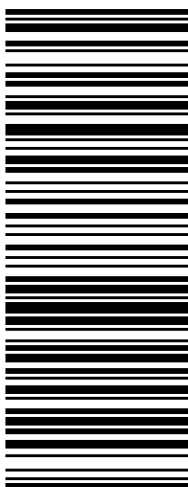

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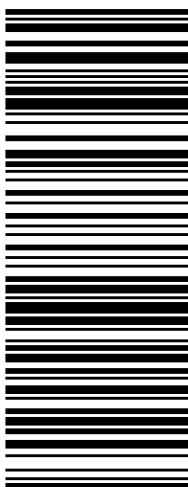
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<p style="text-align: right;">1 OF 1</p> <p style="text-align: right;">5 LBS</p> <p>SHIP TO: MJ UMALT 9785687906 CENTERLINE COMMUNICATIONS, LLC 750 WEST CENTER STREET WEST BRIDGEWATER MA 02379</p> <p>LAND MANAGEMENT 7814287250 AMERICAN TOWER CORPORATION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

Structural Analysis Report

Structure : 109 ft Monopole
ATC Site Name : NORTH BLOOMFIELD CT, CT
ATC Asset Number : 283562
Engineering Number : 13668980_C3_03
Proposed Carrier : VERIZON WIRELESS
Carrier Site Name : NORTH BLOOMFIELD CT
Carrier Site Number : 468355
Site Location : 1627 Day Hill Road
Bloomfield, CT 06002-1177
41.876500,-72.741800
County : Hartford
Date : June 9, 2021
Max Usage : 83%
Result : Pass

Prepared By:
Rebecca Malz
Structural Engineer

Reviewed By:



COA: PEC.0001553



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Introduction

The purpose of this report is to summarize results of a structural analysis performed on the 109 ft monopole to reflect the change in loading by VERIZON WIRELESS.

Supporting Documents

Tower Drawings	Sabre Job #67167, dated October 15, 2012
Foundation Drawing	Sabre Job #67167, dated September 19, 2012
Geotechnical Report	DET Job #2011-20, dated January 28, 2012

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:	116 mph (3-Second Gust)
Basic Wind Speed w/ Ice:	50 mph (3-Second Gust) w/ 1.5" radial ice concurrent
Code:	ANSI/TIA-222-H / 2015 IBC / 2018 Connecticut State Building Code
Exposure Category:	C
Risk Category:	II
Topographic Factor Procedure:	Method 1
Topographic Category:	1
Crest Height (H):	0 ft
Spectral Response:	$S_s = 0.18, S_1 = 0.05$
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	Equipment	Mount Type	Lines	Carrier
110.0	1	Raycap RC3DC-3315-PF-48	T-Arm	(6) 1 5/8" Coax	VERIZON WIRELESS
	6	Commscope JAHH-65B-R3B			
	6	Antel LPA-80063/6CF			
101.0	3	Ericsson Radio 4449 B12,B71	T-Arm	(3) 1 1/4" Hybriflex Cable (3) 1 5/8" (1.63"-41.3mm) Fiber	T-MOBILE
100.0	3	Ericsson Radio 4449 B12,B71			
	3	Ericsson AIR 21, 1.3M, B2A B4P (91.5 lbs)			
	3	Ericsson AIR-32 B2A/B66Aa			
	3	RFS APXVAARR24_43-U-NA20			

Equipment to be Removed

Elev. ¹ (ft)	Qty	Equipment	Mount Type	Lines	Carrier
110.0	3	Nokia AirScale RRH 4T4R B5 160W AHCA	-	(1) 1 1/4" Hybriflex Cable (1) 1 5/8" (1.63"-41.3mm) Fiber (16) 1 5/8" Coax	VERIZON WIRELESS
	3	Alcatel-Lucent B25 RRH4x30			
	3	Antel BXA-70063/6CF_			
	3	Alcatel-Lucent B66A RRH 4x45			
	3	Alcatel-Lucent B13 RRH4x30-4R			

Proposed Equipment

Elev. ¹ (ft)	Qty	Equipment	Mount Type	Lines	Carrier
110.0	6	Commscope CBC78T-DS-43-2X	T-Arm	(2) 1 5/8" Hybriflex	VERIZON WIRELESS
	3	Samsung B5/B13 RRH-BR04C			
	3	Samsung B2/B66A RRH-BR049			
	1	Raycap RC3DC-3315-PF-48			
	3	Samsung MT6407-77A			

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

Install proposed coax inside the pole shaft.



Structure Usages

Structural Component	Controlling Usage	Pass/Fail
Anchor Bolts	66%	Pass
Shaft	72%	Pass
Base Plate	83%	Pass

Foundations

Reaction Component	Analysis Reactions	% of Usage
Moment (Kips-Ft)	1296.0	72%
Axial (Kips)	19.6	60%
Shear (Kips)	15.7	64%

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

Deflection and Sway*

Antenna Elevation (ft)	Antenna	Carrier	Deflection (ft)	Sway (Rotation) (°)
110.0	Commscope CBC78T-DS-43-2X	VERIZON WIRELESS	1.077	0.970
	Samsung B5/B13 RRH-BR04C			
	Samsung B2/B66A RRH-BR049			
	Raycap RC3DC-3315-PF-48			
	Samsung MT6407-77A			

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



Standard Conditions

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

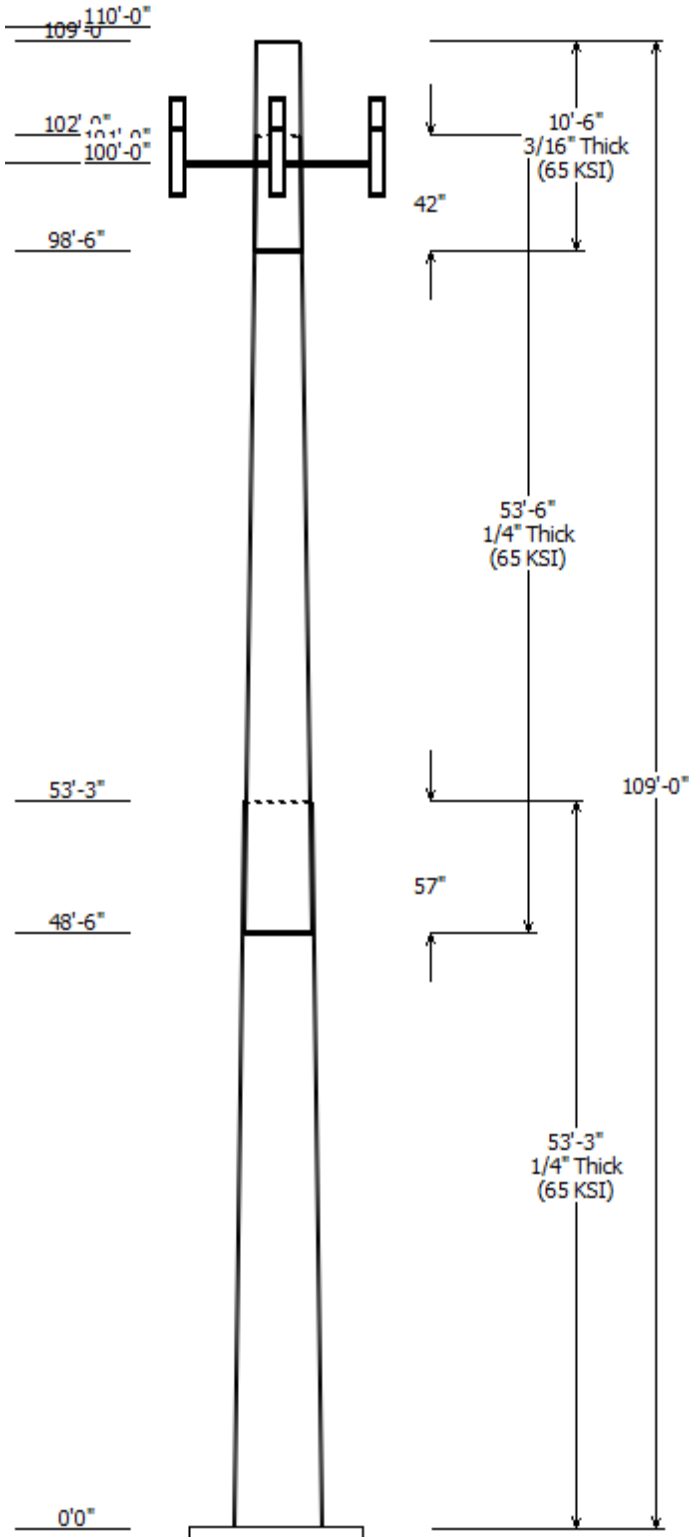
- Information supplied by the client regarding antenna, mounts and feed line loading
- Information from drawings, design and analysis documents, and field notes in the possession of A.T. Engineering Service, PLLC

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

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

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

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



Job Information	
Client : VERIZON WIRELESS	Code: ANSI/TIA-222-H
Pole : 283562	
Location : NORTH BLOOMFIELD CT, CT	
Description :	Risk Category : II
Shape : 18 Sides	Exposure : C
Height : 109.00 (ft)	Topo Method : Method 1
Base Elev (ft): 0.00	Topographic Category : 1
Taper: 0.199954(in/ft)	

Sections Properties						
Shaft Section	Length (ft)	Diameter (in)		Thick Joint (in)	Overlap Length (in)	Steel Grade
		Across Top	Flats Bottom			
1	53.250	32.27	42.92	0.250	0.000	18 Sides 65
2	53.500	23.02	33.72	0.250	57.000	18 Sides 65
3	10.500	22.00	24.09	0.188	42.000	18 Sides 65

Discrete Appurtenance			
Attach Elev (ft)	Force Elev (ft)	Qty	Description
110.000	110.000	3	Generic Round T-Arm
110.000	112.000	6	Antel LPA-80063/6CF
110.000	112.000	6	Commscope JAHH-65B-R3B
110.000	110.000	3	Samsung MT6407-77A
110.000	112.000	1	Raycap RC3DC-3315-PF-48
110.000	112.000	1	Raycap RC3DC-3315-PF-48
110.000	110.000	3	Samsung B2/B66A RRH-BR049
110.000	110.000	3	Samsung B5/B13 RRH-BR04C
110.000	110.000	6	Commscope CBC78T-DS-43-2X
101.000	101.000	3	Ericsson Radio 4449 B12,B71
100.000	100.000	3	Generic Round T-Arm
100.000	100.000	3	RFS APXVAARR24_43-U-NA20
100.000	100.000	3	Ericsson AIR-32 B2A/B66Aa
100.000	101.000	3	Ericsson AIR 21, 1.3M, B2A B4P
100.000	100.000	3	Ericsson Radio 4449 B12,B71

Linear Appurtenance			
Elev (ft)		Description	Exposed To Wind
From	To		
0.000	100.0	1 1/4" Hybriflex	No
0.000	100.0	1 5/8" (1.63")	No
0.000	110.0	1 5/8" Coax	No
0.000	110.0	1 5/8" Hybriflex	No

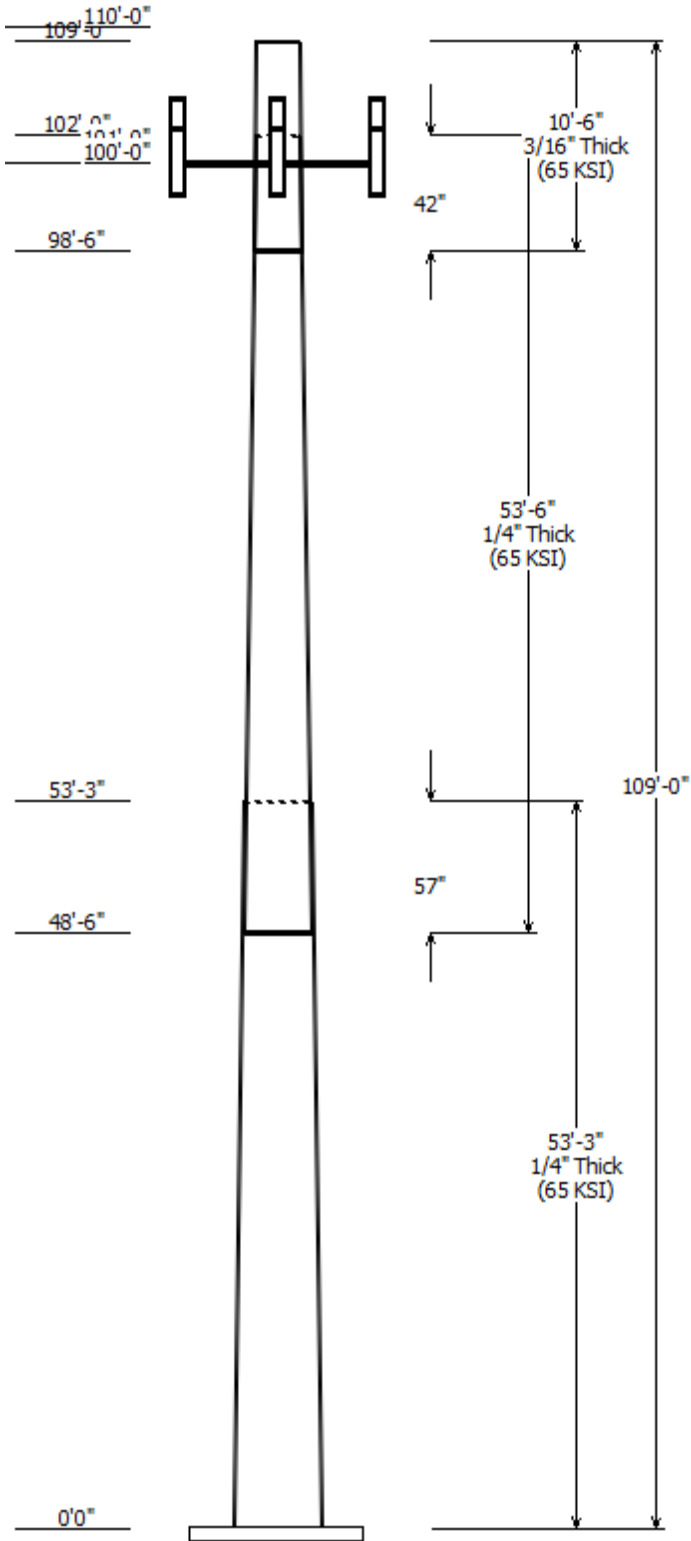
Load Cases	
1.2D + 1.0W	116 mph with No Ice
0.9D + 1.0W	116 mph with No Ice (Reduced DL)
1.2D + 1.0Di + 1.0Wi	50 mph with 1.50 in Radial Ice
1.2D + 1.0Ev + 1.0Eh	Seismic
0.9D - 1.0Ev + 1.0Eh	Seismic (Reduced DL)
1.0D + 1.0W	Serviceability 60 mph

Reactions			
Load Case	Moment (kip-ft)	Shear (kip)	Axial (kip)
1.2D + 1.0W	1295.98	15.74	19.55
0.9D + 1.0W	1284.69	15.73	14.65
1.2D + 1.0Di + 1.0Wi	377.02	4.64	33.28
1.2D + 1.0Ev + 1.0Eh	48.45	0.52	19.40

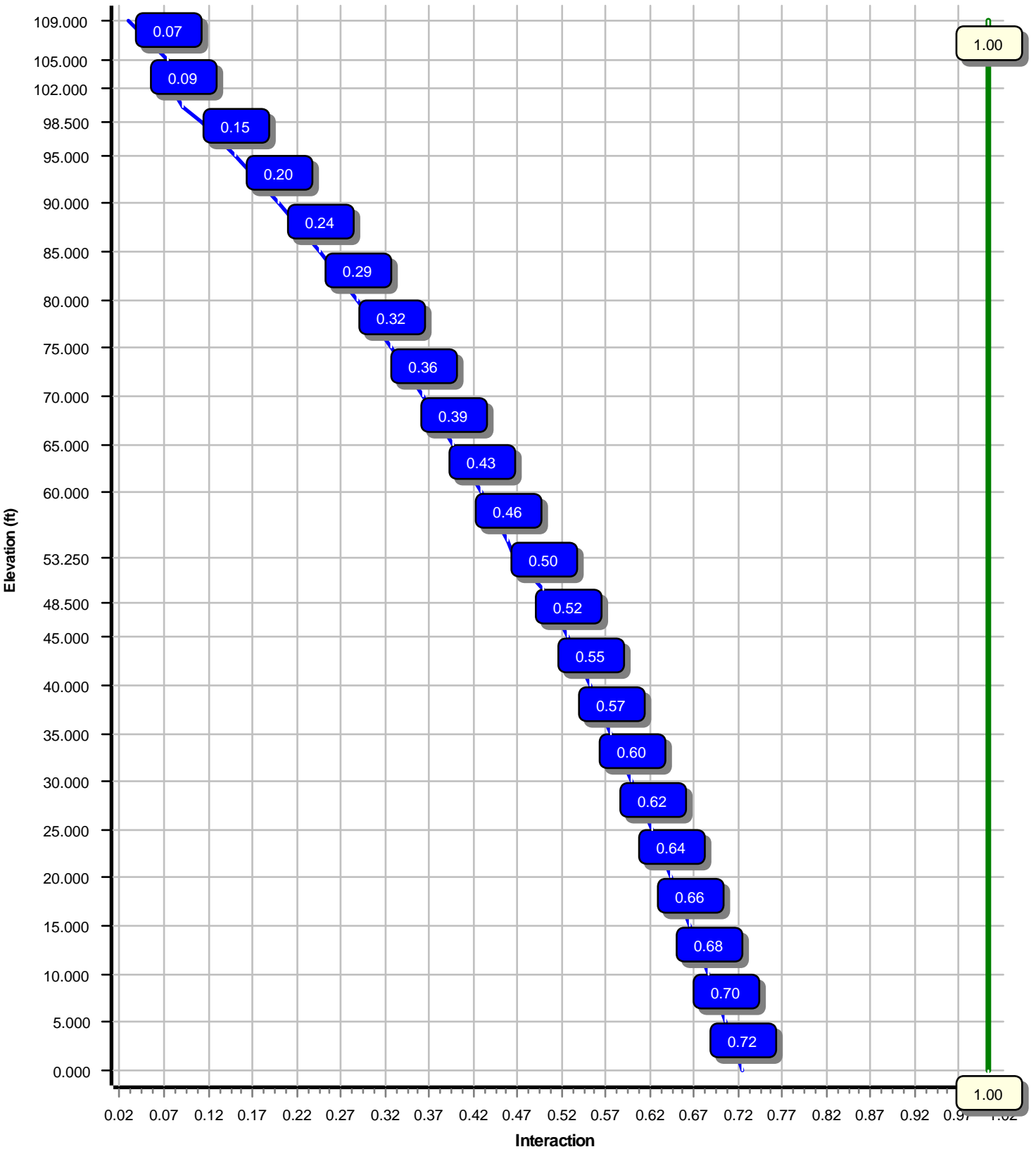
0.9D - 1.0Ev + 1.0Eh	47.94	0.52	13.51
1.0D + 1.0W	308.59	3.77	16.32

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 72.25% at 0.0 ft



Site Number: 283562

Code: ANSI/TIA-222-H

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Site Name: NORTH BLOOMFIELD CT, CT

Engineering Number: 13668980_C3_03

6/9/2021 11:20:17 AM

Customer: VERIZON WIRELESS

Analysis Parameters

Location :	Hartford County, CT	Height (ft) :	109
Code :	ANSI/TIA-222-H	Base Diameter (in) :	42.92
Shape :	18 Sides	Top Diameter (in) :	22.00
Pole Type :	Custom	Taper (in/ft) :	0.200
Pole Manufacturer :	Sabre	Rotation (deg) :	0.00
Kd (non-service) :	0.95	Ke :	0.99

Ice & Wind Parameters

Exposure Category:	C	Design Wind Speed Without Ice:	116 mph
Risk Category:	II	Design Wind Speed With Ice:	50 mph
Topographic Factor Procedure:	Method 1	Operational Wind Speed:	60 mph
Topographic Category:	1	Design Ice Thickness:	1.50 in
Crest Height:	0 ft	HMSL:	179.00 ft

Seismic Parameters

Analysis Method:	Equivalent Lateral Force Method		
Site Class:	D - Stiff Soil		
Period Based on Rayleigh Method (sec):	1.81		
T_L (sec):	6	p :	1
S_s :	0.177	S_1 :	0.054
F_a :	1.600	F_v :	2.400
S_{ds} :	0.189	S_{d1} :	0.086
		C_s :	0.032
		C_s Max:	0.032
		C_s Min:	0.030

Load Cases

1.2D + 1.0W	116 mph with No Ice
0.9D + 1.0W	116 mph with No Ice (Reduced DL)
1.2D + 1.0Di + 1.0Wi	50 mph with 1.50 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

Site Number: 283562

Code: ANSI/TIA-222-H

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Site Name: NORTH BLOOMFIELD CT, CT

Engineering Number: 13668980_C3_03

6/9/2021 11:20:17 AM

Customer: VERIZON WIRELESS

Shaft Section Properties

Sect Info	Length (ft)	Thick (in)	Fy (ksi)	Joint Type	Slip Joint Len (in)	Weight (lb)	Bottom						Top						
							Dia (in)	Elev (ft)	Area (in ²)	Ix (in ⁴)	W/t Ratio	D/t Ratio	Dia (in)	Elev (ft)	Area (in ²)	Ix (in ⁴)	W/t Ratio	D/t Ratio	Taper (in/ft)
1-18	53.250	0.2500	65		0.00	5,369	42.92	0.00	33.86	7788.5	28.51	171.68	32.27	53.25	25.41	3291.9	21.00	129.09	0.199954
2-18	53.500	0.2500	65	Slip	57.00	4,062	33.72	48.50	26.56	3759.6	22.02	134.89	23.02	102.00	18.07	1184.2	14.48	92.10	0.199954
3-18	10.500	0.1875	65	Slip	42.00	486	24.10	98.50	14.23	1028.0	20.90	128.53	22.00	109.00	12.98	780.3	18.93	117.33	0.199954
Shaft Weight						9,918													

Discrete Appurtenance Properties

Attach Elev (ft)	Description	Qty	Ka	Vert Ecc (ft)	Weight (lb)	No Ice EPAa (sf)	Orientation Factor	Weight (lb)	Ice EPAa (sf)	Orientation Factor
110.00	Commscope CBC78T-DS-43-2X	6	0.80	0.000	20.70	0.552	0.50	42.10	1.044	0.50
110.00	Samsung B5/B13 RRH-BR04C	3	0.80	0.000	70.30	1.875	0.50	125.72	2.749	0.50
110.00	Samsung B2/B66A RRH-BR049	3	0.80	0.000	84.40	1.875	0.50	146.20	2.749	0.50
110.00	Raycap RC3DC-3315-PF-48	1	0.80	2.000	32.00	3.781	0.67	137.98	5.065	0.67
110.00	Raycap RC3DC-3315-PF-48	1	0.80	2.000	32.00	3.781	0.67	137.98	5.065	0.67
110.00	Samsung MT6407-77A	3	0.80	0.000	81.60	4.709	0.61	180.34	6.180	0.61
110.00	Commscope JAHH-65B-R3B	6	0.80	2.000	60.60	9.113	0.69	256.59	11.801	0.69
110.00	Antel LPA-80063/6CF	6	0.80	2.000	27.00	9.593	0.76	304.14	10.905	0.76
110.00	Generic Round T-Arm	3	0.75	0.000	312.50	9.700	0.67	565.59	17.687	0.67
101.00	Ericsson Radio 4449 B12,B71	3	0.80	0.000	74.00	1.639	0.50	127.90	2.451	0.50
100.00	Ericsson Radio 4449 B12,B71	3	0.80	0.000	74.00	1.639	0.50	127.83	2.450	0.50
100.00	Ericsson AIR 21, 1.3M, B2A B4P	3	0.80	1.000	91.50	6.037	0.70	231.49	8.099	0.70
100.00	Ericsson AIR-32 B2A/B66Aa	3	0.80	0.000	132.20	6.510	0.71	285.66	8.616	0.71
100.00	Generic Round T-Arm	3	0.75	0.000	312.50	9.700	0.67	563.69	17.627	0.67
100.00	RFS APXVAARR24_43-U-NA20	3	0.80	0.000	127.90	20.243	0.63	505.37	23.809	0.63
Totals	Num Loadings:15	50			4,796.50			12,472.32		

Linear Appurtenance Properties

Load Case Azimuth (deg) :

Elev From (ft)	Elev To (ft)	Qty	Description	Coax Dia (in)	Coax Wt (lb/ft)	Max Flat	Dist Coax / Row	Dist Between Rows (in)	Dist Between Cols (in)	Dist Azimuth (deg)	Dist From Face (in)	Dist To Wind Carrier	Exposed
0.00	110.00	6	1 5/8" Coax	1.98	0.82	N	0	0.00	0.00	0	0.00	N	VERIZON WIRELESS
0.00	110.00	2	1 5/8" Hybriflex	1.98	1.30	N	0	0.00	0.00	0	0.00	N	VERIZON WIRELESS
0.00	100.00	3	1 1/4" Hybriflex Cable	1.54	1.00	N	0	0.00	0.00	0	0.00	N	T-MOBILE
0.00	100.00	3	1 5/8" (1.63"-41.3mm)	1.63	1.61	N	0	0.00	0.00	0	0.00	N	T-MOBILE

Site Number: 283562

Code: ANSI/TIA-222-H

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Site Name: NORTH BLOOMFIELD CT, CT

Engineering Number: 13668980_C3_03

6/9/2021 11:20:17 AM

Customer: VERIZON WIRELESS

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		0.2500	42.920	33.857	7,788.5	28.51	171.68	67.9	357.4	0.0	0.0
5.00		0.2500	41.920	33.064	7,253.7	27.80	167.68	68.7	340.8	0.0	569.3
10.00		0.2500	40.920	32.271	6,744.1	27.10	163.68	69.5	324.6	0.0	555.8
15.00		0.2500	39.921	31.478	6,258.8	26.39	159.68	70.4	308.8	0.0	542.3
20.00		0.2500	38.921	30.684	5,797.5	25.69	155.68	71.2	293.4	0.0	528.8
25.00		0.2500	37.921	29.891	5,359.3	24.98	151.68	72.0	278.4	0.0	515.3
30.00		0.2500	36.921	29.098	4,943.9	24.28	147.69	72.8	263.7	0.0	501.8
35.00		0.2500	35.922	28.304	4,550.4	23.57	143.69	73.7	249.5	0.0	488.3
40.00		0.2500	34.922	27.511	4,178.4	22.87	139.69	74.5	235.7	0.0	474.8
45.00		0.2500	33.922	26.718	3,827.3	22.16	135.69	75.3	222.2	0.0	461.3
48.50	Bot - Section 2	0.2500	33.222	26.163	3,593.6	21.67	132.89	75.9	213.1	0.0	314.9
50.00		0.2500	32.922	25.925	3,496.4	21.46	131.69	76.2	209.2	0.0	267.9
53.25	Top - Section 1	0.2500	32.772	25.806	3,448.5	21.35	131.09	76.3	207.3	0.0	572.1
54.00		0.2500	32.622	25.687	3,401.0	21.25	130.49	76.4	205.3	0.0	65.7
55.00		0.2500	32.423	25.528	3,338.4	21.10	129.69	76.6	202.8	0.0	87.1
60.00		0.2500	31.423	24.735	3,036.8	20.40	125.69	77.4	190.3	0.0	427.6
65.00		0.2500	30.423	23.941	2,753.8	19.69	121.69	78.2	178.3	0.0	414.1
70.00		0.2500	29.423	23.148	2,489.1	18.99	117.69	79.1	166.6	0.0	400.6
75.00		0.2500	28.423	22.355	2,241.8	18.28	113.69	79.9	155.3	0.0	387.1
80.00		0.2500	27.424	21.562	2,011.5	17.58	109.69	80.7	144.5	0.0	373.6
85.00		0.2500	26.424	20.768	1,797.6	16.87	105.70	81.6	134.0	0.0	360.1
90.00		0.2500	25.424	19.975	1,599.4	16.17	101.70	82.4	123.9	0.0	346.6
95.00		0.2500	24.424	19.182	1,416.3	15.46	97.70	82.6	114.2	0.0	333.1
98.50	Bot - Section 3	0.2500	23.725	18.626	1,296.8	14.97	94.90	82.6	107.7	0.0	225.1
100.0		0.2500	23.425	18.388	1,247.7	14.76	93.70	82.6	104.9	0.0	166.6
101.0		0.2500	23.225	18.230	1,215.7	14.62	92.90	82.6	103.1	0.0	109.9
102.0	Top - Section 2	0.1875	23.400	13.814	940.4	20.24	124.80	77.6	79.2	0.0	109.0
105.0		0.1875	22.800	13.457	869.3	19.68	121.60	78.3	75.1	0.0	139.2
109.0		0.1875	22.000	12.981	780.3	18.93	117.33	79.1	69.9	0.0	179.9
											9,918.0

Load Case: 1.2D + 1.0W	116 mph with No Ice	23 Iterations
Gust Response Factor :1.10		
Dead Load Factor :1.20		
Wind Load Factor :1.00		

Applied Segment Forces Summary

Seg Elev (ft)	Description	Shaft Forces		Discrete Forces			Linear Forces		Sum of Forces				
		Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Torsion MY (lb-ft)	Moment MZ (lb)
0.00		199.1	0.0					0.0	0.0	199.1	0.0	0.0	0.0
5.00		393.6	683.2					0.0	92.1	393.6	775.3	0.0	0.0
10.00		384.2	667.0					0.0	92.1	384.2	759.1	0.0	0.0
15.00		380.7	650.8					0.0	92.1	380.7	742.9	0.0	0.0
20.00		387.1	634.6					0.0	92.1	387.1	726.7	0.0	0.0
25.00		395.5	618.4					0.0	92.1	395.5	710.5	0.0	0.0
30.00		400.3	602.2					0.0	92.1	400.3	694.3	0.0	0.0
35.00		402.4	586.0					0.0	92.1	402.4	678.1	0.0	0.0
40.00		402.4	569.8					0.0	92.1	402.4	661.9	0.0	0.0
45.00		340.9	553.6					0.0	92.1	340.9	645.7	0.0	0.0
48.50	Bot - Section 2	200.6	377.9					0.0	64.5	200.6	442.3	0.0	0.0
50.00		191.5	321.5					0.0	27.6	191.5	349.1	0.0	0.0
53.25	Top - Section 1	160.9	686.5					0.0	59.9	160.9	746.4	0.0	0.0
54.00		70.1	78.8					0.0	13.8	70.1	92.7	0.0	0.0
55.00		238.6	104.6					0.0	18.4	238.6	123.0	0.0	0.0
60.00		394.4	513.1					0.0	92.1	394.4	605.2	0.0	0.0
65.00		388.4	496.9					0.0	92.1	388.4	589.0	0.0	0.0
70.00		381.5	480.7					0.0	92.1	381.5	572.8	0.0	0.0
75.00		373.9	464.5					0.0	92.1	373.9	556.6	0.0	0.0
80.00		365.7	448.3					0.0	92.1	365.7	540.4	0.0	0.0
85.00		356.9	432.1					0.0	92.1	356.9	524.2	0.0	0.0
90.00		347.6	415.9					0.0	92.1	347.6	508.0	0.0	0.0
95.00		288.4	399.7					0.0	92.1	288.4	491.8	0.0	0.0
98.50	Bot - Section 3	167.1	270.2					0.0	64.5	167.1	334.6	0.0	0.0
100.00	Appurtenance(s)	83.3	200.0	3,098.5	0.0	460.0	2,657.2	0.0	27.6	3,181.8	2,884.8	0.0	0.0
101.00	Appurtenance(s)	66.1	131.9	89.2	0.0	0.0	266.4	0.0	9.0	155.3	407.3	0.0	0.0
102.00	Top - Section 2	130.5	130.8					0.0	9.0	130.5	139.8	0.0	0.0
105.00		224.6	167.0					0.0	27.1	224.6	194.1	0.0	0.0
109.00		127.1	215.9					0.0	36.1	127.1	252.0	0.0	0.0
Totals:										11,431.3	16,748.4	0.00	0.00

Load Case: 1.2D + 1.0W	116 mph with No Ice	23 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	-19.55	-15.74	0.00	-1,295.98	0.00	1,295.98	2,068.11	594.20	2,289.94	1,819.33	0.00	0.00	0.722
5.00	-18.71	-15.42	0.00	-1,217.26	0.00	1,217.26	2,044.33	580.28	2,183.90	1,756.03	0.12	-0.23	0.703
10.00	-17.89	-15.11	0.00	-1,140.14	0.00	1,140.14	2,019.37	566.35	2,080.37	1,692.72	0.49	-0.46	0.683
15.00	-17.10	-14.79	0.00	-1,064.60	0.00	1,064.60	1,993.22	552.43	1,979.36	1,629.49	1.10	-0.69	0.663
20.00	-16.32	-14.46	0.00	-990.65	0.00	990.65	1,965.89	538.51	1,880.86	1,566.39	1.95	-0.93	0.641
25.00	-15.55	-14.11	0.00	-918.36	0.00	918.36	1,937.38	524.59	1,784.87	1,503.50	3.04	-1.16	0.620
30.00	-14.81	-13.76	0.00	-847.79	0.00	847.79	1,907.68	510.66	1,691.40	1,440.91	4.39	-1.40	0.597
35.00	-14.09	-13.40	0.00	-779.00	0.00	779.00	1,876.80	496.74	1,600.44	1,378.67	5.97	-1.63	0.573
40.00	-13.39	-13.03	0.00	-712.01	0.00	712.01	1,844.73	482.82	1,511.99	1,316.87	7.80	-1.86	0.549
45.00	-12.71	-12.71	0.00	-646.87	0.00	646.87	1,811.48	468.90	1,426.06	1,255.58	9.88	-2.09	0.523
48.50	-12.25	-12.52	0.00	-602.39	0.00	602.39	1,787.50	459.15	1,367.41	1,213.02	11.48	-2.26	0.504
50.00	-11.89	-12.33	0.00	-583.62	0.00	583.62	1,777.05	454.98	1,342.65	1,194.87	12.20	-2.33	0.496
53.25	-11.13	-12.16	0.00	-543.53	0.00	543.53	1,771.78	452.89	1,330.36	1,185.83	13.83	-2.48	0.465
54.00	-11.03	-12.09	0.00	-534.41	0.00	534.41	1,766.49	450.80	1,318.12	1,176.79	14.22	-2.51	0.461
55.00	-10.89	-11.87	0.00	-522.32	0.00	522.32	1,759.39	448.02	1,301.89	1,164.77	14.75	-2.55	0.455
60.00	-10.27	-11.49	0.00	-462.95	0.00	462.95	1,723.18	434.09	1,222.24	1,105.07	17.54	-2.76	0.426
65.00	-9.66	-11.11	0.00	-405.50	0.00	405.50	1,685.78	420.17	1,145.11	1,046.14	20.55	-2.97	0.394
70.00	-9.07	-10.72	0.00	-349.97	0.00	349.97	1,647.20	406.25	1,070.49	988.05	23.76	-3.16	0.360
75.00	-8.50	-10.35	0.00	-296.35	0.00	296.35	1,607.44	392.33	998.38	930.88	27.17	-3.35	0.324
80.00	-7.96	-9.97	0.00	-244.63	0.00	244.63	1,566.49	378.40	928.79	874.69	30.77	-3.52	0.285
85.00	-7.43	-9.60	0.00	-194.77	0.00	194.77	1,524.36	364.48	861.72	819.56	34.54	-3.67	0.243
90.00	-6.93	-9.24	0.00	-146.77	0.00	146.77	1,481.04	350.56	797.15	765.57	38.46	-3.81	0.197
95.00	-6.44	-8.92	0.00	-100.59	0.00	100.59	1,425.10	336.64	735.10	707.11	42.51	-3.92	0.147
98.50	-6.12	-8.74	0.00	-69.36	0.00	69.36	1,383.85	326.89	693.16	666.56	45.41	-3.98	0.109
100.00	-3.46	-5.36	0.00	-55.79	0.00	55.79	1,366.16	322.72	675.57	649.54	46.66	-4.00	0.089
101.00	-3.06	-5.18	0.00	-50.43	0.00	50.43	1,354.38	319.93	663.96	638.32	47.50	-4.01	0.082
102.00	-2.93	-5.04	0.00	-45.24	0.00	45.24	964.65	242.43	508.28	460.62	48.34	-4.02	0.102
105.00	-2.75	-4.81	0.00	-30.12	0.00	30.12	947.76	236.16	482.35	440.77	50.88	-4.05	0.072
109.00	0.00	-4.60	0.00	-10.89	0.00	10.89	924.57	227.81	448.84	414.65	54.28	-4.08	0.027

Load Case: 0.9D + 1.0W	116 mph with No Ice (Reduced DL)	23 Iterations
Gust Response Factor : 1.10		
Dead Load Factor : 0.90		
Wind Load Factor : 1.00		

Applied Segment Forces Summary

Seg Elev (ft)	Description	Shaft Forces		Discrete Forces			Linear Forces		Sum of Forces				
		Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Torsion MY (lb-ft)	Moment MZ (lb)
0.00		199.1	0.0					0.0	0.0	199.1	0.0	0.0	0.0
5.00		393.6	512.4					0.0	69.1	393.6	581.4	0.0	0.0
10.00		384.2	500.2					0.0	69.1	384.2	569.3	0.0	0.0
15.00		380.7	488.1					0.0	69.1	380.7	557.1	0.0	0.0
20.00		387.1	475.9					0.0	69.1	387.1	545.0	0.0	0.0
25.00		395.5	463.8					0.0	69.1	395.5	532.9	0.0	0.0
30.00		400.3	451.6					0.0	69.1	400.3	520.7	0.0	0.0
35.00		402.4	439.5					0.0	69.1	402.4	508.6	0.0	0.0
40.00		402.4	427.3					0.0	69.1	402.4	496.4	0.0	0.0
45.00		340.9	415.2					0.0	69.1	340.9	484.3	0.0	0.0
48.50	Bot - Section 2	200.6	283.4					0.0	48.4	200.6	331.8	0.0	0.0
50.00		191.5	241.1					0.0	20.7	191.5	261.8	0.0	0.0
53.25	Top - Section 1	160.9	514.9					0.0	44.9	160.9	559.8	0.0	0.0
54.00		70.1	59.1					0.0	10.4	70.1	69.5	0.0	0.0
55.00		238.6	78.4					0.0	13.8	238.6	92.2	0.0	0.0
60.00		394.4	384.8					0.0	69.1	394.4	453.9	0.0	0.0
65.00		388.4	372.7					0.0	69.1	388.4	441.8	0.0	0.0
70.00		381.5	360.5					0.0	69.1	381.5	429.6	0.0	0.0
75.00		373.9	348.4					0.0	69.1	373.9	417.5	0.0	0.0
80.00		365.7	336.2					0.0	69.1	365.7	405.3	0.0	0.0
85.00		356.9	324.1					0.0	69.1	356.9	393.2	0.0	0.0
90.00		347.6	311.9					0.0	69.1	347.6	381.0	0.0	0.0
95.00		288.4	299.8					0.0	69.1	288.4	368.9	0.0	0.0
98.50	Bot - Section 3	167.1	202.6					0.0	48.4	167.1	251.0	0.0	0.0
100.00	Appurtenance(s)	83.3	150.0	3,098.5	0.0	460.0	1,992.9	0.0	20.7	3,181.8	2,163.6	0.0	0.0
101.00	Appurtenance(s)	66.1	98.9	89.2	0.0	0.0	199.8	0.0	6.8	155.3	305.5	0.0	0.0
102.00	Top - Section 2	130.5	98.1					0.0	6.8	130.5	104.8	0.0	0.0
105.00		224.6	125.3					0.0	20.3	224.6	145.6	0.0	0.0
109.00		127.1	161.9					0.0	27.1	127.1	189.0	0.0	0.0
Totals:										11,431.3	12,561.3	0.00	0.00

Site Number: 283562

Code: ANSI/TIA-222-H

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Site Name: NORTH BLOOMFIELD CT, CT

Engineering Number: 13668980_C3_03

6/9/2021 11:20:18 AM

Customer: VERIZON WIRELESS

Load Case: 0.9D + 1.0W

116 mph with No Ice (Reduced DL)

23 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	-14.65	-15.73	0.00	-1,284.69	0.00	1,284.69	2,068.11	594.20	2,289.94	1,819.33	0.00	0.00	0.714
5.00	-14.01	-15.39	0.00	-1,206.02	0.00	1,206.02	2,044.33	580.28	2,183.90	1,756.03	0.12	-0.23	0.694
10.00	-13.38	-15.06	0.00	-1,129.04	0.00	1,129.04	2,019.37	566.35	2,080.37	1,692.72	0.48	-0.46	0.674
15.00	-12.77	-14.73	0.00	-1,053.74	0.00	1,053.74	1,993.22	552.43	1,979.36	1,629.49	1.09	-0.69	0.654
20.00	-12.17	-14.38	0.00	-980.11	0.00	980.11	1,965.89	538.51	1,880.86	1,566.39	1.93	-0.92	0.633
25.00	-11.59	-14.02	0.00	-908.20	0.00	908.20	1,937.38	524.59	1,784.87	1,503.50	3.01	-1.15	0.611
30.00	-11.03	-13.66	0.00	-838.09	0.00	838.09	1,907.68	510.66	1,691.40	1,440.91	4.34	-1.38	0.588
35.00	-10.47	-13.28	0.00	-769.81	0.00	769.81	1,876.80	496.74	1,600.44	1,378.67	5.91	-1.61	0.565
40.00	-9.94	-12.91	0.00	-703.40	0.00	703.40	1,844.73	482.82	1,511.99	1,316.87	7.73	-1.84	0.540
45.00	-9.42	-12.58	0.00	-638.87	0.00	638.87	1,811.48	468.90	1,426.06	1,255.58	9.78	-2.07	0.515
48.50	-9.07	-12.39	0.00	-594.84	0.00	594.84	1,787.50	459.15	1,367.41	1,213.02	11.36	-2.23	0.496
50.00	-8.80	-12.20	0.00	-576.27	0.00	576.27	1,777.05	454.98	1,342.65	1,194.87	12.07	-2.30	0.488
53.25	-8.23	-12.03	0.00	-536.62	0.00	536.62	1,771.78	452.89	1,330.36	1,185.83	13.69	-2.45	0.458
54.00	-8.15	-11.96	0.00	-527.60	0.00	527.60	1,766.49	450.80	1,318.12	1,176.79	14.08	-2.48	0.454
55.00	-8.04	-11.74	0.00	-515.63	0.00	515.63	1,759.39	448.02	1,301.89	1,164.77	14.60	-2.53	0.448
60.00	-7.57	-11.35	0.00	-456.95	0.00	456.95	1,723.18	434.09	1,222.24	1,105.07	17.36	-2.73	0.419
65.00	-7.11	-10.96	0.00	-400.20	0.00	400.20	1,685.78	420.17	1,145.11	1,046.14	20.33	-2.93	0.387
70.00	-6.67	-10.58	0.00	-345.38	0.00	345.38	1,647.20	406.25	1,070.49	988.05	23.51	-3.13	0.354
75.00	-6.24	-10.20	0.00	-292.47	0.00	292.47	1,607.44	392.33	998.38	930.88	26.88	-3.31	0.319
80.00	-5.83	-9.83	0.00	-241.45	0.00	241.45	1,566.49	378.40	928.79	874.69	30.44	-3.48	0.280
85.00	-5.43	-9.47	0.00	-192.29	0.00	192.29	1,524.36	364.48	861.72	819.56	34.16	-3.63	0.239
90.00	-5.06	-9.10	0.00	-144.96	0.00	144.96	1,481.04	350.56	797.15	765.57	38.04	-3.77	0.193
95.00	-4.69	-8.80	0.00	-99.44	0.00	99.44	1,425.10	336.64	735.10	707.11	42.04	-3.87	0.145
98.50	-4.45	-8.62	0.00	-68.64	0.00	68.64	1,383.85	326.89	693.16	666.56	44.90	-3.93	0.107
100.00	-2.51	-5.30	0.00	-55.26	0.00	55.26	1,366.16	322.72	675.57	649.54	46.14	-3.95	0.087
101.00	-2.21	-5.12	0.00	-49.96	0.00	49.96	1,354.38	319.93	663.96	638.32	46.97	-3.97	0.080
102.00	-2.12	-4.98	0.00	-44.84	0.00	44.84	964.65	242.43	508.28	460.62	47.80	-3.98	0.100
105.00	-1.99	-4.75	0.00	-29.89	0.00	29.89	947.76	236.16	482.35	440.77	50.31	-4.00	0.070
109.00	0.00	-4.60	0.00	-10.89	0.00	10.89	924.57	227.81	448.84	414.65	53.67	-4.03	0.027

Load Case: 1.2D + 1.0Di + 1.0Wi

50 mph with 1.50 in Radial Ice

22 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		Discrete Forces			Linear Forces		Sum of Forces				
		Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Torsion MY (lb-ft)	Moment MZ (lb)
0.00		64.1	0.0					0.0	0.0	64.1	0.0	0.0	0.0
5.00		127.1	995.9					0.0	92.1	127.1	1,088.0	0.0	0.0
10.00		124.8	1,009.0					0.0	92.1	124.8	1,101.1	0.0	0.0
15.00		124.2	1,002.7					0.0	92.1	124.2	1,094.8	0.0	0.0
20.00		126.8	990.2					0.0	92.1	126.8	1,082.3	0.0	0.0
25.00		129.9	974.3					0.0	92.1	129.9	1,066.4	0.0	0.0
30.00		131.9	956.4					0.0	92.1	131.9	1,048.5	0.0	0.0
35.00		133.1	937.0					0.0	92.1	133.1	1,029.1	0.0	0.0
40.00		133.5	916.5					0.0	92.1	133.5	1,008.6	0.0	0.0
45.00		113.4	895.2					0.0	92.1	113.4	987.3	0.0	0.0
48.50	Bot - Section 2	66.9	614.6					0.0	64.5	66.9	679.1	0.0	0.0
50.00		63.9	424.1					0.0	27.6	63.9	451.7	0.0	0.0
53.25	Top - Section 1	53.7	905.8					0.0	59.9	53.7	965.6	0.0	0.0
54.00		23.4	129.4					0.0	13.8	23.4	143.2	0.0	0.0
55.00		80.0	171.7					0.0	18.4	80.0	190.1	0.0	0.0
60.00		132.5	840.9					0.0	92.1	132.5	933.0	0.0	0.0
65.00		130.9	817.5					0.0	92.1	130.9	909.6	0.0	0.0
70.00		129.1	793.8					0.0	92.1	129.1	885.9	0.0	0.0
75.00		127.1	769.8					0.0	92.1	127.1	861.9	0.0	0.0
80.00		124.8	745.5					0.0	92.1	124.8	837.6	0.0	0.0
85.00		122.4	721.0					0.0	92.1	122.4	813.1	0.0	0.0
90.00		119.8	696.3					0.0	92.1	119.8	788.4	0.0	0.0
95.00		99.8	671.3					0.0	92.1	99.8	763.4	0.0	0.0
98.50	Bot - Section 3	58.0	456.1					0.0	64.5	58.0	520.5	0.0	0.0
100.00	Appurtenance(s)	29.0	280.1	789.1	0.0	114.7	5,147.9	0.0	27.6	818.1	5,455.6	0.0	0.0
101.00	Appurtenance(s)	23.0	185.0	24.8	0.0	0.0	404.0	0.0	9.0	47.8	598.0	0.0	0.0
102.00	Top - Section 2	45.6	183.5					0.0	9.0	45.6	192.5	0.0	0.0
105.00		78.6	321.7					0.0	27.1	78.6	348.7	0.0	0.0
109.00		44.6	416.1					0.0	36.1	44.6	452.1	0.0	0.0
								Totals:		3,576.01	26,296.3	0.00	0.00

Site Number: 283562

Code: ANSI/TIA-222-H

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Site Name: NORTH BLOOMFIELD CT, CT

Engineering Number: 13668980_C3_03

6/9/2021 11:20:19 AM

Customer: VERIZON WIRELESS

Load Case: 1.2D + 1.0Di + 1.0Wi

50 mph with 1.50 in Radial Ice

22 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	-33.28	-4.64	0.00	-377.02	0.00	377.02	2,068.11	594.20	2,289.94	1,819.33	0.00	0.00	0.223
5.00	-32.19	-4.55	0.00	-353.81	0.00	353.81	2,044.33	580.28	2,183.90	1,756.03	0.04	-0.07	0.217
10.00	-31.08	-4.46	0.00	-331.06	0.00	331.06	2,019.37	566.35	2,080.37	1,692.72	0.14	-0.13	0.211
15.00	-29.98	-4.37	0.00	-308.75	0.00	308.75	1,993.22	552.43	1,979.36	1,629.49	0.32	-0.20	0.205
20.00	-28.89	-4.27	0.00	-286.90	0.00	286.90	1,965.89	538.51	1,880.86	1,566.39	0.57	-0.27	0.198
25.00	-27.82	-4.17	0.00	-265.54	0.00	265.54	1,937.38	524.59	1,784.87	1,503.50	0.88	-0.34	0.191
30.00	-26.77	-4.06	0.00	-244.69	0.00	244.69	1,907.68	510.66	1,691.40	1,440.91	1.27	-0.40	0.184
35.00	-25.74	-3.95	0.00	-224.38	0.00	224.38	1,876.80	496.74	1,600.44	1,378.67	1.73	-0.47	0.177
40.00	-24.73	-3.84	0.00	-204.62	0.00	204.62	1,844.73	482.82	1,511.99	1,316.87	2.26	-0.54	0.169
45.00	-23.74	-3.74	0.00	-185.43	0.00	185.43	1,811.48	468.90	1,426.06	1,255.58	2.86	-0.61	0.161
48.50	-23.06	-3.68	0.00	-172.35	0.00	172.35	1,787.50	459.15	1,367.41	1,213.02	3.33	-0.65	0.155
50.00	-22.60	-3.62	0.00	-166.83	0.00	166.83	1,777.05	454.98	1,342.65	1,194.87	3.53	-0.67	0.152
53.25	-21.64	-3.57	0.00	-155.07	0.00	155.07	1,771.78	452.89	1,330.36	1,185.83	4.01	-0.71	0.143
54.00	-21.49	-3.54	0.00	-152.39	0.00	152.39	1,766.49	450.80	1,318.12	1,176.79	4.12	-0.72	0.142
55.00	-21.30	-3.48	0.00	-148.85	0.00	148.85	1,759.39	448.02	1,301.89	1,164.77	4.27	-0.74	0.140
60.00	-20.37	-3.35	0.00	-131.47	0.00	131.47	1,723.18	434.09	1,222.24	1,105.07	5.08	-0.80	0.131
65.00	-19.46	-3.23	0.00	-114.72	0.00	114.72	1,685.78	420.17	1,145.11	1,046.14	5.94	-0.85	0.121
70.00	-18.57	-3.10	0.00	-98.59	0.00	98.59	1,647.20	406.25	1,070.49	988.05	6.87	-0.91	0.111
75.00	-17.71	-2.98	0.00	-83.08	0.00	83.08	1,607.44	392.33	998.38	930.88	7.85	-0.96	0.100
80.00	-16.87	-2.85	0.00	-68.21	0.00	68.21	1,566.49	378.40	928.79	874.69	8.88	-1.01	0.089
85.00	-16.06	-2.72	0.00	-53.96	0.00	53.96	1,524.36	364.48	861.72	819.56	9.96	-1.05	0.076
90.00	-15.27	-2.60	0.00	-40.34	0.00	40.34	1,481.04	350.56	797.15	765.57	11.09	-1.09	0.063
95.00	-14.51	-2.49	0.00	-27.35	0.00	27.35	1,425.10	336.64	735.10	707.11	12.25	-1.12	0.049
98.50	-13.99	-2.42	0.00	-18.64	0.00	18.64	1,383.85	326.89	693.16	666.56	13.07	-1.14	0.038
100.00	-8.55	-1.50	0.00	-14.89	0.00	14.89	1,366.16	322.72	675.57	649.54	13.43	-1.14	0.029
101.00	-7.95	-1.44	0.00	-13.39	0.00	13.39	1,354.38	319.93	663.96	638.32	13.67	-1.15	0.027
102.00	-7.76	-1.39	0.00	-11.95	0.00	11.95	964.65	242.43	508.28	460.62	13.91	-1.15	0.034
105.00	-7.41	-1.31	0.00	-7.78	0.00	7.78	947.76	236.16	482.35	440.77	14.64	-1.16	0.026
109.00	0.00	-1.16	0.00	-2.56	0.00	2.56	924.57	227.81	448.84	414.65	15.61	-1.16	0.006

Site Number: 283562

Code: ANSI/TIA-222-H

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Site Name: NORTH BLOOMFIELD CT, CT

Engineering Number: 13668980_C3_03

6/9/2021 11:20:20 AM

Customer: VERIZON WIRELESS

Load Case: 1.0D + 1.0W

Serviceability 60 mph

21 Iterations

Gust Response Factor : 1.10

Dead Load Factor : 1.00

Wind Load Factor : 1.00

Applied Segment Forces Summary

Seg Elev (ft)	Description	Shaft Forces		Discrete Forces			Linear Forces		Sum of Forces				
		Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Torsion MY (lb-ft)	Moment MZ (lb-ft)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Wind FX (lb)	Dead Load (lb)	Torsion MY (lb-ft)	Moment MZ (lb)
0.00		47.7	0.0					0.0	0.0	47.7	0.0	0.0	0.0
5.00		94.2	569.3					0.0	76.8	94.2	646.0	0.0	0.0
10.00		92.0	555.8					0.0	76.8	92.0	632.6	0.0	0.0
15.00		91.1	542.3					0.0	76.8	91.1	619.1	0.0	0.0
20.00		92.7	528.8					0.0	76.8	92.7	605.6	0.0	0.0
25.00		94.7	515.3					0.0	76.8	94.7	592.1	0.0	0.0
30.00		95.8	501.8					0.0	76.8	95.8	578.6	0.0	0.0
35.00		96.3	488.3					0.0	76.8	96.3	565.1	0.0	0.0
40.00		96.3	474.8					0.0	76.8	96.3	551.6	0.0	0.0
45.00		81.6	461.3					0.0	76.8	81.6	538.1	0.0	0.0
48.50	Bot - Section 2	48.0	314.9					0.0	53.7	48.0	368.6	0.0	0.0
50.00		45.8	267.9					0.0	23.0	45.8	290.9	0.0	0.0
53.25	Top - Section 1	38.5	572.1					0.0	49.9	38.5	622.0	0.0	0.0
54.00		16.8	65.7					0.0	11.5	16.8	77.2	0.0	0.0
55.00		57.1	87.1					0.0	15.3	57.1	102.5	0.0	0.0
60.00		94.4	427.6					0.0	76.8	94.4	504.3	0.0	0.0
65.00		93.0	414.1					0.0	76.8	93.0	490.8	0.0	0.0
70.00		91.3	400.6					0.0	76.8	91.3	477.3	0.0	0.0
75.00		89.5	387.1					0.0	76.8	89.5	463.8	0.0	0.0
80.00		87.5	373.6					0.0	76.8	87.5	450.3	0.0	0.0
85.00		85.4	360.1					0.0	76.8	85.4	436.8	0.0	0.0
90.00		83.2	346.6					0.0	76.8	83.2	423.4	0.0	0.0
95.00		69.0	333.1					0.0	76.8	69.0	409.9	0.0	0.0
98.50	Bot - Section 3	40.0	225.1					0.0	53.7	40.0	278.9	0.0	0.0
100.00	Appurtenance(s)	19.9	166.6	741.7	0.0	110.1	2,214.3	0.0	23.0	761.7	2,404.0	0.0	0.0
101.00	Appurtenance(s)	15.8	109.9	21.4	0.0	0.0	222.0	0.0	7.5	37.2	339.4	0.0	0.0
102.00	Top - Section 2	31.2	109.0					0.0	7.5	31.2	116.5	0.0	0.0
105.00		53.8	139.2					0.0	22.6	53.8	161.8	0.0	0.0
109.00		30.4	179.9					0.0	30.1	30.4	210.0	0.0	0.0
Totals:										2,736.39	13,957.0	0.00	0.00

Site Number: 283562

Code: ANSI/TIA-222-H

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Site Name: NORTH BLOOMFIELD CT, CT

Engineering Number: 13668980_C3_03

6/9/2021 11:20:20 AM

Customer: VERIZON WIRELESS

Load Case: 1.0D + 1.0W

Serviceability 60 mph

21 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	-16.32	-3.77	0.00	-308.59	0.00	308.59	2,068.11	594.20	2,289.94	1,819.33	0.00	0.00	0.178
5.00	-15.67	-3.69	0.00	-289.76	0.00	289.76	2,044.33	580.28	2,183.90	1,756.03	0.03	-0.05	0.173
10.00	-15.03	-3.61	0.00	-271.33	0.00	271.33	2,019.37	566.35	2,080.37	1,692.72	0.12	-0.11	0.168
15.00	-14.41	-3.53	0.00	-253.29	0.00	253.29	1,993.22	552.43	1,979.36	1,629.49	0.26	-0.16	0.163
20.00	-13.80	-3.45	0.00	-235.64	0.00	235.64	1,965.89	538.51	1,880.86	1,566.39	0.46	-0.22	0.157
25.00	-13.20	-3.36	0.00	-218.40	0.00	218.40	1,937.38	524.59	1,784.87	1,503.50	0.72	-0.28	0.152
30.00	-12.62	-3.28	0.00	-201.58	0.00	201.58	1,907.68	510.66	1,691.40	1,440.91	1.04	-0.33	0.147
35.00	-12.06	-3.19	0.00	-185.20	0.00	185.20	1,876.80	496.74	1,600.44	1,378.67	1.42	-0.39	0.141
40.00	-11.50	-3.10	0.00	-169.25	0.00	169.25	1,844.73	482.82	1,511.99	1,316.87	1.86	-0.44	0.135
45.00	-10.96	-3.02	0.00	-153.75	0.00	153.75	1,811.48	468.90	1,426.06	1,255.58	2.35	-0.50	0.129
48.50	-10.59	-2.98	0.00	-143.17	0.00	143.17	1,787.50	459.15	1,367.41	1,213.02	2.73	-0.54	0.124
50.00	-10.30	-2.93	0.00	-138.71	0.00	138.71	1,777.05	454.98	1,342.65	1,194.87	2.90	-0.55	0.122
53.25	-9.68	-2.89	0.00	-129.18	0.00	129.18	1,771.78	452.89	1,330.36	1,185.83	3.29	-0.59	0.114
54.00	-9.60	-2.88	0.00	-127.01	0.00	127.01	1,766.49	450.80	1,318.12	1,176.79	3.38	-0.60	0.113
55.00	-9.50	-2.82	0.00	-124.13	0.00	124.13	1,759.39	448.02	1,301.89	1,164.77	3.51	-0.61	0.112
60.00	-8.99	-2.73	0.00	-110.02	0.00	110.02	1,723.18	434.09	1,222.24	1,105.07	4.17	-0.66	0.105
65.00	-8.50	-2.64	0.00	-96.37	0.00	96.37	1,685.78	420.17	1,145.11	1,046.14	4.89	-0.71	0.097
70.00	-8.02	-2.55	0.00	-83.18	0.00	83.18	1,647.20	406.25	1,070.49	988.05	5.65	-0.75	0.089
75.00	-7.56	-2.46	0.00	-70.44	0.00	70.44	1,607.44	392.33	998.38	930.88	6.47	-0.80	0.080
80.00	-7.11	-2.37	0.00	-58.15	0.00	58.15	1,566.49	378.40	928.79	874.69	7.32	-0.84	0.071
85.00	-6.67	-2.28	0.00	-46.31	0.00	46.31	1,524.36	364.48	861.72	819.56	8.22	-0.87	0.061
90.00	-6.25	-2.19	0.00	-34.91	0.00	34.91	1,481.04	350.56	797.15	765.57	9.15	-0.91	0.050
95.00	-5.84	-2.12	0.00	-23.94	0.00	23.94	1,425.10	336.64	735.10	707.11	10.11	-0.93	0.038
98.50	-5.56	-2.08	0.00	-16.52	0.00	16.52	1,383.85	326.89	693.16	666.56	10.80	-0.95	0.029
100.00	-3.17	-1.28	0.00	-13.29	0.00	13.29	1,366.16	322.72	675.57	649.54	11.10	-0.95	0.023
101.00	-2.83	-1.23	0.00	-12.02	0.00	12.02	1,354.38	319.93	663.96	638.32	11.30	-0.95	0.021
102.00	-2.71	-1.20	0.00	-10.78	0.00	10.78	964.65	242.43	508.28	460.62	11.50	-0.96	0.026
105.00	-2.55	-1.14	0.00	-7.18	0.00	7.18	947.76	236.16	482.35	440.77	12.11	-0.96	0.019
109.00	0.00	-1.10	0.00	-2.61	0.00	2.61	924.57	227.81	448.84	414.65	12.92	-0.97	0.006

Site Number: 283562

Code: ANSI/TIA-222-H

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Site Name: NORTH BLOOMFIELD CT, CT

Engineering Number: 13668980_C3_03

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Customer: VERIZON WIRELESS

Equivalent Lateral Forces Method Analysis

Spectral Response Acceleration for Short Period (S_s):	0.18
Spectral Response Acceleration at 1.0 Second Period (S_{d1}):	0.05
Long-Period Transition Period (T_L):	6
Importance Factor (I_E):	1.00
Site Coefficient F_a :	1.60
Site Coefficient F_v :	2.40
Response Modification Coefficient (R):	1.50
Design Spectral Response Acceleration at Short Period (S_{ds}):	0.19
Design Spectral Response Acceleration at 1.0 Second Period (S_{d1}):	0.09
Seismic Response Coefficient (C_s):	0.03
Upper Limit C_s	0.03
Lower Limit C_s	0.03
Period based on Rayleigh Method (sec):	1.81
Redundancy Factor (p):	1.00
Seismic Force Distribution Exponent (k):	1.66
Total Unfactored Dead Load:	16.32 k
Seismic Base Shear (E):	0.52 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)
28	107.00	210	481	0.025	13	260
27	103.50	162	350	0.018	9	200
26	101.50	116	244	0.013	7	144
25	100.50	117	242	0.012	6	145
24	99.25	190	383	0.020	10	235
23	96.75	279	540	0.028	14	345
22	92.50	410	737	0.038	20	507
21	87.50	423	694	0.036	19	524
20	82.50	437	650	0.033	17	541
19	77.50	450	604	0.031	16	557
18	72.50	464	557	0.029	15	574
17	67.50	477	509	0.026	14	591
16	62.50	491	461	0.024	12	608
15	57.50	504	413	0.021	11	624
14	54.50	102	77	0.004	2	127
13	53.63	77	56	0.003	2	96
12	51.63	622	426	0.022	11	770
11	49.25	291	184	0.009	5	360
10	46.75	369	214	0.011	6	456
9	42.50	538	267	0.014	7	666
8	37.50	552	222	0.011	6	683
7	32.50	565	180	0.009	5	699
6	27.50	579	140	0.007	4	716
5	22.50	592	103	0.005	3	733
4	17.50	606	69	0.004	2	750

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Site Name: NORTH BLOOMFIELD CT, CT

Engineering Number: 13668980_C3_03

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Customer: VERIZON WIRELESS

3	12.50	619	41	0.002	1	766
2	7.50	633	18	0.001	0	783
1	2.50	646	3	0.000	0	800
Commscope CBC78T-DS-	109.00	124	293	0.015	8	154
Samsung B5/B13 RRH-B	109.00	211	498	0.026	13	261
Samsung B2/B66A RRH-	109.00	253	597	0.031	16	313
Raycap RC3DC-3315-PF	109.00	32	75	0.004	2	40
Raycap RC3DC-3315-PF	109.00	32	75	0.004	2	40
Samsung MT6407-77A	109.00	245	578	0.030	15	303
Commscope JAHH-65B-R	109.00	364	858	0.044	23	450
Antel LPA-80063/6CF	109.00	162	382	0.020	10	201
Generic Round T-Arm	109.00	938	2,212	0.114	59	1,160
Ericsson Radio 4449	101.00	222	462	0.024	12	275
Ericsson Radio 4449	100.00	222	454	0.023	12	275
Ericsson AIR 21, 1.3	100.00	275	562	0.029	15	340
Ericsson AIR-32 B2A/	100.00	397	811	0.042	22	491
Generic Round T-Arm	100.00	938	1,918	0.099	51	1,160
RFS APXVAARR24_43-U-	100.00	384	785	0.040	21	475
		16,317	19,425	1.000	519	20,197

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)
28	107.00	210	481	0.025	13	181
27	103.50	162	350	0.018	9	139
26	101.50	116	244	0.013	7	100
25	100.50	117	242	0.012	6	101
24	99.25	190	383	0.020	10	164
23	96.75	279	540	0.028	14	240
22	92.50	410	737	0.038	20	353
21	87.50	423	694	0.036	19	365
20	82.50	437	650	0.033	17	377
19	77.50	450	604	0.031	16	388
18	72.50	464	557	0.029	15	400
17	67.50	477	509	0.026	14	412
16	62.50	491	461	0.024	12	423
15	57.50	504	413	0.021	11	435
14	54.50	102	77	0.004	2	88
13	53.63	77	56	0.003	2	67
12	51.63	622	426	0.022	11	536
11	49.25	291	184	0.009	5	251
10	46.75	369	214	0.011	6	318
9	42.50	538	267	0.014	7	464
8	37.50	552	222	0.011	6	476
7	32.50	565	180	0.009	5	487
6	27.50	579	140	0.007	4	499
5	22.50	592	103	0.005	3	510
4	17.50	606	69	0.004	2	522
3	12.50	619	41	0.002	1	534
2	7.50	633	18	0.001	0	545
1	2.50	646	3	0.000	0	557
Commscope CBC78T-DS-	109.00	124	293	0.015	8	107
Samsung B5/B13 RRH-B	109.00	211	498	0.026	13	182
Samsung B2/B66A RRH-	109.00	253	597	0.031	16	218
Raycap RC3DC-3315-PF	109.00	32	75	0.004	2	28
Raycap RC3DC-3315-PF	109.00	32	75	0.004	2	28
Samsung MT6407-77A	109.00	245	578	0.030	15	211
Commscope JAHH-65B-R	109.00	364	858	0.044	23	314
Antel LPA-80063/6CF	109.00	162	382	0.020	10	140
Generic Round T-Arm	109.00	938	2,212	0.114	59	808

Site Number: 283562

Code: ANSI/TIA-222-H

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Site Name: NORTH BLOOMFIELD CT, CT

Engineering Number: 13668980_C3_03

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Customer: VERIZON WIRELESS

Ericsson Radio 4449	101.00	222	462	0.024	12	191
Ericsson Radio 4449	100.00	222	454	0.023	12	191
Ericsson AIR 21, 1.3	100.00	275	562	0.029	15	237
Ericsson AIR-32 B2A/	100.00	397	811	0.042	22	342
Generic Round T-Arm	100.00	938	1,918	0.099	51	808
RFS APXVAARR24_43-U-	100.00	384	785	0.040	21	331
		16,317	19,425	1.000	519	14,069

Site Number: 283562

Code: ANSI/TIA-222-H

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Site Name: NORTH BLOOMFIELD CT, CT

Engineering Number: 13668980_C3_03

6/9/2021 11:20:21 AM

Customer: VERIZON WIRELESS

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	-19.40	-0.52	0.00	-48.45	0.00	48.45	2,068.11	594.20	2,289.94	1,819.33	0.00	0.00	0.036
5.00	-18.61	-0.52	0.00	-45.85	0.00	45.85	2,044.33	580.28	2,183.90	1,756.03	0.00	-0.01	0.035
10.00	-17.85	-0.52	0.00	-43.24	0.00	43.24	2,019.37	566.35	2,080.37	1,692.72	0.02	-0.02	0.034
15.00	-17.10	-0.52	0.00	-40.62	0.00	40.62	1,993.22	552.43	1,979.36	1,629.49	0.04	-0.03	0.034
20.00	-16.37	-0.52	0.00	-38.00	0.00	38.00	1,965.89	538.51	1,880.86	1,566.39	0.07	-0.04	0.033
25.00	-15.65	-0.52	0.00	-35.38	0.00	35.38	1,937.38	524.59	1,784.87	1,503.50	0.12	-0.04	0.032
30.00	-14.95	-0.52	0.00	-32.77	0.00	32.77	1,907.68	510.66	1,691.40	1,440.91	0.17	-0.05	0.031
35.00	-14.27	-0.51	0.00	-30.18	0.00	30.18	1,876.80	496.74	1,600.44	1,378.67	0.23	-0.06	0.029
40.00	-13.60	-0.51	0.00	-27.60	0.00	27.60	1,844.73	482.82	1,511.99	1,316.87	0.30	-0.07	0.028
45.00	-13.14	-0.50	0.00	-25.06	0.00	25.06	1,811.48	468.90	1,426.06	1,255.58	0.38	-0.08	0.027
48.50	-12.78	-0.50	0.00	-23.30	0.00	23.30	1,787.50	459.15	1,367.41	1,213.02	0.44	-0.09	0.026
50.00	-12.01	-0.49	0.00	-22.55	0.00	22.55	1,777.05	454.98	1,342.65	1,194.87	0.47	-0.09	0.026
53.25	-11.92	-0.49	0.00	-20.96	0.00	20.96	1,771.78	452.89	1,330.36	1,185.83	0.53	-0.09	0.024
54.00	-11.79	-0.49	0.00	-20.60	0.00	20.60	1,766.49	450.80	1,318.12	1,176.79	0.54	-0.10	0.024
55.00	-11.17	-0.47	0.00	-20.11	0.00	20.11	1,759.39	448.02	1,301.89	1,164.77	0.56	-0.10	0.024
60.00	-10.56	-0.46	0.00	-17.74	0.00	17.74	1,723.18	434.09	1,222.24	1,105.07	0.67	-0.11	0.022
65.00	-9.97	-0.45	0.00	-15.43	0.00	15.43	1,685.78	420.17	1,145.11	1,046.14	0.79	-0.11	0.021
70.00	-9.40	-0.43	0.00	-13.19	0.00	13.19	1,647.20	406.25	1,070.49	988.05	0.91	-0.12	0.019
75.00	-8.84	-0.42	0.00	-11.02	0.00	11.02	1,607.44	392.33	998.38	930.88	1.04	-0.13	0.017
80.00	-8.30	-0.40	0.00	-8.93	0.00	8.93	1,566.49	378.40	928.79	874.69	1.18	-0.13	0.016
85.00	-7.77	-0.38	0.00	-6.93	0.00	6.93	1,524.36	364.48	861.72	819.56	1.32	-0.14	0.014
90.00	-7.27	-0.36	0.00	-5.03	0.00	5.03	1,481.04	350.56	797.15	765.57	1.47	-0.14	0.011
95.00	-6.92	-0.35	0.00	-3.23	0.00	3.23	1,425.10	336.64	735.10	707.11	1.62	-0.15	0.009
98.50	-6.69	-0.33	0.00	-2.02	0.00	2.02	1,383.85	326.89	693.16	666.56	1.73	-0.15	0.008
100.00	-3.80	-0.20	0.00	-1.52	0.00	1.52	1,366.16	322.72	675.57	649.54	1.78	-0.15	0.005
101.00	-3.38	-0.18	0.00	-1.32	0.00	1.32	1,354.38	319.93	663.96	638.32	1.81	-0.15	0.005
102.00	-3.18	-0.17	0.00	-1.14	0.00	1.14	964.65	242.43	508.28	460.62	1.85	-0.15	0.006
105.00	-2.92	-0.16	0.00	-0.63	0.00	0.63	947.76	236.16	482.35	440.77	1.94	-0.15	0.005
109.00	0.00	-0.15	0.00	0.00	0.00	0.00	924.57	227.81	448.84	414.65	2.07	-0.15	0.000

Site Number: 283562

Code: ANSI/TIA-222-H

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Site Name: NORTH BLOOMFIELD CT, CT

Engineering Number: 13668980_C3_03

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Customer: VERIZON WIRELESS

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	-13.51	-0.52	0.00	-47.94	0.00	47.94	2,068.11	594.20	2,289.94	1,819.33	0.00	0.00	0.033
5.00	-12.97	-0.52	0.00	-45.34	0.00	45.34	2,044.33	580.28	2,183.90	1,756.03	0.00	-0.01	0.032
10.00	-12.43	-0.52	0.00	-42.74	0.00	42.74	2,019.37	566.35	2,080.37	1,692.72	0.02	-0.02	0.031
15.00	-11.91	-0.52	0.00	-40.13	0.00	40.13	1,993.22	552.43	1,979.36	1,629.49	0.04	-0.03	0.031
20.00	-11.40	-0.52	0.00	-37.52	0.00	37.52	1,965.89	538.51	1,880.86	1,566.39	0.07	-0.03	0.030
25.00	-10.90	-0.52	0.00	-34.92	0.00	34.92	1,937.38	524.59	1,784.87	1,503.50	0.11	-0.04	0.029
30.00	-10.41	-0.51	0.00	-32.33	0.00	32.33	1,907.68	510.66	1,691.40	1,440.91	0.16	-0.05	0.028
35.00	-9.94	-0.51	0.00	-29.76	0.00	29.76	1,876.80	496.74	1,600.44	1,378.67	0.22	-0.06	0.027
40.00	-9.47	-0.50	0.00	-27.22	0.00	27.22	1,844.73	482.82	1,511.99	1,316.87	0.29	-0.07	0.026
45.00	-9.16	-0.50	0.00	-24.70	0.00	24.70	1,811.48	468.90	1,426.06	1,255.58	0.37	-0.08	0.025
48.50	-8.91	-0.49	0.00	-22.96	0.00	22.96	1,787.50	459.15	1,367.41	1,213.02	0.43	-0.09	0.024
50.00	-8.37	-0.48	0.00	-22.22	0.00	22.22	1,777.05	454.98	1,342.65	1,194.87	0.46	-0.09	0.023
53.25	-8.30	-0.48	0.00	-20.65	0.00	20.65	1,771.78	452.89	1,330.36	1,185.83	0.52	-0.09	0.022
54.00	-8.21	-0.48	0.00	-20.29	0.00	20.29	1,766.49	450.80	1,318.12	1,176.79	0.54	-0.10	0.022
55.00	-7.78	-0.47	0.00	-19.81	0.00	19.81	1,759.39	448.02	1,301.89	1,164.77	0.56	-0.10	0.021
60.00	-7.36	-0.46	0.00	-17.47	0.00	17.47	1,723.18	434.09	1,222.24	1,105.07	0.66	-0.10	0.020
65.00	-6.94	-0.44	0.00	-15.19	0.00	15.19	1,685.78	420.17	1,145.11	1,046.14	0.78	-0.11	0.019
70.00	-6.54	-0.43	0.00	-12.98	0.00	12.98	1,647.20	406.25	1,070.49	988.05	0.90	-0.12	0.017
75.00	-6.16	-0.41	0.00	-10.84	0.00	10.84	1,607.44	392.33	998.38	930.88	1.03	-0.13	0.015
80.00	-5.78	-0.39	0.00	-8.79	0.00	8.79	1,566.49	378.40	928.79	874.69	1.16	-0.13	0.014
85.00	-5.41	-0.37	0.00	-6.82	0.00	6.82	1,524.36	364.48	861.72	819.56	1.30	-0.14	0.012
90.00	-5.06	-0.35	0.00	-4.95	0.00	4.95	1,481.04	350.56	797.15	765.57	1.45	-0.14	0.010
95.00	-4.82	-0.34	0.00	-3.17	0.00	3.17	1,425.10	336.64	735.10	707.11	1.60	-0.15	0.008
98.50	-4.66	-0.33	0.00	-1.99	0.00	1.99	1,383.85	326.89	693.16	666.56	1.71	-0.15	0.006
100.00	-2.65	-0.20	0.00	-1.49	0.00	1.49	1,366.16	322.72	675.57	649.54	1.76	-0.15	0.004
101.00	-2.36	-0.18	0.00	-1.30	0.00	1.30	1,354.38	319.93	663.96	638.32	1.79	-0.15	0.004
102.00	-2.22	-0.17	0.00	-1.12	0.00	1.12	964.65	242.43	508.28	460.62	1.82	-0.15	0.005
105.00	-2.03	-0.15	0.00	-0.62	0.00	0.62	947.76	236.16	482.35	440.77	1.91	-0.15	0.004
109.00	0.00	-0.15	0.00	0.00	0.00	0.00	924.57	227.81	448.84	414.65	2.04	-0.15	0.000

Site Number: 283562

Code: ANSI/TIA-222-H

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Site Name: NORTH BLOOMFIELD CT, CT

Engineering Number: 13668980_C3_03

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Customer: VERIZON WIRELESS

Analysis Summary

Load Case	Reactions						Max Usage	
	Shear FX (kips)	Shear FZ (kips)	Axial FY (kips)	Moment MX (ft-kips)	Moment MY (ft-kips)	Moment MZ (ft-kips)	Elev (ft)	Interaction Ratio
1.2D + 1.0W	15.74	0.00	19.55	0.00	0.00	1295.98	0.00	0.72
0.9D + 1.0W	15.73	0.00	14.65	0.00	0.00	1284.69	0.00	0.71
1.2D + 1.0Di + 1.0Wi	4.64	0.00	33.28	0.00	0.00	377.02	0.00	0.22
1.2D + 1.0Ev + 1.0Eh	0.52	0.00	19.40	0.00	0.00	48.45	0.00	0.04
0.9D - 1.0Ev + 1.0Eh	0.52	0.00	13.51	0.00	0.00	47.94	0.00	0.03
1.0D + 1.0W	3.77	0.00	16.32	0.00	0.00	308.59	0.00	0.18

Site Name: North Bloomfield CT, CT
Site Number: 283562
Tower Type: MP
Design Loads (Factored) - Analysis per TIA-222-H Standards

Monolithic Mat & Pier Foundation Analysis

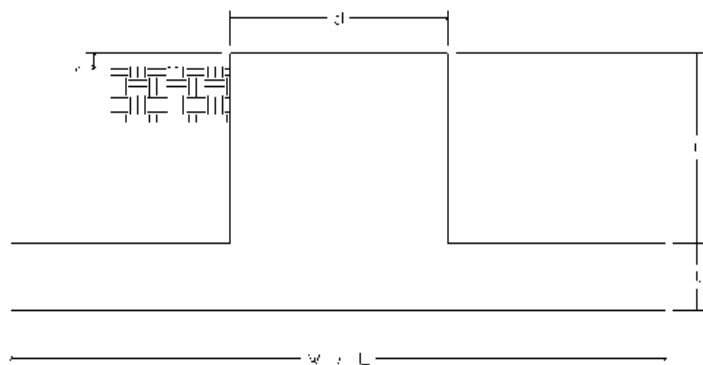
Foundation Analysis Parameters		
Design / Analysis / Mapping:	Analysis	-
Compression/Leg:	19.6	k
Uplift/Leg:	0.0	k
Total Shear:	15.7	k
Moment:	1,296.0	k-ft
Tower + Appurtenance Weight:	19.6	k
Depth to Base of Foundation (l + t - h):	6	ft
Diameter of Pier (d):	6	ft
Length of Pier (l):	5	ft
Height of Pier above Ground (h):	0.5	ft
Width of Pad (W):	17	ft
Length of Pad (L):	17	ft
Thickness of Pad (t):	1.5	ft
Tower Leg Center to Center:	0	ft
Number of Tower Legs:	1	-
Tower Center from Mat Center:	0	ft
Depth Below Ground Surface to Water Table:	9	ft
Unit Weight of Concrete:	150	pcf
Unit Weight of Soil Above Water Table:	116	pcf
Unit Weight of Water:	62.4	pcf
Unit Weight of Soil Below Water Table:	53.6	pcf
Friction Angle of Uplift:	15	°
Coefficient of Shear Friction:	0.30	-
Ultimate Compressive Bearing Pressure:	5,650	psf
Ultimate Passive Pressure on Pad Face:	329	psf
$f_{\text{Soil and Concrete Weight}}$:	0.9	-
f_{Soil} :	0.75	-

Foundation Steel Parameters		
Shear/Leg (Compression):	15.7	k
Shear/Leg (Uplift):	15.7	k
Concrete Strength (f'_c):	4,000	psi
Pad Tension Steel Depth:	14.50	in
Dead Load Factor:	0.9	-
f_{Shear} :	0.75	-
$f_{\text{Flexure / Tension}}$:	0.9	-
$f_{\text{Compression}}$:	0.65	-
b:	0.85	-
Bottom Pad Rebar Size #:	8	-
# of Bottom Pad Rebar:	18	-
Pad Bottom Steel Area:	14.22	in ²
Pad Steel F_y :	60,000	psi
Top Pad Rebar Size #:	8	-
# of Top Pad Rebar:	18	-
Pad Top Steel Area:	14.22	in ²
Pier Rebar Size #:	7	-
Pier Steel Area (Single Bar):	0.60	in ²
# of Pier Rebar:	34	-
Pier Steel F_y :	60,000	psi
Pier Cage Diameter:	63.9	in
Rebar Strain Limit:	0.008	-
Steel Elastic Modulus:	29,000	ksi
Tie Rebar Size #:	5	-
Tie Steel Area (Single Bar):	0.31	in ²
Tie Spacing:	12	in
Tie Steel F_y :	60,000	psi
Clear Cover:	3	in

Overturning Moment Usage		
Design OTM:	1398.3	k-ft
OTM Resistance:	1941.6	k-ft
Design OTM / OTM Resistance:	72%	Pass

Soil Bearing Pressure Usage		
Net Bearing Pressure:	2543	psf
Factored Nominal Bearing Pressure:	4238	psf
Factored Nominal (Net) Bearing Pressure:	60%	Pass
Load Direction Controlling Design Bearing Pressure:	Diagonal to Pad Edge	

Sliding Factor of Safety		
Ultimate Friction Resistance:	71.6	k
Ultimate Passive Pressure Resistance:	6.3	k
Total Factored Sliding Resistance:	58.4	k
Sliding Design / Sliding Resistance:	27%	Pass



Pad Strength Capacity			
Factored One Way Shear (V_u):	178.8	k	
One Way Shear Capacity (fV_c):	280.6	k	ACI 318-14 25.5.5.1
V_u / fV_c :	64%	Pass	
Load Direction Controlling Shear Capacity:	Parallel to Pad Edge		
Lower Steel Pad Factored Moment (M_u):	573.0	k-ft	
Lower Steel Pad Moment Capacity (fM_n):	950.3	k-ft	ACI 318-14 22.3.1.1
M_u / fM_n :	60%	Pass	
Load Direction Controlling Flexural Capacity:	Diagonal to Pad Edge		
Upper Steel Pad Factored Moment (M_u):	192.1	k-ft	
Upper Steel Pad Moment Capacity (fM_n):	894.4	k-ft	
M_u / fM_n :	21%	Pass	
Lower Pad Flexural Reinforcement Ratio:	0.0048		OK - ACI 318-14 7.6.1.1 & 8.6.1.1
Upper Pad Flexural Reinforcement Ratio:	0.0048		OK - ACI 318-14 7.6.1.1 & 8.6.1.1
Lower Pad Reinforcement Spacing:	11.6	in	OK - ACI 318-14 7.7.2.3, 8.7.2.2, & 24.4.3.3
Upper Pad Reinforcement Spacing:	11.6	in	OK - ACI 318-14 7.7.2.3, 8.7.2.2, & 24.4.3.3
Ultimate Punching Shear Stress, v_u :	66.77	psi	ACI 318-14 R8.4.4.2.3
Nominal Punching Shear Capacity ($f_c v_c$):	189.7	psi	ACI 318-14 22.6.5.2
$v_u / f_c v_c$:	35%	Pass	
Pier Moment Pad Flexure Transfer Ratio, γ_f :	0.60		TIA-222-H 9.4.2
Moment Transfer Effective Flexural Width, B_{eff} :	10.50	ft	TIA-222-H 9.4.2
Moment Transfer Through Pad Flexure:	9897.70	k-in	TIA-222-H 9.4.2
Moment Transfer Flexural Capacity ($fM_{sc,t}$):	7045.83	k-in	
$g_f M_{sc} / fM_{sc,t}$:	0%	Pass	

Pier Strength Capacity			
Factored Moment in Pier (M_u):	1374.7	k-ft	
Pier Moment Capacity (fM_n):	2867.4	k-ft	
M_u / fM_n :	48%	Pass	
Factored Shear in Pier (V_u):	15.7	k	
Pier Shear Capacity (fV_n):	521.1	k	ACI 318-14 22.5.1.1
V_u / fV_c :	3%	Pass	
Pier Shear Reinforcement Ratio:	0.0010		OK - No Ties Necessary for Shear - ACI11.5.6.1
Factored Tension in Pier (T_u):	0.0	k	
Pier Tension Capacity (fT_n):	1101.6	k	
T_u / fT_n :	0%	Pass	
Factored Compression in Pier (P_u):	19.6	k	
Pier Compression Capacity (fP_n):	7181.1	k	ACI 318-14 22.4.2.1
P_u / fP_n :	0%	Pass	
Minimum Depth to Develop Vertical Rebar:	22	in	ACI 318-14 25.4.2.3
Minimum Hook Development Length:	17	in	ACI 318-14 25.4.3.1
Minimum Mat Thickness / Edge Distance from Pier:	20.0	in	
Minimum Foundation Depth:	3.77	ft	
$M_u / f_B M_n + T_u / f_T T_n$:	48%	Pass	



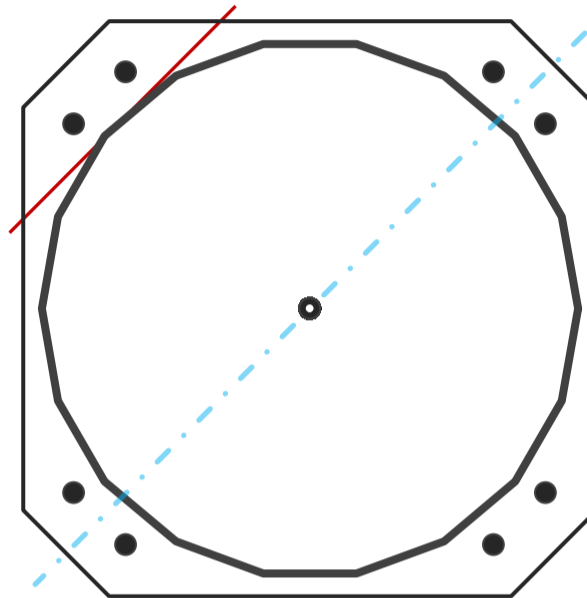
Base Plate & Anchor Rod Analysis

Pole Dimensions		
Number of Sides	18	-
Diameter	42.92	in
Thickness	1/4	in
Orientation Offset	0	°

Base Reactions		
Moment, Mu	1,296.0	k-ft
Axial, Pu	19.6	k
Shear, Vu	15.7	k
Neutral Axis	45	°

Report Capacities		
Component	Capacity	Result
Base Plate	83%	Pass
Anchor Rods	66%	Pass
Dwyidag	-	-

Base Plate		
Shape	Square	-
Width	46.75	in
Thickness	2	in
Grade	A572-50	
Yield Strength, Fy	50	ksi
Tensile Strength, Fu	65	ksi
Clip	7	in
Orientation Offset	0	°
Anchor Rod Detail	d	η=0.5
Clear Distance	3	in
Applied Moment, Mu	857.0	k
Bending Stress, φMn	1038.1	k



Original Anchor Rods		
Arrangement	Cluster	-
Quantity	8	-
Diameter, φ	2 1/4	in
Bolt Circle	48.75	in
Grade	A615-75	
Yield Strength, Fy	75	ksi
Tensile Strength, Fu	100	ksi
Spacing	6.0	in
Orientation Offset	0	°
Applied Force, Pu	160.6	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	15.7	1296.0	1.00
Anchor Rod Forces	15.7	1296.0	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	33.3431	1.8524	0.0387		7589.28
Bolt	3.9761	3.2477	0.8393	4.5	7725.05
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	46.75	in
Thickness, t	2	in
Yield Strength, Fy	50	ksi
Tensile Strength, Fu	65	ksi
Base Plate Chord	18.532	in
Detail Type	d	-
Detail Factor	0.50	-
Clear Distance	3	-

Anchor Rods

Anchor Rod Quantity, N	8	-
Rod Diameter, d	2.25	in
Bolt Circle, BC	48.75	in
Yield Strength, Fy	75	ksi
Tensile Strength, Fu	100	ksi
Applied Axial, Pu	160.6	k
Applied Shear, Vu	0.4	k
Compressive Capacity, ϕP_n	243.6	k
Tensile Capacity, ϕR_n	0.659	OK
Interaction Capacity	0.663	OK

External Base Plate

Chord Length AA	23.069	in
Additional AA	0.000	in
Section Modulus, Z	23.069	in ³
Applied Moment, Mu	857.0	k-ft
Bending Capacity, ϕM_n	1038.1	k-ft
Capacity, Mu/ ϕM_n	0.826	OK

Chord Length AB	22.405	in
Additional AB	0.000	in
Section Modulus, Z	22.405	in ³
Applied Moment, Mu	750.4	k-ft
Bending Capacity, ϕM_n	1008.2	k-ft
Capacity, Mu/ ϕM_n	0.744	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, ϕM_n	0.0	k-ft
Capacity, Mu/ ϕM_n		

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, ϕM_n	0.0	k-ft
Capacity, Mu/ ϕM_n		



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Post-Mod Antenna Mount Analysis Report and PMI Requirements

Mount Fix

SMART Tool Project #: 10079466
Maser Consulting Connecticut Project #: 21777461A

June 29, 2021

Site Information

Site ID: 468355-VZW / NORTH BLOOMFIELD CT
Site Name: NORTH BLOOMFIELD CT
Carrier Name: Verizon Wireless
Address: Day Hill Road
Bloomfield, Connecticut 06002
Hartford County
Latitude: 41.876508°
Longitude: -72.741840°

Structure Information

Tower Type: 110-Ft Monopole
Mount Type: 13.46-Ft T-Arm

FUZE ID # 16272419

Analysis Results

T-Arm: 78.8% 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: Frank Centone

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
<i>Radio Frequency Data Sheet (RFDS)</i>	<i>Verizon RFDS Site ID: 1507042, dated March 17, 2021</i>
<i>Desktop Mount Mapping Form</i>	<i>Colliers Engineering & Design, Project #: 21777461, dated April 9, 2021</i>
<i>Previous Mount Analysis Report</i>	<i>Maser Consulting Connecticut Project #: 21777461A, dated June 14, 2021</i>
<i>Mount Modification Drawings</i>	<i>Maser Consulting Connecticut Project #: 21777461A, dated June 29, 2021</i>

Analysis Criteria:

Codes and Standards:	ANSI/TIA-222-H
Wind Parameters:	Basic Wind Speed (Ultimate 3-sec. Gust), V_{ULT} : 116 mph Ice Wind Speed (3-sec. Gust): 50 mph Design Ice Thickness: 1.50 in Risk Category: II Exposure Category: C Topographic Category: 1 Topographic Feature Considered: N/A Topographic Method: N/A Ground Elevation Factor, K_e : 0.994
Seismic Parameters:	S_s : 0.177 S_1 : 0.054
Maintenance Parameters:	Wind Speed (3-sec. Gust): 30 mph Maintenance Live Load, L_v : 250 lbs. Maintenance Live Load, L_m : 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
109.00	110.00	3	Samsung	MT6407-77A	Added
		6	Commscope	CBC78T-DS-43-2X	
		3	Samsung	B2/B66A RRH-BR049	
		3	Samsung	B5/B13 RRH-BR04C	
		6	Commscope	JAHH-65B-R3B	Retained
		2	Antel	LPA-80063/6CF	
		4	Antel	LPA-80063/6CF 5	
		2	Raycap	RC3DC-3315-PF-48	

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

Model Number	Ports	AKA
DB-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 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 is not responsible for the conclusion, opinions, and recommendations made by others based on the information supplied.
7. Structural Steel Grades have been assumed as follows, if applicable, unless otherwise noted in this analysis:
 - o Channel, Solid Round, Angle, Plate ASTM A36 (Gr. 36)
 - o HSS (Rectangular) ASTM 500 (Gr. B-46)
 - o Pipe ASTM A53 (Gr. B-35)
 - o Threaded Rod F1554 (Gr. 36)
 - o Bolts ASTM A325
8. Any mount modifications listed under Sources of Information are assumed to have been installed per the design specifications.

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
Standoff Arm	48.4%	Pass
Standoff Pipe	0.0%	Pass
Horizontal	51.0%	Pass
Antenna Pipe	50.2%	Pass
MOD FACE	70.9%	Pass
Mod Standoff	32.2%	Pass
Kicker	11.8%	Pass
Mount Connection	78.8%	Pass
Mod Mount Connection	38.9%	Pass

Structure Rating – (Controlling Utilization of all Components)	78.8%
---	--------------

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. Desktop Mount Mapping Form (for reference only)
3. Analysis Calculations
- 4. Contractor Required PMI Report Deliverables**
5. Antenna Placement Diagrams
6. TIA Adoption and Windspeed Usage Letter





Desktop Mount Mapping Form

Site Name:	NORTH BLOOMFIELD CT	Tower Type:	Monopole
Site ID:		Tower Owner:	
PSLC:	468355	Tower Height (Ft.):	
Customer:		Mount Elevation (Ft.):	
Colliers Project No.:	21777461	Date:	4/9/2021

The information contained herein is considered confidential in nature and is to be used only for the specific customer it was intended for. Reproduction, transmission, publication, modification or disclosure by any method is prohibited except by express written permission of PJF.

Document Type	Provided? (Yes/No)	Source Name	Project No.	Dated	Comments/Remarks
Previous Mount Mapping	No				
Previous Mapping Photos	No				
Previous Mount Analysis	Yes	N.Bloomfield Redline_Drawings.1	140310	12/4/2018	Provided and is the primary source of mount information for MA. It is a combination of the CDs and the MA in a single PDF. It seems only part of the MA is included but most information should be included. It would be good to ask for the full document, nonetheless.
Previous Mount Modifications	No				
Previous Structural Analysis	Yes	NORTHBLOOMFIELD_850LTEPASSINGS	OAA710465_C3_01	9/11/2017	Provided but not needed for MA.
Construction Drawings	Yes	N.Bloomfield Redline_Drawings.1	140310	12/4/2018	Provided and contains some helpful information in same document as MA.
Closeout Package	Yes				
Closeout Photos	Yes				Photos are helpful for MA
Handover Package	No				
New Build 445 Documentation	No				
Other	No				
Previous PMI	No				

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



Photo taken from: Closeout Package Photos

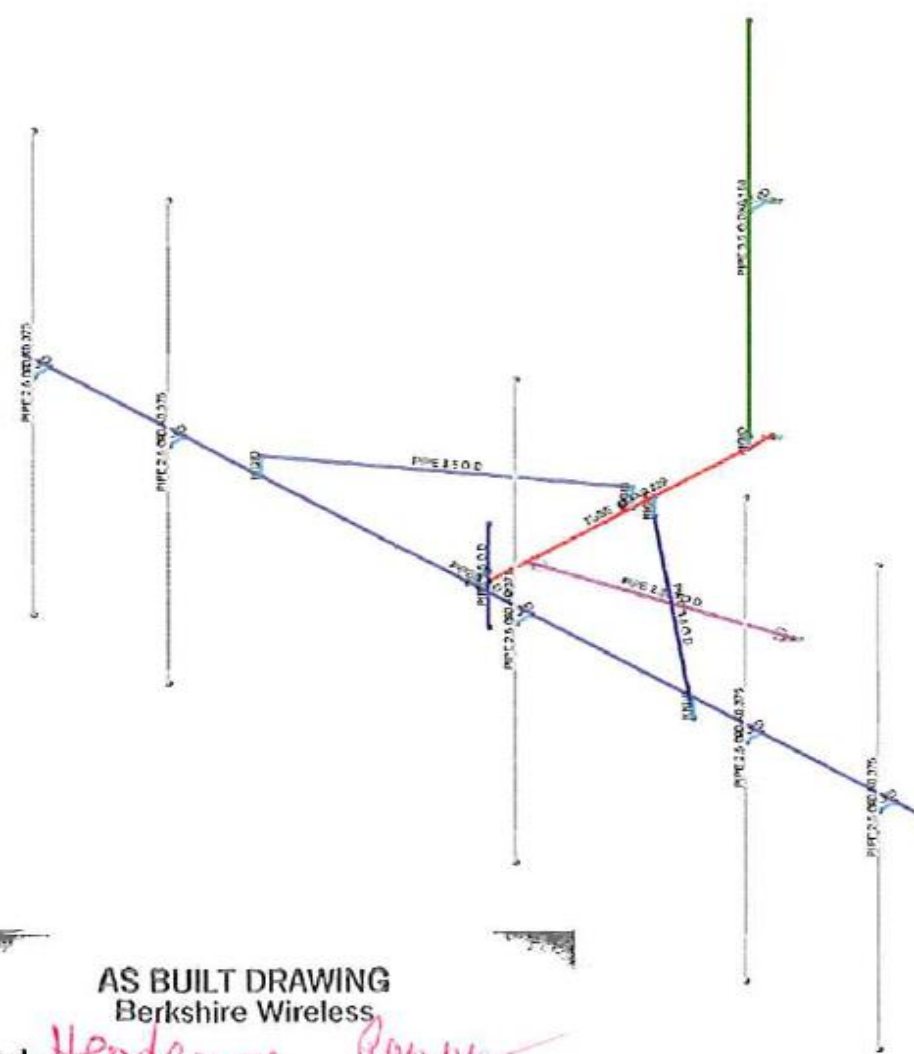
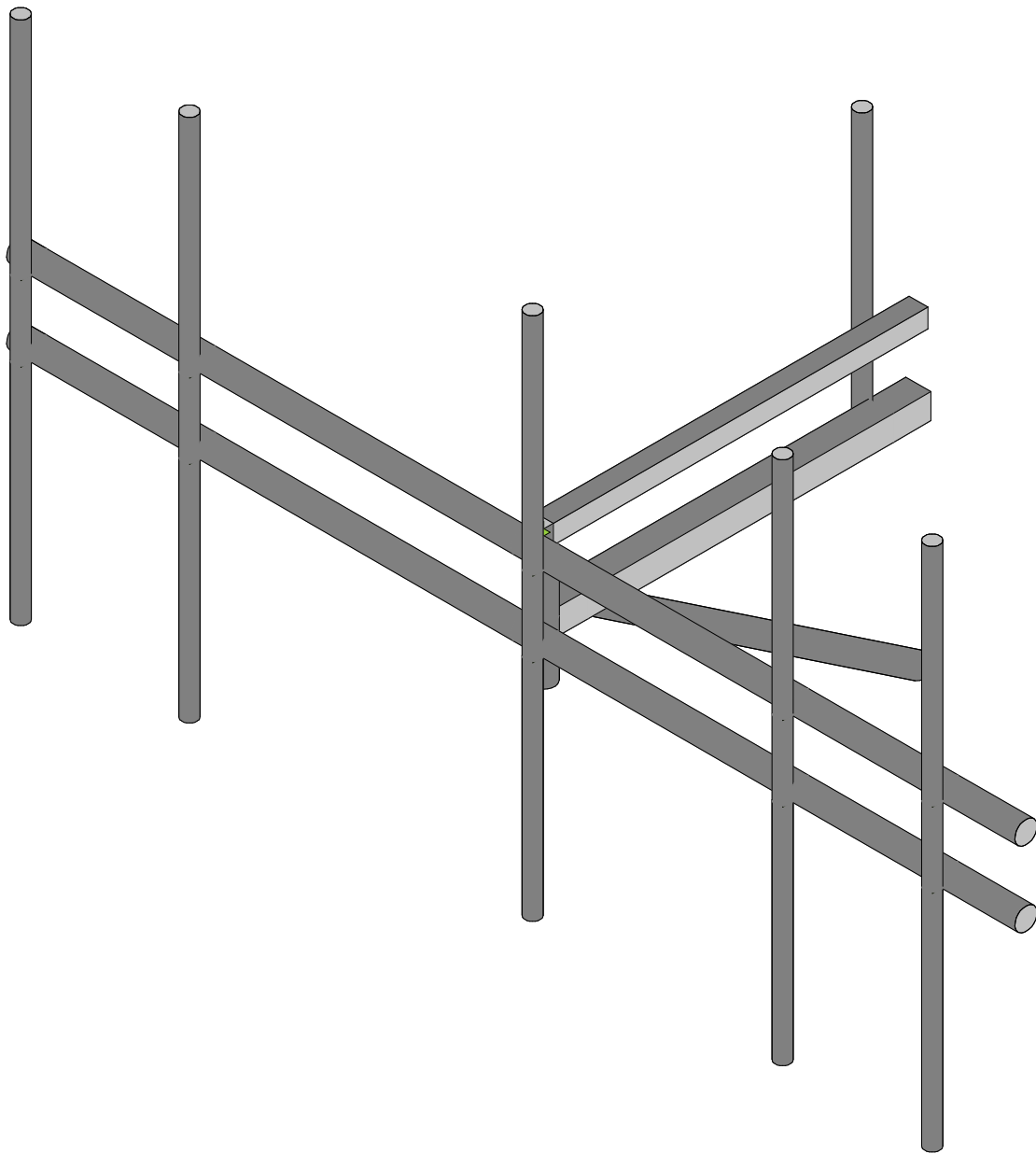
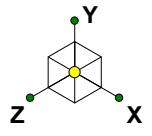


Photo taken from: Previous MA



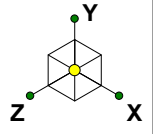
Maser Consulting

648355-VZW

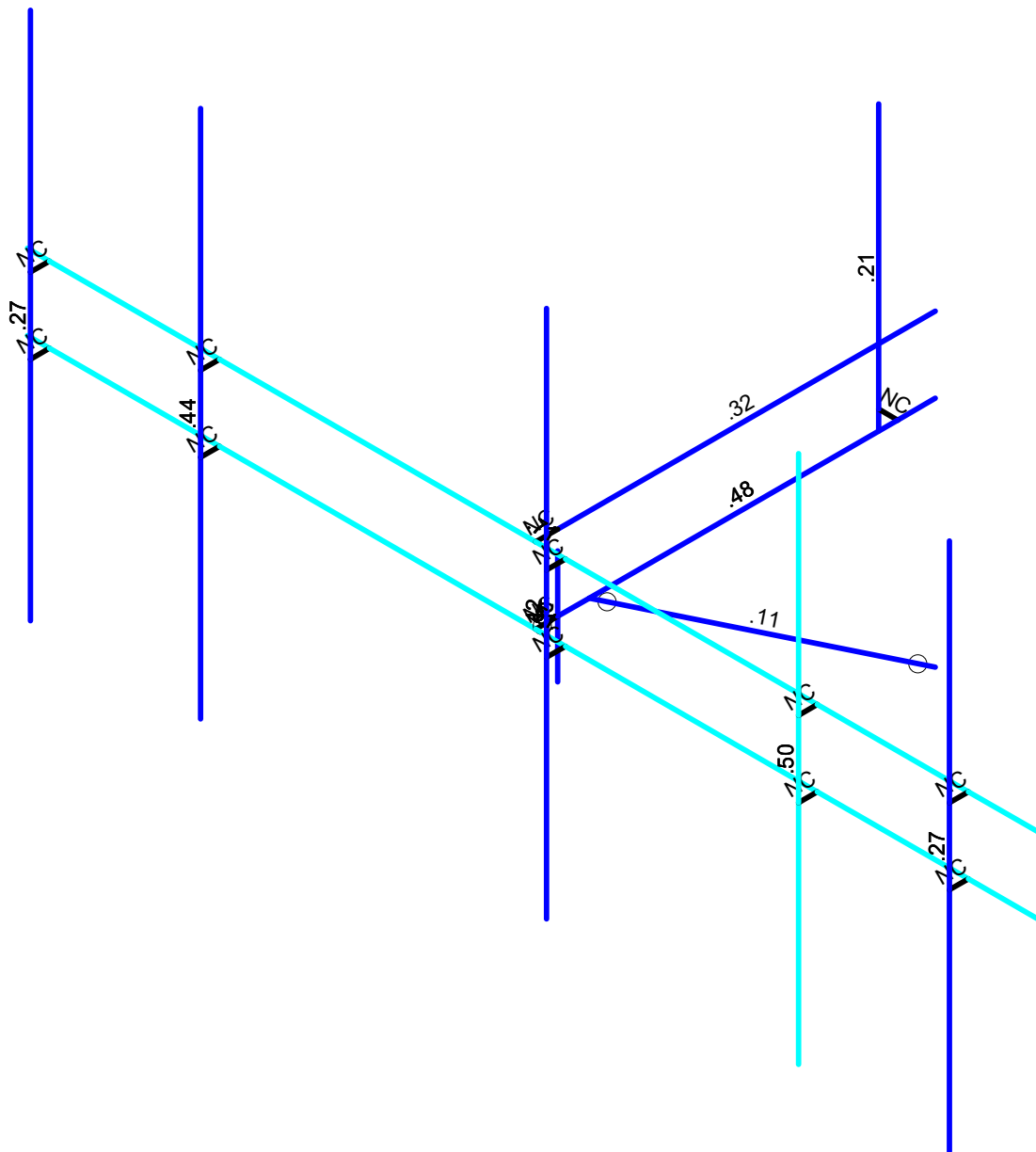
SK - 1

June 28, 2021 at 9:28 AM

468355-VZW_MT_LOT_A_H - LO...

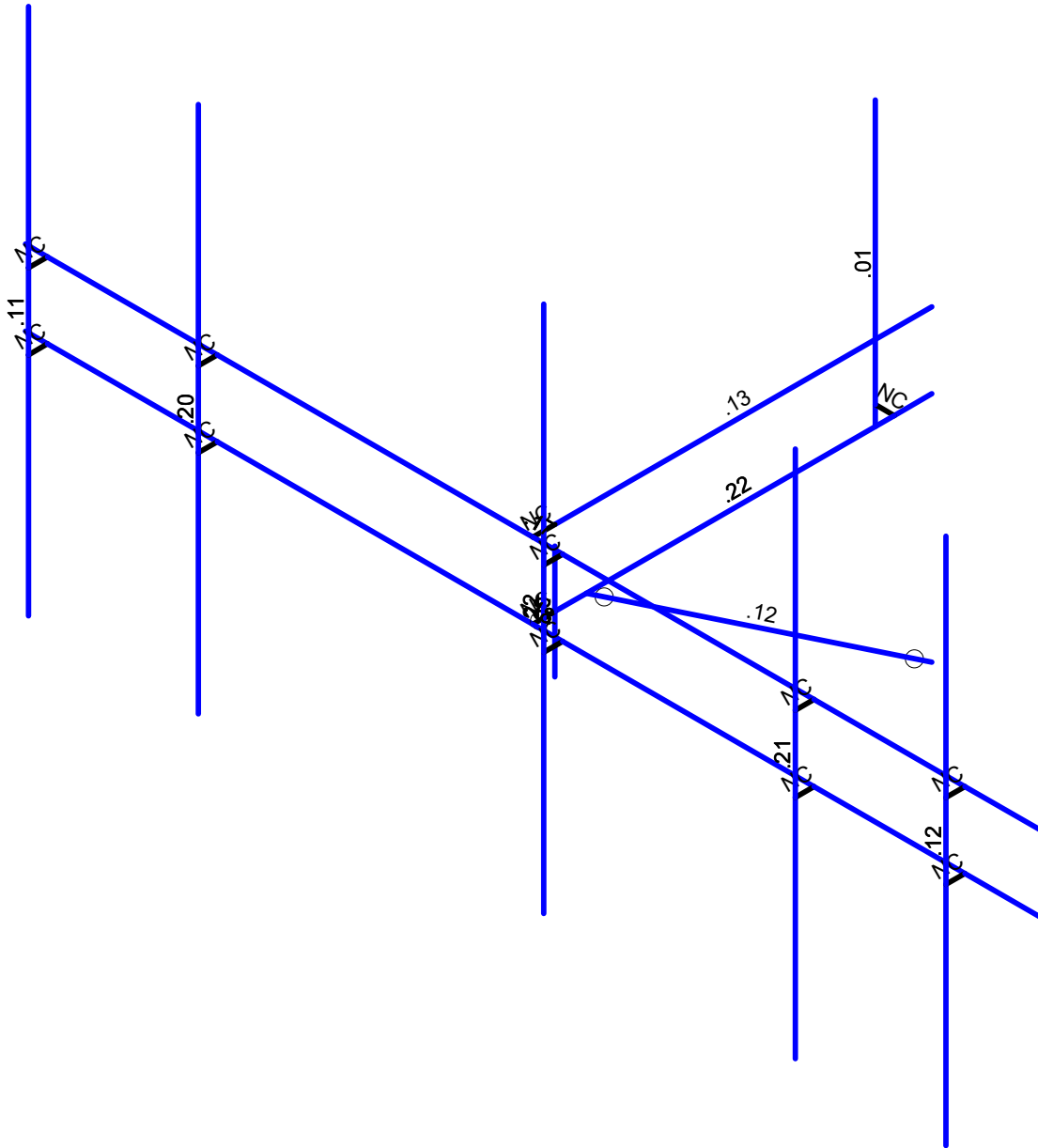
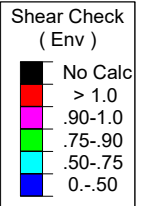
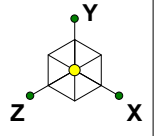


Code Check (Env)	
Black	No Calc
Red	> 1.0
Magenta	.90-1.0
Green	.75-.90
Cyan	.50-.75
Blue	0-.50



Member Code Checks Displayed (Enveloped)
Results for LC 1, 1.2D+1.0Wo (0 Deg)

Maser Consulting	648355-VZW	SK - 2
		June 28, 2021 at 9:28 AM
		468355-VZW_MT_LOT_A_H - LO...



Member Shear Checks Displayed (Enveloped)
Results for LC 1, 1.2D+1.0Wo (0 Deg)

Maser Consulting	648355-VZW	SK - 3
		June 28, 2021 at 9:28 AM
		468355-VZW_MT_LOT_A_H - LO...



Basic Load Cases

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



Basic Load Cases (Continued)

	BLC Description	Category	X Gravity	Y Gravity	Z Gravity	Joint	Point	Distributed Area(Me...	Surface(P...
57	Structure Wi (120 De..	None						22	
58	Structure Wi (150 De..	None						22	
59	Structure Wi (180 De..	None						22	
60	Structure Wi (210 De..	None						22	
61	Structure Wi (240 De..	None						22	
62	Structure Wi (270 De..	None						22	
63	Structure Wi (300 De..	None						22	
64	Structure Wi (330 De..	None						22	
65	Structure Wm (0 Deg)	None						22	
66	Structure Wm (30 De..	None						22	
67	Structure Wm (60 De..	None						22	
68	Structure Wm (90 De..	None						22	
69	Structure Wm (120 D..	None						22	
70	Structure Wm (150 D..	None						22	
71	Structure Wm (180 D..	None						22	
72	Structure Wm (210 D..	None						22	
73	Structure Wm (240 D..	None						22	
74	Structure Wm (270 D..	None						22	
75	Structure Wm (300 D..	None						22	
76	Structure Wm (330 D..	None						22	
77	Lm1	None					1		
78	Lm2	None					1		
79	Lv1	None					1		
80	Lv2	None					1		

Load Combinations

	Description	Sol..	PD..	SR..	BLC Fact..	BLC Fact..	BLC Fact..	BLC Fact..	BLC Fact..	BLC Fact..	BLC Fact..	BLC Fact..	BLC Fact..	BLC Fact..	BLC Fact..	BLC Fact..	BLC Fact..	BLC Fact..	BLC Fact..
1	1.2D+1.0...	Yes	Y		1	1.2	39	1.2	3	1	41	1							
2	1.2D+1.0...	Yes	Y		1	1.2	39	1.2	4	1	42	1							
3	1.2D+1.0...	Yes	Y		1	1.2	39	1.2	5	1	43	1							
4	1.2D+1.0...	Yes	Y		1	1.2	39	1.2	6	1	44	1							
5	1.2D+1.0...	Yes	Y		1	1.2	39	1.2	7	1	45	1							
6	1.2D+1.0...	Yes	Y		1	1.2	39	1.2	8	1	46	1							
7	1.2D+1.0...	Yes	Y		1	1.2	39	1.2	9	1	47	1							
8	1.2D+1.0...	Yes	Y		1	1.2	39	1.2	10	1	48	1							
9	1.2D+1.0...	Yes	Y		1	1.2	39	1.2	11	1	49	1							
10	1.2D+1.0...	Yes	Y		1	1.2	39	1.2	12	1	50	1							
11	1.2D+1.0...	Yes	Y		1	1.2	39	1.2	13	1	51	1							
12	1.2D+1.0...	Yes	Y		1	1.2	39	1.2	14	1	52	1							
13	1.2D + 1.0..	Yes	Y		1	1.2	39	1.2	2	1	40	1	15	1	53	1			
14	1.2D + 1.0..	Yes	Y		1	1.2	39	1.2	2	1	40	1	16	1	54	1			
15	1.2D + 1.0..	Yes	Y		1	1.2	39	1.2	2	1	40	1	17	1	55	1			
16	1.2D + 1.0..	Yes	Y		1	1.2	39	1.2	2	1	40	1	18	1	56	1			
17	1.2D + 1.0..	Yes	Y		1	1.2	39	1.2	2	1	40	1	19	1	57	1			
18	1.2D + 1.0..	Yes	Y		1	1.2	39	1.2	2	1	40	1	20	1	58	1			
19	1.2D + 1.0..	Yes	Y		1	1.2	39	1.2	2	1	40	1	21	1	59	1			
20	1.2D + 1.0..	Yes	Y		1	1.2	39	1.2	2	1	40	1	22	1	60	1			
21	1.2D + 1.0..	Yes	Y		1	1.2	39	1.2	2	1	40	1	23	1	61	1			
22	1.2D + 1.0..	Yes	Y		1	1.2	39	1.2	2	1	40	1	24	1	62	1			
23	1.2D + 1.0..	Yes	Y		1	1.2	39	1.2	2	1	40	1	25	1	63	1			
24	1.2D + 1.0..	Yes	Y		1	1.2	39	1.2	2	1	40	1	26	1	64	1			
25	1.2D + 1.5..	Yes	Y		1	1.2	39	1.2	77	1.5	27	1	65	1					
26	1.2D + 1.5..	Yes	Y		1	1.2	39	1.2	77	1.5	28	1	66	1					
27	1.2D + 1.5..	Yes	Y		1	1.2	39	1.2	77	1.5	29	1	67	1					
28	1.2D + 1.5..	Yes	Y		1	1.2	39	1.2	77	1.5	30	1	68	1					



Load Combinations (Continued)

	Description	Sol.	PD	SR	BLC Fact.	BLC Fact.	BLC Fact.	BLC Fact.	BLC Fact.	BLC Fact.	BLC Fact.	BLC Fact.	BLC Fact.	BLC Fact.
29	1.2D + 1.5..	Yes	Y		1	1.2	39	1.2	77	1.5	31	1	69	1
30	1.2D + 1.5..	Yes	Y		1	1.2	39	1.2	77	1.5	32	1	70	1
31	1.2D + 1.5..	Yes	Y		1	1.2	39	1.2	77	1.5	33	1	71	1
32	1.2D + 1.5..	Yes	Y		1	1.2	39	1.2	77	1.5	34	1	72	1
33	1.2D + 1.5..	Yes	Y		1	1.2	39	1.2	77	1.5	35	1	73	1
34	1.2D + 1.5..	Yes	Y		1	1.2	39	1.2	77	1.5	36	1	74	1
35	1.2D + 1.5..	Yes	Y		1	1.2	39	1.2	77	1.5	37	1	75	1
36	1.2D + 1.5..	Yes	Y		1	1.2	39	1.2	77	1.5	38	1	76	1
37	1.2D + 1.5..	Yes	Y		1	1.2	39	1.2	78	1.5	27	1	65	1
38	1.2D + 1.5..	Yes	Y		1	1.2	39	1.2	78	1.5	28	1	66	1
39	1.2D + 1.5..	Yes	Y		1	1.2	39	1.2	78	1.5	29	1	67	1
40	1.2D + 1.5..	Yes	Y		1	1.2	39	1.2	78	1.5	30	1	68	1
41	1.2D + 1.5..	Yes	Y		1	1.2	39	1.2	78	1.5	31	1	69	1
42	1.2D + 1.5..	Yes	Y		1	1.2	39	1.2	78	1.5	32	1	70	1
43	1.2D + 1.5..	Yes	Y		1	1.2	39	1.2	78	1.5	33	1	71	1
44	1.2D + 1.5..	Yes	Y		1	1.2	39	1.2	78	1.5	34	1	72	1
45	1.2D + 1.5..	Yes	Y		1	1.2	39	1.2	78	1.5	35	1	73	1
46	1.2D + 1.5..	Yes	Y		1	1.2	39	1.2	78	1.5	36	1	74	1
47	1.2D + 1.5..	Yes	Y		1	1.2	39	1.2	78	1.5	37	1	75	1
48	1.2D + 1.5..	Yes	Y		1	1.2	39	1.2	78	1.5	38	1	76	1
49	1.2D + 1.5..	Yes	Y		1	1.2	39	1.2	79	1.5				
50	1.2D + 1.5..	Yes	Y		1	1.2	39	1.2	80	1.5				
51	1.4D	Yes	Y		1	1.4	39	1.4						
52	Seismic M..		Y		1	1	39	1						
53	1.2D + 1.0..		Y		1	1.2	39	1.2	SX		SY	1	SZ	-1
54	1.2D + 1.0..		Y		1	1.2	39	1.2	SX	.5	SY	1	SZ	-.866
55	1.2D + 1.0..		Y		1	1.2	39	1.2	SX	.866	SY	1	SZ	-.5
56	1.2D + 1.0..		Y		1	1.2	39	1.2	SX	1	SY	1	SZ	
57	1.2D + 1.0..		Y		1	1.2	39	1.2	SX	.866	SY	1	SZ	.5
58	1.2D + 1.0..		Y		1	1.2	39	1.2	SX	.5	SY	1	SZ	.866
59	1.2D + 1.0..		Y		1	1.2	39	1.2	SX		SY	1	SZ	1
60	1.2D + 1.0..		Y		1	1.2	39	1.2	SX	-.5	SY	1	SZ	.866
61	1.2D + 1.0..		Y		1	1.2	39	1.2	SX	-.866	SY	1	SZ	.5
62	1.2D + 1.0..		Y		1	1.2	39	1.2	SX	-1	SY	1	SZ	
63	1.2D + 1.0..		Y		1	1.2	39	1.2	SX	-.866	SY	1	SZ	-.5
64	1.2D + 1.0..		Y		1	1.2	39	1.2	SX	-.5	SY	1	SZ	-.866

Joint Coordinates and Temperatures

	Label	X [ft]	Y [ft]	Z [ft]	Temp [F]	Detach From Diap...
1	N1	0	0	-3.09375	0	
2	N2	0	0	1.90625	0	
3	N3	0	-.75	1.90625	0	
4	N4	0	.75	1.90625	0	
5	N5	0	0	2.197917	0	
6	N6	6.729167	0	2.197917	0	
7	N7	-6.729167	0	2.197917	0	
8	N11	5.729167	0	2.197917	0	
9	N12	5.729167	0	2.447917	0	
10	N13	5.729167	4	2.447917	0	
11	N14	5.729167	-3	2.447917	0	
12	N21	0	-.375	1.90625	0	
13	N24A	3.729167	0	2.197917	0	
14	N25	3.729167	0	2.447917	0	
15	N26	3.729167	4	2.447917	0	
16	N27	3.729167	-3	2.447917	0	



Company : Maser Consulting
 Designer :
 Job Number :
 Model Name : 648355-VZW

June 28, 2021
 9:28 AM
 Checked By: _____

Joint Coordinates and Temperatures (Continued)

	Label	X [ft]	Y [ft]	Z [ft]	Temp [F]	Detach From Diap...
17	N28	0.395833	0	2.197917	0	
18	N29	0.395833	0	2.447917	0	
19	N30	0.395833	4	2.447917	0	
20	N31	0.395833	-3	2.447917	0	
21	N32	-4.1875	0	2.197917	0	
22	N33	-4.1875	0	2.447917	0	
23	N34	-4.1875	4	2.447917	0	
24	N35	-4.1875	-3	2.447917	0	
25	N36	-6.4375	0	2.197917	0	
26	N37	-6.4375	0	2.447917	0	
27	N38	-6.4375	4	2.447917	0	
28	N39	-6.4375	-3	2.447917	0	
29	N40	0	0	-2.59375	0	
30	N41	-.25	3.5	-2.59375	0	
31	N42	-.25	-.25	-2.59375	0	
32	N41A	6.729167	1	2.197917	0	
33	N42A	-6.729167	1	2.197917	0	
34	N43	5.729167	1	2.197917	0	
35	N44	5.729167	1	2.447917	0	
36	N45	3.729167	1	2.197917	0	
37	N46	3.729167	1	2.447917	0	
38	N47	0.395833	1	2.197917	0	
39	N48	0.395833	1	2.447917	0	
40	N49	-4.1875	1	2.197917	0	
41	N50	-4.1875	1	2.447917	0	
42	N51	-6.4375	1	2.197917	0	
43	N52	-6.4375	1	2.447917	0	
44	N53	0	1	-3.09375	0	
45	N54	0	1	1.90625	0	
46	N55	0	1	2.197917	0	
47	N47A	0	0	1.489583	0	
48	N48A	0	-3.083333	-3.09375	0	
49	N49A	-.25	0	-2.59375	0	

Hot Rolled Steel Section Sets

	Label	Shape	Type	Design List	Material	Design R...	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	2.5 pipe	PIPE_2.5	Column	Pipe	A53 Gr. B	Typical	1.61	1.45	1.45	2.89
3	Standoff Horizontal	PIPE_3.0	Column	Pipe	A53 Gr. B	Typical	2.07	2.85	2.85	5.69
4	Standoff Arm	HSS4X4X4	Beam	Tube	A500 Gr....	Typical	3.37	7.8	7.8	12.8
5	Mod Standoff	HSS3X3X4	Beam	Tube	A500 Gr....	Typical	2.44	3.02	3.02	5.08
6	Standoff Pipe	PIPE_3.0	Column	Pipe	A53 Gr. B	Typical	2.07	2.85	2.85	5.69
7	Horizontal	PIPE_3.0	Column	Pipe	A53 Gr. B	Typical	2.07	2.85	2.85	5.69
8	MOD FACE	PIPE_3.0	Column	Pipe	A53 Gr. B	Typical	2.07	2.85	2.85	5.69
9	Kicker	PIPE_3.0	Column	Pipe	A53 Gr. B	Typical	2.07	2.85	2.85	5.69
10	MOD Bracing	L2.5x2.5x4	Column	Single Angle	A36 Gr.36	Typical	1.19	.692	.692	.026
11	MOD KICKER	LL3x3x3x6	Column	Single Angle	A36 Gr.36	Typical	2.18	4.97	1.9	.027

Hot Rolled Steel Properties

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



Hot Rolled Steel Properties (Continued)

	Label	E [ksi]	G [ksi]	Nu	Therm (/1E...	Density[k/ft...	Yield[ksi]	Ry	Fu[ksi]	Rt
5	A500 Gr.46	29000	11154	.3	.65	.49	46	1.4	58	1.3
6	A53 Gr. B	29000	11154	.3	.65	.49	35	1.5	60	1.2
7	A500 Gr 50	29000	11154	.3	.65	.49	50	1.5	58	1.2

Member Primary Data

	Label	I Joint	J Joint	K Joint	Rotate(deg)	Section/Shape	Type	Design List	Material	Design Rules
1	M1	N1	N2			Standoff Arm	Beam	Tube	A500 Gr.46	Typical
2	M2	N4	N3			Standoff Pipe	Column	Pipe	A53 Gr. B	Typical
3	FACE	N7	N6			Horizontal	Column	Pipe	A53 Gr. B	Typical
4	MP1A	N13	N14			Antenna Pipe	Column	Pipe	A53 Gr. B	Typical
5	M8	N11	N12			RIGID	None	None	RIGID	Typical
6	M10A	N2	N5			RIGID	None	None	RIGID	Typical
7	MP2A	N26	N27			Antenna Pipe	Column	Pipe	A53 Gr. B	Typical
8	LIVE1	N24A	N25			RIGID	None	None	RIGID	Typical
9	MP3A	N30	N31			Antenna Pipe	Column	Pipe	A53 Gr. B	Typical
10	LIVE2	N28	N29			RIGID	None	None	RIGID	Typical
11	MP4A	N34	N35			Antenna Pipe	Column	Pipe	A53 Gr. B	Typical
12	M21	N32	N33			RIGID	None	None	RIGID	Typical
13	MP5A	N38	N39			Antenna Pipe	Column	Pipe	A53 Gr. B	Typical
14	M23	N36	N37			RIGID	None	None	RIGID	Typical
15	OVP	N41	N42			Antenna Pipe	Column	Pipe	A53 Gr. B	Typical
16	M25	N40	N49A			RIGID	None	None	RIGID	Typical
17	M25A	N42A	N41A			MOD FACE	Column	Pipe	A53 Gr. B	Typical
18	M26	N43	N44			RIGID	None	None	RIGID	Typical
19	M27	N45	N46			RIGID	None	None	RIGID	Typical
20	M28	N47	N48			RIGID	None	None	RIGID	Typical
21	M29	N49	N50			RIGID	None	None	RIGID	Typical
22	M30	N51	N52			RIGID	None	None	RIGID	Typical
23	M31	N53	N54			Mod Standoff	Beam	Tube	A500 Gr.46	Typical
24	M32	N54	N55			RIGID	None	None	RIGID	Typical
25	M25B	N48A	N47A			Kicker	Column	Pipe	A53 Gr. B	Typical

Hot Rolled Steel Design Parameters

	Label	Shape	Length[ft]	Lbyy[ft]	Lbzz[ft]	Lcomp top[ft]	Lcomp bot[ft]	L-torqu...	Kyy	Kzz	Cb	Function
1	M1	Standoff Arm	5			Lbyy						Lateral
2	M2	Standoff Pipe	1.5									Lateral
3	FACE	Horizontal	13.458									Lateral
4	MP1A	Antenna Pipe	7									Lateral
5	MP2A	Antenna Pipe	7									Lateral
6	MP3A	Antenna Pipe	7									Lateral
7	MP4A	Antenna Pipe	7									Lateral
8	MP5A	Antenna Pipe	7									Lateral
9	OVP	Antenna Pipe	3.75									Lateral
10	M25A	MOD FACE	13.458									Lateral
11	M31	Mod Standoff	5			Lbyy						Lateral
12	M25B	Kicker	5.524									Lateral

Member Point Loads (BLC 1 : Antenna D)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
1	MP4A	Y	-43.55	2
2	MP4A	My	-.022	2
3	MP4A	Mz	0	2



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
4	MP4A	Y	-43.55	4
5	MP4A	My	-.022	4
6	MP4A	Mz	0	4
7	MP2A	Y	-10.4	4.75
8	MP2A	My	.005	4.75
9	MP2A	Mz	0	4.75
10	MP2A	Y	-84.4	3
11	MP2A	My	.042	3
12	MP2A	Mz	0	3
13	MP3A	Y	-70.3	3
14	MP3A	My	.035	3
15	MP3A	Mz	0	3
16	MP2A	Y	-31.65	.5
17	MP2A	My	-.016	.5
18	MP2A	Mz	-.018	.5
19	MP2A	Y	-31.65	5.5
20	MP2A	My	-.016	5.5
21	MP2A	Mz	-.018	5.5
22	MP2A	Y	-31.65	.5
23	MP2A	My	-.016	.5
24	MP2A	Mz	.018	.5
25	MP2A	Y	-31.65	5.5
26	MP2A	My	-.016	5.5
27	MP2A	Mz	.018	5.5
28	MP1A	Y	-13.5	.5
29	MP1A	My	-.007	.5
30	MP1A	Mz	0	.5
31	MP1A	Y	-13.5	4.5
32	MP1A	My	-.007	4.5
33	MP1A	Mz	0	4.5
34	MP5A	Y	-13.5	.5
35	MP5A	My	-.007	.5
36	MP5A	Mz	0	.5
37	MP5A	Y	-13.5	4.5
38	MP5A	My	-.007	4.5
39	MP5A	Mz	0	4.5
40	OVP	Y	-32	.5
41	OVP	My	0	.5
42	OVP	Mz	0	.5

Member Point Loads (BLC 2 : Antenna Di)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
1	MP4A	Y	-54.958	2
2	MP4A	My	-.027	2
3	MP4A	Mz	0	2
4	MP4A	Y	-54.958	4
5	MP4A	My	-.027	4
6	MP4A	Mz	0	4
7	MP2A	Y	-17.754	4.75
8	MP2A	My	.009	4.75
9	MP2A	Mz	0	4.75
10	MP2A	Y	-69.812	3
11	MP2A	My	.035	3
12	MP2A	Mz	0	3
13	MP3A	Y	-63.014	3
14	MP3A	My	.032	3



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
15	MP3A	Mz	0	3
16	MP2A	Y	-106.972	.5
17	MP2A	My	-.053	.5
18	MP2A	Mz	-.062	.5
19	MP2A	Y	-106.972	5.5
20	MP2A	My	-.053	5.5
21	MP2A	Mz	-.062	5.5
22	MP2A	Y	-106.972	.5
23	MP2A	My	-.053	.5
24	MP2A	Mz	.062	.5
25	MP2A	Y	-106.972	5.5
26	MP2A	My	-.053	5.5
27	MP2A	Mz	.062	5.5
28	MP1A	Y	-134.631	.5
29	MP1A	My	-.067	.5
30	MP1A	Mz	0	.5
31	MP1A	Y	-134.631	4.5
32	MP1A	My	-.067	4.5
33	MP1A	Mz	0	4.5
34	MP5A	Y	-134.631	.5
35	MP5A	My	-.067	.5
36	MP5A	Mz	0	.5
37	MP5A	Y	-134.631	4.5
38	MP5A	My	-.067	4.5
39	MP5A	Mz	0	4.5
40	OVP	Y	-98.145	.5
41	OVP	My	0	.5
42	OVP	Mz	0	.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
1	MP4A	X	0	2
2	MP4A	Z	-88.632	2
3	MP4A	Mx	0	2
4	MP4A	X	0	4
5	MP4A	Z	-88.632	4
6	MP4A	Mx	0	4
7	MP2A	X	0	4.75
8	MP2A	Z	-13.955	4.75
9	MP2A	Mx	0	4.75
10	MP2A	X	0	3
11	MP2A	Z	-70.529	3
12	MP2A	Mx	0	3
13	MP3A	X	0	3
14	MP3A	Z	-70.529	3
15	MP3A	Mx	0	3
16	MP2A	X	0	.5
17	MP2A	Z	-171.796	.5
18	MP2A	Mx	.1	.5
19	MP2A	X	0	5.5
20	MP2A	Z	-171.796	5.5
21	MP2A	Mx	.1	5.5
22	MP2A	X	0	.5
23	MP2A	Z	-171.796	.5
24	MP2A	Mx	-.1	.5
25	MP2A	X	0	5.5



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
26	MP2A	Z	-171.796	5.5
27	MP2A	Mx	-.1	5.5
28	MP1A	X	0	.5
29	MP1A	Z	-181.036	.5
30	MP1A	Mx	0	.5
31	MP1A	X	0	4.5
32	MP1A	Z	-181.036	4.5
33	MP1A	Mx	0	4.5
34	MP5A	X	0	.5
35	MP5A	Z	-181.036	.5
36	MP5A	Mx	0	.5
37	MP5A	X	0	4.5
38	MP5A	Z	-181.036	4.5
39	MP5A	Mx	0	4.5
40	OVP	X	0	.5
41	OVP	Z	-108.955	.5
42	OVP	Mx	0	.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
1	MP4A	X	37.575	2
2	MP4A	Z	-65.081	2
3	MP4A	Mx	-.019	2
4	MP4A	X	37.575	4
5	MP4A	Z	-65.081	4
6	MP4A	Mx	-.019	4
7	MP2A	X	6.44	4.75
8	MP2A	Z	-11.154	4.75
9	MP2A	Mx	.003	4.75
10	MP2A	X	32.341	3
11	MP2A	Z	-56.017	3
12	MP2A	Mx	.016	3
13	MP3A	X	31.222	3
14	MP3A	Z	-54.078	3
15	MP3A	Mx	.016	3
16	MP2A	X	78.528	.5
17	MP2A	Z	-136.014	.5
18	MP2A	Mx	.04	.5
19	MP2A	X	78.528	5.5
20	MP2A	Z	-136.014	5.5
21	MP2A	Mx	.04	5.5
22	MP2A	X	78.528	.5
23	MP2A	Z	-136.014	.5
24	MP2A	Mx	-.119	.5
25	MP2A	X	78.528	5.5
26	MP2A	Z	-136.014	5.5
27	MP2A	Mx	-.119	5.5
28	MP1A	X	88.101	.5
29	MP1A	Z	-152.596	.5
30	MP1A	Mx	-.044	.5
31	MP1A	X	88.101	4.5
32	MP1A	Z	-152.596	4.5
33	MP1A	Mx	-.044	4.5
34	MP5A	X	88.101	.5
35	MP5A	Z	-152.596	.5
36	MP5A	Mx	-.044	.5



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
37	MP5A	X	88.101	4.5
38	MP5A	Z	-152.596	4.5
39	MP5A	Mx	-.044	4.5
40	OVP	X	56.173	.5
41	OVP	Z	-97.295	.5
42	OVP	Mx	0	.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
1	MP4A	X	41.727	2
2	MP4A	Z	-24.091	2
3	MP4A	Mx	-.021	2
4	MP4A	X	41.727	4
5	MP4A	Z	-24.091	4
6	MP4A	Mx	-.021	4
7	MP2A	X	9.293	4.75
8	MP2A	Z	-5.365	4.75
9	MP2A	Mx	.005	4.75
10	MP2A	X	45.891	3
11	MP2A	Z	-26.495	3
12	MP2A	Mx	.023	3
13	MP3A	X	40.073	3
14	MP3A	Z	-23.136	3
15	MP3A	Mx	.02	3
16	MP2A	X	110.482	.5
17	MP2A	Z	-63.787	.5
18	MP2A	Mx	-.018	.5
19	MP2A	X	110.482	5.5
20	MP2A	Z	-63.787	5.5
21	MP2A	Mx	-.018	5.5
22	MP2A	X	110.482	.5
23	MP2A	Z	-63.787	.5
24	MP2A	Mx	-.092	.5
25	MP2A	X	110.482	5.5
26	MP2A	Z	-63.787	5.5
27	MP2A	Mx	-.092	5.5
28	MP1A	X	144.224	.5
29	MP1A	Z	-83.268	.5
30	MP1A	Mx	-.072	.5
31	MP1A	X	144.224	4.5
32	MP1A	Z	-83.268	4.5
33	MP1A	Mx	-.072	4.5
34	MP5A	X	144.224	.5
35	MP5A	Z	-83.268	.5
36	MP5A	Mx	-.072	.5
37	MP5A	X	144.224	4.5
38	MP5A	Z	-83.268	4.5
39	MP5A	Mx	-.072	4.5
40	OVP	X	84.336	.5
41	OVP	Z	-48.692	.5
42	OVP	Mx	0	.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
1	MP4A	X	34.699	2
2	MP4A	Z	0	2



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
3	MP4A	Mx	-.017	2
4	MP4A	X	34.699	4
5	MP4A	Z	0	4
6	MP4A	Mx	-.017	4
7	MP2A	X	9.655	4.75
8	MP2A	Z	0	4.75
9	MP2A	Mx	.005	4.75
10	MP2A	X	47.145	3
11	MP2A	Z	0	3
12	MP2A	Mx	.024	3
13	MP3A	X	38.187	3
14	MP3A	Z	0	3
15	MP3A	Mx	.019	3
16	MP2A	X	112.833	.5
17	MP2A	Z	0	.5
18	MP2A	Mx	-.056	.5
19	MP2A	X	112.833	5.5
20	MP2A	Z	0	5.5
21	MP2A	Mx	-.056	5.5
22	MP2A	X	112.833	.5
23	MP2A	Z	0	.5
24	MP2A	Mx	-.056	.5
25	MP2A	X	112.833	5.5
26	MP2A	Z	0	5.5
27	MP2A	Mx	-.056	5.5
28	MP1A	X	161.702	.5
29	MP1A	Z	0	.5
30	MP1A	Mx	-.081	.5
31	MP1A	X	161.702	4.5
32	MP1A	Z	0	4.5
33	MP1A	Mx	-.081	4.5
34	MP5A	X	161.702	.5
35	MP5A	Z	0	.5
36	MP5A	Mx	-.081	.5
37	MP5A	X	161.702	4.5
38	MP5A	Z	0	4.5
39	MP5A	Mx	-.081	4.5
40	OVP	X	79.028	.5
41	OVP	Z	0	.5
42	OVP	Mx	0	.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
1	MP4A	X	41.727	2
2	MP4A	Z	24.091	2
3	MP4A	Mx	-.021	2
4	MP4A	X	41.727	4
5	MP4A	Z	24.091	4
6	MP4A	Mx	-.021	4
7	MP2A	X	9.293	4.75
8	MP2A	Z	5.365	4.75
9	MP2A	Mx	.005	4.75
10	MP2A	X	45.891	3
11	MP2A	Z	26.495	3
12	MP2A	Mx	.023	3
13	MP3A	X	40.073	3



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
14	MP3A	Z	23.136	3
15	MP3A	Mx	.02	3
16	MP2A	X	110.482	.5
17	MP2A	Z	63.787	.5
18	MP2A	Mx	-.092	.5
19	MP2A	X	110.482	5.5
20	MP2A	Z	63.787	5.5
21	MP2A	Mx	-.092	5.5
22	MP2A	X	110.482	.5
23	MP2A	Z	63.787	.5
24	MP2A	Mx	-.018	.5
25	MP2A	X	110.482	5.5
26	MP2A	Z	63.787	5.5
27	MP2A	Mx	-.018	5.5
28	MP1A	X	144.224	.5
29	MP1A	Z	83.268	.5
30	MP1A	Mx	-.072	.5
31	MP1A	X	144.224	4.5
32	MP1A	Z	83.268	4.5
33	MP1A	Mx	-.072	4.5
34	MP5A	X	144.224	.5
35	MP5A	Z	83.268	.5
36	MP5A	Mx	-.072	.5
37	MP5A	X	144.224	4.5
38	MP5A	Z	83.268	4.5
39	MP5A	Mx	-.072	4.5
40	OVP	X	65.502	.5
41	OVP	Z	37.818	.5
42	OVP	Mx	0	.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
1	MP4A	X	37.575	2
2	MP4A	Z	65.081	2
3	MP4A	Mx	-.019	2
4	MP4A	X	37.575	4
5	MP4A	Z	65.081	4
6	MP4A	Mx	-.019	4
7	MP2A	X	6.44	4.75
8	MP2A	Z	11.154	4.75
9	MP2A	Mx	.003	4.75
10	MP2A	X	32.341	3
11	MP2A	Z	56.017	3
12	MP2A	Mx	.016	3
13	MP3A	X	31.222	3
14	MP3A	Z	54.078	3
15	MP3A	Mx	.016	3
16	MP2A	X	78.528	.5
17	MP2A	Z	136.014	.5
18	MP2A	Mx	-.119	.5
19	MP2A	X	78.528	5.5
20	MP2A	Z	136.014	5.5
21	MP2A	Mx	-.119	5.5
22	MP2A	X	78.528	.5
23	MP2A	Z	136.014	.5
24	MP2A	Mx	.04	.5



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
25	MP2A	X	78.528	5.5
26	MP2A	Z	136.014	5.5
27	MP2A	Mx	.04	5.5
28	MP1A	X	88.101	.5
29	MP1A	Z	152.596	.5
30	MP1A	Mx	-.044	.5
31	MP1A	X	88.101	4.5
32	MP1A	Z	152.596	4.5
33	MP1A	Mx	-.044	4.5
34	MP5A	X	88.101	.5
35	MP5A	Z	152.596	.5
36	MP5A	Mx	-.044	.5
37	MP5A	X	88.101	4.5
38	MP5A	Z	152.596	4.5
39	MP5A	Mx	-.044	4.5
40	OVP	X	45.3	.5
41	OVP	Z	78.461	.5
42	OVP	Mx	0	.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
1	MP4A	X	0	2
2	MP4A	Z	88.632	2
3	MP4A	Mx	0	2
4	MP4A	X	0	4
5	MP4A	Z	88.632	4
6	MP4A	Mx	0	4
7	MP2A	X	0	4.75
8	MP2A	Z	13.955	4.75
9	MP2A	Mx	0	4.75
10	MP2A	X	0	3
11	MP2A	Z	70.529	3
12	MP2A	Mx	0	3
13	MP3A	X	0	3
14	MP3A	Z	70.529	3
15	MP3A	Mx	0	3
16	MP2A	X	0	.5
17	MP2A	Z	171.796	.5
18	MP2A	Mx	-.1	.5
19	MP2A	X	0	5.5
20	MP2A	Z	171.796	5.5
21	MP2A	Mx	-.1	5.5
22	MP2A	X	0	.5
23	MP2A	Z	171.796	.5
24	MP2A	Mx	.1	.5
25	MP2A	X	0	5.5
26	MP2A	Z	171.796	5.5
27	MP2A	Mx	.1	5.5
28	MP1A	X	0	.5
29	MP1A	Z	181.036	.5
30	MP1A	Mx	0	.5
31	MP1A	X	0	4.5
32	MP1A	Z	181.036	4.5
33	MP1A	Mx	0	4.5
34	MP5A	X	0	.5
35	MP5A	Z	181.036	.5



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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
36	MP5A	Mx	0	.5
37	MP5A	X	0	4.5
38	MP5A	Z	181.036	4.5
39	MP5A	Mx	0	4.5
40	OVP	X	0	.5
41	OVP	Z	108.955	.5
42	OVP	Mx	0	.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	-37.575	2
2	MP4A	Z	65.081	2
3	MP4A	Mx	.019	2
4	MP4A	X	-37.575	4
5	MP4A	Z	65.081	4
6	MP4A	Mx	.019	4
7	MP2A	X	-6.44	4.75
8	MP2A	Z	11.154	4.75
9	MP2A	Mx	-.003	4.75
10	MP2A	X	-32.341	3
11	MP2A	Z	56.017	3
12	MP2A	Mx	-.016	3
13	MP3A	X	-31.222	3
14	MP3A	Z	54.078	3
15	MP3A	Mx	-.016	3
16	MP2A	X	-78.528	.5
17	MP2A	Z	136.014	.5
18	MP2A	Mx	-.04	.5
19	MP2A	X	-78.528	5.5
20	MP2A	Z	136.014	5.5
21	MP2A	Mx	-.04	5.5
22	MP2A	X	-78.528	.5
23	MP2A	Z	136.014	.5
24	MP2A	Mx	.119	.5
25	MP2A	X	-78.528	5.5
26	MP2A	Z	136.014	5.5
27	MP2A	Mx	.119	5.5
28	MP1A	X	-88.101	.5
29	MP1A	Z	152.596	.5
30	MP1A	Mx	.044	.5
31	MP1A	X	-88.101	4.5
32	MP1A	Z	152.596	4.5
33	MP1A	Mx	.044	4.5
34	MP5A	X	-88.101	.5
35	MP5A	Z	152.596	.5
36	MP5A	Mx	.044	.5
37	MP5A	X	-88.101	4.5
38	MP5A	Z	152.596	4.5
39	MP5A	Mx	.044	4.5
40	OVP	X	-56.173	.5
41	OVP	Z	97.295	.5
42	OVP	Mx	0	.5

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

	Member Label	Direction	Magnitude[lb,k-ft]	Location[ft,%]
1	MP4A	X	-41.727	2



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
2	MP4A	Z	24.091	2
3	MP4A	Mx	.021	2
4	MP4A	X	-41.727	4
5	MP4A	Z	24.091	4
6	MP4A	Mx	.021	4
7	MP2A	X	-9.293	4.75
8	MP2A	Z	5.365	4.75
9	MP2A	Mx	-.005	4.75
10	MP2A	X	-45.891	3
11	MP2A	Z	26.495	3
12	MP2A	Mx	-.023	3
13	MP3A	X	-40.073	3
14	MP3A	Z	23.136	3
15	MP3A	Mx	-.02	3
16	MP2A	X	-110.482	.5
17	MP2A	Z	63.787	.5
18	MP2A	Mx	.018	.5
19	MP2A	X	-110.482	5.5
20	MP2A	Z	63.787	5.5
21	MP2A	Mx	.018	5.5
22	MP2A	X	-110.482	.5
23	MP2A	Z	63.787	.5
24	MP2A	Mx	.092	.5
25	MP2A	X	-110.482	5.5
26	MP2A	Z	63.787	5.5
27	MP2A	Mx	.092	5.5
28	MP1A	X	-144.224	.5
29	MP1A	Z	83.268	.5
30	MP1A	Mx	.072	.5
31	MP1A	X	-144.224	4.5
32	MP1A	Z	83.268	4.5
33	MP1A	Mx	.072	4.5
34	MP5A	X	-144.224	.5
35	MP5A	Z	83.268	.5
36	MP5A	Mx	.072	.5
37	MP5A	X	-144.224	4.5
38	MP5A	Z	83.268	4.5
39	MP5A	Mx	.072	4.5
40	OVP	X	-84.336	.5
41	OVP	Z	48.692	.5
42	OVP	Mx	0	.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
1	MP4A	X	-34.699	2
2	MP4A	Z	0	2
3	MP4A	Mx	.017	2
4	MP4A	X	-34.699	4
5	MP4A	Z	0	4
6	MP4A	Mx	.017	4
7	MP2A	X	-9.655	4.75
8	MP2A	Z	0	4.75
9	MP2A	Mx	-.005	4.75
10	MP2A	X	-47.145	3
11	MP2A	Z	0	3
12	MP2A	Mx	-.024	3



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
13	MP3A	X	-38.187	3
14	MP3A	Z	0	3
15	MP3A	Mx	-.019	3
16	MP2A	X	-112.833	.5
17	MP2A	Z	0	.5
18	MP2A	Mx	.056	.5
19	MP2A	X	-112.833	5.5
20	MP2A	Z	0	5.5
21	MP2A	Mx	.056	5.5
22	MP2A	X	-112.833	.5
23	MP2A	Z	0	.5
24	MP2A	Mx	.056	.5
25	MP2A	X	-112.833	5.5
26	MP2A	Z	0	5.5
27	MP2A	Mx	.056	5.5
28	MP1A	X	-161.702	.5
29	MP1A	Z	0	.5
30	MP1A	Mx	.081	.5
31	MP1A	X	-161.702	4.5
32	MP1A	Z	0	4.5
33	MP1A	Mx	.081	4.5
34	MP5A	X	-161.702	.5
35	MP5A	Z	0	.5
36	MP5A	Mx	.081	.5
37	MP5A	X	-161.702	4.5
38	MP5A	Z	0	4.5
39	MP5A	Mx	.081	4.5
40	OVP	X	-79.028	.5
41	OVP	Z	0	.5
42	OVP	Mx	0	.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft. %]
1	MP4A	X	-41.727	2
2	MP4A	Z	-24.091	2
3	MP4A	Mx	.021	2
4	MP4A	X	-41.727	4
5	MP4A	Z	-24.091	4
6	MP4A	Mx	.021	4
7	MP2A	X	-9.293	4.75
8	MP2A	Z	-5.365	4.75
9	MP2A	Mx	-.005	4.75
10	MP2A	X	-45.891	3
11	MP2A	Z	-26.495	3
12	MP2A	Mx	-.023	3
13	MP3A	X	-40.073	3
14	MP3A	Z	-23.136	3
15	MP3A	Mx	-.02	3
16	MP2A	X	-110.482	.5
17	MP2A	Z	-63.787	.5
18	MP2A	Mx	.092	.5
19	MP2A	X	-110.482	5.5
20	MP2A	Z	-63.787	5.5
21	MP2A	Mx	.092	5.5
22	MP2A	X	-110.482	.5
23	MP2A	Z	-63.787	.5



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
24	MP2A	Mx	.018	.5
25	MP2A	X	-110.482	5.5
26	MP2A	Z	-63.787	5.5
27	MP2A	Mx	.018	5.5
28	MP1A	X	-144.224	.5
29	MP1A	Z	-83.268	.5
30	MP1A	Mx	.072	.5
31	MP1A	X	-144.224	4.5
32	MP1A	Z	-83.268	4.5
33	MP1A	Mx	.072	4.5
34	MP5A	X	-144.224	.5
35	MP5A	Z	-83.268	.5
36	MP5A	Mx	.072	.5
37	MP5A	X	-144.224	4.5
38	MP5A	Z	-83.268	4.5
39	MP5A	Mx	.072	4.5
40	OVP	X	-65.502	.5
41	OVP	Z	-37.818	.5
42	OVP	Mx	0	.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
1	MP4A	X	-37.575	2
2	MP4A	Z	-65.081	2
3	MP4A	Mx	.019	2
4	MP4A	X	-37.575	4
5	MP4A	Z	-65.081	4
6	MP4A	Mx	.019	4
7	MP2A	X	-6.44	4.75
8	MP2A	Z	-11.154	4.75
9	MP2A	Mx	-.003	4.75
10	MP2A	X	-32.341	3
11	MP2A	Z	-56.017	3
12	MP2A	Mx	-.016	3
13	MP3A	X	-31.222	3
14	MP3A	Z	-54.078	3
15	MP3A	Mx	-.016	3
16	MP2A	X	-78.528	.5
17	MP2A	Z	-136.014	.5
18	MP2A	Mx	.119	.5
19	MP2A	X	-78.528	5.5
20	MP2A	Z	-136.014	5.5
21	MP2A	Mx	.119	5.5
22	MP2A	X	-78.528	.5
23	MP2A	Z	-136.014	.5
24	MP2A	Mx	-.04	.5
25	MP2A	X	-78.528	5.5
26	MP2A	Z	-136.014	5.5
27	MP2A	Mx	-.04	5.5
28	MP1A	X	-88.101	.5
29	MP1A	Z	-152.596	.5
30	MP1A	Mx	.044	.5
31	MP1A	X	-88.101	4.5
32	MP1A	Z	-152.596	4.5
33	MP1A	Mx	.044	4.5
34	MP5A	X	-88.101	.5



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
35	MP5A	Z	-152.596	.5
36	MP5A	Mx	.044	.5
37	MP5A	X	-88.101	4.5
38	MP5A	Z	-152.596	4.5
39	MP5A	Mx	.044	4.5
40	OVP	X	-45.3	.5
41	OVP	Z	-78.461	.5
42	OVP	Mx	0	.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
1	MP4A	X	0	2
2	MP4A	Z	-19.642	2
3	MP4A	Mx	0	2
4	MP4A	X	0	4
5	MP4A	Z	-19.642	4
6	MP4A	Mx	0	4
7	MP2A	X	0	4.75
8	MP2A	Z	-4.5	4.75
9	MP2A	Mx	0	4.75
10	MP2A	X	0	3
11	MP2A	Z	-16.983	3
12	MP2A	Mx	0	3
13	MP3A	X	0	3
14	MP3A	Z	-16.983	3
15	MP3A	Mx	0	3
16	MP2A	X	0	.5
17	MP2A	Z	-36.481	.5
18	MP2A	Mx	.021	.5
19	MP2A	X	0	5.5
20	MP2A	Z	-36.481	5.5
21	MP2A	Mx	.021	5.5
22	MP2A	X	0	.5
23	MP2A	Z	-36.481	.5
24	MP2A	Mx	-.021	.5
25	MP2A	X	0	5.5
26	MP2A	Z	-36.481	5.5
27	MP2A	Mx	-.021	5.5
28	MP1A	X	0	.5
29	MP1A	Z	-38.216	.5
30	MP1A	Mx	0	.5
31	MP1A	X	0	4.5
32	MP1A	Z	-38.216	4.5
33	MP1A	Mx	0	4.5
34	MP5A	X	0	.5
35	MP5A	Z	-38.216	.5
36	MP5A	Mx	0	.5
37	MP5A	X	0	4.5
38	MP5A	Z	-38.216	4.5
39	MP5A	Mx	0	4.5
40	OVP	X	0	.5
41	OVP	Z	-25.011	.5
42	OVP	Mx	0	.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
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Member Point Loads (BLC 16 : Antenna Wi (30 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
1	MP4A	X	8.453	2
2	MP4A	Z	-14.641	2
3	MP4A	Mx	-.004	2
4	MP4A	X	8.453	4
5	MP4A	Z	-14.641	4
6	MP4A	Mx	-.004	4
7	MP2A	X	2.121	4.75
8	MP2A	Z	-3.675	4.75
9	MP2A	Mx	.001	4.75
10	MP2A	X	7.872	3
11	MP2A	Z	-13.635	3
12	MP2A	Mx	.004	3
13	MP3A	X	7.637	3
14	MP3A	Z	-13.227	3
15	MP3A	Mx	.004	3
16	MP2A	X	16.833	.5
17	MP2A	Z	-29.156	.5
18	MP2A	Mx	.009	.5
19	MP2A	X	16.833	5.5
20	MP2A	Z	-29.156	5.5
21	MP2A	Mx	.009	5.5
22	MP2A	X	16.833	.5
23	MP2A	Z	-29.156	.5
24	MP2A	Mx	-.025	.5
25	MP2A	X	16.833	5.5
26	MP2A	Z	-29.156	5.5
27	MP2A	Mx	-.025	5.5
28	MP1A	X	18.642	.5
29	MP1A	Z	-32.288	.5
30	MP1A	Mx	-.009	.5
31	MP1A	X	18.642	4.5
32	MP1A	Z	-32.288	4.5
33	MP1A	Mx	-.009	4.5
34	MP5A	X	18.642	.5
35	MP5A	Z	-32.288	.5
36	MP5A	Mx	-.009	.5
37	MP5A	X	18.642	4.5
38	MP5A	Z	-32.288	4.5
39	MP5A	Mx	-.009	4.5
40	OVP	X	12.847	.5
41	OVP	Z	-22.252	.5
42	OVP	Mx	0	.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
1	MP4A	X	9.903	2
2	MP4A	Z	-5.717	2
3	MP4A	Mx	-.005	2
4	MP4A	X	9.903	4
5	MP4A	Z	-5.717	4
6	MP4A	Mx	-.005	4
7	MP2A	X	3.23	4.75
8	MP2A	Z	-1.865	4.75
9	MP2A	Mx	.002	4.75
10	MP2A	X	11.489	3
11	MP2A	Z	-6.633	3



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
12	MP2A	Mx	.006	3
13	MP3A	X	10.266	3
14	MP3A	Z	-5.927	3
15	MP3A	Mx	.005	3
16	MP2A	X	24.281	.5
17	MP2A	Z	-14.019	.5
18	MP2A	Mx	-.004	.5
19	MP2A	X	24.281	5.5
20	MP2A	Z	-14.019	5.5
21	MP2A	Mx	-.004	5.5
22	MP2A	X	24.281	.5
23	MP2A	Z	-14.019	.5
24	MP2A	Mx	-.02	.5
25	MP2A	X	24.281	5.5
26	MP2A	Z	-14.019	5.5
27	MP2A	Mx	-.02	5.5
28	MP1A	X	30.673	.5
29	MP1A	Z	-17.709	.5
30	MP1A	Mx	-.015	.5
31	MP1A	X	30.673	4.5
32	MP1A	Z	-17.709	4.5
33	MP1A	Mx	-.015	4.5
34	MP5A	X	30.673	.5
35	MP5A	Z	-17.709	.5
36	MP5A	Mx	-.015	.5
37	MP5A	X	30.673	4.5
38	MP5A	Z	-17.709	4.5
39	MP5A	Mx	-.015	4.5
40	OVP	X	19.64	.5
41	OVP	Z	-11.339	.5
42	OVP	Mx	0	.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
1	MP4A	X	8.699	2
2	MP4A	Z	0	2
3	MP4A	Mx	-.004	2
4	MP4A	X	8.699	4
5	MP4A	Z	0	4
6	MP4A	Mx	-.004	4
7	MP2A	X	3.473	4.75
8	MP2A	Z	0	4.75
9	MP2A	Mx	.002	4.75
10	MP2A	X	12.027	3
11	MP2A	Z	0	3
12	MP2A	Mx	.006	3
13	MP3A	X	10.144	3
14	MP3A	Z	0	3
15	MP3A	Mx	.005	3
16	MP2A	X	25.223	.5
17	MP2A	Z	0	.5
18	MP2A	Mx	-.013	.5
19	MP2A	X	25.223	5.5
20	MP2A	Z	0	5.5
21	MP2A	Mx	-.013	5.5
22	MP2A	X	25.223	.5



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
23	MP2A	Z	0	.5
24	MP2A	Mx	-.013	.5
25	MP2A	X	25.223	5.5
26	MP2A	Z	0	5.5
27	MP2A	Mx	-.013	5.5
28	MP1A	X	34.486	.5
29	MP1A	Z	0	.5
30	MP1A	Mx	-.017	.5
31	MP1A	X	34.486	4.5
32	MP1A	Z	0	4.5
33	MP1A	Mx	-.017	4.5
34	MP5A	X	34.486	.5
35	MP5A	Z	0	.5
36	MP5A	Mx	-.017	.5
37	MP5A	X	34.486	4.5
38	MP5A	Z	0	4.5
39	MP5A	Mx	-.017	4.5
40	OVP	X	18.979	.5
41	OVP	Z	0	.5
42	OVP	Mx	0	.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
1	MP4A	X	9.903	2
2	MP4A	Z	5.717	2
3	MP4A	Mx	-.005	2
4	MP4A	X	9.903	4
5	MP4A	Z	5.717	4
6	MP4A	Mx	-.005	4
7	MP2A	X	3.23	4.75
8	MP2A	Z	1.865	4.75
9	MP2A	Mx	.002	4.75
10	MP2A	X	11.489	3
11	MP2A	Z	6.633	3
12	MP2A	Mx	.006	3
13	MP3A	X	10.266	3
14	MP3A	Z	5.927	3
15	MP3A	Mx	.005	3
16	MP2A	X	24.281	.5
17	MP2A	Z	14.019	.5
18	MP2A	Mx	-.02	.5
19	MP2A	X	24.281	5.5
20	MP2A	Z	14.019	5.5
21	MP2A	Mx	-.02	5.5
22	MP2A	X	24.281	.5
23	MP2A	Z	14.019	.5
24	MP2A	Mx	-.004	.5
25	MP2A	X	24.281	5.5
26	MP2A	Z	14.019	5.5
27	MP2A	Mx	-.004	5.5
28	MP1A	X	30.673	.5
29	MP1A	Z	17.709	.5
30	MP1A	Mx	-.015	.5
31	MP1A	X	30.673	4.5
32	MP1A	Z	17.709	4.5
33	MP1A	Mx	-.015	4.5



Company : Maser Consulting
 Designer :
 Job Number :
 Model Name : 648355-VZW

June 28, 2021
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Member Point Loads (BLC 19 : Antenna Wi (120 Deg)) (Continued)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
34	MP5A	X	30.673	.5
35	MP5A	Z	17.709	.5
36	MP5A	Mx	-.015	.5
37	MP5A	X	30.673	4.5
38	MP5A	Z	17.709	4.5
39	MP5A	Mx	-.015	4.5
40	OVP	X	15.844	.5
41	OVP	Z	9.148	.5
42	OVP	Mx	0	.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
1	MP4A	X	8.453	2
2	MP4A	Z	14.641	2
3	MP4A	Mx	-.004	2
4	MP4A	X	8.453	4
5	MP4A	Z	14.641	4
6	MP4A	Mx	-.004	4
7	MP2A	X	2.121	4.75
8	MP2A	Z	3.675	4.75
9	MP2A	Mx	.001	4.75
10	MP2A	X	7.872	3
11	MP2A	Z	13.635	3
12	MP2A	Mx	.004	3
13	MP3A	X	7.637	3
14	MP3A	Z	13.227	3
15	MP3A	Mx	.004	3
16	MP2A	X	16.833	.5
17	MP2A	Z	29.156	.5
18	MP2A	Mx	-.025	.5
19	MP2A	X	16.833	5.5
20	MP2A	Z	29.156	5.5
21	MP2A	Mx	-.025	5.5
22	MP2A	X	16.833	.5
23	MP2A	Z	29.156	.5
24	MP2A	Mx	.009	.5
25	MP2A	X	16.833	5.5
26	MP2A	Z	29.156	5.5
27	MP2A	Mx	.009	5.5
28	MP1A	X	18.642	.5
29	MP1A	Z	32.288	.5
30	MP1A	Mx	-.009	.5
31	MP1A	X	18.642	4.5
32	MP1A	Z	32.288	4.5
33	MP1A	Mx	-.009	4.5
34	MP5A	X	18.642	.5
35	MP5A	Z	32.288	.5
36	MP5A	Mx	-.009	.5
37	MP5A	X	18.642	4.5
38	MP5A	Z	32.288	4.5
39	MP5A	Mx	-.009	4.5
40	OVP	X	10.656	.5
41	OVP	Z	18.456	.5
42	OVP	Mx	0	.5



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
1	MP4A	X	0	2
2	MP4A	Z	19.642	2
3	MP4A	Mx	0	2
4	MP4A	X	0	4
5	MP4A	Z	19.642	4
6	MP4A	Mx	0	4
7	MP2A	X	0	4.75
8	MP2A	Z	4.5	4.75
9	MP2A	Mx	0	4.75
10	MP2A	X	0	3
11	MP2A	Z	16.983	3
12	MP2A	Mx	0	3
13	MP3A	X	0	3
14	MP3A	Z	16.983	3
15	MP3A	Mx	0	3
16	MP2A	X	0	.5
17	MP2A	Z	36.481	.5
18	MP2A	Mx	-.021	.5
19	MP2A	X	0	5.5
20	MP2A	Z	36.481	5.5
21	MP2A	Mx	-.021	5.5
22	MP2A	X	0	.5
23	MP2A	Z	36.481	.5
24	MP2A	Mx	.021	.5
25	MP2A	X	0	5.5
26	MP2A	Z	36.481	5.5
27	MP2A	Mx	.021	5.5
28	MP1A	X	0	.5
29	MP1A	Z	38.216	.5
30	MP1A	Mx	0	.5
31	MP1A	X	0	4.5
32	MP1A	Z	38.216	4.5
33	MP1A	Mx	0	4.5
34	MP5A	X	0	.5
35	MP5A	Z	38.216	.5
36	MP5A	Mx	0	.5
37	MP5A	X	0	4.5
38	MP5A	Z	38.216	4.5
39	MP5A	Mx	0	4.5
40	OVP	X	0	.5
41	OVP	Z	25.011	.5
42	OVP	Mx	0	.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
1	MP4A	X	-8.453	2
2	MP4A	Z	14.641	2
3	MP4A	Mx	.004	2
4	MP4A	X	-8.453	4
5	MP4A	Z	14.641	4
6	MP4A	Mx	.004	4
7	MP2A	X	-2.121	4.75
8	MP2A	Z	3.675	4.75
9	MP2A	Mx	-.001	4.75
10	MP2A	X	-7.872	3
11	MP2A	Z	13.635	3



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
23	MP2A	Z	14.019	.5
24	MP2A	Mx	.02	.5
25	MP2A	X	-24.281	5.5
26	MP2A	Z	14.019	5.5
27	MP2A	Mx	.02	5.5
28	MP1A	X	-30.673	.5
29	MP1A	Z	17.709	.5
30	MP1A	Mx	.015	.5
31	MP1A	X	-30.673	4.5
32	MP1A	Z	17.709	4.5
33	MP1A	Mx	.015	4.5
34	MP5A	X	-30.673	.5
35	MP5A	Z	17.709	.5
36	MP5A	Mx	.015	.5
37	MP5A	X	-30.673	4.5
38	MP5A	Z	17.709	4.5
39	MP5A	Mx	.015	4.5
40	OVP	X	-19.64	.5
41	OVP	Z	11.339	.5
42	OVP	Mx	0	.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
1	MP4A	X	-8.699	2
2	MP4A	Z	0	2
3	MP4A	Mx	.004	2
4	MP4A	X	-8.699	4
5	MP4A	Z	0	4
6	MP4A	Mx	.004	4
7	MP2A	X	-3.473	4.75
8	MP2A	Z	0	4.75
9	MP2A	Mx	-.002	4.75
10	MP2A	X	-12.027	3
11	MP2A	Z	0	3
12	MP2A	Mx	-.006	3
13	MP3A	X	-10.144	3
14	MP3A	Z	0	3
15	MP3A	Mx	-.005	3
16	MP2A	X	-25.223	.5
17	MP2A	Z	0	.5
18	MP2A	Mx	.013	.5
19	MP2A	X	-25.223	5.5
20	MP2A	Z	0	5.5
21	MP2A	Mx	.013	5.5
22	MP2A	X	-25.223	.5
23	MP2A	Z	0	.5
24	MP2A	Mx	.013	.5
25	MP2A	X	-25.223	5.5
26	MP2A	Z	0	5.5
27	MP2A	Mx	.013	5.5
28	MP1A	X	-34.486	.5
29	MP1A	Z	0	.5
30	MP1A	Mx	.017	.5
31	MP1A	X	-34.486	4.5
32	MP1A	Z	0	4.5
33	MP1A	Mx	.017	4.5



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
1	MP4A	X	-8.453	2
2	MP4A	Z	-14.641	2
3	MP4A	Mx	.004	2
4	MP4A	X	-8.453	4
5	MP4A	Z	-14.641	4
6	MP4A	Mx	.004	4
7	MP2A	X	-2.121	4.75
8	MP2A	Z	-3.675	4.75
9	MP2A	Mx	-.001	4.75
10	MP2A	X	-7.872	3
11	MP2A	Z	-13.635	3
12	MP2A	Mx	-.004	3
13	MP3A	X	-7.637	3
14	MP3A	Z	-13.227	3
15	MP3A	Mx	-.004	3
16	MP2A	X	-16.833	.5
17	MP2A	Z	-29.156	.5
18	MP2A	Mx	.025	.5
19	MP2A	X	-16.833	5.5
20	MP2A	Z	-29.156	5.5
21	MP2A	Mx	.025	5.5
22	MP2A	X	-16.833	.5
23	MP2A	Z	-29.156	.5
24	MP2A	Mx	-.009	.5
25	MP2A	X	-16.833	5.5
26	MP2A	Z	-29.156	5.5
27	MP2A	Mx	-.009	5.5
28	MP1A	X	-18.642	.5
29	MP1A	Z	-32.288	.5
30	MP1A	Mx	.009	.5
31	MP1A	X	-18.642	4.5
32	MP1A	Z	-32.288	4.5
33	MP1A	Mx	.009	4.5
34	MP5A	X	-18.642	.5
35	MP5A	Z	-32.288	.5
36	MP5A	Mx	.009	.5
37	MP5A	X	-18.642	4.5
38	MP5A	Z	-32.288	4.5
39	MP5A	Mx	.009	4.5
40	OVP	X	-10.656	.5
41	OVP	Z	-18.456	.5
42	OVP	Mx	0	.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
1	MP4A	X	0	2
2	MP4A	Z	-5.928	2
3	MP4A	Mx	0	2
4	MP4A	X	0	4
5	MP4A	Z	-5.928	4
6	MP4A	Mx	0	4
7	MP2A	X	0	4.75
8	MP2A	Z	-.933	4.75
9	MP2A	Mx	0	4.75
10	MP2A	X	0	3
11	MP2A	Z	-4.717	3



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.-%]
23	MP2A	Z	-9.097	.5
24	MP2A	Mx	-.008	.5
25	MP2A	X	5.252	5.5
26	MP2A	Z	-9.097	5.5
27	MP2A	Mx	-.008	5.5
28	MP1A	X	5.893	.5
29	MP1A	Z	-10.206	.5
30	MP1A	Mx	-.003	.5
31	MP1A	X	5.893	4.5
32	MP1A	Z	-10.206	4.5
33	MP1A	Mx	-.003	4.5
34	MP5A	X	5.893	.5
35	MP5A	Z	-10.206	.5
36	MP5A	Mx	-.003	.5
37	MP5A	X	5.893	4.5
38	MP5A	Z	-10.206	4.5
39	MP5A	Mx	-.003	4.5
40	OVP	X	3.757	.5
41	OVP	Z	-6.508	.5
42	OVP	Mx	0	.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.-%]
1	MP4A	X	2.791	2
2	MP4A	Z	-1.611	2
3	MP4A	Mx	-.001	2
4	MP4A	X	2.791	4
5	MP4A	Z	-1.611	4
6	MP4A	Mx	-.001	4
7	MP2A	X	.622	4.75
8	MP2A	Z	-.359	4.75
9	MP2A	Mx	.000311	4.75
10	MP2A	X	3.069	3
11	MP2A	Z	-1.772	3
12	MP2A	Mx	.002	3
13	MP3A	X	2.68	3
14	MP3A	Z	-1.547	3
15	MP3A	Mx	.001	3
16	MP2A	X	7.39	.5
17	MP2A	Z	-4.266	.5
18	MP2A	Mx	-.001	.5
19	MP2A	X	7.39	5.5
20	MP2A	Z	-4.266	5.5
21	MP2A	Mx	-.001	5.5
22	MP2A	X	7.39	.5
23	MP2A	Z	-4.266	.5
24	MP2A	Mx	-.006	.5
25	MP2A	X	7.39	5.5
26	MP2A	Z	-4.266	5.5
27	MP2A	Mx	-.006	5.5
28	MP1A	X	9.646	.5
29	MP1A	Z	-5.569	.5
30	MP1A	Mx	-.005	.5
31	MP1A	X	9.646	4.5
32	MP1A	Z	-5.569	4.5
33	MP1A	Mx	-.005	4.5



Company : Maser Consulting
 Designer :
 Job Number :
 Model Name : 648355-VZW

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 9:28 AM
 Checked By: _____

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
34	MP5A	X	9.646	.5
35	MP5A	Z	-5.569	.5
36	MP5A	Mx	-.005	.5
37	MP5A	X	9.646	4.5
38	MP5A	Z	-5.569	4.5
39	MP5A	Mx	-.005	4.5
40	OVP	X	5.641	.5
41	OVP	Z	-3.257	.5
42	OVP	Mx	0	.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
1	MP4A	X	2.321	2
2	MP4A	Z	0	2
3	MP4A	Mx	-.001	2
4	MP4A	X	2.321	4
5	MP4A	Z	0	4
6	MP4A	Mx	-.001	4
7	MP2A	X	.646	4.75
8	MP2A	Z	0	4.75
9	MP2A	Mx	.000323	4.75
10	MP2A	X	3.153	3
11	MP2A	Z	0	3
12	MP2A	Mx	.002	3
13	MP3A	X	2.554	3
14	MP3A	Z	0	3
15	MP3A	Mx	.001	3
16	MP2A	X	7.547	.5
17	MP2A	Z	0	.5
18	MP2A	Mx	-.004	.5
19	MP2A	X	7.547	5.5
20	MP2A	Z	0	5.5
21	MP2A	Mx	-.004	5.5
22	MP2A	X	7.547	.5
23	MP2A	Z	0	.5
24	MP2A	Mx	-.004	.5
25	MP2A	X	7.547	5.5
26	MP2A	Z	0	5.5
27	MP2A	Mx	-.004	5.5
28	MP1A	X	10.815	.5
29	MP1A	Z	0	.5
30	MP1A	Mx	-.005	.5
31	MP1A	X	10.815	4.5
32	MP1A	Z	0	4.5
33	MP1A	Mx	-.005	4.5
34	MP5A	X	10.815	.5
35	MP5A	Z	0	.5
36	MP5A	Mx	-.005	.5
37	MP5A	X	10.815	4.5
38	MP5A	Z	0	4.5
39	MP5A	Mx	-.005	4.5
40	OVP	X	5.286	.5
41	OVP	Z	0	.5
42	OVP	Mx	0	.5



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
1	MP4A	X	2.791	2
2	MP4A	Z	1.611	2
3	MP4A	Mx	-.001	2
4	MP4A	X	2.791	4
5	MP4A	Z	1.611	4
6	MP4A	Mx	-.001	4
7	MP2A	X	.622	4.75
8	MP2A	Z	.359	4.75
9	MP2A	Mx	.000311	4.75
10	MP2A	X	3.069	3
11	MP2A	Z	1.772	3
12	MP2A	Mx	.002	3
13	MP3A	X	2.68	3
14	MP3A	Z	1.547	3
15	MP3A	Mx	.001	3
16	MP2A	X	7.39	.5
17	MP2A	Z	4.266	.5
18	MP2A	Mx	-.006	.5
19	MP2A	X	7.39	5.5
20	MP2A	Z	4.266	5.5
21	MP2A	Mx	-.006	5.5
22	MP2A	X	7.39	.5
23	MP2A	Z	4.266	.5
24	MP2A	Mx	-.001	.5
25	MP2A	X	7.39	5.5
26	MP2A	Z	4.266	5.5
27	MP2A	Mx	-.001	5.5
28	MP1A	X	9.646	.5
29	MP1A	Z	5.569	.5
30	MP1A	Mx	-.005	.5
31	MP1A	X	9.646	4.5
32	MP1A	Z	5.569	4.5
33	MP1A	Mx	-.005	4.5
34	MP5A	X	9.646	.5
35	MP5A	Z	5.569	.5
36	MP5A	Mx	-.005	.5
37	MP5A	X	9.646	4.5
38	MP5A	Z	5.569	4.5
39	MP5A	Mx	-.005	4.5
40	OVP	X	4.381	.5
41	OVP	Z	2.529	.5
42	OVP	Mx	0	.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
1	MP4A	X	2.513	2
2	MP4A	Z	4.353	2
3	MP4A	Mx	-.001	2
4	MP4A	X	2.513	4
5	MP4A	Z	4.353	4
6	MP4A	Mx	-.001	4
7	MP2A	X	.431	4.75
8	MP2A	Z	.746	4.75
9	MP2A	Mx	.000215	4.75
10	MP2A	X	2.163	3
11	MP2A	Z	3.747	3



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
12	MP2A	Mx	.001	3
13	MP3A	X	2.088	3
14	MP3A	Z	3.617	3
15	MP3A	Mx	.001	3
16	MP2A	X	5.252	.5
17	MP2A	Z	9.097	.5
18	MP2A	Mx	-.008	.5
19	MP2A	X	5.252	5.5
20	MP2A	Z	9.097	5.5
21	MP2A	Mx	-.008	5.5
22	MP2A	X	5.252	.5
23	MP2A	Z	9.097	.5
24	MP2A	Mx	.003	.5
25	MP2A	X	5.252	5.5
26	MP2A	Z	9.097	5.5
27	MP2A	Mx	.003	5.5
28	MP1A	X	5.893	.5
29	MP1A	Z	10.206	.5
30	MP1A	Mx	-.003	.5
31	MP1A	X	5.893	4.5
32	MP1A	Z	10.206	4.5
33	MP1A	Mx	-.003	4.5
34	MP5A	X	5.893	.5
35	MP5A	Z	10.206	.5
36	MP5A	Mx	-.003	.5
37	MP5A	X	5.893	4.5
38	MP5A	Z	10.206	4.5
39	MP5A	Mx	-.003	4.5
40	OVP	X	3.03	.5
41	OVP	Z	5.248	.5
42	OVP	Mx	0	.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
1	MP4A	X	0	2
2	MP4A	Z	5.928	2
3	MP4A	Mx	0	2
4	MP4A	X	0	4
5	MP4A	Z	5.928	4
6	MP4A	Mx	0	4
7	MP2A	X	0	4.75
8	MP2A	Z	.933	4.75
9	MP2A	Mx	0	4.75
10	MP2A	X	0	3
11	MP2A	Z	4.717	3
12	MP2A	Mx	0	3
13	MP3A	X	0	3
14	MP3A	Z	4.717	3
15	MP3A	Mx	0	3
16	MP2A	X	0	.5
17	MP2A	Z	11.491	.5
18	MP2A	Mx	-.007	.5
19	MP2A	X	0	5.5
20	MP2A	Z	11.491	5.5
21	MP2A	Mx	-.007	5.5
22	MP2A	X	0	.5



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.-%]
23	MP2A	Z	11.491	.5
24	MP2A	Mx	.007	.5
25	MP2A	X	0	5.5
26	MP2A	Z	11.491	5.5
27	MP2A	Mx	.007	5.5
28	MP1A	X	0	.5
29	MP1A	Z	12.109	.5
30	MP1A	Mx	0	.5
31	MP1A	X	0	4.5
32	MP1A	Z	12.109	4.5
33	MP1A	Mx	0	4.5
34	MP5A	X	0	.5
35	MP5A	Z	12.109	.5
36	MP5A	Mx	0	.5
37	MP5A	X	0	4.5
38	MP5A	Z	12.109	4.5
39	MP5A	Mx	0	4.5
40	OVP	X	0	.5
41	OVP	Z	7.287	.5
42	OVP	Mx	0	.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft.-%]
1	MP4A	X	-2.513	2
2	MP4A	Z	4.353	2
3	MP4A	Mx	.001	2
4	MP4A	X	-2.513	4
5	MP4A	Z	4.353	4
6	MP4A	Mx	.001	4
7	MP2A	X	-.431	4.75
8	MP2A	Z	.746	4.75
9	MP2A	Mx	-.000215	4.75
10	MP2A	X	-2.163	3
11	MP2A	Z	3.747	3
12	MP2A	Mx	-.001	3
13	MP3A	X	-2.088	3
14	MP3A	Z	3.617	3
15	MP3A	Mx	-.001	3
16	MP2A	X	-5.252	.5
17	MP2A	Z	9.097	.5
18	MP2A	Mx	-.003	.5
19	MP2A	X	-5.252	5.5
20	MP2A	Z	9.097	5.5
21	MP2A	Mx	-.003	5.5
22	MP2A	X	-5.252	.5
23	MP2A	Z	9.097	.5
24	MP2A	Mx	.008	.5
25	MP2A	X	-5.252	5.5
26	MP2A	Z	9.097	5.5
27	MP2A	Mx	.008	5.5
28	MP1A	X	-5.893	.5
29	MP1A	Z	10.206	.5
30	MP1A	Mx	.003	.5
31	MP1A	X	-5.893	4.5
32	MP1A	Z	10.206	4.5
33	MP1A	Mx	.003	4.5



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
34	MP5A	X	-5.893	.5
35	MP5A	Z	10.206	.5
36	MP5A	Mx	.003	.5
37	MP5A	X	-5.893	4.5
38	MP5A	Z	10.206	4.5
39	MP5A	Mx	.003	4.5
40	OVP	X	-3.757	.5
41	OVP	Z	6.508	.5
42	OVP	Mx	0	.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
1	MP4A	X	-2.791	2
2	MP4A	Z	1.611	2
3	MP4A	Mx	.001	2
4	MP4A	X	-2.791	4
5	MP4A	Z	1.611	4
6	MP4A	Mx	.001	4
7	MP2A	X	-.622	4.75
8	MP2A	Z	.359	4.75
9	MP2A	Mx	-.000311	4.75
10	MP2A	X	-3.069	3
11	MP2A	Z	1.772	3
12	MP2A	Mx	-.002	3
13	MP3A	X	-2.68	3
14	MP3A	Z	1.547	3
15	MP3A	Mx	-.001	3
16	MP2A	X	-7.39	.5
17	MP2A	Z	4.266	.5
18	MP2A	Mx	.001	.5
19	MP2A	X	-7.39	5.5
20	MP2A	Z	4.266	5.5
21	MP2A	Mx	.001	5.5
22	MP2A	X	-7.39	.5
23	MP2A	Z	4.266	.5
24	MP2A	Mx	.006	.5
25	MP2A	X	-7.39	5.5
26	MP2A	Z	4.266	5.5
27	MP2A	Mx	.006	5.5
28	MP1A	X	-9.646	.5
29	MP1A	Z	5.569	.5
30	MP1A	Mx	.005	.5
31	MP1A	X	-9.646	4.5
32	MP1A	Z	5.569	4.5
33	MP1A	Mx	.005	4.5
34	MP5A	X	-9.646	.5
35	MP5A	Z	5.569	.5
36	MP5A	Mx	.005	.5
37	MP5A	X	-9.646	4.5
38	MP5A	Z	5.569	4.5
39	MP5A	Mx	.005	4.5
40	OVP	X	-5.641	.5
41	OVP	Z	3.257	.5
42	OVP	Mx	0	.5



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
1	MP4A	X	-2.321	2
2	MP4A	Z	0	2
3	MP4A	Mx	.001	2
4	MP4A	X	-2.321	4
5	MP4A	Z	0	4
6	MP4A	Mx	.001	4
7	MP2A	X	-.646	4.75
8	MP2A	Z	0	4.75
9	MP2A	Mx	-.000323	4.75
10	MP2A	X	-3.153	3
11	MP2A	Z	0	3
12	MP2A	Mx	-.002	3
13	MP3A	X	-2.554	3
14	MP3A	Z	0	3
15	MP3A	Mx	-.001	3
16	MP2A	X	-7.547	.5
17	MP2A	Z	0	.5
18	MP2A	Mx	.004	.5
19	MP2A	X	-7.547	5.5
20	MP2A	Z	0	5.5
21	MP2A	Mx	.004	5.5
22	MP2A	X	-7.547	.5
23	MP2A	Z	0	.5
24	MP2A	Mx	.004	.5
25	MP2A	X	-7.547	5.5
26	MP2A	Z	0	5.5
27	MP2A	Mx	.004	5.5
28	MP1A	X	-10.815	.5
29	MP1A	Z	0	.5
30	MP1A	Mx	.005	.5
31	MP1A	X	-10.815	4.5
32	MP1A	Z	0	4.5
33	MP1A	Mx	.005	4.5
34	MP5A	X	-10.815	.5
35	MP5A	Z	0	.5
36	MP5A	Mx	.005	.5
37	MP5A	X	-10.815	4.5
38	MP5A	Z	0	4.5
39	MP5A	Mx	.005	4.5
40	OVP	X	-5.286	.5
41	OVP	Z	0	.5
42	OVP	Mx	0	.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
1	MP4A	X	-2.791	2
2	MP4A	Z	-1.611	2
3	MP4A	Mx	.001	2
4	MP4A	X	-2.791	4
5	MP4A	Z	-1.611	4
6	MP4A	Mx	.001	4
7	MP2A	X	-.622	4.75
8	MP2A	Z	-.359	4.75
9	MP2A	Mx	-.000311	4.75
10	MP2A	X	-3.069	3
11	MP2A	Z	-1.772	3



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
12	MP2A	Mx	-.002	3
13	MP3A	X	-2.68	3
14	MP3A	Z	-1.547	3
15	MP3A	Mx	-.001	3
16	MP2A	X	-7.39	.5
17	MP2A	Z	-4.266	.5
18	MP2A	Mx	.006	.5
19	MP2A	X	-7.39	5.5
20	MP2A	Z	-4.266	5.5
21	MP2A	Mx	.006	5.5
22	MP2A	X	-7.39	.5
23	MP2A	Z	-4.266	.5
24	MP2A	Mx	.001	.5
25	MP2A	X	-7.39	5.5
26	MP2A	Z	-4.266	5.5
27	MP2A	Mx	.001	5.5
28	MP1A	X	-9.646	.5
29	MP1A	Z	-5.569	.5
30	MP1A	Mx	.005	.5
31	MP1A	X	-9.646	4.5
32	MP1A	Z	-5.569	4.5
33	MP1A	Mx	.005	4.5
34	MP5A	X	-9.646	.5
35	MP5A	Z	-5.569	.5
36	MP5A	Mx	.005	.5
37	MP5A	X	-9.646	4.5
38	MP5A	Z	-5.569	4.5
39	MP5A	Mx	.005	4.5
40	OVP	X	-4.381	.5
41	OVP	Z	-2.529	.5
42	OVP	Mx	0	.5

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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
1	MP4A	X	-2.513	2
2	MP4A	Z	-4.353	2
3	MP4A	Mx	.001	2
4	MP4A	X	-2.513	4
5	MP4A	Z	-4.353	4
6	MP4A	Mx	.001	4
7	MP2A	X	-.431	4.75
8	MP2A	Z	-.746	4.75
9	MP2A	Mx	-.000215	4.75
10	MP2A	X	-2.163	3
11	MP2A	Z	-3.747	3
12	MP2A	Mx	-.001	3
13	MP3A	X	-2.088	3
14	MP3A	Z	-3.617	3
15	MP3A	Mx	-.001	3
16	MP2A	X	-5.252	.5
17	MP2A	Z	-9.097	.5
18	MP2A	Mx	.008	.5
19	MP2A	X	-5.252	5.5
20	MP2A	Z	-9.097	5.5
21	MP2A	Mx	.008	5.5
22	MP2A	X	-5.252	.5



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

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
23	MP2A	Z	-9.097	.5
24	MP2A	Mx	-.003	.5
25	MP2A	X	-5.252	5.5
26	MP2A	Z	-9.097	5.5
27	MP2A	Mx	-.003	5.5
28	MP1A	X	-5.893	.5
29	MP1A	Z	-10.206	.5
30	MP1A	Mx	.003	.5
31	MP1A	X	-5.893	4.5
32	MP1A	Z	-10.206	4.5
33	MP1A	Mx	.003	4.5
34	MP5A	X	-5.893	.5
35	MP5A	Z	-10.206	.5
36	MP5A	Mx	.003	.5
37	MP5A	X	-5.893	4.5
38	MP5A	Z	-10.206	4.5
39	MP5A	Mx	.003	4.5
40	OVP	X	-3.03	.5
41	OVP	Z	-5.248	.5
42	OVP	Mx	0	.5

Member Point Loads (BLC 77 : Lm1)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
1	LIVE1	Y	-500	0

Member Point Loads (BLC 78 : Lm2)

	Member Label	Direction	Magnitude[lb.k-ft]	Location[ft,%]
1	LIVE2	Y	-500	0

Member Point Loads (BLC 79 : Lv1)

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

Member Point Loads (BLC 80 : Lv2)

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

Member Distributed Loads (BLC 40 : Structure Di)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
1	M1	Y	-15.173	-15.173	0	%100
2	M2	Y	-10.719	-10.719	0	%100
3	FACE	Y	-10.719	-10.719	0	%100
4	MP1A	Y	-8.396	-8.396	0	%100
5	MP2A	Y	-8.396	-8.396	0	%100
6	MP3A	Y	-8.396	-8.396	0	%100
7	MP4A	Y	-8.396	-8.396	0	%100
8	MP5A	Y	-8.396	-8.396	0	%100
9	OVP	Y	-8.396	-8.396	0	%100
10	M25A	Y	-10.719	-10.719	0	%100
11	M31	Y	-15.173	-15.173	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft,%]	End Location[ft,%]
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Member Distributed Loads (BLC 41 : Structure Wo (0 Deg)) (Continued)

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
1	M1	X	0	0	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	-8.346	-8.346	0	%100
5	FACE	X	0	0	0	%100
6	FACE	Z	-13.201	-13.201	0	%100
7	MP1A	X	0	0	0	%100
8	MP1A	Z	-8.958	-8.958	0	%100
9	MP2A	X	0	0	0	%100
10	MP2A	Z	-8.958	-8.958	0	%100
11	MP3A	X	0	0	0	%100
12	MP3A	Z	-8.958	-8.958	0	%100
13	MP4A	X	0	0	0	%100
14	MP4A	Z	-8.958	-8.958	0	%100
15	MP5A	X	0	0	0	%100
16	MP5A	Z	-8.958	-8.958	0	%100
17	OVP	X	0	0	0	%100
18	OVP	Z	-7.954	-7.954	0	%100
19	M25A	X	0	0	0	%100
20	M25A	Z	-13.201	-13.201	0	%100
21	M31	X	0	0	0	%100
22	M31	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
1	M1	X	1.659	1.659	0	%100
2	M1	Z	-2.873	-2.873	0	%100
3	M2	X	4.173	4.173	0	%100
4	M2	Z	-7.228	-7.228	0	%100
5	FACE	X	4.95	4.95	0	%100
6	FACE	Z	-8.574	-8.574	0	%100
7	MP1A	X	4.479	4.479	0	%100
8	MP1A	Z	-7.757	-7.757	0	%100
9	MP2A	X	4.479	4.479	0	%100
10	MP2A	Z	-7.757	-7.757	0	%100
11	MP3A	X	4.479	4.479	0	%100
12	MP3A	Z	-7.757	-7.757	0	%100
13	MP4A	X	4.479	4.479	0	%100
14	MP4A	Z	-7.757	-7.757	0	%100
15	MP5A	X	4.479	4.479	0	%100
16	MP5A	Z	-7.757	-7.757	0	%100
17	OVP	X	3.977	3.977	0	%100
18	OVP	Z	-6.888	-6.888	0	%100
19	M25A	X	4.95	4.95	0	%100
20	M25A	Z	-8.574	-8.574	0	%100
21	M31	X	1.659	1.659	0	%100
22	M31	Z	-2.873	-2.873	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
1	M1	X	8.619	8.619	0	%100
2	M1	Z	-4.976	-4.976	0	%100
3	M2	X	7.228	7.228	0	%100
4	M2	Z	-4.173	-4.173	0	%100
5	FACE	X	2.858	2.858	0	%100
6	FACE	Z	-1.65	-1.65	0	%100



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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
7	MP1A	X	7.757	7.757	0	%100
8	MP1A	Z	-4.479	-4.479	0	%100
9	MP2A	X	7.757	7.757	0	%100
10	MP2A	Z	-4.479	-4.479	0	%100
11	MP3A	X	7.757	7.757	0	%100
12	MP3A	Z	-4.479	-4.479	0	%100
13	MP4A	X	7.757	7.757	0	%100
14	MP4A	Z	-4.479	-4.479	0	%100
15	MP5A	X	7.757	7.757	0	%100
16	MP5A	Z	-4.479	-4.479	0	%100
17	OVP	X	6.888	6.888	0	%100
18	OVP	Z	-3.977	-3.977	0	%100
19	M25A	X	2.858	2.858	0	%100
20	M25A	Z	-1.65	-1.65	0	%100
21	M31	X	8.619	8.619	0	%100
22	M31	Z	-4.976	-4.976	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
1	M1	X	13.27	13.27	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	8.346	8.346	0	%100
4	M2	Z	0	0	0	%100
5	FACE	X	0	0	0	%100
6	FACE	Z	0	0	0	%100
7	MP1A	X	8.958	8.958	0	%100
8	MP1A	Z	0	0	0	%100
9	MP2A	X	8.958	8.958	0	%100
10	MP2A	Z	0	0	0	%100
11	MP3A	X	8.958	8.958	0	%100
12	MP3A	Z	0	0	0	%100
13	MP4A	X	8.958	8.958	0	%100
14	MP4A	Z	0	0	0	%100
15	MP5A	X	8.958	8.958	0	%100
16	MP5A	Z	0	0	0	%100
17	OVP	X	7.954	7.954	0	%100
18	OVP	Z	0	0	0	%100
19	M25A	X	0	0	0	%100
20	M25A	Z	0	0	0	%100
21	M31	X	13.27	13.27	0	%100
22	M31	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
1	M1	X	8.619	8.619	0	%100
2	M1	Z	4.976	4.976	0	%100
3	M2	X	7.228	7.228	0	%100
4	M2	Z	4.173	4.173	0	%100
5	FACE	X	2.858	2.858	0	%100
6	FACE	Z	1.65	1.65	0	%100
7	MP1A	X	7.757	7.757	0	%100
8	MP1A	Z	4.479	4.479	0	%100
9	MP2A	X	7.757	7.757	0	%100
10	MP2A	Z	4.479	4.479	0	%100
11	MP3A	X	7.757	7.757	0	%100
12	MP3A	Z	4.479	4.479	0	%100



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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
13	MP4A	X	7.757	7.757	0	%100
14	MP4A	Z	4.479	4.479	0	%100
15	MP5A	X	7.757	7.757	0	%100
16	MP5A	Z	4.479	4.479	0	%100
17	OVP	X	6.888	6.888	0	%100
18	OVP	Z	3.977	3.977	0	%100
19	M25A	X	2.858	2.858	0	%100
20	M25A	Z	1.65	1.65	0	%100
21	M31	X	8.619	8.619	0	%100
22	M31	Z	4.976	4.976	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
1	M1	X	1.659	1.659	0	%100
2	M1	Z	2.873	2.873	0	%100
3	M2	X	4.173	4.173	0	%100
4	M2	Z	7.228	7.228	0	%100
5	FACE	X	4.95	4.95	0	%100
6	FACE	Z	8.574	8.574	0	%100
7	MP1A	X	4.479	4.479	0	%100
8	MP1A	Z	7.757	7.757	0	%100
9	MP2A	X	4.479	4.479	0	%100
10	MP2A	Z	7.757	7.757	0	%100
11	MP3A	X	4.479	4.479	0	%100
12	MP3A	Z	7.757	7.757	0	%100
13	MP4A	X	4.479	4.479	0	%100
14	MP4A	Z	7.757	7.757	0	%100
15	MP5A	X	4.479	4.479	0	%100
16	MP5A	Z	7.757	7.757	0	%100
17	OVP	X	3.977	3.977	0	%100
18	OVP	Z	6.888	6.888	0	%100
19	M25A	X	4.95	4.95	0	%100
20	M25A	Z	8.574	8.574	0	%100
21	M31	X	1.659	1.659	0	%100
22	M31	Z	2.873	2.873	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
1	M1	X	0	0	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	8.346	8.346	0	%100
5	FACE	X	0	0	0	%100
6	FACE	Z	13.201	13.201	0	%100
7	MP1A	X	0	0	0	%100
8	MP1A	Z	8.958	8.958	0	%100
9	MP2A	X	0	0	0	%100
10	MP2A	Z	8.958	8.958	0	%100
11	MP3A	X	0	0	0	%100
12	MP3A	Z	8.958	8.958	0	%100
13	MP4A	X	0	0	0	%100
14	MP4A	Z	8.958	8.958	0	%100
15	MP5A	X	0	0	0	%100
16	MP5A	Z	8.958	8.958	0	%100
17	OVP	X	0	0	0	%100
18	OVP	Z	7.954	7.954	0	%100



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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
19	M25A	X	0	0	0	%100
20	M25A	Z	13.201	13.201	0	%100
21	M31	X	0	0	0	%100
22	M31	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
1	M1	X	-1.659	-1.659	0	%100
2	M1	Z	2.873	2.873	0	%100
3	M2	X	-4.173	-4.173	0	%100
4	M2	Z	7.228	7.228	0	%100
5	FACE	X	-4.95	-4.95	0	%100
6	FACE	Z	8.574	8.574	0	%100
7	MP1A	X	-4.479	-4.479	0	%100
8	MP1A	Z	7.757	7.757	0	%100
9	MP2A	X	-4.479	-4.479	0	%100
10	MP2A	Z	7.757	7.757	0	%100
11	MP3A	X	-4.479	-4.479	0	%100
12	MP3A	Z	7.757	7.757	0	%100
13	MP4A	X	-4.479	-4.479	0	%100
14	MP4A	Z	7.757	7.757	0	%100
15	MP5A	X	-4.479	-4.479	0	%100
16	MP5A	Z	7.757	7.757	0	%100
17	OVP	X	-3.977	-3.977	0	%100
18	OVP	Z	6.888	6.888	0	%100
19	M25A	X	-4.95	-4.95	0	%100
20	M25A	Z	8.574	8.574	0	%100
21	M31	X	-1.659	-1.659	0	%100
22	M31	Z	2.873	2.873	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
1	M1	X	-8.619	-8.619	0	%100
2	M1	Z	4.976	4.976	0	%100
3	M2	X	-7.228	-7.228	0	%100
4	M2	Z	4.173	4.173	0	%100
5	FACE	X	-2.858	-2.858	0	%100
6	FACE	Z	1.65	1.65	0	%100
7	MP1A	X	-7.757	-7.757	0	%100
8	MP1A	Z	4.479	4.479	0	%100
9	MP2A	X	-7.757	-7.757	0	%100
10	MP2A	Z	4.479	4.479	0	%100
11	MP3A	X	-7.757	-7.757	0	%100
12	MP3A	Z	4.479	4.479	0	%100
13	MP4A	X	-7.757	-7.757	0	%100
14	MP4A	Z	4.479	4.479	0	%100
15	MP5A	X	-7.757	-7.757	0	%100
16	MP5A	Z	4.479	4.479	0	%100
17	OVP	X	-6.888	-6.888	0	%100
18	OVP	Z	3.977	3.977	0	%100
19	M25A	X	-2.858	-2.858	0	%100
20	M25A	Z	1.65	1.65	0	%100
21	M31	X	-8.619	-8.619	0	%100
22	M31	Z	4.976	4.976	0	%100



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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
1	M1	X	-13.27	-13.27	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	-8.346	-8.346	0	%100
4	M2	Z	0	0	0	%100
5	FACE	X	0	0	0	%100
6	FACE	Z	0	0	0	%100
7	MP1A	X	-8.958	-8.958	0	%100
8	MP1A	Z	0	0	0	%100
9	MP2A	X	-8.958	-8.958	0	%100
10	MP2A	Z	0	0	0	%100
11	MP3A	X	-8.958	-8.958	0	%100
12	MP3A	Z	0	0	0	%100
13	MP4A	X	-8.958	-8.958	0	%100
14	MP4A	Z	0	0	0	%100
15	MP5A	X	-8.958	-8.958	0	%100
16	MP5A	Z	0	0	0	%100
17	OVP	X	-7.954	-7.954	0	%100
18	OVP	Z	0	0	0	%100
19	M25A	X	0	0	0	%100
20	M25A	Z	0	0	0	%100
21	M31	X	-13.27	-13.27	0	%100
22	M31	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
1	M1	X	-8.619	-8.619	0	%100
2	M1	Z	-4.976	-4.976	0	%100
3	M2	X	-7.228	-7.228	0	%100
4	M2	Z	-4.173	-4.173	0	%100
5	FACE	X	-2.858	-2.858	0	%100
6	FACE	Z	-1.65	-1.65	0	%100
7	MP1A	X	-7.757	-7.757	0	%100
8	MP1A	Z	-4.479	-4.479	0	%100
9	MP2A	X	-7.757	-7.757	0	%100
10	MP2A	Z	-4.479	-4.479	0	%100
11	MP3A	X	-7.757	-7.757	0	%100
12	MP3A	Z	-4.479	-4.479	0	%100
13	MP4A	X	-7.757	-7.757	0	%100
14	MP4A	Z	-4.479	-4.479	0	%100
15	MP5A	X	-7.757	-7.757	0	%100
16	MP5A	Z	-4.479	-4.479	0	%100
17	OVP	X	-6.888	-6.888	0	%100
18	OVP	Z	-3.977	-3.977	0	%100
19	M25A	X	-2.858	-2.858	0	%100
20	M25A	Z	-1.65	-1.65	0	%100
21	M31	X	-8.619	-8.619	0	%100
22	M31	Z	-4.976	-4.976	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
1	M1	X	-1.659	-1.659	0	%100
2	M1	Z	-2.873	-2.873	0	%100
3	M2	X	-4.173	-4.173	0	%100
4	M2	Z	-7.228	-7.228	0	%100
5	FACE	X	-4.95	-4.95	0	%100
6	FACE	Z	-8.574	-8.574	0	%100



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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
7	MP1A	X	-4.479	-4.479	0	%100
8	MP1A	Z	-7.757	-7.757	0	%100
9	MP2A	X	-4.479	-4.479	0	%100
10	MP2A	Z	-7.757	-7.757	0	%100
11	MP3A	X	-4.479	-4.479	0	%100
12	MP3A	Z	-7.757	-7.757	0	%100
13	MP4A	X	-4.479	-4.479	0	%100
14	MP4A	Z	-7.757	-7.757	0	%100
15	MP5A	X	-4.479	-4.479	0	%100
16	MP5A	Z	-7.757	-7.757	0	%100
17	OVP	X	-3.977	-3.977	0	%100
18	OVP	Z	-6.888	-6.888	0	%100
19	M25A	X	-4.95	-4.95	0	%100
20	M25A	Z	-8.574	-8.574	0	%100
21	M31	X	-1.659	-1.659	0	%100
22	M31	Z	-2.873	-2.873	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
1	M1	X	0	0	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	-3.056	-3.056	0	%100
5	FACE	X	0	0	0	%100
6	FACE	Z	-4.822	-4.822	0	%100
7	MP1A	X	0	0	0	%100
8	MP1A	Z	-4.026	-4.026	0	%100
9	MP2A	X	0	0	0	%100
10	MP2A	Z	-4.026	-4.026	0	%100
11	MP3A	X	0	0	0	%100
12	MP3A	Z	-4.026	-4.026	0	%100
13	MP4A	X	0	0	0	%100
14	MP4A	Z	-4.026	-4.026	0	%100
15	MP5A	X	0	0	0	%100
16	MP5A	Z	-4.026	-4.026	0	%100
17	OVP	X	0	0	0	%100
18	OVP	Z	-3.334	-3.334	0	%100
19	M25A	X	0	0	0	%100
20	M25A	Z	-4.822	-4.822	0	%100
21	M31	X	0	0	0	%100
22	M31	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
1	M1	X	.565	.565	0	%100
2	M1	Z	-.978	-.978	0	%100
3	M2	X	1.528	1.528	0	%100
4	M2	Z	-2.647	-2.647	0	%100
5	FACE	X	1.808	1.808	0	%100
6	FACE	Z	-3.132	-3.132	0	%100
7	MP1A	X	2.013	2.013	0	%100
8	MP1A	Z	-3.487	-3.487	0	%100
9	MP2A	X	2.013	2.013	0	%100
10	MP2A	Z	-3.487	-3.487	0	%100
11	MP3A	X	2.013	2.013	0	%100
12	MP3A	Z	-3.487	-3.487	0	%100



Company : Maser Consulting
 Designer :
 Job Number :
 Model Name : 648355-VZW

June 28, 2021
 9:28 AM
 Checked By: _____

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

Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
13	MP4A	X	2.013	2.013	0 %100
14	MP4A	Z	-3.487	-3.487	0 %100
15	MP5A	X	2.013	2.013	0 %100
16	MP5A	Z	-3.487	-3.487	0 %100
17	OVP	X	1.667	1.667	0 %100
18	OVP	Z	-2.887	-2.887	0 %100
19	M25A	X	1.808	1.808	0 %100
20	M25A	Z	-3.132	-3.132	0 %100
21	M31	X	.565	.565	0 %100
22	M31	Z	-.978	-.978	0 %100

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

Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
1	M1	X	2.933	2.933	0 %100
2	M1	Z	-1.694	-1.694	0 %100
3	M2	X	2.647	2.647	0 %100
4	M2	Z	-1.528	-1.528	0 %100
5	FACE	X	1.044	1.044	0 %100
6	FACE	Z	-.603	-.603	0 %100
7	MP1A	X	3.487	3.487	0 %100
8	MP1A	Z	-2.013	-2.013	0 %100
9	MP2A	X	3.487	3.487	0 %100
10	MP2A	Z	-2.013	-2.013	0 %100
11	MP3A	X	3.487	3.487	0 %100
12	MP3A	Z	-2.013	-2.013	0 %100
13	MP4A	X	3.487	3.487	0 %100
14	MP4A	Z	-2.013	-2.013	0 %100
15	MP5A	X	3.487	3.487	0 %100
16	MP5A	Z	-2.013	-2.013	0 %100
17	OVP	X	2.887	2.887	0 %100
18	OVP	Z	-1.667	-1.667	0 %100
19	M25A	X	1.044	1.044	0 %100
20	M25A	Z	-.603	-.603	0 %100
21	M31	X	2.933	2.933	0 %100
22	M31	Z	-1.694	-1.694	0 %100

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

Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
1	M1	X	4.516	4.516	0 %100
2	M1	Z	0	0	0 %100
3	M2	X	3.056	3.056	0 %100
4	M2	Z	0	0	0 %100
5	FACE	X	0	0	0 %100
6	FACE	Z	0	0	0 %100
7	MP1A	X	4.026	4.026	0 %100
8	MP1A	Z	0	0	0 %100
9	MP2A	X	4.026	4.026	0 %100
10	MP2A	Z	0	0	0 %100
11	MP3A	X	4.026	4.026	0 %100
12	MP3A	Z	0	0	0 %100
13	MP4A	X	4.026	4.026	0 %100
14	MP4A	Z	0	0	0 %100
15	MP5A	X	4.026	4.026	0 %100
16	MP5A	Z	0	0	0 %100
17	OVP	X	3.334	3.334	0 %100
18	OVP	Z	0	0	0 %100



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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
19	M25A	X	0	0	0	%100
20	M25A	Z	0	0	0	%100
21	M31	X	4.516	4.516	0	%100
22	M31	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
1	M1	X	2.933	2.933	0	%100
2	M1	Z	1.694	1.694	0	%100
3	M2	X	2.647	2.647	0	%100
4	M2	Z	1.528	1.528	0	%100
5	FACE	X	1.044	1.044	0	%100
6	FACE	Z	.603	.603	0	%100
7	MP1A	X	3.487	3.487	0	%100
8	MP1A	Z	2.013	2.013	0	%100
9	MP2A	X	3.487	3.487	0	%100
10	MP2A	Z	2.013	2.013	0	%100
11	MP3A	X	3.487	3.487	0	%100
12	MP3A	Z	2.013	2.013	0	%100
13	MP4A	X	3.487	3.487	0	%100
14	MP4A	Z	2.013	2.013	0	%100
15	MP5A	X	3.487	3.487	0	%100
16	MP5A	Z	2.013	2.013	0	%100
17	OVP	X	2.887	2.887	0	%100
18	OVP	Z	1.667	1.667	0	%100
19	M25A	X	1.044	1.044	0	%100
20	M25A	Z	.603	.603	0	%100
21	M31	X	2.933	2.933	0	%100
22	M31	Z	1.694	1.694	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
1	M1	X	.565	.565	0	%100
2	M1	Z	.978	.978	0	%100
3	M2	X	1.528	1.528	0	%100
4	M2	Z	2.647	2.647	0	%100
5	FACE	X	1.808	1.808	0	%100
6	FACE	Z	3.132	3.132	0	%100
7	MP1A	X	2.013	2.013	0	%100
8	MP1A	Z	3.487	3.487	0	%100
9	MP2A	X	2.013	2.013	0	%100
10	MP2A	Z	3.487	3.487	0	%100
11	MP3A	X	2.013	2.013	0	%100
12	MP3A	Z	3.487	3.487	0	%100
13	MP4A	X	2.013	2.013	0	%100
14	MP4A	Z	3.487	3.487	0	%100
15	MP5A	X	2.013	2.013	0	%100
16	MP5A	Z	3.487	3.487	0	%100
17	OVP	X	1.667	1.667	0	%100
18	OVP	Z	2.887	2.887	0	%100
19	M25A	X	1.808	1.808	0	%100
20	M25A	Z	3.132	3.132	0	%100
21	M31	X	.565	.565	0	%100
22	M31	Z	.978	.978	0	%100



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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
1	M1	X	0	0	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	3.056	3.056	0	%100
5	FACE	X	0	0	0	%100
6	FACE	Z	4.822	4.822	0	%100
7	MP1A	X	0	0	0	%100
8	MP1A	Z	4.026	4.026	0	%100
9	MP2A	X	0	0	0	%100
10	MP2A	Z	4.026	4.026	0	%100
11	MP3A	X	0	0	0	%100
12	MP3A	Z	4.026	4.026	0	%100
13	MP4A	X	0	0	0	%100
14	MP4A	Z	4.026	4.026	0	%100
15	MP5A	X	0	0	0	%100
16	MP5A	Z	4.026	4.026	0	%100
17	OVP	X	0	0	0	%100
18	OVP	Z	3.334	3.334	0	%100
19	M25A	X	0	0	0	%100
20	M25A	Z	4.822	4.822	0	%100
21	M31	X	0	0	0	%100
22	M31	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
1	M1	X	-.565	-.565	0	%100
2	M1	Z	.978	.978	0	%100
3	M2	X	-1.528	-1.528	0	%100
4	M2	Z	2.647	2.647	0	%100
5	FACE	X	-1.808	-1.808	0	%100
6	FACE	Z	3.132	3.132	0	%100
7	MP1A	X	-2.013	-2.013	0	%100
8	MP1A	Z	3.487	3.487	0	%100
9	MP2A	X	-2.013	-2.013	0	%100
10	MP2A	Z	3.487	3.487	0	%100
11	MP3A	X	-2.013	-2.013	0	%100
12	MP3A	Z	3.487	3.487	0	%100
13	MP4A	X	-2.013	-2.013	0	%100
14	MP4A	Z	3.487	3.487	0	%100
15	MP5A	X	-2.013	-2.013	0	%100
16	MP5A	Z	3.487	3.487	0	%100
17	OVP	X	-1.667	-1.667	0	%100
18	OVP	Z	2.887	2.887	0	%100
19	M25A	X	-1.808	-1.808	0	%100
20	M25A	Z	3.132	3.132	0	%100
21	M31	X	-.565	-.565	0	%100
22	M31	Z	.978	.978	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
1	M1	X	-2.933	-2.933	0	%100
2	M1	Z	1.694	1.694	0	%100
3	M2	X	-2.647	-2.647	0	%100
4	M2	Z	1.528	1.528	0	%100
5	FACE	X	-1.044	-1.044	0	%100
6	FACE	Z	.603	.603	0	%100



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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
7	MP1A	X	-3.487	-3.487	0	%100
8	MP1A	Z	2.013	2.013	0	%100
9	MP2A	X	-3.487	-3.487	0	%100
10	MP2A	Z	2.013	2.013	0	%100
11	MP3A	X	-3.487	-3.487	0	%100
12	MP3A	Z	2.013	2.013	0	%100
13	MP4A	X	-3.487	-3.487	0	%100
14	MP4A	Z	2.013	2.013	0	%100
15	MP5A	X	-3.487	-3.487	0	%100
16	MP5A	Z	2.013	2.013	0	%100
17	OVP	X	-2.887	-2.887	0	%100
18	OVP	Z	1.667	1.667	0	%100
19	M25A	X	-1.044	-1.044	0	%100
20	M25A	Z	.603	.603	0	%100
21	M31	X	-2.933	-2.933	0	%100
22	M31	Z	1.694	1.694	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
1	M1	X	-4.516	-4.516	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	-3.056	-3.056	0	%100
4	M2	Z	0	0	0	%100
5	FACE	X	0	0	0	%100
6	FACE	Z	0	0	0	%100
7	MP1A	X	-4.026	-4.026	0	%100
8	MP1A	Z	0	0	0	%100
9	MP2A	X	-4.026	-4.026	0	%100
10	MP2A	Z	0	0	0	%100
11	MP3A	X	-4.026	-4.026	0	%100
12	MP3A	Z	0	0	0	%100
13	MP4A	X	-4.026	-4.026	0	%100
14	MP4A	Z	0	0	0	%100
15	MP5A	X	-4.026	-4.026	0	%100
16	MP5A	Z	0	0	0	%100
17	OVP	X	-3.334	-3.334	0	%100
18	OVP	Z	0	0	0	%100
19	M25A	X	0	0	0	%100
20	M25A	Z	0	0	0	%100
21	M31	X	-4.516	-4.516	0	%100
22	M31	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
1	M1	X	-2.933	-2.933	0	%100
2	M1	Z	-1.694	-1.694	0	%100
3	M2	X	-2.647	-2.647	0	%100
4	M2	Z	-1.528	-1.528	0	%100
5	FACE	X	-1.044	-1.044	0	%100
6	FACE	Z	-.603	-.603	0	%100
7	MP1A	X	-3.487	-3.487	0	%100
8	MP1A	Z	-2.013	-2.013	0	%100
9	MP2A	X	-3.487	-3.487	0	%100
10	MP2A	Z	-2.013	-2.013	0	%100
11	MP3A	X	-3.487	-3.487	0	%100
12	MP3A	Z	-2.013	-2.013	0	%100



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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
13	MP4A	X	-3.487	-3.487	0	%100
14	MP4A	Z	-2.013	-2.013	0	%100
15	MP5A	X	-3.487	-3.487	0	%100
16	MP5A	Z	-2.013	-2.013	0	%100
17	OVP	X	-2.887	-2.887	0	%100
18	OVP	Z	-1.667	-1.667	0	%100
19	M25A	X	-1.044	-1.044	0	%100
20	M25A	Z	-.603	-.603	0	%100
21	M31	X	-2.933	-2.933	0	%100
22	M31	Z	-1.694	-1.694	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
1	M1	X	-.565	-.565	0	%100
2	M1	Z	-.978	-.978	0	%100
3	M2	X	-1.528	-1.528	0	%100
4	M2	Z	-2.647	-2.647	0	%100
5	FACE	X	-1.808	-1.808	0	%100
6	FACE	Z	-3.132	-3.132	0	%100
7	MP1A	X	-2.013	-2.013	0	%100
8	MP1A	Z	-3.487	-3.487	0	%100
9	MP2A	X	-2.013	-2.013	0	%100
10	MP2A	Z	-3.487	-3.487	0	%100
11	MP3A	X	-2.013	-2.013	0	%100
12	MP3A	Z	-3.487	-3.487	0	%100
13	MP4A	X	-2.013	-2.013	0	%100
14	MP4A	Z	-3.487	-3.487	0	%100
15	MP5A	X	-2.013	-2.013	0	%100
16	MP5A	Z	-3.487	-3.487	0	%100
17	OVP	X	-1.667	-1.667	0	%100
18	OVP	Z	-2.887	-2.887	0	%100
19	M25A	X	-1.808	-1.808	0	%100
20	M25A	Z	-3.132	-3.132	0	%100
21	M31	X	-.565	-.565	0	%100
22	M31	Z	-.978	-.978	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
1	M1	X	0	0	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	-.558	-.558	0	%100
5	FACE	X	0	0	0	%100
6	FACE	Z	-.883	-.883	0	%100
7	MP1A	X	0	0	0	%100
8	MP1A	Z	-.599	-.599	0	%100
9	MP2A	X	0	0	0	%100
10	MP2A	Z	-.599	-.599	0	%100
11	MP3A	X	0	0	0	%100
12	MP3A	Z	-.599	-.599	0	%100
13	MP4A	X	0	0	0	%100
14	MP4A	Z	-.599	-.599	0	%100
15	MP5A	X	0	0	0	%100
16	MP5A	Z	-.599	-.599	0	%100
17	OVP	X	0	0	0	%100
18	OVP	Z	-.532	-.532	0	%100



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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
19	M25A	X	0	0	0	%100
20	M25A	Z	-0.883	-0.883	0	%100
21	M31	X	0	0	0	%100
22	M31	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
1	M1	X	.111	.111	0	%100
2	M1	Z	-.192	-.192	0	%100
3	M2	X	.279	.279	0	%100
4	M2	Z	-.483	-.483	0	%100
5	FACE	X	.331	.331	0	%100
6	FACE	Z	-.573	-.573	0	%100
7	MP1A	X	.3	.3	0	%100
8	MP1A	Z	-.519	-.519	0	%100
9	MP2A	X	.3	.3	0	%100
10	MP2A	Z	-.519	-.519	0	%100
11	MP3A	X	.3	.3	0	%100
12	MP3A	Z	-.519	-.519	0	%100
13	MP4A	X	.3	.3	0	%100
14	MP4A	Z	-.519	-.519	0	%100
15	MP5A	X	.3	.3	0	%100
16	MP5A	Z	-.519	-.519	0	%100
17	OVP	X	.266	.266	0	%100
18	OVP	Z	-.461	-.461	0	%100
19	M25A	X	.331	.331	0	%100
20	M25A	Z	-.573	-.573	0	%100
21	M31	X	.111	.111	0	%100
22	M31	Z	-.192	-.192	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
1	M1	X	.577	.577	0	%100
2	M1	Z	-.333	-.333	0	%100
3	M2	X	.483	.483	0	%100
4	M2	Z	-.279	-.279	0	%100
5	FACE	X	.191	.191	0	%100
6	FACE	Z	-.11	-.11	0	%100
7	MP1A	X	.519	.519	0	%100
8	MP1A	Z	-.3	-.3	0	%100
9	MP2A	X	.519	.519	0	%100
10	MP2A	Z	-.3	-.3	0	%100
11	MP3A	X	.519	.519	0	%100
12	MP3A	Z	-.3	-.3	0	%100
13	MP4A	X	.519	.519	0	%100
14	MP4A	Z	-.3	-.3	0	%100
15	MP5A	X	.519	.519	0	%100
16	MP5A	Z	-.3	-.3	0	%100
17	OVP	X	.461	.461	0	%100
18	OVP	Z	-.266	-.266	0	%100
19	M25A	X	.191	.191	0	%100
20	M25A	Z	-.11	-.11	0	%100
21	M31	X	.577	.577	0	%100
22	M31	Z	-.333	-.333	0	%100



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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
1	M1	X	.888	.888	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	.558	.558	0	%100
4	M2	Z	0	0	0	%100
5	FACE	X	0	0	0	%100
6	FACE	Z	0	0	0	%100
7	MP1A	X	.599	.599	0	%100
8	MP1A	Z	0	0	0	%100
9	MP2A	X	.599	.599	0	%100
10	MP2A	Z	0	0	0	%100
11	MP3A	X	.599	.599	0	%100
12	MP3A	Z	0	0	0	%100
13	MP4A	X	.599	.599	0	%100
14	MP4A	Z	0	0	0	%100
15	MP5A	X	.599	.599	0	%100
16	MP5A	Z	0	0	0	%100
17	OVP	X	.532	.532	0	%100
18	OVP	Z	0	0	0	%100
19	M25A	X	0	0	0	%100
20	M25A	Z	0	0	0	%100
21	M31	X	.888	.888	0	%100
22	M31	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
1	M1	X	.577	.577	0	%100
2	M1	Z	.333	.333	0	%100
3	M2	X	.483	.483	0	%100
4	M2	Z	.279	.279	0	%100
5	FACE	X	.191	.191	0	%100
6	FACE	Z	.11	.11	0	%100
7	MP1A	X	.519	.519	0	%100
8	MP1A	Z	.3	.3	0	%100
9	MP2A	X	.519	.519	0	%100
10	MP2A	Z	.3	.3	0	%100
11	MP3A	X	.519	.519	0	%100
12	MP3A	Z	.3	.3	0	%100
13	MP4A	X	.519	.519	0	%100
14	MP4A	Z	.3	.3	0	%100
15	MP5A	X	.519	.519	0	%100
16	MP5A	Z	.3	.3	0	%100
17	OVP	X	.461	.461	0	%100
18	OVP	Z	.266	.266	0	%100
19	M25A	X	.191	.191	0	%100
20	M25A	Z	.11	.11	0	%100
21	M31	X	.577	.577	0	%100
22	M31	Z	.333	.333	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
1	M1	X	.111	.111	0	%100
2	M1	Z	.192	.192	0	%100
3	M2	X	.279	.279	0	%100
4	M2	Z	.483	.483	0	%100
5	FACE	X	.331	.331	0	%100
6	FACE	Z	.573	.573	0	%100



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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
7	MP1A	X	.3	.3	0	%100
8	MP1A	Z	.519	.519	0	%100
9	MP2A	X	.3	.3	0	%100
10	MP2A	Z	.519	.519	0	%100
11	MP3A	X	.3	.3	0	%100
12	MP3A	Z	.519	.519	0	%100
13	MP4A	X	.3	.3	0	%100
14	MP4A	Z	.519	.519	0	%100
15	MP5A	X	.3	.3	0	%100
16	MP5A	Z	.519	.519	0	%100
17	OVP	X	.266	.266	0	%100
18	OVP	Z	.461	.461	0	%100
19	M25A	X	.331	.331	0	%100
20	M25A	Z	.573	.573	0	%100
21	M31	X	.111	.111	0	%100
22	M31	Z	.192	.192	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
1	M1	X	0	0	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	0	0	0	%100
4	M2	Z	.558	.558	0	%100
5	FACE	X	0	0	0	%100
6	FACE	Z	.883	.883	0	%100
7	MP1A	X	0	0	0	%100
8	MP1A	Z	.599	.599	0	%100
9	MP2A	X	0	0	0	%100
10	MP2A	Z	.599	.599	0	%100
11	MP3A	X	0	0	0	%100
12	MP3A	Z	.599	.599	0	%100
13	MP4A	X	0	0	0	%100
14	MP4A	Z	.599	.599	0	%100
15	MP5A	X	0	0	0	%100
16	MP5A	Z	.599	.599	0	%100
17	OVP	X	0	0	0	%100
18	OVP	Z	.532	.532	0	%100
19	M25A	X	0	0	0	%100
20	M25A	Z	.883	.883	0	%100
21	M31	X	0	0	0	%100
22	M31	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
1	M1	X	-.111	-.111	0	%100
2	M1	Z	.192	.192	0	%100
3	M2	X	-.279	-.279	0	%100
4	M2	Z	.483	.483	0	%100
5	FACE	X	-.331	-.331	0	%100
6	FACE	Z	.573	.573	0	%100
7	MP1A	X	-.3	-.3	0	%100
8	MP1A	Z	.519	.519	0	%100
9	MP2A	X	-.3	-.3	0	%100
10	MP2A	Z	.519	.519	0	%100
11	MP3A	X	-.3	-.3	0	%100
12	MP3A	Z	.519	.519	0	%100



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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
13	MP4A	X	-.3	-.3	0	%100
14	MP4A	Z	.519	.519	0	%100
15	MP5A	X	-.3	-.3	0	%100
16	MP5A	Z	.519	.519	0	%100
17	OVP	X	-.266	-.266	0	%100
18	OVP	Z	.461	.461	0	%100
19	M25A	X	-.331	-.331	0	%100
20	M25A	Z	.573	.573	0	%100
21	M31	X	-.111	-.111	0	%100
22	M31	Z	.192	.192	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
1	M1	X	-.577	-.577	0	%100
2	M1	Z	.333	.333	0	%100
3	M2	X	-.483	-.483	0	%100
4	M2	Z	.279	.279	0	%100
5	FACE	X	-.191	-.191	0	%100
6	FACE	Z	.11	.11	0	%100
7	MP1A	X	-.519	-.519	0	%100
8	MP1A	Z	.3	.3	0	%100
9	MP2A	X	-.519	-.519	0	%100
10	MP2A	Z	.3	.3	0	%100
11	MP3A	X	-.519	-.519	0	%100
12	MP3A	Z	.3	.3	0	%100
13	MP4A	X	-.519	-.519	0	%100
14	MP4A	Z	.3	.3	0	%100
15	MP5A	X	-.519	-.519	0	%100
16	MP5A	Z	.3	.3	0	%100
17	OVP	X	-.461	-.461	0	%100
18	OVP	Z	.266	.266	0	%100
19	M25A	X	-.191	-.191	0	%100
20	M25A	Z	.11	.11	0	%100
21	M31	X	-.577	-.577	0	%100
22	M31	Z	.333	.333	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft,...	End Magnitude[lb/ft,F...	Start Location[ft, %]	End Location[ft, %]
1	M1	X	-.888	-.888	0	%100
2	M1	Z	0	0	0	%100
3	M2	X	-.558	-.558	0	%100
4	M2	Z	0	0	0	%100
5	FACE	X	0	0	0	%100
6	FACE	Z	0	0	0	%100
7	MP1A	X	-.599	-.599	0	%100
8	MP1A	Z	0	0	0	%100
9	MP2A	X	-.599	-.599	0	%100
10	MP2A	Z	0	0	0	%100
11	MP3A	X	-.599	-.599	0	%100
12	MP3A	Z	0	0	0	%100
13	MP4A	X	-.599	-.599	0	%100
14	MP4A	Z	0	0	0	%100
15	MP5A	X	-.599	-.599	0	%100
16	MP5A	Z	0	0	0	%100
17	OVP	X	-.532	-.532	0	%100
18	OVP	Z	0	0	0	%100



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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
19	M25A	X	0	0	0	%100
20	M25A	Z	0	0	0	%100
21	M31	X	-.888	-.888	0	%100
22	M31	Z	0	0	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
1	M1	X	-.577	-.577	0	%100
2	M1	Z	-.333	-.333	0	%100
3	M2	X	-.483	-.483	0	%100
4	M2	Z	-.279	-.279	0	%100
5	FACE	X	-.191	-.191	0	%100
6	FACE	Z	-.11	-.11	0	%100
7	MP1A	X	-.519	-.519	0	%100
8	MP1A	Z	-.3	-.3	0	%100
9	MP2A	X	-.519	-.519	0	%100
10	MP2A	Z	-.3	-.3	0	%100
11	MP3A	X	-.519	-.519	0	%100
12	MP3A	Z	-.3	-.3	0	%100
13	MP4A	X	-.519	-.519	0	%100
14	MP4A	Z	-.3	-.3	0	%100
15	MP5A	X	-.519	-.519	0	%100
16	MP5A	Z	-.3	-.3	0	%100
17	OVP	X	-.461	-.461	0	%100
18	OVP	Z	-.266	-.266	0	%100
19	M25A	X	-.191	-.191	0	%100
20	M25A	Z	-.11	-.11	0	%100
21	M31	X	-.577	-.577	0	%100
22	M31	Z	-.333	-.333	0	%100

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

	Member Label	Direction	Start Magnitude[lb/ft....	End Magnitude[lb/ft.F...	Start Location[ft.%]	End Location[ft.%]
1	M1	X	-.111	-.111	0	%100
2	M1	Z	-.192	-.192	0	%100
3	M2	X	-.279	-.279	0	%100
4	M2	Z	-.483	-.483	0	%100
5	FACE	X	-.331	-.331	0	%100
6	FACE	Z	-.573	-.573	0	%100
7	MP1A	X	-.3	-.3	0	%100
8	MP1A	Z	-.519	-.519	0	%100
9	MP2A	X	-.3	-.3	0	%100
10	MP2A	Z	-.519	-.519	0	%100
11	MP3A	X	-.3	-.3	0	%100
12	MP3A	Z	-.519	-.519	0	%100
13	MP4A	X	-.3	-.3	0	%100
14	MP4A	Z	-.519	-.519	0	%100
15	MP5A	X	-.3	-.3	0	%100
16	MP5A	Z	-.519	-.519	0	%100
17	OVP	X	-.266	-.266	0	%100
18	OVP	Z	-.461	-.461	0	%100
19	M25A	X	-.331	-.331	0	%100
20	M25A	Z	-.573	-.573	0	%100
21	M31	X	-.111	-.111	0	%100
22	M31	Z	-.192	-.192	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	1692.409	9	-3.008	12	-465.457	12	.52	14	7.597	9	1.97	27
2		min	-1646.096	3	-274.429	17	-3853.536	18	-.14	8	-7.458	3	-1.254	9
3	N53	max	450.547	12	184.5	24	1691.638	1	.038	6	2.431	10	.886	27
4		min	-493.636	6	-36.588	6	-2429.837	7	-.404	24	-2.655	4	-.543	49
5	N48A	max	15.597	3	3369.539	18	4976.847	18	0	51	.334	33	.496	33
6		min	-15.336	9	956.461	12	1387.251	12	0	1	-.188	49	-.279	49
7	Totals:	max	1830.082	10	3231.389	15	2563.761	1						
8		min	-1830.078	4	1124.648	9	-2563.752	7						

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

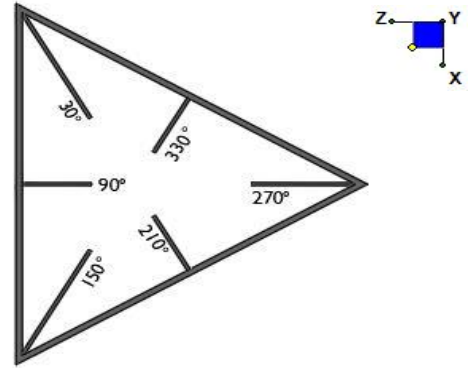
Member	Shape	Code Check	Loc[ft]	LC	Shear ...Loc[ft]	Dir	LC	phi*Pnc ...	phi*Pnt [...]	phi*Mn y...	phi*Mn z...	Cb	Eqn	
1	M1	HSS4X4X4	.484	0	3	.220	4.583	y	27	125658...	139518	16.181	16.181	1...H1-1b
2	M2	PIPE 3.0	.000	.75	4	.000	.75		4	64424.35	65205	5.749	5.749	1...H1-1b
3	FACE	PIPE 3.0	.512	6.729	14	.175	6.729		20	24685.3...	65205	5.749	5.749	1...H1-1b
4	MP1A	PIPE 2.0	.268	2.99	7	.118	3.063		15	17855.0...	32130	1.872	1.872	4...H1-1b
5	MP2A	PIPE 2.0	.502	2.99	7	.205	3.063		14	17855.0...	32130	1.872	1.872	4...H1-1b
6	MP3A	PIPE 2.0	.418	3.938	20	.220	3.938		9	17855.0...	32130	1.872	1.872	3...H1-1b
7	MP4A	PIPE 2.0	.440	3.938	15	.195	3.938		13	17855.0...	32130	1.872	1.872	4...H1-1b
8	MP5A	PIPE 2.0	.268	2.99	7	.112	3.063		23	17855.0...	32130	1.872	1.872	4...H1-1b
9	OVP	PIPE 2.0	.206	3.477	2	.015	3.477		2	27144.7...	32130	1.872	1.872	1...H1-1b
10	M25A	PIPE 3.0	.709	6.729	7	.172	6.729		7	24685.3...	65205	5.749	5.749	1...H1-1b
11	M31	HSS3X3X4	.322	0	3	.125	0	z	28	83064.9...	101016	8.556	8.556	2...H1-1b
12	M25B	PIPE 3.0	.109	0	18	.118	0		33	55378.5...	65205	5.749	5.749	1...H1-1b*



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?:

Bolt Quantity per Reaction:

d_x (in) (Delta X of typ. bolt config. sketch):

d_y (in) (Delta Y of typ. bolt config. sketch):

Bolt Type:

Bolt Diameter (in):

Required Tensile Strength (kips):

Required Shear Strength (kips):

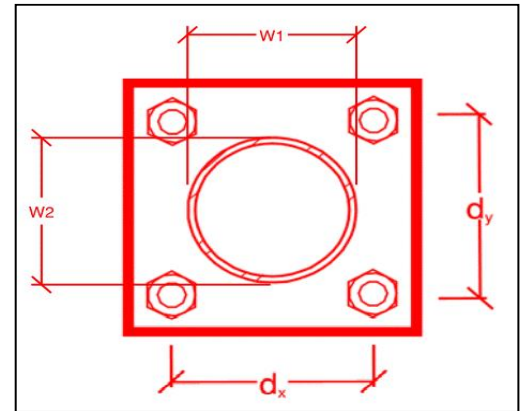
Tensile Strength / bolt (kips):

Shear Strength / bolt (kips):

Tensile Capacity Overall:

Shear Capacity Overall:

yes
4
8
8
A325N
0.625
24.0
7.2
20.7
12.4
28.9%*
14.4%



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

Tower Connection Plate and Weld Check

Connecting Standoff Member Shape:

Plate Width (in):

Plate Height (in):

W1 (in):

W2 (in):

Fy (ksi, plate):

t_{plate} (in):

Weld Size (1/16 in):

$\Phi \cdot R_n$ (kip/in):

Required Weld Strength (kip/in):

Plate Bending Capacity:

Weld Capacity:

Rect
10
10
4
4
36
0.625
4
5.57
4.39
77.7%
78.8%

Max Plate Bending Strengths

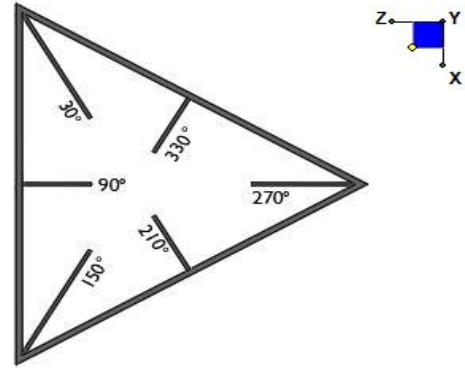
$M_{u_{xx}}$ (kip-in):	0.9
$\Phi \cdot M_{n_{xx}}$ (kip-in):	31.6
$M_{u_{yy}}$ (kip-in):	23.7
$\Phi \cdot M_{n_{yy}}$ (kip-in):	31.6



I. Mount-to-Tower Connection Check - Proposed

RISA Model Data

Nodes (labeled per RISA)	Orientation (per graphic of typical platform)
N53	90



TYPICAL PLATFORM

Tower Connection Bolt Checks

Any moment resistance?:

Bolt Quantity per Reaction:

d_x (in) (Delta X of typ. bolt config. sketch):

d_y (in) (Delta Y of typ. bolt config. sketch):

Bolt Type:

Bolt Diameter (in):

Required Tensile Strength (kips):

Required Shear Strength (kips):

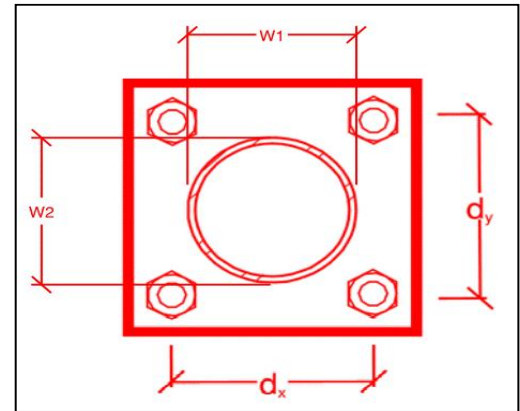
Tensile Strength / bolt (kips):

Shear Strength / bolt (kips):

Tensile Capacity Overall:

Shear Capacity Overall:

yes
4
6
6
A325N
0.625
11.2
3.7
20.7
12.4
13.5%*
7.5%



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

Tower Connection Plate and Weld Check

Connecting Standoff Member Shape:

Plate Width (in):

Plate Height (in):

W1 (in):

W2 (in):

Fy (ksi, plate):

t_{plate} (in):

Weld Size (1/16 in):

$\Phi \cdot R_n$ (kip/in):

Required Weld Strength (kip/in):

Plate Bending Capacity:

Weld Capacity:

Rect
8.25
8.25
3
3
50
0.75
5
6.96
2.71
16.6%
38.9%

Max Plate Bending Strengths

$M_{u_{xx}}$ (kip-in):	0.5
$\Phi \cdot M_{n_{xx}}$ (kip-in):	52.2
$M_{u_{yy}}$ (kip-in):	8.2
$\Phi \cdot M_{n_{yy}}$ (kip-in):	52.2

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 _____

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

Se tor: A
 Str t re Type: Mo opole
 Mo t Elev: 109.00

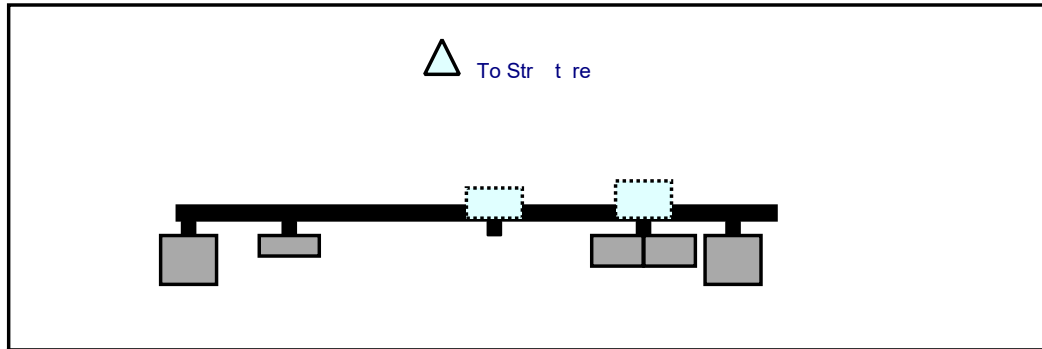
10050429

6/28/2021



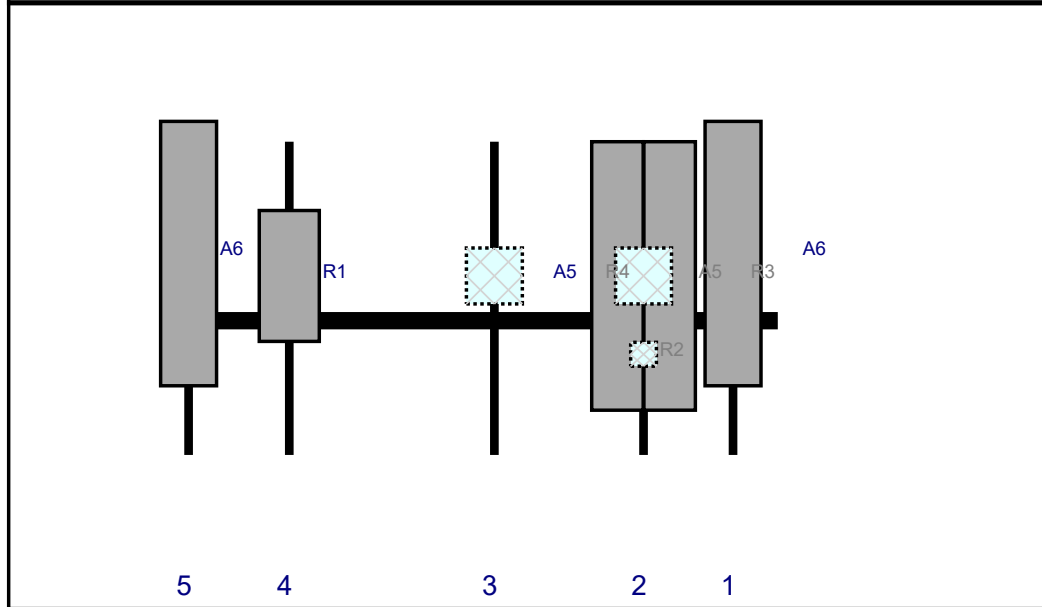
P ge: 1

Plan View



Front View

Lo o i g t Str t re



Re #	Model	Height (i)	Width (i)	H Dist Fr L.	Pipe #	Pipe Pos V	A t Pos	C. A t Fr T.	A t H O	St t s	V lid tio
A6	LPA-80063/6CF	70.9	15	149.5	1		Fro t	30	0	Ret i ed	02/28/2019
A5	JAHH-65B-R3B	72	13.8	125.5	2		Fro t	36	-7	Ret i ed	02/28/2019
A5	JAHH-65B-R3B	72	13.8	125.5	2		Fro t	36	7	Ret i ed	02/28/2019
R2	CBC78T-DS-43-2X	6.4	6.9	125.5	2		Behi d	57	0	Added	
R3	B2/B66A RRH-BR049 (RFV01U-D1A)	15	15	125.5	2		Behi d	36	0	Added	
R4	B5/B13 RRH-BR04C (RFV01U-D2A)	15	15	85.5	3		Behi d	36	0	Added	
R1	MT6407-77A	35.1	16.1	30.5	4		Fro t	36	0	Added	
A6	LPA-80063/6CF	70.9	15	3.5	5		Fro t	30	0	Ret i ed	02/28/2019

Se tor: **B**
 Str t re Type: Mo opole
 Mo t Elev: 109.00

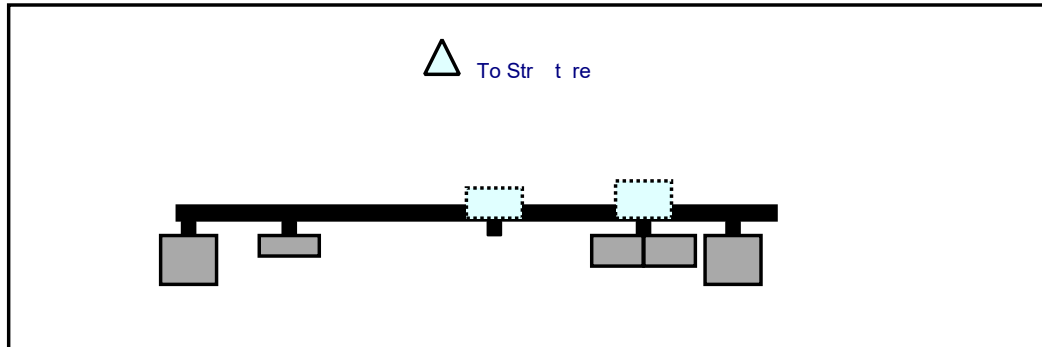
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6/28/2021

P ge: 2

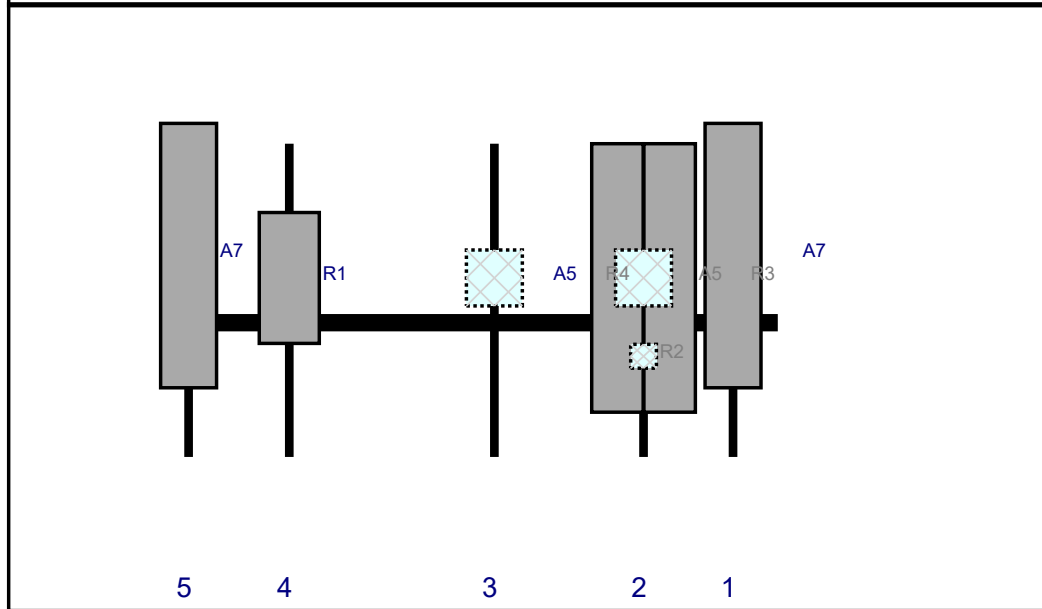


Plan View



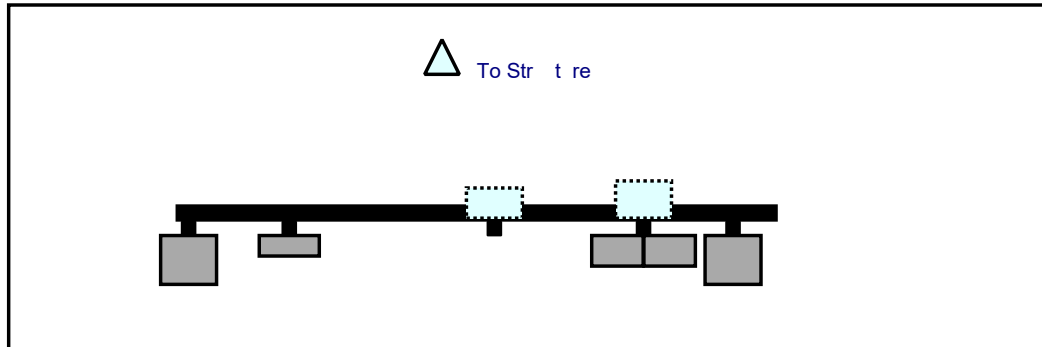
Front View

Lo o i g t Str t re



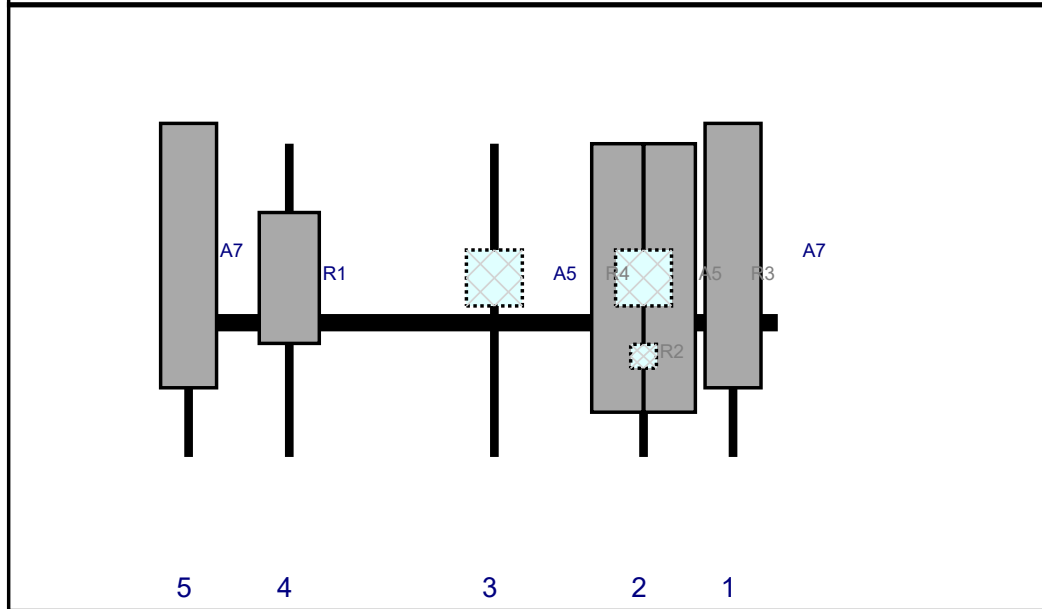
Re #	Model	Height (i)	Width (i)	H Dist Fr L.	Pipe #	Pipe Pos V	A t Pos	C. A t Fr T.	A t H O	St t s	V lid tio
A7	LPA-80063/6CF_5	70.9	15	149.5	1		Fro t	30	0	Ret i ed	02/28/2020
A5	JAHH-65B-R3B	72	13.8	125.5	2		Fro t	36	-7	Ret i ed	02/28/2019
A5	JAHH-65B-R3B	72	13.8	125.5	2		Fro t	36	7	Ret i ed	02/28/2019
R2	CBC78T-DS-43-2X	6.4	6.9	125.5	2		Behi d	57	0	Added	
R3	B2/B66A RRH-BR049 (RFV01U-D1A)	15	15	125.5	2		Behi d	36	0	Added	
R4	B5/B13 RRH-BR04C (RFV01U-D2A)	15	15	85.5	3		Behi d	36	0	Added	
R1	MT6407-77A	35.1	16.1	30.5	4		Fro t	36	0	Added	
A7	LPA-80063/6CF_5	70.9	15	3.5	5		Fro t	30	0	Ret i ed	02/28/2020

Plan View



Front View

Lo o i g t Str t re



Re #	Model	Height (i)	Width (i)	H Dist Fr L.	Pipe #	Pipe Pos V	A t Pos	C. A t Fr T.	A t H O	St t s	V lid tio
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A7	LPA-80063/6CF_5	70.9	15	3.5	5		Fro t	30	0	Ret i ed	02/28/2020

Maser Consulting Connecticut

Subject*TIA-222-H Adoption and Wind Speed Usage***Site Information**

*Site ID: 468355-VZW / NORTH BLOOMFIELD CT
Site Name: NORTH BLOOMFIELD CT
Carrier Name: Verizon Wireless
Address: Day Hill Road
Bloomfield, Connecticut 06002
Hartford County
Latitude: 41.876508°
Longitude: -72.741840°*

Structure Information

*Tower Type: 110-Ft Monopole
Mount Type: 13.46-Ft T-Arm*

To Whom It May Concern,

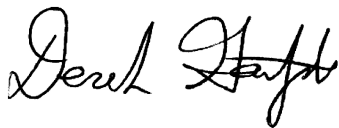
We respectfully submit the above referenced Antenna Mount Structural Analysis report in conformance with ANSI/TIA-222-H, Structural Standard for Antenna Supporting Structures and Antennas and Small Wind Turbine Support Structures.

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,



Derek Hartzell, PE
Technical Specialist

PROJECT NOTES

- SEE MODIFICATION NOTES
- THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE CODES, ORDINANCES, LAWS AND REGULATIONS OF ALL MUNICIPALITIES, UTILITY COMPANIES OR OTHER PUBLIC/GOVERNING AUTHORITIES.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL PERMITS AND INSPECTIONS THAT MAY BE REQUIRED BY ANY FEDERAL, STATE, COUNTY OR MUNICIPAL AUTHORITIES.
- 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.
- 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.
- 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.
- 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.
- 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.
- 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.
- NO NOISE, SMOKE, DUST OR ODOR WILL RESULT FROM THIS FACILITY AS TO CAUSE A NUISANCE.
- THE FACILITY IS UNMANNED AND NOT FOR HUMAN HABITATION (NO HANDICAP ACCESS IS REQUIRED).



MOUNT MODIFICATION DRAWINGS EXISTING 13.46' T-ARM

SITE NAME: NORTH BLOOMFIELD CT
SITE NUMBER: 468355

DAY HILL ROAD
BLOOMFIELD, CT 06002
HARTFORD COUNTY

PROJECT INFORMATION	
SITE INFORMATION	
LATITUDE:	41.876508° N
LONGITUDE:	72.741840° W
JURISDICTION:	HARTFORD COUNTY
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

SHEET INDEX	
SHEET	DESCRIPTION
T-1	TITLE SHEET
S-1	BILL OF MATERIALS
S-2	MODIFICATION NOTES
S-3	MODIFICATION NOTES
S-4	MODIFICATION DETAILS
S-5	MODIFICATION DETAILS
S-5	MOUNT PHOTOS
S-7	MOUNT GEOMETRY VERIFICATION SPECIFICATION SHEETS

CONTRACTOR PMI REQUIREMENTS	
PMI LOCATION:	HTTPS://PMI.VZWSMART.COM
SMART TOOL PROJECT #:	10079466
VZW LOCATION CODE (PSLC):	468355
FUZE ID:	16272419

REFERENCED DOCUMENTS	
FAILING MOUNT ANALYSIS REPORT	
SMART TOOL PROJECT #:	10050429
MASER CONSULTING PROJECT #:	21777461A
ANALYSIS DATE:	6/14/2021

PMI REQUIREMENTS EMBEDDED WITHIN MOUNT MODIFICATION REPORT

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SCALE: AS SHOWN JOB NUMBER: 21777461A

REV	DATE	DESCRIPTION	DRAWN BY	CHECKED BY
0	6/29/2021	ISSUED FOR CONSTRUCTION		

Derek R. Hartzell
 STATE OF CONNECTICUT
 DEREK R. HARTZELL
 REGISTERED PROFESSIONAL ENGINEER
 LICENSE NO. 32710
 C.T. C.O.A.#: JP00131
 Digitally signed by Derek R. Hartzell
 Date: 2021.06.29 16:33:06-04'00'

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:
NORTH BLOOMFIELD CT
468355
DAY HILL ROAD
BLOOMFIELD, CT 06002
HARTFORD COUNTY

MT. LAUREL OFFICE
2000 Madison Drive
Suite 100
Mount Laurel, NJ 08054
Phone: 856.797.0412
Fax: 856.722.1120

SHEET TITLE:
TITLE SHEET

SHEET NUMBER:
T-1

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 ANS/I/TIA-322 (LATEST EDITION), OSHA, AND GENERAL INDUSTRY STANDARDS. ALL RIGGING PLANS SHALL ADHERE TO ANS/I/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, ANS/I/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.

DESIGN LOADS

- WIND LOADS**
- a. BASIC WIND SPEED (3 SECOND GUST), V = 116 MPH
 - b. EXPOSURE CATEGORY C
 - c. TOPOGRAPHIC CATEGORY 1
 - d. MEAN BASE ELEVATION (AMSL) = 176.79'

- ICE LOADS**
- a. ICE WIND SPEED (3 SECOND GUST), V = 50 MPH
 - b. ICE THICKNESS = 1.50 IN

- SEISMIC LOADS**
- a. SEISMIC DESIGN CATEGORY B
 - b. SHORT TERM MCER GROUND MOTION, S_s = .177
 - c. LONG TERM MCER GROUND MOTION, S_l = .054

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 PROJECT # AND MASER CONSULTING 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.

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SCALE: AS SHOWN JOB NUMBER: 21777461A

0	6/29/2021	ISSUED FOR CONSTRUCTION	FAC.	DH
REV	DATE	DESCRIPTION	DRAWN BY	CHECKED BY

Digitally signed by Derek R. Hartzell
Date: 2021.06.29 16:33:30-0400

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:

NORTH BLOOMFIELD CT
468355

DAY HILL ROAD
BLOOMFIELD, CT 06002
HARTFORD COUNTY

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

Phone: 856.797.0412
Fax: 856.722.1120

SHEET TITLE:
MODIFICATION NOTES

SHEET NUMBER:
S-2

MODIFICATION INSPECTION NOTES

MI CHECKLIST	
CONSTRUCTION/ INSTALLATION INSPECTIONS AND TESTING REQUIRED (COMPLETED BY EOR)	REPORT ITEM
PRE-CONSTRUCTION	
X	MI CHECKLIST DRAWING
X	EOR APPROVED SHOP DRAWINGS
NA	FABRICATION INSPECTION
NA	FABRICATOR CERTIFIED WELD INSPECTION
X	MATERIAL TEST REPORT (MTR)
NA	FABRICATOR NDE INSPECTION
X	PACKING SLIPS
ADDITIONAL TESTING AND INSPECTIONS:	
CONSTRUCTION	
X	CONSTRUCTION INSPECTIONS
NA	CONTRACTOR'S CERTIFIED WELD INSPECTION AND NDE REPORTS
X	ON SITE COLD GALVANIZING VERIFICATION
X	GC AS-BUILT DOCUMENTS
ADDITIONAL TESTING AND INSPECTIONS:	
POST-CONSTRUCTION	
X	MI INSPECTOR REDLINE OR RECORD DRAWING(S)
X	VZW PMI DOCUMENTS
X	PHOTOGRAPHS
ADDITIONAL TESTING AND INSPECTIONS:	

NOTE: X DENOTES A DOCUMENT REQUIRED FOR THE MI REPORT
 NA DENOTES A DOCUMENT THAT IS NOT REQUIRED FOR THE MI REPORT

THE MODIFICATION INSPECTION (MI) IS A VISUAL INSPECTION OF MODIFICATIONS AND A REVIEW OF CONSTRUCTION INSPECTIONS AND OTHER REPORTS TO ENSURE THE INSTALLATION WAS CONSTRUCTED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS, NAMELY THE MODIFICATION DRAWINGS, AS DESIGNED BY THE ENGINEER OF RECORD (EOR).

THE MI IS TO CONFIRM INSTALLATION CONFIGURATION AND WORKMANSHIP ONLY AND IS NOT A REVIEW OF THE MODIFICATION DESIGN ITSELF, NOR DOES THE MI INSPECTOR TAKE OWNERSHIP OF THE MODIFICATION DESIGN. OWNERSHIP OF THE STRUCTURAL MODIFICATION DESIGN EFFECTIVENESS AND INTEGRITY RESIDES WITH THE EOR AT ALL TIMES.

TO ENSURE THAT THE REQUIREMENTS OF THE MI ARE MET, IT IS VITAL THAT THE GENERAL CONTRACTOR (GC) AND THE MI INSPECTOR BEGIN COMMUNICATING AND COORDINATING AS SOON AS A PURCHASE ORDER (PO) IS RECEIVED. IT IS EXPECTED THAT EACH PARTY WILL BE PROACTIVE IN REACHING OUT TO THE OTHER PARTY.

MI INSPECTOR

THE MI INSPECTOR IS REQUIRED TO CONTACT THE GC AS SOON AS RECEIVING A PO FOR THE MI TO, AT A MINIMUM:

- REVIEW THE REQUIREMENTS OF THE MI CHECKLIST
- WORK WITH THE GC TO DEVELOP A SCHEDULE TO CONDUCT ON-SITE INSPECTIONS

THE MI INSPECTOR IS RESPONSIBLE FOR COLLECTING ALL GC INSPECTION AND TEST REPORTS, REVIEWING THE DOCUMENTS FOR ADHERENCE TO THE CONTRACT DOCUMENTS, CONDUCTING THE IN-FIELD INSPECTIONS, AND SUBMITTING THE MI REPORT TO EOR.

GENERAL CONTRACTOR

THE GC IS REQUIRED TO CONTACT THE MI INSPECTOR AS SOON AS RECEIVING A PO FOR THE MODIFICATION INSTALLATION OR TURNKEY PROJECT TO, AT A MINIMUM:

- REVIEW THE REQUIREMENTS OF THE MI CHECKLIST
- WORK WITH THE MI INSPECTOR TO DEVELOP A SCHEDULE TO CONDUCT ON-SITE MI INSPECTIONS, INCLUDING FOUNDATION INSPECTIONS
- BETTER UNDERSTAND ALL INSPECTION AND TESTING REQUIREMENTS

THE GC SHALL PERFORM AND RECORD THE TEST AND INSPECTION RESULTS IN ACCORDANCE WITH THE REQUIREMENTS OF THE MI CHECKLIST.

RECOMMENDATIONS

THE FOLLOWING RECOMMENDATIONS AND SUGGESTIONS ARE OFFERED TO ENHANCE THE EFFICIENCY AND EFFECTIVENESS OF DELIVERING AN MI REPORT:

- IT IS SUGGESTED THAT THE GC PROVIDE A MINIMUM OF 5 BUSINESS DAYS NOTICE, PREFERABLY 10, TO THE MI INSPECTOR AS TO WHEN THE SITE WILL BE READY FOR THE MI TO BE CONDUCTED.
- THE GC AND MI INSPECTOR COORDINATE CLOSELY THROUGHOUT THE ENTIRE PROJECT.
- WHEN POSSIBLE, IT IS PREFERRED TO HAVE THE GC AND MI INSPECTOR ON-SITE SIMULTANEOUSLY FOR ANY GUY WIRE TENSIONING OR RE-TENSIONING OPERATIONS.
- IT MAY BE BENEFICIAL TO INSTALL ALL MODIFICATIONS PRIOR TO CONDUCTING THE FOUNDATION INSPECTIONS TO ALLOW THE FOUNDATION AND MI INSPECTION(S) TO COMMENCE WITH ONE SITE VISIT.
- WHEN POSSIBLE, IT IS PREFERRED TO HAVE THE GC AND MI INSPECTOR ON-SITE DURING THE MI TO HAVE ANY DEFICIENCIES CORRECTED DURING THE INITIAL MI. THEREFORE, THE GC MAY CHOOSE TO COORDINATE THE MI CAREFULLY TO ENSURE ALL CONSTRUCTION FACILITIES ARE AT THEIR DISPOSAL WHEN THE MI INSPECTOR IS ON SITE.

CORRECTION OF FAILING MI'S

IF THE MODIFICATION INSTALLATION WOULD FAIL THE MI ("FAILED MI"), THE GC SHALL WORK WITH THE OWNER TO COORDINATE A REMEDIATION PLAN:

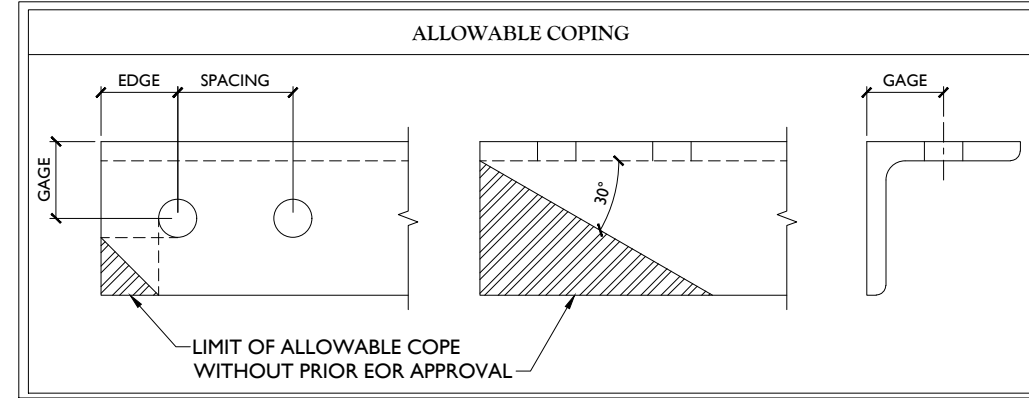
- CORRECT FAILING ISSUES TO COMPLY WITH THE SPECIFICATIONS CONTAINED IN THE ORIGINAL CONTRACT DOCUMENTS AND COORDINATE A SUPPLEMENT MI.

REQUIRED PHOTOS

BETWEEN THE GC AND THE MI INSPECTOR THE FOLLOWING PHOTOGRAPHS, AT A MINIMUM, ARE TO BE TAKEN AND INCLUDED IN THE MI REPORT:

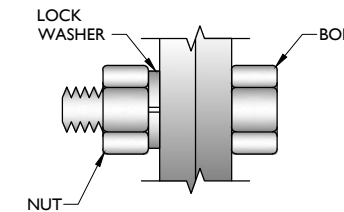
- PRE-CONSTRUCTION GENERAL SITE CONDITION
- PHOTOGRAPHS DURING THE REINFORCEMENT MODIFICATION CONSTRUCTION/ERECTION AND INSPECTION
 - RAW MATERIALS
 - PHOTOS OF ALL CRITICAL DETAILS
 - FOUNDATION MODIFICATIONS
 - WELD PREPARATION
 - BOLT INSTALLATION
 - FINAL INSTALLED CONDITION
 - SURFACE COATING REPAIR
- POST CONSTRUCTION PHOTOGRAPHS
 - FINAL INFIELD CONDITION

PHOTOS OF ELEVATED MODIFICATIONS TAKEN ONLY FROM THE GROUND SHALL BE CONSIDERED INADEQUATE.



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:

- 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.
- THE DIMENSIONS PROVIDED ARE MINIMUM REQUIREMENTS. ACTUAL DIMENSIONS OF PROPOSED MEMBERS WITHIN THESE DRAWINGS MAY VARY FROM THE AISC MINIMUM REQUIREMENTS.
- SHORT SLOT HOLES SHALL ONLY BE USED WHEN DEPICTED IN THE DRAWINGS
- MATCH EXISTING GAGES WHEN APPLICABLE, UNLESS MINIMUM EDGE DISTANCES ARE COMPROMISED.

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SCALE: AS SHOWN	JOB NUMBER: 21777461A
ISSUED FOR CONSTRUCTION: 6/29/2021	FAC. DH.
REV. DATE DESCRIPTION	DRAWN BY CHECKED BY

Derek R. Hartzell
 STATE OF CONNECTICUT
 DEREK R. HARTZELL
 LICENSED PROFESSIONAL ENGINEER
 32710
 MASAER CONSULTING
 C.T. C.O.A.#: 0131
 Digitally signed by Derek R. Hartzell
 Date: 2021.06.29 16:33:30-0400

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SITE NAME:
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 468355
 DAY HILL ROAD
 BLOOMFIELD, CT 06002
 HARTFORD COUNTY

MT. LAUREL OFFICE
 2000 Highlands Drive
 Suite 100
 Mount Laurel, NJ 08054
 Phone: 856.797.0412
 Fax: 856.722.1120

SHEET TITLE:
 MODIFICATION NOTES

SHEET NUMBER:
 S-3



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 STATE OF CONNECTICUT
 DEREK R. HARTZELL
 REGISTERED PROFESSIONAL ENGINEER
 32710
 MASAER CONSULTING
 C.T. C.O.A.#: JP000131
 Digitally signed by Derek R. Hartzell
 Date: 2021.06.29 16:33:30-04'00'

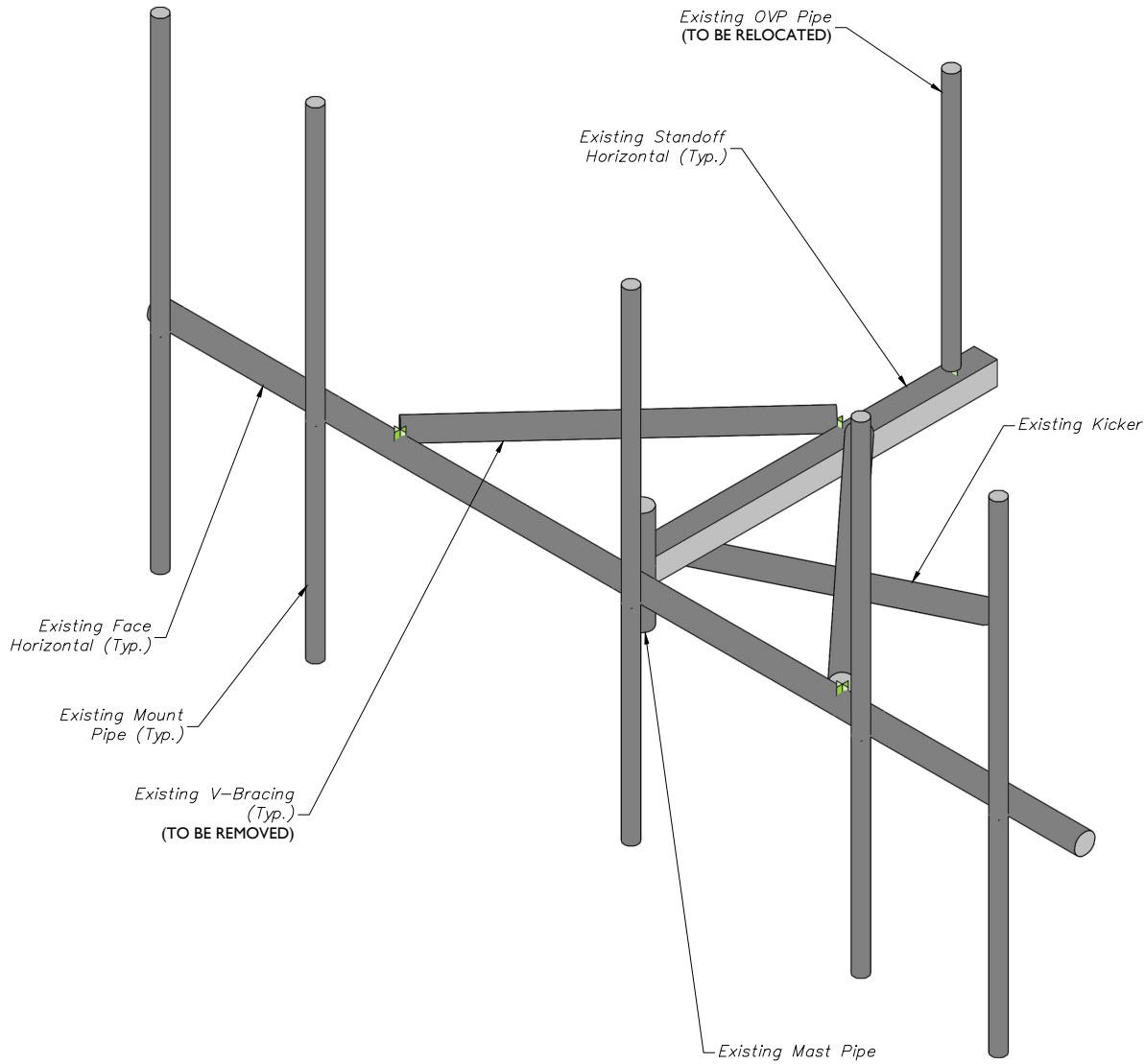
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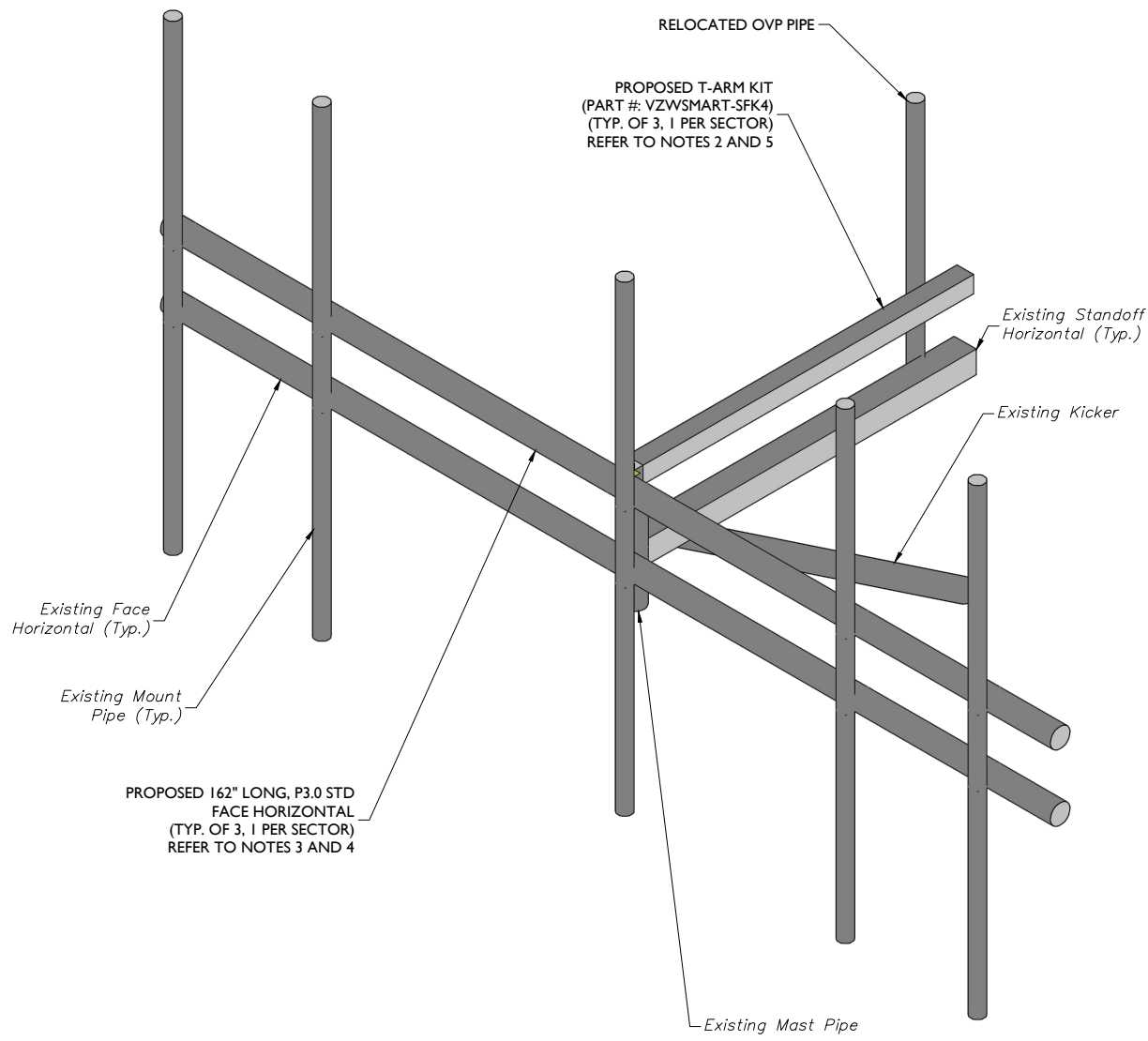
MT. LAUREL OFFICE
 2000 Platinum Drive
 Suite 100
 Mount Laurel, NJ 08054
 Phone: 856.797.0412
 Fax: 856.722.1120

SHEET TITLE:
MODIFICATION DETAILS

SHEET NUMBER:
S-4



1 EXISTING T-ARM ISOMETRIC VIEW (TYP. ALL SECTORS)
 SCALE : N.T.S.



2 PROPOSED T-ARM ISOMETRIC VIEW (TYP. ALL SECTORS)
 SCALE : N.T.S.

STRUCTURAL NOTES:

- CONTRACTOR TO INSPECT CLIMBING FACILITIES AT SITE AND ENSURE THAT THE SAFETY CLIMB IS IN GOOD CONDITION AND THAT THE WIRE ROPE DOES NOT OR WILL NOT INTERFERE WITH THE EXISTING OR PROPOSED MOUNT CONNECTIONS. CONTRACTOR SHALL INSTALL SAFETY CLIMB WIRE ROPE GUIDED AROUND MOUNT CONNECTIONS AS NEEDED.
- 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.

MODIFICATION NOTES:

- MOUNT MEMBERS NOT SHOWN FOR CLARITY U.N.O.
- CONTRACTOR TO VERIFY THE LENGTH REQUIRED AND TRIM AS NECESSARY IN ACCORDANCE WITH THE 'STRUCTURAL STEEL' NOTES ON SHEET S-2.
- 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 VERTICAL MOUNT PIPES WITH CROSSOVER PLATES (PART #: VZWSMART-MSK2).
- CONNECT OTHER END OF T-ARM KIT TO MONOPOLE COLLAR MOUNT ASSEMBLY (PART #: VZWSMART-PLK7).



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0	6/29/2021	ISSUED FOR CONSTRUCTION		

STATE OF CONNECTICUT
Derek R. Hartzell
Professional Engineer
No. 32710
C.T. C.O.A.#: JP000131
Digitally signed by Derek R. Hartzell
Date: 2021.06.29 16:33:31-0400

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SITE NAME:

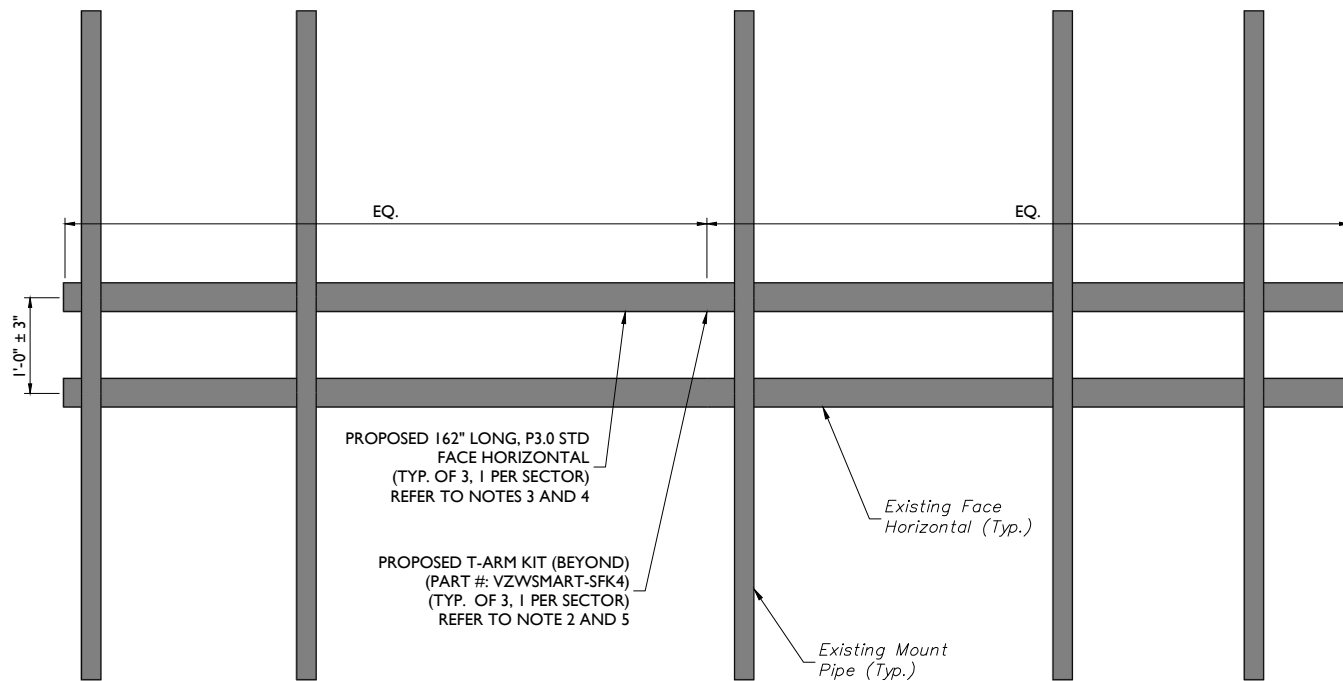
NORTH BLOOMFIELD CT
468355

DAY HILL ROAD
BLOOMFIELD, CT 06002
HARTFORD COUNTY

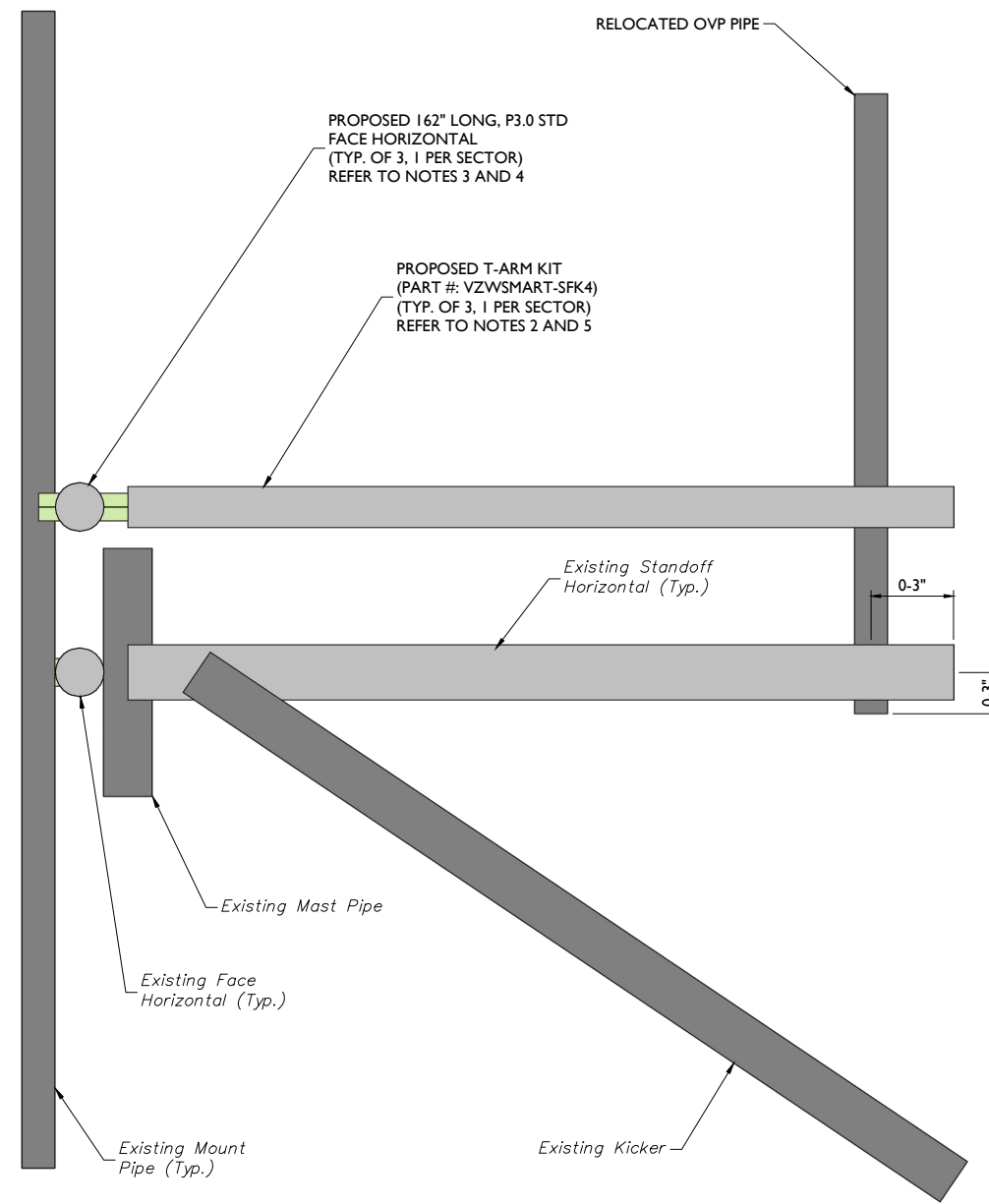
MT. LAUREL OFFICE
2000 Mattamus Drive
Suite 100
Mount Laurel, NJ 08054
Phone: 856.797.0412
Fax: 856.722.1120

SHEET TITLE:
MODIFICATION DETAILS

SHEET NUMBER:
S-5



1 PROPOSED FRONT ELEVATION (TYP. ALL SECTORS)
SCALE: N.T.S.



2 PROPOSED SIDE ELEVATION (TYP. ALL SECTORS)
SCALE: N.T.S.

MODIFICATION NOTES:

- MOUNT MEMBERS NOT SHOWN FOR CLARITY U.N.O.
- CONTRACTOR TO VERIFY THE LENGTH REQUIRED AND TRIM AS NECESSARY IN ACCORDANCE WITH THE 'STRUCTURAL STEEL' NOTES ON SHEET S-2.
- 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 VERTICAL MOUNT PIPES WITH CROSSOVER PLATES (PART #: VZWSMART-MSK2).
- CONNECT OTHER END OF T-ARM KIT TO MONOPOLE COLLAR MOUNT ASSEMBLY (PART #: VZWSMART-PLK7).



MOUNT PHOTO 1



MOUNT PHOTO 2



MOUNT PHOTO 3



MOUNT PHOTO 4



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 LICENSE NO. 32710
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MT. LAUREL OFFICE
 2000 Millstone Drive
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 Mount Laurel, NJ 08054
 Phone: 856.797.0412
 Fax: 856.722.1120

SHEET TITLE:
 MOUNT PHOTOS

SHEET NUMBER:
 S-6

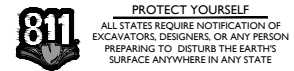
MOUNT GEOMETRY VERIFICATION



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 Digitally signed by Derek R. Hartzell
 Date: 2021.06.29 16:33:32-04'00'

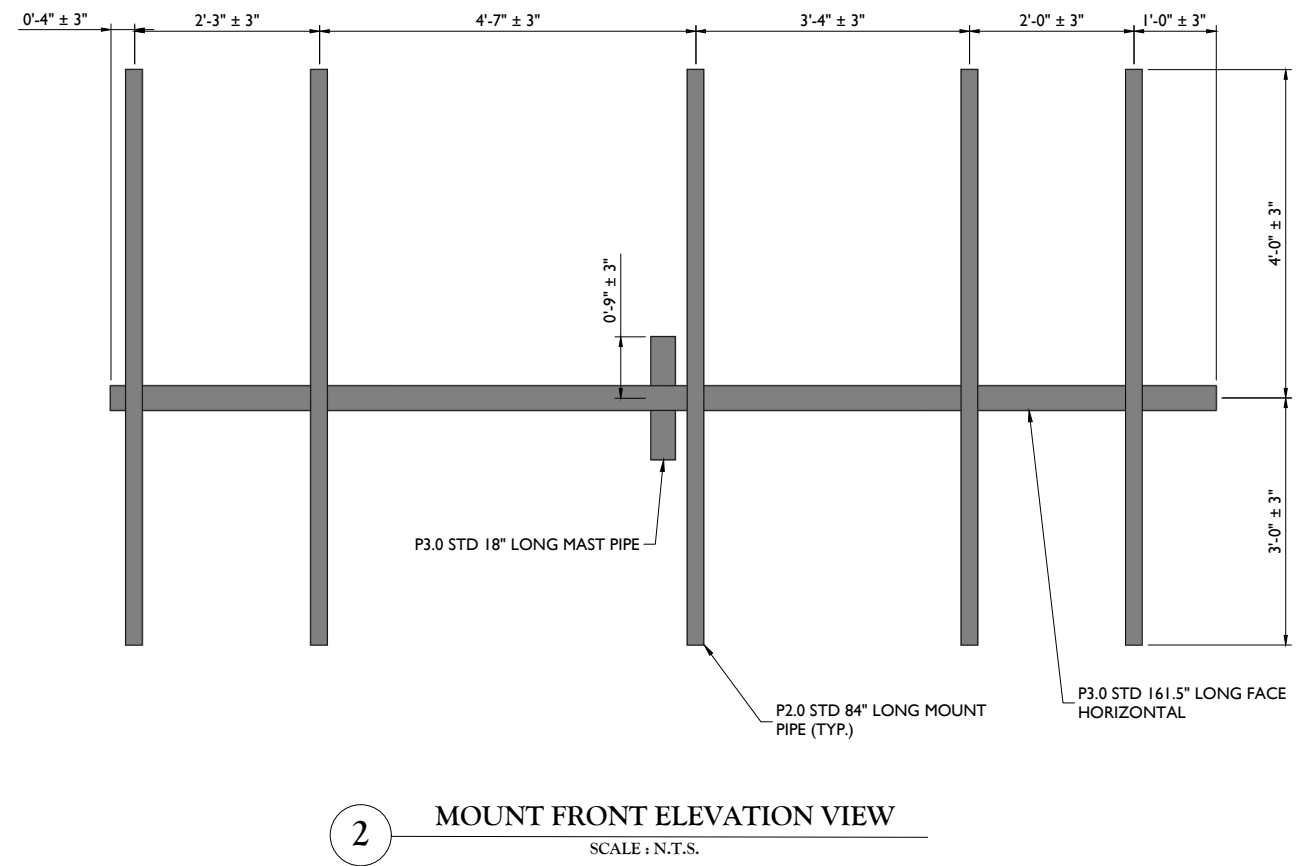
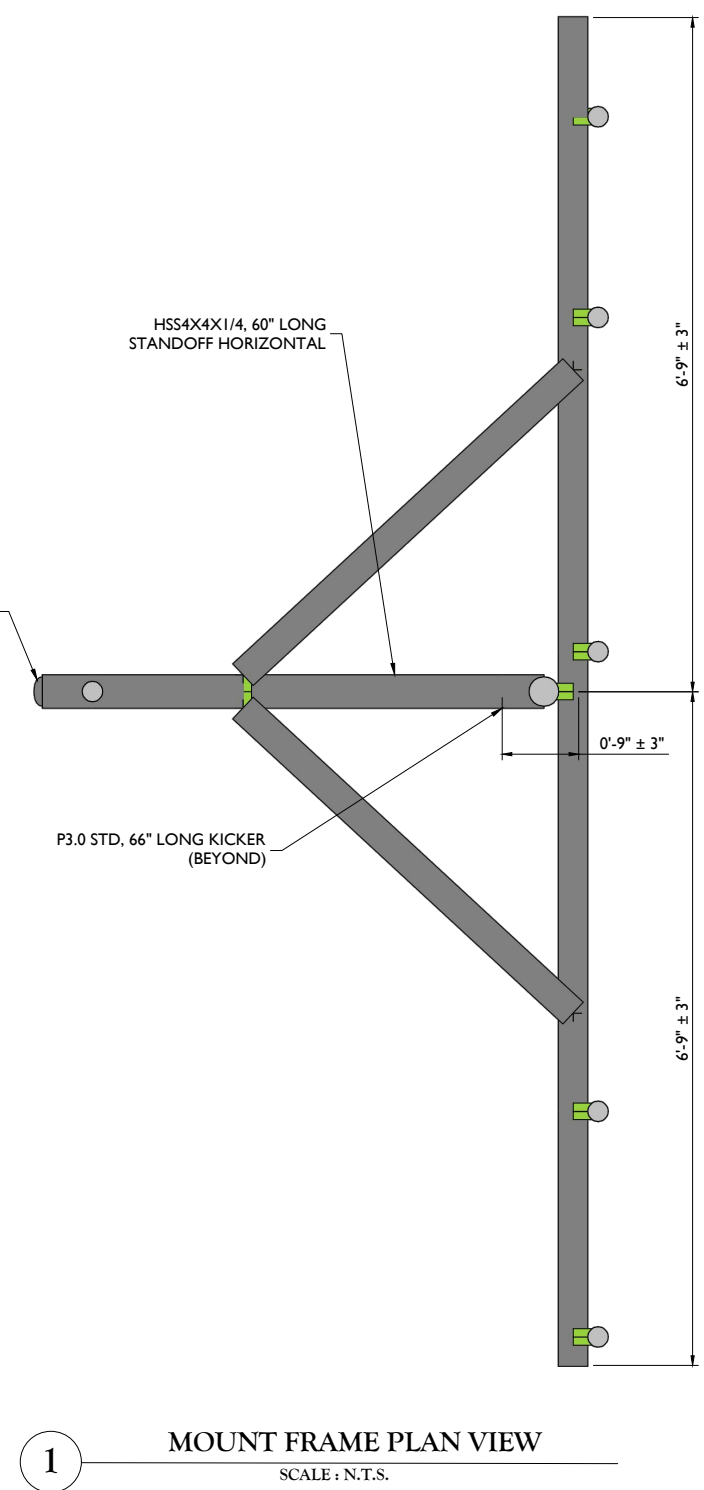
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 Phone: 856.797.0412
 Fax: 856.722.1120

SHEET TITLE:
 MOUNT GEOMETRY VERIFICATION

SHEET NUMBER:
 S-7



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

10X10, 0.625 THICK BASEPLATE WITH (4) 0.625" BOLTS @ 6" C-C (HORIZ.) AND 8" C-C (VERT.) BASEPLATE IS WELDED TO HSS WITH 1/4" FILLET WELD SIZE ALL AROUND

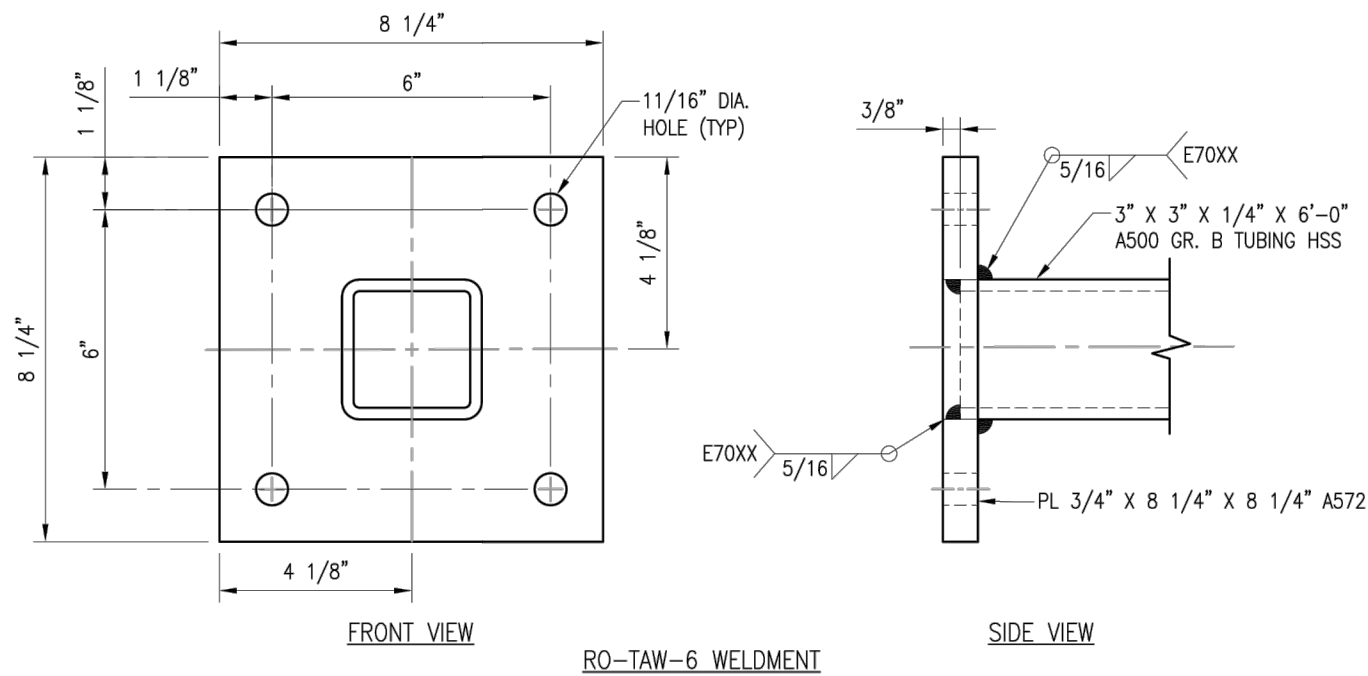
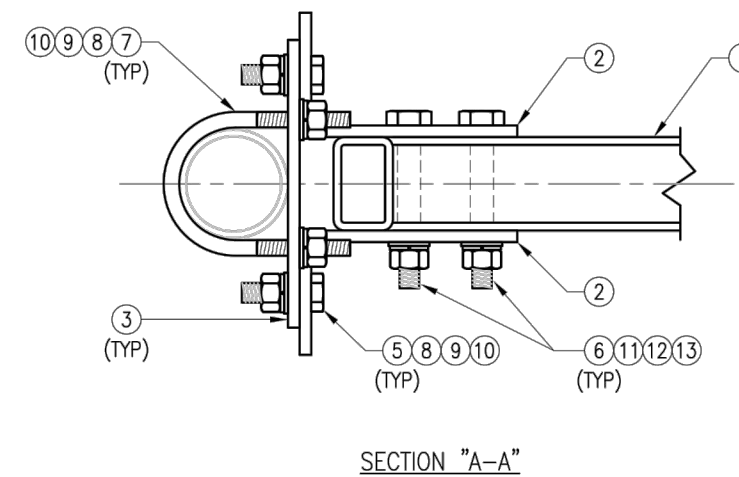
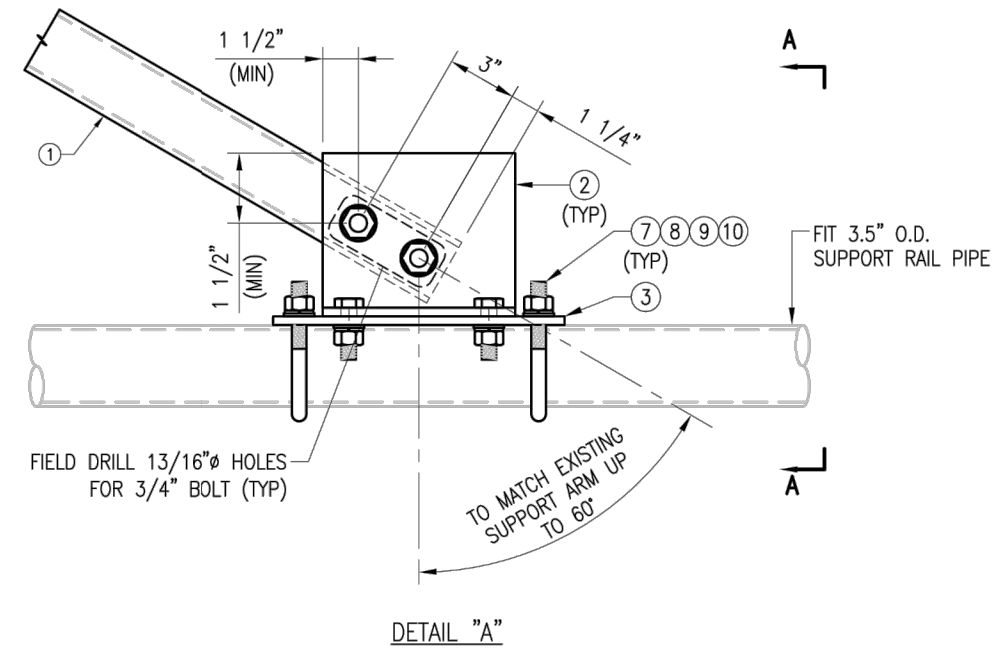
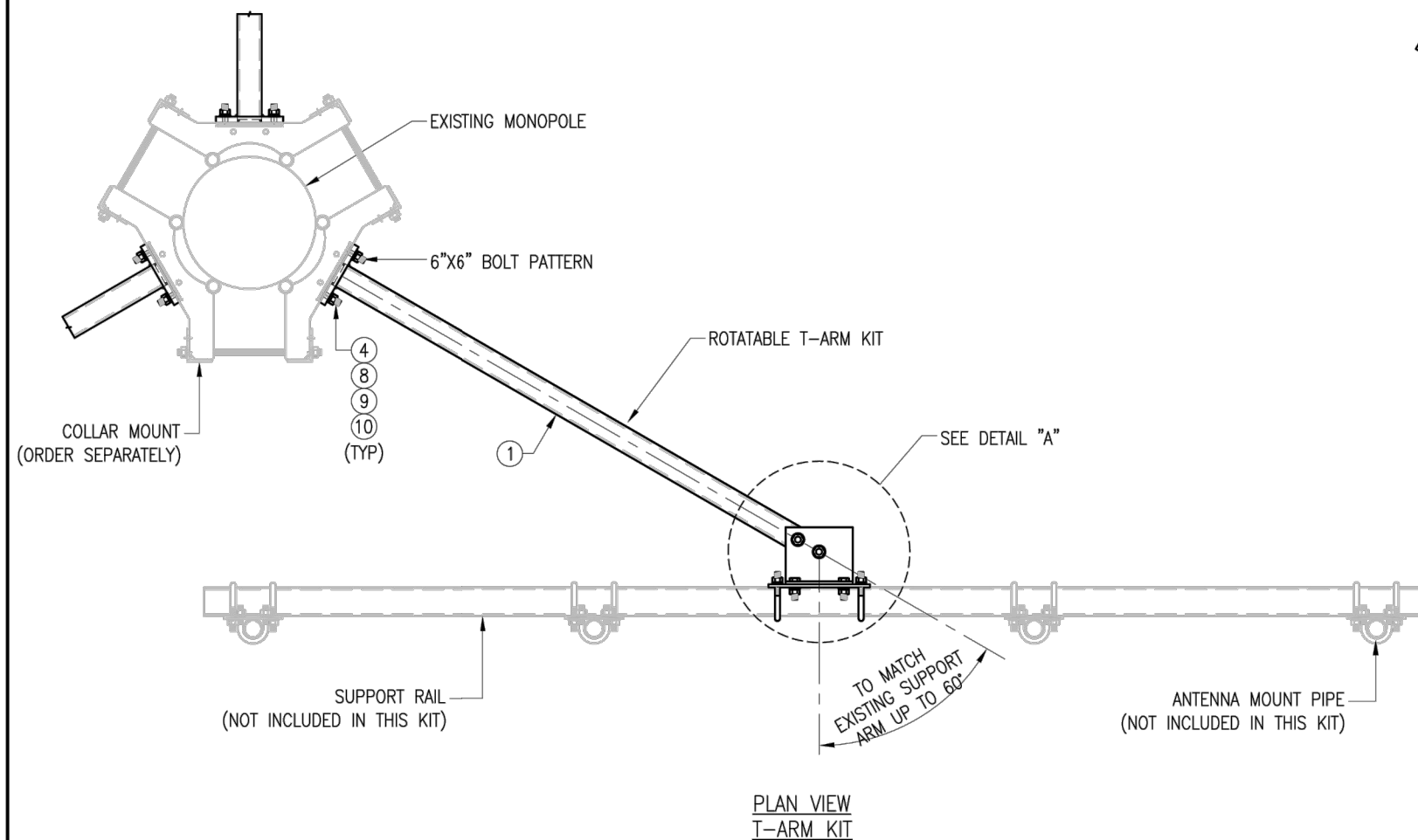
HSS4X4X1/4, 60" LONG STANDOFF HORIZONTAL

P3.0 STD, 66" LONG KICKER (BEYOND)

P3.0 STD 18" LONG MAST PIPE

P2.0 STD 84" LONG MOUNT PIPE (TYP.)

P3.0 STD 161.5" LONG FACE HORIZONTAL



VZSMART-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.

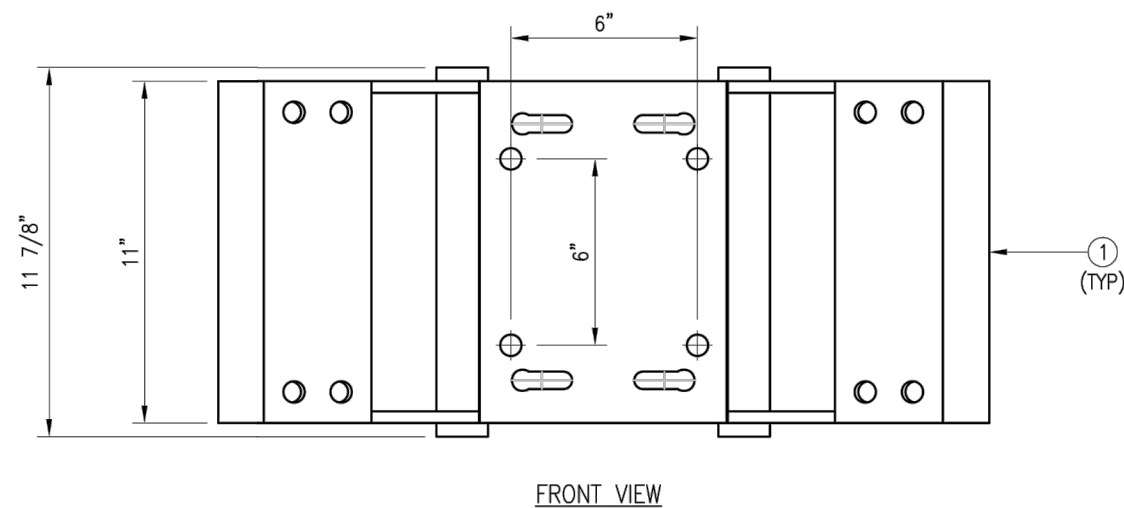
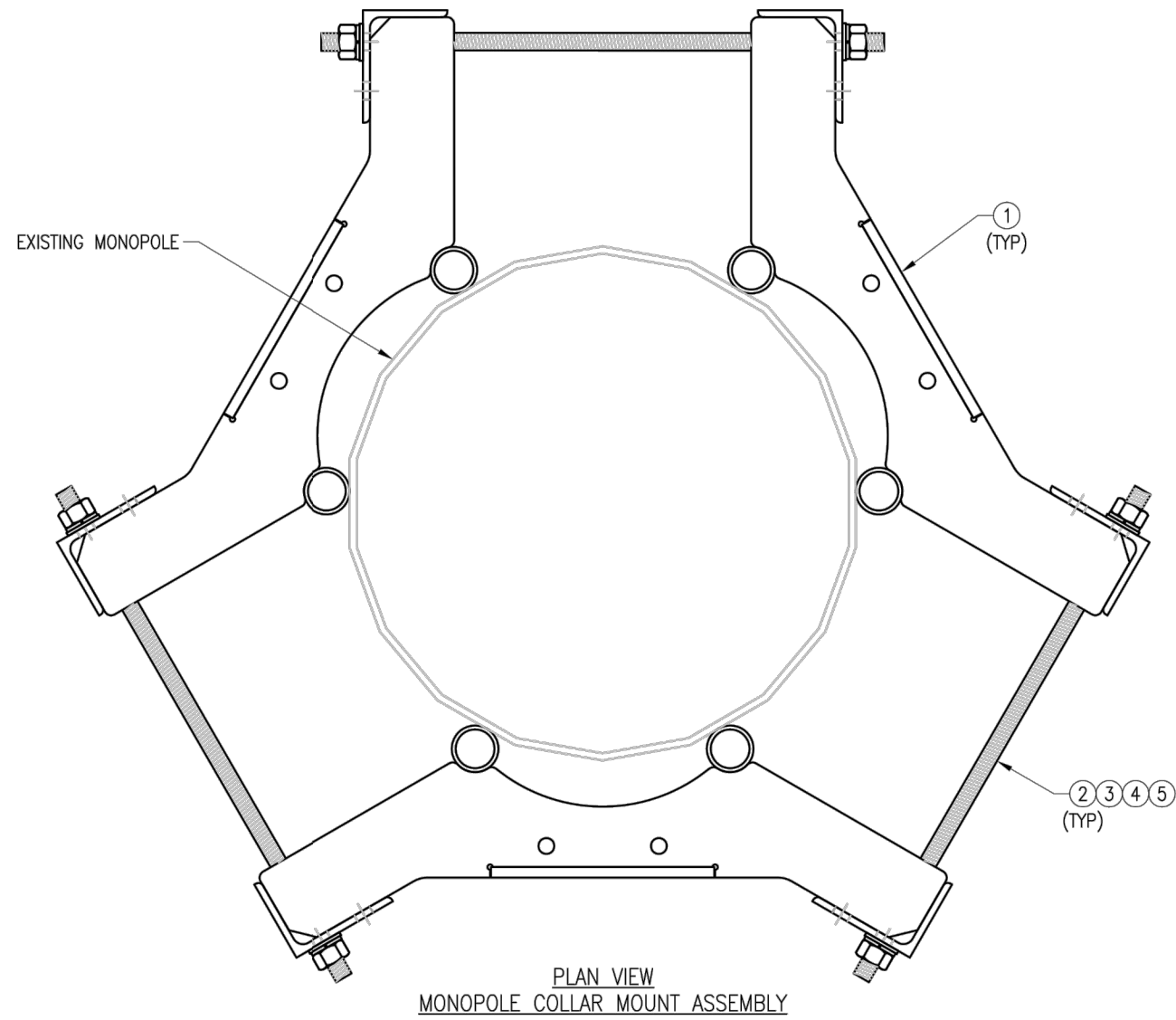
DRAWN BY: BT CHECKED BY: HMA/KW

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

SHEET TITLE:

VZSMART-SFK4
T-ARM KIT

SHEET NUMBER: VZSMART-SFK4 REV #: 0



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

VZSMART-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

DRAWN BY: BT | CHECKED BY: HMA/KW

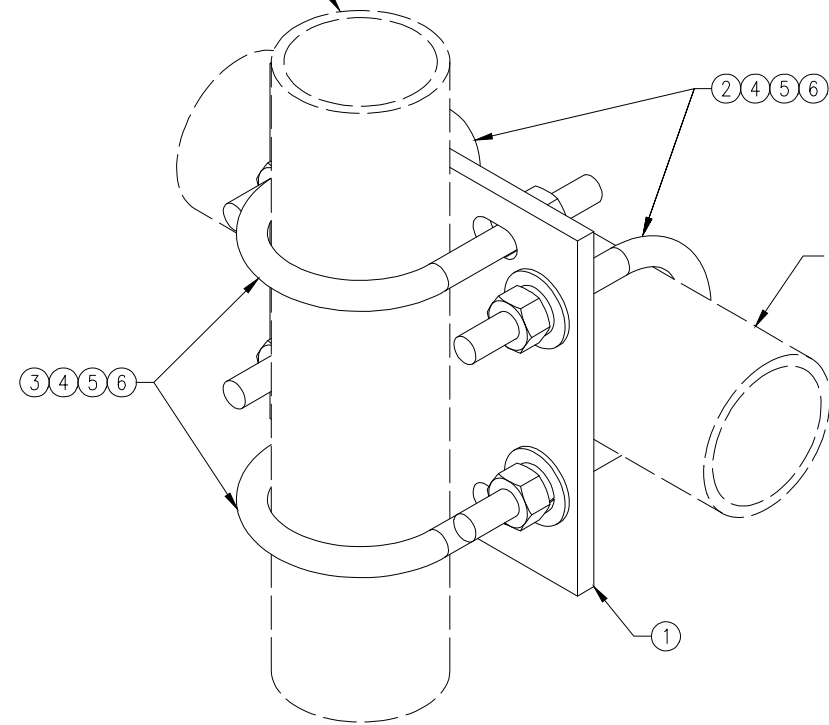
REV.	DESCRIPTION	BY	DATE
1	FIRST ISSUE	BT	05/11/20

SHEET TITLE:
 VZSMART-PLK7
 MONOPOLE COLLAR
 MOUNT ASSEMBLY

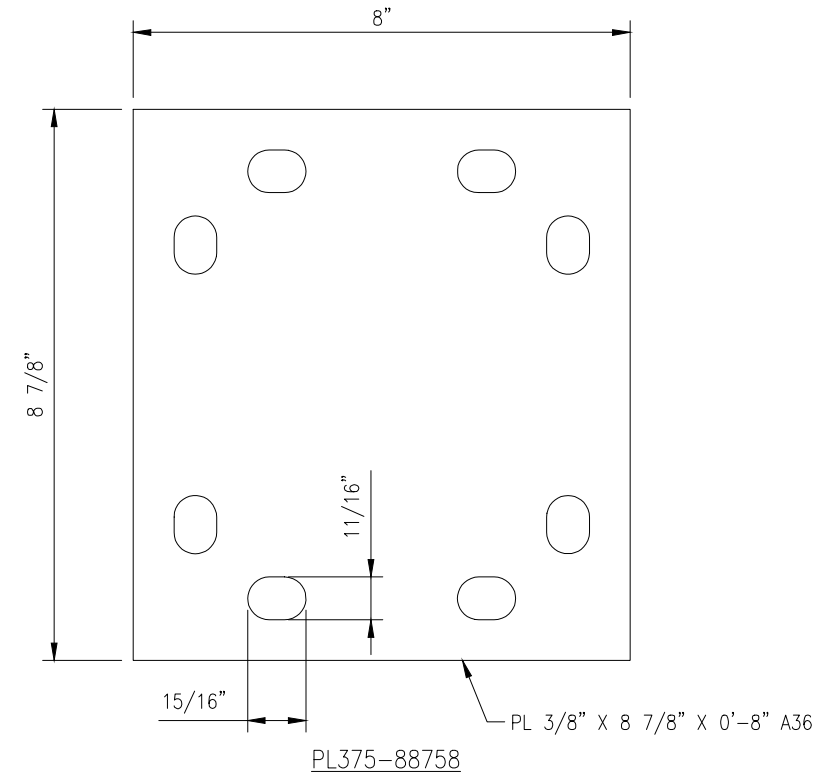
SHEET NUMBER: VZSMART-PLK7 | REV #: 0



FITS 2.375" O.D. AND 2.875" O.D.
 VERTICAL PIPE.
 (NOT INCLUDED IN THIS KIT)



FITS 3.5" O.D. AND 4" O.D.
 HORIZONTAL PIPE.
 (NOT INCLUDED IN THIS KIT)



DRAWN BY: H.R		CHECKED BY: HMA	
REV.	DESCRIPTION	BY	DATE
1	FIRST ISSUE	H.R	05/08/20
2			
3			
4			

SHEET TITLE:
 VZWSMART-MSK2
 CROSSOVER PLATE

SHEET NUMBER: VZWSMART-MSK2
 REV #: 0

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

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

Site Name: **NORTH BLOOMFIELD 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	634	2536	110	0.0075	0.5007	1.51%
VZW CDMA	869	2	398	796	110	0.0024	0.5793	0.41%
VZW Cellular	869	4	725	2900	110	0.0086	0.5793	1.49%
VZW PCS	1970	4	1550	6200	110	0.0184	1.0000	1.84%
VZW AWS	2110	4	1530	6120	110	0.0182	1.0000	1.82%
VZW CBAND	3730	4	6531	26124	110	0.0776	1.0000	7.76%
Total Percentage of Maximum Permissible Exposure								14.83%

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

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

MHz = Megahertz

mW/cm² = milliwatts per square centimeter

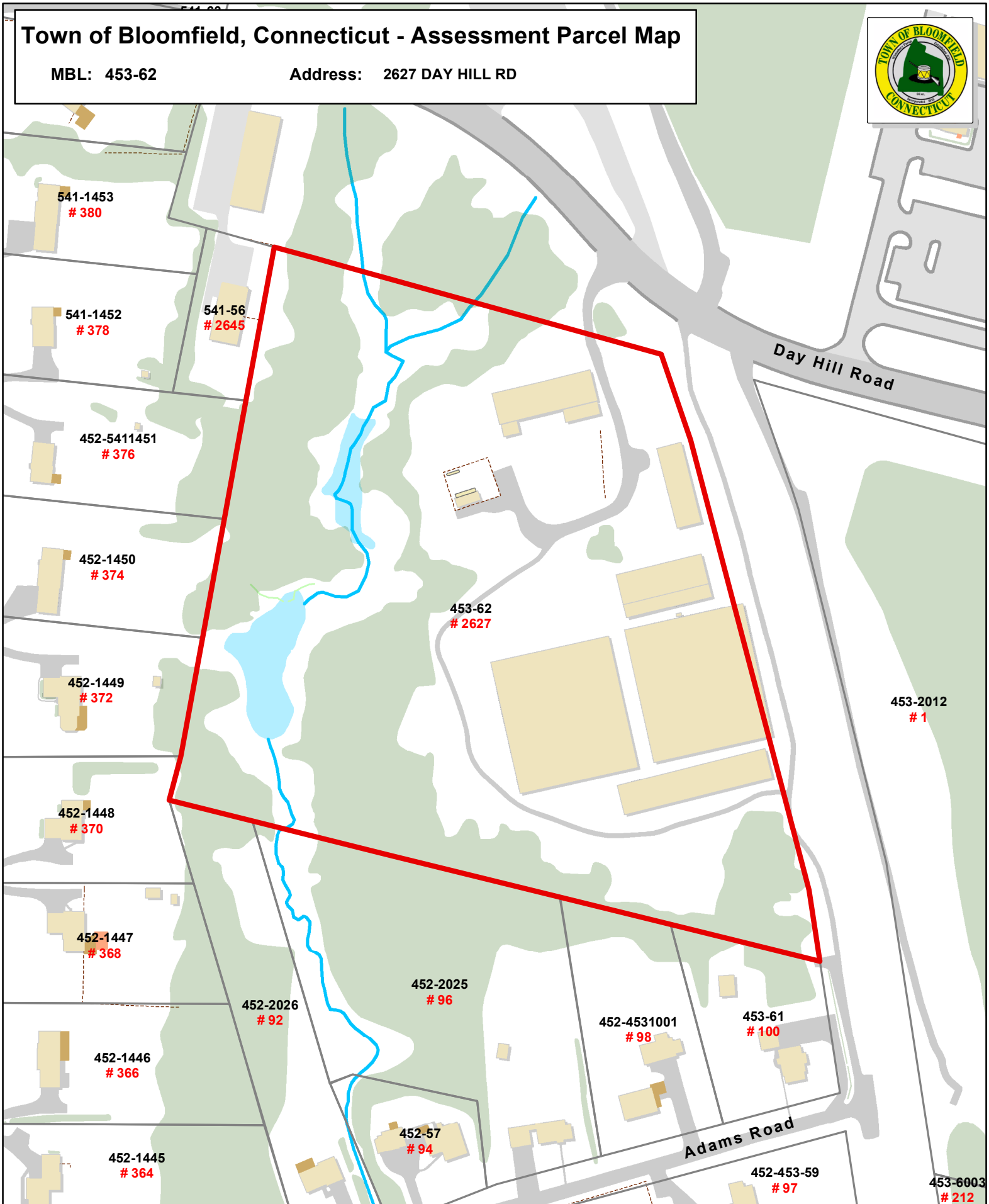
ERP = Effective Radiated Power

Absolute worst case maximum values used.

Town of Bloomfield, Connecticut - Assessment Parcel Map

MBL: 453-62

Address: 2627 DAY HILL RD



Approximate Scale:

1 inch = 150 feet

Disclaimer:

This map is for informational purposes only.
All information is subject to verification by any user.
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assume no legal responsibility for the information contained herein.

Map Produced October 2019

Parcels labeled by Unique ID



Town of Bloomfield, CT

Property Listing Report

Map Block Lot

453-62CELL

Building # **1**

PID **101559**

Account

45362C

Property Information

Property Location	2627 DAY HILL RD
Owner	AMERICAN TOWER CORP
Co-Owner	
Mailing Address	PO BOX 723597 ATLANTA GA 31139-0000
Land Use	230 Com Cell Site
Land Class	C
Zoning Code	
Census Tract	

Site Index	
Acreage	0
Utilities	
Lot Setting/Desc	
Fire District	C
Book / Page	0/0

Primary Construction Details

Year Built	0
Building Desc.	Com Cell Site
Building Style	UNKNOWN
Building Grade	
Stories	
Occupancy	
Exterior Walls	
Exterior Walls 2	NA
Roof Style	
Roof Cover	
Interior Walls	
Interior Walls 2	NA
Interior Floors 1	
Interior Floors 2	

Heating Fuel	
Heating Type	
AC Type	
Bedrooms	0
Full Bathrooms	0
Half Bathrooms	0
Extra Fixtures	0
Total Rooms	0
Bath Style	NA
Kitchen Style	NA
Bsmt Fin Area	0
Rec Rm Area	0
Bsmt Gar	0
Fireplaces	0

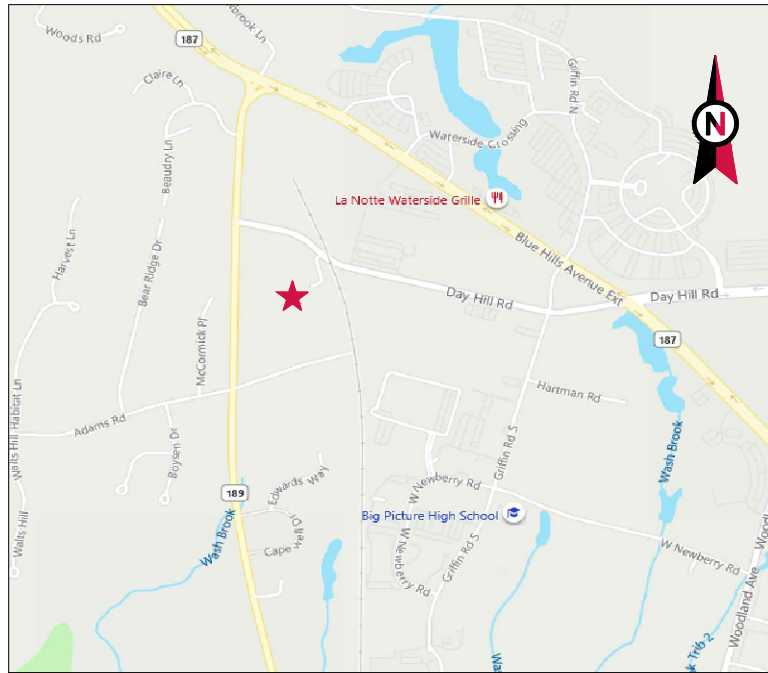
(*Industrial / Commercial Details)	
Building Use	Vacant
Building Condition	
Sprinkler %	NA
Heat / AC	NA
Frame Type	NA
Baths / Plumbing	NA
Ceiling / Wall	NA
Rooms / Prtns	NA
Wall Height	NA
First Floor Use	NA
Foundation	NA

Photo



Sketch





VICINITY MAP



AMERICAN TOWER®

ATC SITE NAME: NORTH BLOOMFIELD CT
 ATC SITE NUMBER: 283562
 VERIZON SITE NAME: NORTH BLOOMFIELD CT
 VERIZON SITE NUMBER: 468355
 SITE ADDRESS: 1627 DAY HILL ROAD
 BLOOMFIELD, CT 06002-1177



LOCATION MAP

**VERIZON
 5G L-SUB6 CARRIER ADD ANTENNA AMENDMENT DRAWINGS**

COMPLIANCE CODE	PROJECT SUMMARY	PROJECT DESCRIPTION	SHEET INDEX				
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. 2018 CONNECTICUT STATE BUILDING CODE-AMENDMENTS TO IBC 2015 2. INTERNATIONAL BUILDING CODE 2015, INTERNATIONAL CODE COUNCIL 3. TIA-222-G-4, STRUCTURAL STANDARD FOR ANTENNA SUPPORTING STRUCTURES AND ANTENNAS 4. ASCE 7-10 MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES, AMERICAN SOCIETY OF CIVIL ENGINEERS 5. STEEL CONSTRUCTION MANUAL 14TH EDITION, AMERICAN INSTITUTE OF STEEL CONSTRUCTION 6. CITY/COUNTY ORDINANCES	<u>SITE ADDRESS:</u> 1627 DAY HILL ROAD BLOOMFIELD, CT 06002-1177 COUNTY: HARTFORD <u>GEOGRAPHIC COORDINATES:</u> LATITUDE: 41.87650777 LONGITUDE: -72.7418397 GROUND ELEVATION: 179' AMSL	THE PROPOSED PROJECT INCLUDES MODIFYING GROUND BASED AND TOWER MOUNTED EQUIPMENT AS INDICATED PER BELOW: REMOVE (3) ANTENNA(s), AND (12) RRRH(s) INSTALL (3) ANTENNA(s), (6) RRRH(s), AND (6) DIPLEXER(s) EXISTING (12) ANTENNA(s), (2) OVP(s), (2) 1-5/8" HYBRID CABLE(s), AND (6) 1-5/8" COAX CABLE(s), AND TO REMAIN	SHEET NO:	DESCRIPTION:	REV:	DATE:	BY:
	<u>PROJECT TEAM</u> <u>TOWER OWNER:</u> AMERICAN TOWER 10 PRESIDENTIAL WAY WOBURN, MA 01801 <u>APPLICANT:</u> VERIZON WIRELESS 118 FLANDERS ROAD WESTBOROUGH, MA 01581 <u>ENGINEER:</u> DEWBERRY ENGINEERS INC. 99 SUMER STREET SUITE 700 BOSTON, MA 02110 <u>PROPERTY OWNER:</u> RIVER BEND DEVELOPMENT INC 1627 DAY HILL ROAD - BLOOMFIELD - CT - 06002	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. 6. THE PROJECT DEPICTED IN THESE PLANS QUALIFIES AS AN ELIGIBLE FACILITIES REQUEST ENTITLED TO EXPEDITED REVIEW UNDER 47 U.S.C. § 1455(A) AS A MODIFICATION OF AN EXISTING WIRELESS TOWER THAT INVOLVES THE COLLOCATION, REMOVAL, AND/OR REPLACEMENT OF TRANSMISSION EQUIPMENT THAT IS NOT A SUBSTANTIAL CHANGE UNDER CFR § 1.61000 (B)(7).	G-001	TITLE SHEET	0	07/29/21	MR
<u>UTILITY COMPANIES</u> POWER COMPANY: CONNECTICUT LIGHT & POWER PHONE: (888) 783-6617 TELEPHONE COMPANY: FRONTIER COMMUNICATIONS PHONE: (800) 921-8102		PROJECT LOCATION DIRECTIONS FROM HARTFORD CT TAKE I-91 NORTH TOWARD SPRINGFIELD MA. TAKE EXIT 36 CT-178 TOWARD BLOOMFIELD. TURN LEFT ONTO CT-178. TURN RIGHT ONTO BLUE HILLS AVE CT-187. TURN LEFT ONT DAY HILL ROAD. SITE IS ON LEFT JUST PAST RR TRACKS	G-002	GENERAL NOTES	0	07/29/21	MR
			C-101	DETAILED SITE PLAN	0	07/29/21	MR
			C-201	TOWER ELEVATION	0	07/29/21	MR
			C-401	ANTENNA INFORMATION & SCHEDULE	0	07/29/21	MR
			C-501	CONSTRUCTION DETAILS	0	07/29/21	MR
			E-501	GROUNDING DETAILS	0	07/29/21	MR
			R-601	SUPPLEMENTAL			
			R-602	SUPPLEMENTAL			
				MOUNT MODIFICATION DRAWINGS (11 PAGES)			

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A	PRELIM	MR	05/27/21
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ATC SITE NUMBER:
 283562

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 1627 DAY HILL ROAD
 BLOOMFIELD, CT 06002-1177



DATE DRAWN:	05/25/21
ATC JOB NO:	13668980_D1
CUSTOMER ID:	NORTH BLOOMFIELD CT
CUSTOMER #:	468355

TITLE SHEET

SHEET NUMBER:
G-001

REVISION:
0



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GENERAL CONSTRUCTION NOTES:

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

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

SPECIAL CONSTRUCTION

ANTENNA INSTALLATION NOTES:

1. WORK INCLUDED:
 - A. ANTENNA AND COAXIAL CABLES ARE FURNISHED BY VERIZON UNDER A SEPARATE CONTRACT. THE CONTRACTOR SHALL ASSIST ANTENNA INSTALLATION CONTRACTOR IN TERMS OF COORDINATION AND SITE ACCESS. ERECTION SUBCONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF PERSONNEL AND
 - B. INSTALL ANTENNA AS INDICATE ON DRAWINGS AND VERIZON SPECIFICATIONS.
 - C. INSTALL GALVANIZED STEEL ANTENNA MOUNTS AS INDICATED ON DRAWINGS
 - D. INSTALL FURNISHED GALVANIZED STEEL OR ALUMINUM WAVEGUIDE.
 - E. CONTRACTOR SHALL PROVIDE FOUR (4) SETS OF SWEEP TESTS USING ANRITZU-PACKARD 8713B RF SCALAR NETWORK ANALYZER. SUBMIT FREQUENCY DOMAIN REFLECTOMETER(FDR) TESTS RESULTS TO THE PROJECT MANAGER. SWEEP TESTS SHALL BE AS PER ATTACHED RFS "MINIMUM FIELD TESTING RECOMMENDED FOR ANTENNA AND HELIAX COAXIAL CABLE SYSTEMS" DATED 10/5/93. TESTING SHALL BE PERFORMED BY AN INDEPENDENT TESTING SERVICE AND BE BOUND AND SUBMITTED WITHIN ONE WEEK OF WORK COMPLETION.
 - F. INSTALL COAXIAL CABLES AND TERMINATING BETWEEN ANTENNAS AND EQUIPMENT PER MANUFACTURER'S RECOMMENDATIONS. WEATHERPROOF ALL CONNECTIONS BETWEEN THE ANTENNA AND EQUIPMENT PER MANUFACTURER'S REQUIREMENTS. TERMINATE ALL COAXIAL CABLE THREE (3) FEET IN EXCESS OF ENTRY PORT LOCATION UNLESS OTHERWISE STATED.
 - G. ANTENNA AND COAXIAL CABLE GROUNDING:
2. ALL EXTERIOR #6 GREED GROUND WIRE "DAISY CHAIN" CONNECTIONS ARE TO BE WEATHER SEALED WITH RFS CONNECTORS/SPICE WEATHERPROOFING KIT #22123 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.



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REV.	DESCRIPTION	BY	DATE
A	PRELIM	MR	05/27/21
0	FINAL	MR	07/29/21

ATC SITE NUMBER:
 283562

ATC SITE NAME:
 NORTH BLOOMFIELD CT

VERIZON SITE NAME:
 NORTH BLOOMFIELD CT

SITE ADDRESS:
 1627 DAY HILL ROAD
 BLOOMFIELD, CT 06002-1177



verizon

DATE DRAWN:	05/25/21
ATC JOB NO:	13668980_D1
CUSTOMER ID:	NORTH BLOOMFIELD CT
CUSTOMER #:	468355

GENERAL NOTES

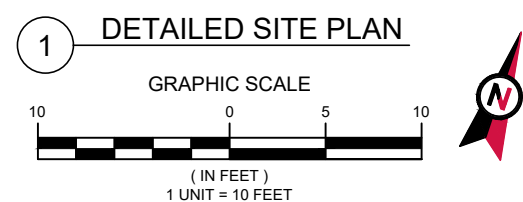
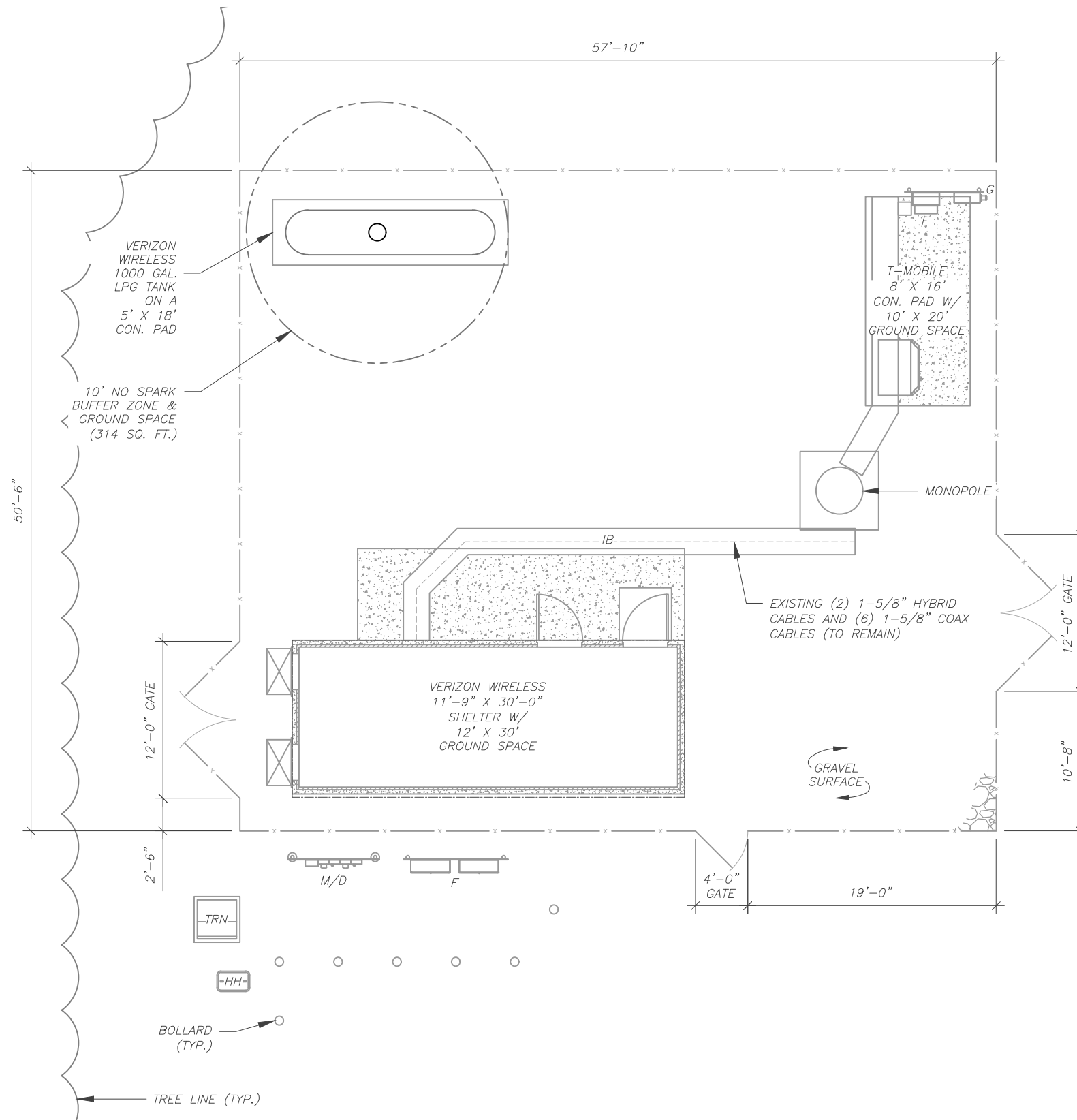
SHEET NUMBER: G-002	REVISION: 0
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SITE PLAN NOTES:

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

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



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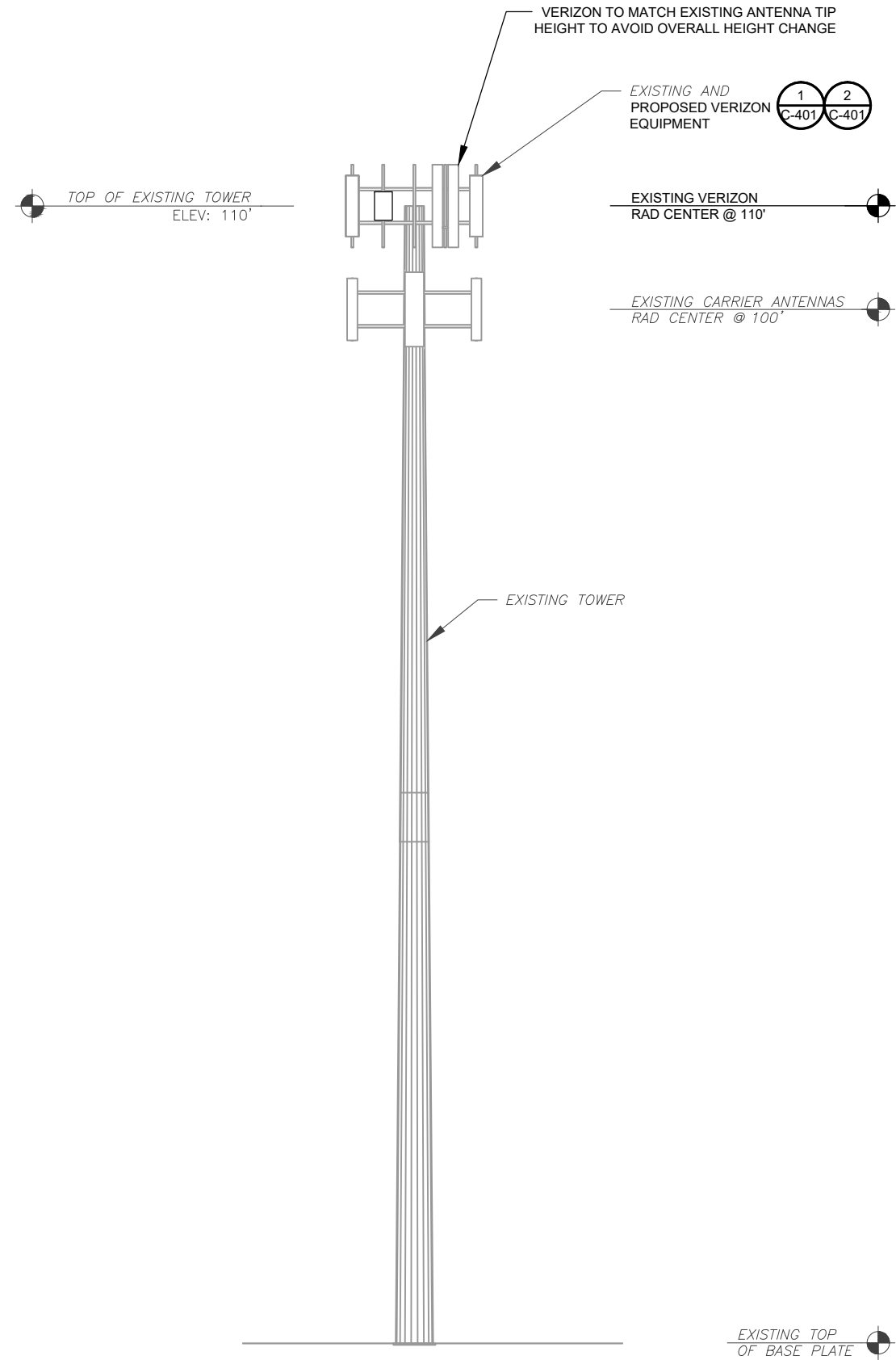
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ATC JOB NO:	13668980_D1
CUSTOMER ID:	NORTH BLOOMFIELD CT
CUSTOMER #:	468355

DETAILED SITE PLAN

SHEET NUMBER:
C-101

REVISION:
0

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PER MOUNT ANALYSIS COMPLETED BY MASER CONSULTING CONNECTICUT, DATED 06/29/21, 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. TOWER ELEVATIONS ARE MEASURED FROM TOP OF BASE PLATE TO MATCH STRUCTURAL ANALYSIS. ELEVATIONS DO NOT REFLECT TRUE ABOVE GROUND LEVEL (A.G.L.)

1 TOWER ELEVATION
SCALE: N.T.S.



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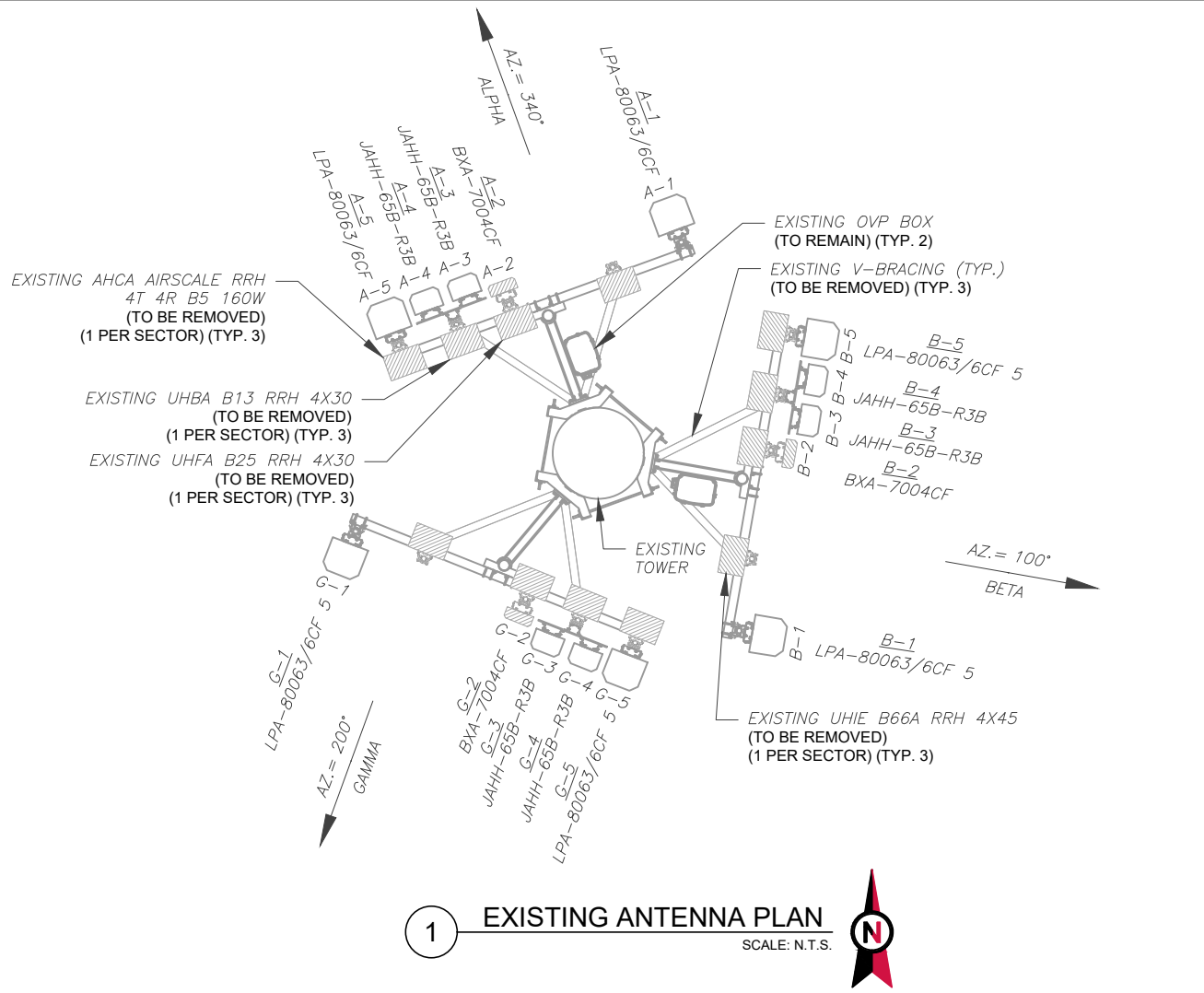


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ATC JOB NO:	13668980_D1
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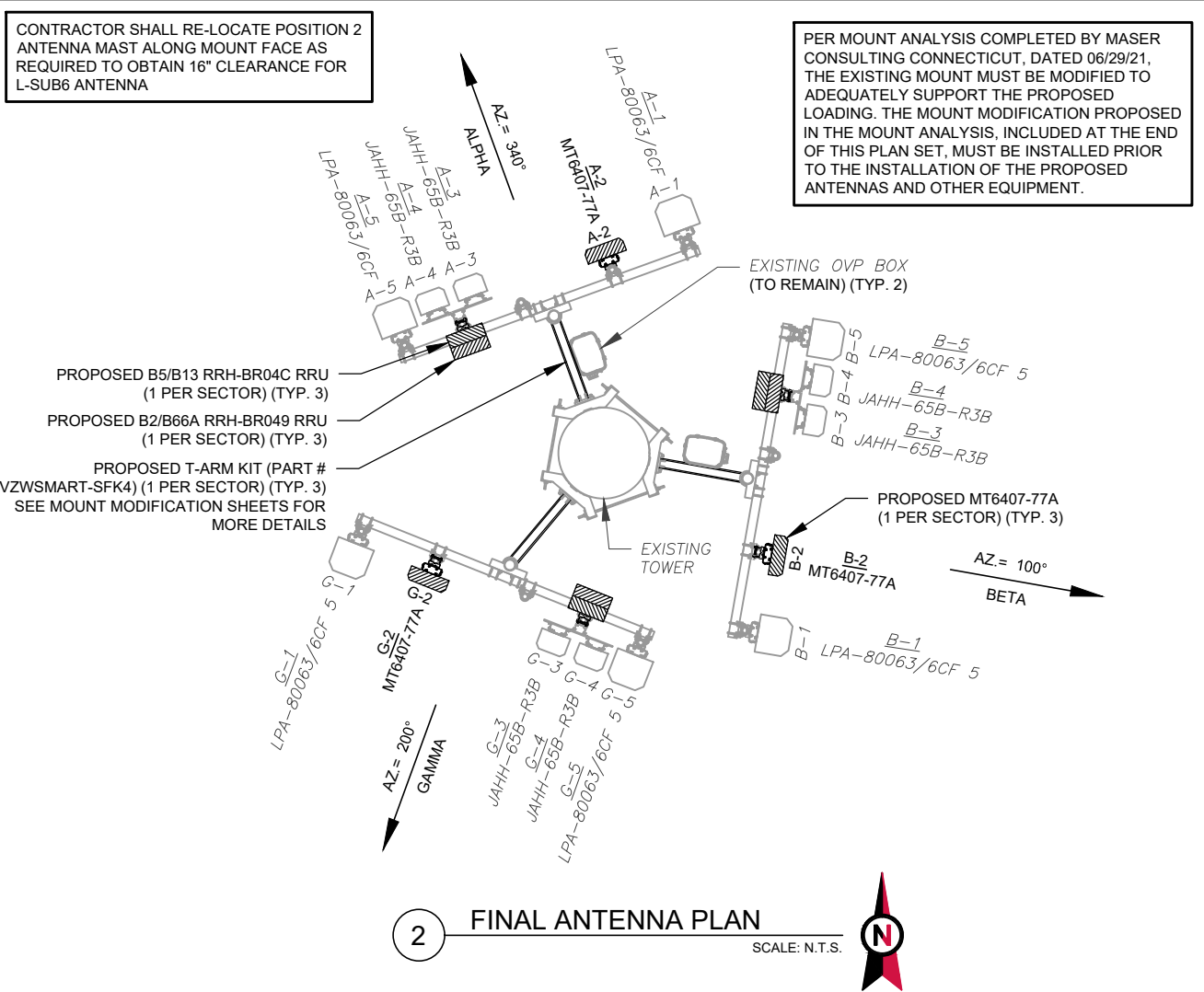
ELEVATION

SHEET NUMBER:	REVISION:
C-201	0

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



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	110'	340°	A1	LPA-80063/6CF	850/CDMA	4/0	RMN	AHIE B66A RRH 4X45	RMV
			A2	BXA-7004CF	-	-	RMV	-	-
			A3	JAHH-65B-R3B	700/850/1900/AWS	4/4,4,3,3	RMN	UHFA B25 RRH 4X30	RMV
			A4	JAHH-65B-R3B	700/850/1900/AWS	4/4,4,3,3	RMN	UHBA B13 RRH 4X30	RMV
			A5	LPA-80063/6CF	850/CDMA	4/0	RMN	AHCA AIRSCALE RRH 4T 4R B5 160W	RMV
BETA	110'	100°	B1	LPA-80063/6CF 5	850/CDMA	0/5	RMN	AHIE B66A RRH 4X45	RMV
			B2	BXA-7004CF	-	-	RMV	-	-
			B3	JAHH-65B-R3B	700/850/1900/AWS	0/4,7,1,1	RMN	UHFA B25 RRH 4X30	RMV
			B4	JAHH-65B-R3B	700/850/1900/AWS	0/4,7,1,1	RMN	UHBA B13 RRH 4X30	RMV
			B5	LPA-80063/6CF 5	850/CDMA	0/5	RMN	AHCA AIRSCALE RRH 4T 4R B5 160W	RMV
GAMMA	110'	200°	C1	LPA-80063/6CF 5	850/CDMA	0/5	RMN	AHIE B66A RRH 4X45	RMV
			C2	BXA-7004CF	-	-	RMV	-	-
			C3	JAHH-65B-R3B	700/850/1900/AWS	0/4,5,3,3	RMN	UHFA B25 RRH 4X30	RMV
			C4	JAHH-65B-R3B	700/850/1900/AWS	0/4,5,3,3	RMN	UHBA B13 RRH 4X30	RMV
			C5	LPA-80063/6CF 5	850/CDMA	0/5	RMN	AHCA AIRSCALE RRH 4T 4R B5 160W	RMV

NOTES

- CONFIRM WITH VERIZON REP FOR APPLICABLE UPDATES/REVISIONS AND MOST RECENT RFDS FOR NSN CONFIGURATION (CONFIG). GC TO CAP ALL UNUSED PORTS.
- 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	110'	340°	A1	LPA-80063/6CF	850/CDMA	4/0	RMN	-	-
			A2	MT6407-77A	L-SUB6	0/6	ADD	-	-
			A3	JAHH-65B-R3B	700/850/1900/AWS	4/4,4,3,3	RMN	B2/B66A RRH-BR049	ADD
			A4	JAHH-65B-R3B	700/850/1900/AWS	4/4,4,3,3	RMN	B5/B13 RRH-BR04C	ADD
			A5	LPA-80063/6CF	850/CDMA	4/0	RMN	-	-
BETA	110'	100°	B1	LPA-80063/6CF 5	850/CDMA	0/5	RMN	-	-
			B2	MT6407-77A	L-SUB6	0/6	ADD	-	-
			B3	JAHH-65B-R3B	700/850/1900/AWS	0/4,4,1,1	RMN	B2/B66A RRH-BR049	ADD
			B4	JAHH-65B-R3B	700/850/1900/AWS	0/4,4,1,1	RMN	B5/B13 RRH-BR04C	ADD
			B5	LPA-80063/6CF 5	850/CDMA	0/5	RMN	-	-
GAMMA	110'	200°	C1	LPA-80063/6CF 5	850/CDMA	0/5	RMN	-	-
			C2	MT6407-77A	L-SUB6	0/6	ADD	-	-
			C3	JAHH-65B-R3B	700/850/1900/AWS	0/4,5,3,3	RMN	B2/B66A RRH-BR049	ADD
			C4	JAHH-65B-R3B	700/850/1900/AWS	0/4,5,3,3	RMN	B5/B13 RRH-BR04C	ADD
			C5	LPA-80063/6CF 5	850/CDMA	0/5	RMN	-	-

EXISTING FIBER DISTRIBUTION/OVP BOX		EXISTING CABLING SUMMARY		
MODEL NUMBER	STATUS	COAX	HYBRID	STATUS
(2) RC3DC-3315-PF-48	RMN	(6) 1-5/8"	(2) 1-5/8" 6X12	RMN

3 EQUIPMENT SCHEDULES

FINAL FIBER DISTRIBUTION / OVP BOX		FINAL CABLING SUMMARY		
MODEL NUMBER	STATUS	COAX	HYBRID	STATUS
(2) RC3DC-3315-PF-48	RMN	(6) 1-5/8"	(2) 1-5/8"	RMN



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PHONE: 617.531.0801
FAX: 617.695.3310

REV.	DESCRIPTION	BY	DATE
A	PRELIM	MR	05/27/21
0	FINAL	MR	07/29/21

ATC SITE NUMBER:
283562

ATC SITE NAME:
NORTH BLOOMFIELD CT

VERIZON SITE NAME:
NORTH BLOOMFIELD CT

SITE ADDRESS:
1627 DAY HILL ROAD
BLOOMFIELD, CT 06002-1177



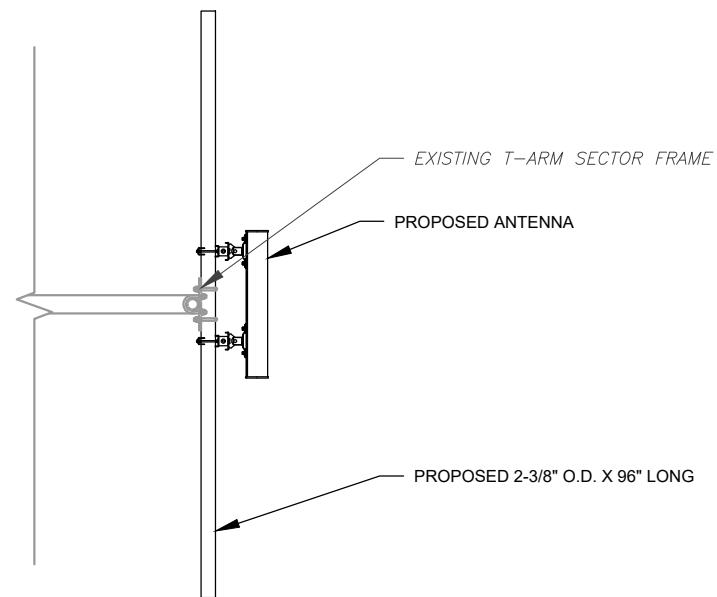
verizon

DATE DRAWN: 05/25/21
ATC JOB NO: 13668980_D1
CUSTOMER ID: NORTH BLOOMFIELD CT
CUSTOMER #: 468355

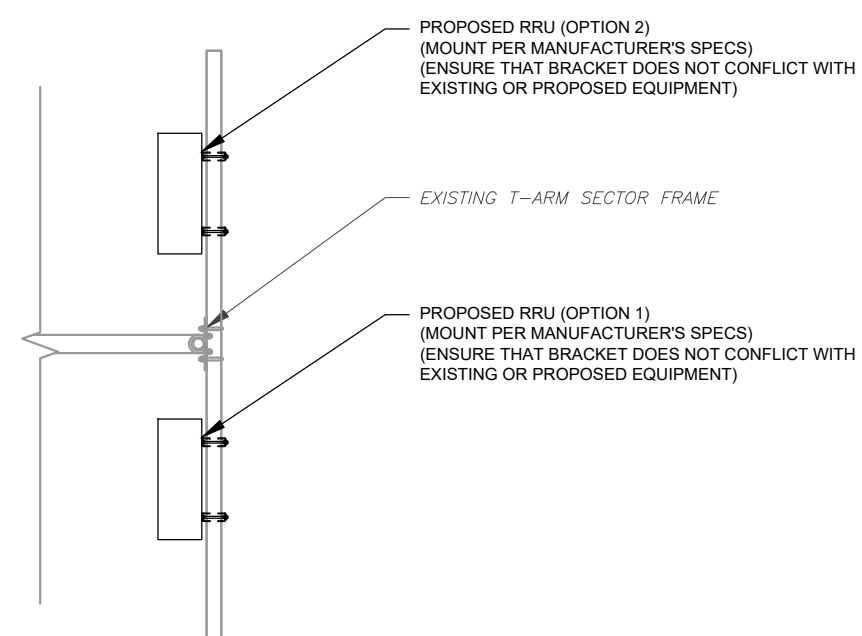
ANTENNA INFORMATION & SCHEDULE

SHEET NUMBER: **C-401**
REVISION: **0**

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



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



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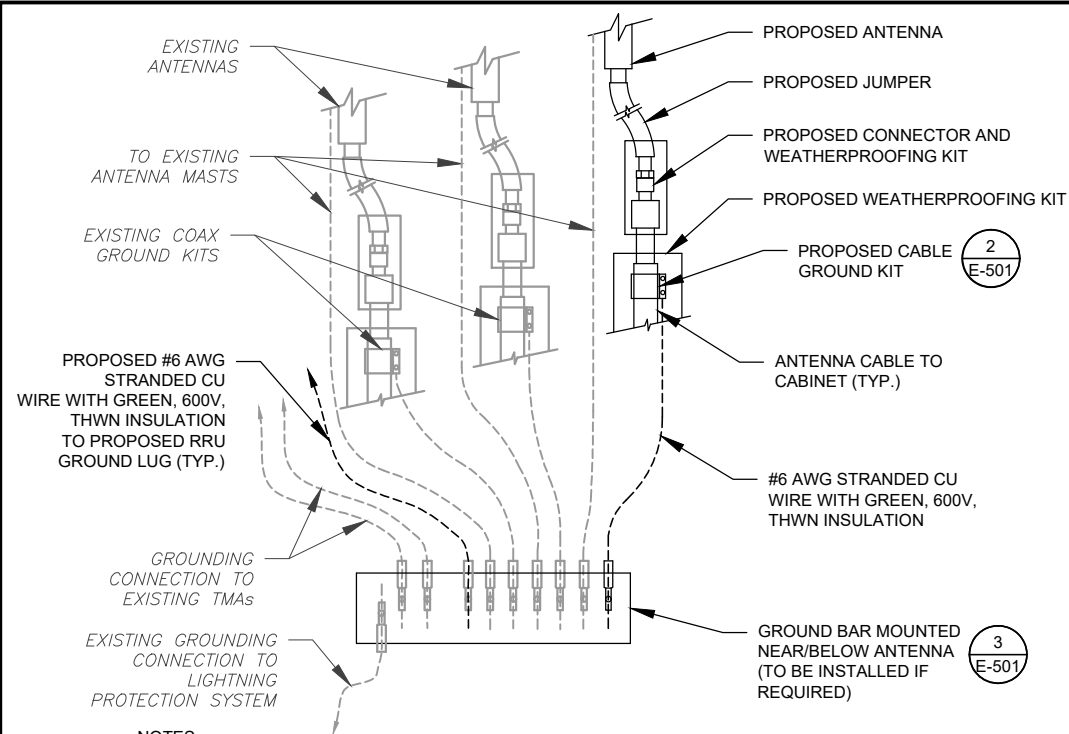
SEAL:



DATE DRAWN:	05/25/21
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CUSTOMER ID:	NORTH BLOOMFIELD CT
CUSTOMER #:	468355

CONSTRUCTION
DETAILS

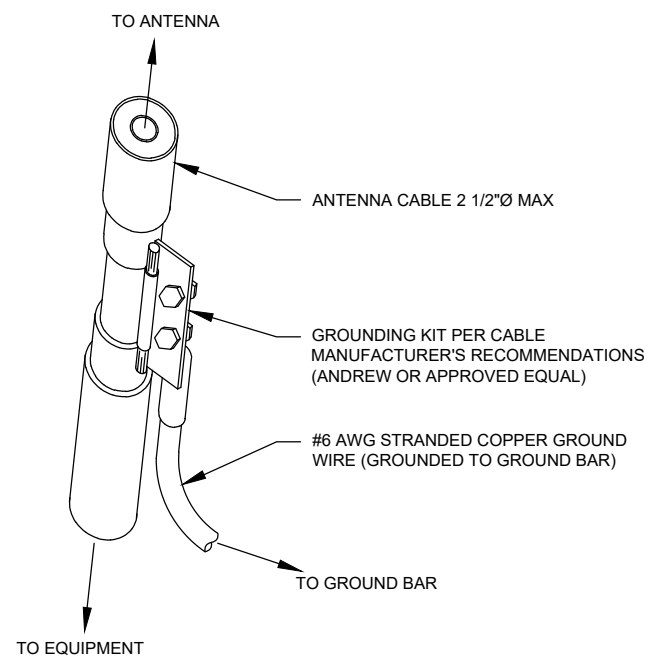
SHEET NUMBER:	REVISION:
C-501	0



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.

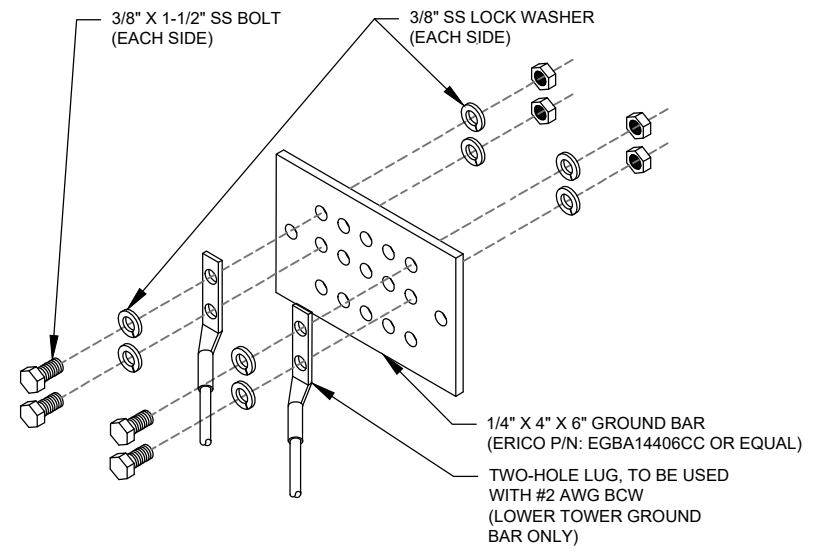
1 TYPICAL ANTENNA GROUNDING DIAGRAM
SCALE: N.T.S.



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.



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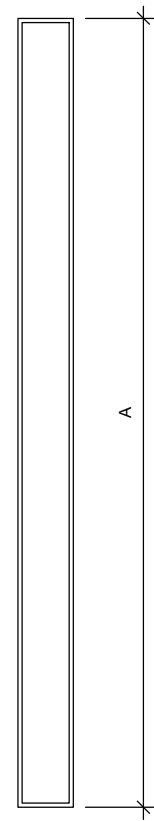


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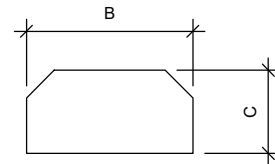
GROUNDING DETAILS

SHEET NUMBER:	REVISION:
E-501	0

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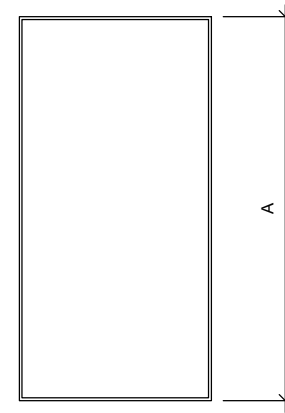
FRONT VIEW



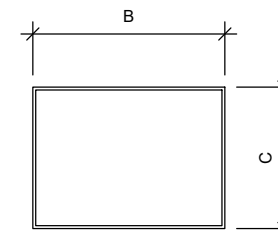
TOP VIEW

1 ANTENNA SPECIFICATIONS
FOR ILLUSTRATIVE PURPOSES ONLY - NOT TO SCALE

ANTENNA SPECIFICATIONS				
ANTENNA MODEL	A	B	C	WEIGHT (LBS)
MT6407-77A	35.1"	16.1"	5.5"	81.6



FRONT VIEW



TOP VIEW

2 RRU SPECIFICATIONS
FOR ILLUSTRATIVE PURPOSES ONLY - NOT TO SCALE

RRU SPECIFICATIONS				
RRU MODEL	A	B	C	WEIGHT (LBS)
B2/B66A RRH-BR049	15.0"	15.0"	10.0"	84.4
B5/B13 RRH-BR04C	15.0"	15.0"	8.1"	70.3



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CUSTOMER #:	468355

SUPPLEMENTAL

SHEET NUMBER:
R-601



Maser Consulting Connecticut
2000 Midlantic Drive Suite 100
Mt. Laurel, NJ 08054
856.797.0412
Peter.Albano@colliersengineering.com

Mount Post-Modification Analysis Report
(3) 13.46-Ft T-Arm

June 29, 2021
Site ID: 468355-VZW / NORTH BLOOMFIELD CT
Page | 4

Post-Mod Antenna Mount Analysis Report and PMI Requirements

Mount Fix

SMART Tool Project #: 10079466
Maser Consulting Connecticut Project #: 21777461A

June 29, 2021

Site Information

Site ID: 468355-VZW / NORTH BLOOMFIELD CT
Site Name: NORTH BLOOMFIELD CT
Carrier Name: Verizon Wireless
Address: Day Hill Road
Bloomfield, Connecticut 06002
Hartford County
Latitude: 41.876508°
Longitude: -72.741840°

Structure Information

Tower Type: 110-Ft Monopole
Mount Type: 13.46-Ft T-Arm

FUZE ID # 16272419

Analysis Results

T-Arm: 78.8% Pass

***Contractor PMI Requirements:

Included at the end of this MA report
Available & Submitted via portal at <https://pmi.vzsmart.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: Frank Centone



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 is not responsible for the conclusion, opinions, and recommendations made by others based on the information supplied.
 7. Structural Steel Grades have been assumed as follows, if applicable, unless otherwise noted in this analysis:
 - o Channel, Solid Round, Angle, Plate ASTM A36 (Gr. 36)
 - o HSS (Rectangular) ASTM 500 (Gr. B-46)
 - o Pipe ASTM A53 (Gr. B-35)
 - o Threaded Rod F1554 (Gr. 36)
 - o Bolts ASTM A325
 8. Any mount modifications listed under Sources of Information are assumed to have been installed per the design specifications.
- 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
Standoff Arm	48.4%	Pass
Standoff Pipe	0.0%	Pass
Horizontal	51.0%	Pass
Antenna Pipe	50.2%	Pass
MOD FACE	70.9%	Pass
Mod Standoff	32.2%	Pass
Kicker	11.8%	Pass
Mount Connection	78.8%	Pass
Mod Mount Connection	38.9%	Pass

Structure Rating – (Controlling Utilization of all Components)	78.8%
--	-------

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. Desktop Mount Mapping Form (for reference only)
3. Analysis Calculations
4. Contractor Required PMI Report Deliverables
5. Antenna Placement Diagrams
6. TIA Adoption and Windspeed Usage Letter

1 MOUNT ANALYSIS

NOTE: THIS SHEET WAS CREATED BY OTHERS AND PROVIDED AT THE REQUEST OF THE CUSTOMER WITHOUT EDIT. PLEASE REFERENCE THE MOUNT ANALYSIS REPORT FOR COMPLETE MOUNT ANALYSIS CALCULATIONS AND DETAILS. SUPPLEMENTAL PAGES INCLUDED IN THE CONSTRUCTION DRAWINGS ARE FOR REFERENCE ONLY. GENERAL CONTRACTOR IS TO VERIFY THEY HAVE THE MOST RECENT MOUNT ANALYSIS PRIOR TO CONSTRUCTION.



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SUPPLEMENTAL

SHEET NUMBER:
R-602